



IBM Software Group

Implementing Agile Requirements using IBM Rational Requirements Composer with C/ALM

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Rational. software



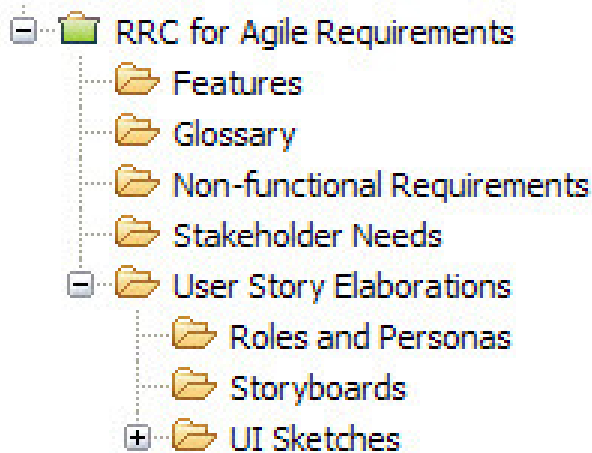
Topics

- **IBM Rational Requirements Composer Agile Requirements Project Template**
- Working with epics and themes
- Analyzing requirements using attributes, tags and filters
- Collaborating with stakeholders on requirements and throughout application lifecycle

Agile requirements project template

- The agile requirements project template includes a set of folders and a document template to elaborate a user story
 - Project Folder:
 - Stakeholder Needs
 - Features
 - Glossary
 - Non-functional Requirements
 - User Story Elaboration
 - Document Template: User Story Elaboration
- Use the template to create a new Requirements Composer project
- Customize the template based on your project needs

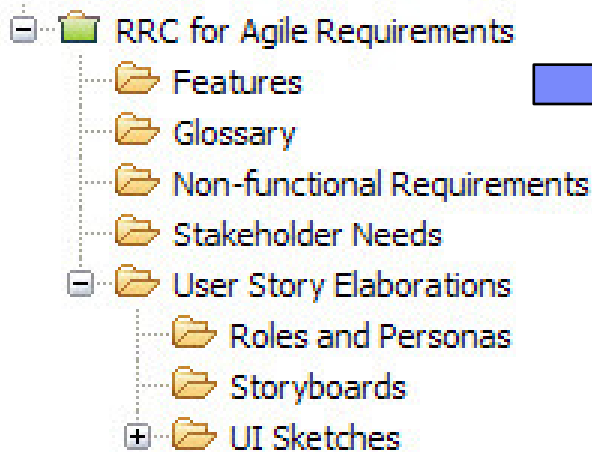
Potentials artifacts for the Stakeholder Needs folder



Potential artifacts at the product and program level:

- Business goals
- Product vision
- Product roadmap and strategy
- Business processes (as-is vs. to-be)

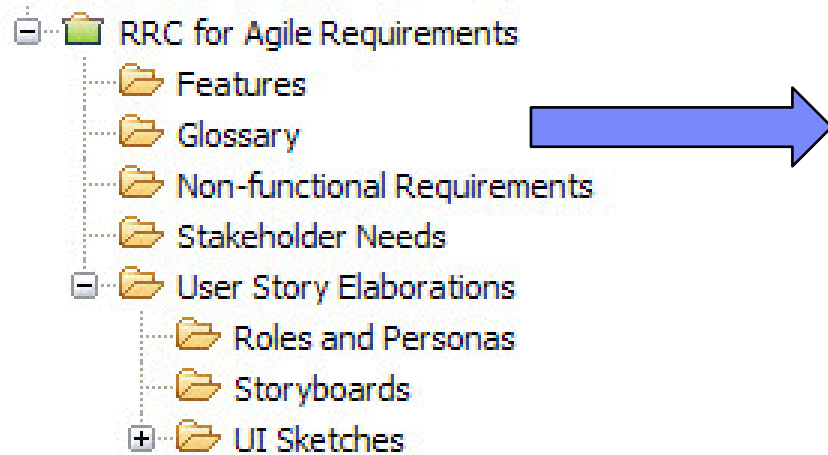
Potential artifacts for the Features folder



Potential artifacts:

- Market analysis and release themes
- Features and benefits for a product release

