

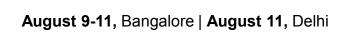
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Requirements Management Tools
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IBM Software

Innovate2011

The Premier Event for Software and Systems Innovation









Agenda

- Introduction
 - Rational Requirements Composer 3.0
 - CLM and Requirements
- Using RRC 3.0 in CLM Practice
 - Lifecycle Development
- What are the Next Steps?



Requirements Driven Lifecycle Development



A New Rational Requirements Composer

Change the way you think about Requirements...

- **Vision:** Requirements Composer 3.0 takes a large step forward to deliver requirements definition and management for a development lifecycle
- **Connecting Development Next Generation:** Realise the to Requirements benefits of centralised global development analysing business requirements using the latest Web technologies and best practice paradigms

Process Evolution:

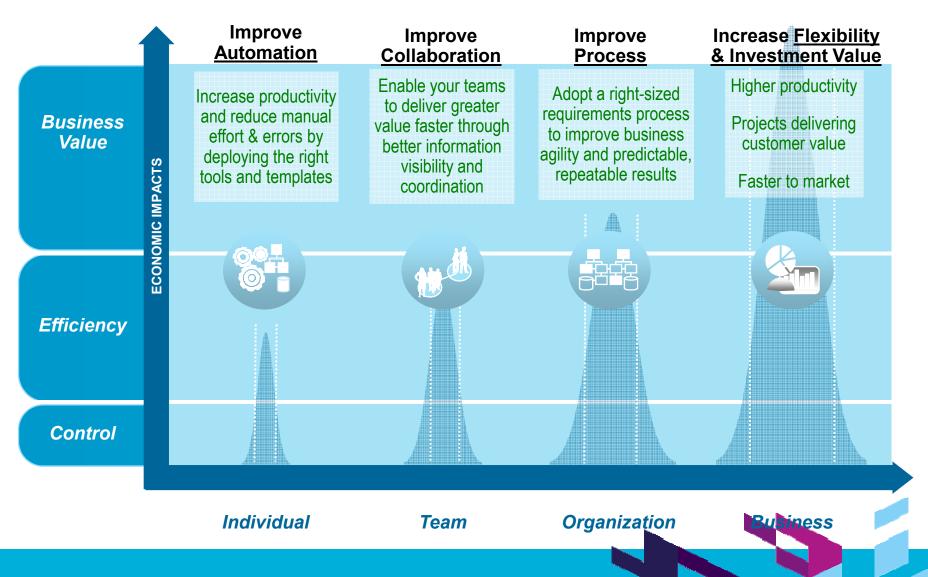
Embrace agile and iterative development methodologies that make businesses more efficient, more cost efficient, and repeatable

Innovation: Explore the possibilities of

visual and textual requirements linked from stakeholder to stakeholder to combine the expertise of development ingenuity



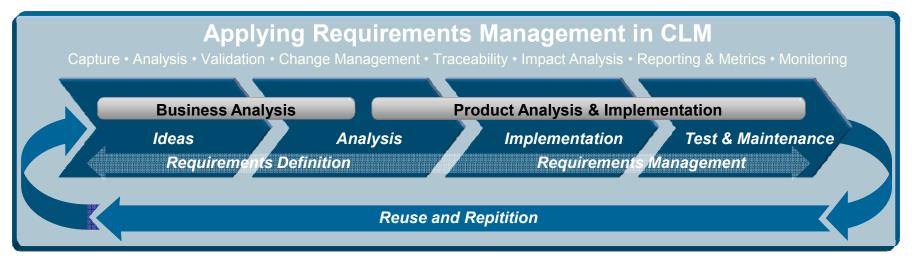
Improve Your ROI With Better Requirements Practices





What is the Value of Collaborative Lifecycle Management (CLM)?

Collaborative lifecycle management coordinates people, processes, and information in an iterative cycle of software and systems delivery activities that:



- Meets domain-specific needs while enabling a real-time flow of information and ideas
- **Improves collaboration across teams and geographies** by providing consistent access to team process, workflow and artifacts
- ✓ Helps meet compliance requirements through asset traceability and approval workflows.
- ✓ Provides the foundation for continuous capability improvement through flexible, rules-based process enforcement, real-time reporting and integrated best practices
- Reduces total cost of ownership through streamlined and enterprise-ready deployment, security and administration.



Introducing IBM Rational Requirements Composer v3

Project driven requirements management for your global team



Combined Definition and Management

- ✓ Empower teams of all sizes/complexity to capture, define, analyze, manage, report
- ✓ Clear, centralized requirements eliminate redundancy and aid real-time development
- Develop using agile-at-scale and iterative processes in volatile markets

Lifecycle Solutions and Collaboration

- ✓ Align business, development and test effort using light-weight process
- ✓ Move beyond file based management with easy Word/Excel migration
- Engage project stakeholders early and regularly collaborate to improve quality

Improved Planning and Visibility

- ✓ Realise visibility using traceability across requirements, test, and development
- ✓ Provides up-to-date reporting based on your requirements
- Manage scope of development project



IBM Rational Requirements Composer 3.0 Requirements Management for the Development Lifecycle

Rational Requirements Composer

Definition

- Rich-text documents
- Diagrams: Process, Use Case
- Storyboards, UI sketching & flow
- Project glossaries
- Templates (formal/agile)

Visibility

- Customizable dashboards
- Analysis views
- Collections
- Milestone tracking & status

Collaboration

- Review & Approval
- Discussions
- Email Notification



Management

- Structure, Attributes/Types
- Traceability, Filtering, Tags
- Baselines, Change History
- Reuse
- Reporting Metrics & Doc.

Lifecycle

- Central requirements, test, & development repository
- Common administration and role-based user licensing
- Warehouse reporting

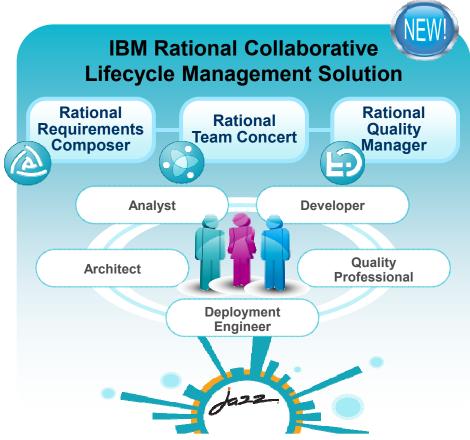
Planning

- Integrated planning
- Effort estimation
- Progress tracking



IBM Rational Collaborative Lifecycle Management Solution Improve productivity by 4-6% annually with an integrated ALM solution

- Optimize your team through support of the 5 ALM Imperatives
 - Real-time planning
 - Lifecycle traceability
 - In-context collaboration
 - Development Intelligence
 - Continuous Improvement
- Get up and running quickly
- Extend as your needs evolve
- Support heterogeneous development across multiple platforms and technologies







Using the New Requirements Composer 3.0

CLM in Practice

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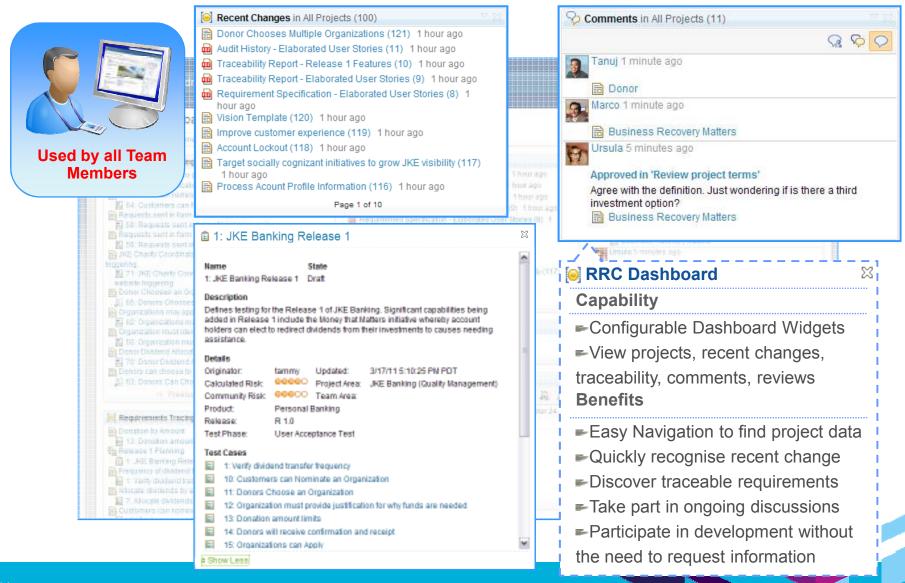
Using Rational Requirements Composer 3.0

