Drinking Our Own Champagne: Rational Requirement Composer RDM-1202A

Robin Bater

rbater@us.ibm.com

RDM Product Delivery Team
IBM Rational Software

Innovate2010
The Rational Software Conference

Let's build a smarter planet.

The premiere software and product delivery event.
June 6–10 Orlando, Florida

Purpose

- This session will show how the Rational Requirements Composer development team used the Collaborative Application Lifecycle Management jazz products to specify, analyze, design and implement a key feature of RRC version 2, and how we are using that feature in developing the next version. It will focus on use of RRC itself and include a discussion of benefits to the team.

- Plus (we hope)
  - Give you a vision of how IBM Rational® Requirements Composer (RRC) can improve team performance and project outcomes
  - Show you a “real” usage model that is improving the product
    - Rational “Drinking our own Champagne!” Campaign
  - Get you thinking about how you and your teams can benefit from RRC

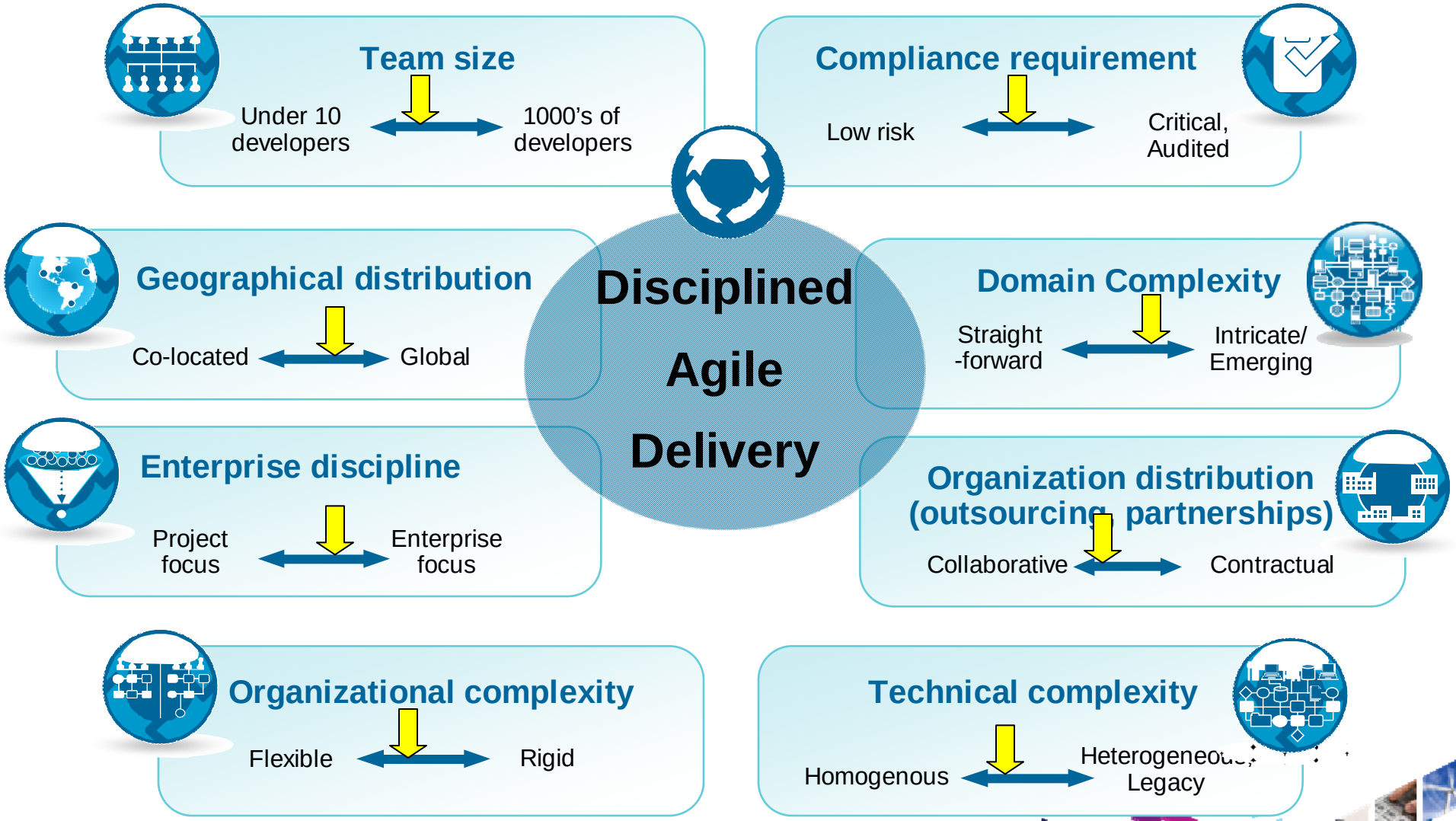
The usual disclaimer

- This presentation refers to features under development
- Plans are based on best information available and may change in the future
- Don't make purchase decisions based on features not currently in generally available releases.

© Copyright IBM Corporation 2010. All rights reserved. These materials are intended solely to outline our general product direction and should not be relied on in making a purchasing decision. Information pertaining to new product is for informational purposes only, is not a commitment, promise, or legal obligation to deliver any material, code or functionality, and may not be incorporated into any contract. The development, release, and timing of any features or functionality described for our products remains at our sole discretion. Nothing contained in these materials is intended to, nor shall have the effect of, creating any warranties or representations from IBM or its suppliers or licensors, or altering the terms and conditions of the applicable license agreement governing the use of IBM products. IBM, the IBM logo, Rational, the Rational logo, Telelogic, the Telelogic logo, and other IBM products and services are trademarks of the International Business Machines Corporation, in the United States, other countries or both. Other company, product, or service names may be trademarks or service marks of others.