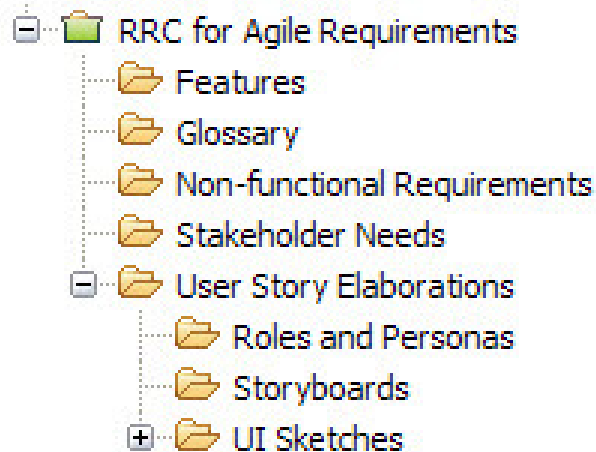
Potential artifacts for the Glossary folder



Potential artifacts:

- Glossary and Terms

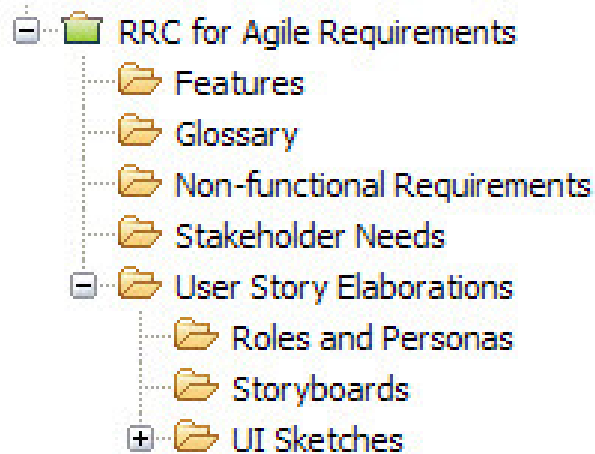
Potential artifacts for the Non-functional Requirements folder



Potential artifacts:

- System-wide non-functional requirements

Potential artifacts for the User Story Elaborations folder



Potential artifacts:

- Flow diagrams for scenarios
 - A scenario can involve multiple user stories
- Roles and personas
- User story elaboration
- UI sketches
- Storyboards

User story elaboration template

Open RRC for Agile Requirements User Story Elaboration x

User Story Elaboration (361) <Enter Description>

Card: *What is the goal of a user? Use 2-3 sentences to capture the intent of the user story. For example, as a (user role), I want to (achieve a goal) so that I can (provide a reason).*

Conversation: *How does a user achieve the goal using the system? Discuss the card with a stakeholder. Do just-in-time analysis through conversations.*

Confirmation: *How do you confirm that the story is implemented correctly, and the goal is achieved? Capture the acceptance criteria including non-functional requirements specific to the story.*

Information

▼ Overview

User Story Elaboration (361)

Project: RRC for Agile Requirements
Created On: Nov 23, 2009 9:34:03 PM
Modified On: Dec 8, 2009 10:22:28 PM
Modified By: RRC2

Attribute Groups

+ Add attributes

▼ User Story Elaboration

Role:
Business Value:
Business Priority:
Product Owner:
Origin:

- Elaborate a user story in a RRC document using a template
- Attribute group for user story elaboration includes: Role, Business Value, Business Priority, Product Owner, Origin

User story elaboration - example

Search an artifact (183) ▾

<Enter Description>

Tina | User Story Elaboration | Elaborated Stories

Card: As a business analyst, I want to search for a requirement artifact.

Conversation:

What are the search criteria?

- Text (Basic Search)
- Artifact Name
- Artifact Type
- Last Modified By
- Tags
- Attribute Group

UI Sketch for Advanced Search:

Search

Repository: RRC_Learning ▾

Project: RRC for Agile Requirements ▾

Text Search
Advanced Search

Artifact Name: Search

Type:

Last Modified By:

Tags: Select Tags

Attribute Groups

Feature User Story

Information

▼ Overview

Search an artifact (183)

Project: Tina

Created On: Nov 30, 2009 4:04:19 PM

Modified On: Dec 1, 2009 9:56:09 AM

Modified By: Tina Zhuo

Attribute Groups

+ Add attributes

▼ User Story Elaborations

Role: User

Business Value: Medium

Business Priority: Medium

Product Owner: George

Origin: Marketing

Confirmation:

The system shall allow users to search across projects within the same repository.

The system shall support a basic search with a single search criteria, and an advanced search with multiple search criteria.