Eight steps to requirements practice in a development lifecycle



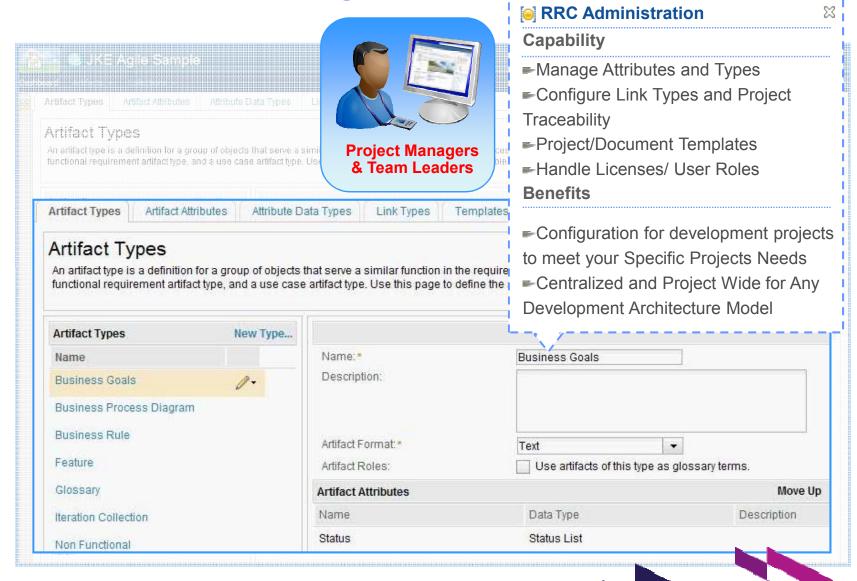


CLM Products Dashboards – RRC example





Administration and Configuration





Developing Requirements, Reviewing and Collaboration The Offering Manager and Product Manager

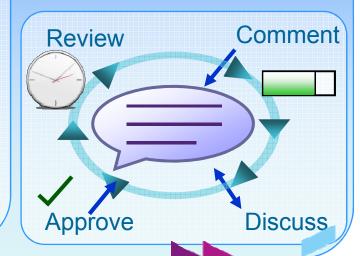
2. Enhance Requirement Quality with Text/Visual Scenarios

- Requirements management teams will capture detailed requirements and diagrams/pictures for critical for development understanding into a consolidated list of project information
- Collect and centralize your requirements in a single repository for management and team collaboration
- Business analysts can start high level requirements through example diagrams, storyboards, or UI mockup do depict how the concept product project will work
- Visually represent requirements through diagrams, use case, story boards to effectively communicate the business development needs

3. Review And Enhance The Quality Of Your Requirements

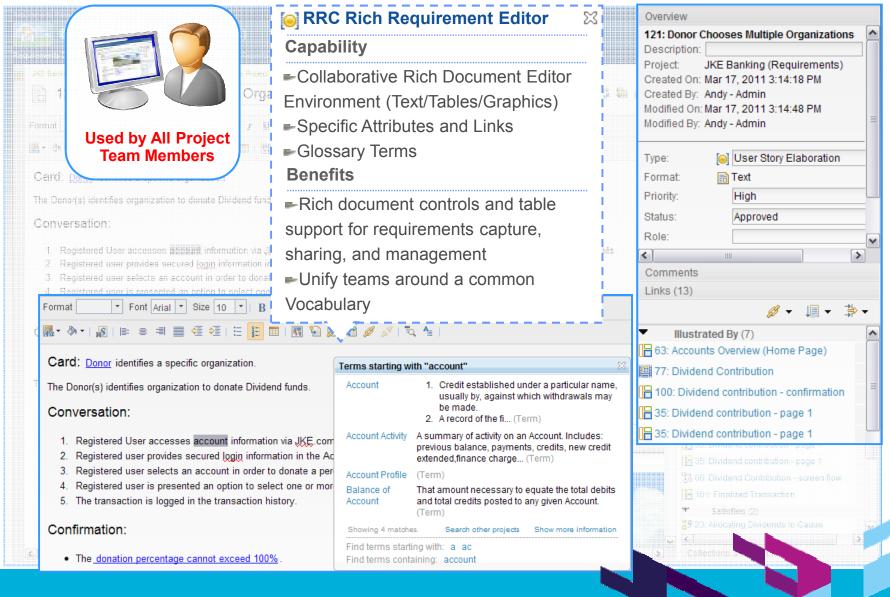
- · Requirements teams will review, discuss and collaborate on requirements using email notification for updates
- Achieve better quality requirements and product from collaboration





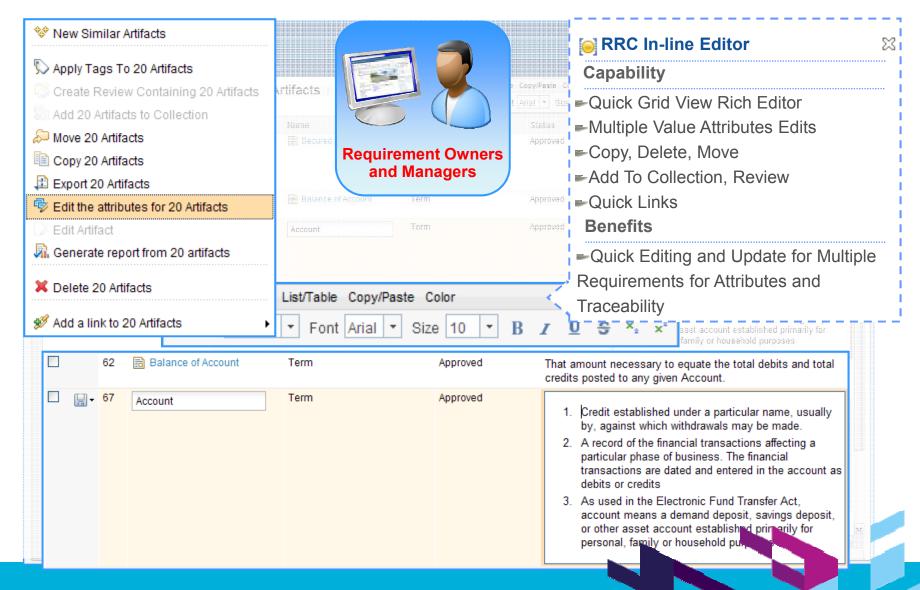


Rich Requirement Editor (Documents)





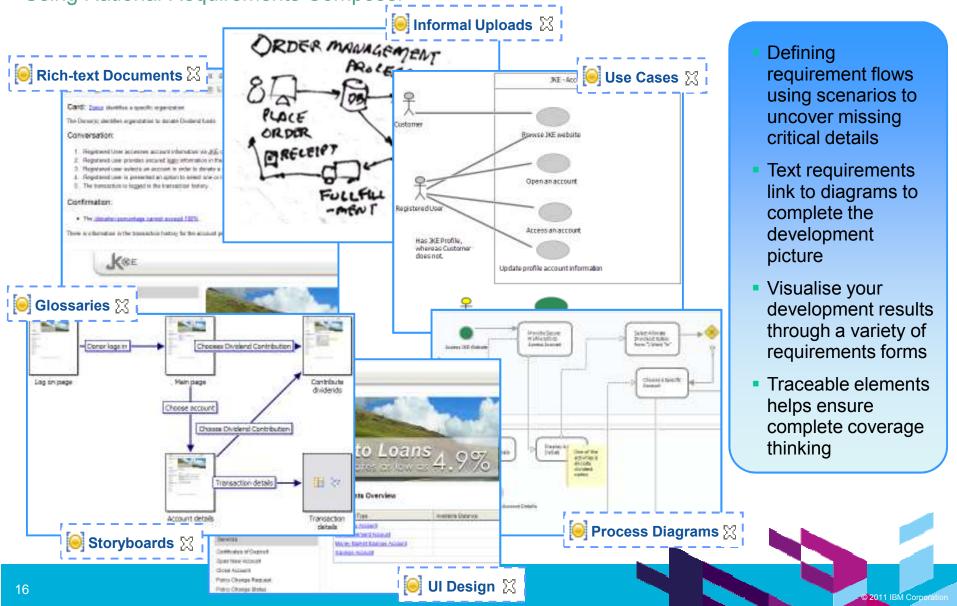
Grid View and In-line Editing





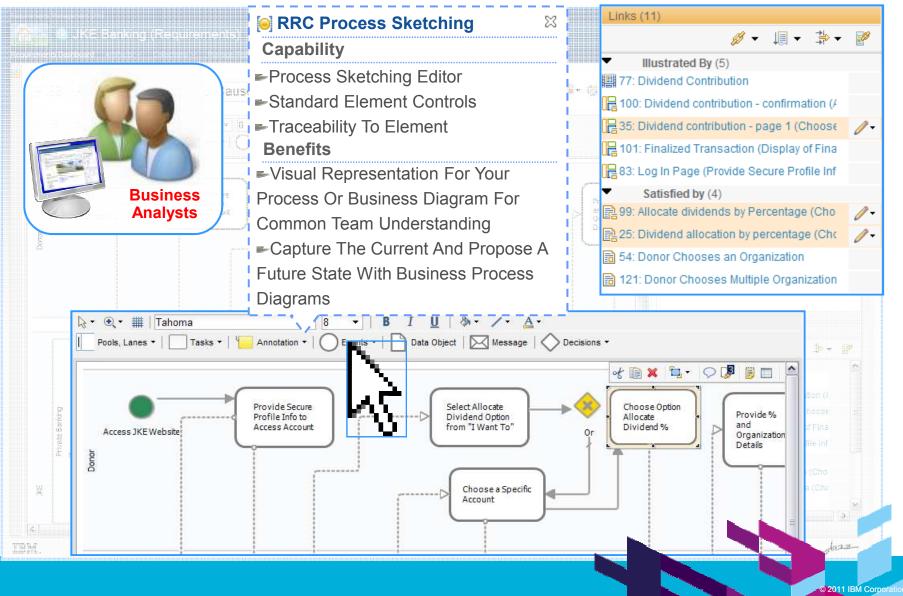
Use Visual Scenarios to Uncover Customer Needs

