

What's New in Rational Products

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Rational[®]
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CONTENTS

What's New in the Rational Suite v2001A	7
New Feature Summary.....	7
Rational Suite Editions.....	7
Rational Suite Team Unifying Platform.....	9
What's New in Rational Suite ContentStudio	11
New Features at a Glance.....	11
New Feature Descriptions and Benefits	11
What's New in Rational ClearCase	15
New Features at a Glance.....	15
New Feature Descriptions and Benefits	15
What's New in Rational ClearCase LT	19
New Features at a Glance.....	19
New Feature Descriptions and Benefits	19
What's New in Rational ClearQuest	21
New Features at a Glance.....	21
New Feature Descriptions and Benefits	21
What's New in Rational PurifyPlus, Purify, Quantify and PureCoverage	27
New Features at a Glance.....	27
New Feature Descriptions and Benefits	27
What's New in Rational RequisitePro	31
New Features at a Glance.....	31
New Feature Descriptions and Benefits	31
What's New in Rational Rose.....	33
New Features at a Glance.....	33
New Feature Descriptions and Benefits	33
What's New in Rational Rose Data Modeler	37
New Features at a Glance.....	37
New Feature Descriptions and Benefits	37
What's New in Rational Rose RealTime	39

New Features at a Glance.....	39
New Feature Descriptions and Benefits.....	39
What's New in Rational SiteLoad.....	45
New Features at a Glance.....	45
What's New in Rational SoDA for Word.....	47
New Features at a Glance.....	47
New Feature Descriptions and Benefits.....	47
What's New in Rational TeamTest.....	49
New Feature Descriptions and Benefits.....	49
What's New in Rational Test RealTime.....	51
New Features at a Glance.....	51
New Feature Descriptions and Benefits.....	51
What's New in the Rational Unified Process.....	55
New Features at a Glance.....	55
New Feature Descriptions and Benefits.....	55
What's New in Rational University.....	61
New Course Offerings.....	61
What's New in Rational Service Products.....	65
New Service Offerings.....	65

What's New in the Rational Suite v2001A

New Feature Summary

Rational Suite v2001A, the newest release of Rational's award winning team development solution:

- Provides new knowledge sharing capabilities
- Accelerates time to market for Java Development
- Includes automated testing support for the RealTime and embedded market.

Unified Software Project Management (USPM) is a Rational initiative to help customers effectively deploy, plan, execute, and monitor software engineering best practices. USPM provides a comprehensive approach to helping customers select and deploy best practices, plan and execute iterative development, measure progress and quality, and collaborate more effectively. Rational Developer Network is a new product supporting this initiative. Available exclusively to Rational Suite customers, the Rational Developer Network (RDN), is a one-stop resource for white papers, articles, artifacts, best practices, topical discussions, and more. RDN content has been edited for quality and consistency, and organized into technology and process containers for ease of use.

Rational QualityArchitect RealTime - included in Rational Suite DevelopmentStudio RealTime, now generates test harnesses for real-time and embedded systems applications from visual models, enabling early testing of these complex applications.

Rational Suite v2001A also includes many enhancements to accelerate Java development. There is extended support for J2 technologies, ease-of-use features that speed development, extended integration with popular Java IDEs, and Java design pattern support.

Rational Suite Editions

The following table lists components for Rational Suite editions. To avoid redundancy, 'What's New' information for products included in one or more editions have been included once, each in their individual sections. There is a single section for Rational Suite ContentStudio.

		AnalystStudio	ContentStudio	DevelopmentStudio	DevelopmentStudio RealTime Edition	TestStudio	Enterprise
Team Unifying Platform	Rational Unified Process	•	•	•	•	•	•
	Rational RequisitePro	•	•	•	•	•	•
	Rational ClearQuest	•	•	•	•	•	•
	Rational SoDA for Word	•	•	•	•	•	•
	Rational ClearCase LT	•	•	•	•	•	•
	Rational TestManager	•	•	•	•	•	•
	Rational Developer Network	•	•	•	•	•	•
	Rational Rose	Rational Rose Data Modeler		Rational Rose Enterprise	Rational Rose RealTime		Rational Rose Enterprise
	Rational Robot				•	•	
	Rational TestFactory				•	•	
	Rational SiteLoad		•		•	•	
	Vignette CMS		•				
	Rational Pure Coverage	•		•	•	•	
	Rational Purify	•		•	•	•	
	Rational Quantify	•		•	•	•	
	Rational Process Workbench					•	

Rational Suite Team Unifying Platform

Rational Developer Network

Access to the Rational Developer Network, a developer portal, is now available in every Rational Suite v2001A edition and includes:

- Online development community, where Rational users world-wide can participate in forums
- Targeted technical content that is maintained and published by industry experts and Rational editorial staff
- Skills building resources, including an online course catalog of Rational and third party classes. Rational University Web-based training classes are also offered through this portal.

The Rational Developer Network is available to all Rational Suite v2001A users with a valid maintenance agreement. Rational Developer Network is a complement to content and forums found on www.rational.com.

Benefit

Rational Developer Network helps teams quickly find information, improve skills, and participate in worldwide forums on Rational tools and popular development technologies. It minimizes time-consuming information searches—team members “stop searching and start solving”.

See Also:

What's New in Rational Unified Process
What's New in Rational RequisitePro
What's New in Rational ClearQuest
What's New in Rational SoDA for Word
What's New in Rational ClearCase LT

What's New in Rational Suite ContentStudio

New Features at a Glance

- Integrations and New Support Levels
 - Upgrade to 5.6.1 of Vignette
 - Support for Deployment to Solaris and IBM WebSphere Advanced (Windows NT)
- New and Enhanced Features and Functionality
 - Pre/Post triggers for deployment (NetDeploy)
 - Dynamic view support
 - Content Management Server and Rational ClearCase integration
 - Improved error log
 - Enhanced content change request (CCR) identification

New Feature Descriptions and Benefits

Integrations and New Support Levels

Upgrade to 5.6.1 of Vignette

Since Vignette's Content Management Server was upgraded, Rational Suite ContentStudio is integrating with this new release. The most significant upgrade is that it supports Java Server Pages (JSP) for template development (in addition to ASP).

Benefit

JSP is being used more commonly for Web site development. Rational Suite ContentStudio users will have this added flexibility of scripting in Active Server Pages (ASP) or JSP.

Support for Deployment to Solaris and IBM WebSphere Advanced (Windows NT)

Rational Suite ContentStudio has added WebSphere & WebLogic support for Windows and TomCat, WebSphere & WebLogic support for Solaris.

Benefit

You can now deploy code and content to additional Server environments. This makes Rational Suite ContentStudio more extensible than before.

