



IBM Software Group

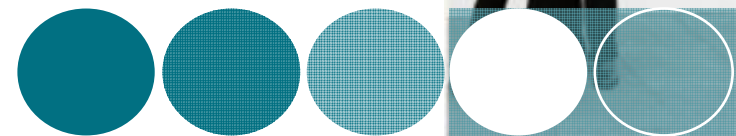
Governing Test and Development with IBM Rational Test Management Solutions



ON DEMAND BUSINESS™

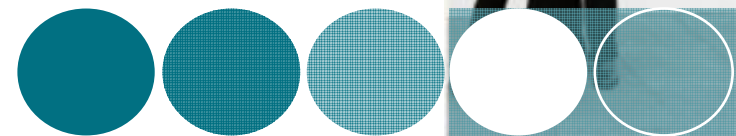
Agenda

- ClearQuest: Governing Test and Development
- Getting Started
- Summary



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The Importance of Test Management

- Would you go on a road trip without a map?
 - ▶ How would you know where to go?
 - ▶ How would you know how long it would take?
 - ▶ How would you reroute around problems?
 - ▶ How would you know how to do it better next time?

- Automated Test Management answers these questions...



Test Governance and Control

Test Planning, Execution and Project tracking

- Automated Test Management
 - ▶ Track your test plans and cases
 - ▶ Track your requirements and defects
 - ▶ Execute your tests
 - ▶ Measure your progress

- Automated Test Management is your Software Quality GPS
 - ▶ Know where you are
 - ▶ Know where you're going
 - ▶ Make your process predictable



ClearQuest: Governing Test and Development

The Hub for Life-Cycle development



IBM Rational ClearQuest

Test Change Defects

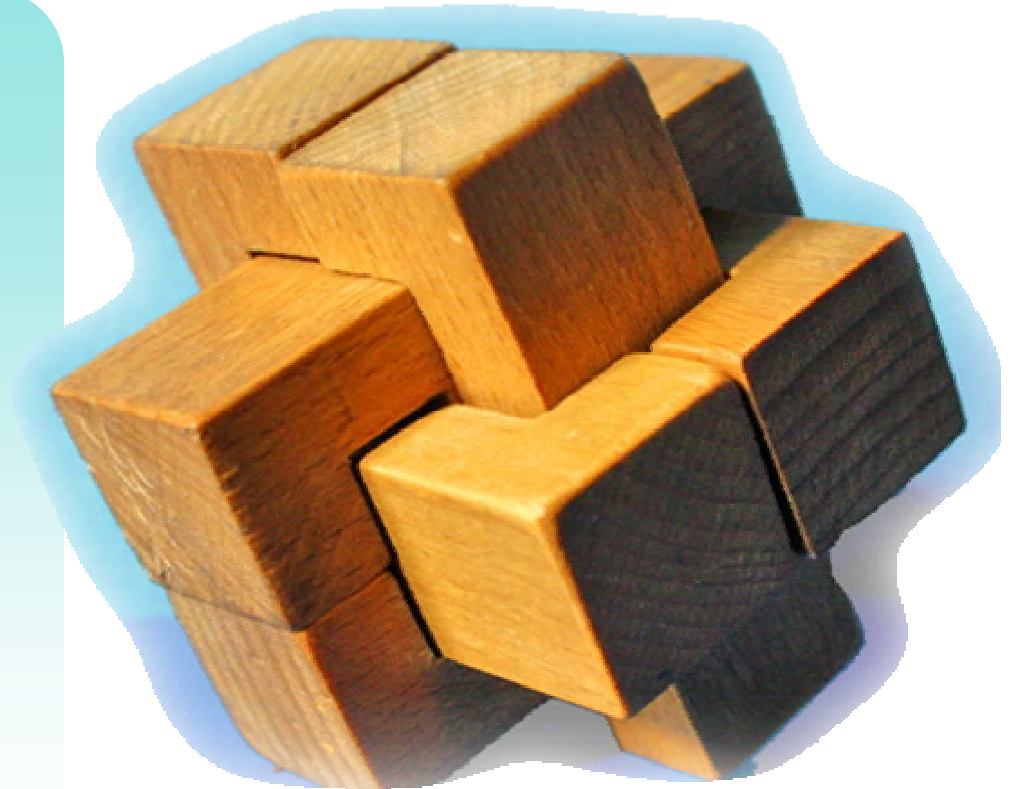
- **Single project view**
- Global test project coordination
- Configurable, enforceable processes
- Extensible test ecosystem

