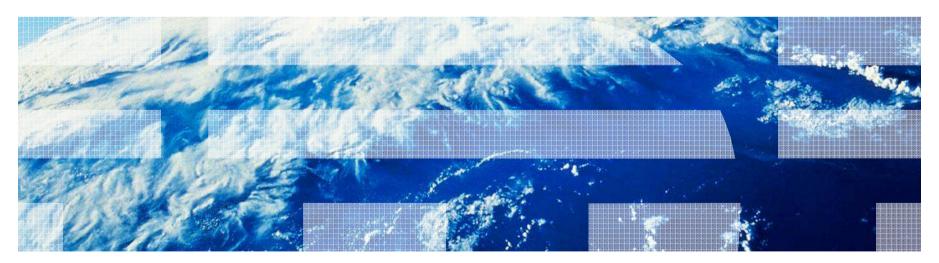


# COMMON Suisse Romande, 13 Mars 2012

# Collaborative Lifecycle Management

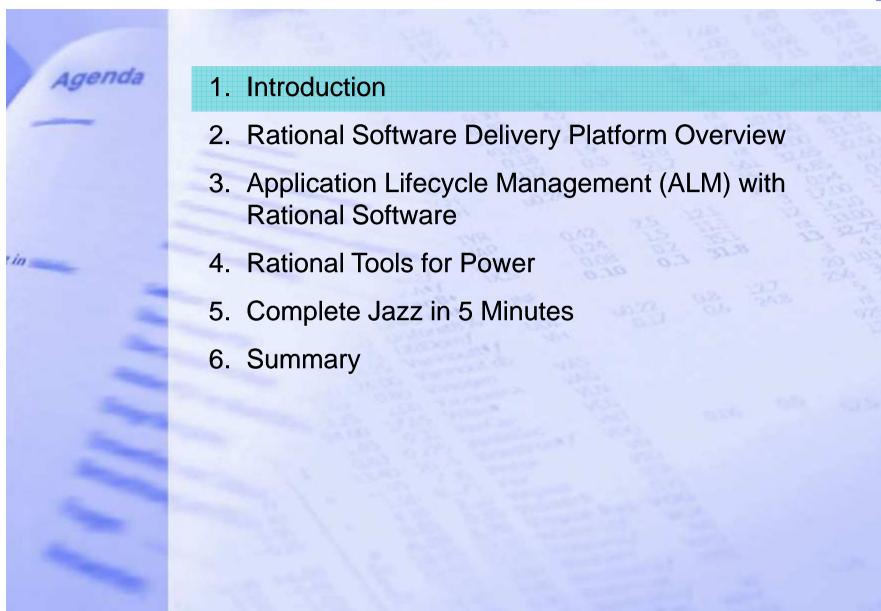
Niklaus Hirt, IBM Suisse,

nikh@ch.ibm.com +41 79 948 72 46



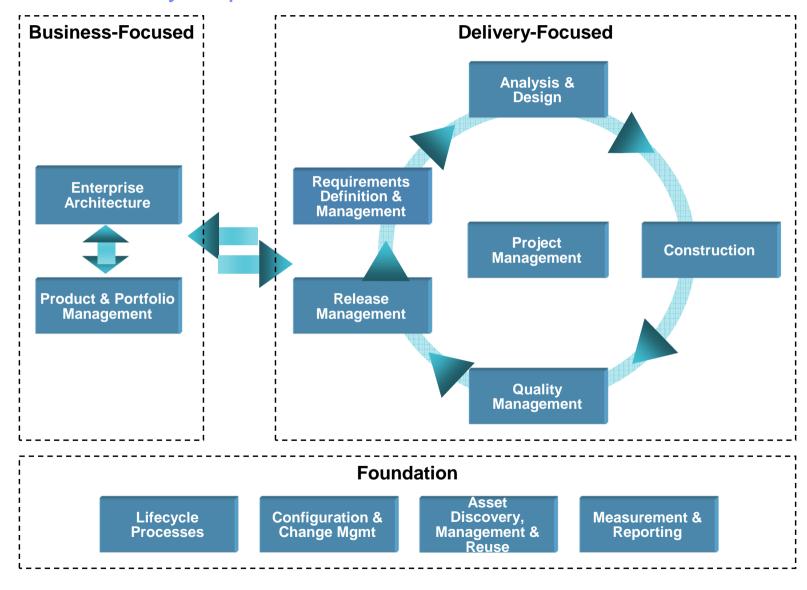








## **Software Delivery Capabilities**





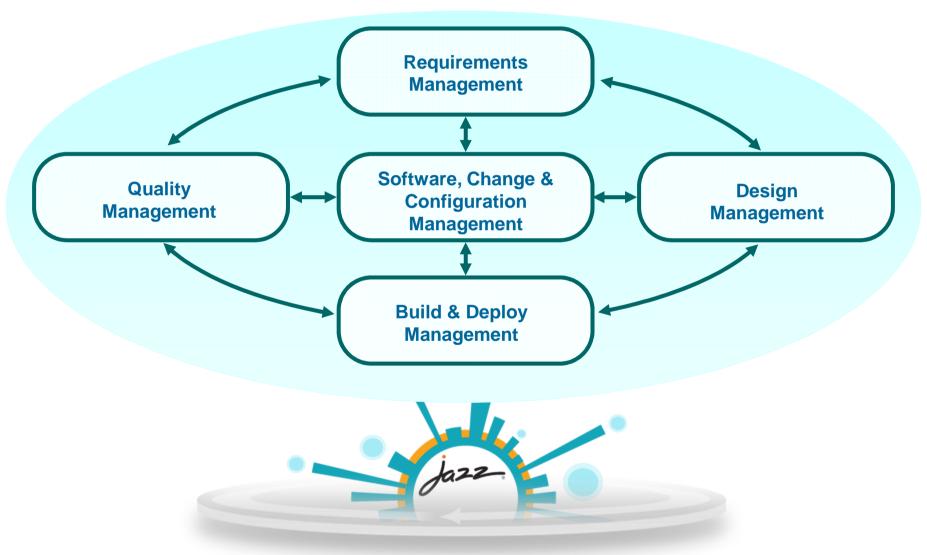


- 1. Introduction
- 2. Rational Software Delivery Platform Overview
- 3. Application Lifecycle Management (ALM) with Rational Software
- 4. Rational Tools for Power
- 5. Complete Jazz in 5 Minutes
- 6. Summary



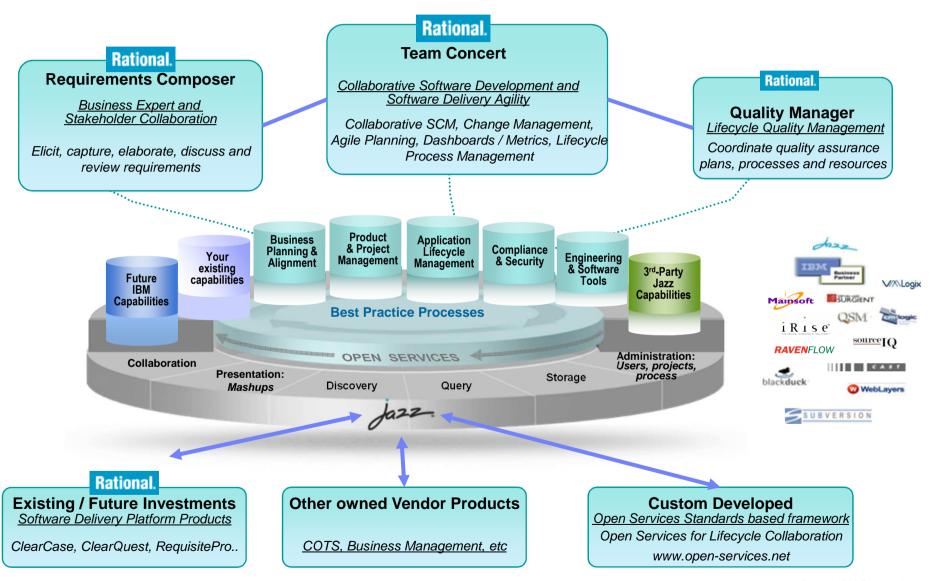
## Rational Application Lifecycle Management (ALM)