New and Enhanced Features and Functionality

Pre and post triggers for deployment

Deployment can now be automated more than ever with the addition of triggers. Triggers allow you to execute an activity or command upon the initiation or completion of deployment.

Benefit

Triggers make less work for you. Once properly setup, the trigger commands will run automatically, saving you from having to manually initiate procedures and processes. For example, triggers support the registration of COM objects or EJBs and stopping/starting Web servers (IIS or WebSphere).

Dynamic view support

Although the standard version of Rational ClearCase LT does not support dynamic views, customers who are already using Rational ClearCase, or who step up to ClearCase, may wish to utilize the full power of dynamic views. Dynamic views provide network users with instant updates to evolving source files and project data. This keeps your data current.

Benefit

Dynamic views allow users to always have the most updated source files available. In contrast to dynamic views, competing SCM systems use snapshot views, which allow users to capture the files as they are (static). After editing, the files are then synched back to the database. Dynamic views are constantly fetching the most current source file(s), eliminating the manual synch process and facilitating better parallel development. In addition to the advantage of always accessing the current version of project artifacts, another benefit of dynamic views over snapshot views for Rational Suite ContentStudio is a moderate performance boost during deployment with NetDeploy.

Content Management Server and Rational ClearCase integration

Web templates and files can now be stored in Rational ClearCase, and mirrored into the Content Management Server (CMS). ClearCase tracks changes to every file and directory maintaining complete, annotated histories of source code, binaries, executables, documentation, and all Web artifacts.

Benefit

You will never lose an older version of your file or template source code. You can quickly rollback to any previous version.

Improved error log

The error logs have been unified into one searchable log.

Benefit

Previously, the error logs were maintained independently in Rational Suite ContentStudio. Now finding the reported errors is easier than before. You can query a single log and retrieve all the data you need.

Enhanced content change request (CCR) identification

CCRs can now be broken down into sub-tasks, assigned to different members of the team and rolled-up back into the original request. You can now take a CCR that needs to be worked on by multiple team members and create child requests-- "enhancement requests" for the developers and "content change requests" for the content contributors. Each can follow the workflow specific to their task and still allow the manager to summarize the work being done in a single request.

Benefit

CCRs and tasks can be tracked far more efficiently, which makes the project manager's job much easier.

What's New in Rational ClearCase

New Features at a Glance

- UCM improvements permit greater process flexibility, security and usability
- Broader integrations
- Enterprise data management support: Network attached storage

New Feature Descriptions and Benefits

UCM Improvements permit greater process flexibility, security and usability

Triggers

Triggers complement UCM "checkbox" project policies. Adding preset and customizable triggers to UCM enables people to structure a work environment to suite their needs. Triggers help to automate a work process and maintain a certain order to the workflow.

Benefit

Process and a certain level of standardization are very important when dealing with potentially complex tasks and issues. Triggers help increase process flexibility beyond the out-of-box solution that UCM provides.

Permissions

Security is a growing concern for all companies--especially as it relates to web-based software. Proprietary information needs to remain secure, and limited to select users. Permissions restrict who can perform UCM commands. For example, only the project leader can set project policies.

Benefit

Permissions simplify a critical and sophisticated element of authorization. Permissions are an added layer of security to protect your development process. They are simple to implement and are customizable.

Enhanced Baseline History Graph

New filtering options enable users to reduce the amount of information that the Component Tree Browser displays for UCM streams and baselines. In this way, users can make the information easier to read, and reduce the amount of time necessary to display components. For streams, you can display no development streams, your own development stream only, or all development streams in the component. For baselines, you can display only the baselines of a given promotion level or higher, only labeled baselines, or obsolete baselines.

Benefit

Baseline filters help to quickly find the specific baseline or baseline attributes you are seeking. Through searching and filtering baselines, you can find what you are looking for with just the push of a button.

Broader integrations

Sun Forte for Java

This release provides SCC-level integration of ClearCase functionality with Sun Microsystems's Forte for Java on:

- Windows NT, Windows 98, Windows Me, and Windows 200
- Sun Solaris (Versions 2.6, 2.7, and 2.8)
- Red Hat Linux (Versions 6.2 and 7.0)

Visual Age for Java

This release enhances the SCC-level integration of ClearCase functionality with the IBM VisualAge for Java Release 3.5 on Windows NT, Windows 98, Windows Me, and Windows 2000. Users can develop projects in the VisualAge for Java IDE, while performing ClearCase version management using the file-system shortcut menus and a set of command icons on the VisualAge for Java main window toolbar.

Visual Studio.NET (VS7)

This release supports add-in tool bars and menu integrations with the newest release of Microsoft's Visual Studio.NET developer tools product line.

Enterprise data management support: Network attached storage

Network attached storage devices provide enterprise file storage and retrieval of enormous volumes of data. ClearCase VOB and view data can now be stored on the leading suppliers of these devices --- Network Appliance, EMC and Auspex.

Benefit

ClearCase administrators can now take advantage of centralized high-speed backup of data on these devices. In addition, these devices also provide additional interoperability options for customers wishing to share files across mixed UNIX and Windows systems by providing a central data store for both operating systems.

What's New in Rational ClearCase LT

New Features at a Glance

- UCM improvements permit greater process flexibility, security and usability
- Broader integrations

New Feature Descriptions and Benefits

UCM Improvements permit greater process flexibility, security and usability

Triggers

Triggers complement UCM "checkbox" project policies. Adding preset and customizable triggers to UCM enables people to structure a work environment to suite their needs. Triggers help to automate a work process and maintain a certain order to the workflow.

Benefit

Process and a certain level of standardization are very important when dealing with potentially complex tasks and issues. Triggers help increase process flexibility beyond the out-of-box solution that UCM provides.

Permissions

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Benefit

Baseline filters help to quickly find the specific baseline or baseline attributes you are seeking. Through searching and filtering baselines, you can find what you are looking for with just the push of a button.

Broader integrations

Sun Forte for Java

This release provides SCC-level integration of ClearCase LT functionality with Sun Microsystems's Forte for Java on:

- Windows NT, Windows 98, Windows Me, and Windows 200
- Sun Solaris (Versions 2.6, 2.7, and 2.8)
- Red Hat Linux (Versions 6.2 and 7.0)

Visual Age for Java

This release enhances the SCC-level integration of ClearCase LT functionality with the IBM VisualAge for Java Release 3.5 on Windows NT, Windows 98, Windows Me, and Windows 2000. Users can develop projects in the VisualAge for Java IDE, while performing ClearCase LT version management using the file-system shortcut menus and a set of command icons on the VisualAge for Java main window toolbar.