Single Project View

Single solution to manage tests, defects and project change

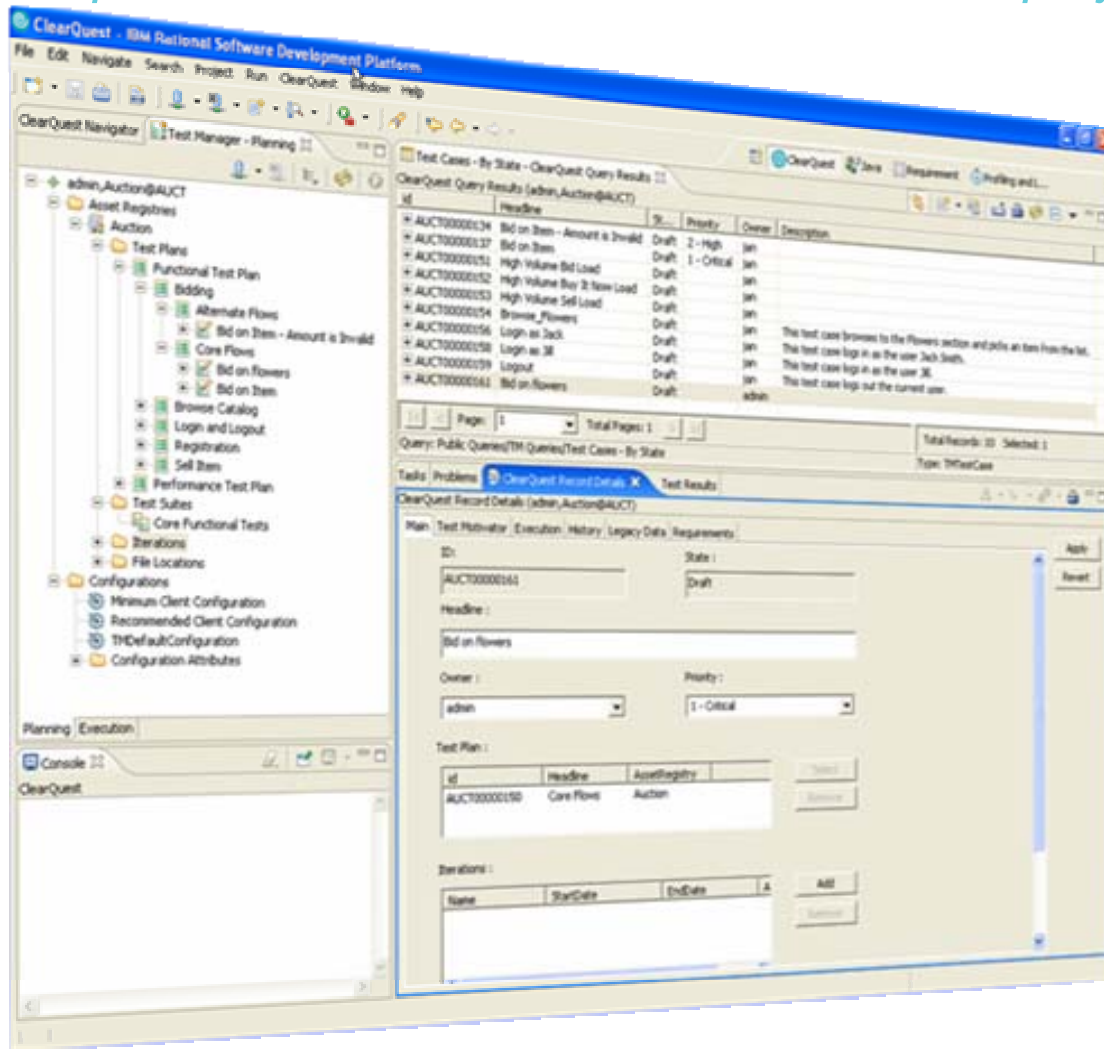
Benefits:

- Consolidated, real-time view of the entire project status
- Traceable, auditable relationships between development, test and project artifacts
 - ▶ Manages test planning, test results, quality metrics, and defects
 - ▶ Central repository with integrated version control
 - ▶ Comprehensive quality metrics in project dashboards and reports



Test Management with ClearQuest

Eclipse, Windows and Web Clients for test project tracking

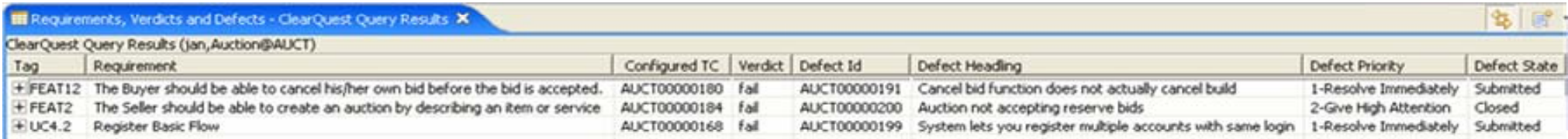


- **Eclipse Based Test Management**
 - ▶ Joins Functional and Performance Tester to complete transition of testing tools to eclipse platform
 - ▶ Native and web clients also available
- **Key Functional Areas**
 - ▶ **Test Planning**
 - Create test plans, test cases and configured test cases
 - ▶ **Test Execution**
 - Create suites or run individual test cases
 - ▶ **Test Reporting**
 - Extensive query and reporting facilities to measure test progress

Lifecycle Traceability

Query one source for all aspects of project progress

Requirements Tests Defects



Tag	Requirement	Configured TC	Verdict	Defect Id	Defect Heading	Defect Priority	Defect State
+ FEAT12	The Buyer should be able to cancel his/her own bid before the bid is accepted.	AUCT00000180	fail	AUCT00000191	Cancel bid function does not actually cancel build	1-Resolve Immediately	Submitted
+ FEAT2	The Seller should be able to create an auction by describing an item or service	AUCT00000184	fail	AUCT00000200	Auction not accepting reserve bids	2-Give High Attention	Closed
+ UC4.2	Register Basic Flow	AUCT00000168	fail	AUCT00000199	System lets you register multiple accounts with same login	1-Resolve Immediately	Submitted

- Query to find
 - ▶ Test results associated to requirements
 - ▶ Defects associated to test results
 - ▶ Defects associated to tests associated to requirements
- Traceability from requirements to tests and defects closes the loop on the software development cycle



Lifecycle Traceability

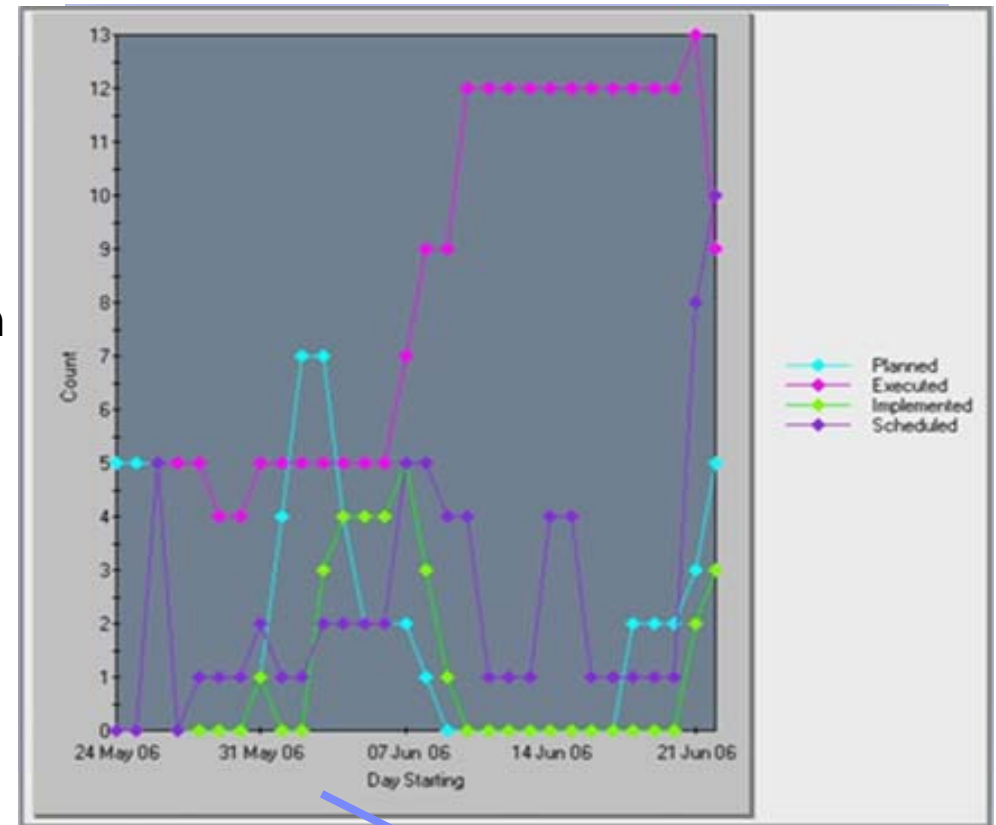
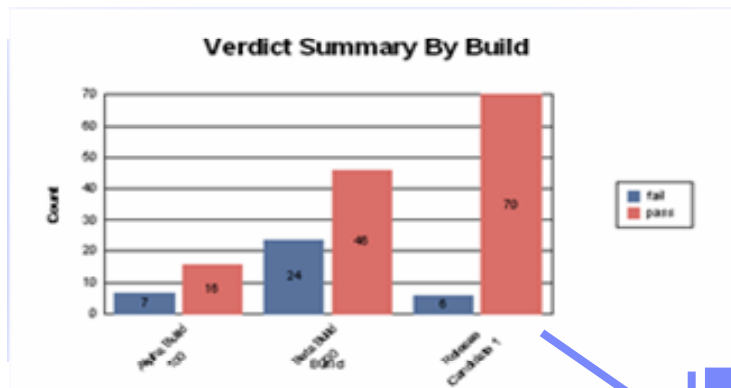
Query one source for all aspects of project progress