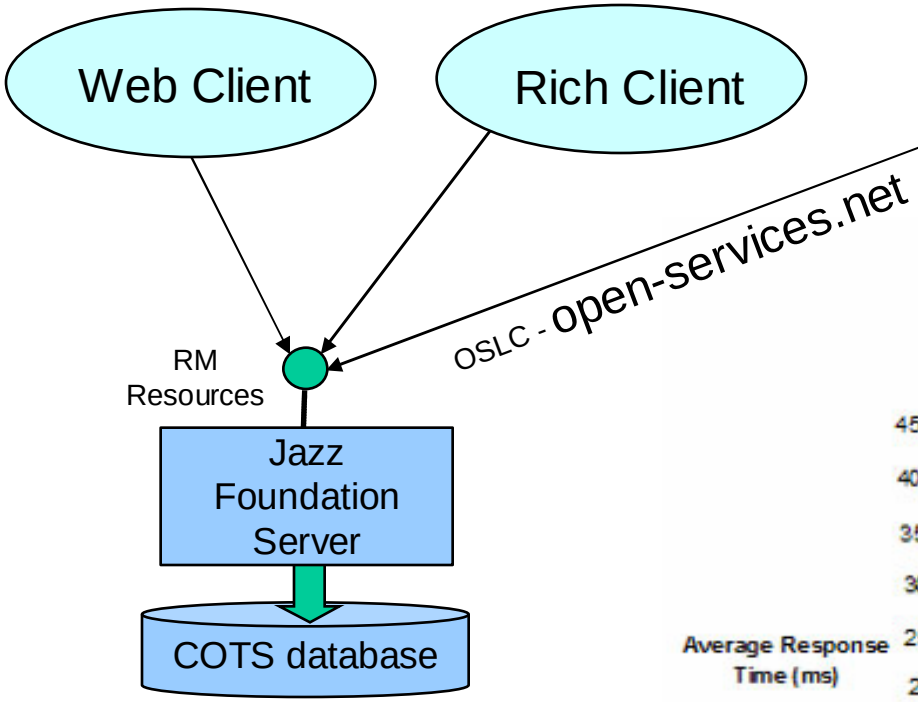
Some Familiar Situations… we face them too !!

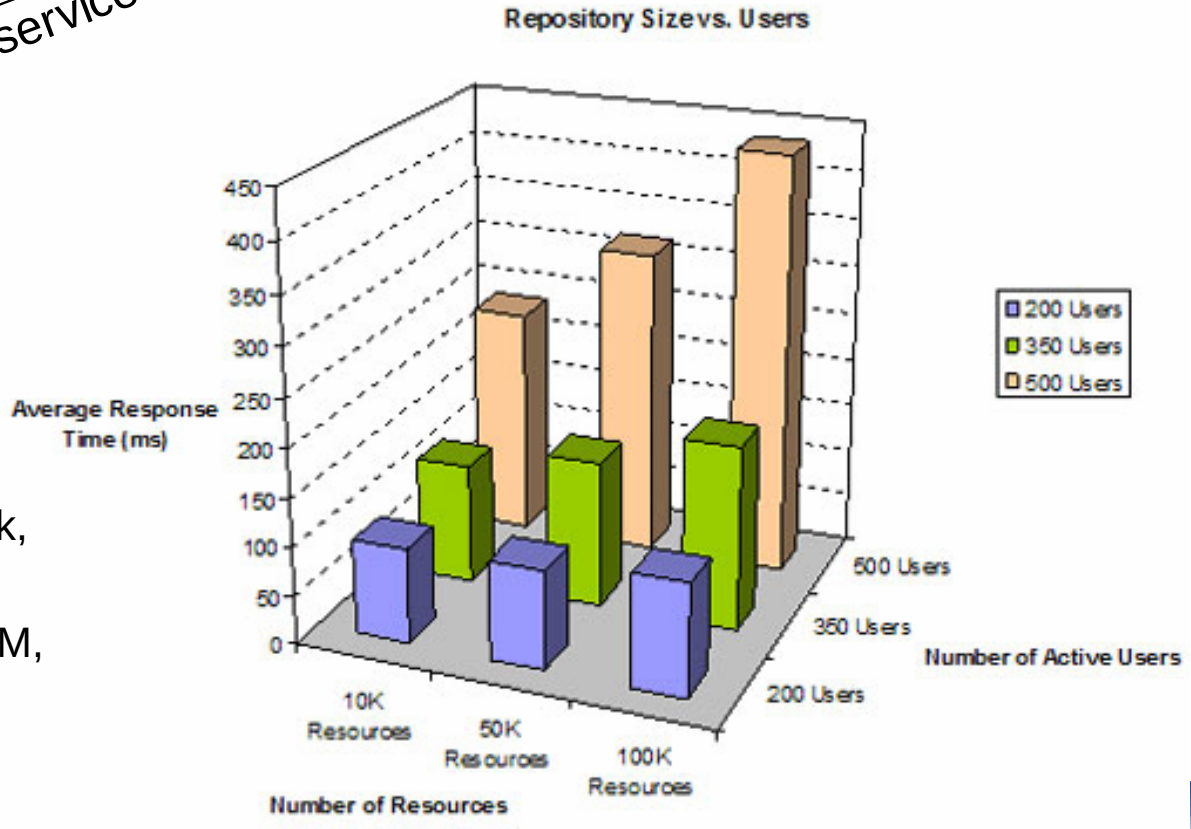
IBM agility@scale™ – our team self-assessment