Visual Studio.NET (VS7)

This release supports add-in tool bars and menu integrations with the newest release of Microsoft's Visual Studio.NET developer tools product line.

What's New in Rational ClearQuest

New Features at a Glance

- Security Enhancements
- Web Enhancements
- Integration with Microsoft Project 2000
- Miscellaneous Enhancements

New Feature Descriptions and Benefits

Security Enhancements

The latest release of ClearQuest significantly improves the security model. This is achieved on two levels. First, Super User privileges are no longer required to perform certain administrative tasks. Second, specific defects and other change requests in ClearQuest can be hidden based on group membership.

Benefit

Increases flexibility of administrative options, by providing new usage privileges that enable specific administrative tasks, without having to grant blanket access to perform general administrative functions. Stronger security model provides improved, more focused capabilities for controlling access to data in the system.

Ability to hide change request records

Enables certain defects and other types of change request records to be hidden from specific users based on what user group they belong to. By enabling any reference field to be a security context field, ClearQuest will hide change requests from specified groups of users.

Benefit

Enables users to grant their customers controlled access to user databases for submission and modification of change requests, as well as creation and execution of queries.

Ability to administer dynamic choice lists

A new privilege, called Dynamic Choice List Administrator, enables creation and modification of dynamic choice lists. This includes the ability to add, delete, and modify entries in dynamic choice lists.

Benefit

Enables certain users to manage dynamic choice lists without Super User privileges.

Ability to administer Public Queries Folder

A new privilege, called Public Folder Administrator, enables specific users to manage the public folder.

Benefit

Enables certain users to move queries, charts, report formats and reports to the public folder without Super User privileges.

New User Privilege to view and edit SQL code

This privilege allows users to view and edit the SQL code that is generated for queries. Users without this privilege can view but cannot modify the SQL code.

Benefit

Enables certain users to view and modify SQL code with Super User privileges.

Ability to administer security at a site

This privilege is related to the ability to hide change request records based on user group membership. Users with the Security Administrator privilege can view all data in a database since the security checks are not enabled for users with this privilege.

Benefit

Enables the administrator to grant one or more users in a specific group access to all data in the system, even if other members of that group are restricted from viewing certain records in the database.

Web Enhancements

Easier email notification setup

Email notification can now be set up from the Web interface instead of having to manually create registry entries. From Edit Web Settings, users can input all relevant data to enable either MAPI or SMTP email notification mechanisms.

Benefit

Makes email notification easier to set up on the Web interface. Further extends ClearQuest Web functionality to match other ClearQuest clients.

Ability to pick query at start-up

Queries can be selected from the Web interface as start-up queries so that the results set is automatically displayed as soon as users log in to ClearQuest. Start-up queries can be selected by editing the user profile.

Benefit

Enables users to set up ClearQuest to run specific queries automatically at startup, for useful metrics such as personal to do lists. Further extends ClearQuest Web functionality to match other ClearQuest clients.

Support for multiple master databases

ClearQuest Web now supports multiple schema repositories so that a single Web server can be used to serve many schema repositories. Users can select a database set from the log in screen to select the appropriate schema repository. Once the schema repository is selected, the end user can select from an appropriate list of user databases.

Benefit

Enables administrators to take advantage of different schema repositories on a single Web server, and apply those schemas to one or more user databases on that server.

Ability to view and edit SQL code associated with a query

ClearQuest Web allows users to view and edit the SQL code that is generated for queries. By right clicking on the query in the workspace from the Advanced Query Editor, users can view and modify the SQL code for that query.

Benefit

Strengthens metrics capabilities of ClearQuest Web. Further extends ClearQuest Web functionality to match other ClearQuest clients.

Integration with Microsoft Project 2000

Rational ClearQuest now provides integration with Microsoft Project 2000. This is enabled through Rational ClearQuest Project Tracker, a Microsoft Project 2000 add-in. It provides integration with ClearQuest, by creating a two-way association between project plan tasks in Microsoft Project 2000 and defects (and/or other change requests) in ClearQuest.

With Rational ClearQuest Project Tracker, tasks can be imported from a Microsoft Project 2000 project plan to automatically create new database records in Rational ClearQuest. The tasks are automatically linked with these new database records. Corresponding tasks and records can then be synchronized at periodic intervals, so that changes made in one system are automatically reflected in the other.

Records can also be imported from Rational ClearQuest to create new project plan tasks in Microsoft Project 2000. These records and tasks are linked and can also be synchronized periodically. In this way, progress reported in Rational ClearQuest can be transferred automatically to Microsoft Project 2000, so that a project manager can always update the project plan with the most accurate and up-to-date information.

Documentation is provided in soft copy form, as well as in the Rational ClearQuest release notes.

Benefit

Microsoft Project 2000 is the tool of choice for planning and tracking all tasks associated with a project. In a development project, a large subset of those tasks is represented by bug fixes and other change requests, which are captured and tracked by ClearQuest. The integration between the two products enables project managers to combine the defect and change tracking power of ClearQuest with the scheduling, cost estimation, and other general project planning capabilities of MS Project 2000, for a complete and powerful project management solution.

Miscellaneous Improvements

Integration with Rational SoDA

In order to offer ClearQuest customers another reporting option, (in addition to Seagate Crystal Reports) integration with SoDA has been added to this release. Users can choose to run a SoDA report directly from the ClearQuest menu. SoDA provides two out of the box templates, including "AllDefectsInthisState" and

"AllDefectsBythisOwner". In both cases the user is prompted to enter the specific state or owner to be reported on. Using SoDA, administrators can edit the existing templates or add new ones.

Benefit

Adds to an already strong set of metrics by giving users a second reporting option.

Full ClearQuest now shipped with Rational TeamTest

In the past, Rational TeamTest included a limited version of ClearQuest called ClearQuest TeamTest Edition. The primary limitations were in terms of customizability, and the inability to take advantage of ClearQuest integrations other than with Rational TeamTest. As of the Rainier release, Rational TeamTest will ship with the full version of ClearQuest at no additional cost.

Benefit

Adds value to Rational TeamTest. Eliminates confusion about the differences between full ClearQuest and ClearQuest TeamTest Edition.

Upgrade Improvements

Rational ClearQuest now upgrades schema repositories and user databases more efficiently.

Benefit

This mechanism reduces the time to upgrade databases and makes the process less error prone.

Downward Compatibility

Rational ClearQuest now supports downward compatibility between different releases of the product.

Benefit

This helps customers upgrade to a newer version of the product in a staged manner by first upgrading all the client machines to the new version and then upgrading the databases.