Leverage existing reports

or

Create new reports with Crystal Reports

To provide the information you need for decision making



Test Verdicts

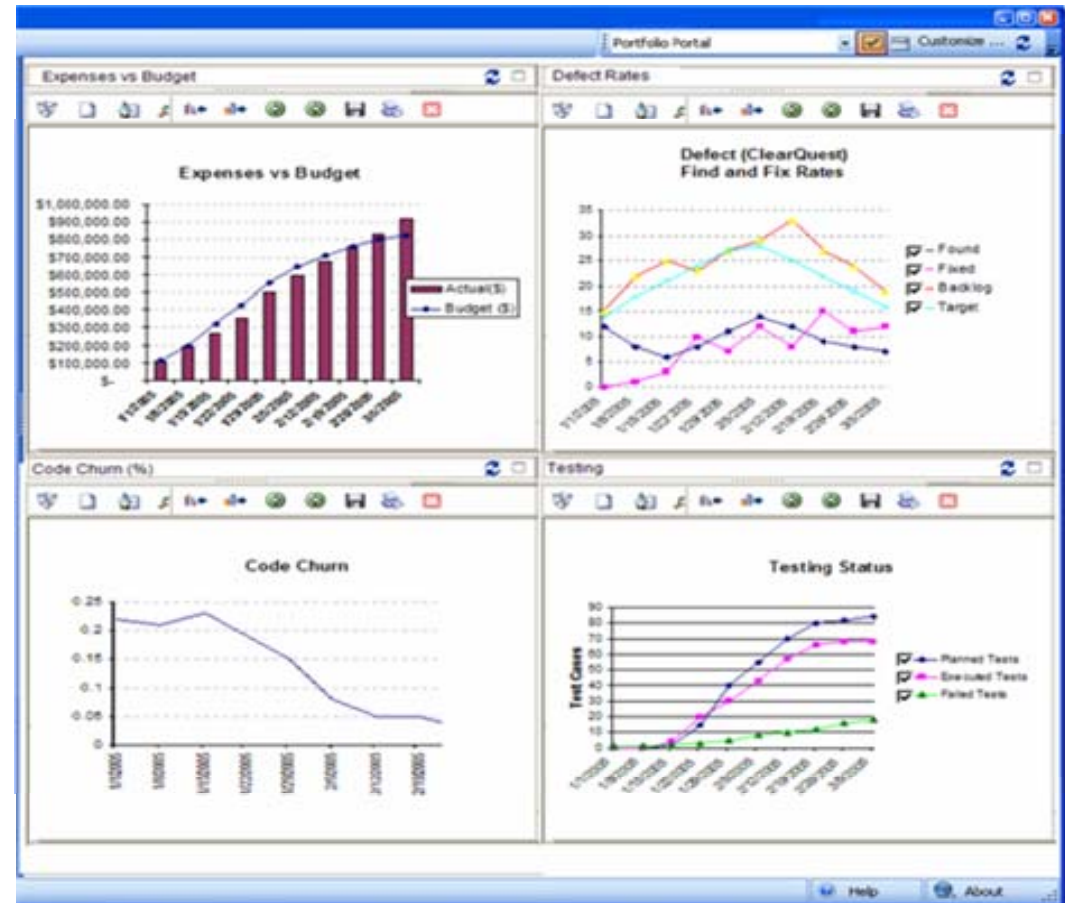
Test Case Trending



Beyond Test Metrics

ClearQuest data integrated into Project Console and Portfolio Manager

- Comprehensive project reporting
 - ▶ ClearQuest defect and test project data can be accessed from Rational Project Console and Rational Portfolio Manager
 - ▶ Provides a consolidated dashboard of all project metrics
 - ▶ Provides the information you need for all project decisions



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Global Project Coordination

Distributed and co-located test and development support

Benefits:

- Ability to leverage globally distributed talent
- Simplifies the complexities of geographically distributed test coordination
 - ▶ High scalability for large enterprise projects
 - ▶ Web-based test planning and quality metrics reporting
 - ▶ Automates sharing and reuse of distributed test assets
 - ▶ Centralized user management



