

# IBM Rational Day

Jeudi 25 octobre 2012 - 8h30 à 17h00,  
Pullman Bercy

## ALM 4

**Nouveautés pour le  
développement collaboratif  
d'applications (CLM 2012 et  
v4.0 des produits Jazz RTC,  
RRC, RQM et RSA DM)**

Patrice Corbard & Vincent Trébuchon, IBM



# IBM Rational Solution for Collaborative Lifecycle Management 2012

Improved

## CLM 2012 versions 4.0 (Juin)

Improved

Rational Reporting for Development Intelligence

Reporting

Improved

Rational Requirements Composer

Visual Definition Requirements Management

NEW v4.0 Septembre

RSA Design Manager

Design Management

Improved

Rational Team Concert

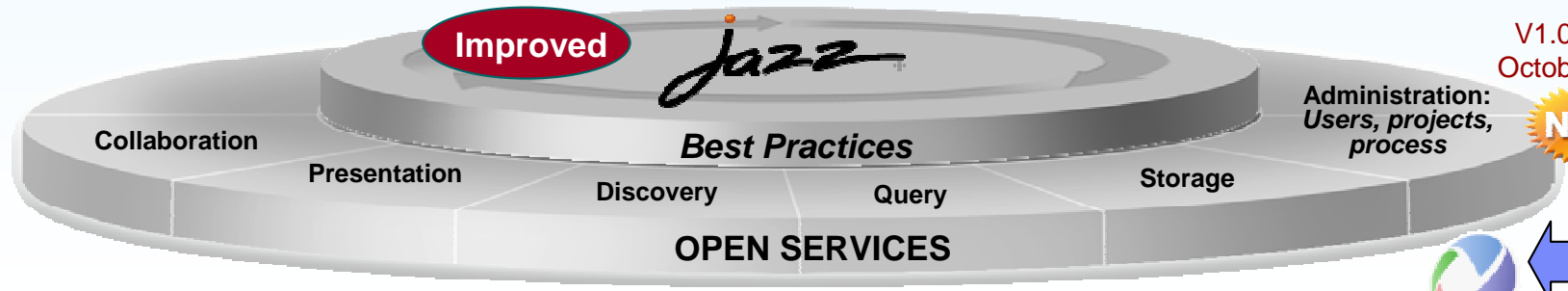
Planning Change Management Distributed SCM Build Automation

Improved

Rational Quality Manager

Quality Management

Improved



V1.0 Octobre  
NEW

Lifecycle Integration Adapters

OSLC

# CLM 2012

2011

NEW

2012

2013

- **Server Rename** : Production to Staging, Pilot to Production
- **CLM High Availability / Clustering on WAS**
- **Simpler, faster upgrades and deployments**
- **Support rolling upgrade capability (N-1) for CLM**
- **Cross Repository Process Inheritance**
- **Enhanced RMC-CLM interoperability for process enactment**
- **Improved reporting with RRDG and RREDI**
- **UI Consistency and Navigation Improvements**
- **CLM for Mobile**
  - Lifecycle management integration with IBM Mobile Platform
- **Enhanced CLM for SAP**





# RTC est une solution intégrée complète, modulaire et ouverte

*Son adoption peut être partielle ou progressive*

## Plans

- Plans intégrés avec les tâches à réaliser
- Agiles, Traditionnels ou Hybrides

## Rapports et tableaux de bord

- Tableaux de bord web adaptables
- Métriques et rapports en temps réel

## SCM

- Change sets
- Streams, Workspaces
- Components, Baselines
- Snapshots
- *Intégrations ClearCase, Synergy, SVN, Git*

## Work Items

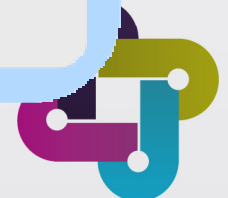
- Défauts, évolutions, ...
- Suivi des tâches
- Workflows adaptables
- Approbations, discussions
- *Intégrations ClearQuest, Change...*

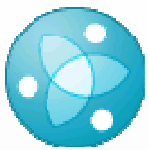
## Builds

- Intégration continue
- Moteur de Build
- Builds personnels
- Traçabilité avec les work items et les change sets
- *Intégrations Build Forge, Ant, Maven, Hudson...*

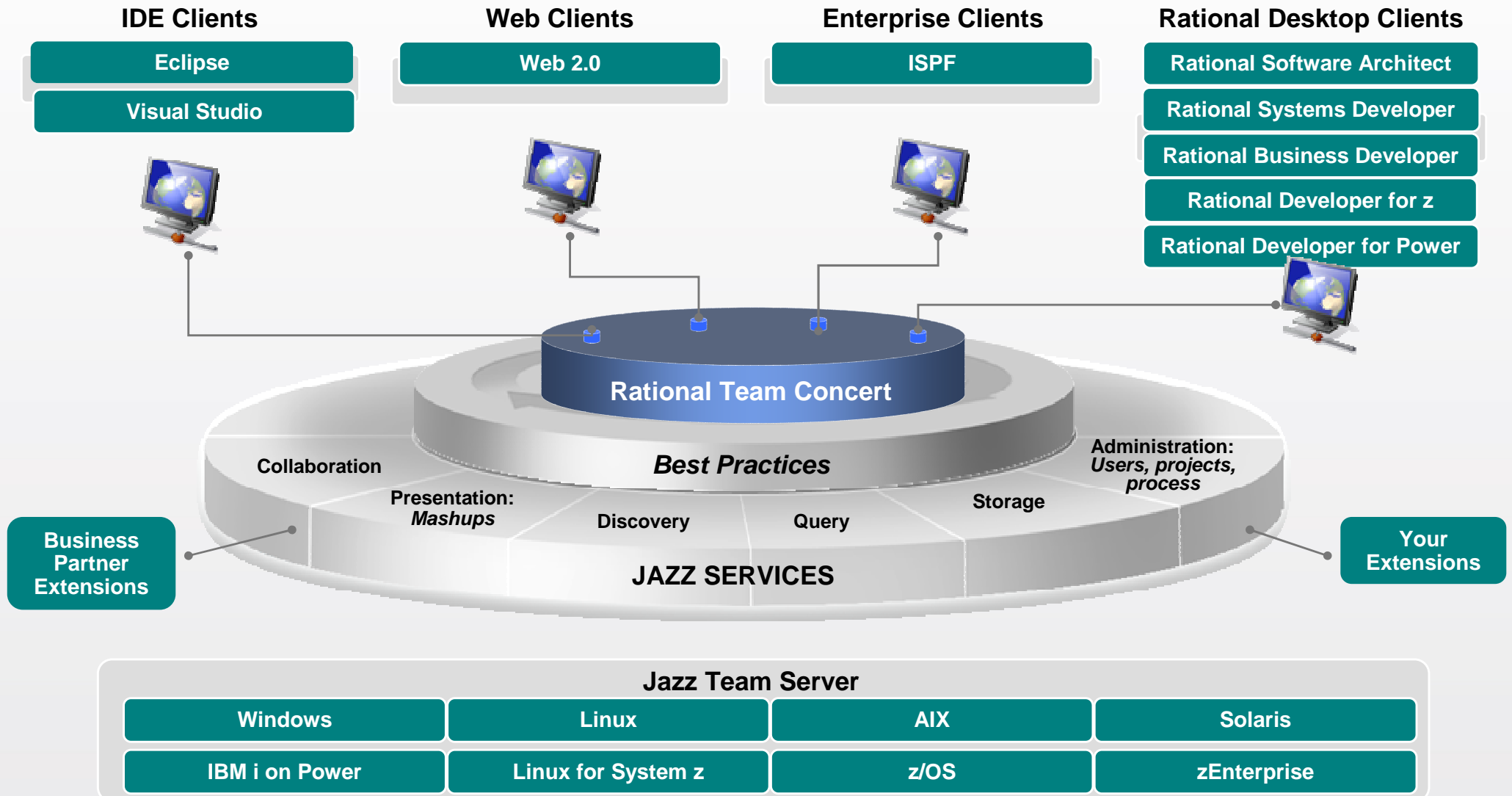
## Jazz Team Server

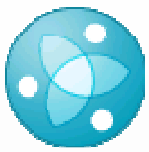
- Projets, Équipes et sous-équipes, Rôles
- Processus adaptable, autorisations basées sur les rôles
- Collaboration dans le contexte, événements, flux RSS, présence
- *Intégrations Lotus SameTime ou Jabber*
- *SGBD : DB2, Oracle, SQL Server ou Derby // App.Server : WAS ou Tomcat*





# RTC : Développement collaboratif multi plateformes



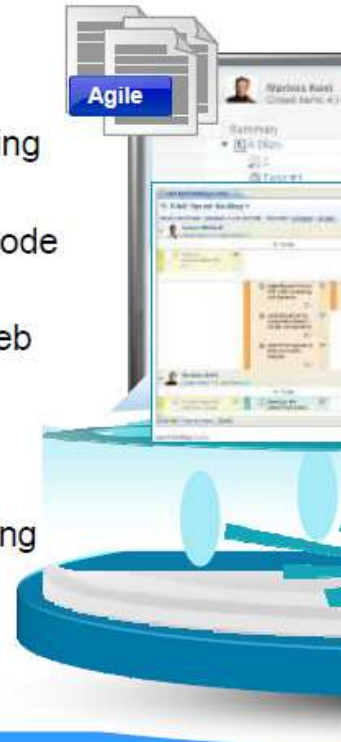


# RTC 4.0

## Be agile. Be lean. Work Together

### IBM Rational Team Concert v4.0

- **Agile your way** – Scrum, waterfall or hybrid; adapt planning to meet your team needs and rhythm.
- **Friction free communication** by smart linking of tasks, code changes, builds and releases as you work
- **Live dashboards** - write code not status reports – live web based dashboards tell everyone the story
- **Empower developers** - Fix goofs, juggles tasks, patch in seconds, easily add or remove features
- **Runs anywhere – open platform** Works with your existing tools and data for incremental adoption

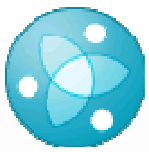


### IBM Rational Team Concert v4.0 highlights

- Automated high availability via clustering
- Manage plans and schedules that span multiple projects
- Finer grained security to more easily support outside suppliers and consultants
- Locate and verify changes to multiple release variants using drag and drop
- Version anything simply, from within the Windows shell
- Enhanced ISPF support and impact analysis for System z developers