## Modular, open and extensible

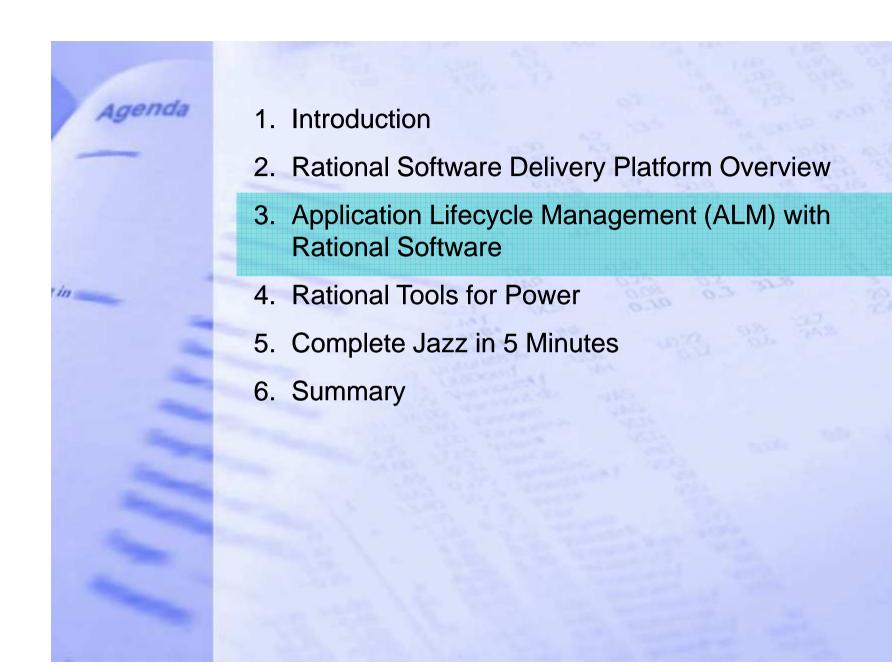




#### Enable ALM across your organization

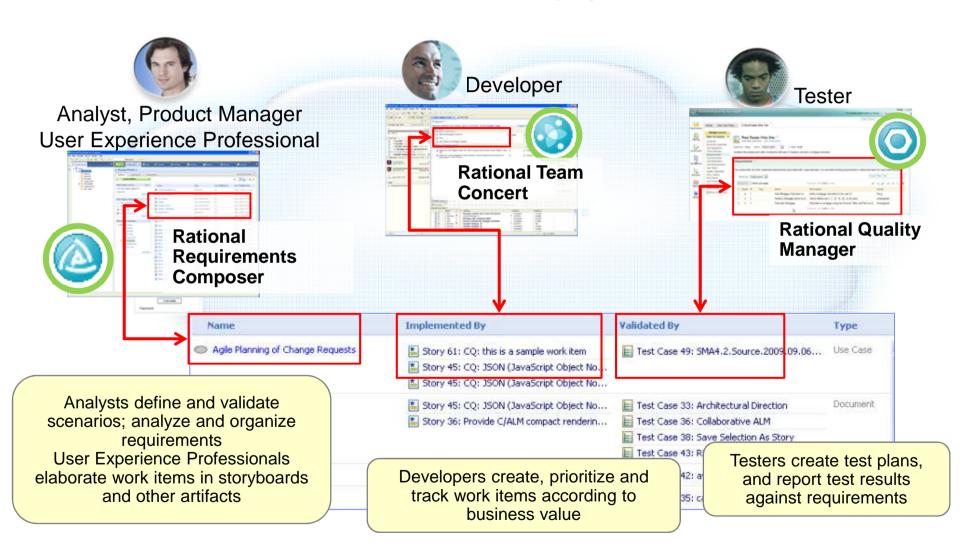








# Align development and test activities Break down role-based information silos for better project execution





### Rational Requirements Definition And Management

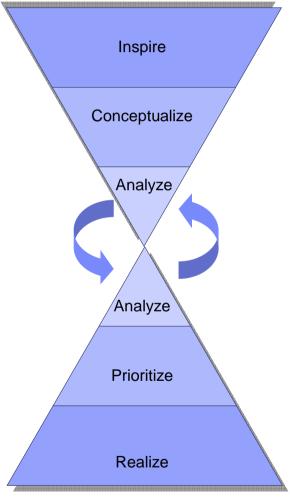
# Our vision for Requirements Definition and Management (RDM)

Foster focused, natural, real-time, contextual collaboration using various techniques and artifact types

#### Enable:

- improved requirements definition, validation and management of requirements change through the software development lifecycle
- more and clearer communication among business stakeholders & IT delivery teams wherever they are located
- less project rework, faster project execution and lower-cost delivery

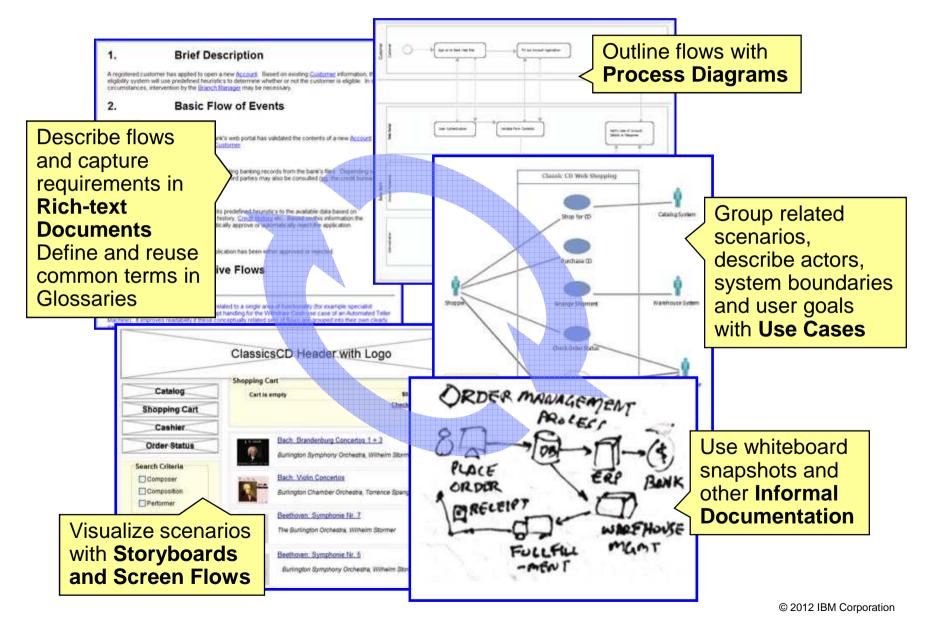
#### Requirements Definition



Requirements Management

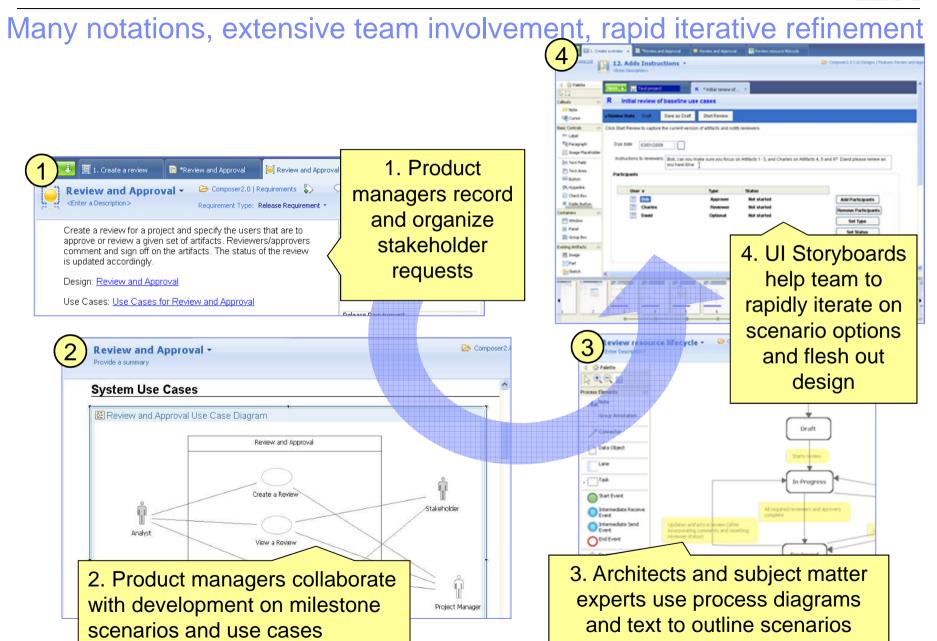


#### Use scenarios to uncover customer needs





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#### Rational Team Concert: A closer look

#### **Iteration Planning**

- Integrated iteration planning and execution
- Task estimation linked to key milestones
- Out of the box agile process templates

#### **Project Transparency**

- Customizable web based dashboards
- Real time metrics and reports
- Project milestone tracking and status

#### **SCM**

- Integrated stream management
- Component level baselines
- Server-based sandboxes
- Parallel development
- ClearCase connector

#### Work Items

- Defects, enhancements and conversations
- View and share query results
- Support for approvals and discussions
- Query editor interface
- ClearQuest connector

#### Build

- vvork item and change set traceability
- Build definitions for team and private builds
- Local or remote build servers
- Supports Ant and command line tools
- Integration with Build Forge

#### Jazz Team Server

- Single structure for project related artifacts
- World-class team on-boarding / off-boarding including team membership, sub-teams and project inheritance
- Role-based operational control for flexible definition of process and capabilities

- Team advisor for defining / refining "rules" and enabling continuous improvement
- Process enactment and enforcement
- In-context collaboration enables team members to communicate in context of their work