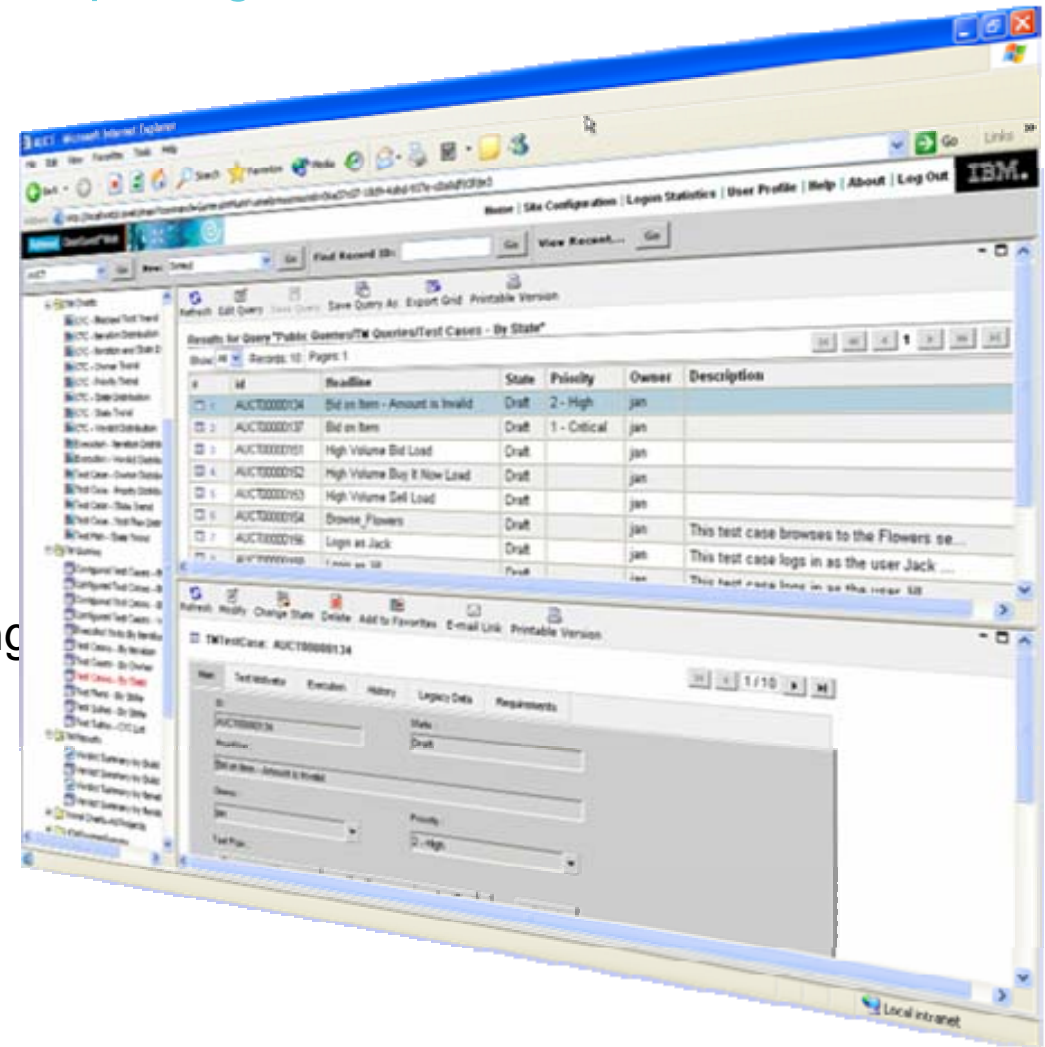
IBM Rational ClearQuest



ClearQuest Web Interface

Distributed access for test planning and reporting

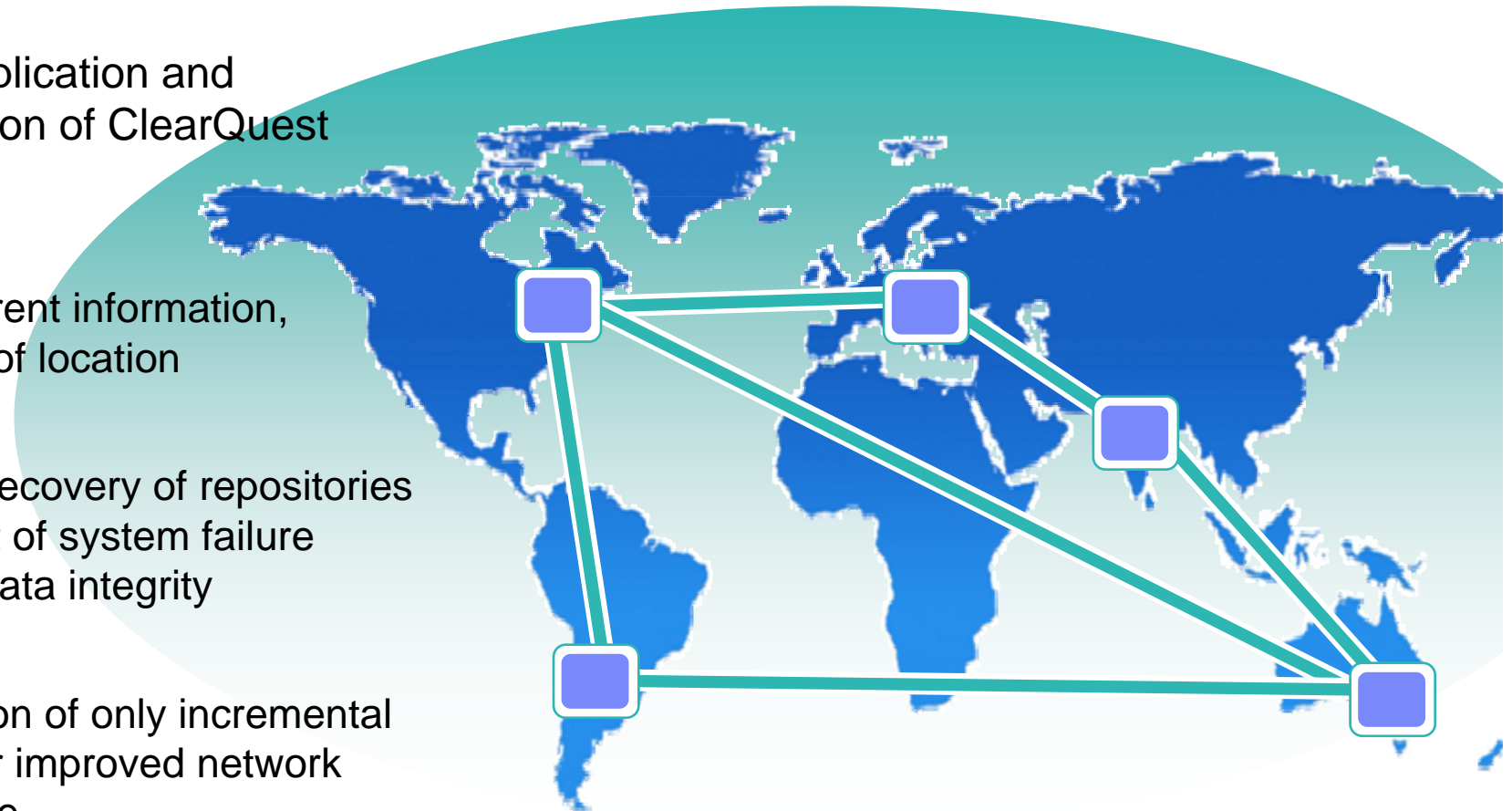
- Instant access for remote users
- Access for alternative platforms
- No additional licenses required
- Perfect for test planning and reporting



