IBM SolutionsConnect 2013

L'IBM TechSoftware nouvelle génération

28, 29 et 30 août

IBM Client Center Paris

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Les pratiques agiles avec Rational : De la définition d'exigences au déploiement d'application

Philippe Leblanc – Technical Sales & Solutions
IBM Rational

Agenda

- L'agilité implique une équipe multidisciplinaire et une collaboration continue entre analystes, développeurs et testeurs. Elle demande une organisation en cycles courts et un suivi de projet en temps réel. L'agilité impose de réduire le fossé entre les équipes de développement et les équipes d'exploitation. Dans cette session, nous verrons comment la plateforme ALM (Application Lifecycle Management) Rational permet de répondre aux exigences de l'agilité
- Partie 1 : L’agilité avec Scrum
- Partie 2 : Présentation de la plateforme ALM – exigences, développement, test, déploiement
- Partie 3 : Exemple de projet ALM

Qu’est-ce que l’Agilité ?

- Une approche itérative et incrémentale menée de façon fortement collaborative avec le juste niveau de formalisme pour produire un logiciel de haute qualité dans le respect des coûts et des délais et en satisfaisant les besoins évolutifs de ses clients.

- Principes
  - Collaboration constante au sein de l’équipe en impliquant les parties prenantes
  - Réponse rapide au changement à l’aide de plans d’itérations
  - Livraison fréquente de logiciel en fonctionnement
  - Tests et validations en continu
  - Transparence/visibilité
  - Processus adaptés “juste ce qu’il faut”

- Les techniques agiles sont largement diffusées dans les organisations informatiques, avec des pratiques très répandues telles que l’intégration continue, le développement itératif, ou encore le développement piloté par les tests (TDD)…

Taux d’adoption

- 69% des organisations mènent un ou plusieurs projets agiles
- 82% sont au delà d’un projet pilote
- 25% restants espèrent mener un projet Agile cette année (2008)

Source : Dr. Dobb’s Journal (www.ddj.com)
2008 Agile Adoption Survey

Eléments fondamentaux de Scrum

- Scrum vise à
  - Améliorer la communication et maximiser la coopération
  - Détecter et éliminer tous les obstacles à la production de logiciel opérationnel
  - Maximiser la productivité
- Scrum se veut déployable sur des petits projets jusqu’à des grosses organisations

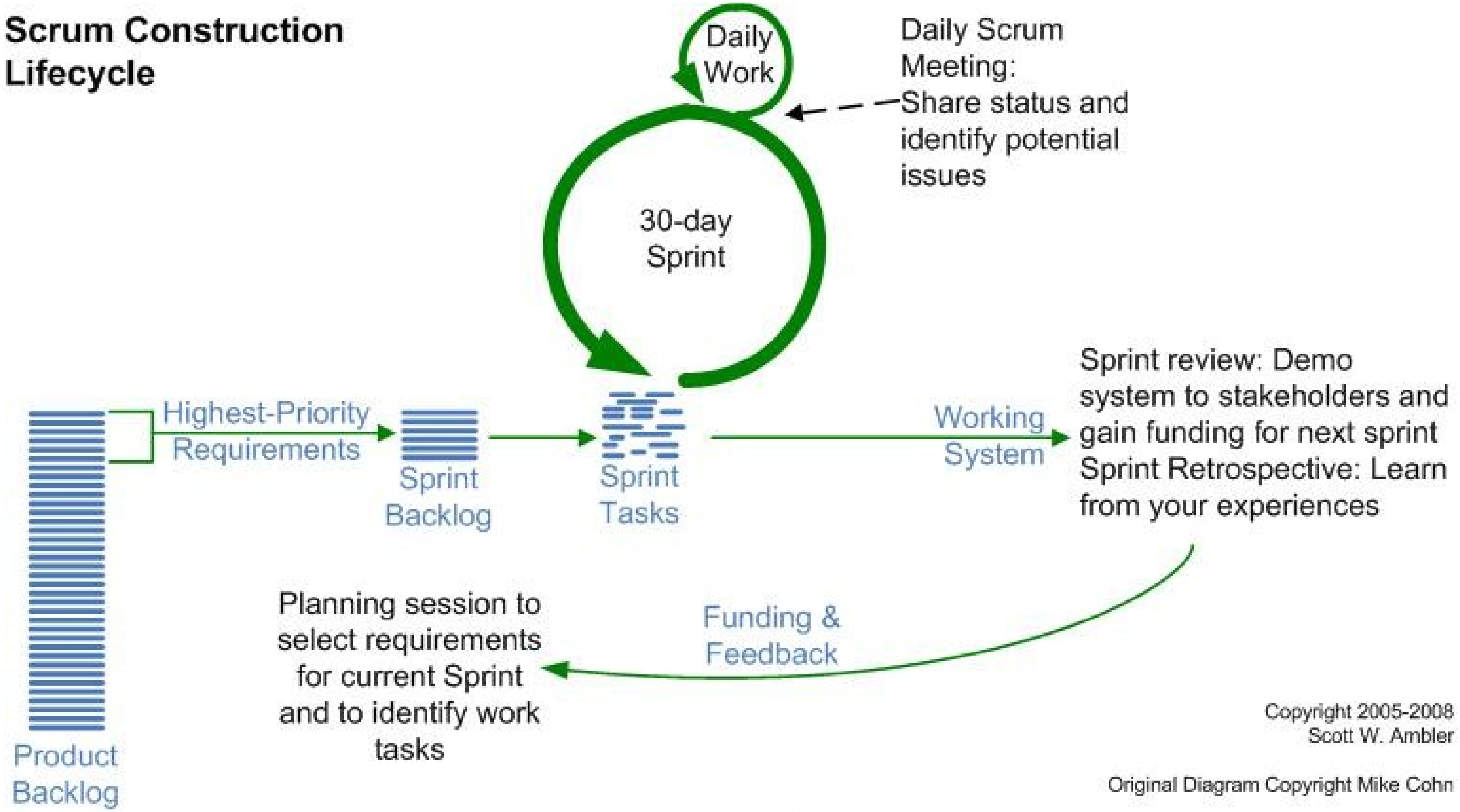
Roles
- Product Owner
- Scrum Master
- Team

Artifacts
- Product Backlog
- Sprint Backlog
- Burndown Charts

Meetings
- Sprint Planning
- Daily Meeting
- Sprint Review
- Sprint Retrospective

Processus agile Scrum

- Les exigences sont définies, conçues, développées et livrées de manière itérative et incrémentale


Scrum Construction Lifecycle
Daily Work
Daily Scrum Meeting: Share status and identify potential issues
30-day Sprint
Highest-Priority Requirements
Sprint Backlog
Sprint Tasks
Working System
Sprint review: Demo system to stakeholders and gain funding for next sprint
Sprint Retrospective: Learn from your experiences
Planning session to select requirements for current Sprint and to identify work tasks
Funding & Feedback
Product Backlog

Copyright 2005-2008
Scott W. Ambler

Original Diagram Copyright Mike Cohn

Qu’est ce que Jazz ?

Vision

La nouvelle génération de produits pour profiter de **l’expérience** et de la **valeur** Rational à destination des équipes qui délivrent des systèmes et des logiciels.

Innovation

Un investissement majeur d’IBM pour créer une **plateforme extensible** pour intégrer l’activité des équipes de développement sur tout le cycle de vie

Ingénierie Logiciel Innovante

Communauté

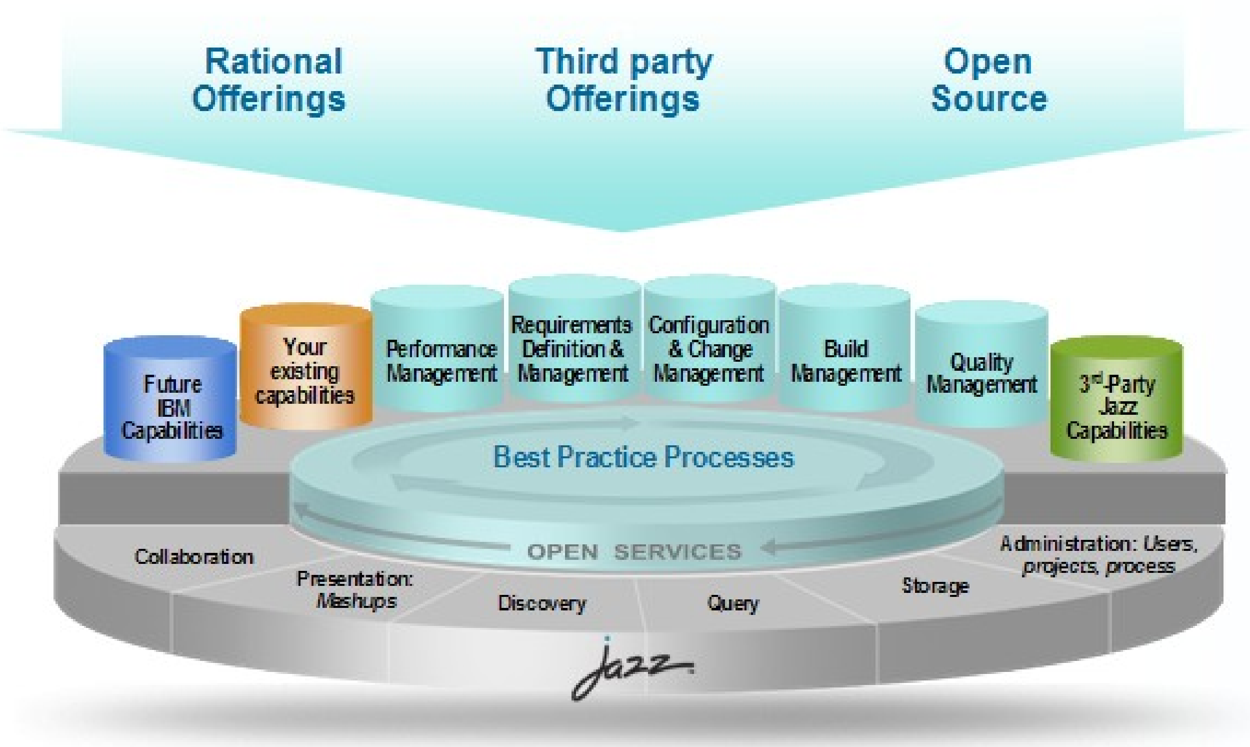
Jazz.net – un espace en ligne pour des **développements ouverts** commerciaux de la plate-forme Jazz et de produits basés sur Jazz ; ainsi qu’une extension de la communauté Eclipse

Community
Modularity
Empowerment
via Passive Governance

Produits Rational

Un projet commercial dirigé par IBM qui étend la plate-forme Eclipse. En 2007, **Rational team Concert** est le premier produit basé sur Jazz fait pour supporter les processus agiles. D’autres produits sont sortis depuis et d’autres sont annoncés.