Terminal Server Support

ClearQuest can now be run on a terminal server machine (Citrix or Windows Terminal Server). Other clients can then connect to the terminal server and use ClearQuest.

Benefit

This provides a very usable solution for customers who need their remote teams to access ClearQuest data across a WAN.

What's New in Rational PurifyPlus, Purify, Quantify and PureCoverage

New Features at a Glance

- NEW! PurifyPlus Product Offering
- Enhanced Purify Support for Java
- XML Support for Quantify and PureCoverage
- Quantify and PureCoverage support MSFT .NET beta 2 today

New Feature Descriptions and Benefits

NEW! PurifyPlus Product Offering

- Combines functionality of Purify, Quantify and PureCoverage
- Common Install and Common Licensing
- Attractive pricing and improved usability

Benefit

NEW Rational PurifyPlus makes it easier than ever for customers to buy-in to the full benefit of Rational Purify, Quantify and PureCoverage. In its first release, PurifyPlus offers the convenience of a single purchase, single license and a single install procedure, as well as an attractive price point. Now more than ever, anyone who wants to develop fast, reliable code needs to consider the benefits of PurifyPlus: it automatically pinpoints hard to find bugs (C/C++) and garbage collection (Java) issues, highlights application performance bottlenecks, helps avoid shipping untested code and instantly makes you more productive.

Rational Purify, Quantify and PureCoverage will remain available as separate products.

Enhanced Purify Support for Java

- Purify's *Object List* highlights the objects that have leaked memory

- Purify's *Object Reference Graph* illustrates the cause of the leak
- Additional quality and performance enhancements improve usability

Benefit

Purify enhancements allow it to perform more comprehensive testing of Java code. In Rational Suite V.2001, Purify offered support at the Function Detail level. This identified leaking functions and the number of bytes allocated. So, you could tell which functions were leaking, but you could not tell which objects allocated by that function were leaking.

NEW in Rational Suite V.2001A, Purify pinpoints the source of memory leaks down to the object level. To do this, Purify now offers two new views for memory management: the *Object List* and the *Object Reference Graph*. After identifying the 'guilty' function, Purify displays an Object List with information on all objects allocated within a function, allowing you to precisely identify the objects that leaked. Then, Purify's new Object Reference Graph helps you drill down on an object to show which other objects are holding references to it, revealing why the object was not garbage collected.

Rational Purify's support for Java has also been enhanced with a number of quality and performance improvements, making it a true 'second release' product offering.

XML Support for Quantify and PureCoverage

- Extends Quantify and PureCoverage support to any platform via a logging agent
- Support for XML logging agents
- IBM logging agents provided on first release
- Other logging agents provided in future
- Template provided to 'write your own' logging agent for desired platform
- Supports XML session import to view and analyze the captured XML sessions in Quantify and PureCoverage on Windows

Benefit

Via XML, Rational Purify and Rational PureCoverage can now extend their ability to provide performance and code coverage analysis of applications that run on platforms not currently supported.

XML Logging agents can be used to capture a session log of the application running on an unsupported platform. For example, you cannot run Quantify and PureCoverage directly on applications running on an IBM S/390. But, a logging agent will capture a session log from the application running on the S/390. You can then import the captured session log to Windows and run Quantify and PureCoverage against the log, and view and analyze the data collected. This allows you to gain the benefit of Quantify and PureCoverage on more platforms than ever before.

XML Logging Agents will be provided for IBM platforms initially and for others in the future. In addition, by following the guidelines illustrated in the Logging Agents provided, users can write their own Logging Agents for any platform they desire, truly enhancing the breadth of Quantify and PureCoverage

Quantify and PureCoverage support MSFT .NET beta 2 today

- Rational Quantify profiles windows code written in VB and VC++ and now .NET and MSIL code (C# and VB.NET)
- Rational PureCoverage analyses test suite coverage for Windows code written in VB and VC++ - and now .NET code and MSIL code (e.g. C# and VB.NET)

Benefit

You can run Rational Quantify and Rational PureCoverage on Microsoft VS.NET beta today. This gives you the ability to verify performance and code coverage on any beta .NET managed code you may be working on, even before the official release of .NET!

What's New in Rational RequisitePro

New Features at a Glance

- New RequisitePro Tutorial
- Microsoft Word-Linked Files as Requirements

New Feature Descriptions and Benefits

New RequisitePro Tutorial

Rational RequisitePro now comes with an HTML-based tutorial that guides users through an example project and creating their own project. The tutorial details how to get started, how to use the tool, and it includes an exploration of basic Requirements Management concepts.

Benefit

One of the challenges a new user faces is where to start. With this new step-by-step tutorial, users are guided through a sample project in order to become familiar with the features and functionality of Rational RequisitePro. A comprehensive learning tool in an easy-to-navigate browser environment, this tutorial provides a good introduction to RequisitePro, illustrating the power of the tool's many features through a hands-on, exercise-based approach. Users can focus on certain areas of functionality, or follow the tutorial's comprehensive path for a broad overview of RequisitePro. It also provides a basic overview on Requirements Management. Plenty of screen views are provided so new users can quickly become familiar with the RequisitePro interface.

Microsoft Word-Linked Files as Requirements

From the Rational RequisitePro Microsoft Word environment, you now have the ability to treat linked files as a requirement and trace other requirements to your linked files. Links to all system files -- including screen shots, bitmaps and other graphics, Microsoft PowerPoint, Excel and Word files, web pages, and HTML files -- can be inserted as requirement text in RequisitePro documents.

Benefit

Now you can treat graphics and other files as requirements. For example, a screen shot can now be a requirement for how a GUI ought to look. Alone, or with associated text, Microsoft Word-Linked Files embrace all the corresponding functionality of a requirement. Attributes can be assigned, hierarchy established, and most importantly, traceability can show that changes to the linked file to affect other related requirements. Microsoft Word-Linked Files participate in cross-product integrations just as any other requirement would.

What's New in Rational Rose

New Features at a Glance

- General Usability Enhancements
- Increased Java/J2EE Support
- XML Support
- Web Modeling Support
- Data Modeling Support
- Visual Studio and ANSI C++ Language Support
- Rational Quality Architect Enhancements

New Feature Descriptions and Benefits

General Usability Enhancements

Sequence Diagrams

- Construction/Destruction marks
- Return Messages

Benefit

Allows users to more accurately model interactions, providing better UML compliance.

Dockable or Floating Editor

See code and model at the same time. Can be used across languages (Java, XML, Corba, C++)

Benefit

Provides the ability to arrange the workspace to suit the way you work.