ClearQuest MultiSite

Replication and synchronization for geographically distributed teams

- Automatic replication and synchronization of ClearQuest repositories
 - ▶ Access current information, regardless of location
 - ▶ Automatic recovery of repositories in the event of system failure maintains data integrity
 - ▶ Transmission of only incremental changes for improved network performance



Enterprise Data Scalability

Support for all enterprise databases

- Supported Databases
 - ▶ DB2
 - ▶ Oracle
 - ▶ SQL Server
 - ▶ MS Access

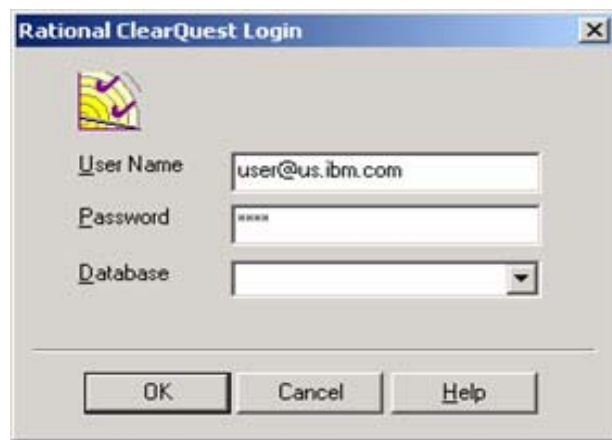


Centralized User Management

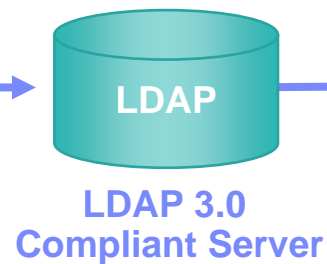
LDAP authentication for common user id support

Reduce administration with centralized user management – maintain only one list of user ids

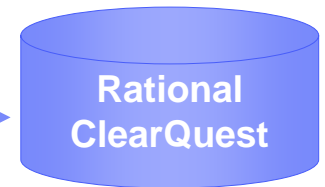
LDAP authentication supports common user ids for ClearQuest and RequisitePro



Rational ClearQuest User DB Logon Dialog



Rational ClearQuest
Authorization



Rational
RequisitePro
Authorization



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- Single project view
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- **Configurable, enforceable process**
- Extensible test ecosystem

Configurable, Enforceable Process

Customize and enforce your test processes and workflows

Benefits:

- Ensure compliance and enforcement of project and company policies
- Configurable for project-specific needs and workflow automation
 - ▶ Data collection and process customization & enforcement
 - ▶ Auditable test change history
 - ▶ e-Signature support for regulatory compliance

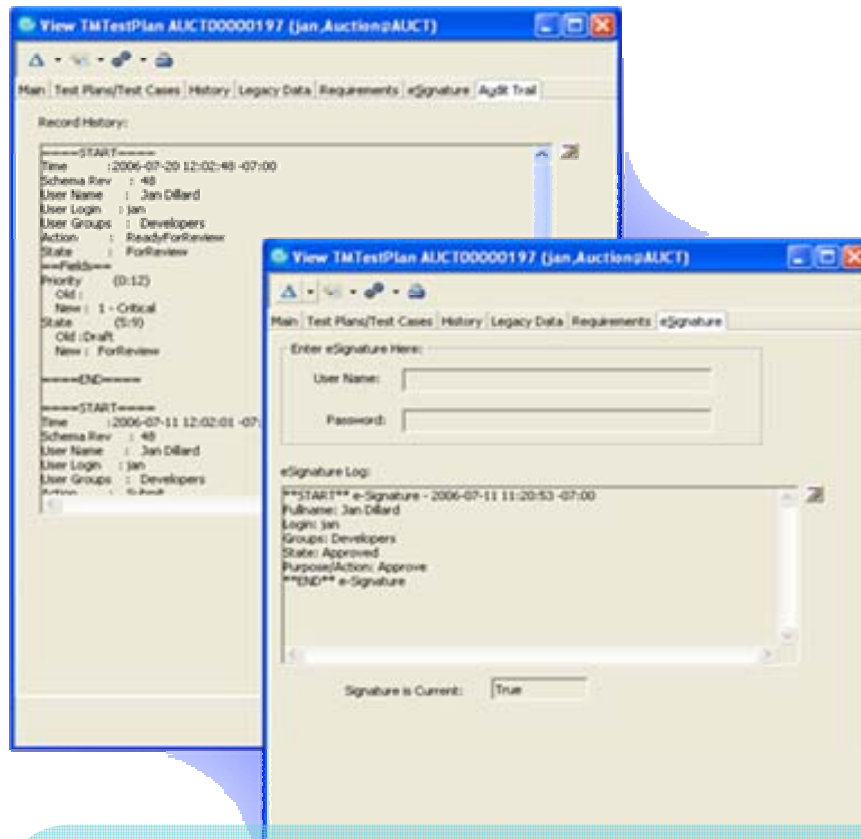


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Compliance and Control

Using Audit Trails and eSignatures to track change



- Audit Trails can track changes to individual records
 - ▶ Provides immutable change log of all record change activity