Jazz est une plateforme ouverte dédiée au développement logiciel


Rational Offerings
Third party Offerings
Open Source
Future IBM Capabilities
Your existing capabilities
Performance Management
Requirements Definition & Management
Configuration & Change Management
Build Management
Quality Management
3rd-Party Jazz Capabilities
Best Practice Processes
OPEN SERVICES
Collaboration
Presentation: Mashups
Discovery
Query
Storage
Administration: Users, projects, process
Jazz

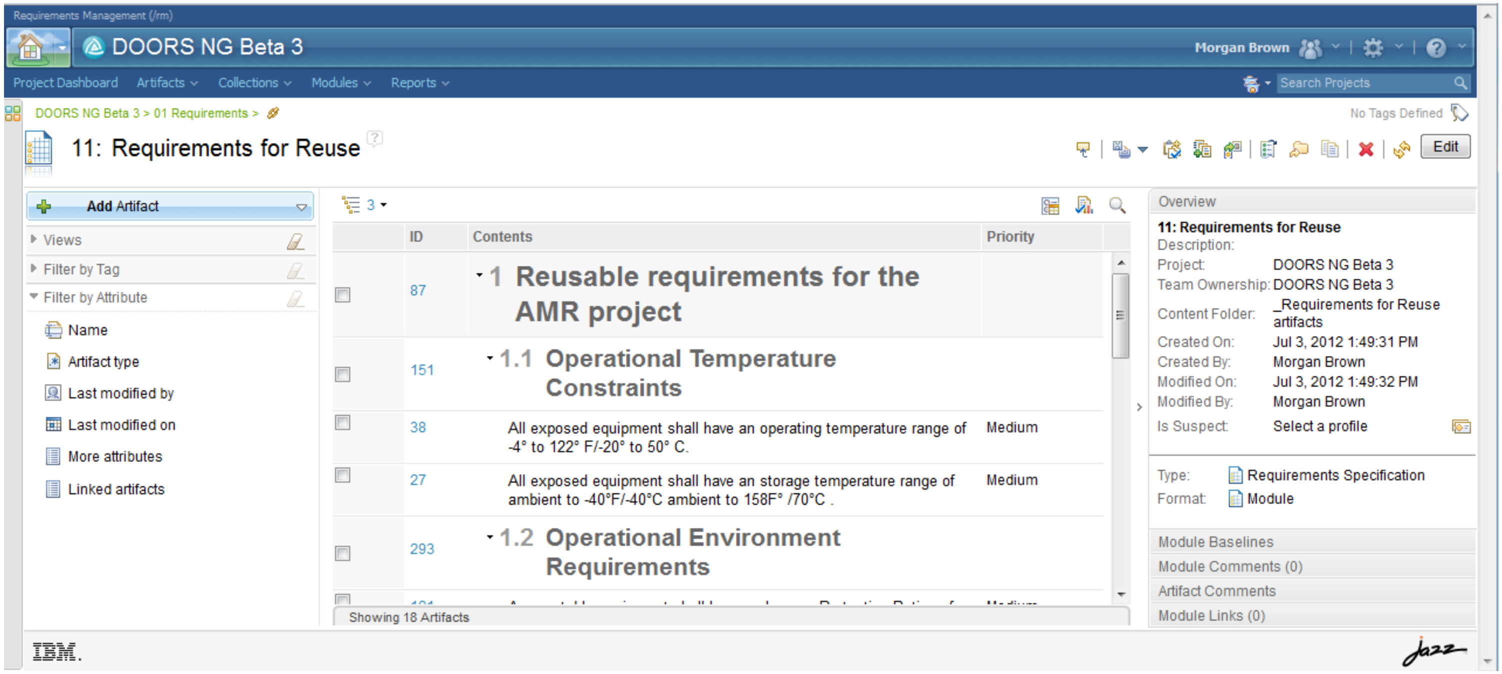
A scalable, extensible team collaboration platform

Jazz

- Une communauté sur Jazz.net donnant accès aux produits Jazz
- Une architecture ouverte supportant les mashups et l'intégration de produits non-Jazz
- Une évolution du portefeuille de IBM Rational au cours du temps

Spécification et gestion des exigences avec Requirements Composer (1/2)

- Client Web
- Spécification des exigences : texte, attributs, tableaux, diagrammes, IHM, images, vues et filtres
- Gestion des exigences : accès concurrent, droits, collections, liens suspects, revues, historique, version, template…


Requirements Management (/rm)
DOORS NG Beta 3
Morgan Brown
Project Dashboard
Artifacts
Collections
Modules
Reports
Search Projects
No Tags Defined
Edit
Add Artifact
Views
Filter by Tag
Filter by Attribute
Name
Artifact type
Last modified by
Last modified on
More attributes
Linked artifacts
Module Baselines
Module Comments (0)
Artifact Comments
Module Links (0)
IBM.
Jazz

DOORS NG Beta 3 > 01 Requirements >

11: Requirements for Reuse

	ID	Contents	Priority
☐	87	1 Reusable requirements for the AMR project	
☐	151	1.1 Operational Temperature Constraints	
☐	38	All exposed equipment shall have an operating temperature range of -4° to 122° F/-20° to 50° C.	Medium
☐	27	All exposed equipment shall have an storage temperature range of ambient to -40°F/-40°C ambient to 158F° /70°C .	Medium
☐	293	1.2 Operational Environment Requirements	

Showing 18 Artifacts

Overview

11: Requirements for Reuse

Description:

Project: DOORS NG Beta 3

Team Ownership: DOORS NG Beta 3

Content Folder: _Requirements for Reuse artifacts

Created On: Jul 3, 2012 1:49:31 PM

Created By: Morgan Brown

Modified On: Jul 3, 2012 1:49:32 PM

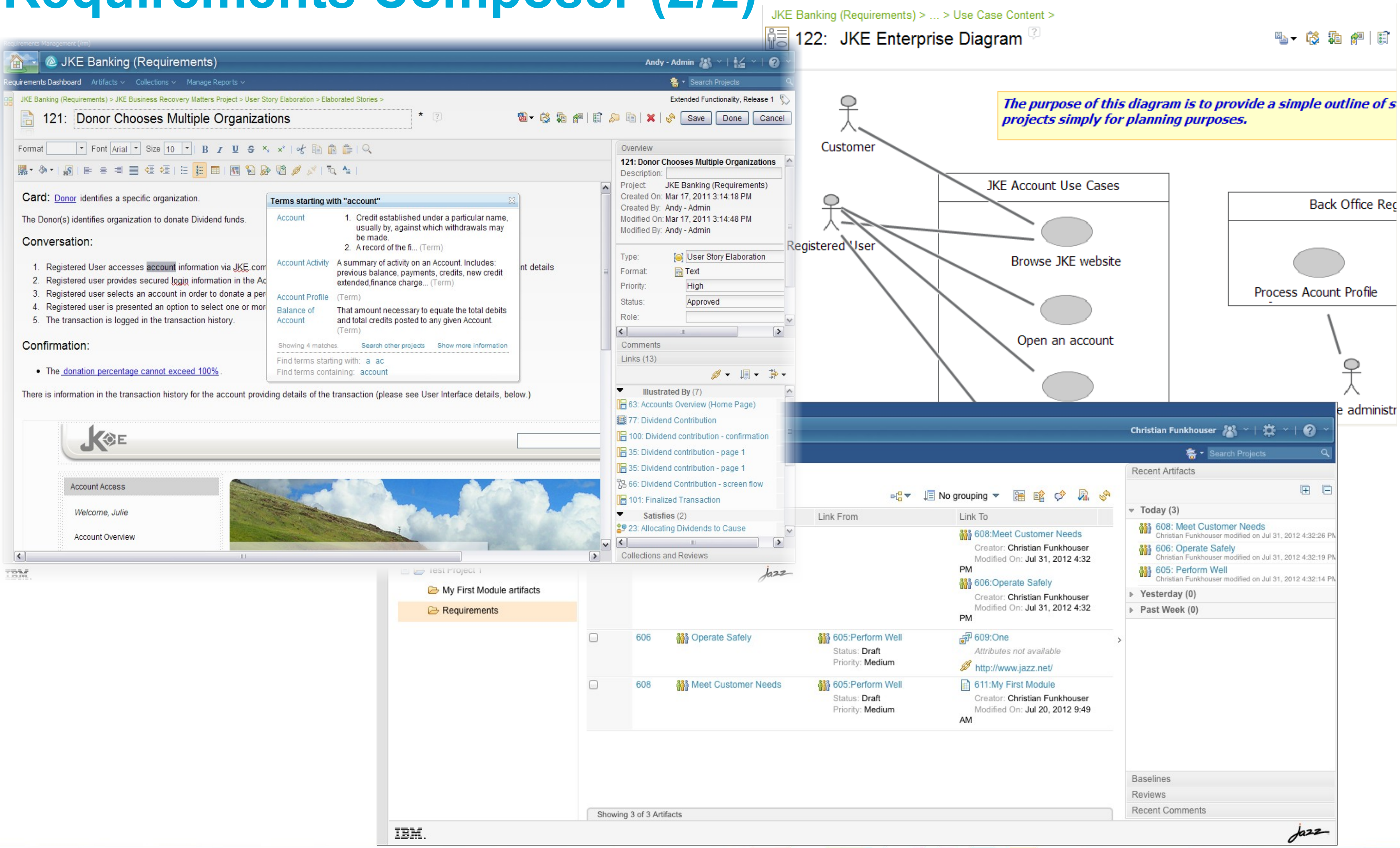
Modified By: Morgan Brown

Is Suspect: Select a profile

Type: Requirements Specification

Format: Module

Spécification et gestion des exigences avec Requirements Composer (2/2)



JKE Banking (Requirements)

Requirements Dashboard · Artifacts · Collections · Manage Reports

JKE Banking (Requirements) > JKE Business Recovery Matters Project > User Story Elaboration > Elaborated Stories >

Extended Functionality, Release 1

121: Donor Chooses Multiple Organizations

Card: Donor identifies a specific organization.