#### **Iteration Planning** Understand how well you are progressing against - -UWS Temperature Conversion M1 Plan [1.0 M1] your targets in real-time UWS Temperature Conversion M1 Plan > Team Area: UWS Temperature Conversion Team | Iteration: 1.0 M1 (12/1/07 - 6/20/08) | 5 Closed | 9 Open April Blues Group by Progress: 1 / 17 | -15 h Estimated: 100% Closed items: 1 | Open items: 1 × Owner UWS Create the temperature conversion CLI package 1 2 days Unassigned Sort By Derek Holt Progress: 0 / 8 | -7 h Estimated: 100% Closed items: 0 | Open items: 2 Priority V **UWS Define permissions** (1) 4 hours Unassigned 5 Bars Jerry Jazz Progress: 0 / 4 | -3 h Estimated: 100% V Progress Closed items: 1 | Open items: 1 UWS Define team members Unassigned 4 hours Exclude Zach Builder Future and past items Progress: 25 / 37 | -10 h Closed items: 2 | Open items: 2 Resolved items UWS Create the core temperature conversion package 1 day Unassigned More Filters... UWS Define iterations/milestones 4 hours Unassigned Tags... Zara Intern Progress: 0 / 17 | -16 h Estimated: 100% Closed items: 0 | Open items: 2 Related Work Items UWS Add JavaDoc to core temperature conversion JUnit tests 1 hour Unassigned Show Backlog UWS Create the core temperature conversion package JUnit tests 1 2 days Unassigned Plan and execute Progress: 8 / 9 h Estima iterations while Expose fur public get method to core temperature conversion code High 1 hour managing team and Drag-and-drop work individual load items to change owners/create child Overview Pla parent relationships



# IBM Rational Quality Manager Jazz centralized test management





#### Requirements driven testing Knowing what to test



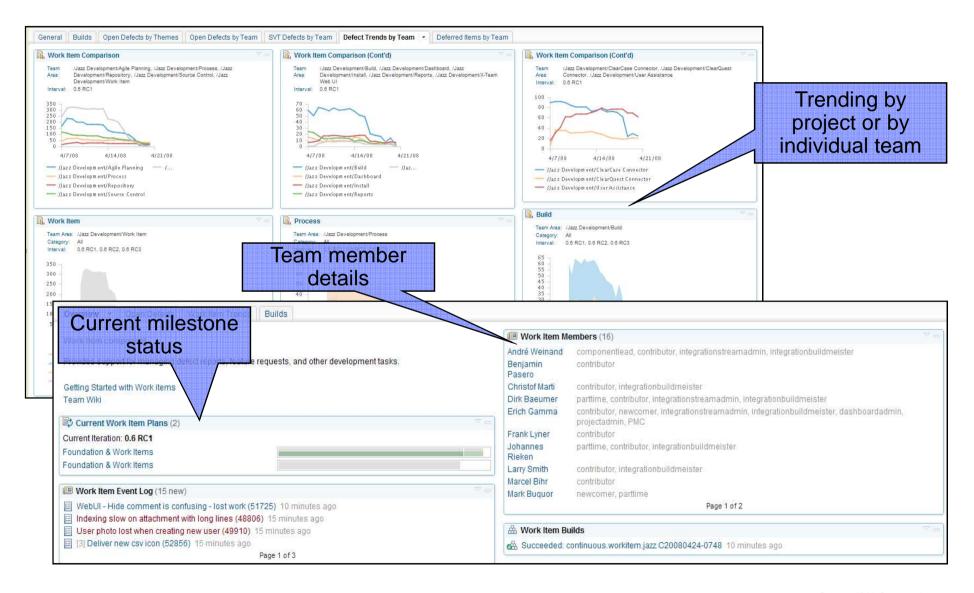
- Requirements tracking built into the test management tooling
- Customizable attributes enable you to track what is important to your team

- Real-time impact analysis of requirements changes
- Traceability of test results to user needs

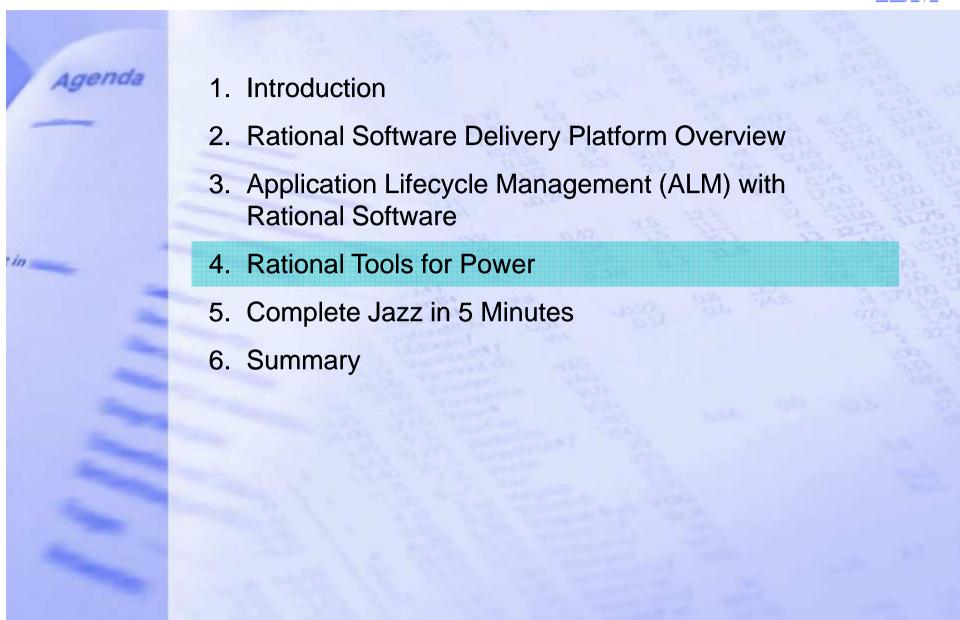
Know you are testing the right things



## Dashboards and reporting









### IBM Rational solutions for Power Systems

#### **IBM Rational Developer for Power Systems Software**

Common developer desktop delivering integrated **developer tools** for Power operating systems and programming languages.



#### **IBM Rational Compilers**

New **compilers** exploit Power Systems including the latest POWER7 architecture and multi-core technology, boosting performance, productivity and portability.



#### **IBM Rational Team Concert for Power Systems Software**

Common server infrastructure enables **collaborative coordination** for multi-platform development teams.

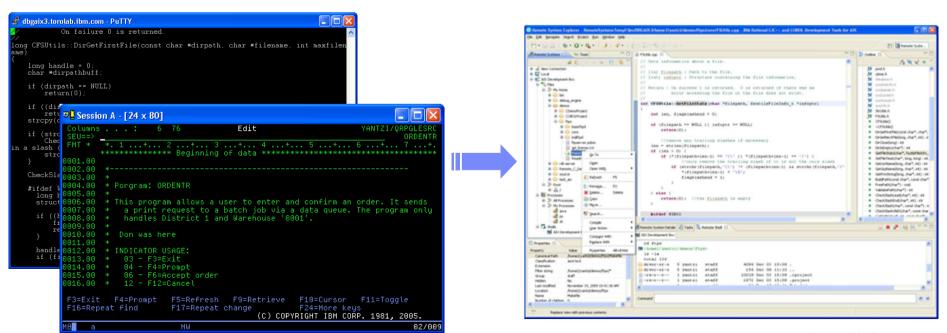


Learn more: www.ibm.com/software/rational/announce/power/



## Rational Developer for Power Systems Software

- Rational Developer for Power Systems Software
  - Modern, Eclipse-based, development tools for IBM Power Systems
    - Visual editors, outline views, content assist, integrated language help
  - <u>Integrated</u> file management, search, edit, compile/build, and debug capabilities
  - Analysis tools (application diagram, call hierarchies, type hierarchies)
  - Common development environment across multiple hardware platforms and languages
  - Integration with Rational Team Concert





# Rational Developer for Power Systems Software

Integrated tools for Power operating systems and programming languages

Empower
People

- Remote development environment supporting edit, compile, and debug of native AIX, Linux and IBM i applications on Power Systems, from a local Windows or Linux workstation
- One integrated solution supporting multiple environments \*
  - C/C++ and COBOL on AIX
  - ▶ RPG, COBOL, CL, C/C++, DDS on IBM i
  - Java on AIX and IBM i
  - ▶ C/C++ on Linux
- It also allows organizations to attract and retain new talent, many of whom are already familiar with the Eclipse workbench
- Lower development and application maintenance costs – do more with less!