Using Rational Requirements Composer



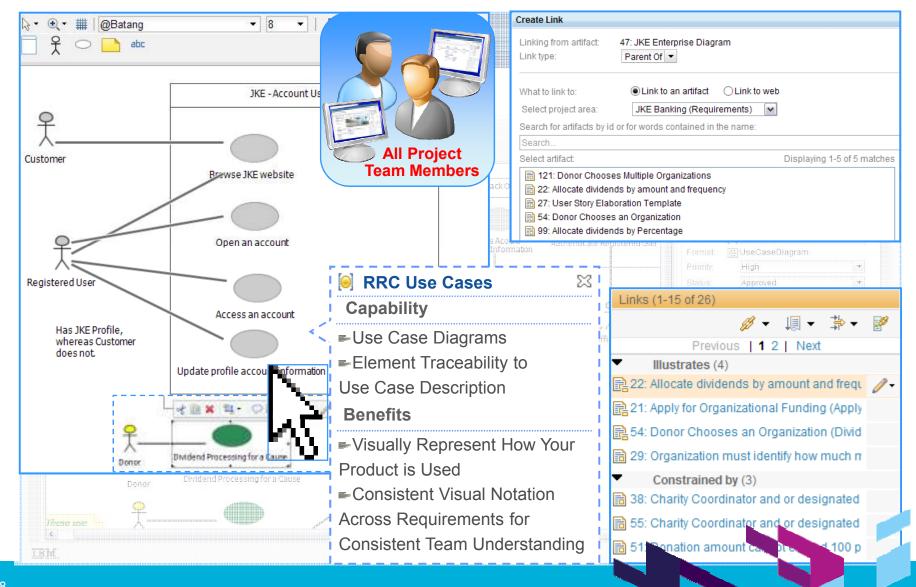


Process Sketching



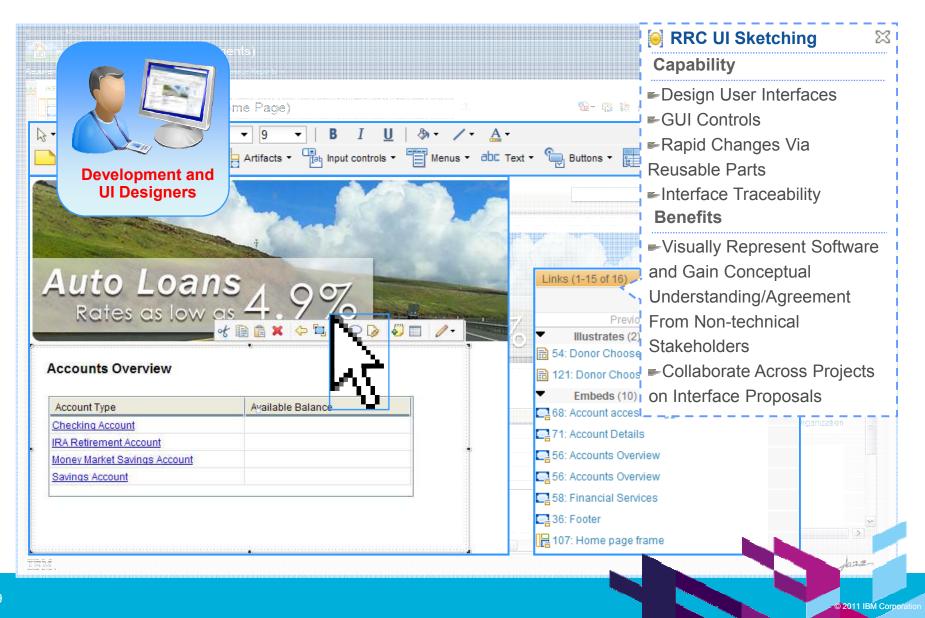


Use Case Diagrams



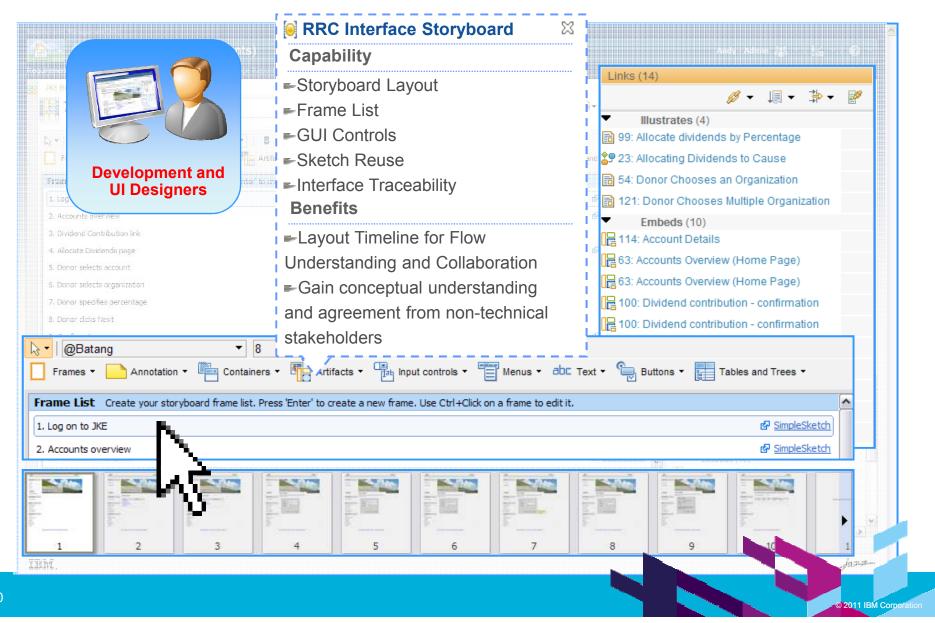


User Interface Sketching



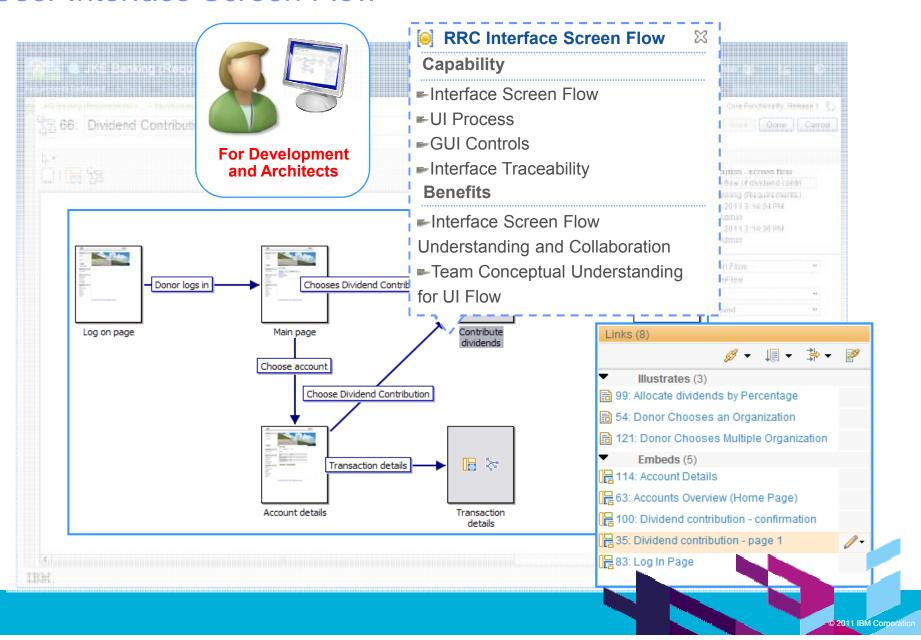


User Interface Storyboard



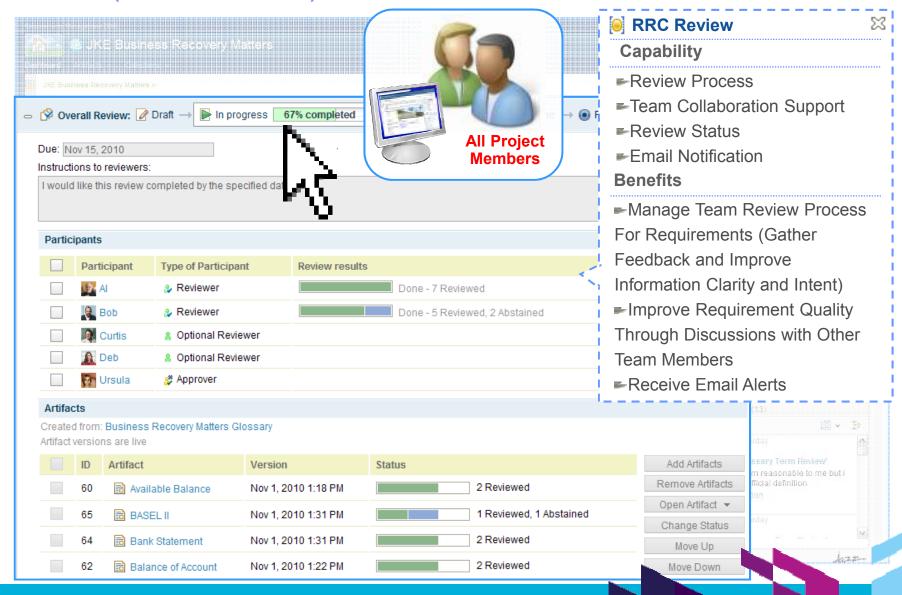


User Interface Screen Flow



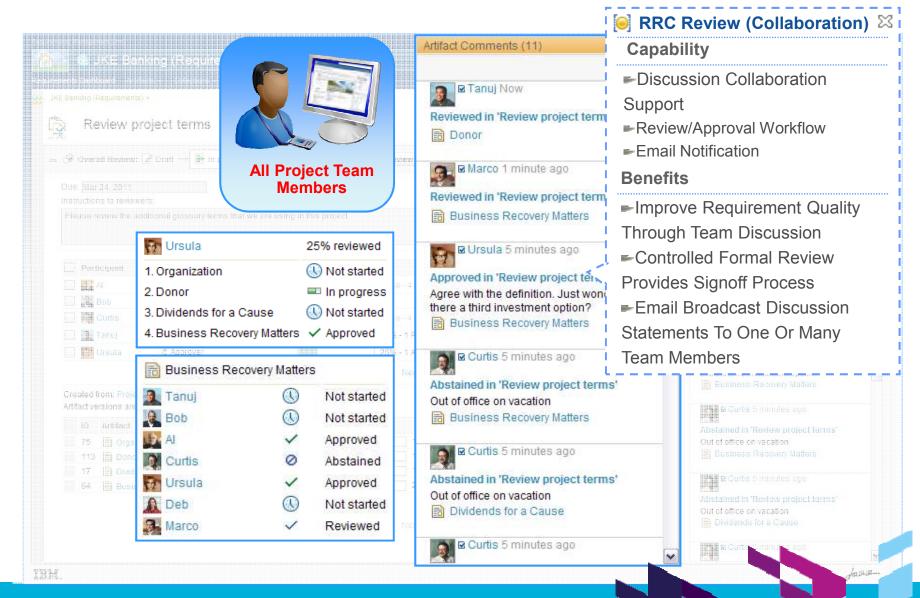


Review (Collaboration)





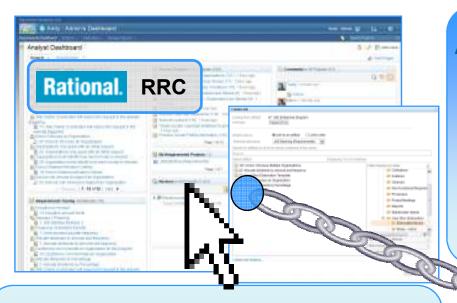
Review (Collaboration)





Lifecycle Traceability Brings Development Together

Create dependencies to other lifecycle artifacts

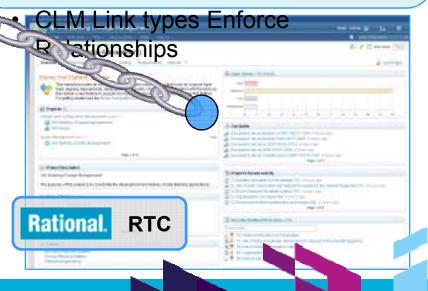


A Common Approach to Artifact Creation Linking in all CLM Products

- Product A asks Product B what artifacts it can create or link to
- Product B provides the information and interface for creating and linking to its artifacts

Requirements Help Drive Development

- Requirement collections are provided to development for development of functional requirements
- Test plans and steps likewise are derived from requirements
- Traceability is necessary to link development disciplines





Requirement Traceability and Management The Business Analyst and Development