The Donor(s) identifies organization to donate Dividend funds.

Conversation:

1. Registered User accesses account information via JKE.com
2. Registered user provides secured login information in the Ac
3. Registered user selects an account in order to donate a per
4. Registered user is presented an option to select one or mor
5. The transaction is logged in the transaction history.

Confirmation:

- The donation percentage cannot exceed 100%.

There is information in the transaction history for the account providing details of the transaction (please see User Interface details, below.)

Terms starting with "account"

Account	1. Credit established under a particular name, usually by, against which withdrawals may be made. 2. A record of the fi... (Term)
Account Activity	A summary of activity on an Account. Includes: previous balance, payments, credits, new credit extended,finance charge... (Term)
Account Profile	(Term)
Balance of Account	That amount necessary to equate the total debits and total credits posted to any given Account. (Term)

Showing 4 matches. Search other projects · Show more information

Find terms starting with: a ac

Find terms containing: account

Overview

121: Donor Chooses Multiple Organizations

Description:

Project: JKE Banking (Requirements)

Created On: Mar 17, 2011 3:14:18 PM

Created By: Andy - Admin

Modified On: Mar 17, 2011 3:14:48 PM

Modified By: Andy - Admin

Type: User Story Elaboration

Format: Text

Priority: High

Status: Approved

Role:

Comments

Links (13)

Illustrated By (7)

- 63: Accounts Overview (Home Page)
- 77: Dividend Contribution
- 100: Dividend contribution - confirmation
- 35: Dividend contribution - page 1
- 35: Dividend contribution - page 1
- 66: Dividend Contribution - screen flow
- 101: Finalized Transaction

Satisfies (2)

- 23: Allocating Dividends to Cause

Collections and Reviews

JKE Banking (Requirements) > ... > Use Case Content >

122: JKE Enterprise Diagram

The purpose of this diagram is to provide a simple outline of s projects simply for planning purposes.

Christian Funkhouser

Recent Artifacts

Today (3)

- 608: Meet Customer Needs — Christian Funkhouser modified on Jul 31, 2012 4:32:26 PM
- 606: Operate Safely — Christian Funkhouser modified on Jul 31, 2012 4:32:19 PM
- 605: Perform Well — Christian Funkhouser modified on Jul 31, 2012 4:32:14 PM

Yesterday (0)

Past Week (0)

Test Project 1

- My First Module artifacts
- Requirements

No grouping

	ID	Name	Link From	Link To
				608:Meet Customer Needs Creator: Christian Funkhouser Modified On: Jul 31, 2012 4:32 PM 606:Operate Safely Creator: Christian Funkhouser Modified On: Jul 31, 2012 4:32 PM
☐	606	Operate Safely	605:Perform Well Status: Draft Priority: Medium	609:One Attributes not available http://www.jazz.net/
☐	608	Meet Customer Needs	605:Perform Well Status: Draft Priority: Medium	611:My First Module Creator: Christian Funkhouser Modified On: Jul 20, 2012 9:49 AM

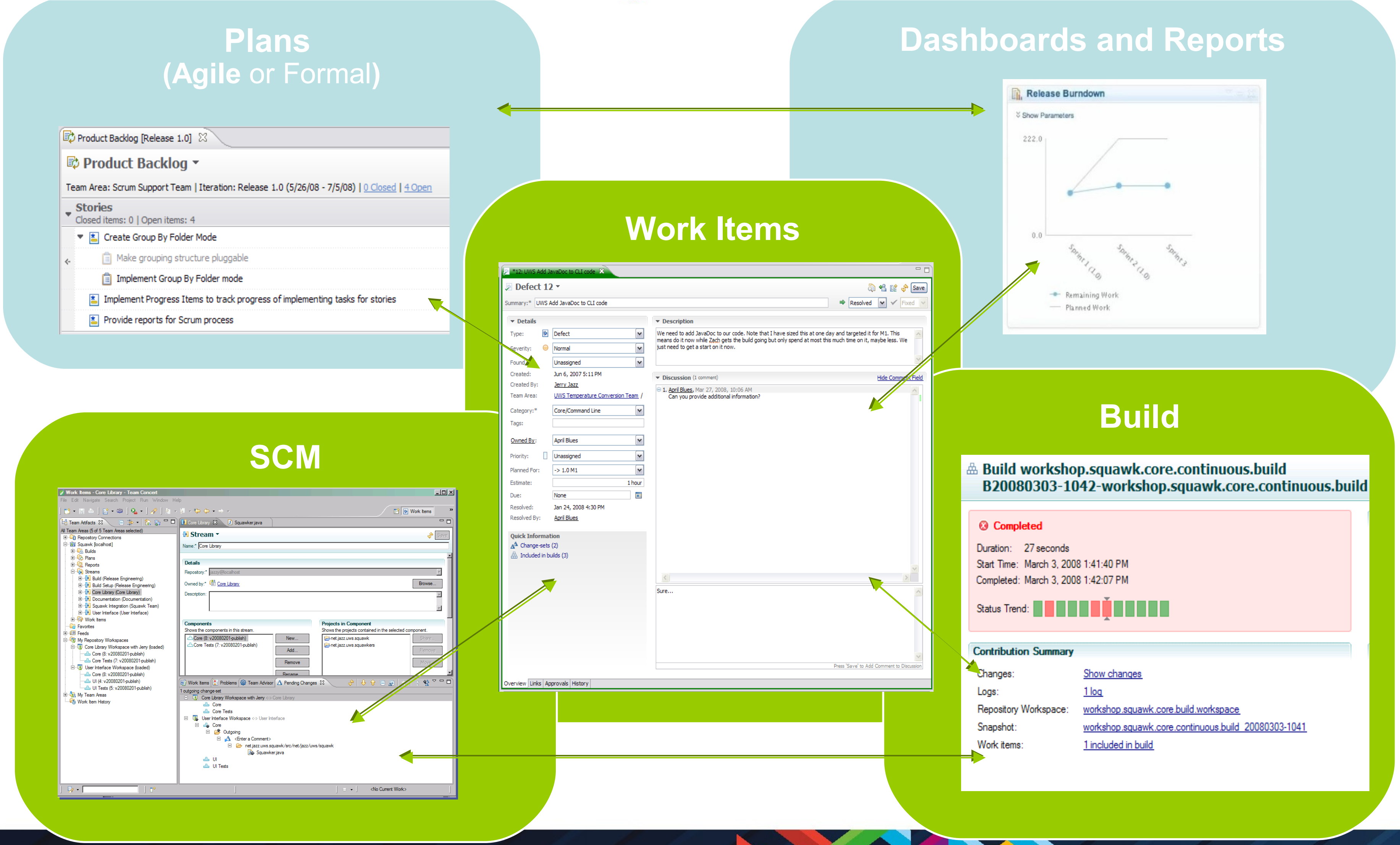
Showing 3 of 3 Artifacts

Baselines

Reviews

Recent Comments

Planification et développement agile intégrés dans Rational Team Concert (1/2)



Plans

(Agile or Formal)

Product Backlog [Release 1.0]

Product Backlog

Team Area: Scrum Support Team | Iteration: Release 1.0 (5/26/08 - 7/5/08) | 0 Closed | 4 Open

Stories

Closed items: 0 | Open items: 4

- Create Group By Folder Mode
  - Make grouping structure pluggable
  - Implement Group By Folder mode
- Implement Progress Items to track progress of implementing tasks for stories
- Provide reports for Scrum process

Dashboards and Reports

Release Burndown

Work Items

*12: UWS Add JavaDoc to CLI code

Defect 12

Summary:* UWS Add JavaDoc to CLI code

Resolved

Fixed

Details

Type: Defect

Severity: Normal

Found: Unassigned

Created: Jun 6, 2007 5:11 PM

Created By: Jerry Jazz

Team Area: UWS Temperature Conversion Team /

Category:* Core/Command Line

Tags:

Owned By: April Blues

Priority: Unassigned

Planned For: -> 1.0 M1

Estimate: 1 hour

Due: None

Resolved: Jan 24, 2008 4:30 PM

Resolved By: April Blues

Quick Information

Change-sets (2)

Included in builds (3)

Description

We need to add JavaDoc to our code. Note that I have sized this at one day and targeted it for M1. This means do it now while Zach gets the build going but only spend at most this much time on it, maybe less. We just need to get a start on it now.

Discussion (1 comment)

Hide Comment Field

1. April Blues, Mar 27, 2008, 10:06 AM
   Can you provide additional information?

Sure...

Press 'Save' to Add Comment to Discussion

SCM

Work Items - Core Library - Team Concert

All Team Areas (5 of 5 Team Areas selected)

- Repository Connections
- Squawk [localhost]
  - Builds
  - Plans
  - Reports
  - Streams
    - Build (Release Engineering)
    - Build Setup (Release Engineering)
    - Core Library (Core Library)
    - Documentation (Documentation)
    - Squawk Integration (Squawk Team)
    - User Interface (User Interface)
  - Work Items
- Favorites
- Feeds
- My Repository Workspaces
  - Core Library Workspace with Jerry (loaded)
    - Core (8: v20080201-publish)
    - Core Tests (7: v20080201-publish)
  - User Interface Workspace (loaded)
    - Core (8: v20080201-publish)
    - UI (4: v20080201-publish)
    - UI Tests (5: v20080201-publish)
- My Team Areas
- Work Item History

Stream

Name:* Core Library

Details

Repository:* jazzy@localhost

Owned by:* Core Library

Description:

Components

Shows the components in this stream.

- Core (8: v20080201-publish)
- Core Tests (7: v20080201-publish)

Projects in Component

Shows the projects contained in the selected component.