Creating projects and files was easy as I had a prior knowledge on the Eclipse-based tools. COBOL edit features made the application programming easier and reduced the developer's work effort"

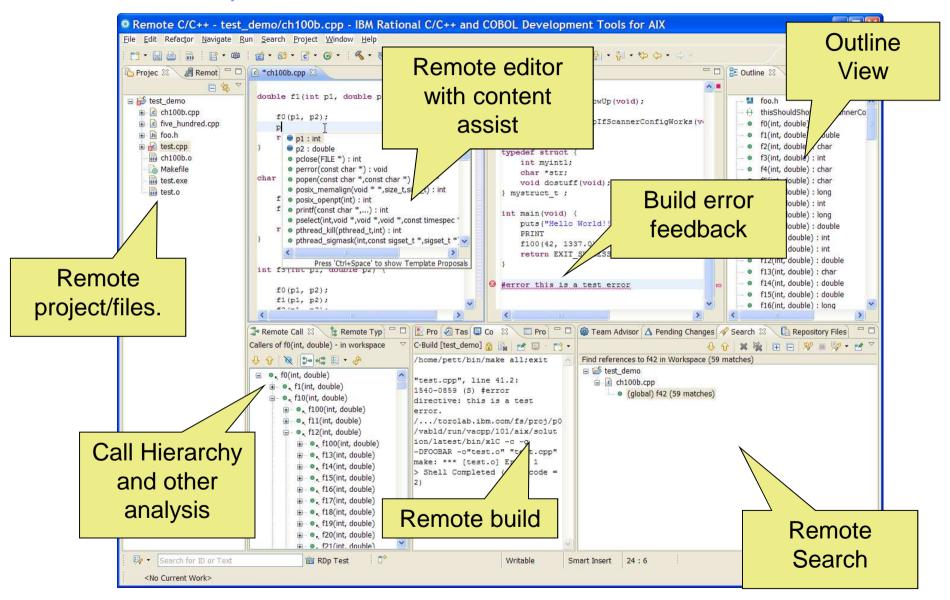
Major AP IT Development Company

Asia

<sup>\*</sup> For EGL development use Rational Business Developer or RDi SOA



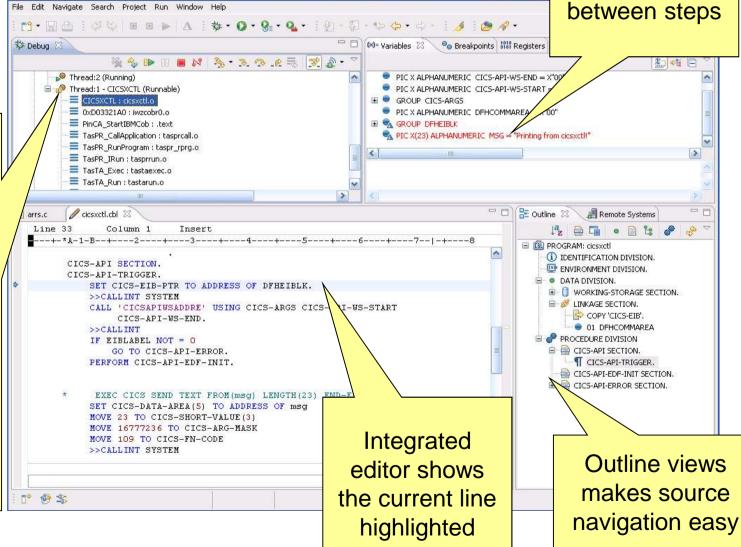
#### Remote Development Features of RD Power





## **Debugging Power Applications**

Debug view shows the process, its threads, and their stacks. You can look back up the stack just by choosing a stack frame.



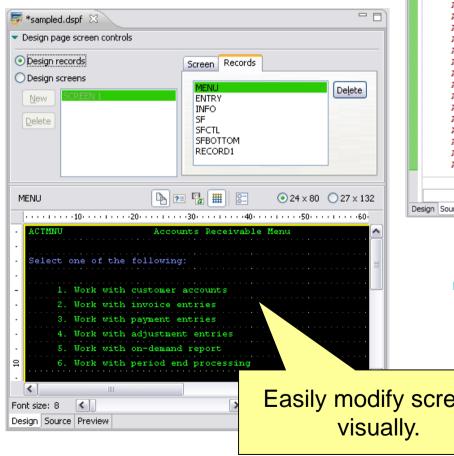
Debug - RemoteSystemsTempFiles/SWGC6/home/rdptest/cics/cicsxctl.cbl - IBM Rational C/C++ and COBOL Development Tools for AD

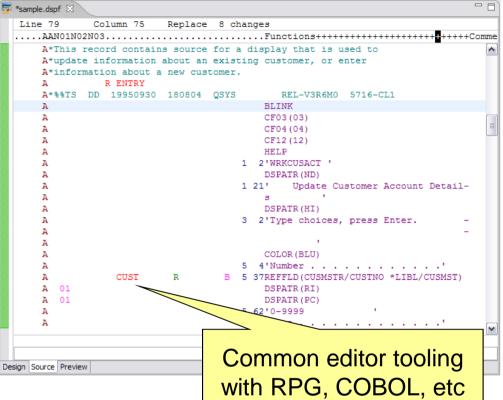
Variables view shows changes between steps



## The Screen Designer

Modify source code both graphically and textually in one editor





Real-time updating of source and all other views when any change is made in any view