- A user story may start as a short statement, explaining the intent of the user
- It can be elaborated through conversations and confirmation, leveraging techniques such as user interface sketches, and storyboarding

▶ Comments (0)

Topics

- Requirements Composer Agile Requirements Project Template
- **Working with epics and themes**
- Analyzing requirements using attributes, tags and filters
- Collaborating with stakeholders on requirements and throughout application lifecycle


Strategy of describing and managing epics

- Process sketch or storyboard can visually describe an epic
- Break down an epic into user stories to elaborate the details
- Use a collection to manage a group of related user stories

The screenshot displays the IBM Rational software interface for managing a 'user story collection (190)'. The interface includes a header with the collection name and a user profile 'Tina | User Story'. Below the header, there are buttons for 'Add Artifact', 'Create Review', and 'Manage Collection'. A dropdown menu is open under 'Manage Collection', showing options: 'Set Artifacts Version', 'Create Copy of Collection', 'Compare Collection Versions', and 'Link to Test Plan'. The main area shows a table of user stories with columns for Name, Type, Last Modified By, and Last Modified Date. The table contains three entries: 'Elaborated Story 1', 'Elaborated Story 2', and 'Search an artifact'. On the left side, there are filter sections: 'Selected Filters', 'Saved Filters', 'Filter Display by Tag', and 'Filter Display by Attribute'.

Name	Type	Last Modified By	Last Modified Date
Elaborated Story 1	Document	Tina Zhuo	Dec 8, 2009 11:28:29 PM
Elaborated Story 2	Document	Tina Zhuo	Dec 8, 2009 11:28:39 PM
Search an artifact	Document	Tina Zhuo	Dec 8, 2009 10:28:56 PM

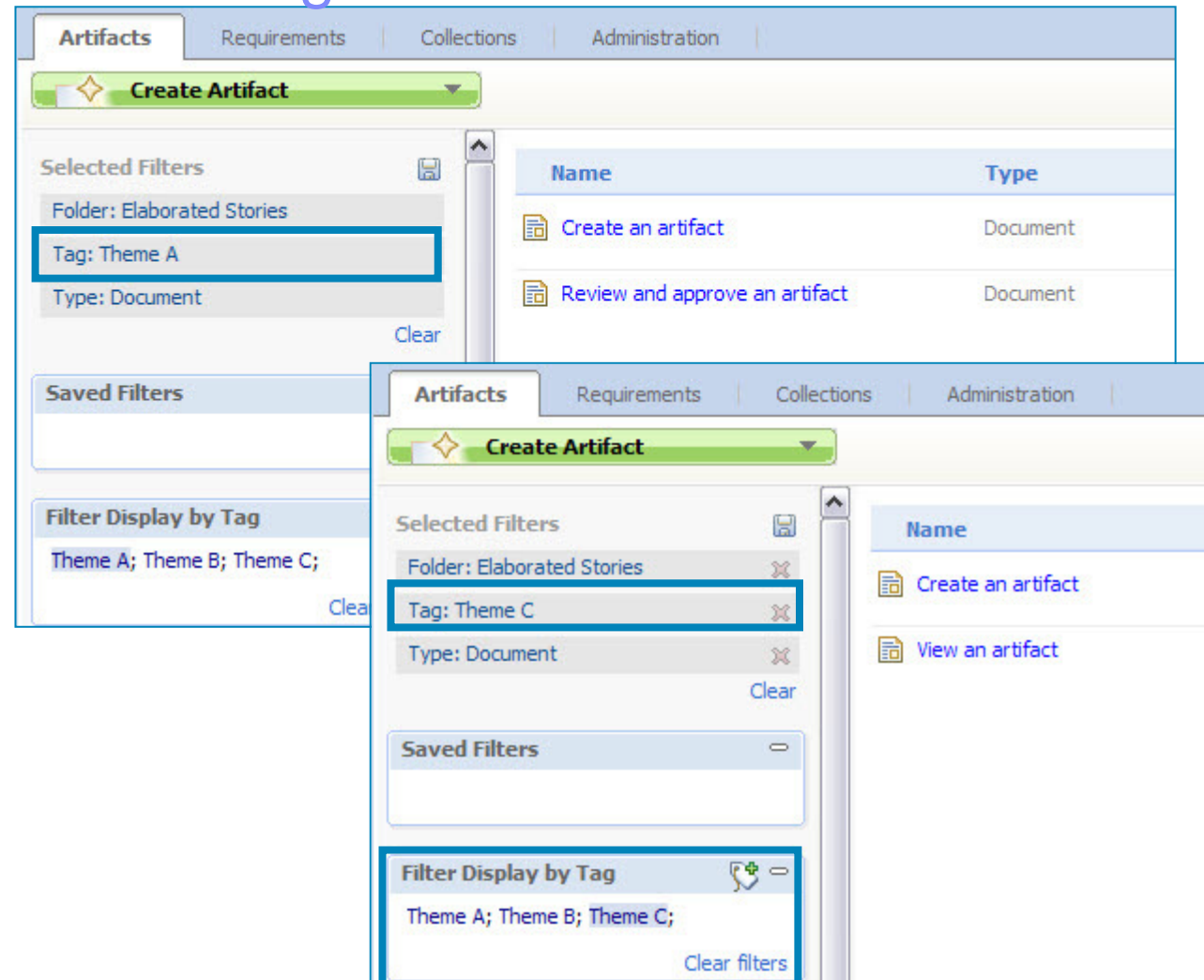
Working with themes: use tags and filters

Filter Display by Tag 

Theme A; Theme B; Theme C;

[Clear filters](#)

- A story can be allocated to one or multiple themes.
- Allocate stories to themes by applying tags
- Filter stories based on themes



The image displays two screenshots of the IBM Rational software interface, illustrating how filters are applied to artifacts based on themes.