- net.jazz.uws.squawk
- net.jazz.uws.squawkers

1 outgoing change-set

- Core Library Workspace with Jerry <-> Core Library
  - Core
  - Core Tests
- User Interface Workspace <-> User Interface
  - Core
    - Outgoing
      - <Enter a Comment>
        - net.jazz.uws.squawk/src/net/jazz/uws/squawk
          - Squawker.java
  - UI
  - UI Tests

<No Current Work>

Build

Build workshop.squawk.core.continuous.build B20080303-1042-workshop.squawk.core.continuous.build

Completed

Duration: 27 seconds

Start Time: March 3, 2008 1:41:40 PM

Completed: March 3, 2008 1:42:07 PM

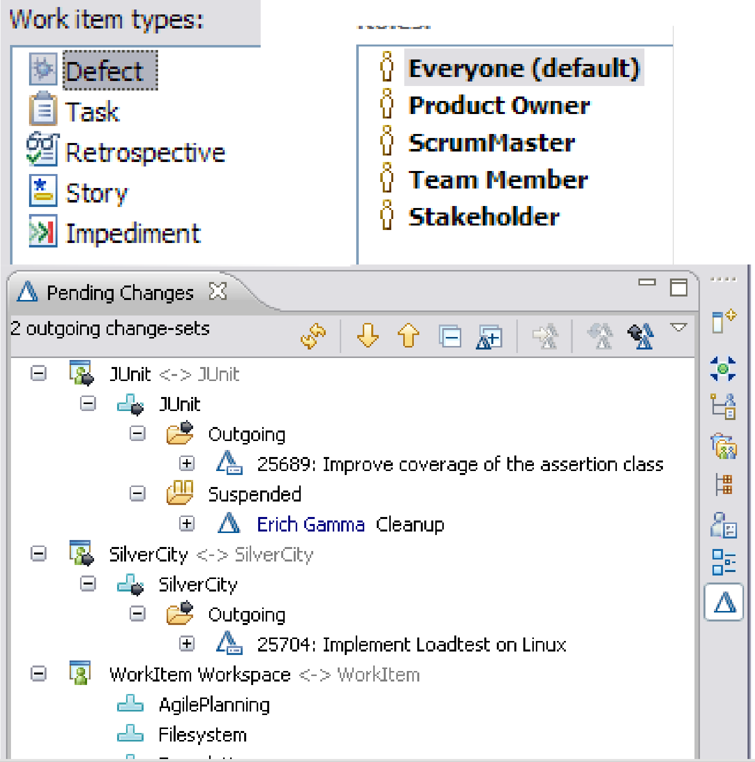
Status Trend:

Contribution Summary

Changes:	Show changes
Logs:	1 log
Repository Workspace:	workshop.squawk.core.build.workspace
Snapshot:	workshop.squawk.core.continuous.build_20080303-1041
Work items:	1 included in build

Planification et développement agile intégrés dans Rational Team Concert (2/2)

- Processus Agiles et Scrum
- Définition et suivi des stories et des tâches
- Gestion de configuration associée aux tâches
- Tableaux de bord
- Communication instantanée
- Build continu



Work item types:

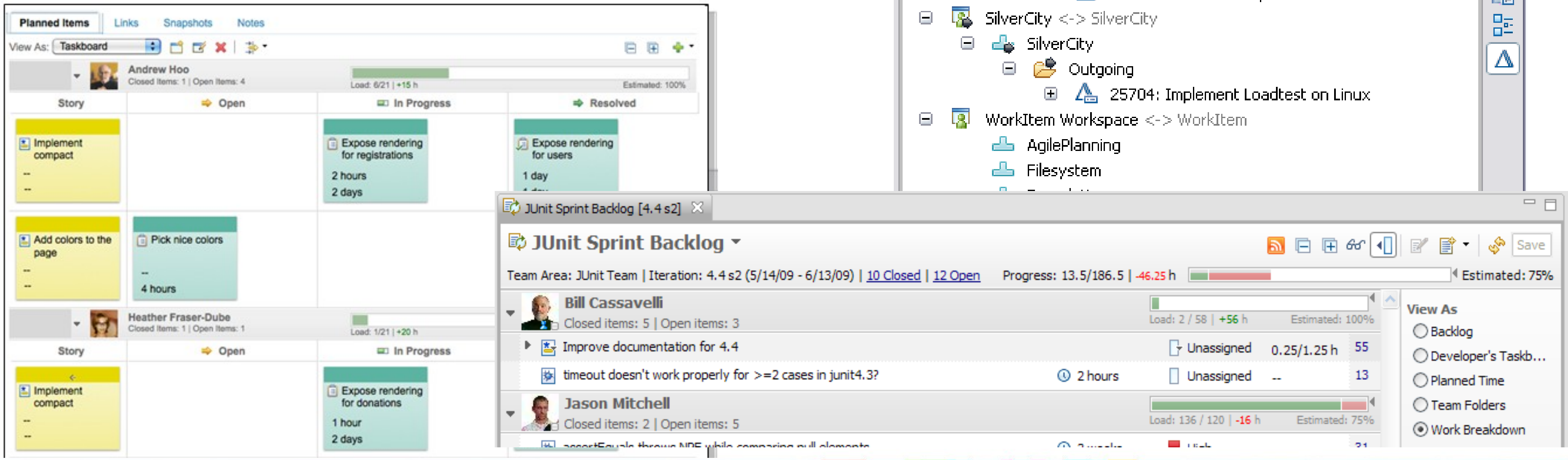
- Defect
- Task
- Retrospective
- Story
- Impediment

- Everyone (default)
- Product Owner
- ScrumMaster
- Team Member
- Stakeholder

Pending Changes

2 outgoing change-sets

- JUnit <-> JUnit
  - JUnit
    - Outgoing
      - 25689: Improve coverage of the assertion class
    - Suspended
      - Erich Gamma Cleanup
- SilverCity <-> SilverCity
  - SilverCity
    - Outgoing
      - 25704: Implement Loadtest on Linux
- WorkItem Workspace <-> WorkItem
  - AgilePlanning
  - Filesystem



Planned Items | Links | Snapshots | Notes

View As: Taskboard

Andrew Hoo
Closed Items: 1 | Open Items: 4
Load: 6/21 | +15 h
Estimated: 100%

Story	Open	In Progress	Resolved
Implement compact -- --		Expose rendering for registrations 2 hours 2 days	Expose rendering for users 1 day
Add colors to the page -- --	Pick nice colors -- 4 hours		

Heather Fraser-Dube
Closed Items: 1 | Open Items: 1
Load: 1/21 | +20 h

Story	Open	In Progress
Implement compact -- --		Expose rendering for donations 1 hour 2 days

JUnit Sprint Backlog [4.4 s2]

JUnit Sprint Backlog

Team Area: JUnit Team | Iteration: 4.4 s2 (5/14/09 - 6/13/09) | 10 Closed | 12 Open   Progress: 13.5/186.5 | -46.25 h   Estimated: 75%

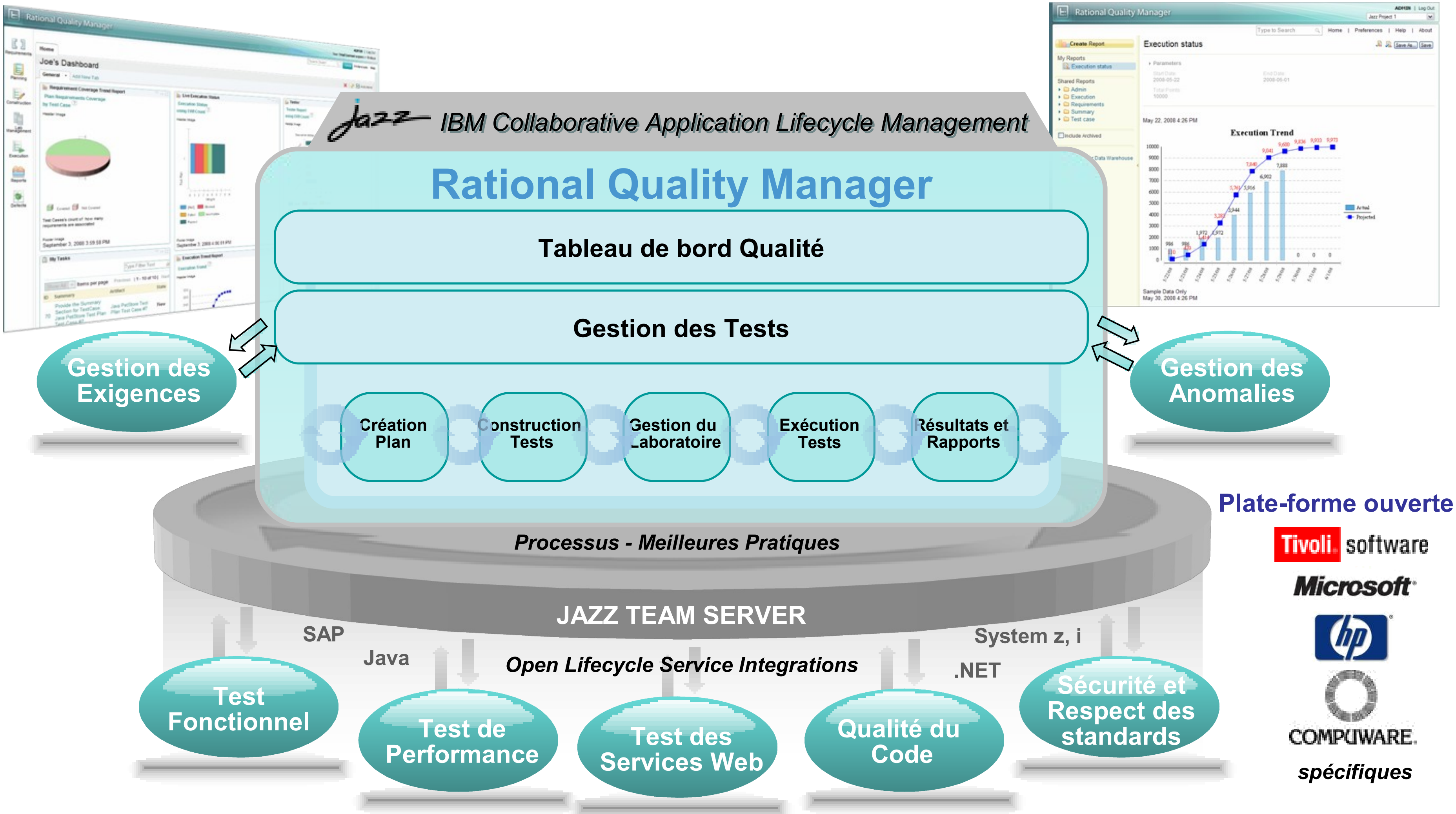
Bill Cassavelli
Closed items: 5 | Open items: 3
Load: 2 / 58 | +56 h   Estimated: 100%