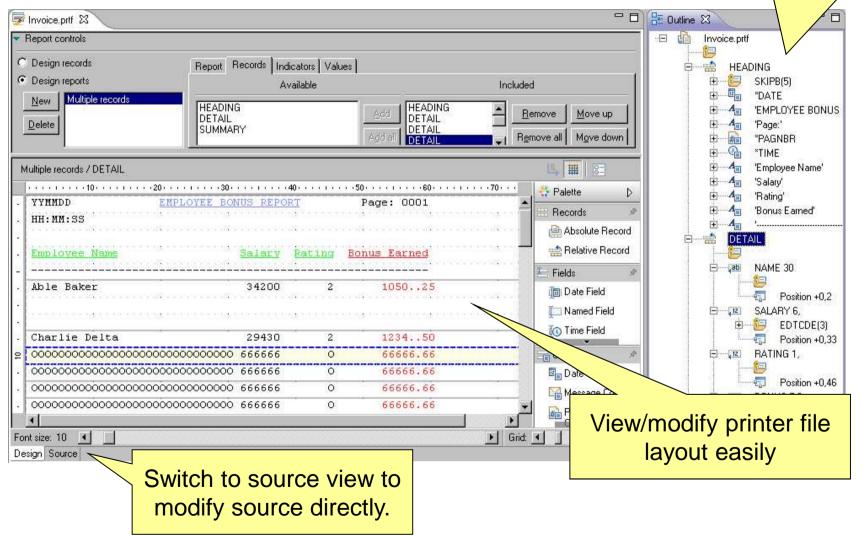
Easily modify screens



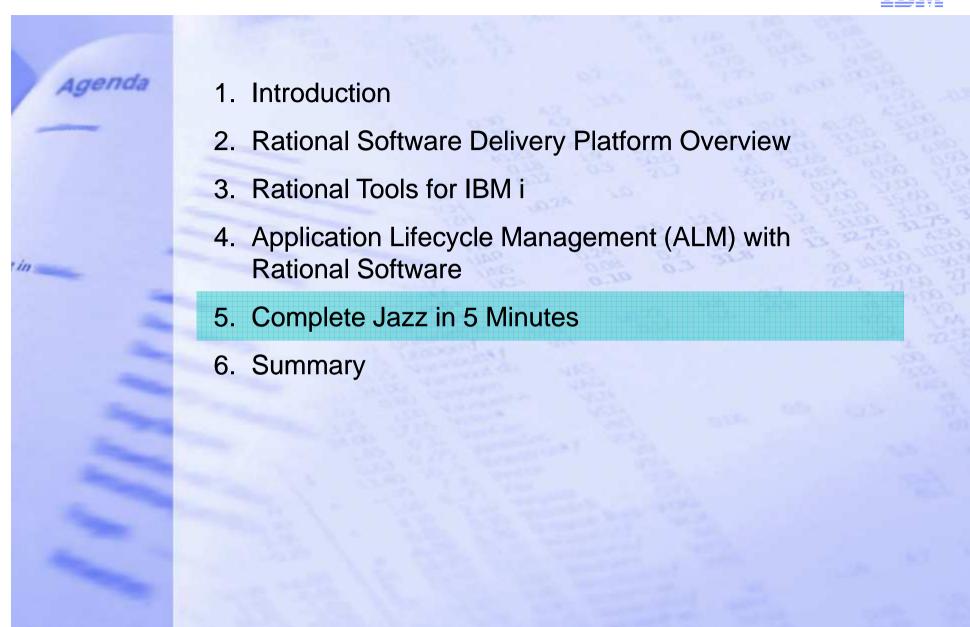
## The Report Designer

Understand the printer source easily in one view

Easily define/modify externally defined printer f

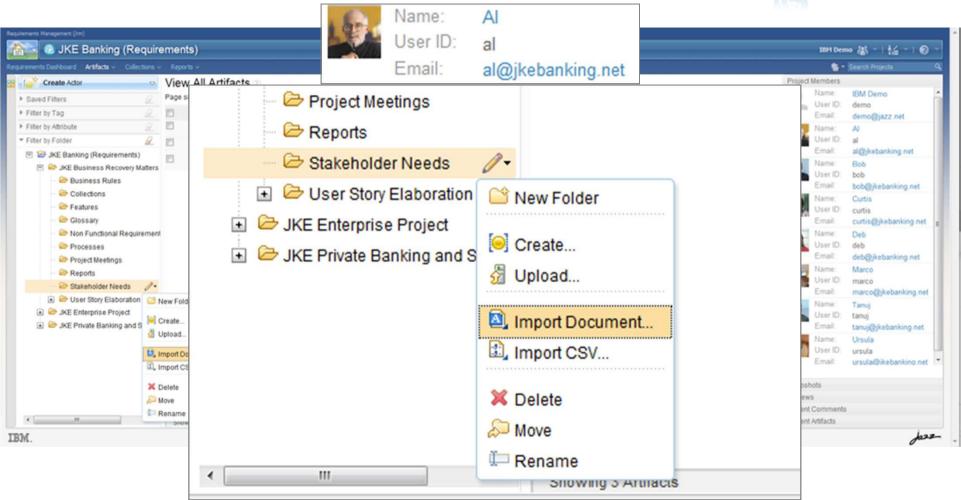






## Import Stakeholder Specifications Document

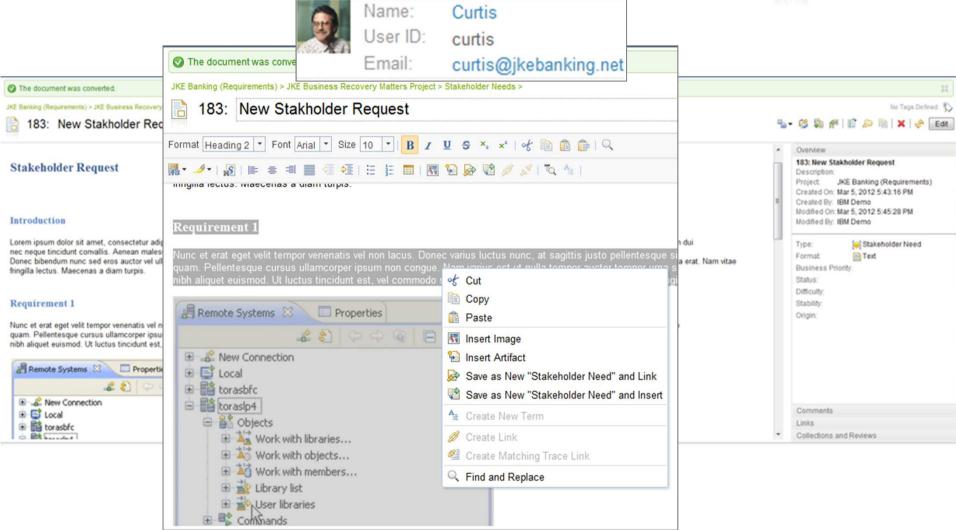






### Create Requirements from Document

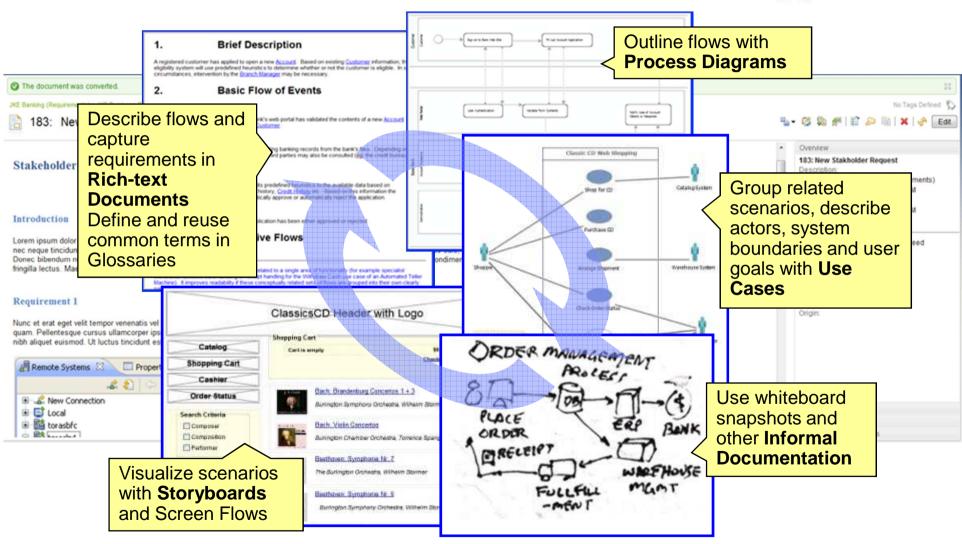




Requirements

### Create Requirements from Document

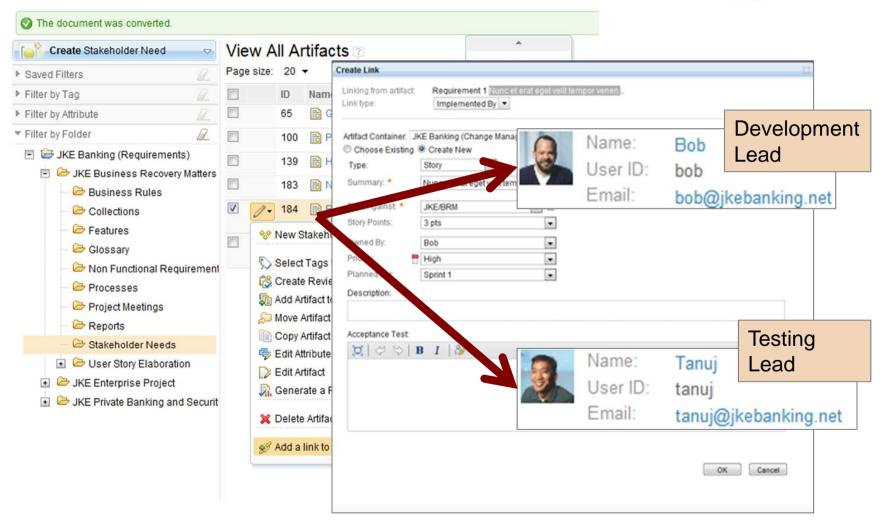