RRC Development Team for V2

Our Architecture

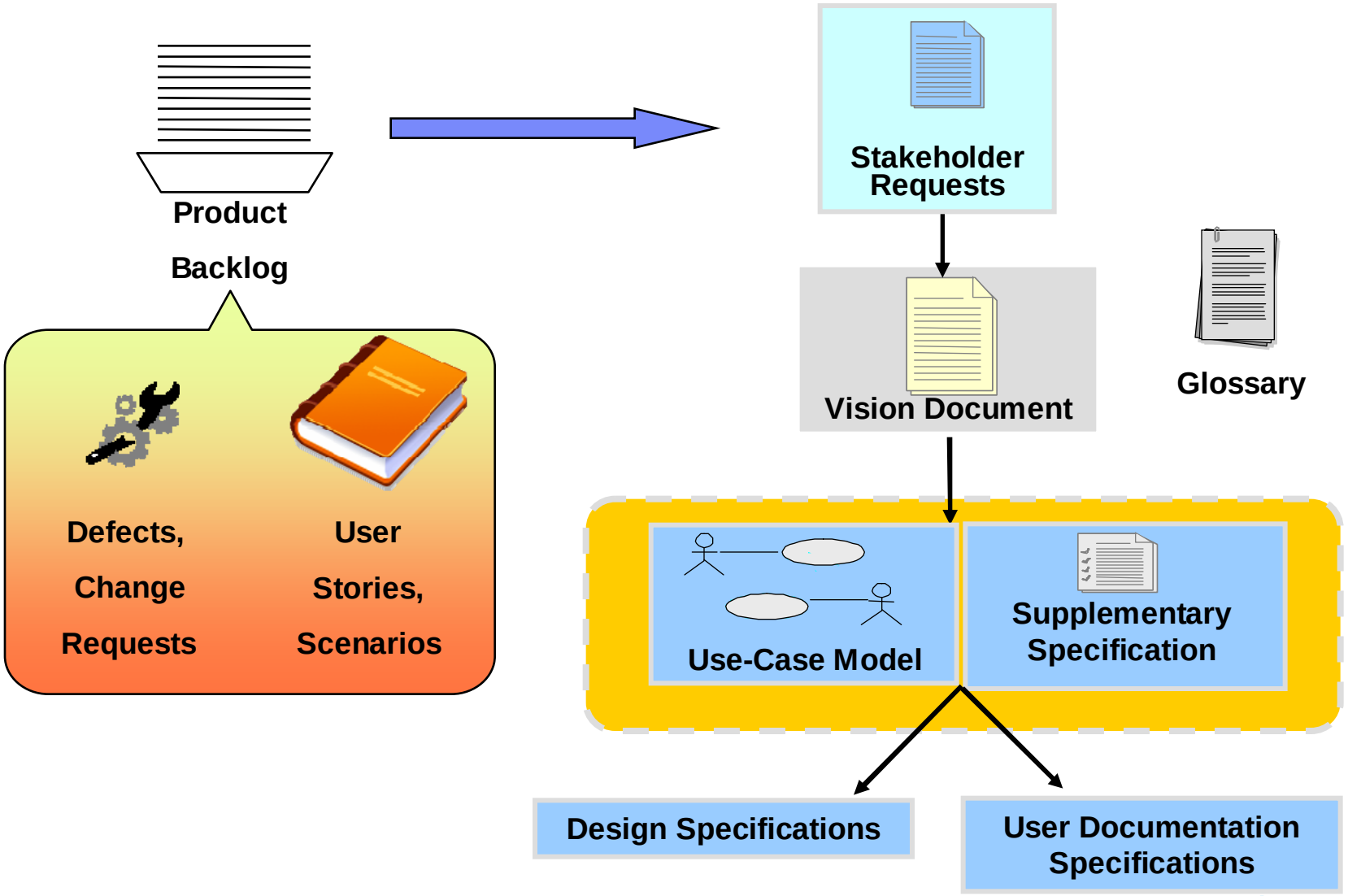




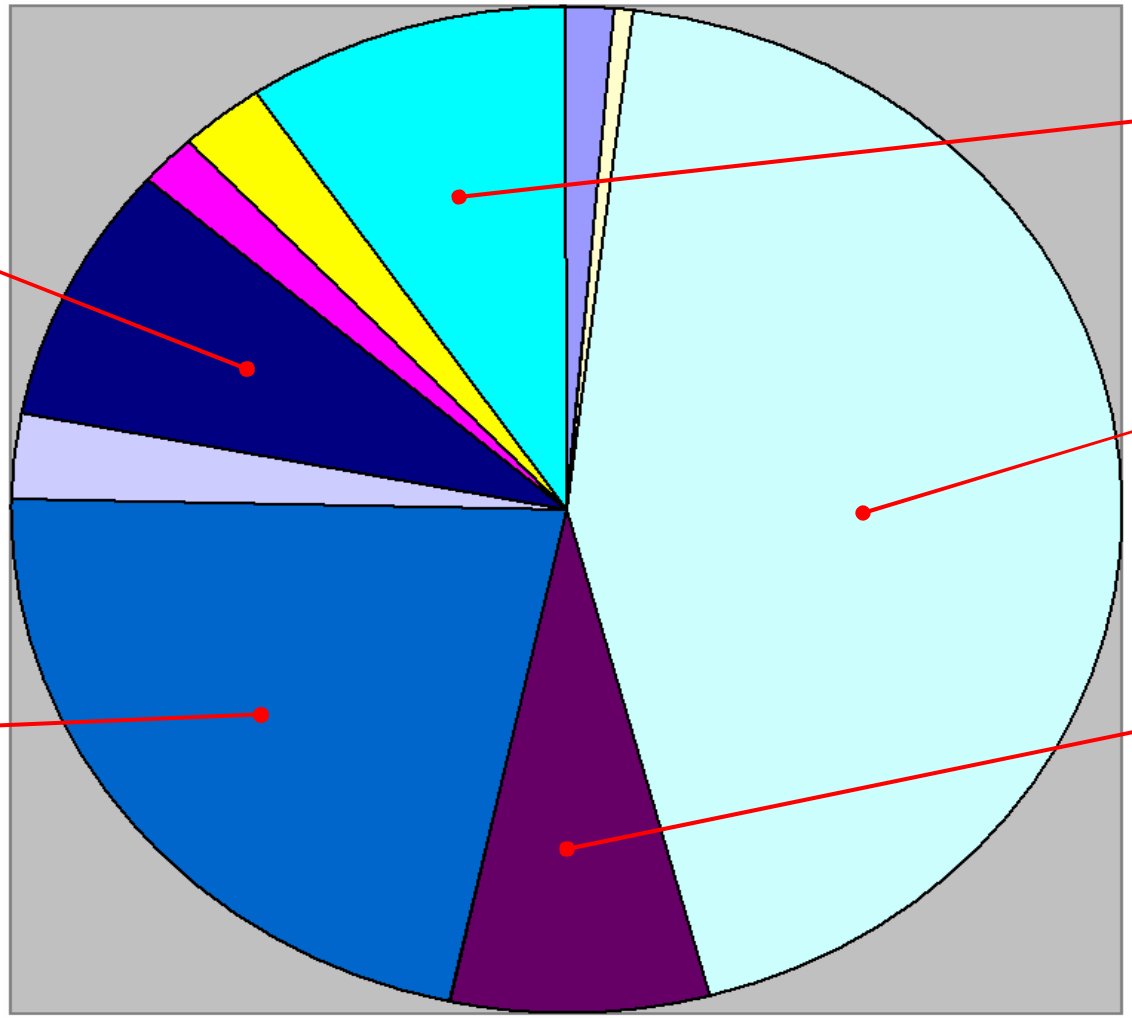
- Server in Research Triangle Park, NC, USA
- Intel Core2 2.66Ghz, 4GB of RAM, Windows 2008 server
- Using Tomcat
- Using separate AIX DB2 server

http://www.ibm.com/developerworks/rational/library/10/rrcperformanceandscalabilitytestresults/index.html