Improve documentation for 4.4		Unassigned	0.25/1.25 h	55
timeout doesn't work properly for >=2 cases in junit4.3?	2 hours	Unassigned	--	13

Jason Mitchell
Closed items: 2 | Open items: 5
Load: 136 / 120 | -16 h   Estimated: 75%

View As
○ Backlog
○ Developer's Taskb...
○ Planned Time
○ Team Folders
● Work Breakdown

Gestion centralisée des tests avec Rational Quality Manager


Rational Quality Manager
Joe's Dashboard
Execution status
Execution Trend

Jazz IBM Collaborative Application Lifecycle Management

Rational Quality Manager

Tableau de bord Qualité

Gestion des Tests

- Création Plan
- Construction Tests
- Gestion du Laboratoire
- Exécution Tests
- Résultats et Rapports

Gestion des Exigences

Gestion des Anomalies

Processus - Meilleures Pratiques

JAZZ TEAM SERVER

SAP

Java

Open Lifecycle Service Integrations

System z, i

.NET

Test Fonctionnel

Test de Performance

Test des Services Web

Qualité du Code

Sécurité et Respect des standards

Plate-forme ouverte

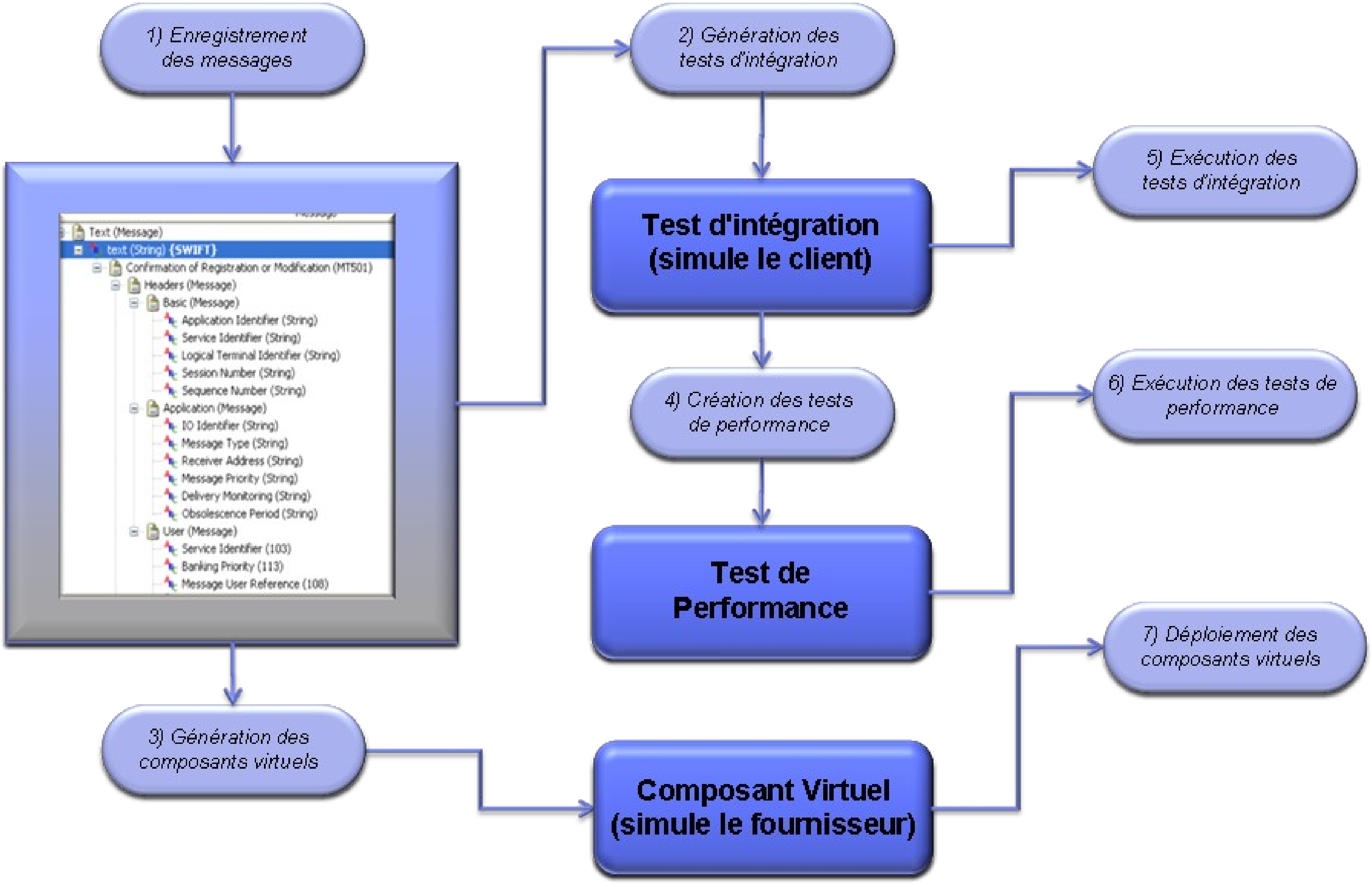
Tivoli software

Microsoft

COMPUWARE

spécifiques

Tests d’intégration et de virtualisation avec Rational Test Workbench



1) Enregistrement des messages

- Text (Message)
  - text (String) {SWIFT}
    - Confirmation of Registration or Modification (MT501)
      - Headers (Message)
        - Basic (Message)
          - Application Identifier (String)
          - Service Identifier (String)
          - Logical Terminal Identifier (String)
          - Session Number (String)
          - Sequence Number (String)
        - Application (Message)
          - IO Identifier (String)
          - Message Type (String)
          - Receiver Address (String)
          - Message Priority (String)
          - Delivery Monitoring (String)
          - Obsolescence Period (String)
        - User (Message)
          - Service Identifier (103)
          - Banking Priority (113)
          - Message User Reference (108)

2) Génération des tests d'intégration

Test d'intégration (simule le client)

5) Exécution des tests d'intégration

4) Création des tests de performance

Test de Performance

6) Exécution des tests de performance

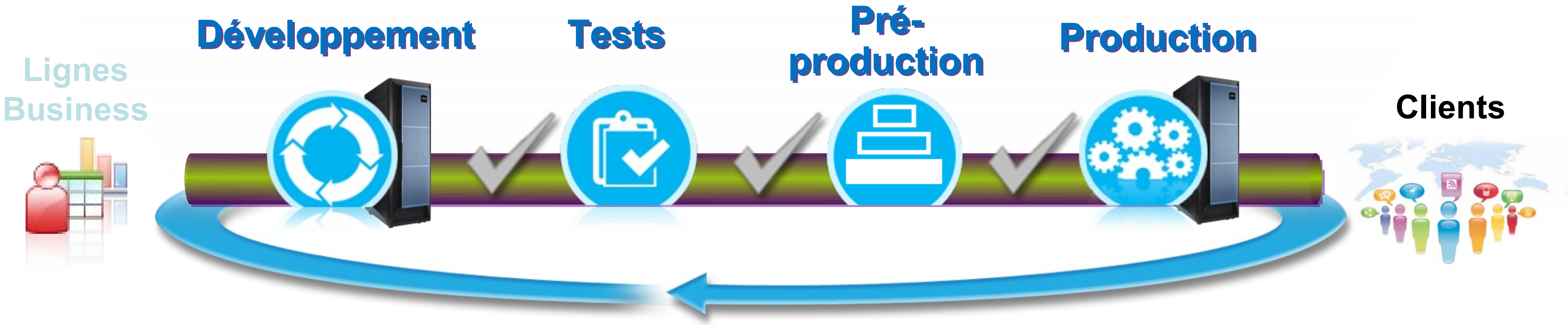
3) Génération des composants virtuels

Composant Virtuel (simule le fournisseur)

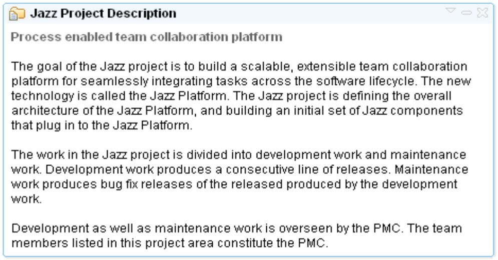
7) Déploiement des composants virtuels

Déploiement continu (DevOps Continuous Delivery) avec BuildForge et UrbanCode (uRelease et uDeploy)

- ***Continuous Delivery***
  Ensemble itératif de contrôles qualité et de vérifications que chaque élément de code applicatif doit passer au cours des phases du cycle de vie avant d'être livré en production.
- Assurer que les applications sont prêtes pour la production tout au long du cycle et peuvent être livrées à tout moment sans retour arrière dû à des problèmes qualité


Lignes Business
Développement
Tests
Pré-production
Production
Clients

Accès simple et complet aux information Projets et Equipes par tableaux de bord adaptables



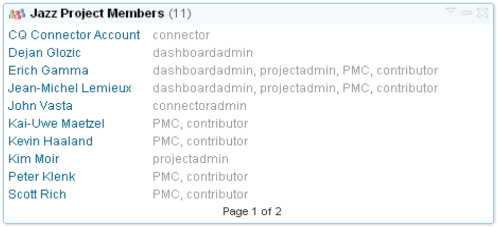
Jazz Project Description

Process enabled team collaboration platform

The goal of the Jazz project is to build a scalable, extensible team collaboration platform for seamlessly integrating tasks across the software lifecycle. The new technology is called the Jazz Platform. The Jazz project is defining the overall architecture of the Jazz Platform, and building an initial set of Jazz components that plug in to the Jazz Platform.