- ▼ Improve Availability, Deployment Flexibility and Upgrades
  - High Availability with Clustering (requires WAS-ND license)
  - N-1 client compatibility for incremental adoption
  - Ability to rename a server (production to test, pilot to produ
  - Cross repository process inheritance
- ▼ Planning Enhancements
  - A detailer** Planning Across Multiple Project Areas
  - A detailer** Kanban Taskboard
  - Improved MS-Project Import and Re-import
- ▼ Enterprise Work Item Enhancements
  - Flexible Access Control Groups for Work Item Read Permis
  - Variables in Work Item Queries
  - External Data Set Providers (HTTP Service)
- ▼ **A detailer** Advanced SCM
  - Deletion and Artifact Level Read Permissions
  - More Flexible Workspace and Load Management
  - Variant Management - Where have my changes flown?
- ▼ Simple SCM UI
  - A detailer** Windows shell Explorer SCM integration
  - More Flexible Workspace and Load Management
  - Variant Management
- ▼ MSCCI Support
  - Tested with Rhapsody and with Matlab (will not work for Vis
- ▼ CLI Scripting and New Commands
  - Improved SCM Command Line Scripting
  - New SCM CLI commands
- ▼ Hudson/Jenkins Build Integration
  - A detailer** Hudson/Jenkins Build Support out of the box
- ▼ RTC for IBM Enterprise Platforms Enhancements





# RTC 4.0

NEW

2011

2012

2013

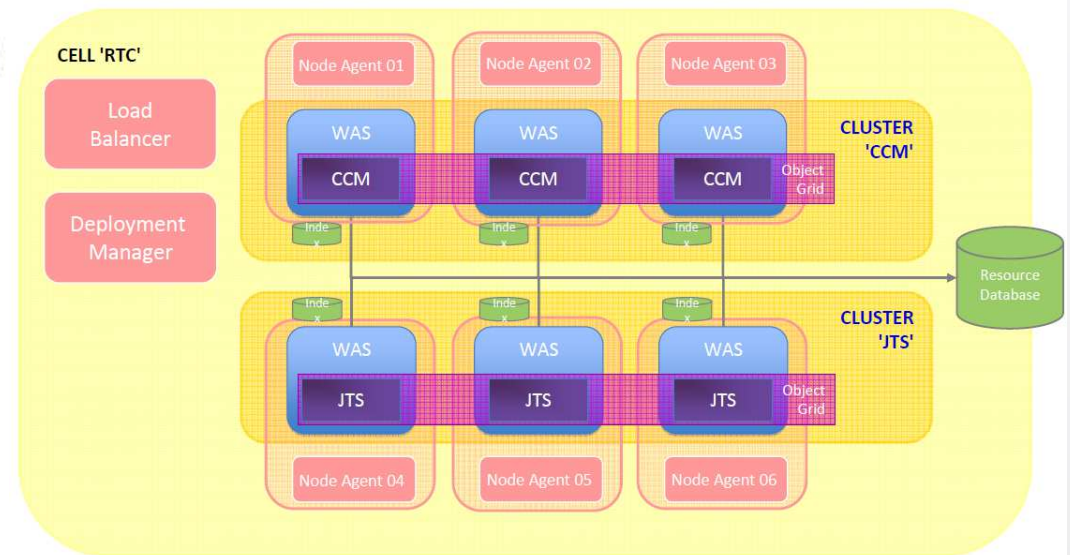
## CLM High Availability / Clustering on WAS

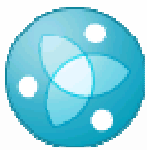
- Redundant application/JTS instances sharing central DB
- Front load balancer dispatching, provides automatic failover across the cluster
- WAS supported cluster solution is WAS ND:
  - Deployment management
  - Workload management
  - Session failover

- WebSphere eXtreme Scale is the technology Jazz uses for a shared look-aside cache – Object Grid – This is bundled for use with CLM 2012 applications.

**Prerequisite:** Will require licensed WAS-ND (which is not bundled with CLM 2012) Also will require a freely available feature key to activate capability

Clustered RTC 4.0 in WAS ND – “distributed” topology





# RTC 4.0



2011

2012

2013

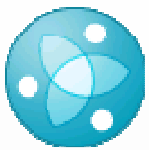
- Support rolling upgrade capability for CLM
  - I can upgrade one project at a time
    - Upgrade my Jazz Team Server to 4.0 and support both RTC 3.0.1 and RTC 4.0 clients
  - I can upgrade one CLM application at a time
    - Allow RTC, RQM, RRC to upgrade incrementally
- Support Server URL Rename Request feature key to support
  - Support server URL rename initial use case
    - Production to Staging.
    - Pilot to Production\* (specific rqts)
- Cross Repository Process Inheritance
  - I can share a project's process template across multiple JTS servers
  - Today this sharing can only occur in RTC 3.x on the same RTC/JTS repository



*Jazz*







# RTC 4.0



2011

2012

2013

## ■ Planning Across Projects

- Master Plan tracks cross cutting tasks
- See a schedule roll-up of tasks

The screenshot shows the 'Planned Items' view in RTC 4.0. The top navigation bar includes 'Planned Items', 'Links', 'Snapshots', 'Dashboard', and 'Notes'. Below this is a 'View As' dropdown set to 'Project Schedule' and a search bar labeled 'Type to Filter'. The main content area displays a list of tasks under a 'Summary' header. The tasks include:

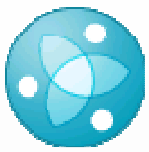
- Wrong assumption about booleans: '1 != false'
- assertThat fails with Class tests (documentation problem)
- timeout doesn't work properly for >=2 cases in junit4,3?
- As user I want to get multiple project involved
- The product line should support clustered environments
- 10: Who's responsible to deploy in maven central repository
- 14: Tree hierarchy not created correctly
- 11: No download link to latest version
- 12: timeout doesn't work properly for >=2
- 13: Tests on protected methods fail

The screenshot shows the 'Master Plan' view in RTC 4.0. The top section displays 'Master Plan' with a summary: '3 items: 3 open, 0 closed | Ends in: 29 days'. Below this is a 'Plan Details' section with the following information:

- Owner: Master
- Iteration: Release 1.0 [8/29/11 - 10/8/11]
- Plan Type: Cross Project Plan (circled in red)
- Include All Items (checked)

The bottom section shows the 'Planned Items' view with a 'View As' dropdown set to 'Project Schedule'. The main content area displays a 'Project Schedule' view with 'Options' and 'Columns' tabs. The 'Display' dropdown is set to 'Tree' (circled in red), and the 'Columns' dropdown is set to 'Contributes To → Tracks' (circled in red). A 'More' button is visible below the dropdowns.

The screenshot shows a task schedule in RTC 4.0. The task is titled 'Using the Start and End Date of Snapshot 'Planned 1'' and is scheduled for 'Sep 5, 2011 9:00:00 AM - Sep 5, 2011 11:00:00 AM'. A link 'Open Schedule...' is visible below the task details.



# RTC 4.0



2011

2012

2013

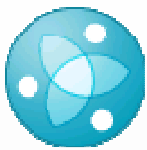
## ▪ New Kanban Taskboard

- Where is capacity available?
- Am I exceeding my desired limits? Customize limits to reflect ideal state.

The screenshot displays the Kanban Taskboard interface. At the top, there is a search bar containing the text "Kanban". Below it are tabs for "Options" and "Columns". A status bar shows "Display" set to "Kanban" and a summary: "Open: --, Ready To Test: 3, Testing: 2, Closed: --". A "Count" dropdown is also visible. A "+ More" button is located below the status bar.

The main area is divided into three columns:

- Open:** Contains two task cards:
  - CompositeRunner.filter incorrect if child throws NoTestsRema
  - javadoc updates for @ignore in 4.3
- Ready To Test: 3 / 3:** Contains two task cards:
  - assertThat signature does not match Matcher
  - assertEquals throws NPE while comparing null elements
- Testing: 0 / 2:** Currently empty.



# RTC 4.0

NEW

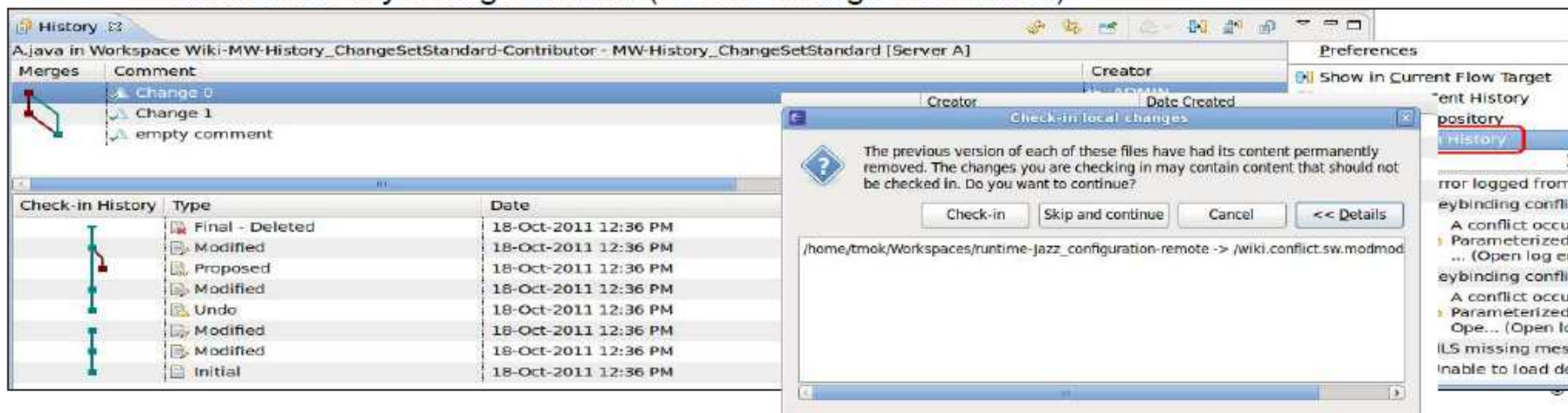
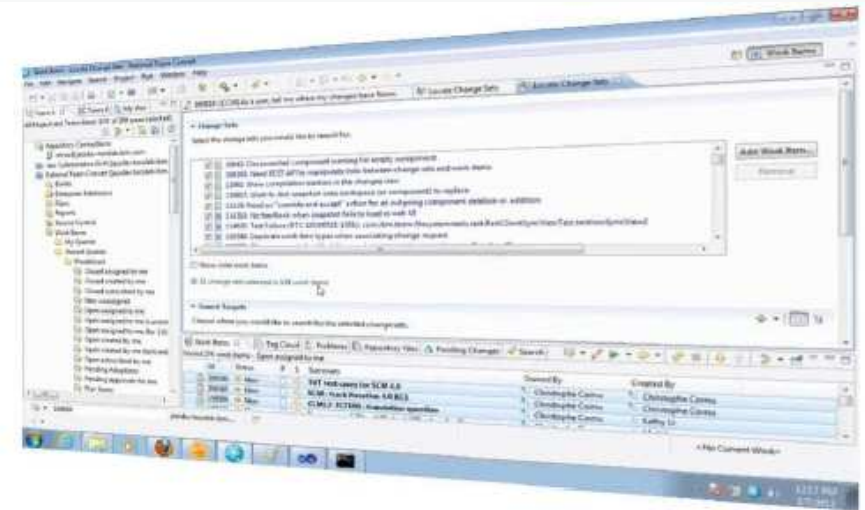
2011