Increased Java/J2EE Support

Java

- Enhanced classpath setup with auto search capabilities
- Automatic JDK discovery/Smart classpath setup
- New IDE Integration (VisualAge for Java, WebGain/Café, Forte for Java, JBuilder)
- Support for Gang-of-Four patterns
- Ability to generate default return line for methods
- User-defined Javadoc tag support and improved comment support
- New fundamental types GUI (i.e. String)

Benefit

Simplified project configuration for Java makes it easier to get up and running quickly. Integrations with popular Java IDEs allow developers to work in an environment they are familiar with. Gang-of-Four patterns help developers create more robust systems using tried and proved patterns. All of these features work together to simplify the experience of the Java architect or developer who chooses to use Rose as their UML modeling tool.

J2EE

- EJB 2.0 support, including message-driven beans
- Simplified EJB and servlet GUI
- EJB method helpers

Benefit

Customers on the cutting edge of EJB's development have the latest in EJB support. Provides a simplified experience working with EJB's and servlets. Provides support for J2EE 1.3 (includes EJB 2.0)

XML Support

Supports Round Trip Engineering (RTE) of multiple XML Definition Type Documents (DTDs) through named packages.

Benefit

Allows users to model the dependencies between DTD's, and gain true reuse of DTD elements.

Web Modeling Support

Round Trip Engineering Support

Provides Round Trip Engineering support for Java Server Pages 1.1 (JSP) and Active Server Pages (ASP)

Benefit

Provides Round Trip Engineering for mixed-environment development.

Directed Modeling Support

Provides Direct Modeling Support.

Benefit

Context sensitive modes (web artifacts) make web UML modeling easier.

Data Modeling Support

Database Views

Rational Rose Data Modeler now includes the ability to model and round-trip engineer (RTE) database views. The support includes forward and reverse engineering, and database-to-model comparisons and synchronization. Rose Data Modeler recognizes and supports the features of views specific to the database and database version being used.

Benefit

Provides the ability to visualize the views in a schema, and to understand how they relate to base tables and other views.

Storage Modeling

Provides Unified Modeling Language (UML) modeling and round-trip engineering (RTE) support for tablespaces. Rose Data Modeler captures tablespace properties, the tables contained within the tablespace and container management information

Benefit

Provides the ability to visually model and determine the best storage properties for the tables within a database.

WebGain TOPLink OR Mapping Support

Provides a wizard-based tool within Rose that populates TOPLink with classes, tables and their properties, including the mappings if requested. Selectively choose classes only, tables only, or classes/tables and their mapping to be populated in TOPLink, giving you a jumpstart on your object relational data access requirements.

Benefit

Linking Rose to WebGain's TOPLink allows people modeling their applications and databases in Rose to take full advantage of the models and then use the information captured in the model for further object-relational mapping in TOPLink.

Support for Microsoft SQL Server 2000

Provides support for Microsoft SQL Server 2000, including support for functions, new datatypes and triggers on views.

ANSI C++ Language Support

- Auto Sync ANSI ++
- Macro support
- Batch file load capability

Rational Quality Architect Enhancements

Sun J2EE Server v1.2.2

Rational Quality Architect can now generate EJB unit testing code for the Sun J2EE server.

Benefit

Simplified EJB unit testing on the developer's desktop.

What's New in Rational Rose Data Modeler

New Features at a Glance

- Database Views
- Storage Modeling
- WebGain TOPLink O-R Mapping Support
- Support for Microsoft SQL Server 2000

New Feature Descriptions and Benefits

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Benefit

Provides the ability to visually model and determine the best storage properties for the tables within a database.

WebGain TOPLink OR Mapping Support

Provides a wizard-based tool to extract class and table property information from a Rose model, and uses this information to populate TOPLink, a third-party tool from WebGain.

Benefit

Provides Rose customers with the ability to use the information in their database model to get a jumpstart in defining their object-relational data access requirements.

Support for Microsoft SQL Server 2000

Benefit

Allows forward and reverse engineering of Microsoft SQL Server 2000 databases.

What's New in Rational Rose RealTime

New Features at a Glance

- Java Language Support
- Solaris 2.8 Toolset Support
- Interface Generation
- Framework Wizard
- Model Integrator
- Usability Enhancements
- Connexis
- Rational Quality Architect – RealTime Edition

New Feature Descriptions and Benefits

Java Language Support

In this release Rational introduces support for wireless and embedded environments such as Java 2.0 Micro Edition (J2ME) and Java 2.0 Standard Edition (J2SE). Rational Rose RealTime simplifies the development of complex, and event-driven C, C++ and Java applications.

Projects using Rational Rose RealTime can design, build, debug and test Java applications using the UML.

Benefit

Stronger support in two key market areas: devices and infrastructure. Higher quality and faster time-to-market Java embedded application development. Improved team communication. Single solution scales from devices to large scale Java applications.

Solaris 2.8 Toolset Support

Rational Rose RealTime has been updated and tested to support Solaris 2.8.

Interface Generation

Rational Rose RealTime supports team development through sharing of UML models and precompiled components. Interface generation provides a mechanism for sharing models and pre-compiled components so that the client is required to load only those UML model elements, which have been explicitly declared as visible. Interface generation provides a delivery mechanism for UML components between teams or to the customers of 3rd party component developers.

This new capability allows users to:

- Specify the visibility of UML Classes in a component library as public or private
- Create a precompiled external library component and a UML model that contains only the component-public classes
- Maintain external library components in a separate model

Benefit

Protect the intellectual property by hiding the implementation details of software components. Decrease model load time. Reduce memory footprint of Rose RealTime toolset for large models. Enforce change restrictions on delivered or shared UML components. Avoid recompilation stable components. Support delivery of separately developed software components.

Framework Wizard

This usability enhancement provides users with simplified toolset start up. The Framework Wizard allows users to select a pre-defined model on which to base a new model. Each model might provide for a different set of predefined properties or tool settings, such as deployment language. The choice of pre-defined models is user customizable.

Benefit

Simpler user experience on start up. Allow the definition of predefined models for project standardization and consistency.

Model Integrator

The Model Integrator differencing and merging has been enhanced to better support merging of elements on diagrams. To get full benefit of this enhancement the model property "Generate unique identifies for all elements" must be enabled.

Benefit

Results in improved model merging. NOTE also results in increased file size for stored models.

Usability Enhancements

Help menu item to create feature requests and problem reports

Rose RealTime provides a menu option for opening a feature request or problem reports. This dialog driven feature presents the user with an easy to understand window for input of all the required information items.

Benefit

Saves time reporting tool problems. Promotes and simplifies process for providing useful customer feedback.