### Assign Implementation and Test Workitems

Requirements





Requirements

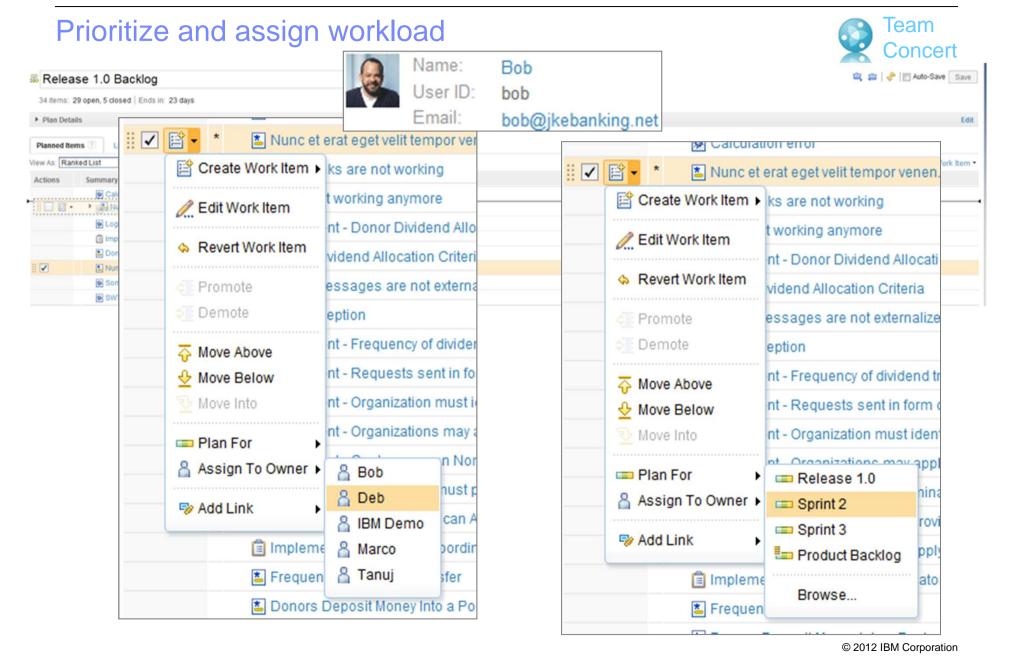
Planning

Implementation

Test

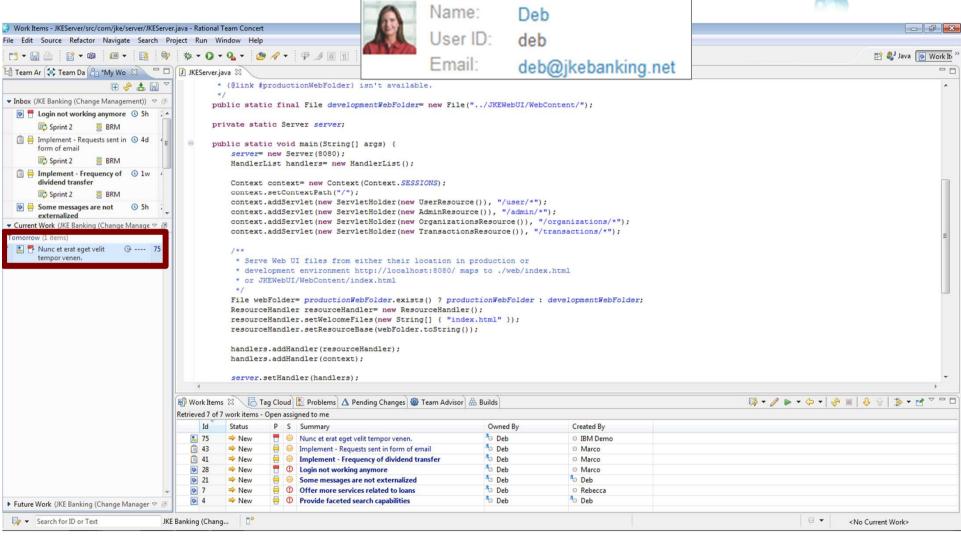
Defect





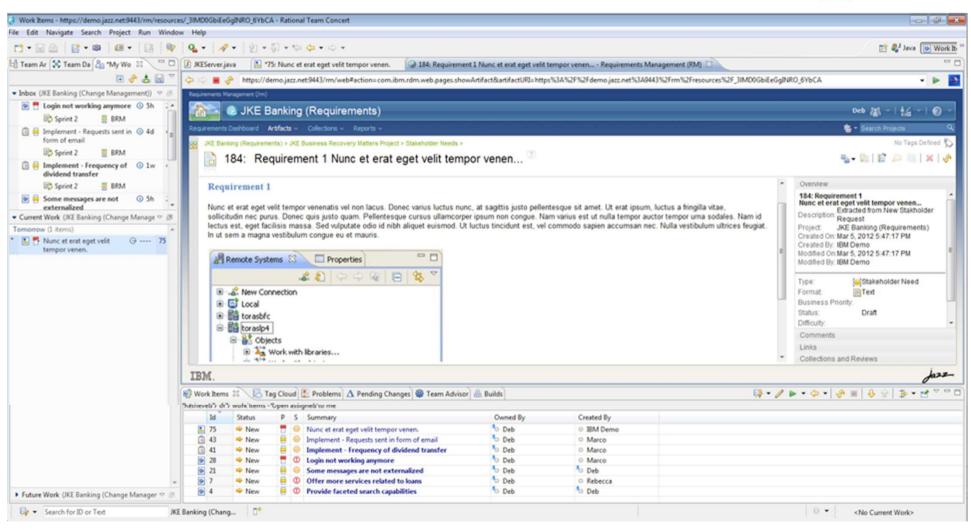
## Pushed directly to the developers





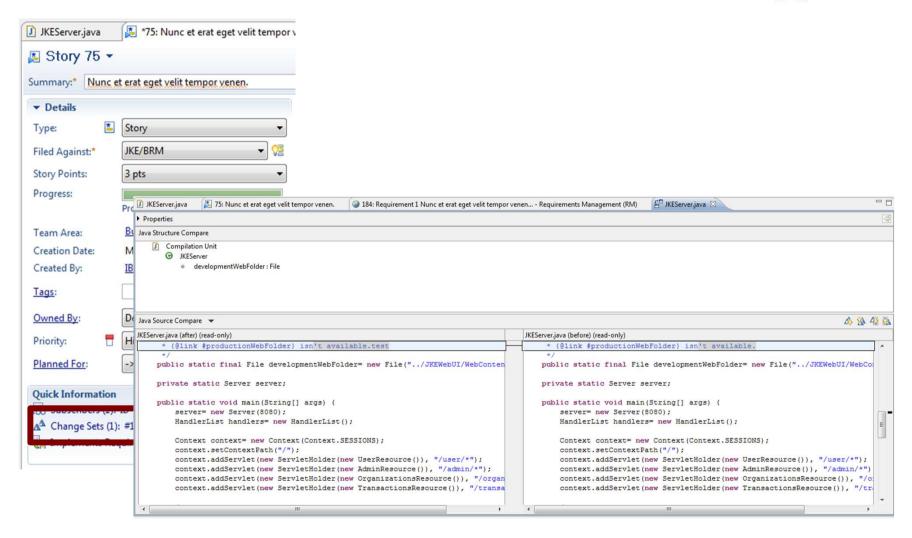
#### Pushed directly to the developers



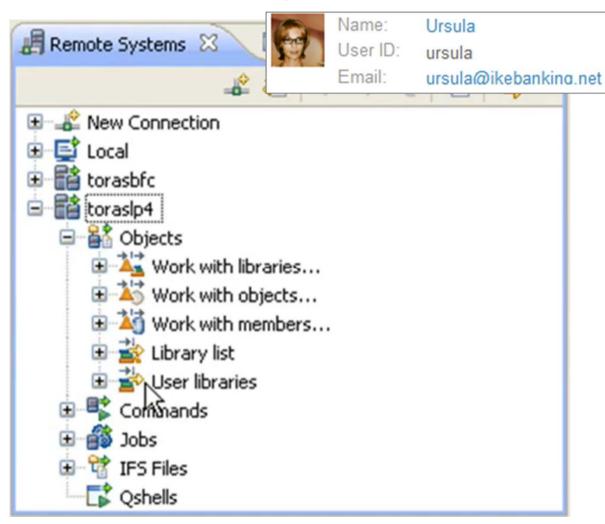


### Up- and Downward traceability for code changes





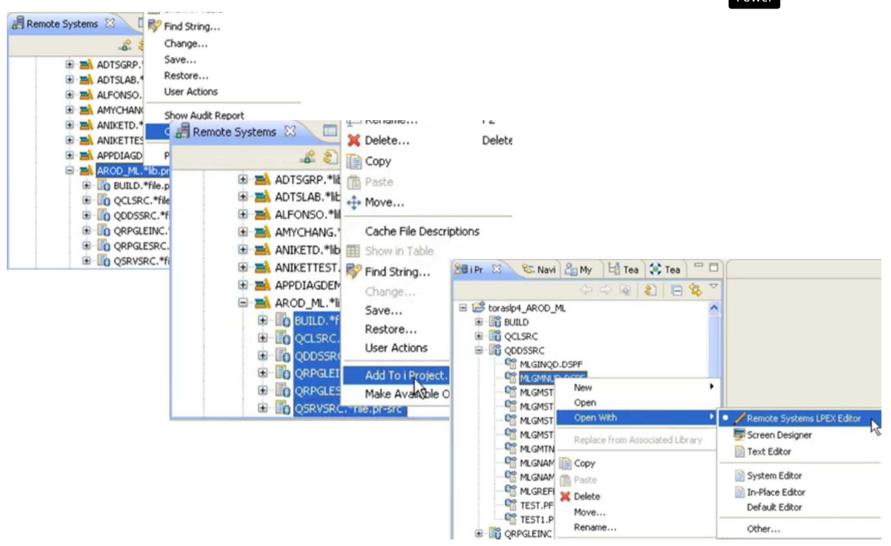
## Connect to a remote System





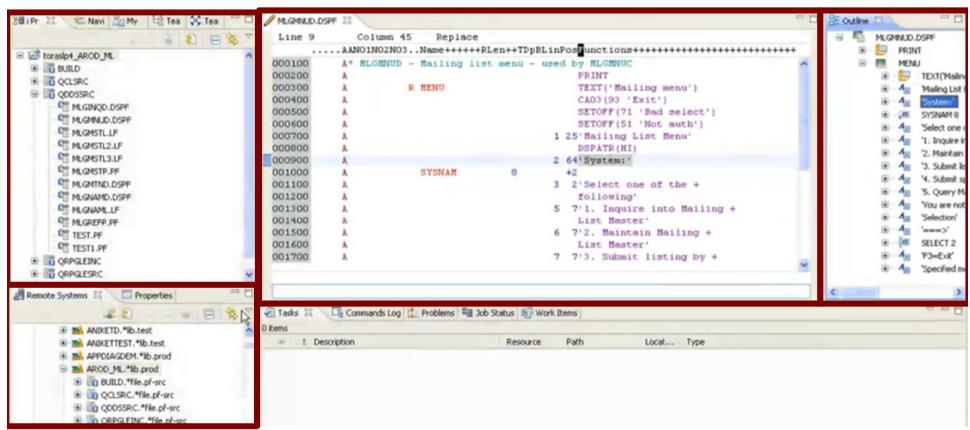