4. Manage and Analyze the Projects Position and Status

Creating Traceability (Relationships)

- Project members will be able to create links/relationships between common requirements artifacts to enable development, show dependence, and prove compliance
- Expose gaps and realize change impact in your development process by applying effective traceability between related project information

Management Analysis (Filtering, Sorts, Tagging)

- · Business analysts using filters, sorting, Tags, and other data analysis features to manage requirements content and spot change
- Manage business requirements and find gaps, adapt to change, and manage expectations

Baselines & Collections

- Project members will collect requirements together or documents and put them into collections or baselines as part of project milestones
- Establish proper review milestones for development for review and comparison



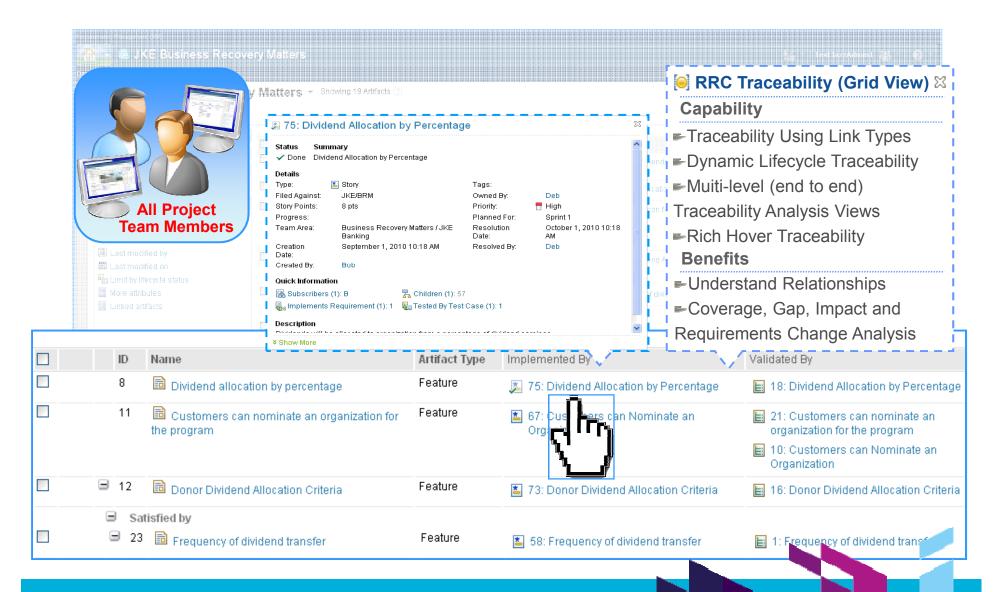
5. Understand Project Gaps and **Changes Using Traceability**

Traceability Analysis

- · Traceability analysis features will allow team members to see dependency on other requirements, spot gaps in the project, and help manage compliancy
- Raise product quality, lower cost from redundancy and error using traceability