Our Artifacts

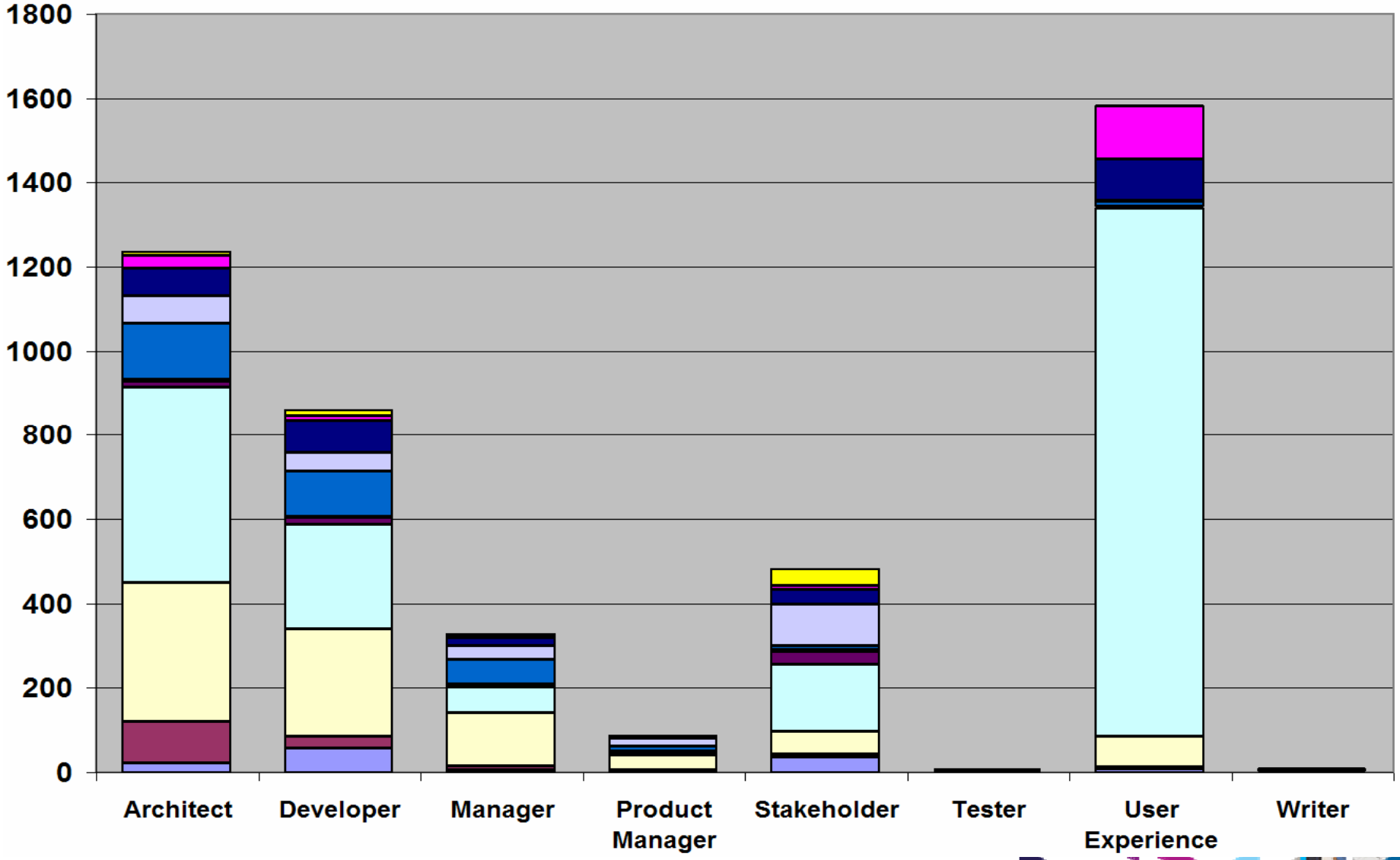


What percentage of Artifacts have been created



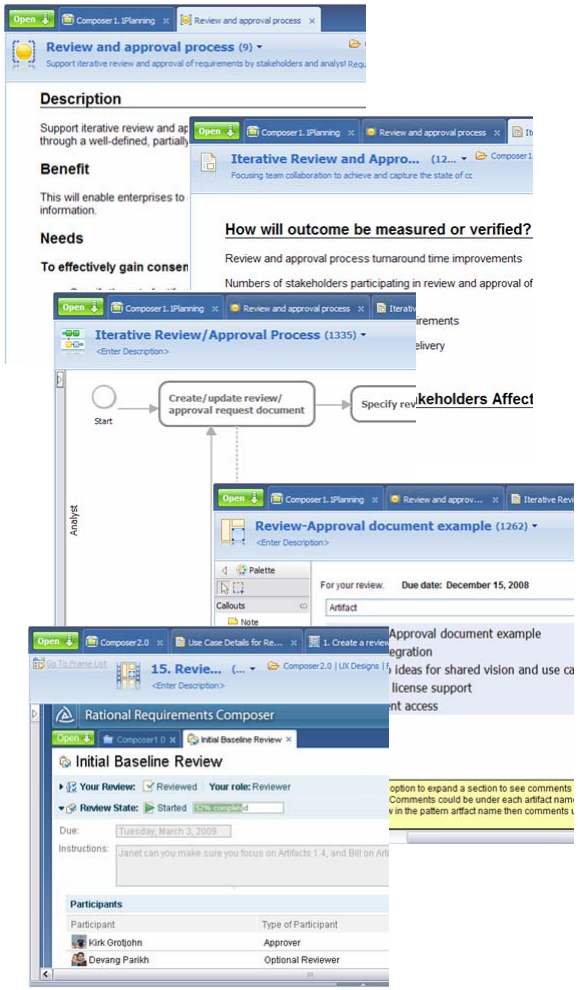
Total: 4586 artifacts

The whole team writes requirements



2009

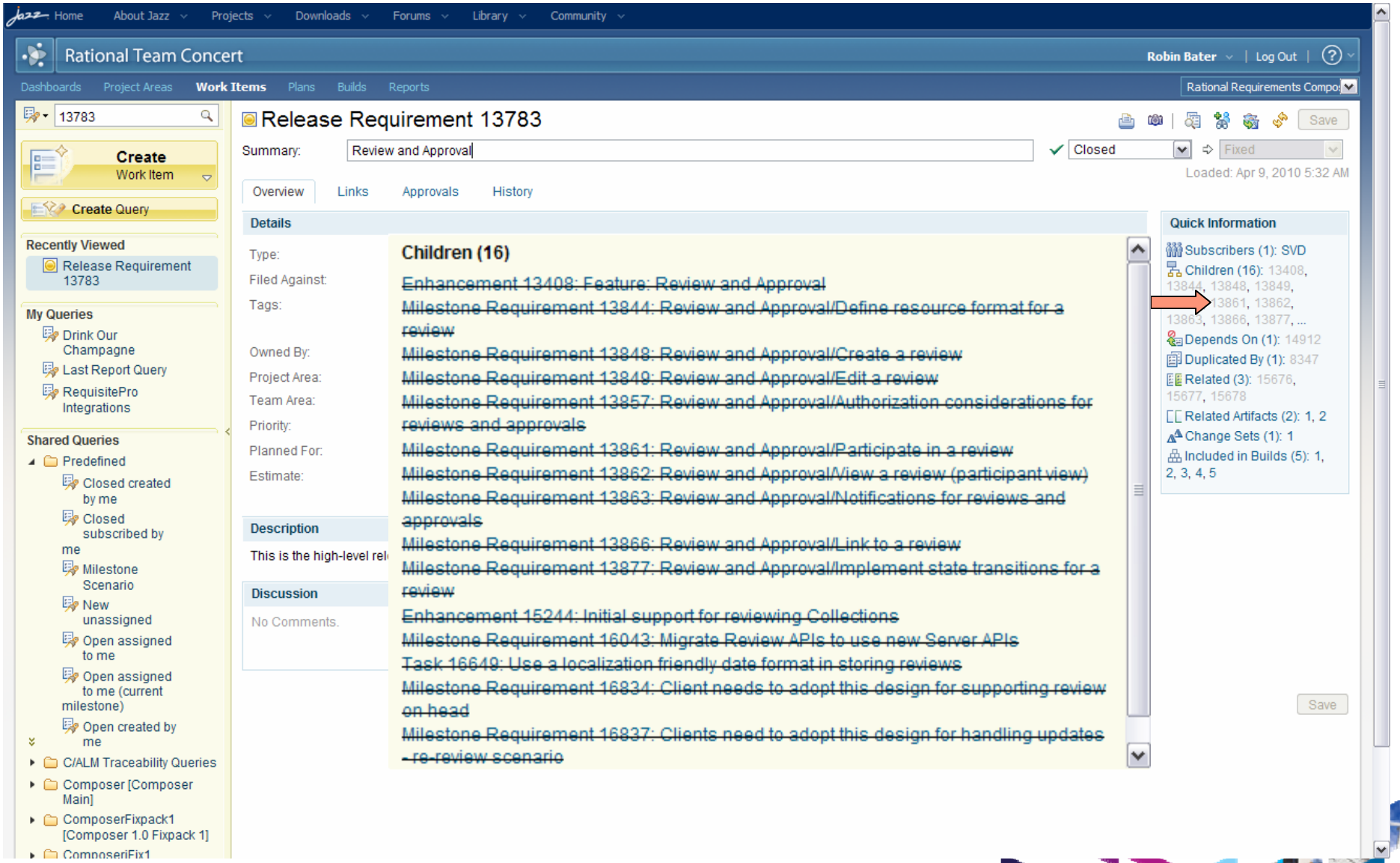
Drinking Our Own Champagne



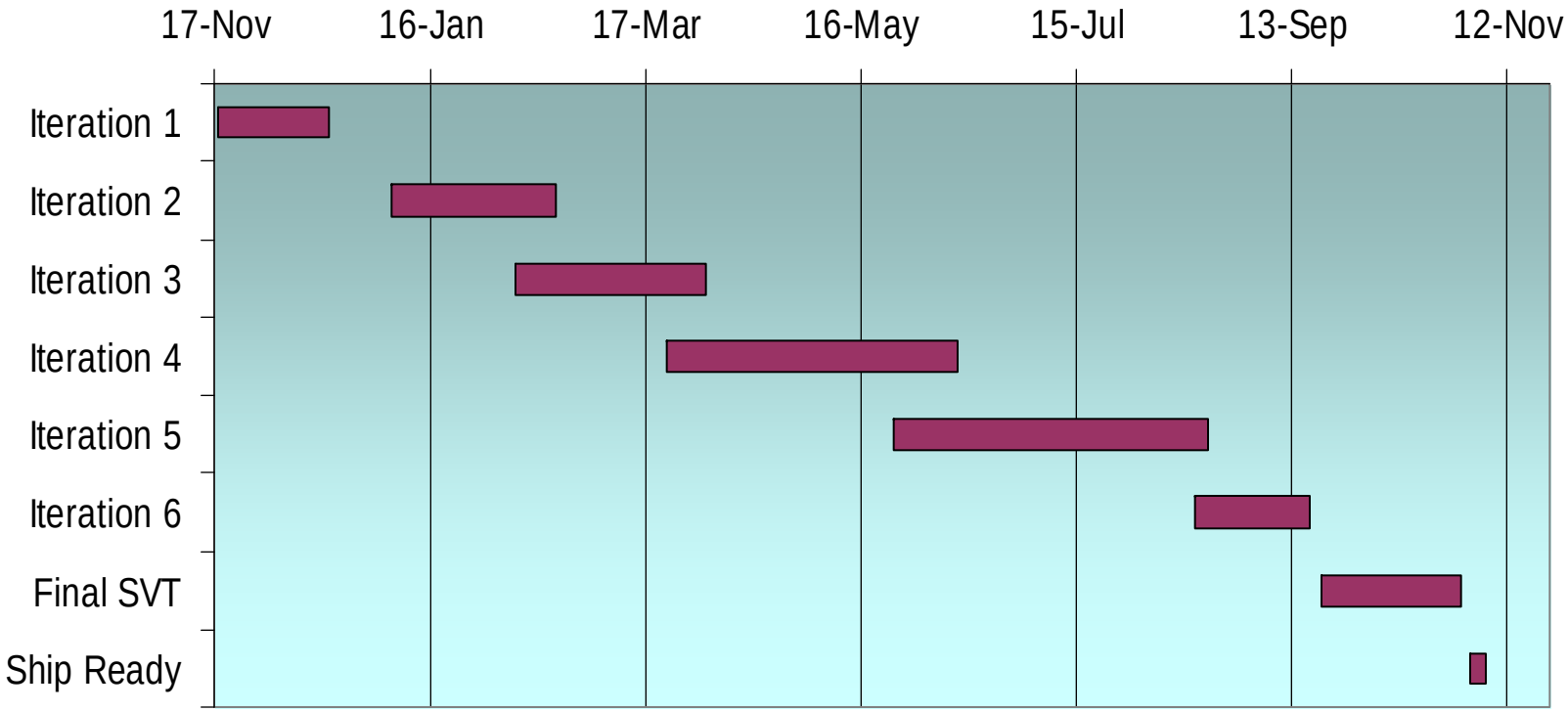
Evolution of the RRC V2 Review and Approval feature

1. Stakeholder describes the feature
2. Product manager then describes the business scenario and related requirements
3. Architect defines the workflow
4. User Interface designers then developed mockups
   - increasingly realistic versions
   - identified "how it's really going to work
5. Development team developed incremental solutions
6. User Interface designers used milestone “drivers” to obtain feedback from the stakeholders