Top Screenshot: The 'Artifacts' tab is active. The 'Create Artifact' dropdown is selected. The 'Selected Filters' section shows 'Folder: Elaborated Stories', 'Tag: Theme A', and 'Type: Document'. The 'Saved Filters' section is empty. The 'Filter Display by Tag' section shows 'Theme A; Theme B; Theme C;' and a 'Clear filters' button. The artifact list shows two items:

Name	Type
Create an artifact	Document
Review and approve an artifact	Document

Bottom Screenshot: The 'Artifacts' tab is active. The 'Create Artifact' dropdown is selected. The 'Selected Filters' section shows 'Folder: Elaborated Stories', 'Tag: Theme C', and 'Type: Document'. The 'Saved Filters' section is empty. The 'Filter Display by Tag' section shows 'Theme A; Theme B; Theme C;' and a 'Clear filters' button. The artifact list shows two items:

Name	Type
Create an artifact	Document
View an artifact	Document

Topics

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- Working with epics and themes
- **Analyzing requirements using attributes, tags and filters**
- Collaborating with stakeholders on requirements and throughout application lifecycle

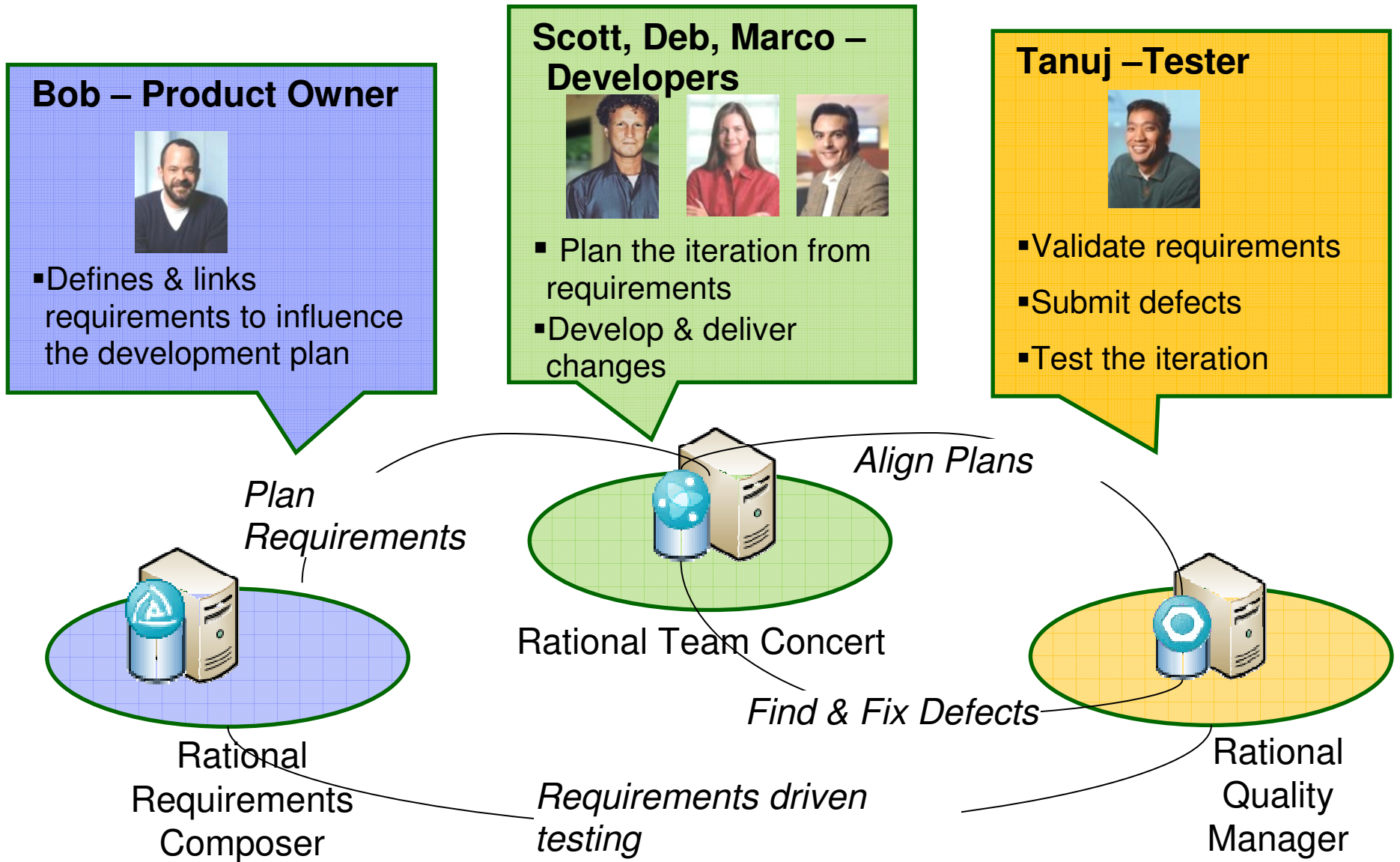
Analyzing elaborated stories using attributes, tags, and filters