The work in the Jazz project is divided into development work and maintenance work. Development work produces a consecutive line of releases. Maintenance work produces bug fix releases of the released produced by the development work.

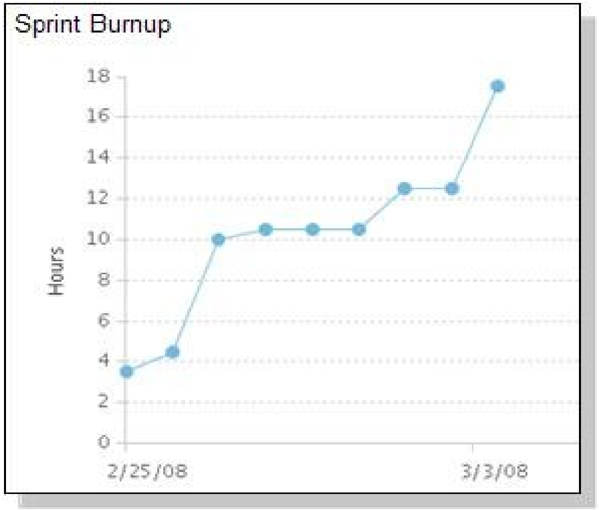
Development as well as maintenance work is overseen by the PMC. The team members listed in this project area constitute the PMC.

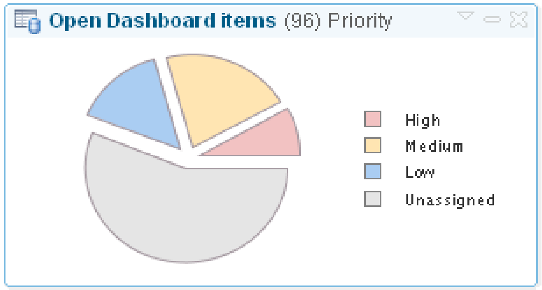


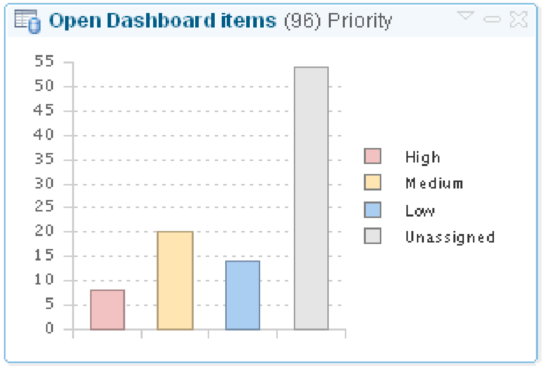
Jazz Project Members (11)

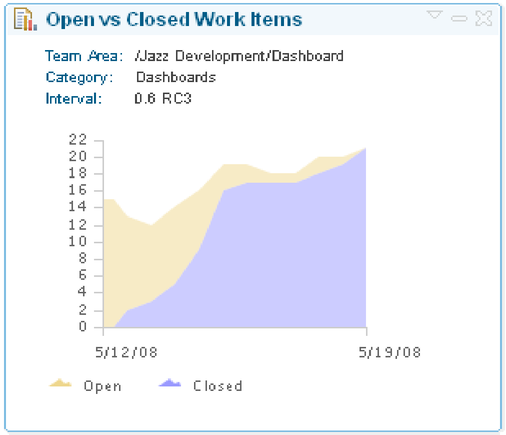
CQ Connector Account	connector
Dejan Glozic	dashboardadmin
Erich Gamma	dashboardadmin, projectadmin, PMC, contributor
Jean-Michel Lemieux	dashboardadmin, projectadmin, PMC, contributor
John Vasta	connectoradmin
Kai-Uwe Maetzel	PMC, contributor
Kevin Haaland	PMC, contributor
Kim Moir	projectadmin
Peter Klenk	PMC, contributor
Scott Rich	PMC, contributor

Page 1 of 2

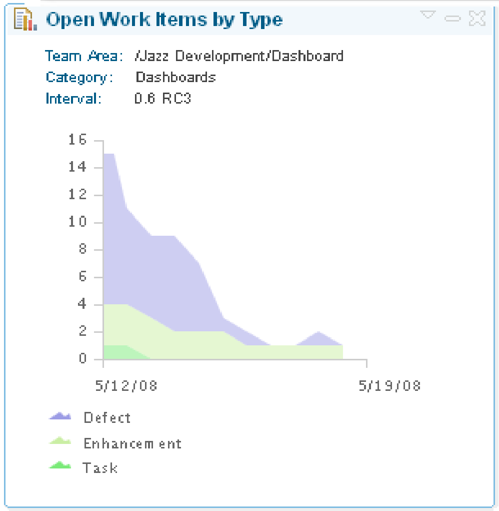




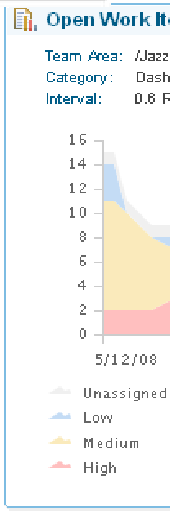




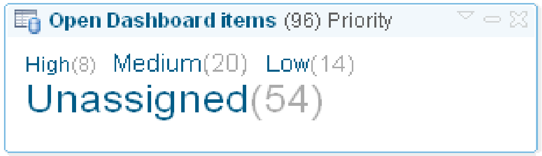
Team Area: /Jazz Development/Dashboard
Category: Dashboards
Interval: 0.6 RC3



Team Area: /Jazz Development/Dashboard
Category: Dashboards
Interval: 0.6 RC3

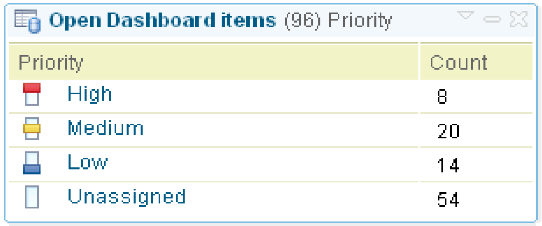


Team Area: /Jazz
Category: Dash
Interval: 0.6 F



Open Dashboard items (96) Priority

High(8) Medium(20) Low(14)
Unassigned(54)