- e-Signature requirement can be added to any event on any artifact
 - ▶ Will record who changed a record, when and how the record was changed
 - ▶ e-Signature provides immutable evidence of process completion

e-Signature Approval

Requirement

Test Case

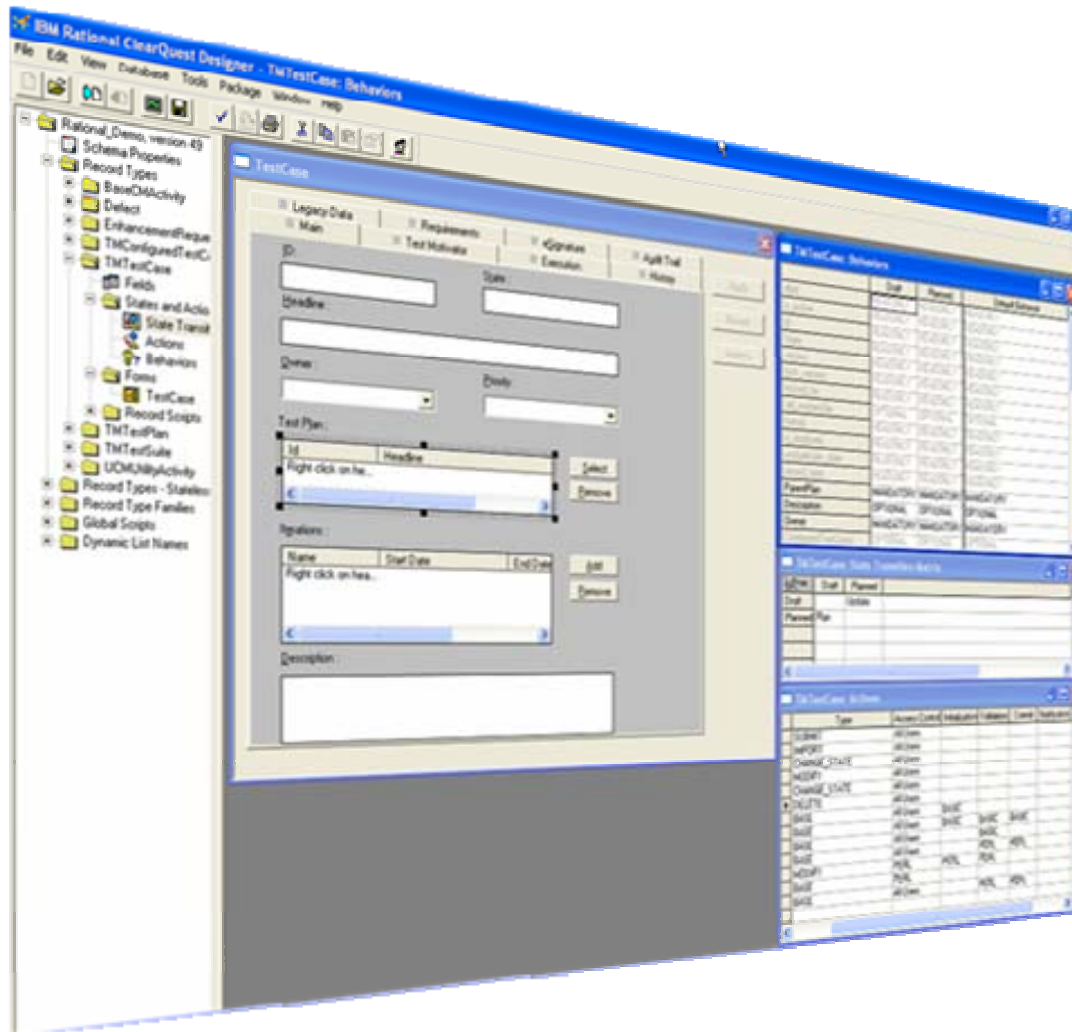
Test Execution

Validate Results

Approve

Configure and Enforce Your Process

Customize appearance and behavior of all forms and processes



- Customize everything
 - ▶ Modify forms
 - ▶ Configure State Transition
 - ▶ Add fields and control behavior
 - ▶ Extend your system with custom coded hooks

- Extend functionality using pre-defined Packages
 - ▶ eSignatures
 - ▶ Audit Trail
 - ▶ Many, many more...



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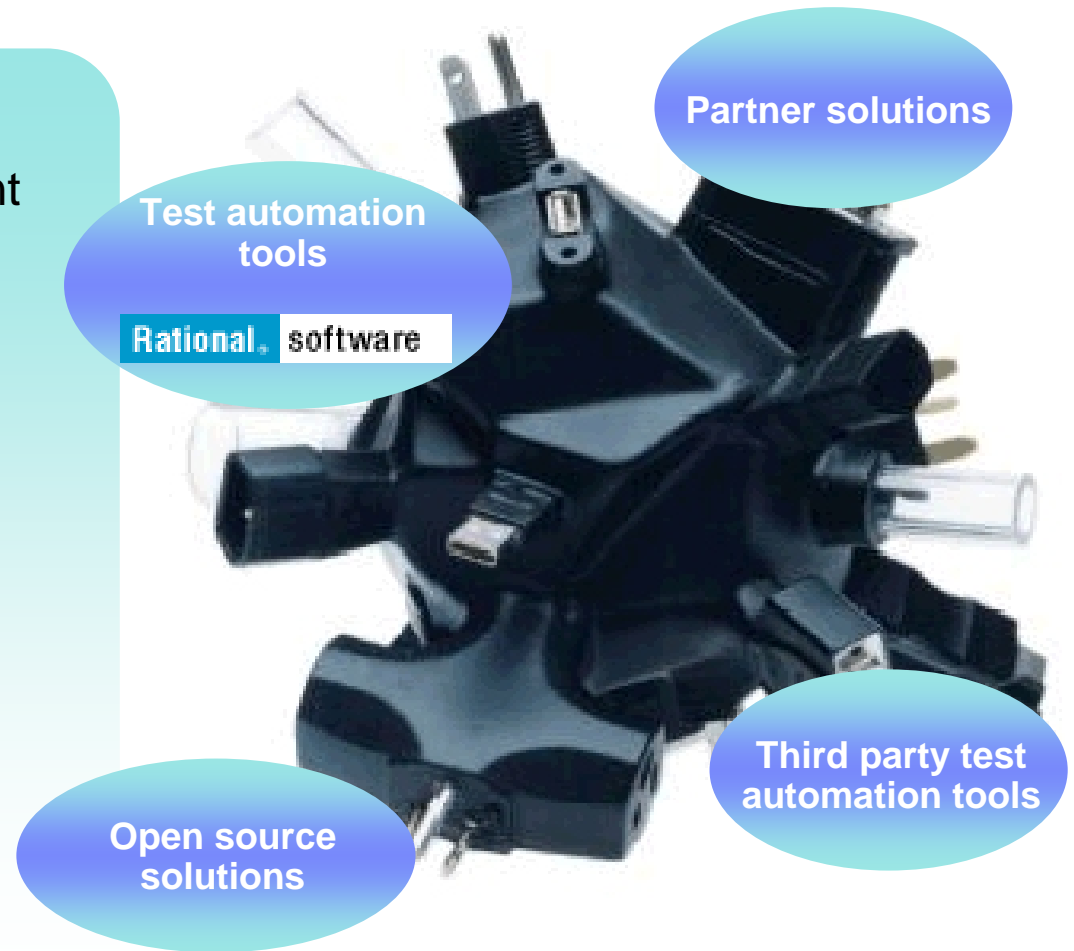
- Single project view
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- Configurable, enforceable processes
- **Extensible test ecosystem**