2012

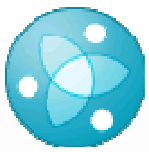
2013

## Advanced SCM

- Deletion and Artifact Level Read Permissions
  - Provide **read permissions** at the versioned artifact granularity in SCM
  - Permanently **delete files** (Administrators only)
- More Flexible Workspace and Load Management:
  - Check-in History to **easily revert** to any checked-in version
  - Save and Re-load load rules from files
- **Variant Management:**
  - Where have my changes flown? (Locate Change Sets Editor)







# RTC 4.0



2011

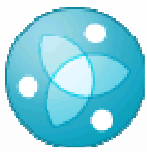
2012

2013

## RTC 4.0 - Windows 7 Explorer Integration – SCM

- Simple file based menus for versioning within the Windows shell
- Files are decorated with visual versioning status icons

Name	Date modified	Type	Size
RTC for VS Beyond 2.0.mhtml	1/27/2012 12:50 A...	MHTML Document	48 KB
self-hosting.ppt	1/27/2012 12:53 A...	Microsoft PowerP...	1,408 KB
The Sandbox E...	2 12:53 A...	Microsoft PowerP...	328 KB



# RTC 4.0



2011

2012

2013

## RTC 4.0 – Hudson/Jenkins Build Support out of the box

*“As a RTC build user, I want to easily manage builds in Hudson/Jenkins”*

- Directly submit builds through RTC to Hudson and view build health in RTC
- No need to log into Hudson to see the console job output

The screenshot shows the RTC interface for a Hudson/Jenkins build. The build is titled "Build Hudson\_Build\_Definition Test2 [15]". It is marked as "Completed" with a green checkmark. The build details include: Duration: 24 seconds, Start Time: October 21, 2011 2:51:23 PM, and Completed: October 21, 2011 2:51:48 PM. There are links for "External Links" and "Logs". The "Associated Release" section shows "Released builds are available in the work item 'Found In' field." and a link to "Create a release to associate with this build". The "Reported Work Items" section shows "None reported against this build" and links to "Create a new work item" and "Associate an existing work item". The "General Information" section shows "Requested by: ADMIN", "Build Definition: Hudson\_Build\_Definition", "Build Engine: Hudson\_Engine", and "Tags: ". There is a checkbox for "Release allowed" which is checked. Three blue callout boxes point to specific features: one points to the "Logs" link, another points to the "Build Engine" field, and a third points to the "Reported Work Items" section.

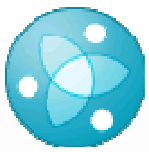
Submit builds to Hudson directly from RTC using it's extensible Build Engine support

View Hudson Build Result to assess the builds success or failure

Hudson console job output linked to the build result as a log file







# RTC 4.0



2011

2012

2013

## ISPF Client Compare and Merge

```

BLZSLCNF      Unresolved Conflicts List Actions

Resource : Pacbase_Batch/z0Ssrc/COBOL/PACB10.cbl

Unresolved Conflict Action
- 1. Resolve With Mine
  2. Resolve With Proposed
  3. Compare and Merge
  4. Compare and Merge ASCII
  5. View Local
  6. View Local ASCII
  7. View Remote
  8. View Remote ASCII

Select a choice and press EN

F1=Help      F2=Split
F7=Backward  F8=Forward

```

Enhanced conflict resolution

Compare and Merge

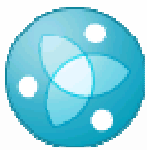
```

File Edit Edit_Settings Menu Utilities Compilers Test Help

ISREDDE2  SYS12142.T103651.RA000.USER52.R0146785      Changes are shown
Command ==>                                         Scroll ==> CSR_
=NOTE= Lines which exist only in the local file are shown with a label on the
=NOTE= line ,for example .OAAAA. Lines which exist only in the remote file are
=NOTE= shown as information lines (=====) and are shown in white.
=NOTE= You can use the Make Data(MD) line command to add those lines to your
=NOTE= edit session and delete the label lines to acheive the desired merging.
000001  IDENTIFICATION DIVISION.
000002  PROGRAM-ID.  PACB10.
=====  AUTHOR.          Test SCM BDF TOMSCMT.
=====  DATE-COMPILED.   10/05/12.
.OAAAA  AUTHOR.          Conflict resolution.
.OAAAB  DATE-COMPILED.   21/05/12.
000005  ENVIRONMENT DIVISION.
000006  CONFIGURATION SECTION.
000007  SOURCE-COMPUTER.  IBM-370.
000008  OBJECT-COMPUTER.  IBM-370.
000009  DATA DIVISION.
000010  WORKING-STORAGE SECTION.
000011  01  DEBUT-WSS.
000012         05  FILLER PICTURE X(7) VALUE 'WORKING'.
000013         05  IK      PICTURE X.
000014         05  XH      PICTURE X.
=====  05  TM      PICTURE X.
000015  01  CONSTANTES-PAC.
000016         05  FILLER PICTURE X(60)  VALUE
000017         '9444 ACD07/04/06TOMSCMLUCIE      09:31:37TOMSCM  BVAP
F1=Help      F2=Split      F3=Exit      F5=Rfind      F6=Rchange      F7=Up
F8=Down      F9=Swap       F10=Left     F11=Right     F12=Cancel

```





# RTC 4.0



2011

2012

2013

## Dependency Build Enhancements

- Build preview
- Build subsets populated by Work Items
- Post build report

**Request Build**

Request that a build be executed on the first available build engine.

Build:

Build Options  
 Build Agent Authentication Override  
 Dependency Build Options

Build workspace  
 Build subset

Build changed items only

Personal build [\(i\)](#)

Personal build options

Repository workspace:\*

Load directory:\*

Resource prefix:\*

Load only changed and impacted source

Referenced Libraries

Library

Build Hania Maillist build (Preview) 20120323-1445410305

**Completed**

Duration: 6 seconds  
 Start Time: March 23, 2012 2:45:41 PM  
 Completed: March 23, 2012 2:45:47 PM

Stabus Trends:

**Contribution Summary**

Downloads: 6 downloads  
 External Links: 1 link  
 Logs: 1 log

**Associated Release**

Released builds are available as choices in the work item 'Found In?' field.

[Create a release to associate with this build](#)

**Reported Work Items**

Work items reported against this build to help stabilize it.

None reported against this build

[Create a new work item](#)

[Associate an existing work item](#)

**General Information**

Requested by: hania  
 Build Definition: Hania Maillist build  
 Build Engine: RTC 4.0.3005  
 Build History: 19 builds  
 Tags:   
 Deletion allowed

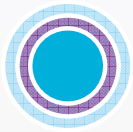
Overview | Activities | Downloads | Logs | External Links | Properties





# IBM Rational Requirements Composer

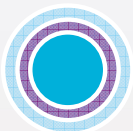
Une application moderne 100% Web, permettant :



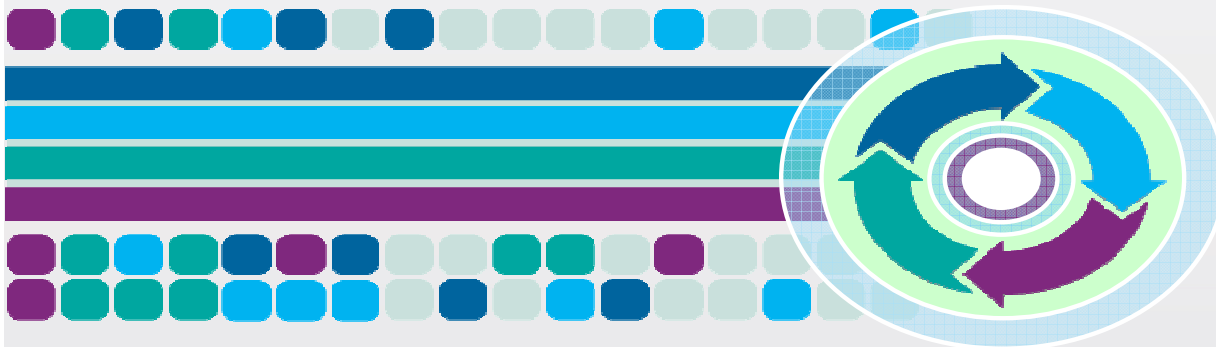
La définition collaborative des exigences à l'aide de textes riches, mais aussi de glossaires, diagrammes (processus, cas d'utilisation) et maquettes d'écran (IHM), que l'on peut assembler dans des documents composites.



La gestion d'un référentiel d'exigences et de la traçabilité sur l'ensemble des artefacts avec des modèles de projet entièrement adaptables.



L'intégration des exigences tout au long du cycle de vie (conception, développement et tests) par les capacités intégrées de la solution CLM et une architecture ouverte d'intégration OSLC.