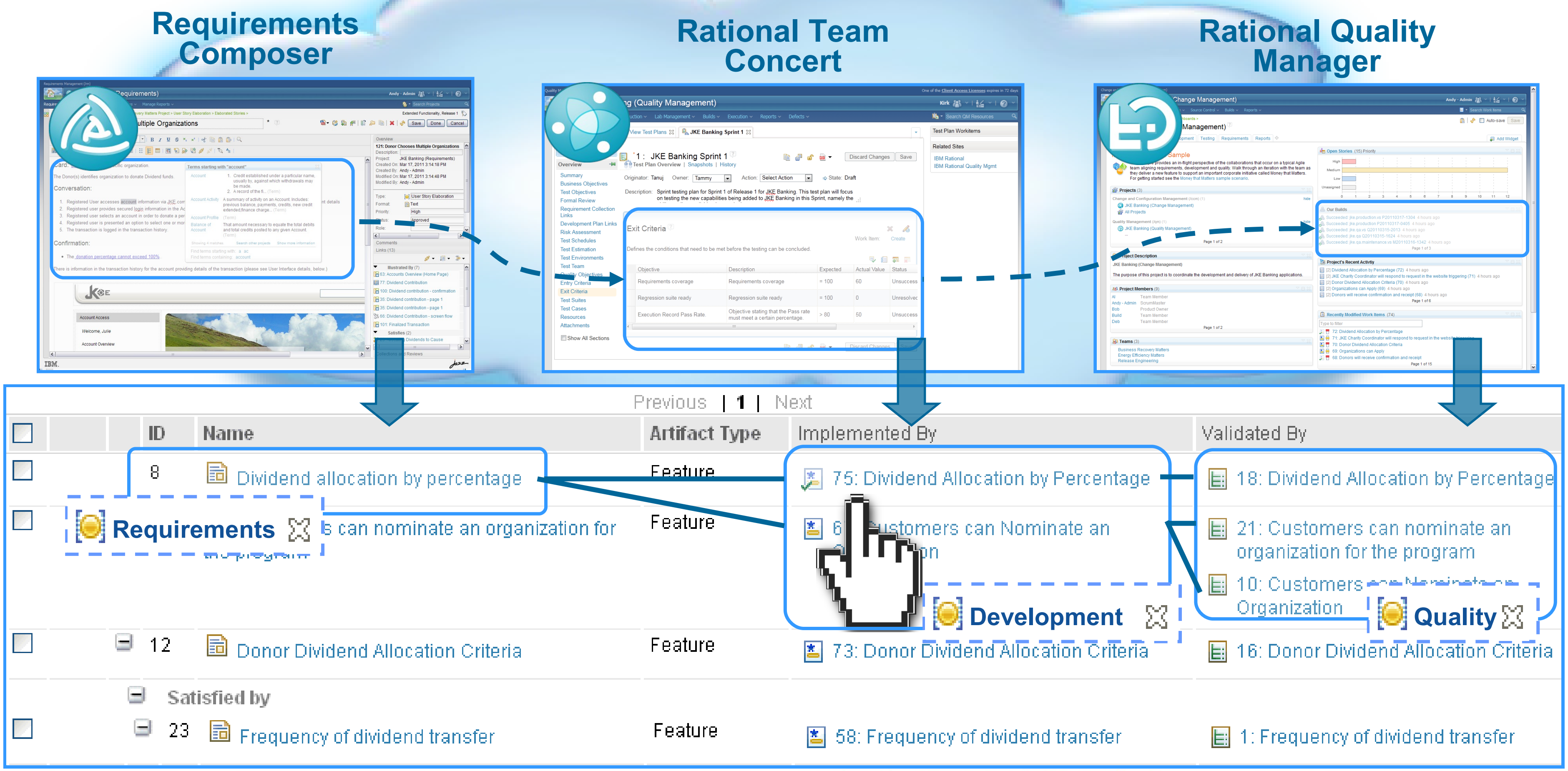
Open Dashboard items (96) Priority

Priority	Count
🟥 High	8
🟨 Medium	20
🟦 Low	14
☐ Unassigned	54

Traçabilité de bout en bout

Connexion des exigences, des développements et des tests

Analystes, Développeurs, Testeurs

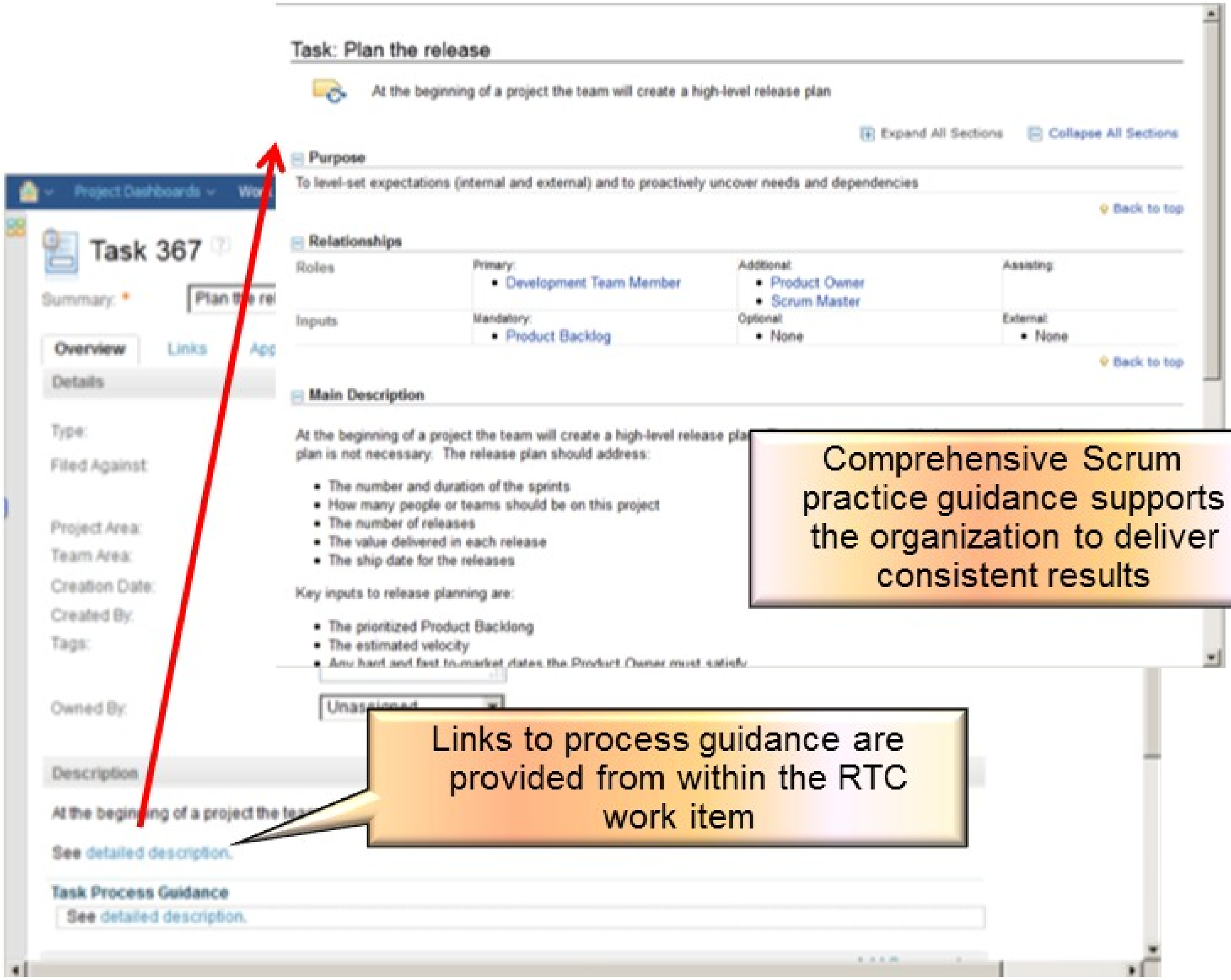


Requirements Composer
Rational Team Concert
Rational Quality Manager
Requirements
Development
Quality

Previous | **1** | Next

☐		ID	Name	Artifact Type	Implemented By	Validated By
☐		8	Dividend allocation by percentage	Feature	75: Dividend Allocation by Percentage	18: Dividend Allocation by Percentage
☐			s can nominate an organization for	Feature	6 ustomers can Nominate an on	21: Customers can nominate an organization for the program 10: Customers Organization
☐	⊟	12	Donor Dividend Allocation Criteria	Feature	73: Donor Dividend Allocation Criteria	16: Donor Dividend Allocation Criteria
	⊟	Satisfied by				
☐	⊟	23	Frequency of dividend transfer	Feature	58: Frequency of dividend transfer	1: Frequency of dividend transfer

Support méthodologique aux pratiques agiles



Task: Plan the release

At the beginning of a project the team will create a high-level release plan

Expand All Sections Collapse All Sections

Purpose

To level-set expectations (internal and external) and to proactively uncover needs and dependencies

Back to top

Relationships

Roles	Primary: • Development Team Member	Additional: • Product Owner • Scrum Master	Assisting:
Inputs	Mandatory: • Product Backlog	Optional: • None	External: • None

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Main Description

At the beginning of a project the team will create a high-level release pla
plan is not necessary. The release plan should address:

- The number and duration of the sprints
- How many people or teams should be on this project
- The number of releases
- The value delivered in each release
- The ship date for the releases

Key inputs to release planning are:

- The prioritized Product Backlong
- The estimated velocity
- Any hard and fast to-market dates the Product Owner must satisfy

Task 367

Summary: * Plan the re

Type:
Filed Against:
Project Area:
Team Area:
Creation Date:
Created By:
Tags:
Owned By:

Description

At the beginning of a project the te

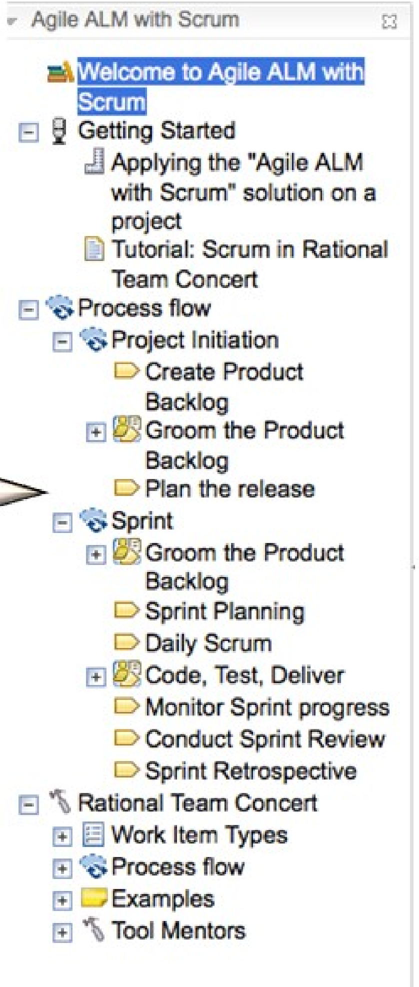
See detailed description.

Task Process Guidance

See detailed description.

Comprehensive Scrum practice guidance supports the organization to deliver consistent results

Links to process guidance are provided from within the RTC work item



Agile ALM with Scrum

- Welcome to Agile ALM with Scrum
- Getting Started
  - Applying the "Agile ALM with Scrum" solution on a project
  - Tutorial: Scrum in Rational Team Concert
- Process flow
  - Project Initiation
    - Create Product Backlog
    - Groom the Product Backlog
    - Plan the release
  - Sprint
    - Groom the Product Backlog
    - Sprint Planning
    - Daily Scrum
    - Code, Test, Deliver
    - Monitor Sprint progress
    - Conduct Sprint Review
    - Sprint Retrospective
- Rational Team Concert
  - Work Item Types
  - Process flow
  - Examples
  - Tool Mentors

Plateforme ouverte basée sur les standards OSLC (open-services.net)

Rational Team Concert

Integrated by design.

Works with Commercial, Open Source and Homegrown Tools

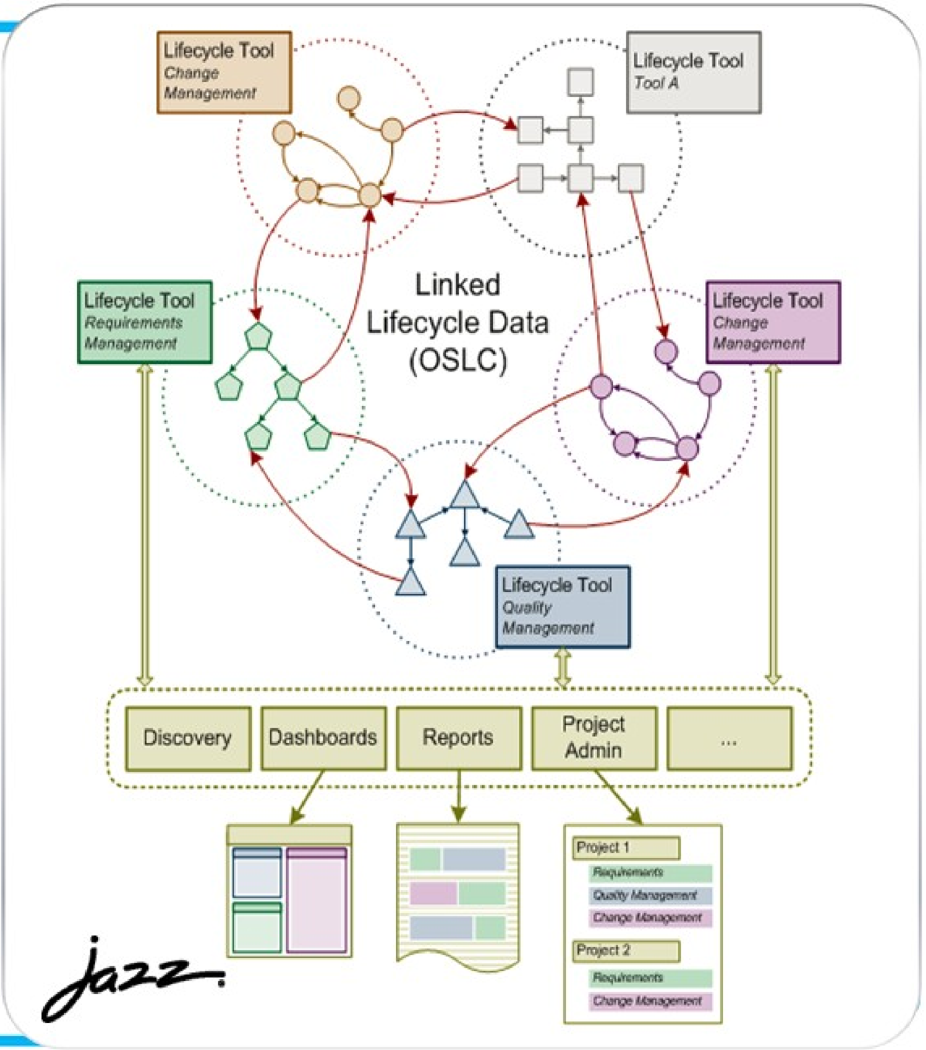
IBM Rational.