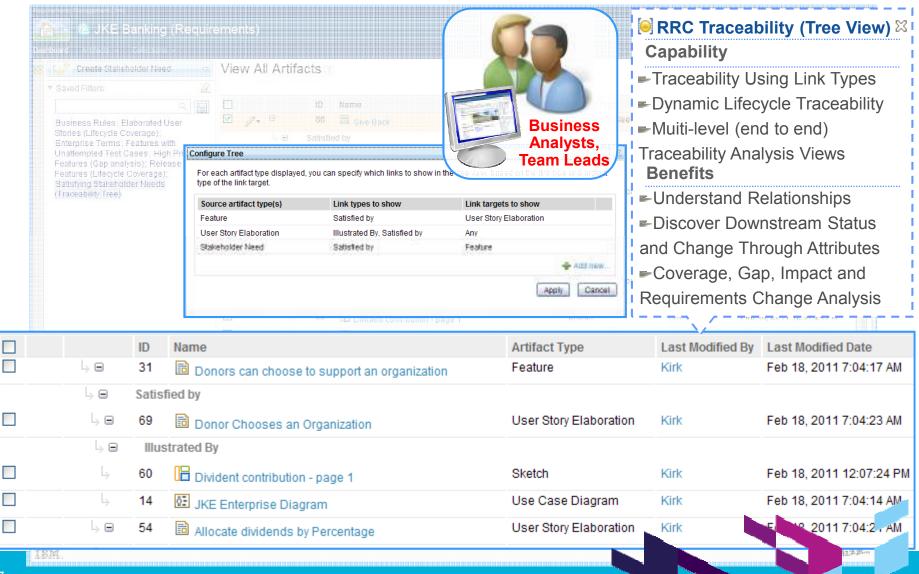


Traceability (Analysis Tools) – Grid View



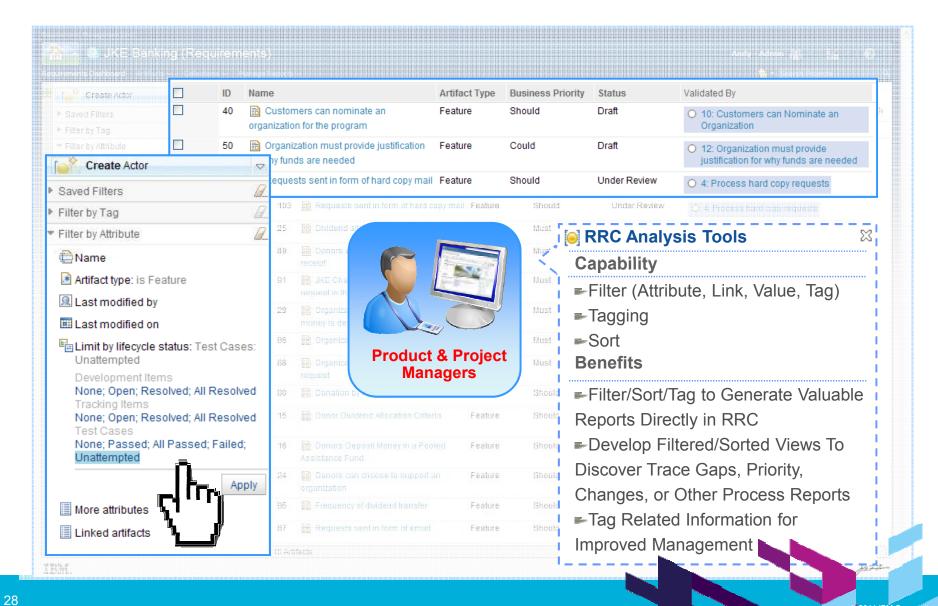


Traceability (Analysis Tools) - Tree View



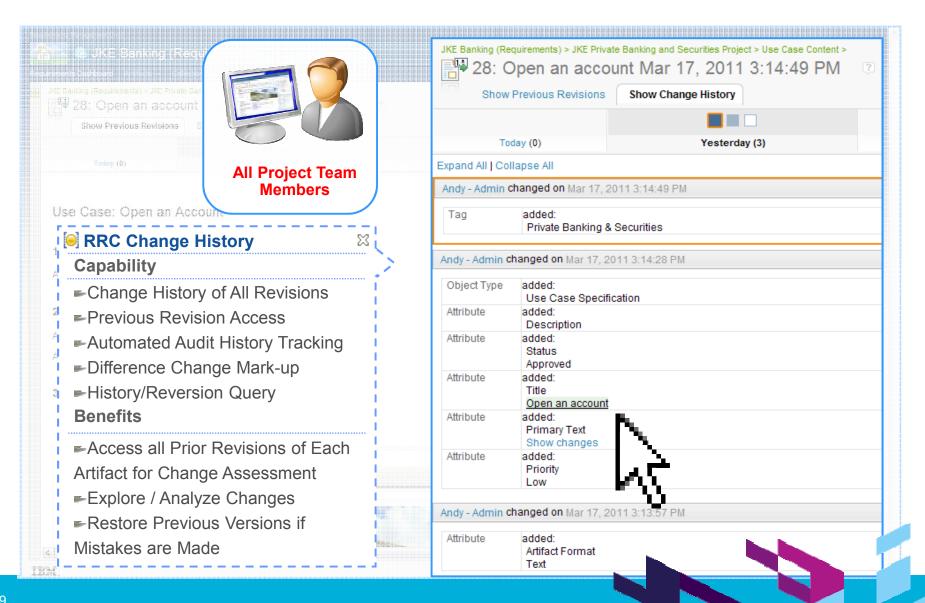


Requirements Analysis Tools (Filtering)



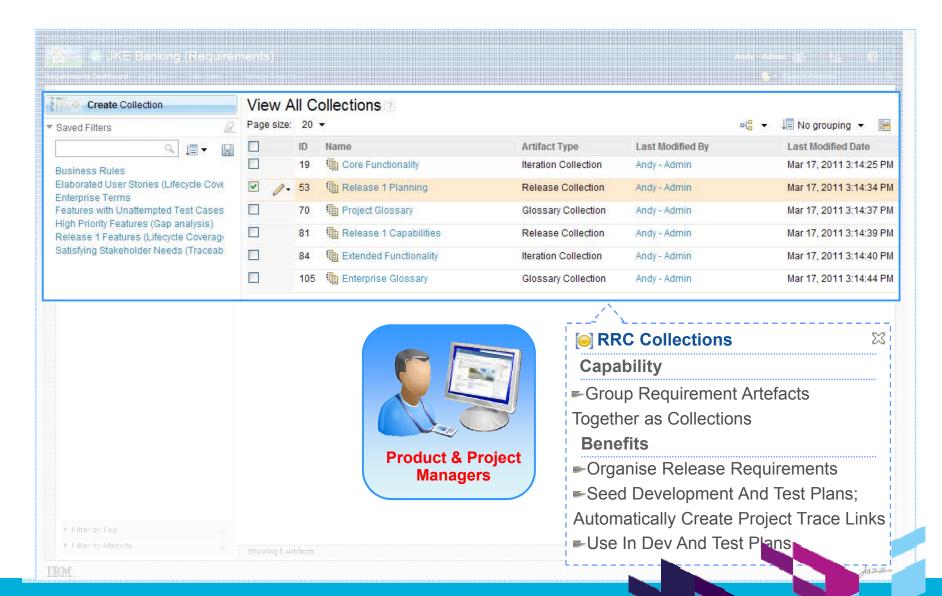


Audit Trail History (Analysis Tools)



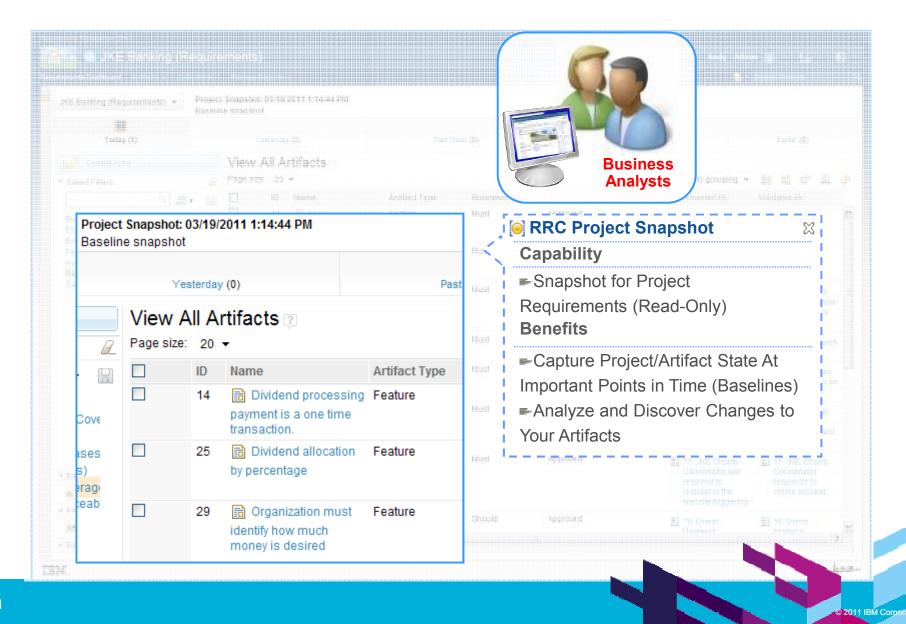


Collections



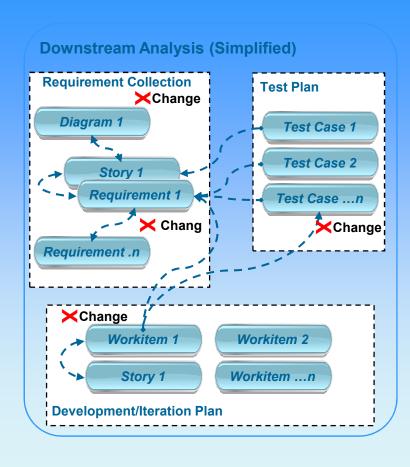


Project Snapshot





Analysis and Traceability Across the Lifecycle How change can impact across the lifecycle