*Une solution Web complète de définition et gestion d'exigences,*

*Facile à adapter  
et donc à adopter*





# RRC 4.0

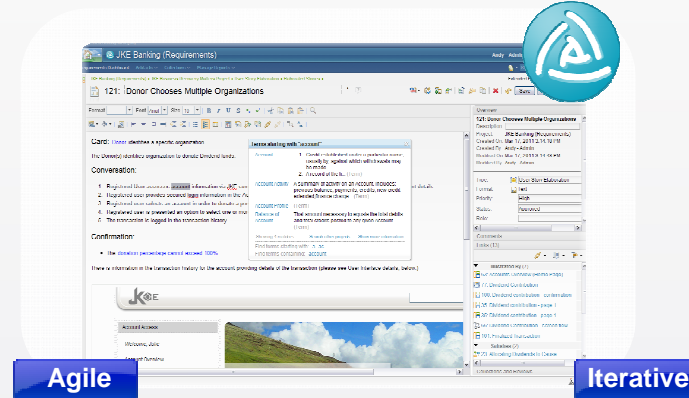
2011

**NEW**

2012

2013

- **Graphical links explorer for traceability**
- **Suspect links**
- **Write-access control**
  - Teams, roles and permissions
  - Team ownership
- **Data and document exchanges**
  - Word import with identification of requirements
  - Requirements Interchange Format (ReqIF)
- **Reusing project templates**
- **Dashboards and widgets**
- **Usability enhancements**
- **Connecting Requirements to Models in DM, Tests in HP QC, ...**



Agile

Iterative

Waterfall

jazz







# Les liens de traçabilité sont définis, visualisés et analysés entre les exigences, et avec tous les autres artefacts du cycle (modèles, développements, tests...)

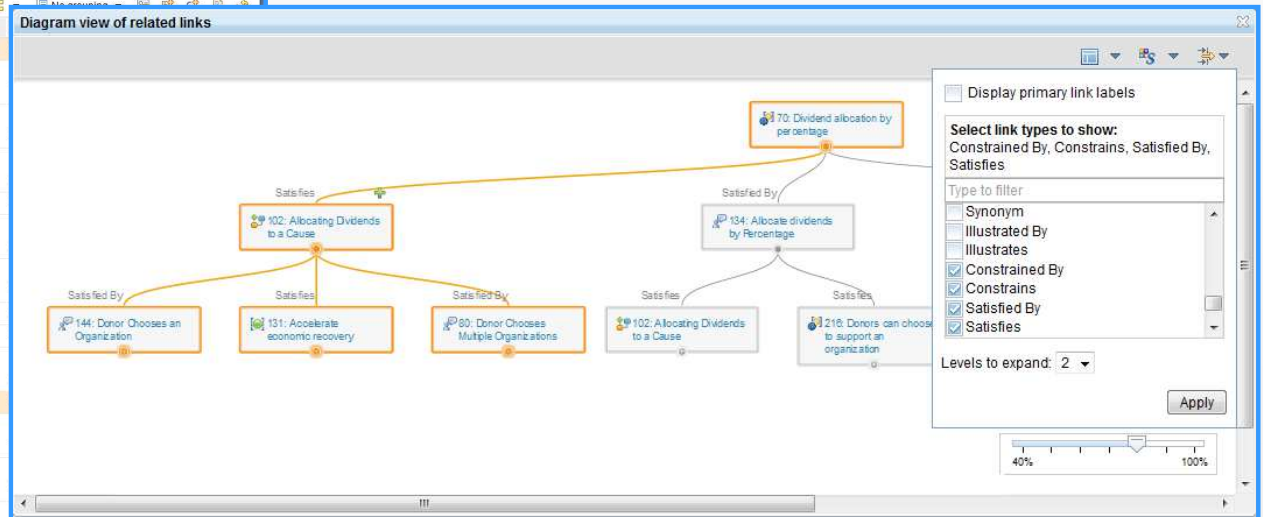
## Arbre de traçabilité

**View All Artifacts**

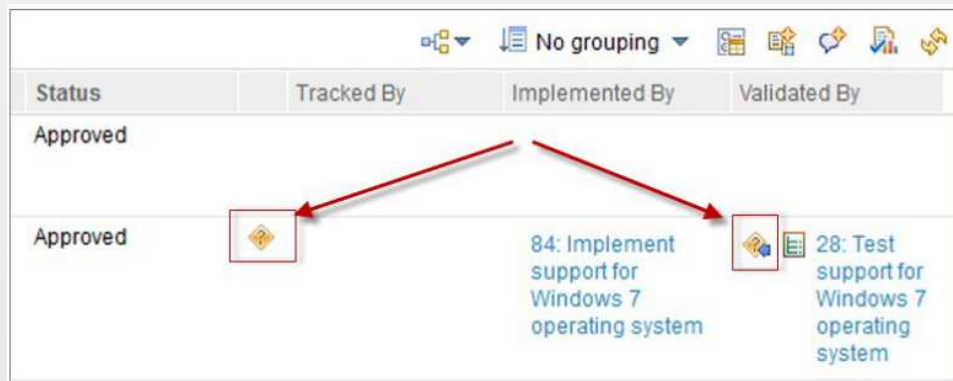
ID	Name	Artifact Type
66	Give Back	Stakeholder Need
21	Donors can choose to support multiple organizations	Feature
54	Allocate dividends by Percentage	User Story Elaboration
60	Divident contribution - page 1	Sketch
31	Donors can choose to support an organization	Feature
69	Donor Chooses an Organization	User Story Elaboration
60	Divident contribution - page 1	Sketch
14	JKE Enterprise Diagram	Use Case Diagram
54	Allocate dividends by Percentage	User Story Elaboration
60	Divident contribution - page 1	Sketch
46	Promote JKE Corporate Image	Stakeholder Need
21	Donors can choose to support multiple organizations	Feature
54	Allocate dividends by Percentage	User Story Elaboration
60	Divident contribution - page 1	Sketch



## Explorateur graphique



## Liens suspects : (notifications dynamiques)





# Gestion fine des droits des utilisateurs par rôle, équipe ou dossier



## Définition de zones d'équipes et de propriétés des dossiers :



## Définition de permissions sur les actions *(ex. création/modification de type d'artefact)*

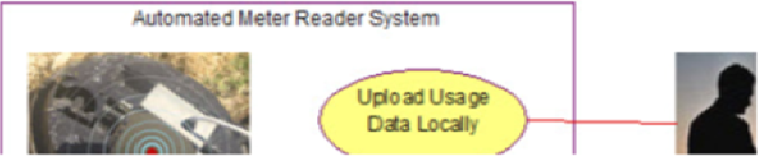
The screenshot shows the 'Application Administration - Requirements Management (/rm)' interface. The main content area displays 'Active Project Areas' with 'JKE Banking (Requirements Management)' selected. The 'Permissions' section is active, showing a 'Configuration' pane with 'Team Configuration' selected. The 'Details' pane shows the following settings:

- Roles:** A list of roles including 'Everyone (default)', 'Administrator', 'Author' (highlighted), 'Commenter', and 'Project Baseline Administrator'.
- Permitted Actions:** A list of actions with checkboxes. Under 'Requirements Management Resources', the 'Save Artifact' action is expanded, showing sub-actions: 'Assign Team Ownership' (unchecked), 'Save Artifact' (checked), 'Create an artifact' (checked), 'Delete an artifact' (checked), and 'Modify an artifact' (checked).

The dialog box 'Associate Project/Team Area' is shown. It contains the following text: 'Select the project or team area to own the "dossier 2" folder. Members of this project or team area will have write access to this folder (as defined in the "Permissions" page of the project administration).' Below the text is a tree view showing the folder structure: 'Mon projet adapte' (expanded) containing 'dossier 1' and 'dossier 2'. Under 'dossier 2', 'sous equipe 1' and 'sous equipe 2' are listed, with 'sous equipe 2' selected. At the bottom, there is a checkbox labeled 'Use the same project area or team area for all subfolders and artifacts' which is currently unchecked. 'OK' and 'Cancel' buttons are at the bottom right.



# Modules : organiser les exigences dans des listes ordonnées et hiérarchisées (actuellement prévus en version 4.0.1)

ID	Contents	Artifact Type	Satisfies
99	- 1 Introduction	Heading	
232	- 1.1 Purpose of the Document	Heading	
74	This document describes the specific functionality of the Automated Meter Reader system. The system is currently available with a handheld collection device. The mobile and fixed network methods of data collection are outside the scope of this system.	System Requirement	
85	- 2 General Description	Heading	
77	- 2.1 Functions and Purpose	Heading	
286	The AMR system is used to determine water service / consumption for the more than 79,000 meter connections to residential, commercial and industrial customers inside a 72 square mile area.	System Requirement	<a href="#">8:AMR System Requirements Specification</a> Created On: Aug 13, 2012 11:38 AM Creator: George DeCandio
152	In handheld AMR, a meter reader carries a handheld computer with a built-in or attached receiver/transceiver (radio frequency or touch) to collect meter readings from an AMR capable meter. This is sometimes referred to as "walk-by" meter reading since the meter reader walks by the locations where meters are installed as they go through their meter reading route. Handheld computers may also be used to manually enter readings without the use of AMR technology as an alternate but this will not support comprehensive data which can be accurately read using the meter reading electronically.	System Requirement	
141	<AMR Artist Rendition>	System Requirement	
3	 <p>Automated Meter Reader System</p>	Information	

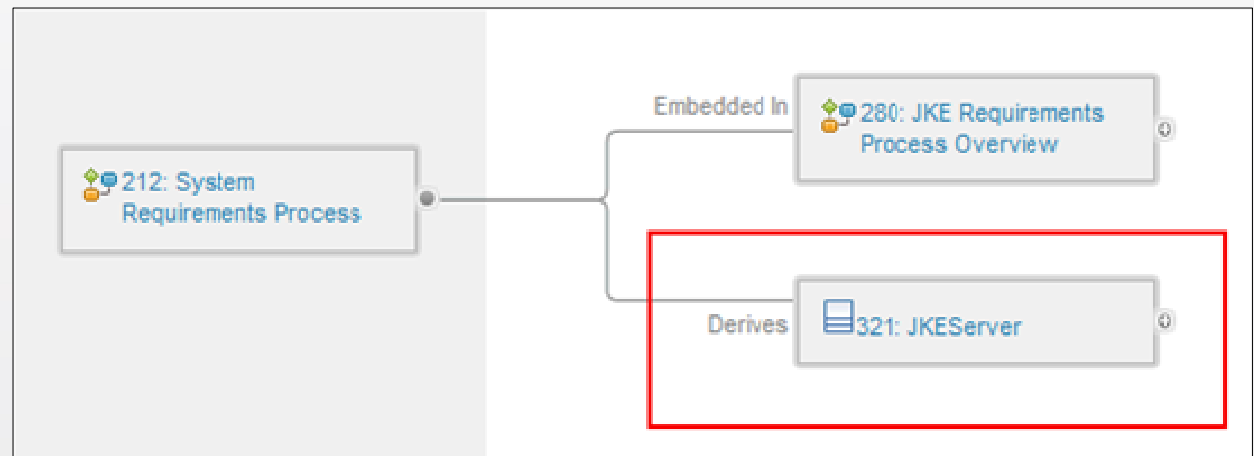
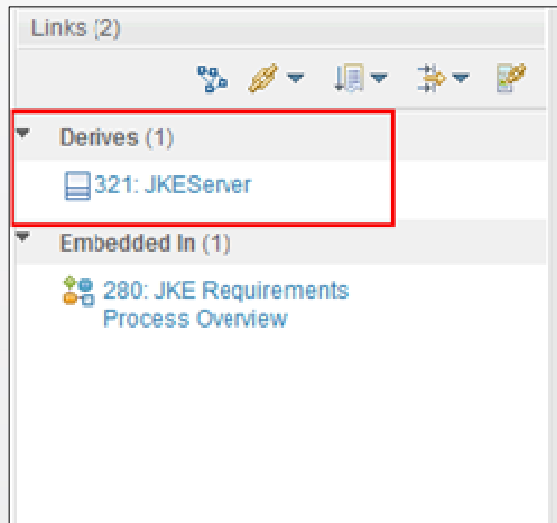
Showing 72 Artifacts 1 selected (Clear All Selected)