Extensible Test Ecosystem

Integrated with Rational, open source and 3rd party test automation tools

Benefits:

- Lowers the cost of test lab management
- Simplifies the management of tools from multiple vendors
 - ▶ Customer extensibility for automation of logging custom test results
 - ▶ Integrated with Rational Functional Tester, Rational Manual Tester and Rational Performance Tester
 - ▶ Integrates with SPI Dynamics QAInspect for security testing
 - ▶ Partner extensibility for execution of 3rd party test tools

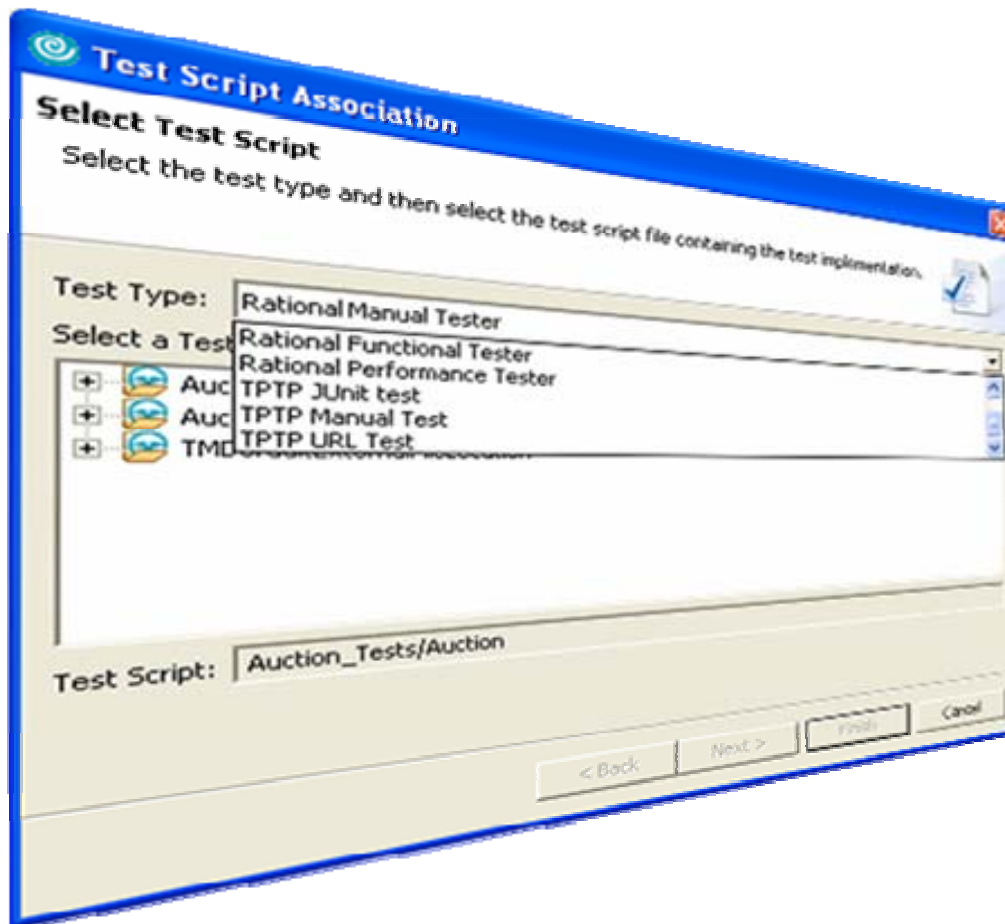


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Extensible Test Ecosystem

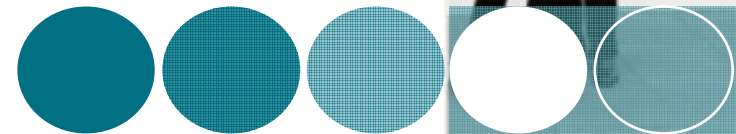
Integrated with Rational, open source and 3rd party test automation tools