- Display all elaborated user stories with their attribute values
- Filter and display elaborated story based on attribute values
 - By Business Priority
 - By Origin
 - By Product Owner
 - By Role
- Organize elaborated stories by themes
- Display elaborated stories in a collection

Topics

- Requirements Composer Agile Requirements Project Template
- Working with epics and themes
- Analyzing requirements using attributes, tags and filters
- **Collaborating with stakeholders on requirements and throughout application lifecycle**

2009 C/ALM - A team collaborates across repositories



Collaborating on requirements through review and comment

Review High Priority Requirements

Participant's Review ✗ Disapproved Your Role: Approver

Overall Review 📄 Draft → ▶ In progress 100% completed ⏸ Pause Review → ✓ Reviewed →

The review will be complete when all reviewers and approvers have reviewed all artifacts. To edit the review, click Pause.

Due Date:

Instructions for reviewers:

Name	Type	Status
tzhuo	Approver	✓ ✗

Artifacts

Artifacts captured on: Sep 30, 2009 10:37:38 PM

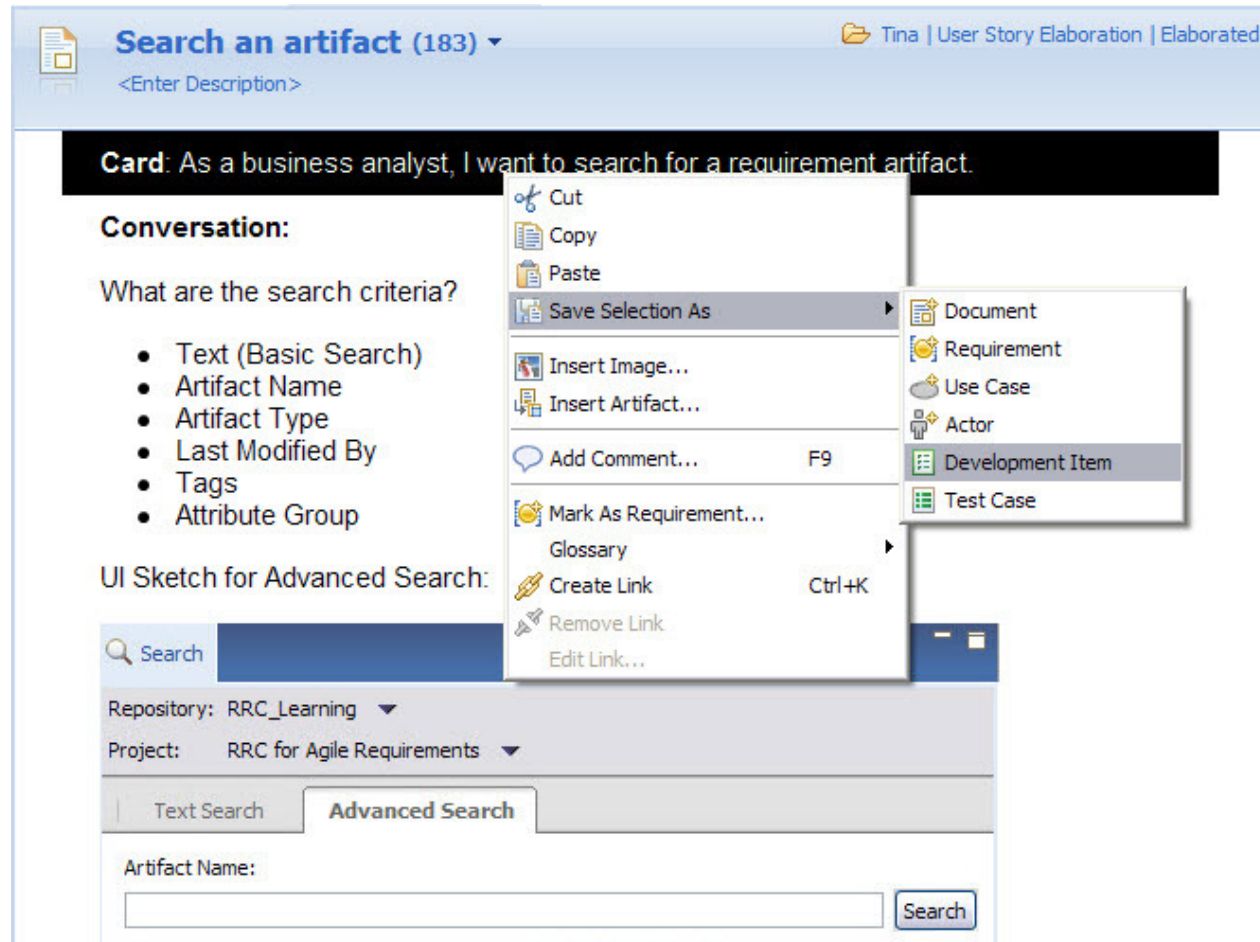
Artifact	Version	Status
User Story 1	Sep 30, 2009 10:20:44 PM	100% completed
User Story 4	Sep 30, 2009 10:18:27 PM	100% completed