Release V2 Requirement – Review & Approval

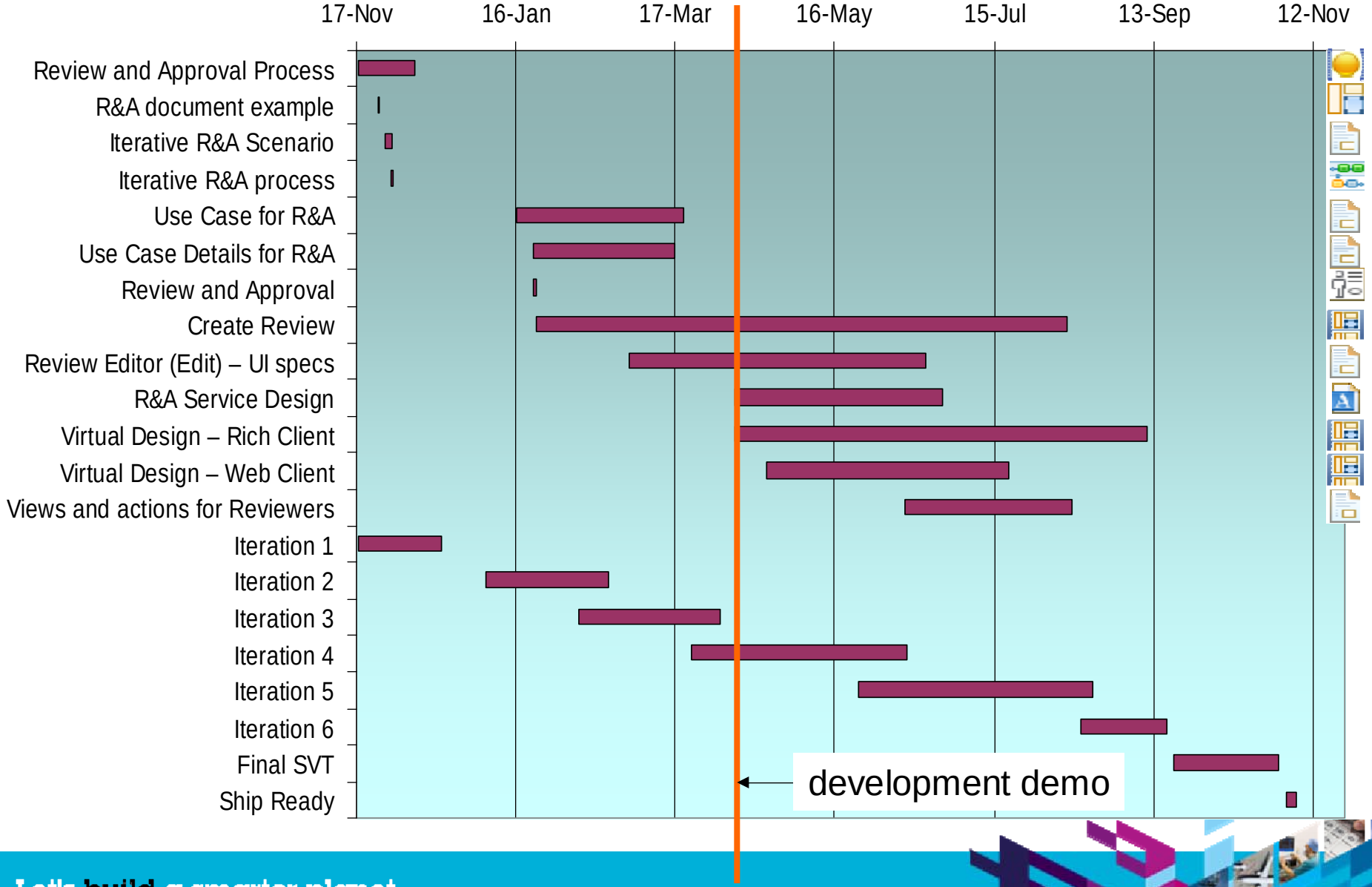


Iterations

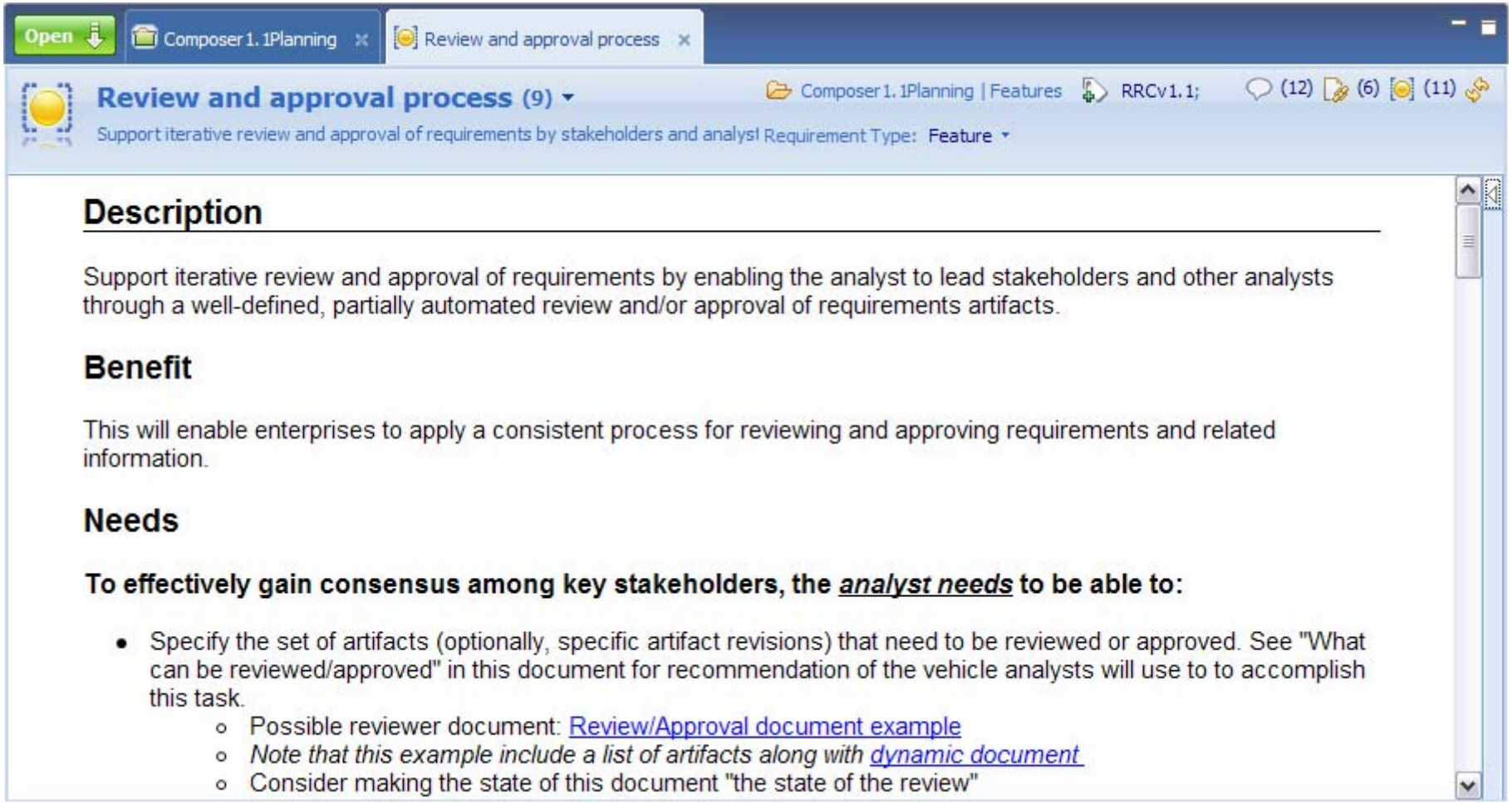


- Milestone overlap: planning for the next iteration begins during SVT
- Duration varies
- Each milestone includes Planning, Requirements, Design and Test
- Each milestone is consumable