## Create an iProject



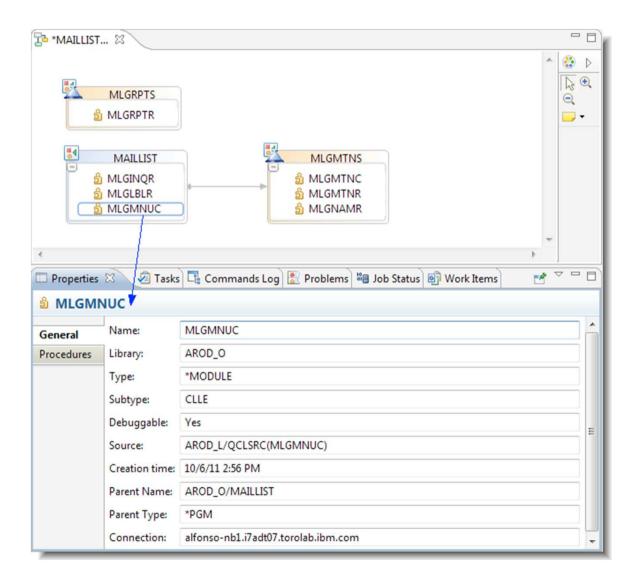


#### Rational Developer for Power



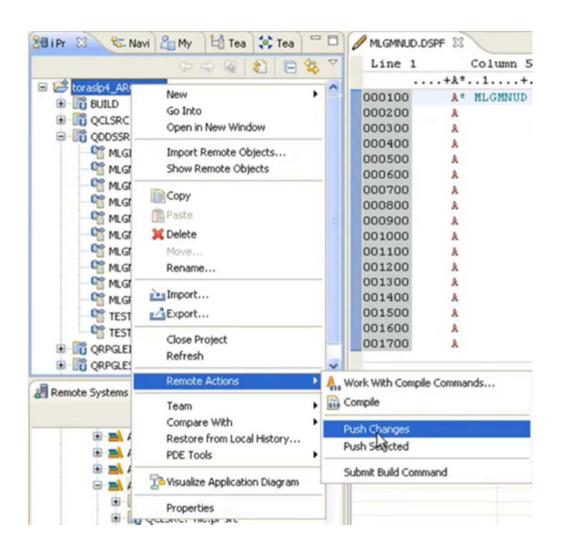


## Rational Developer for Power

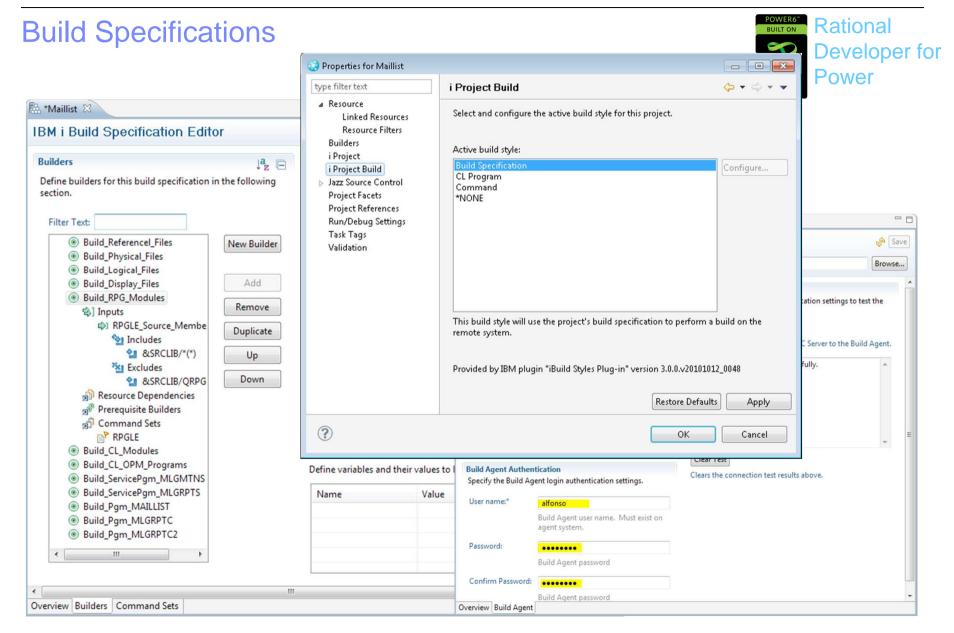




## **Publish Changes**

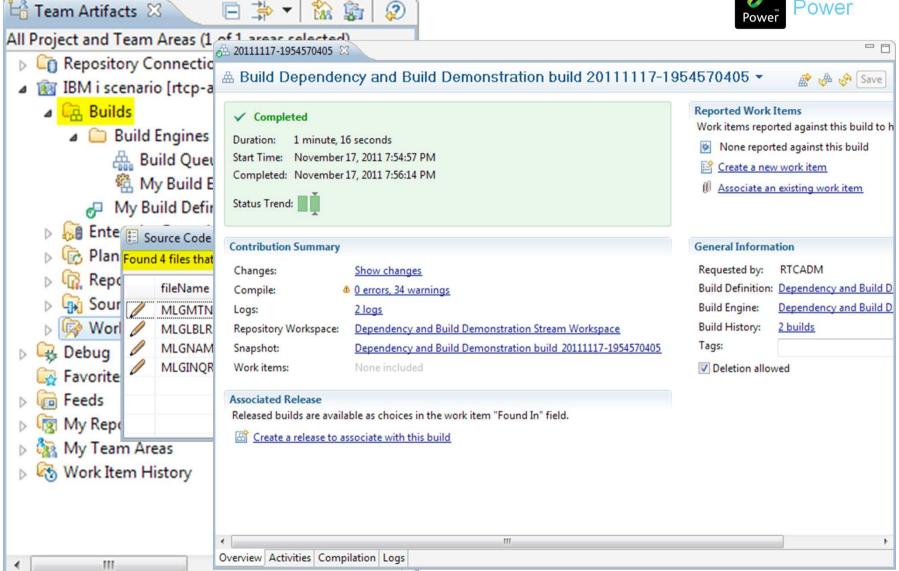






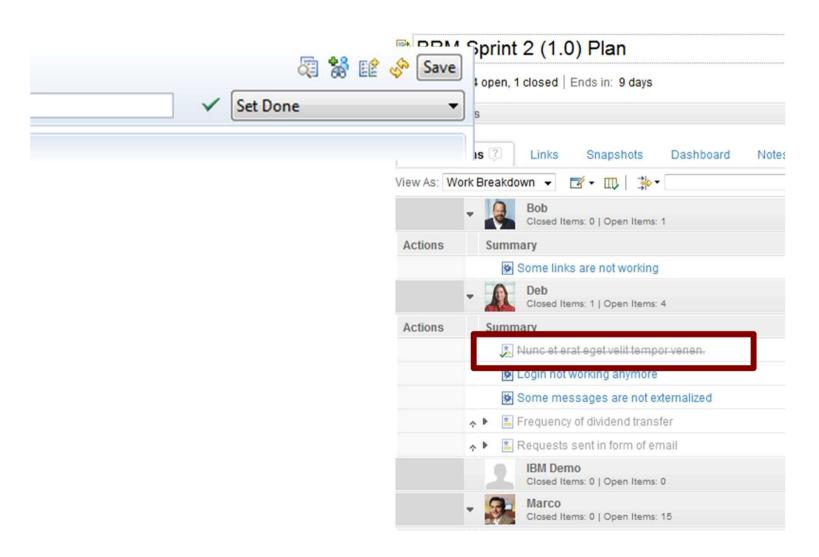
### **Build Information**





## Close the Implementation Workitem

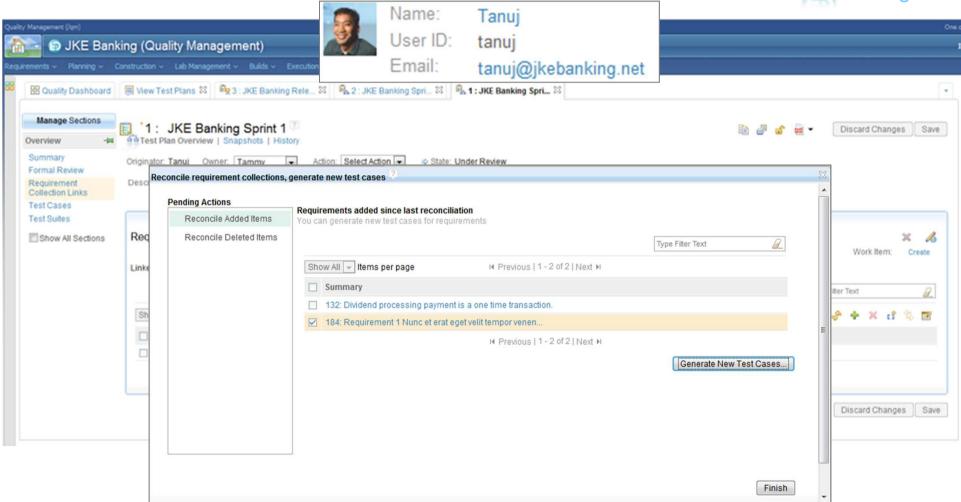






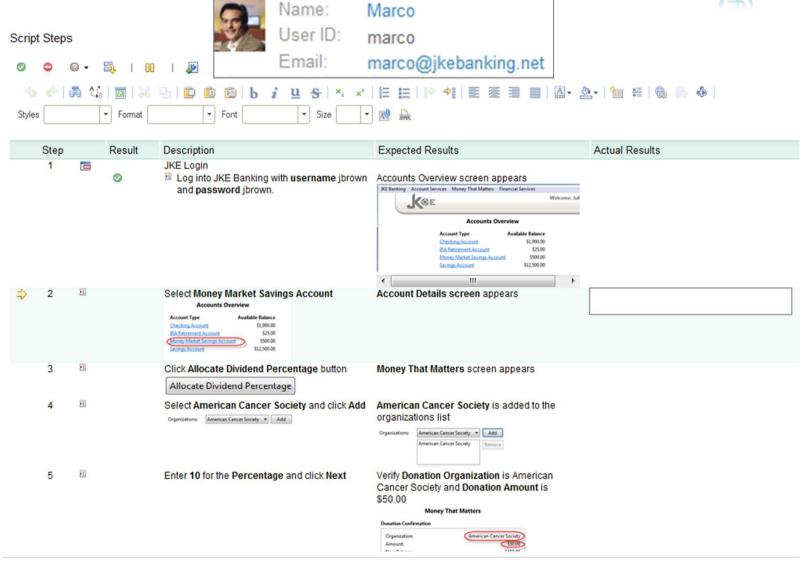
# Synchronize Test Cases with Requirements