## Intégration avec Design Manager :

*Pouvoir relier des exigences à des modèles*





# RSA Design Manager

## Référentiel central de modèles

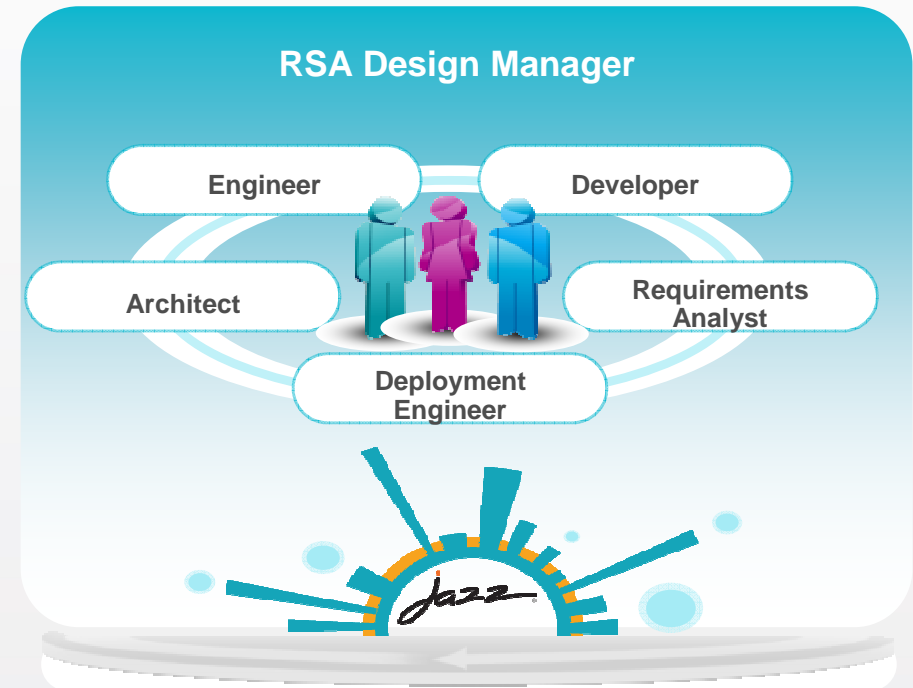
- ✓ Référentiel d'entreprise pour rechercher, revoir, analyser et réutiliser
- ✓ Liens des éléments de conception avec les autres artefacts du cycle de vie
- ✓ Navigation et visualisation des relations

## Collaboration étendue sur les modèles

- ✓ Revues de conception à toutes les phases du développement
- ✓ Client web pour des accès aux modèles par une équipe étendue

## Génération de documents et rapports

- ✓ Créer des documents depuis les modèles
- ✓ Parcourir les informations et artefacts reliés par des liens OSLC



*"The ability to review and comment on models from the Web client encourages feedback from a wide array of stakeholders... leading to faster consensus and improved quality of solution designs."*

*– Lars Tufvesson, Sellegi*





# RSA DM 4.0

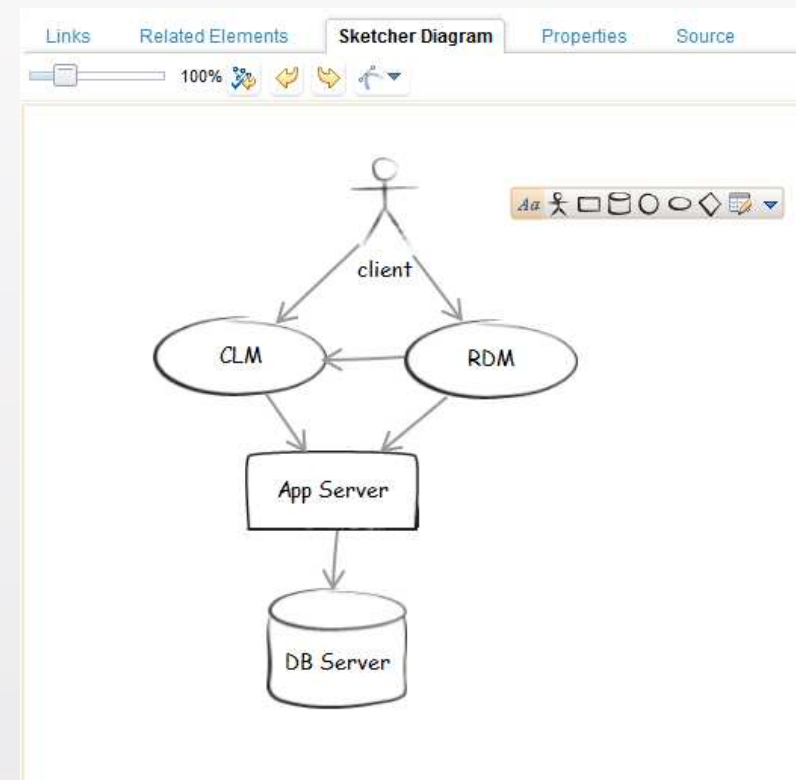
**NEW**

2011

2012

2013

- **Sharing a Jazz Team Server with CLM for easier administration**
- **Design projects integrated with lifecycle projects**
- **Web-based Sketching**
- **Live design documents**
- **Integrated document generation with predefined templates**
- **Lifecycle traceability between requirements, designs, development and test artifacts**
- **Graphical impact analysis**
- **Managing design changes and design configurations**
- **Searching for design resources across project areas**
- **Query-based searching**