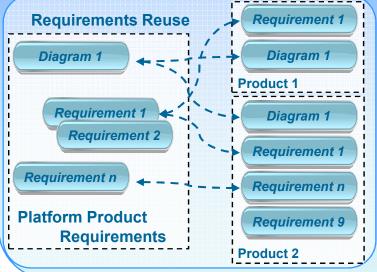


- **Development team members use** traceability to expose changes
 - From stakeholders requirements, test plans, and development workitems
 - Business or product requirement changes need to be reflected across the lifecycle quickly and efficiently
 - Testing impact, change, or reproductions need to be communicated to developers and business stakeholders
 - Development status, iteration progress, Technology changes, impact, or delay needs be communicated to all lifecycle disciplines



Reusing Requirements and Reporting on Project Status The Business Analyst, Product Managers, Development





6. Reuse Requirements and Critical Project Information

Parallel Requirements Reuse

- Product Managers and Team Leaders can identify key requirements that apply to multiple projects for reuse
- Reusing project information in parallel saves time, keeps common requirements consistent, and reduces the risk of errors between projects

7. Report and Discover Your Projects Status

Import, Export, and migration

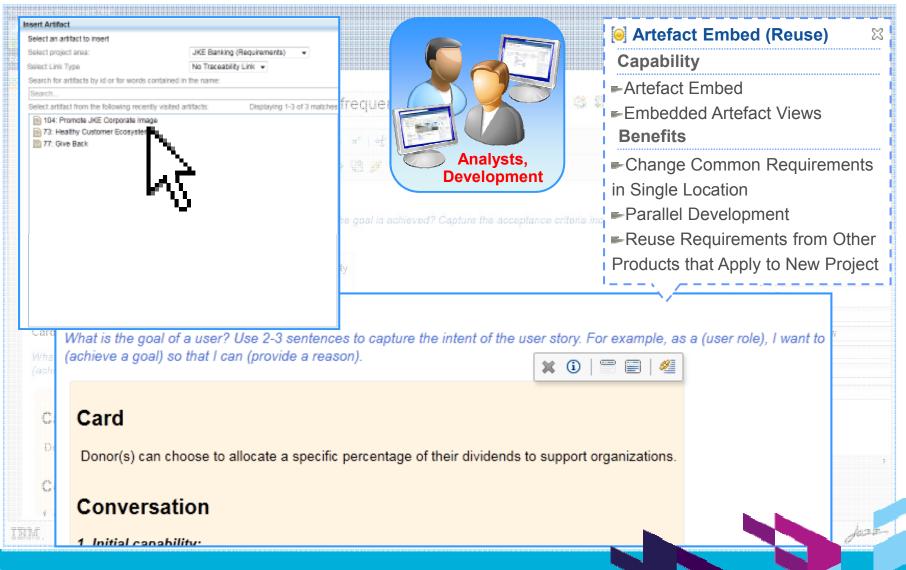
- Project members will take existing requirements documents, spreadsheets, and RegPro data and import them into the RM database
- Migrate requirements information into a centralized RDM tool

Reporting and Document Generation

- · Team leaders will want to deliver reports to senior managers or suppliers/collaborators using document generation facilities
- Provide high quality reports/documents for your requirements driven projects

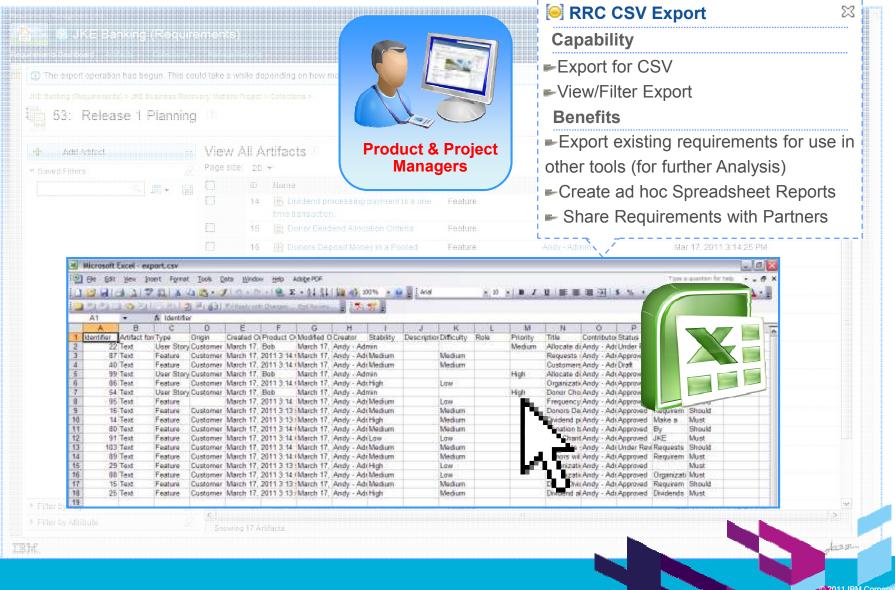


Embedded Artefacts (Requirements Reuse)



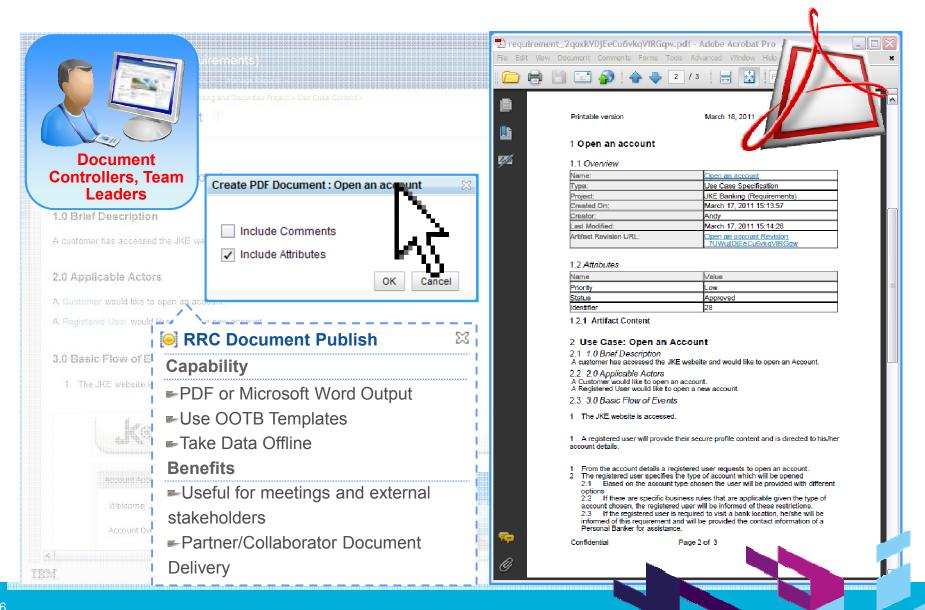


Export CSV (Spreadsheet)



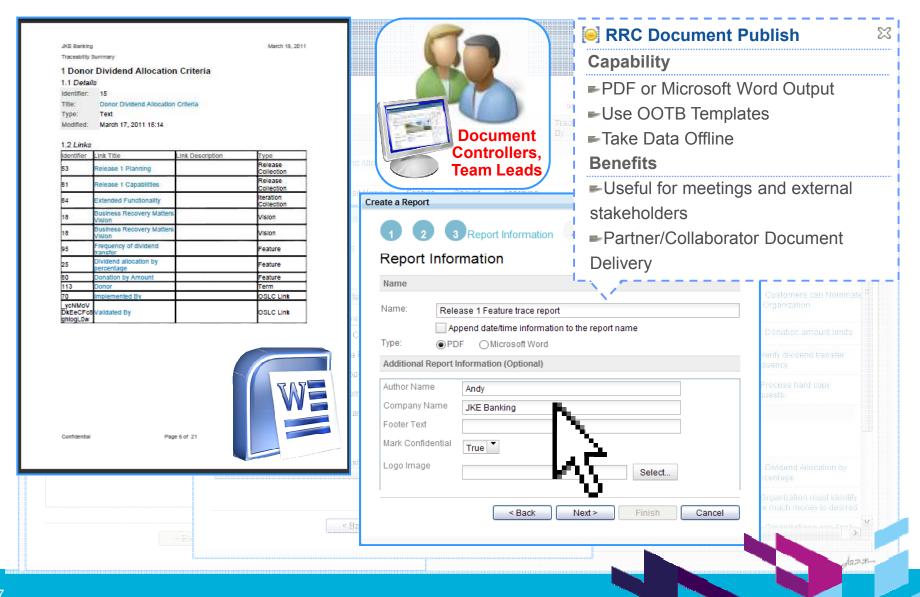


Publish Document (PDF)