Add Artifacts
Remove Artifacts
Edit Artifacts
Change Status
Move Up
Move Down

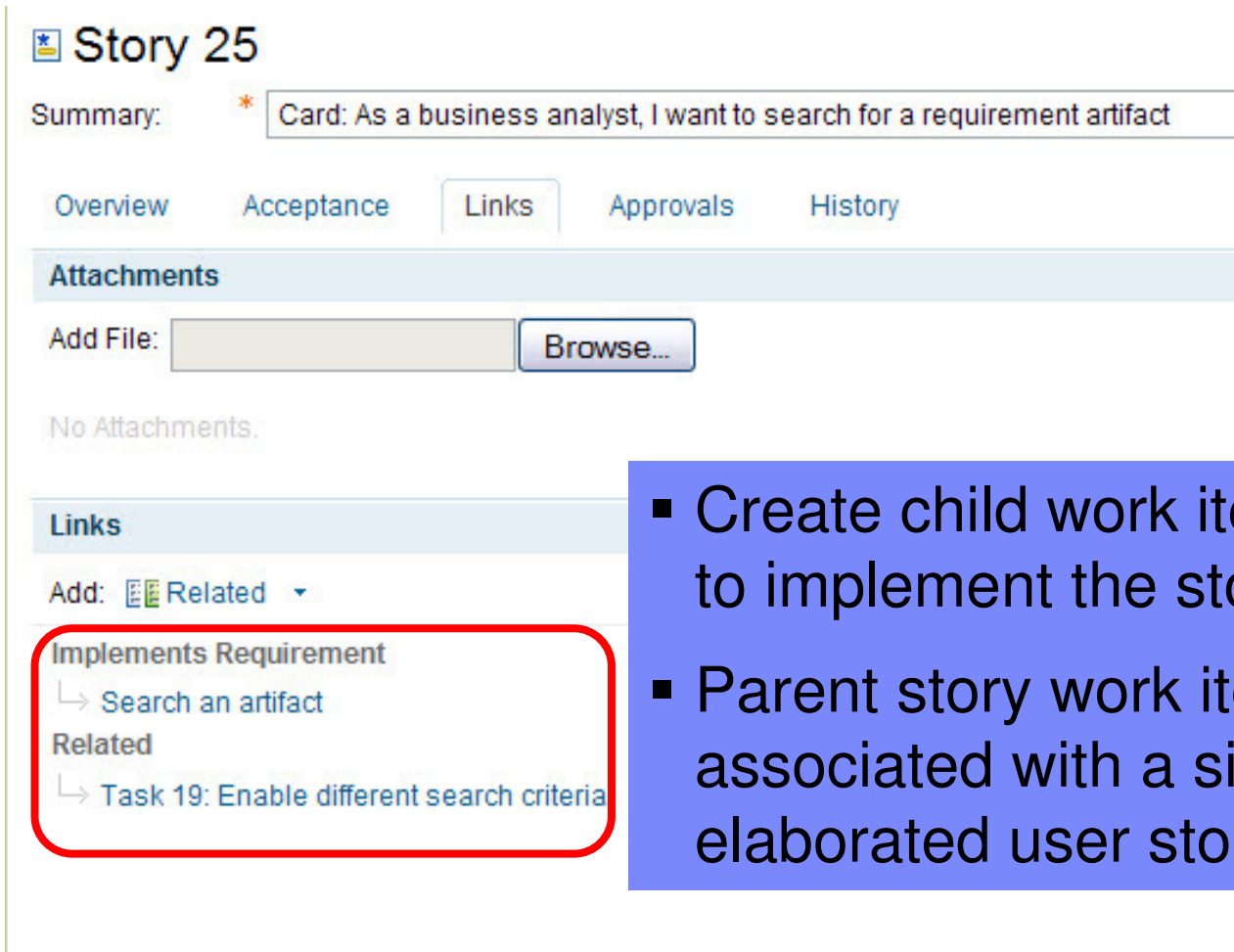
Use the Requirements Composer for different levels of reviews:

- Peer review
- Stakeholder review
- Customer review and approval

C/ALM scenario: Creating a story work item using **Card** info



C/ALM scenario: Plan the detailed implementations in RTC



Story 25

Summary: * Card: As a business analyst, I want to search for a requirement artifact


Overview Acceptance **Links** Approvals History

Attachments

Add File: Browse...

No Attachments.

Links

Add:  Related ▾

- Implements Requirement**
 - ↳ Search an artifact
- Related
 - ↳ Task 19: Enable different search criteria

- Create child work items in RTC to implement the story.
- Parent story work item is associated with a single elaborated user story in RRC.

C/ALM scenario: creating test cases

Card: As a business analyst, I want to search for a requirement artifact.

Conversation:

What are the search criteria?

- Text (Basic Search)
- Artifact Name
- Artifact Type
- Last Modified By
- Tags
- Attribute Group

UI Sketch for Advanced Search:

The screenshot shows the Rational software interface. On the left, there is a search window titled 'Search' with a search bar and dropdown menus for 'Repository: RRC_Learning' and 'Project: RRC for Agile Requirements'. Below this are tabs for 'Text Search' and 'Advanced Search'. The 'Advanced Search' tab is active, showing fields for 'Artifact Name', 'Type', 'Last Modified By', and 'Tags'. There are also checkboxes for 'Attribute Groups' with 'Feature' and 'User Story' options. A context menu is open over the 'Save Selection As' option, listing various actions like 'Cut', 'Copy', 'Paste', 'Insert Image...', 'Insert Artifact...', 'Add Comment...', 'Mark As Requirement...', 'Glossary', 'Create Link', 'Remove Link', and 'Edit Link...'. The 'Test Case' option is highlighted with a red box. On the right, there is an 'Information' panel with sections for 'Overview', 'Search an artifact (183)', 'Attribute Groups', and 'User Story Elaborations'.

Confirmation:

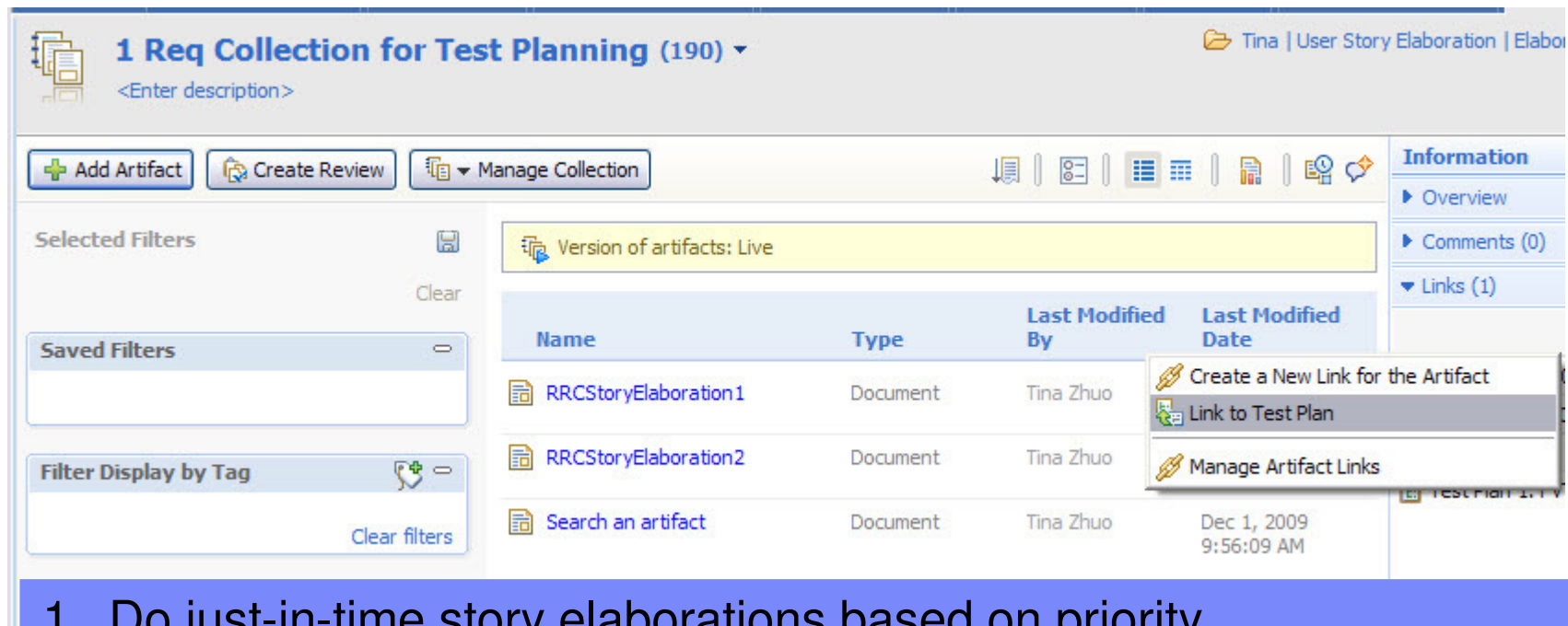
The system shall allow users to search across project repository.