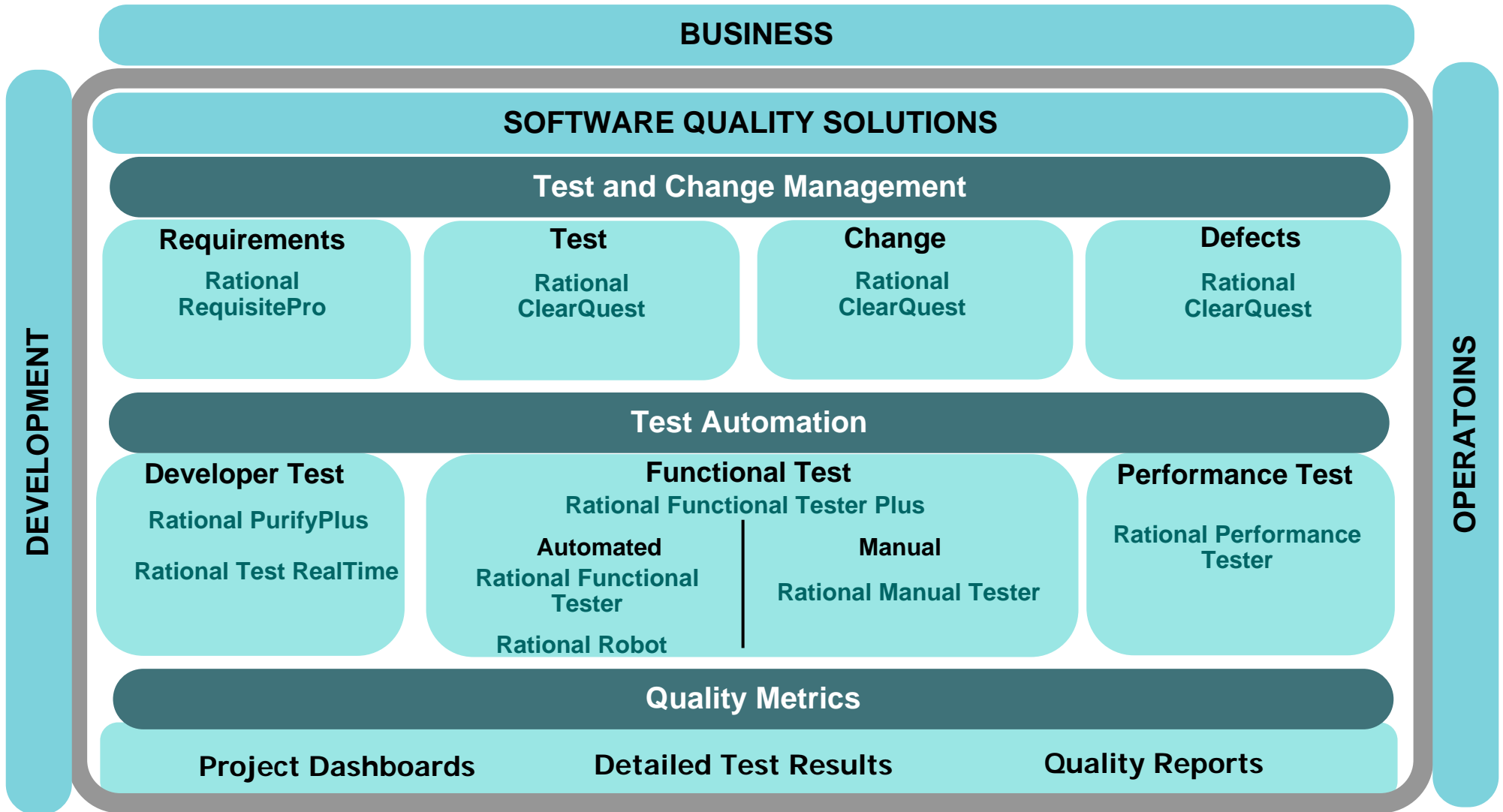
- Collect and report on results from Rational test execution engines
 - ▶ Rational Manual Tester
 - ▶ Rational Functional Tester
 - ▶ Rational Performance Tester
- Collect and report on results from Eclipse Test and Performance Tools Project
 - ▶ JUnit tests
 - ▶ Manual tests
 - ▶ URL tests
- Open API Extensibility
 - ▶ SPI Dynamics QAInspect

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Rational Software Quality Solutions

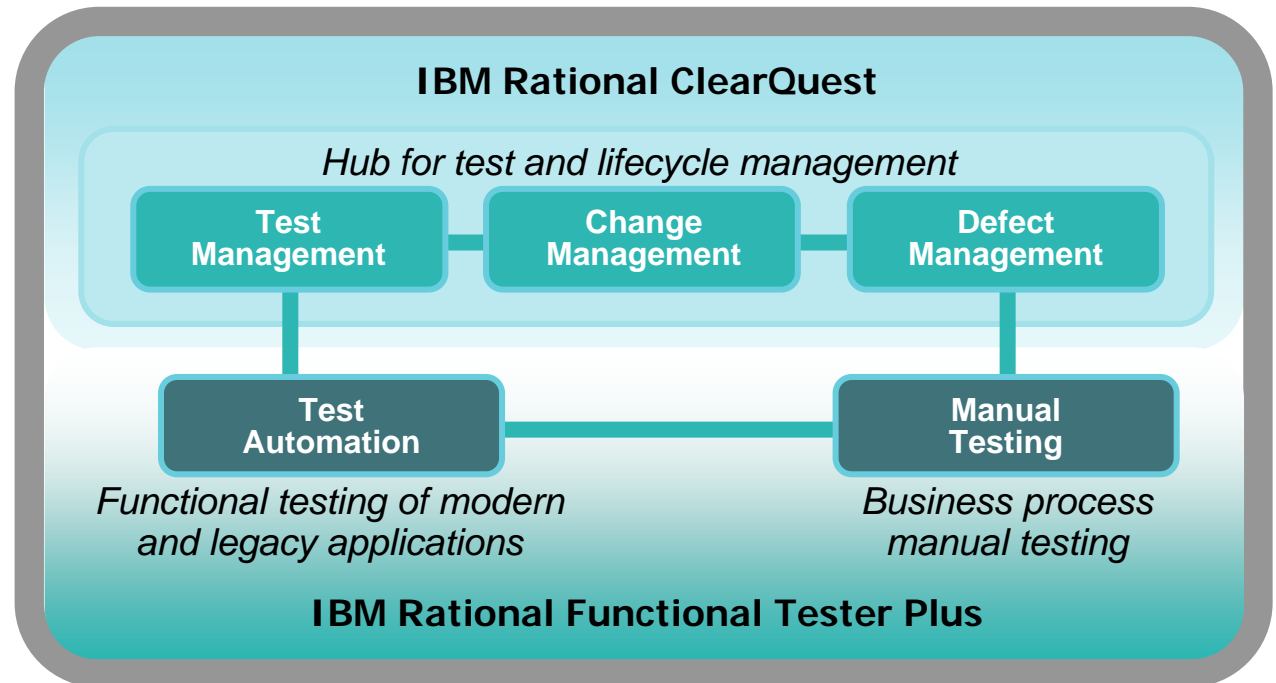




IBM Rational ClearQuest and Functional Testing

One bundle for comprehensive quality

- Enterprise scalable, distributed test management
- Test process enforcement and customization
- Quality metrics
- Integrated test management and test automation tools
- Support for testing J2EE/Java, Web, .NET, Visual Basic, C/C++ and many other client-server software applications

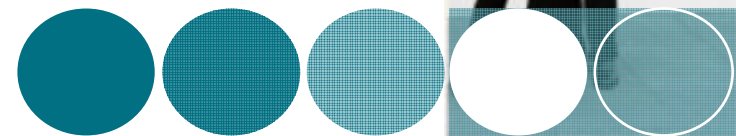


IBM Rational ClearQuest
IBM Rational Functional Tester
IBM Rational Manual Tester
IBM Rational Robot



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Questions





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