Grid View Report (MS Word)



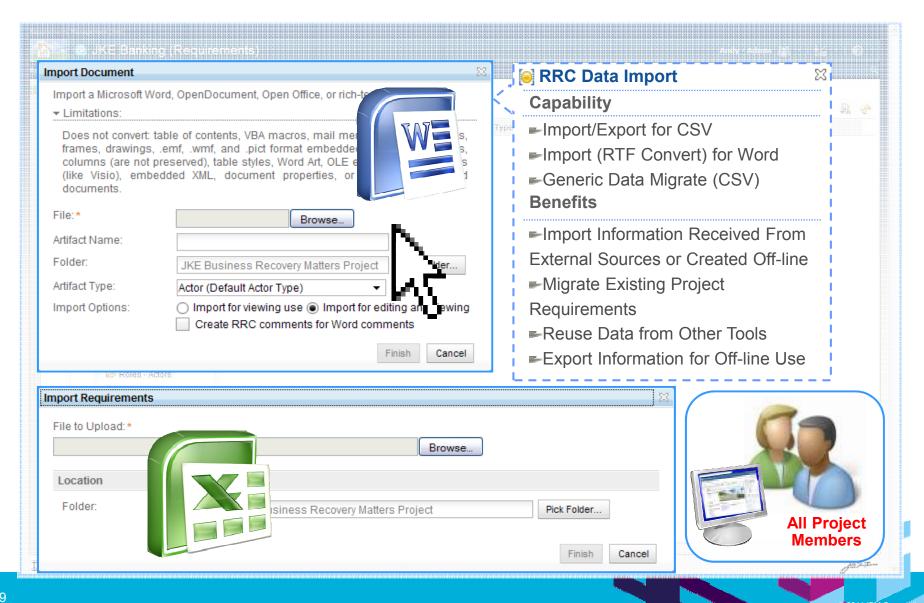


Data Warehouse and Web-based Metric Reports





Import Microsoft Word or CSV





Role-based Development Disciplines For Better Project Execution Business Analysts, Product Managers, Development, Testers

8. Connect to Extended Development (ALM)

 Team members in other project disciplines (testing, development, etc.) will consume, use, and author product information content

Business Analysts and Product Management

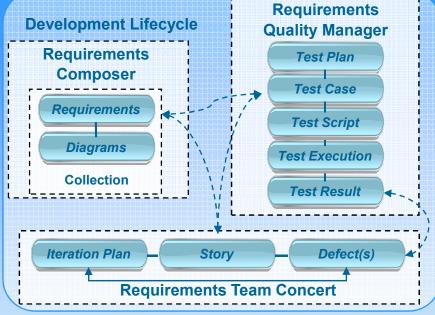
- Analysts define and validate scenarios; analyze and manage requirements for product releases
- Requirements can be traced to test and changes easily discovered to keep information valid

Developer, Dev Leads

- Developers see defect in their "To Do" list, and can link to detailed defect information.
- Developers create, prioritize and track work items according to business value

Quality Assurance, Testers

- Testers create test plans and report test results against requirements
- Testers captures test execution results and logs defect as a work-item.

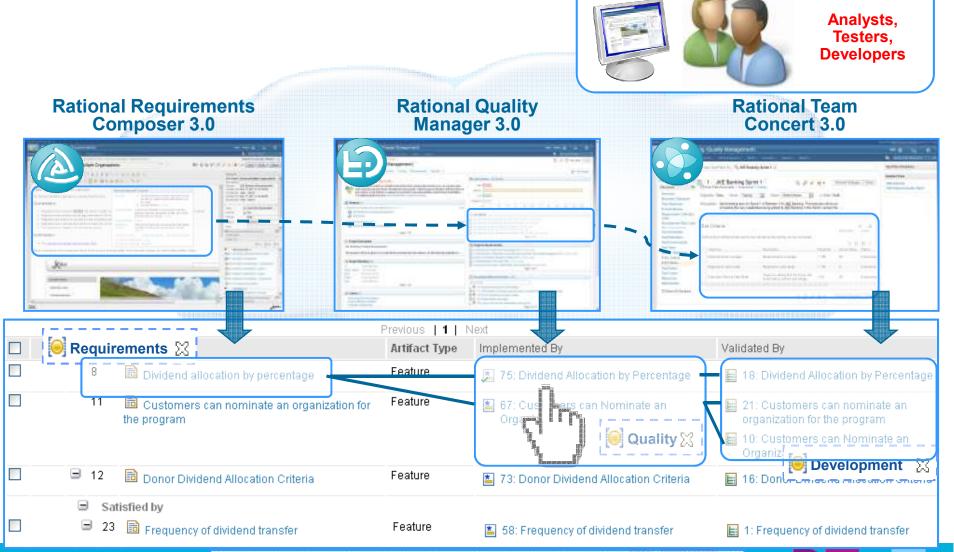






Working in a Development Lifecycle (CLM Today)

Requirements driven development across the lifecycle





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Improving Requirements Practice in Lifecycle Development Summary and Recap

Requirements Improvement Checklist (8 Steps):

- ✓ Project Management Look at how you are managing. your projects from a high level. Align processes, remove redundancy, ensure team members have cross project visibility where needed
- ✓ Data Quality What is the quality/type if of requirements and project data? Use Common templates, similar story and diagram methods, agreement on requirement syntax
- ▼Team Collaboration Is the development team able to collaborate and work together? Not working in isolation, cross review and apply knowledge to complete project
- ✓ Project Analysis What specific analysis report milestones drive your development process? Know key process questions (e.g. who owns data, cost?, release?)
- ▼ Traceability Can you analyze gaps in your development? Use traceability to see what downstream dependencies exist and what is missing. Use traceability to expose change across the lifecycle
- ✓ Data Reuse Are you able to reuse or are you recreating from scratch every time? Identify a development data model that allows you to reuse project information
- Report Can you report on key statuses and development steps? Know the level of information coverage or change, or traceability coverage, etc.

- How can you improve what you are doing today?
- Is there a another way to think about how you are developing and using your process?
- Don't force a square peg in a round hole...look for a better way





Next Steps Where to go now...

The following links will take you to the next step... ...for more product information and tool demonstrations



- https://jazz.net/projects/rational-requirements-composer/
- Requirements Composer Release Plan
 - http://jazz.net/projects/rational-requirements-composer/release-plan/
- ■Rational Requirements Composer Beta Download (Latest Milestone RC3)
- ■Rational Requirements Composer 3.0 M9 (Beta 2a) Includes RegPro Migration Utility
- Requirements Composer A Big Step Forward

IBM Rational provides an integrated software platform dedicated to helping companies develop and deliver smarter products















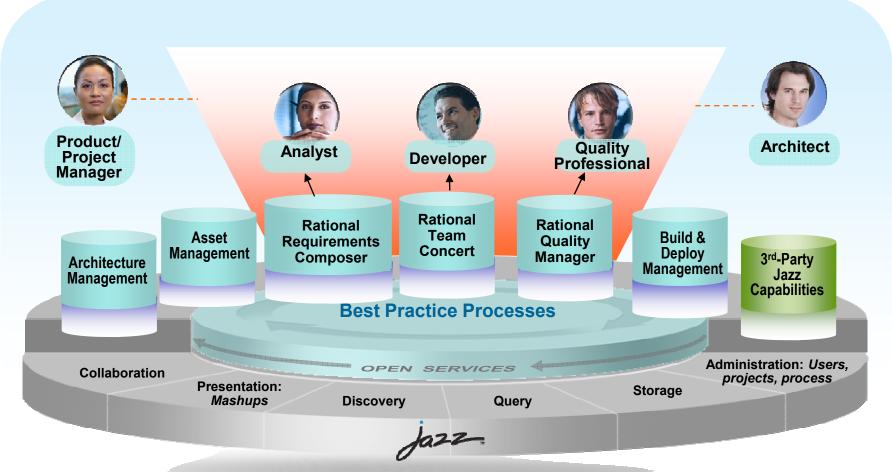
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Collaborative Application Lifecycle Management