Ability to use RichEdit control for properties

Rational Rose RealTime supports Rich Text Editing more completely in text property fields that store code related information.

Benefit

Property fields such as HeaderPreface, HeaderEnding, ImplementationPreface, and ImplementationEnding can now be edited using the typical Rich Text Edit control keys. This includes invoking an external editor.

Enhancements to Rose RealTime Extensibility (RRTEI)

RRTEI has been enhanced to expose more of the information associated with a Component Instances Detail tab's fields.

Benefit

This allows customers and 3rd party vendors to access Component Instance information to improve the level of integration to the Rose RealTime environment.

Custom target control integrations

Rational Rose RealTime has been enhanced to support custom UML debugger integrations. The choice of target control options can be changed in Rose RealTime based on the presence of a custom library file.

Benefit

Improved integration with customer in-house tools and 3rd party add-ins.

Connexis

Target Configurations

The following target configurations now support the use of Connexis:

- RedHat Linux 6.1, x86, egcs-2.91.66
- LynxOS 3.0, x86, cygnus-2.7.97r1
- Unixware 7.01, x86, SDK-3.0
- Microsoft Windows CE 3.0, eMVisualC++ 3.0.

Benefit

More out-of-the-box reference configurations to simplify the adoption of Connexis.

New Connexis Circuit Trace Feature

Rose RealTime now supports the generation of sequence diagrams from Connexis circuit traces. Event traces capture events between capsules on distributed processors. From the Event Trace users can create sequence diagrams and collaboration diagrams that depict the processors and message exchange.

Benefit

Improved documentation and understandability of run-time interactions.

Rational Quality Architect – RealTime Edition

Rational Quality Architect - RealTime Edition (RQA-RT), new with this release, automates scenario-based unit testing. You can create sequence diagrams that specify how any set of capsules interact. With a single command, Rational Quality Architect--RealTime generates and builds test harnesses along with any requested stubs, runs the tests on the specified target, collects the results at run-time, compares those results with the original sequence diagrams using a patented causal differencing algorithm, and highlights any differences between them. Using Rational Quality Architect--RealTime Edition you can extend Rational Rose RealTime's design automation capabilities to model, debug and test.

RQA-RT automatically verifies designs against sequence diagram specifications both analytically and during execution. RQA-RT fully supports user-defined message data

and system timing services. This provides more robust support for converting trace diagrams into specifications.

The following is a list of key features:

- Automated testing from UML sequence diagrams
- Automatic stub generation
- Supports host and target based testing
- Supports automatic and manual mode execution
- Allows sub-capsule instances to be drivers
- Allows data qualifier in data field of send message
- Allows drivers to model timing services
- Provides Capsule interface generation for instances on sequence diagram without a role specified
- C++ and Java language support
- Traceability between specification and test result sequence diagrams
- Sequence Diagram Differencing
- Supports batch mode operation
- Test multiple scenarios in a single test run
- Reuse of generated test artifacts to minimize recompilation

Benefit

Eliminate manual coding of stubs and test drivers for debug and test by automatically generating complete unit and integration test harnesses directly from sequence diagram specifications. Encourages early and continuous design refinement and validation by generation and automatic testing of fully or partially complete designs. Automatic stub generation enables more robust testing and more complex interactions. Automatic test generation and execution increases the amount of testing that is done but without the added effort. Because many of the sequence diagrams used to drive the test harness generation are already available, less effort is expended documenting test scenarios.

What's New in Rational SiteLoad

New Features at a Glance

- Can be hosted on Sun Solaris v 2.6 and 2.7 and Red Hat Linux v. 6.1 operating systems.
- Is faster and more reliable.
- Offers a project management capability that allows users to set up scripts by projects.
- Includes 20 free virtual testers in the free, Windows-version download.
- Has online help, within the application, about interpreting the graphs.
- Is compliant with internationalization standard i18n, level 2.

What's New in Rational SoDA for Word

New Features at a Glance

- Tight integration with Rational ClearQuest
- Prompt for filter and template creation

New Feature Descriptions and Benefits

Tight integration with Rational ClearQuest

Currently ClearQuest's reporting tool is Crystal Reports but we would like to offer ClearQuest users an option to use SoDA. Users can choose to run a SoDA report directly from a ClearQuest menu item. SoDA provides two out of the box templates: AllDefectsInthisState and AllDefectsBythisOwner- both utilize prompt for filter.

Benefit

Users want the ability to launch SoDA reports from ClearQuest. Since each customer customizes their CQ databases schema it is difficult to provide templates that correspond to each customers needs. In order to remedy this SoDA provides the users with two templates that both utilize the new Prompt for Filter feature allowing the templates to be used with various schemas.

Prompt for filter and template creation

Prompt for filter is a selectable item inside of the Template View advanced features. A prompt is displayed to the user allowing them to specify, at generation time, what item they would like to filter on.

Benefit

Users want the ability to further define their search for information from a given source. Currently users establish what type of information they want to retrieve (i.e.. attributes, descriptions, names, etc.) through a filter, which is set before generation of the report or Web page. This would lock that template into doing one particular search for information. Giving the users the option to be prompted for a filter would allow that template to be used for different searches at different times.

What's New in Rational TeamTest

New Feature Descriptions and Benefits

Rational TeamTest now ships with Rational ClearQuest.

Benefit

The full version of Rational ClearQuest has been added to Rational TeamTest. This enables customers to track defects for the entire testing project, both performance and functional testing.

What's New in Rational Test RealTime

New Features at a Glance

- All-inclusive Single Product
- Object Testing
- UML Sequence Diagram Tracing
- Hard Real-time System Testing Features
- Rational ClearCase Add-in

New Feature Descriptions and Benefits

All-inclusive Single Product

All former ATTOL Testware products-for all programming languages-have been incorporated into a single, powerful product: Rational Test RealTime.

Rational Test RealTime's components are:

- Unit Testing (formerly Attol UniTest) http://www.attol.com/testrt/unit_testing
- System Testing (formerly ATTOL System Test) http://www.attol.com/testrt/system_testing
- Object Testing (new component) http://www.attol.com/testrt/object_testing
- Coverage (formerly ATTOL Coverage) <http://www.attol.com/testrt/coverage>
- Trace (new component) <http://www.attol.com/testrt/trace>
- Target deployment package (formerly ATTOL Target Package) <http://www.attol.com/testrt/tdp>

With one product comes simpler licensing; Rational Test RealTime uses Rational common licensing for all the components. As for most Rational products, a Rational Test RealTime license is available as node-locked or floating. In addition, a floating license can be transparently shared among Windows, Solaris, HP-UX and Linux platforms. Note: the system testing virtual testers, formerly called ATTOL SystemTest Simulators, are licensed separately. Product installation is now performed using a unique cross-platform procedure.