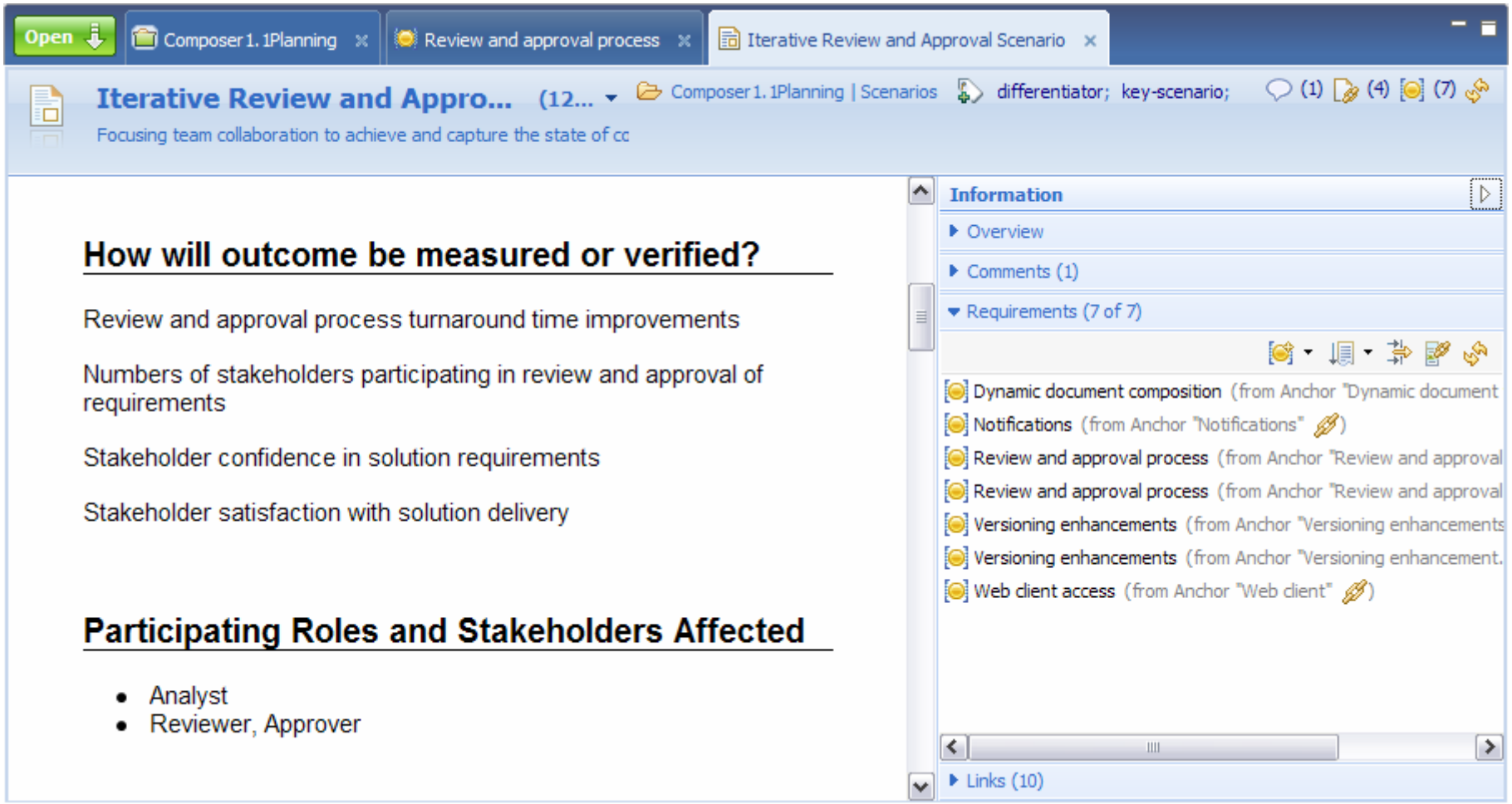
Review and Approval overview



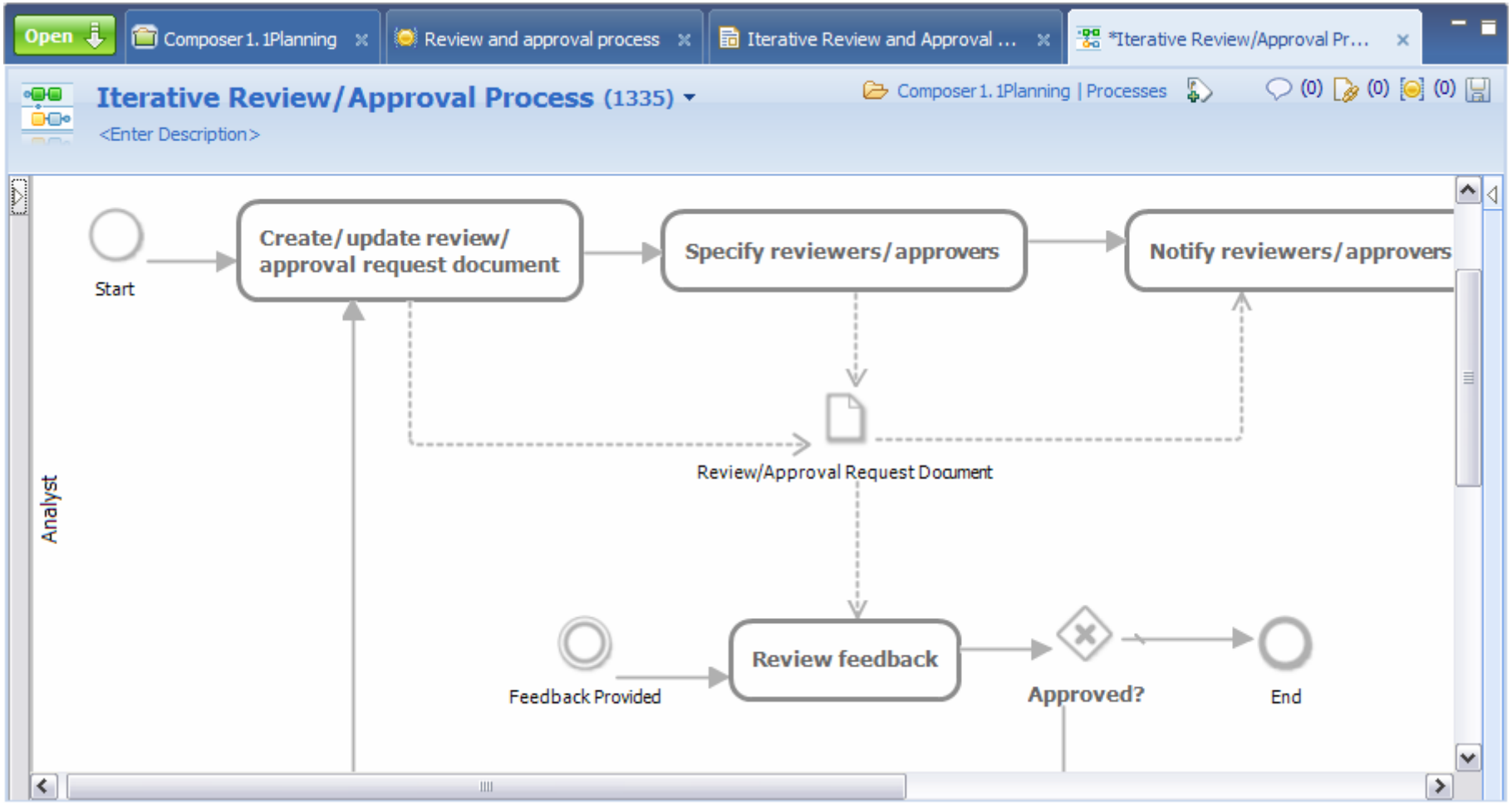