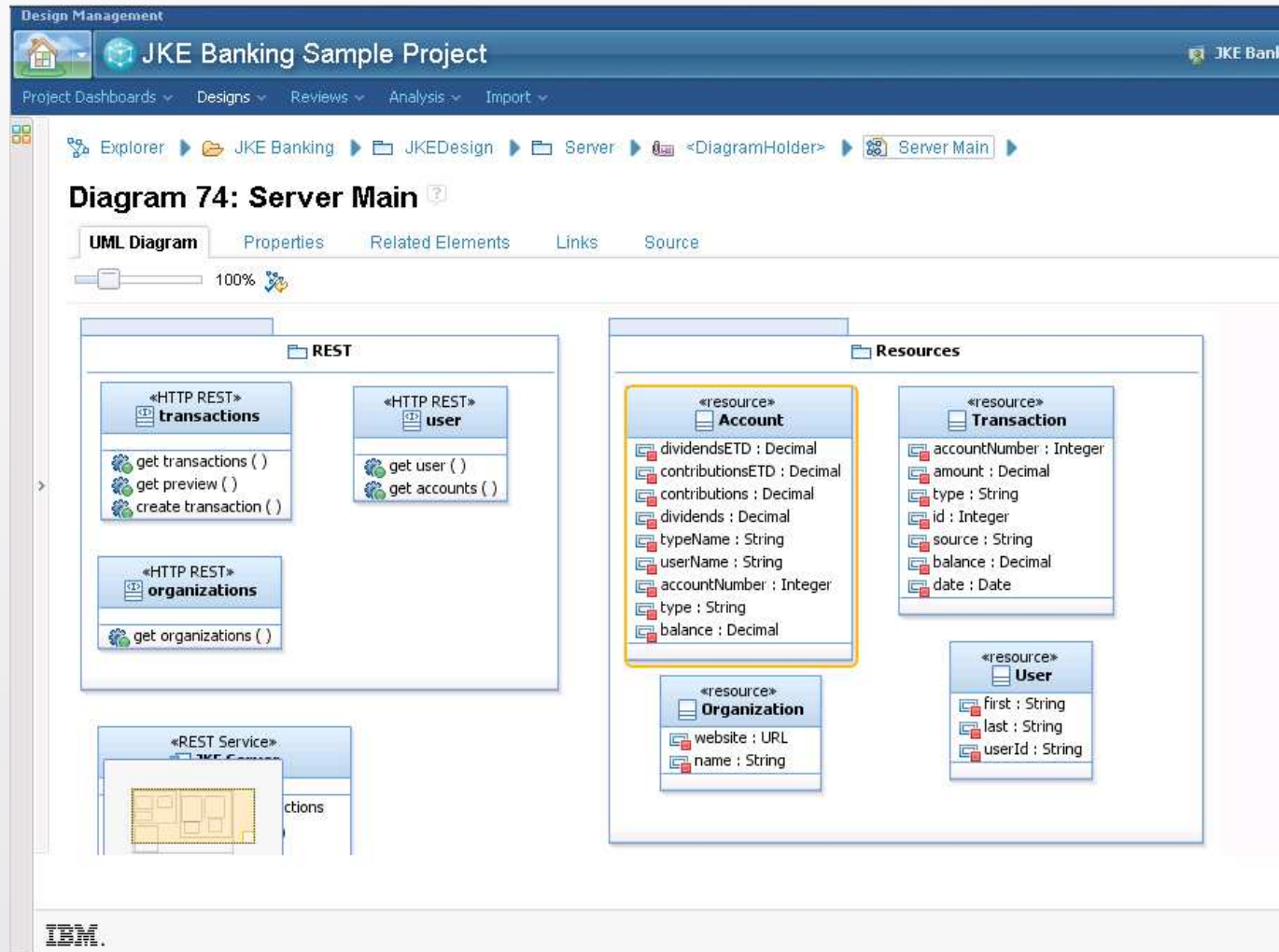




# Design change and configuration management

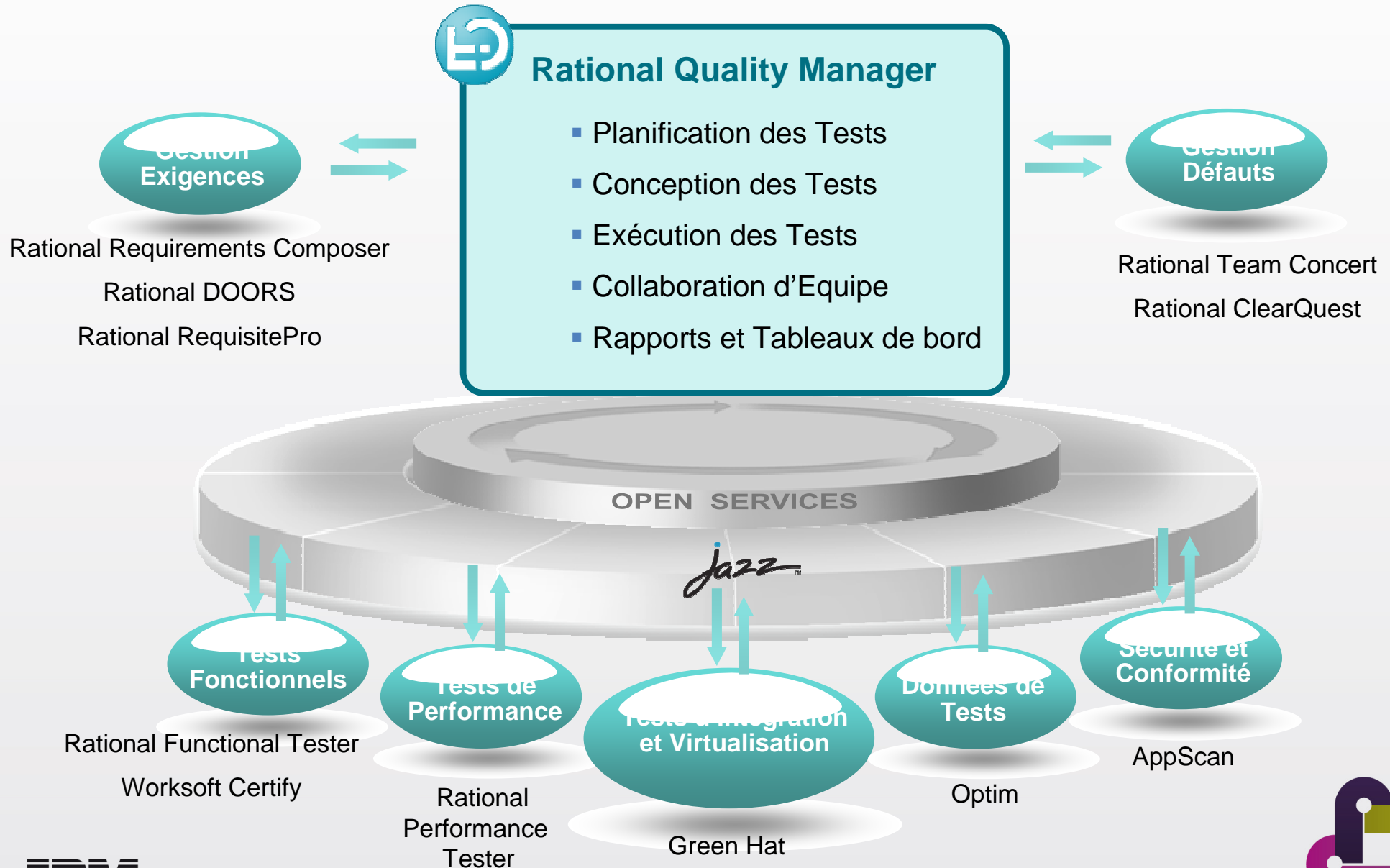


- Designs directly editable on Jazz from RSA and Rhapsody
- Locking, versioning, history and change control on individual model elements
- Parallel workspaces and snapshots
- Changes grouped into change sets
- Design reviews on private changes prior to sharing





# RQM offre une gestion centralisée des différents types de tests





# RQM 4.0

NEW

2011

2012

- **Enable collaborative quality-driven software and systems delivery**
- Help teams **quantify how project decisions align with business objectives** and outcomes
- Improve **understanding of priorities** across the whole team and focus testing efforts through **risk based assessment**
- **Assess your readiness for delivery in real-time** with customizable dashboards and reports
- **Accelerate test execution** via integrated manual testing and integration with test automation tools



## IBM Rational Quality Manager v4.0 highlights

- New role-based reporting and live views showing traceability to requirements and test execution progress
- Improved test planning through support of hierarchical timelines and test prioritization
- New manual test authoring experience leveraging Rational Functional Tester recording
- Process enactment and customization flexibility
- Improved enterprise deployment support

30		Test Prioritization helpers
31		Traceability Views
32		Execution Progress Views
33		Hierarchical test iterations across test pl...
34		Requirement driven-testing
35		Requirement reconciliation wizard
36		OSLC Integration between RQM 4.0 and ...
37		Integration with RequisitePro
38		Requirements to test steps traceability
39		Manual test script recording with IBM Rat...
45		Selenium Junit test execution adapter
40		Ownership – Team Area
41		Test artifacts workflow customization
42		Review and approval process
43		E-Signature
44		Process template
48		Dashboard for Project and Teams
46		Reporting Solutions
47		New Dashboard Widgets
49		Report management
50		Report design
51		Other reporting enhancements
28		High Availability of CLM applications
29		Support public URL server rename





# RQM 4.0



2011

2012

2013

## Traceability views

### Identify gaps and analyze impact with lifecycle traceability

- Traceability views for test plans, test cases/scripts, test suite/case execution records and test suite/case results showing links:
  - From test plans to requirement collections and development plans
  - From test cases to requirements and development work items
  - From test scripts to requirements
  - From test suite/case execution records (TERs) and results views show links to defects
- Menu action directly available to add links

Test Cases

View As: Traceability Group By: Ungrouped

10 Items per page

ID	Name	Validates Requirement	Tests Development Item	Priority
19	Allocate Dividends to a Single Cause	(1), (2), (3), (4), (5)	Allocate Dividends by Percentage	
22	Dispute Credit Card Charge	-	-	
3	Allocate Dividends by Percentage	Allocate dividends by Percentage	Allocate Dividends by Percentage	
7	Allocate dividends by amount and frequency	Allocate dividends by amount and frequ	Allocate dividends by amount and	
18	Dividend Allocation by Percentage	Dividend allocation by percentage	Dividend Allocation by Percentage	
9	Donors Can Choose to Support an Organization	Donors can choose to support an orga	Donors Can Choose to Support a...	
11	Donors Choose an Organization	Donor Chooses an Organization	Donors Chooses an Organization	
17	JKE Charity Coordinator responds to online request	JKE Charity Coordinator will respond to	JKE Charity Coordinator will respo...	
25	(QM Tutorial) Allocate Dividends to Multiple Causes	-	-	
19	Donor dividend allocation conforms to stated criteria	Donor Dividend Allocation Criteria	Donor Dividend Allocation Criteria	







# RQM 4.0



2011

2012

2013

## Execution progress views

**Track and optimize test execution in real-time**

- Execution progress view for test plans
- Test plan execution status dashboard widget
- Test suite/case execution status summary viewlet in the test plan header
- Each status bar has rich hover and drill down to the TCER list, or TSER list options
- View setup can be saved as a personal or shared query for re-use

ID	Name	Iteration	Test Case Estimates	Test Case Points	Test Case Attempts
3	User Acceptance		Total: 125/100 h Estimated: 100%	Progress: 1495 Total: 1495	Progress: 15 Total: 15
4	Master Test Strategy		Total: 0/0 h Estimated: 0%	Progress: 0 Total: 0	Progress: 0 Total: 0
2	System Verification		Estimate: 125h Time Spent: 100h	Total: 105/104 h Estimated: 100%	Progress: 1155 Total: 1580
1	Development Test			Total: 115/107 h Estimated: 100%	Progress: 1319 Total: 1520







# RQM 4.0



2011

2012

2013

## Requirement driven-testing

**Build the right tests and know what you test**

- Rich text test requirements can be defined in the RM application
- Test artifacts can be linked to requirements in:
  - IBM Rational Requirements Composer
  - IBM Rational DOORS
  - IBM Rational RequisitePro

ID	Name	Validates Requirement	Tests Development Item	Priority
19	Allocate Dividends to a Single Cause	(1), (2), (3), (4), (5)	Allocate Dividends by Percentage	High
22	Dispute Credit Card Charge	-	-	High
3	Allocate Dividends by Percentage	Allocate dividends by Percentage	Allocate Dividends by Percentage	Medium
7	Allocate dividends by amount and frequency	Allocate dividends by amount and frequ	Allocate dividends by amount and ...	Medium
18	Dividend Allocation by Percentage	Dividend allocation by percentage	Dividend Allocation by Percentage	Medium
9	Donors Can Choose to Support an Organization	Donors can choose to support an orga	Donors Can Choose to Support a...	Medium
11	Donors Choose an Organization	Donor Chooses an Organization	Donors Chooses an Organization	Medium
17	JKE Charity Coordinator responds to online request	JKE Charity Coordinator will respond to	JKE Charity Coordinator will respo...	Medium
25	(QM Tutorial) Allocate Dividends to Multiple Causes	-	-	Medium
16	Donor dividend allocation conforms to stated criteria	Donor Dividend Allocation Criteria	Donor Dividend Allocation Criteria	Medium





# RQM 4.0



2011

2012

2013

## Integration between RQM 4.0 and DOORS 9.4 (DWA 1.5)

### Real-time lifecycle traceability to DOORS requirements

- Live links between test artifacts to requirement instead of a synchronization mechanism
  - Test plans to DOORS views
  - Test cases to DOORS requirements
- Links can be created using the reconcile wizard or one-by-one from DOORS or from RQM
- Direct visibility on DOORS requirements from RQM via rich hover
- Use OSLC RM specification v2
- Migration utility available
  - Remove links from tests to RQM proxy reqs.
  - Create OSLC links automatically

The screenshot shows a window titled 'Stakeholder Requirements' current 1.0 (2004 Model) in /Car Project (Formal module) - DOORS. The window displays a table with columns for ID, Car user requirements, Test Cases, Test Status, and Verdict. The table contains 15 rows of data, including requirements for availability, lifetime, security, accessories, and fuel input.