#### Cerate the Tests

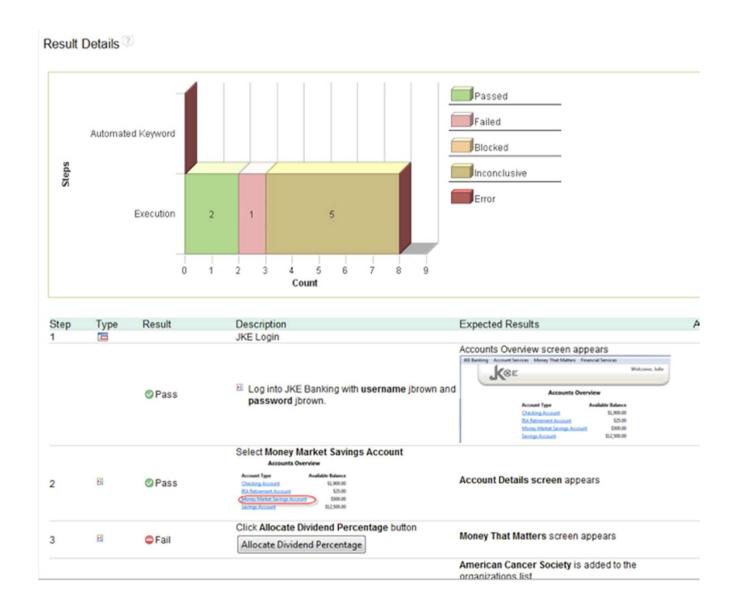




## **Execute the Tests - Reporting**

Requirements

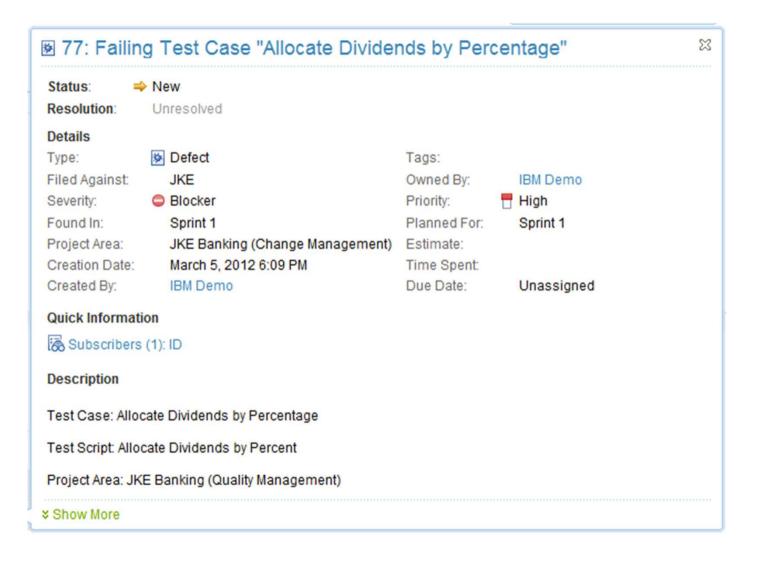






## Feedback to developers via Defects

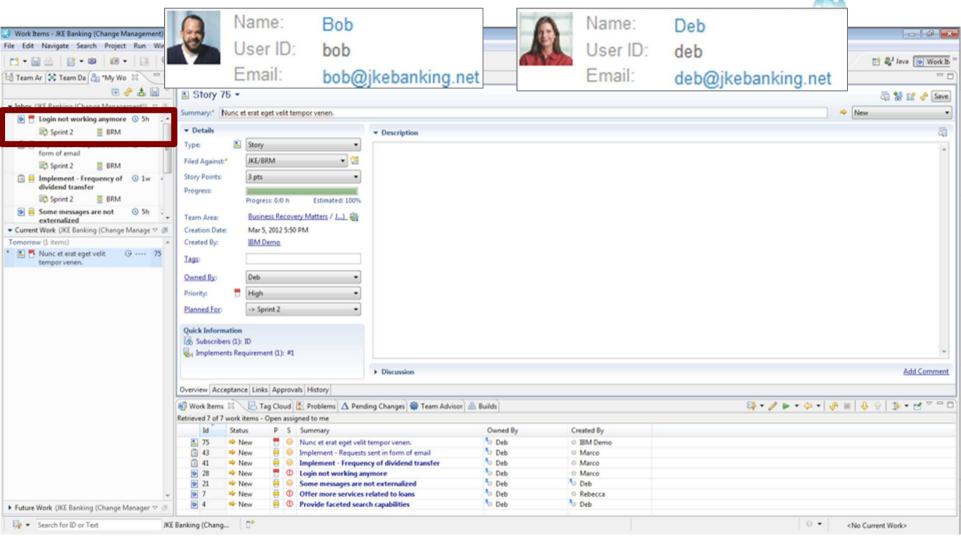




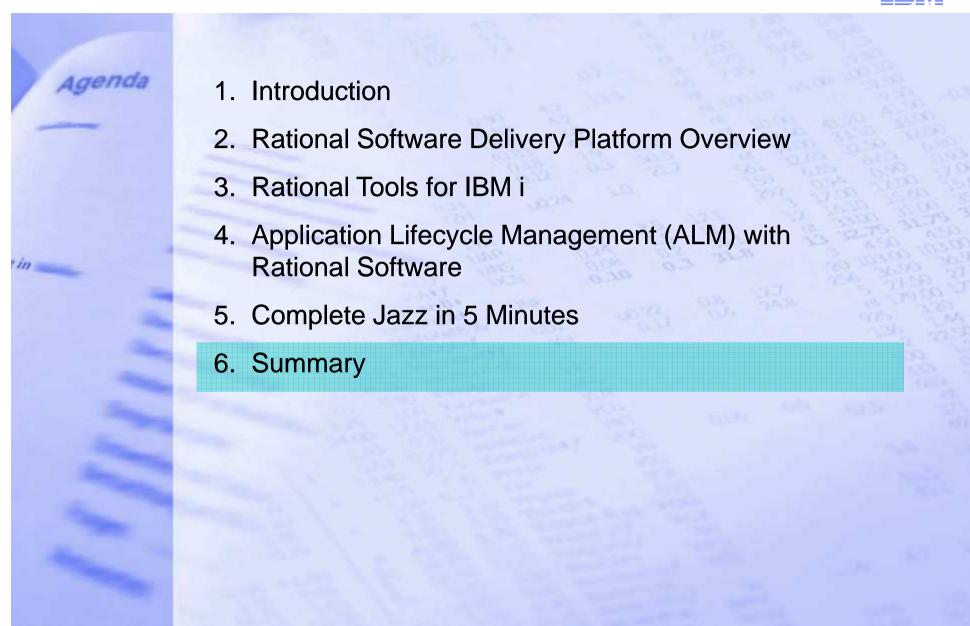


# Defects pushed directly to the developers





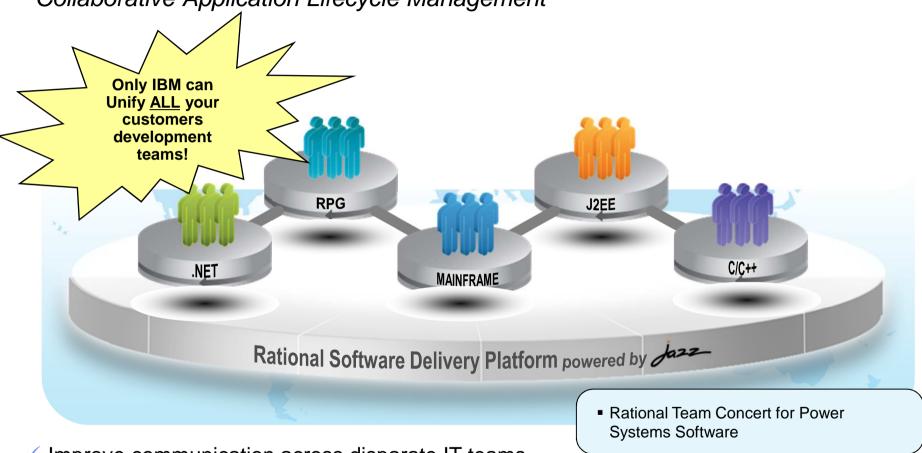






# Rational Team Concert for Power Systems

Collaborative Application Lifecycle Management



- ✓ Improve communication across disparate IT teams
- Detect and accelerate resolution of defects early
- Make Informed decisions
- Make software development more automated, transparent and predictable



<u>www.jazz.net</u> <u>http://www.ibm.com/developerworks/downloads/emsandbox\_power/index.html</u>