Benefit

Simplified licensing makes it easier to use Rational Test RealTime throughout your enterprise, while providing all the features you need for testing any kind of embedded system, on any platform, for any cross-development environment.

Object Testing

Object Testing is a new component of Rational Test RealTime for testing object-oriented software. With Object Testing, a developer can check for class assertions-pre- and post-conditions, invariants-and state-transitions, as well as expected application behavior described as object components interactions and constraints. Test results are displayed as UML Sequence Diagrams.

Benefit

Object Testing covers functional and robustness testing from the smallest component up to the largest C++ application under test. And Object Testing is directly accessible from Studio, the new integrated test development environment GUI from Rational Test RealTime.

UML Sequence Diagram Testing

Trace is a new component of Rational Test RealTime for monitoring real-time dynamic interaction analysis. Trace generates UML sequence diagrams, showing interactions between components of the application.

Trace can be used on any multithreaded C++ or ANSI C application to display high level interactions among modules, classes, or instances. It uses exclusive source code instrumentation technology from Rational that provides multi-platform versatility while preserving performances. Trace is directly accessible from Studio, the new integrated test development environment GUI from Rational Test RealTime.

Benefit

Trace frees developers from the need to maintain a mental picture of the execution history, to interrupt run-time execution, and to overload communication handlers with useless traces. Developers can now concentrate on the impact of external or internal stimuli on both the component and end-application level.

Hard Real-time System Testing Features

System Testing now provides scripting features for performing a range comparison of float and integer message field values.

And System Testing now includes a ring buffer for execution traces, decreasing the frequency and amount of data exchanged between virtual testers and the monitoring host.

Benefit

Updates to the capabilities in the System Testing component help reduce the influence of monitoring on the real-time application and increase analogical data management.

Rational ClearCase Add-in

You can now access ClearCase and ClearCase LT main features directly from all components of Rational Test RealTime through Tool menus. Rational ClearCase is the market-leading software configuration management solution.

Benefit

Access to Rational ClearCase from all the components of Rational Test RealTime helps developers accelerate release cycles, unifies change management across the software development life cycle, brings developers and testers together, and scales from small teams to the enterprise without changing tools or processes.

What's New in the Rational Unified Process

New Features at a Glance

- RUP Process Add-ins: J2EE and WebLogic Server 6.0
- Rational Unified Partner Program
- RUP Internationalization
- Updated Microsoft Project Templates
- Organization Web Example Is Delivered With RUP
- RUP Deployment Package
- Rational Process Workbench Is Part Of Rational Suite Enterprise

New Feature Descriptions and Benefits

RUP Process Add-ins

The following RUP Process Add-ins are available online from the RUP Web Resource Center.

Java 2 Enterprise Edition (J2EE) Add-in

This add-in delivers process support for enterprise Java e-business development. It is based on the Sun Microsystems J2EE documentation. The add-in provides a roadmap, guidelines, and white papers for designing and developing J2EE applications. In addition, the J2EE add-in provides a foundation for the BEA WebLogic Server 6.0 add-in.

The J2EE add-in consists of the following additions to RUP:

- Roadmap - enhancements to the "Developing Component Solutions" roadmap
- Guideline - J2EE Platform Overview
- Guideline - Developing J2EE Applications - Design Guidelines/Issues
- White Paper - Developing Enterprise Applications Using J2EE
- Tool Mentor - Modeling the Design of a J2EE Application in Rose

Benefit

J2EE has become a standard Java development platform for enterprise e-business systems. The J2EE add-in provides the RUP customer with guidelines for using the latest technology in a recommended manner. It combines the complete process capability of the RUP with the technology leadership of J2EE.

BEA WebLogic Server 6.0 add-in

This add-in is delivered as Web pages that work with the RUP. It includes best practices, tool mentors, examples and templates specifically for J2EE and BEA WebLogic development including (in addition to all the J2EE add-in content):

- Roadmap - enhancements to the "Developing Component Solutions" roadmap
- Guideline - Developing J2EE Applications using WLS6.0 - Design Issues
- Tool Mentors
 - Developing WebLogic Server Applications
 - Programming WebLogic Server By Example
 - Programming WebLogic EJB
 - Developing WebLogic HTTP Servlets
 - Developing WebLogic JSP
 - Programming WebLogic JSP Tag Extensions
 - Administering WebLogic Server

Benefit

The BEA WebLogic Server add-in offers the industry's first comprehensive software development guidelines for building and deploying high-volume, mission-critical e-business applications using BEA's WebLogic. These extensions tailor the process to the needs of development teams working in the BEA WebLogic environment to enable rapid e-business application development. The add-in is built upon the foundation of the J2EE add-in. It was co-developed by BEA and Rational. This add-in provides the practitioner with the best practices applied to two of the more important technologies for building enterprise e-business systems.

Rational Unified Partner Program

The Rational Unified Partner Program allows Rational partners to capture and distribute knowledge specific to their areas of expertise, such as application mining or specific B2B Web architectures, via the RUP. Some of the partners committed to providing RUP extensions are:

- CAST -- a market leader in application mining solutions who is creating a complimentary roadmap for mining existing applications for reuse opportunities. (<http://www.castsoftware.com/>)
- Codagen Technologies Corporation -- is providing an extension that allows RUP users to define, evolve, and exploit patterns and frameworks into their architectures. (<http://www.codagen.com/>)
- Jaczone -- is building a tool that assists individual members of a software development team in performing their professional duties. Their tool complements the RUP and offers powerful features to smoothly aid team members in executing their configured process. (<http://www.jaczone.com/>)
- WebPutty -- is building a content add-in to address the prototyping and implementation phases of application development as well as guidelines for software life-cycle management practices when using reusable frameworks. (<http://www.webputty.com/>)

Benefit

The RUP Partner Program expands the knowledge available to our customers by adding content from industry thought leaders. By delivering this knowledge integrated with the RUP, customers can choose process configurations that closely meet their needs without the significant ramp-up time for learning new process technology.

RUP Internationalization

In order to meet the demand for the RUP in native languages, the RUP has been localized to Japanese and Chinese. The internationalized release of version 2001A.04 will appear after the release of the English version.

Benefit

The availability of the localized versions of the RUP allow a larger audience of practitioners to benefit from the process guidance in the RUP. Additionally, the Japanese localization is part of the Japanese version of Rational Suite.

Updated Microsoft Project Templates

The set of Microsoft Project templates has been improved to allow a project manager to create a project plan based upon RUP guidelines and that is consistent with the Microsoft Project integration in Rational ClearQuest. The plans created using the templates are used to create and modify records in Rational ClearQuest.