The system shall support a basic search with a single search criteria, and an advanced search with multiple search criteria.

- Create one or more test cases from an elaborated user story using one of the following

1. Save Selection As Test Case
2. Add a Validated By link
3. Link a Collection of related user stories elaborated in RRC to a Test Plan in RQM

Linking a collection to a test plan in RQM



The screenshot displays the RQM interface for a collection named "1 Req Collection for Test Planning (190)". The interface includes a toolbar with "Add Artifact", "Create Review", and "Manage Collection" buttons. A "Selected Filters" section is visible on the left. The main area shows a table of artifacts with columns for Name, Type, Last Modified By, and Last Modified Date. A context menu is open over the table, showing options: "Create a New Link for the Artifact", "Link to Test Plan", and "Manage Artifact Links".

Name	Type	Last Modified By	Last Modified Date
RRCStoryElaboration1	Document	Tina Zhuo	
RRCStoryElaboration2	Document	Tina Zhuo	
Search an artifact	Document	Tina Zhuo	Dec 1, 2009 9:56:09 AM

1. Do just-in-time story elaborations based on priority
2. Create collections of functionally related user stories
3. Link the collection to a test plan in RQM
4. Continue to elaborate user stories when needed

Creating test cases from requirements collection

The screenshot shows the Rational Quality Manager interface for a 'FVT GA Test Plan'. The left sidebar contains a 'Table Of Contents' with 'Requirement Collection Links' highlighted in red. The main content area shows a 'Requirement Collection Links' table with the following entries:

Item	Summary	Action
<input type="checkbox"/>	Summary	
<input type="checkbox"/>	Classic CD Mile	
<input type="checkbox"/>	Collection	
<input type="checkbox"/>	Release23 First Iteration	
<input checked="" type="checkbox"/>	C1_to_Backlog	

The 'C1_to_Backlog' row is highlighted with a red box, and the icon in its action column is also highlighted with a red box. A blue callout box with the text 'Create Test Cases from Requirements' points to this icon.

Requirement and C/ALM

The screenshot displays the IBM Rational software interface. The main window shows a requirement card with the following content:

Card: As a business analyst, I want to search for a requirement artifact.

Conversation:

What are the search criteria?

- Text (Basic Search)
- Artifact Name
- Artifact Type
- Last Modified By
- Tags
- Attribute Group

UI Sketch for Advanced Search:

The UI sketch shows a search interface with the following elements:

- Search bar
- Repository: RRC_Learning
- Project: RRC for Agile Requirements
- Text Search and Advanced Search tabs
- Artifact Name input field
- Type dropdown menu
- Last Modified By and Tags dropdown menus
- Select Tags button
- Attribute Groups: Feature and User Story checkboxes

Confirmation:

The system shall allow users to search across projects within the repository.

The system shall support a basic search with a single search criteria, and an advanced search with multiple search criteria.

The right-hand pane shows the **Information** section with a red box highlighting the **Implemented By (1)** section, which contains the following items:

- Story 25: Card: As a business analyst, I want to search for ...
- Validated By (2)
 - Test Case 8: Search an artifact
 - Test Case 10: The system shall allow users to search across pro...em

A black arrow points from the requirement card to the highlighted implementation section.

- An elaborated user story is implemented by a Story work item, and validated by one or multiple test cases.

Credits

- Yan (Tina) Zhuo
- Carolyn Pampino
- Scott Ambler
- Vishwanath Ramaswamy
- Erich Gamma
- Pratik Shah
- John Whitfield
- Cherifa Mansoura
- Daniel Moul
- Nick Norris
- Douglas Bush

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