ID	Car user requirements	Test Cases	Test Status	Verdict
CSR103	<b>3.2 Constraint Requirements.</b>		Mixed Status	Failed
CSR104	<b>3.2.1 Availability</b>		Mixed Status	Failed
CSR105	Users shall be able to travel 10000 kilometers with a 99.9 percent chance of experiencing no breakdowns.	(1) 10K Reliability: Failed	Approved	Failed
CSR106	Users shall be able to travel 10000 kilometers with a 99.99 percent chance of experiencing no faults that do not result in breakdowns.	(1) 10K Reliability: Failed	Approved	Failed
CSR107	Loss of use of car due to equipment failure shall not exceed 1 day in every 2 years.	(2) Stress Test: Error	Not Approved	Error
CSR108	<b>3.2.2 Lifetime</b>		Not Approved	Error
CSR109	Users shall be able to use the car to its designed standard for 200000 kilometers.	(2) Stress Test: Error (3) Security Check: Passed	Not Approved	Error
CSR110	<b>3.2.3 Security</b>			
CSR111	Only the authorized user shall be able to start and drive away the vehicle.			
CSR112	<b>3.2.4 Accessories</b>		Approved	Passed
CSR113	A warning triangle shall be supplied with the vehicle	(4) Accessory Audit: Passed	Approved	Passed
CSR114	A first aid kit shall be supplied with the vehicle	(4) Accessory Audit: Passed	Approved	Passed
CSR115	<b>3.2.5 Fuel input</b>		Approved	Incomplete





# RQM 4.0



2011

2012

2013

## Manual test script recording with IBM Rational Functional Tester

### Accelerate and streamline manual testing creation

- Requires IBM Rational Functional Tester (RFT) 8.2.2
- Records user interactions with application under test using RFT
- Recording is captured as a RQM manual test script in English natural language with screenshots, independant from RFT
- Resulting manual test scripts are executed manually using RQM only
- Support Web and Java applications running on Windows

Step	Description:	Expected Results	Validates
1	select the "Jazz Community Site" window		
2	select the "Rational Quality Manager - Projects - Jazz Community Site" window		
3	select the "New Work Item - Change and Configuration Management" window		
4	click the "Conditions" link		
5	drag the "com_ibm_team_workitem_web_ui_internal_view_queryeditor_Attribute" html		
6	click the "is" textbox		
7	click the "Run" button		







# RQM 4.0



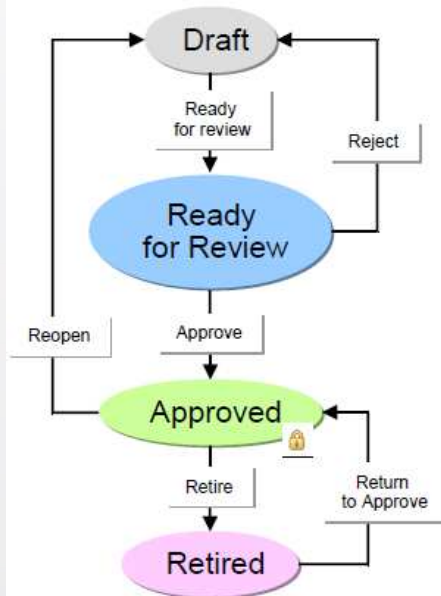
2011

2012

2013

## Test artifacts workflow customization

***Tailor integrated process to fit your needs***



- Each artifact type comes with a predefined set of state transitions, which can be customized
- Each artifact supports a set of pre-defined state groups, which can be used to write process enforcement against
- Each state will then map to each state group
- Transition between states can be customized too
- Can assign process advisers on each state that act as pre-conditions or follow-up actions using Rational Team Concert client

Transitions					
From	To	Draft	Under Review	Approved	Retired
Draft	<None>	<None>	Ready For Review	None	None
Under Review	Reject	Reject	<None>	Approve	None
Approved	None	None	Reopen	<None>	Retire
Retired	None	None	Reopen	None	<None>





# RQM 4.0



2011

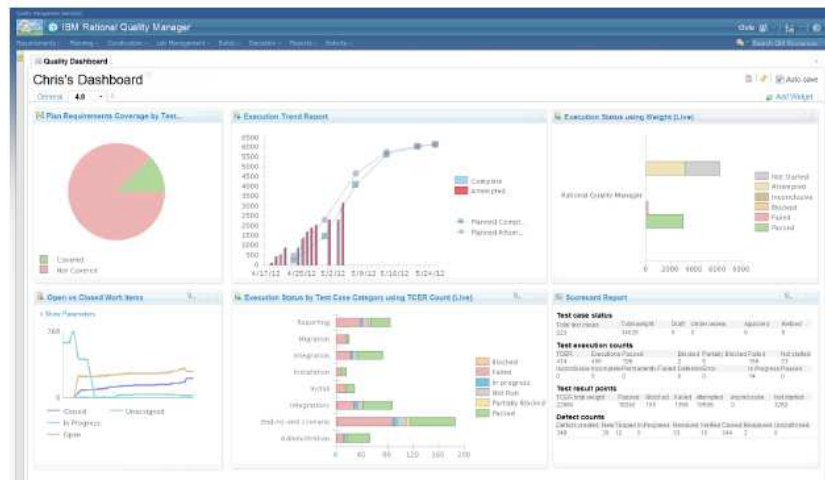
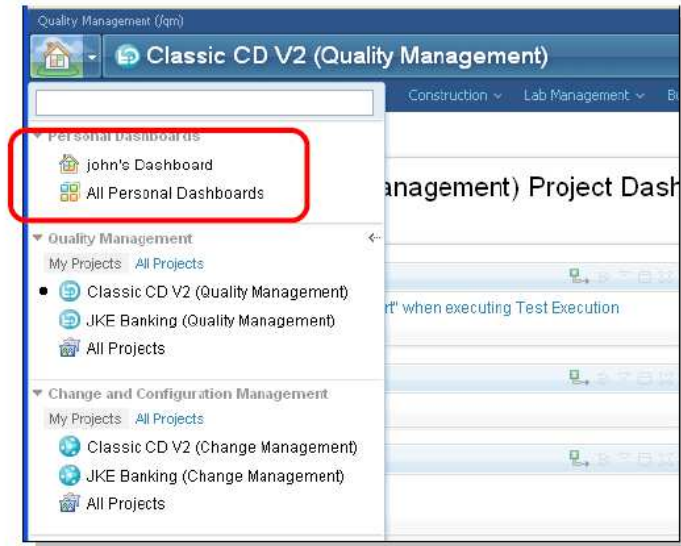
2012

2013

## Dashboard for Project and Teams

***Take informed decision with real-time dashboards***

- One common project dashboard and team dashboards
- Project dashboard is opened in the first tab of the RQM console
- Team dashboards appear in the “Project Dashboard” action bar menu
- Personal Dashboards are now CLM wide and appear in the home menu





# RQM 4.0



2011

2012

2013

## Report design

### Make proactive changes with meaningful actionable reports

- Most chart type reports contain tables below the chart showing the details of the data in the chart making it easier to determine exact values and print the report
- All reports display parameter values in a collapsible section
- About box: documenting the report and what information to look for in the report

#### Defects arrival and resolution\*

Parameters:

- Test Plan: JKE Banking Release 1
- Test Milestone:
- Data Point Labels: Hide Labels

**About this report**

Report Generated: Feb 21, 2012 12:54 PM  
Last Data Snapshot: Feb 21, 2012 12:18:15 AM

**What does this report tell me?**

Displays the number of defects associated with the selected test plan that are open, in progress, and closed over time. Only defects associated with the selected test plan thru execution activity will appear in the report. This is a data warehouse based report so make sure that the data collection jobs have been run successfully.

**Watch For:**

High or increasing numbers of open work items. Ideally, over time, the number of open work items would approach zero as the number of closed work items increases.

#### Execution Status using Weight\*

Parameters:

Test plan	Total weight	Points passed	Points failed	Points blocked	Points inconclusive	Points attempted	Points not started	Points permfailed	Points deferred
JKE Banking Sprint 1	1105	639	49	0	329	100	100	0	0