Benefit

The pre-configured templates allow a project manager to easily create a project plan that is based upon the best practices embodied in RUP and which can be used with the new features provided in Rational ClearQuest. Using the new templates provide a direct integration between RUP and ClearQuest.

Organization Web Example Is Delivered With RUP

The Organization Web example, which includes a process Web for Wylie College, and a Project Web for the course registration project had been released after RUP v2001.03 and was available only by going to the RUP Web Resource Center. The Organization Web is now bundled with RUP and is installed when RUP is installed.

Benefit

The Organization Web provides an excellent example of how an organization can customize their process for specific project types. It also provides an example of how a project Web can be set up to allow a project team to get the most from the RUP.

RUP Deployment Package

The RUP Deployment Package is a service package designed to efficiently guide the customer through the implementation of RUP for their specific project or organization. Included in the package are the following deployment activities:

- Training of key stakeholders and end-users
- Assessment of customer organization
- Instantiation of RUP
- On-site mentoring
- Follow-up assessment

Information on the package may be found at http://midnight.rational.com/services/consulting/products/if_rupdeploy.html.

Benefit

Customers who are new to the RUP will most benefit from this service. The RUP Deployment Package jump-starts the customer adoption and configuration of the RUP. On time-critical projects, this advantage can mean the difference between success and failure of the project.

Rational Process Workbench Is Part Of Rational Suite Enterprise

The Rational Process Workbench (RPW) is now delivered as part of Rational Suite Enterprise. RPW is a Rational Rose add-in with a visual model and content library of the RUP. RPW is used to generate process Web sites, such as RUP. For version 2001A.04, RPW is only available as part of Rational Suite Enterprise. The content library and model have been updated for consistency.

Benefit

By packaging RPW with Rational Suite Enterprise, a wider set of customers has access to this tool if they choose to significantly customize the RUP. They no longer have to purchase a separate product.

What's New in Rational University

New Course Offerings

Developing Real-Time Software with Rational Rose RealTime, Version 2001A, 4-day course

Separate courses for C, C++ and Java language environments

Rational Rose RealTime customers seeking a basic understanding of UML and design concepts for real-time, distributed, concurrent systems, and who are looking for a practical experience applying the techniques using the Rational Rose RealTime toolset in a C, C++ or Java language environment will be interested in this tool focused course.

- Students will be provided with the training and materials to learn to use the Rational Rose RealTime toolset for all aspects of the real-time software development lifecycle.
- To address students' needs relevant to C, C++ or the Java language environment, Rational University has developed three versions of this popular RealTime course, thus focusing on the tools specific to their projects.
- To maximize the students' learning experience, focus is placed on tool use and lab exercises, with little emphasis on methodology.

Principles of Modeling Windows DNA Applications with Rational Rose, Version 2000e, 4-day course

This in-depth workshop teaches developers and designers how to design an application using Rational Rose to build an application using a Windows DNA solution.

- Students learn fundamental Object-Oriented Analysis and Design skills that can be applied to the design and to the development of COM+ components for building Windows DNA applications.
- Using Rational Rose 2000e, participants learn about design and architecture patterns that can be applied to build Windows DNA applications.

Business Modeling with UML, Version 1.0, 1-day course

Business modeling with the UML provides an approach to modeling business processes using the same language (the UML) software teams use to model systems. By using the same notation across business and system domains, communication between business analysts and software teams is improved, and business considerations are more likely to be included in the system requirements, eventually leading to a better system.

This methodology course lays the foundation for the following products:

- Rational Rose - to model the business
- Rational RequisitePro - to track business requirements
- Rational Unified Process - to follow business modeling best practices
- Rational Suite AnalystStudio

Students are introduced to UML as a business notation and ties from business models to system models are illustrated.

Those benefiting from this course are business and requirements analysts who need to ensure the systems or software their teams deliver match their customer's needs.

Fundamentals of Rational Suite ContentStudio for Web Application Developers, ASP Edition, Version 2001, 3-day course

This course provides basic training for web application developers by addressing both the conceptual knowledge and skill needs of web application developers who are responsible for developing content management applications using Rational Suite ContentStudio.

In this course, participants will learn about the products that comprise ContentStudio as well as the processes for planning, installing, coding, creating content and deploying web applications using ContentStudio.

Students are shown how to develop content management applications, including content templates and workflow applications, using ContentStudio and its suite of component products.

Database Design with Rational Rose, Version 2001A, 1-day course

A new look and feel to Rational Rose for Data Modelers course, this completely revised course provides students with an understanding of how to use Rational Rose Data Modeler to successfully design and generate a database that mirrors the application that the database is intended to support. The course will also offer insight on the role of the Data Modeler on the software development team.

The lecture-lab format of this class provides students the opportunity to practice the features discussed, from creating a data model in the logical view to developing a physical model using UML.

Upon completion of the course, the student should be able to produce a database design, a DDL script and be able to demonstrate features in the data modeling process.

Benefiting from this course are data modelers who desire an understanding of object-oriented analysis and design concepts for application in a data model.

What's New in Rational Service Products

New Service Offerings

Rational Suite Deployment Service

The Rational Suite Deployment Service is a configurable service offering designed to enable the customer to deploy Rational Suite in the most efficient and effective manner possible. Working in partnership with a Rational account team, this service provides the customer with the guidance and tools necessary to address their unique situations while mitigating the risks associated with introducing new technology into their organization. Rational's many years of experience in successfully introducing tools and best practices are combined into a deployment service package that will help the customer take full advantage of their investment in Rational Suite.

Clearly defined milestones and deliverables improve efficiency

- Ensure the success of the project by starting off with an efficient environment
- Save time by speeding up the learning curve

Benefit

- Enhance efficiency and predictability of deploying a new tool
- Improve communication and teamwork
- Accelerate self sufficiency
- Leverage Rational's industry-leading software development experience

Rational TestManager QuickStart

One of the six best practices that enable efficient development of high-quality software is "Verify Quality." The TestManager QuickStart provides a fast path for the project to begin experiencing the benefits of a Test Management System using the Team Unifying tool, TestManager. It provides the training and consulting needed to introduce Rational TestManager into the project quickly and efficiently.

A well-defined set of activities and deliverables brings predictability and quality to the process

- Assess and enhance current test management practices
- Cost effective TestManager implementation

- Minimize the impact of process change by leveraging existing resources

Benefit

- Enhance efficiency and predictability of deploying a new tool
- Improve communication and teamwork
- Accelerate self sufficiency
- Leverage Rational's industry-leading software development experience