Extending the value of the IBM Rational Requirements solution

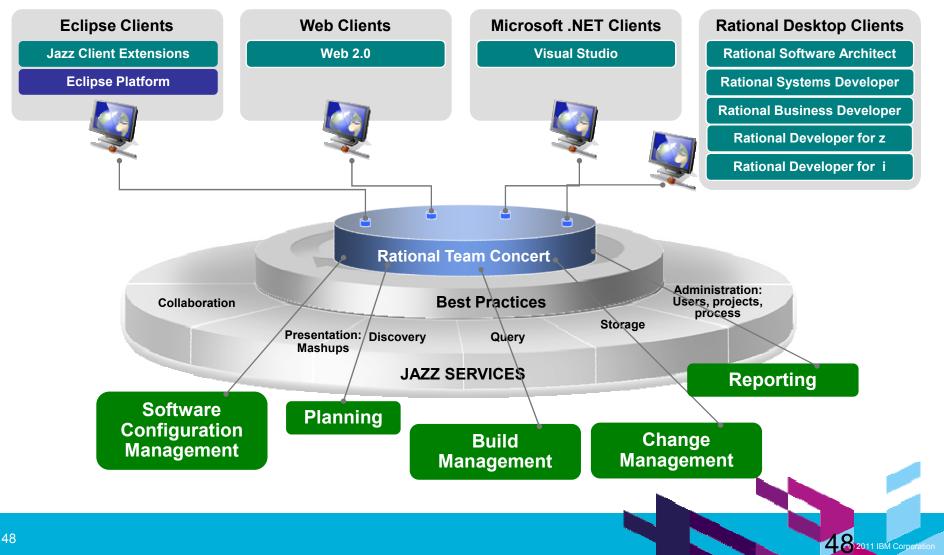


Robust extensible solution for the entire extended development team



IBM Rational Team Concert

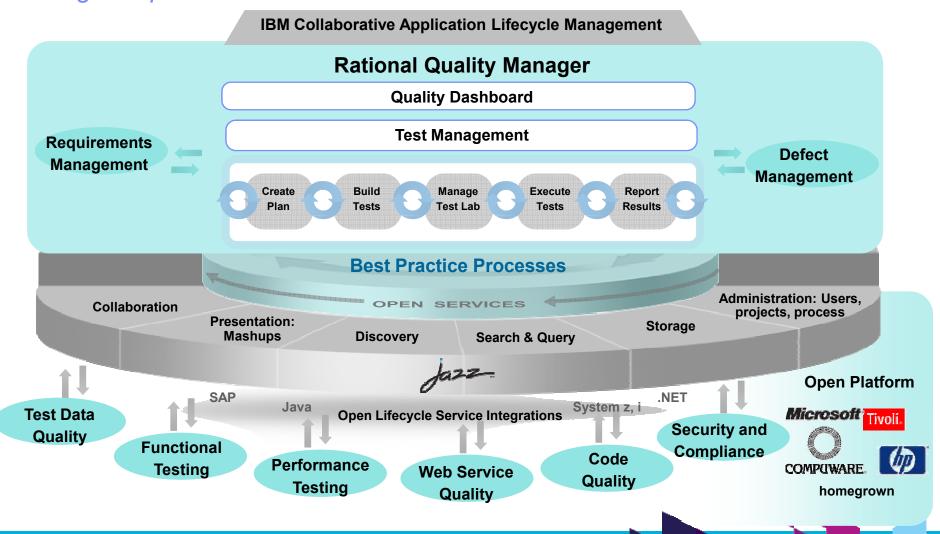
Providing core development capabilities supporting a broad range of desktop clients, IDE's, & languages





IBM Rational Quality Manager

Centralized test management hub and full lifecycle support across all types of testing and platforms





What Does Requirements Composer 3.0 Deliver?

Requirements Management for the Development Lifecycle

Definition

- **Rich-text Documents**
- **Process Diagrams**
- **External Content**
- **Use Case Diagrams**
- Storyboards, UI Sketching & Flow
- **Project Glossary**

Planning

- Integrated Planning
- Effort Estimation & progress tracking
- **Metrics & Document** Reports
- Templates Library (Formal or Agile)

Collaboration

- Review
- **Approval Process**
- Discussions
- **Email Notification**

Management

- **Project Structure**
- Lifecycle Traceability
- Filtering & Sorting
- Change History
- **Tagging**
- Baselines/Snapshots
- Requirement Reuse
- Attributes & Types

Lifecycle

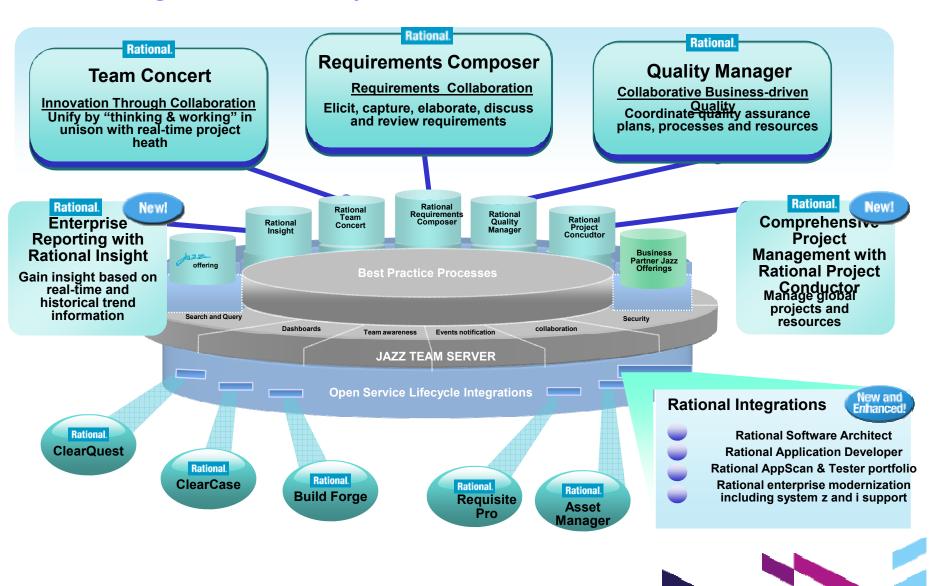
- Central repository for requirement, test, & development
- Common User Administration
- Warehouse Reporting
- Role-based License

Visibility

- Customizable User
- **Dashboards**
- **Analysis Views**
- Collections
- Project milestone
- Tracking & Status



Jazz offerings available today from Rational





RRC Strategic Release Highlights

What is fundamentally different with RRC now?

Product Capability

- Provide essential requirements management functionality, recognized as primary reason for buying/deploying a requirements tool
- Significant improvements in accessibility, traceability and down steam analysis, reporting, query and analysis
- Web only solution for easier deployment and better **CLM** integration solution

Pricing and Packaging

- Remove server licensing to (aligning with CLM)
- Align with CLM licensing and providing CLM capabilities
- Trade up to RRC from RegPro available

Positioning

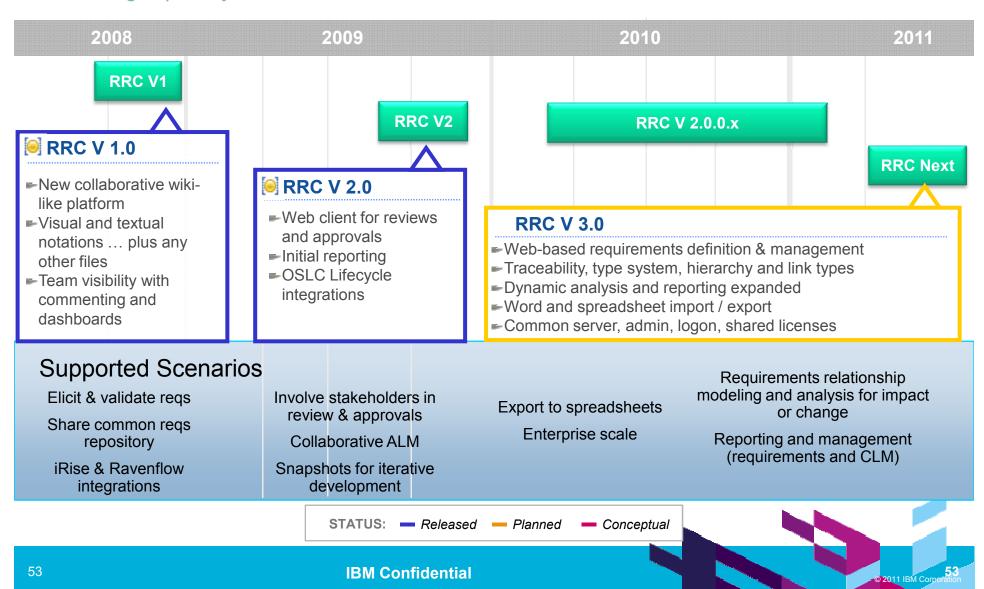
- RRM/DOORS RP was decided and announced as RRC (RRC would not have any changes)
- RRC now positioned as a migration model from RegPro (not integration)
- RRC now a complete requirements definition and management solution
- Essential part of the CLM solution





How has Requirements Composer Evolved?

Increasing capability and value

















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