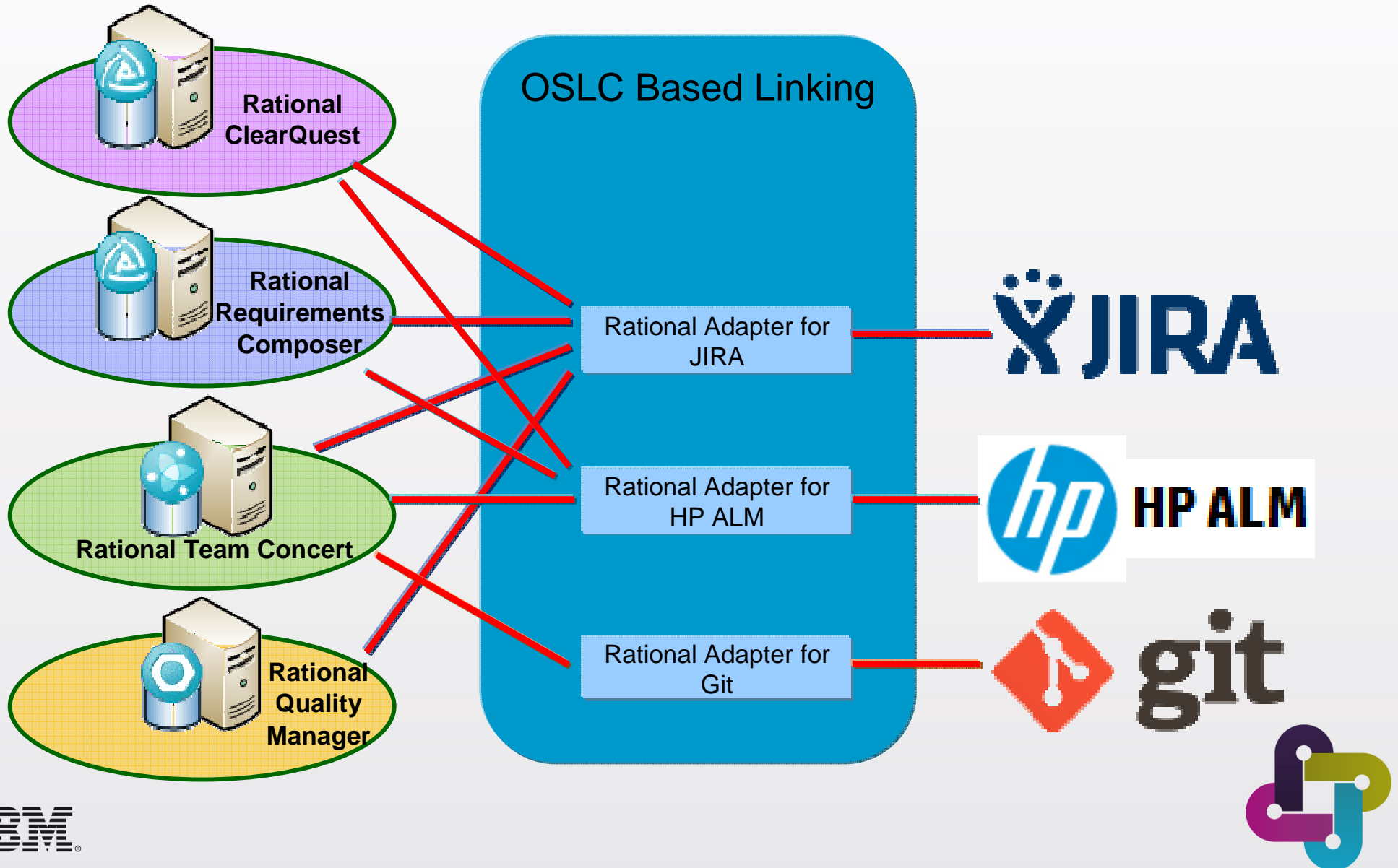




NEW

# Rational Lifecycle Integration Adapters

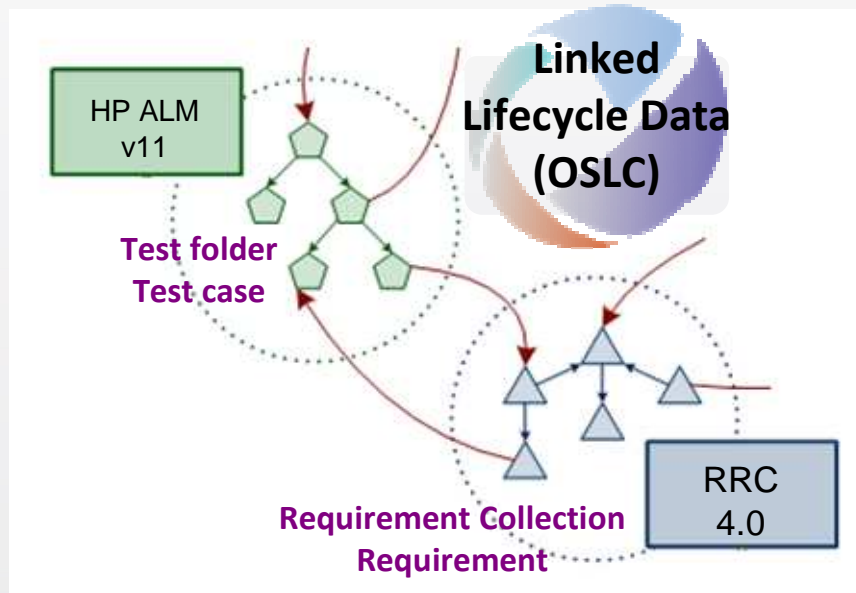
## Standard Edition



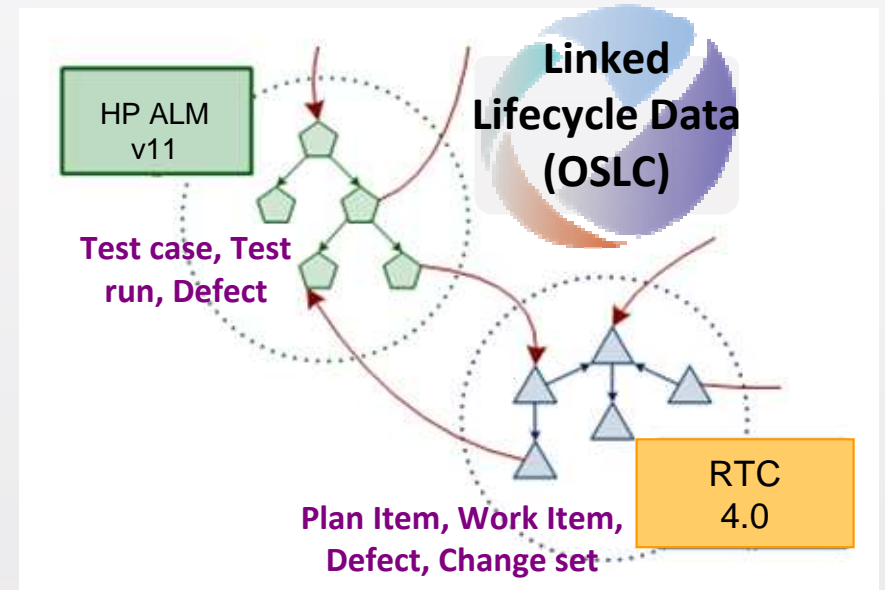


# Rational Lifecycle Integration Adapters Standard Edition for HP QC/ALM

Analystes et testeurs peuvent travailler dans leur outil préférentiel tout en collaborant sur les exigences et les cas de tests associés.



Equipes de développement et testeurs peuvent travailler dans leur outil préférentiel tout en collaborant sur les tâches de développement, corrections de défauts et les cas de tests associés.



# IBM Rational Recognized As A Leader in ALM

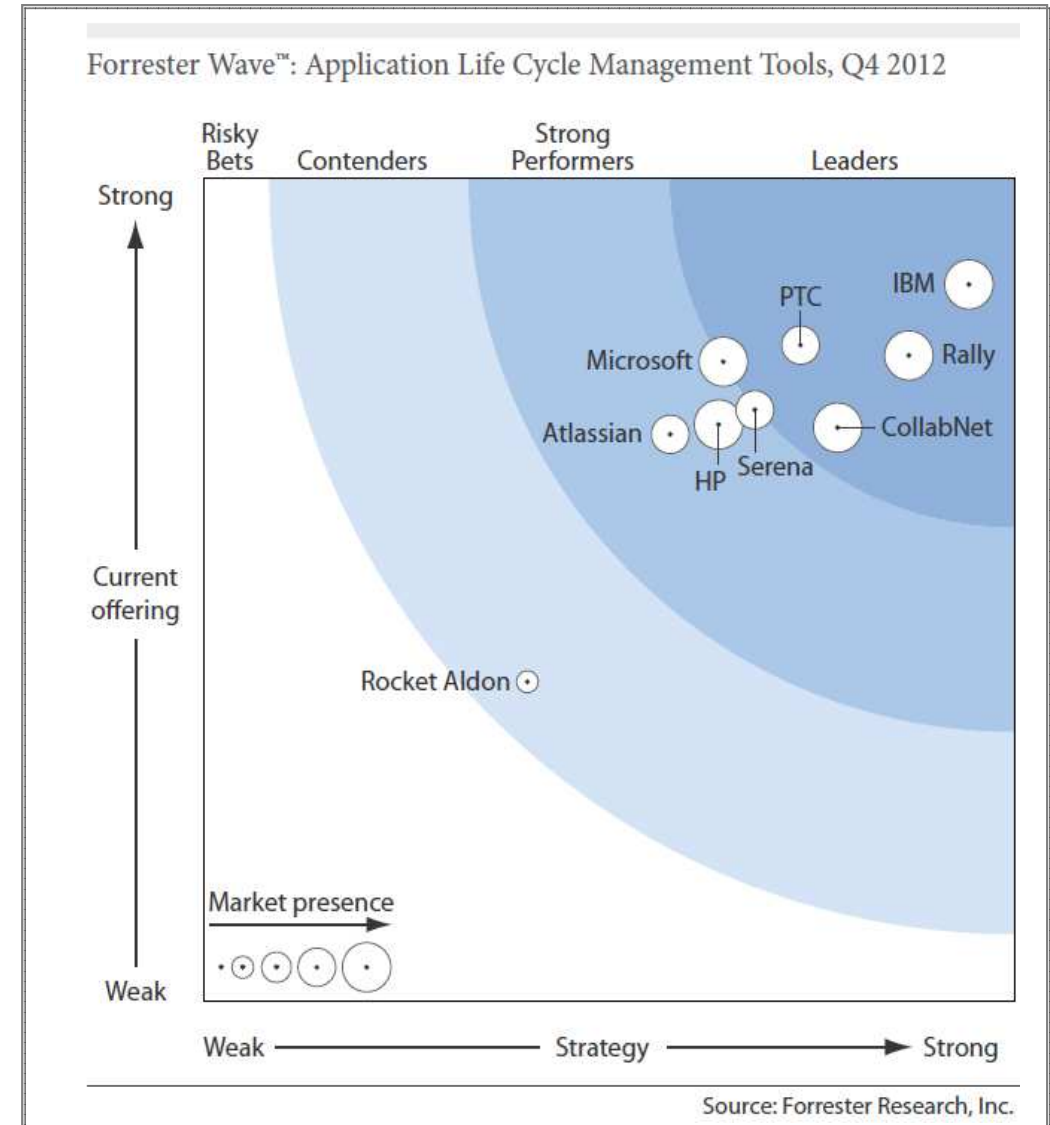
## The Forrester Wave™: Application Life-cycle Management Q4 2012\*

### Report Highlights

- Highest Scores among all vendors for Current Offering & Strategy“
- *“Not only has IBM continued development of its strong suite of products, but it has also stitched them together in a more coherent way.”*
- *[IBM] has also made clearer the use cases it supports ... such as Agile teams and embedded software development“*

➔ [Link to report](#)

[https://www.ibm.com/services/forms/signup.do?source=swg-rtl-sd-ekit&S\\_PKG=500016656](https://www.ibm.com/services/forms/signup.do?source=swg-rtl-sd-ekit&S_PKG=500016656)



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