The Rational Approach to Test Management

Manjeri Dharmarajan, IBM
Agenda

- The Importance of Test Management
- ClearQuest: Governing Test and Development
- Geeky Demo
- Summary
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
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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
ClearQuest: Governing Test and Development
*The Hub for Life-Cycle development*

IBM Rational ClearQuest

- 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

*IBM Rational ClearQuest*
Lifecycle Traceability
Query one source for all aspects of project progress

- 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
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
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
- Ideal for communicating test status to external parties
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 user authentication support for single sign-on*

Reduce administration with centralized user management

LDAP authentication supports single sign-on to ClearQuest and RequisitePro
Configurable, Enforceable Process
Customize and enforce your test processes and workflows

Benefits:
- Compliance 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

IBM Rational ClearQuest
Configure and Enforce Your Process

Customize appearance and behavior of all forms and processes

- Customize look, feel, and operation
  - Modify forms
  - Add fields and control behavior
  - Configure state transition
  - Extend your system with custom coded hooks

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

IBM Rational ClearQuest
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Demo
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ClearQuest: Governing Test and Development

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Test  Change  Defects
More, More, More…
Additional ClearQuest Sessions this week…

- **SQ06: Test Management Live**
  Tuesday, June 6, 9:45 am - 10:45 am
  *Daniel Gilio, Senior Technical Consultant, Number Six Software*

- **SQ10: Orthogonal Array Testing? Huh?**
  Wednesday, June 7, 10:00 am - 11:00 am
  *Jim Trentadue, SQA Coordinator, Nielsen Media Research*

- **SQ15: Case Study: Test Management Our Way**
  Thursday, June 8, 8:30 am - 9:30 am
  *Arthur Crotty, Manager ReqPro, IBM Rational software*

- Demos on Demand in the Solution Center
Questions
Thank You

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