ALM

JIRA

git

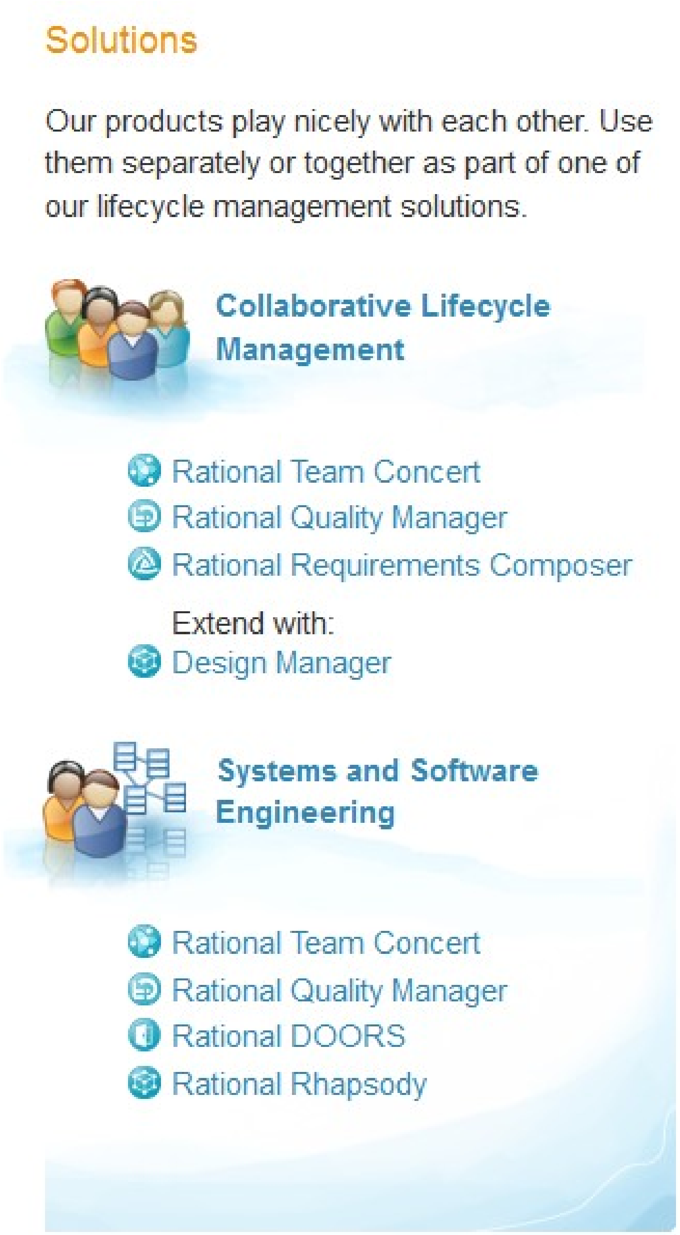
Homegrown



Lifecycle Tool
Change Management
Lifecycle Tool
Tool A
Lifecycle Tool
Requirements Management
Linked Lifecycle Data (OSLC)
Lifecycle Tool
Change Management
Lifecycle Tool
Quality Management
Discovery
Dashboards
Reports
Project Admin
...
Project 1
Requirements
Quality Management
Change Management
Project 2
Requirements
Change Management
jazz

Accès aux ateliers sur Jazz.net

- Un atelier
  - Cible un marché
  - Se compose d’un ensemble d’outils pré-configurés sur la plateforme Jazz
  - Inclut des processus et pratiques définis et accessibles lors de l’exécution des projets
- Atelier « CLM » pour le développement des applications IT
- Atelier « Systems » pour la conception des systèmes complexes et le développement du logiciel embarqué
- Disponible sur Jazz.net
  - Téléchargement, forum, backlog…



Solutions

Our products play nicely with each other. Use them separately or together as part of one of our lifecycle management solutions.

Collaborative Lifecycle Management

Rational Team Concert
Rational Quality Manager
Rational Requirements Composer

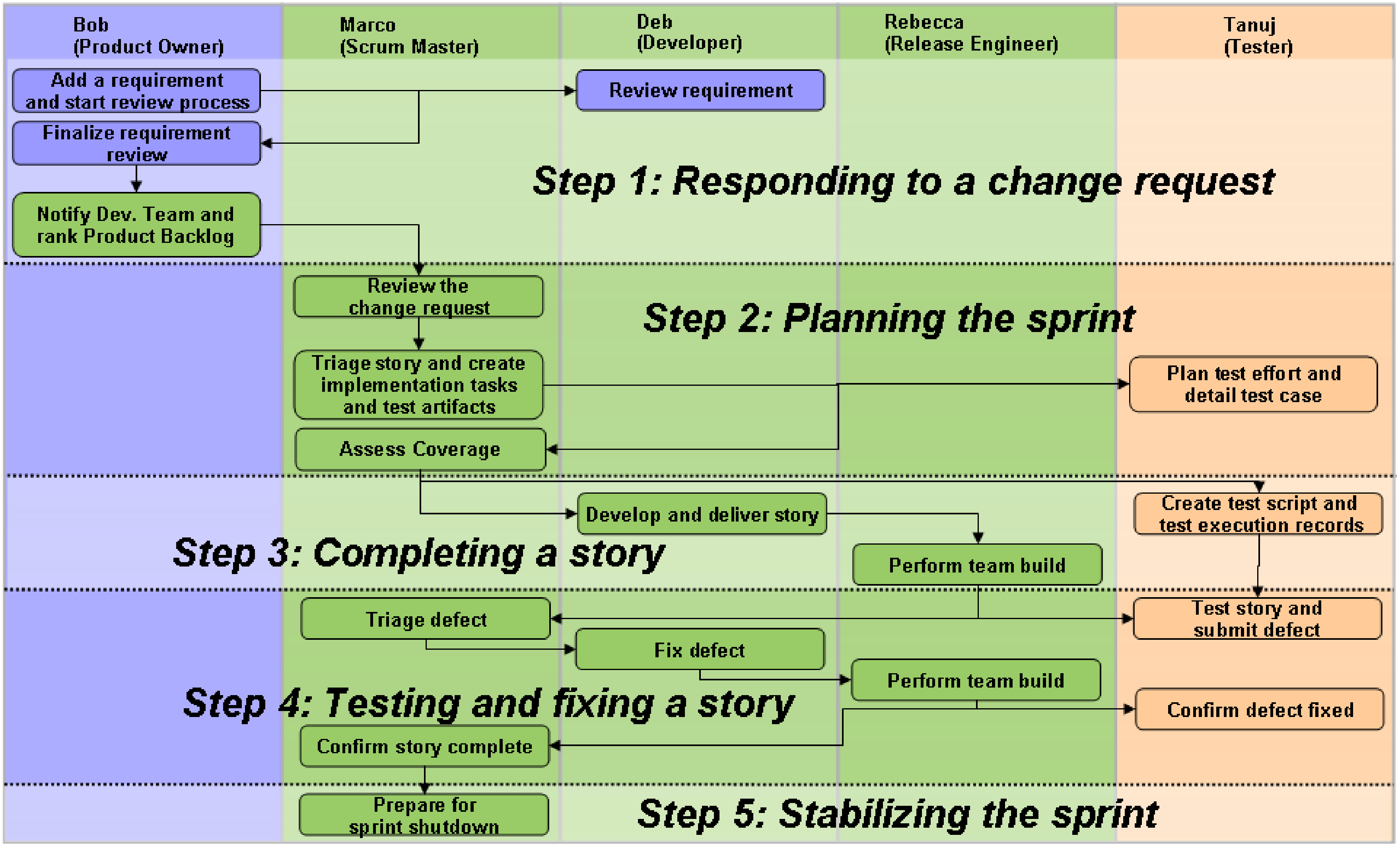
Extend with:
Design Manager

Systems and Software Engineering

Rational Team Concert
Rational Quality Manager
Rational DOORS
Rational Rhapsody

Démonstration

Workflow agile typique supporté par la plateforme Rational



Bob
(Product Owner)

Marco
(Scrum Master)

Deb
(Developer)

Rebecca
(Release Engineer)

Tanuj
(Tester)

Add a requirement and start review process

Review requirement

Finalize requirement review

Notify Dev. Team and rank Product Backlog

Step 1: Responding to a change request

Review the change request

Triage story and create implementation tasks and test artifacts

Plan test effort and detail test case

Assess Coverage

Step 2: Planning the sprint

Develop and deliver story

Create test script and test execution records

Perform team build

Step 3: Completing a story

Triage defect

Test story and submit defect

Fix defect

Perform team build

Confirm defect fixed

Confirm story complete

Step 4: Testing and fixing a story

Prepare for sprint shutdown

Step 5: Stabilizing the sprint

Questions

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