Feature Requirement – Stakeholder – 59 revisions



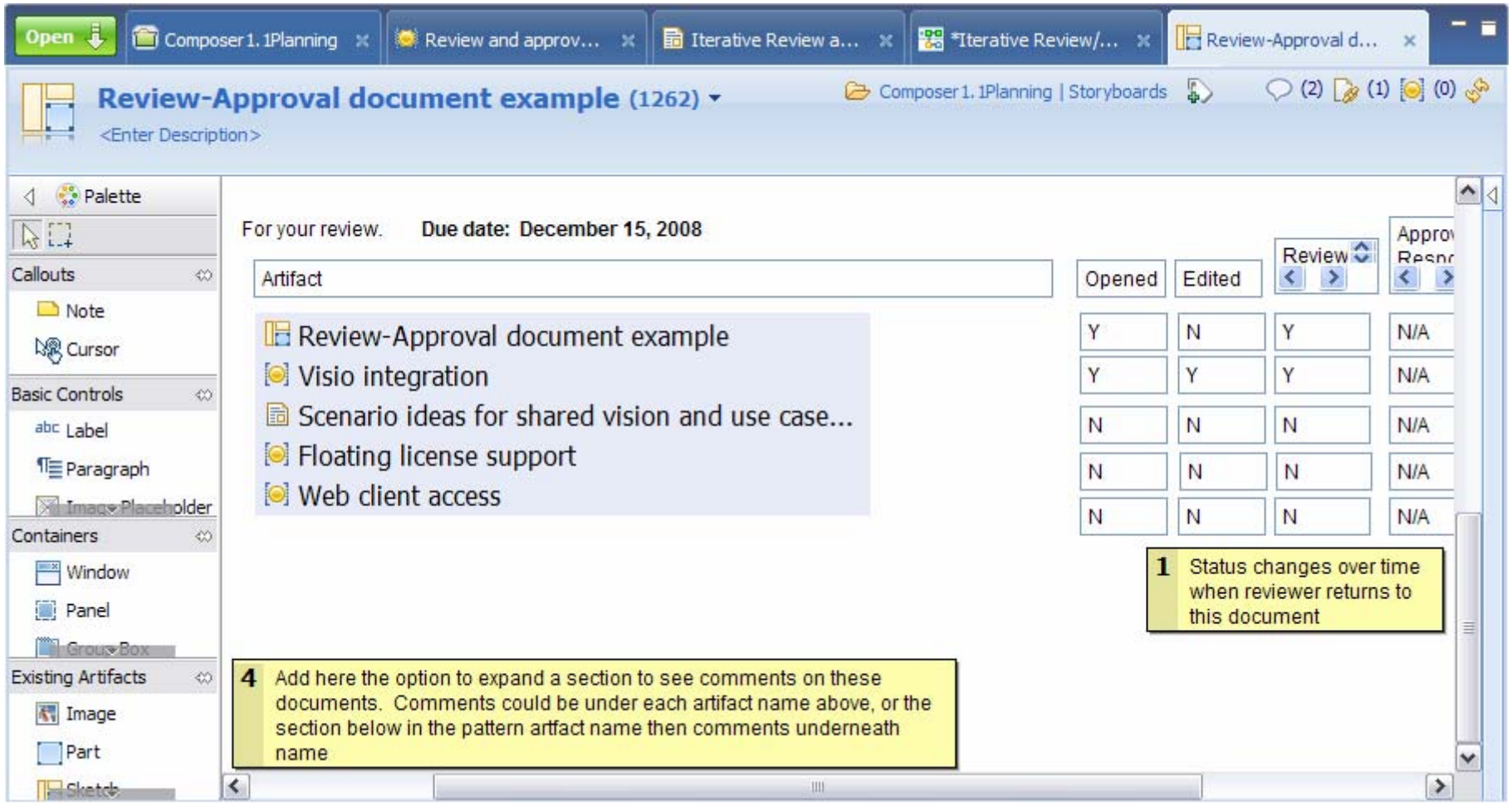
Scenario Document – Product Manager – 18 Revisions



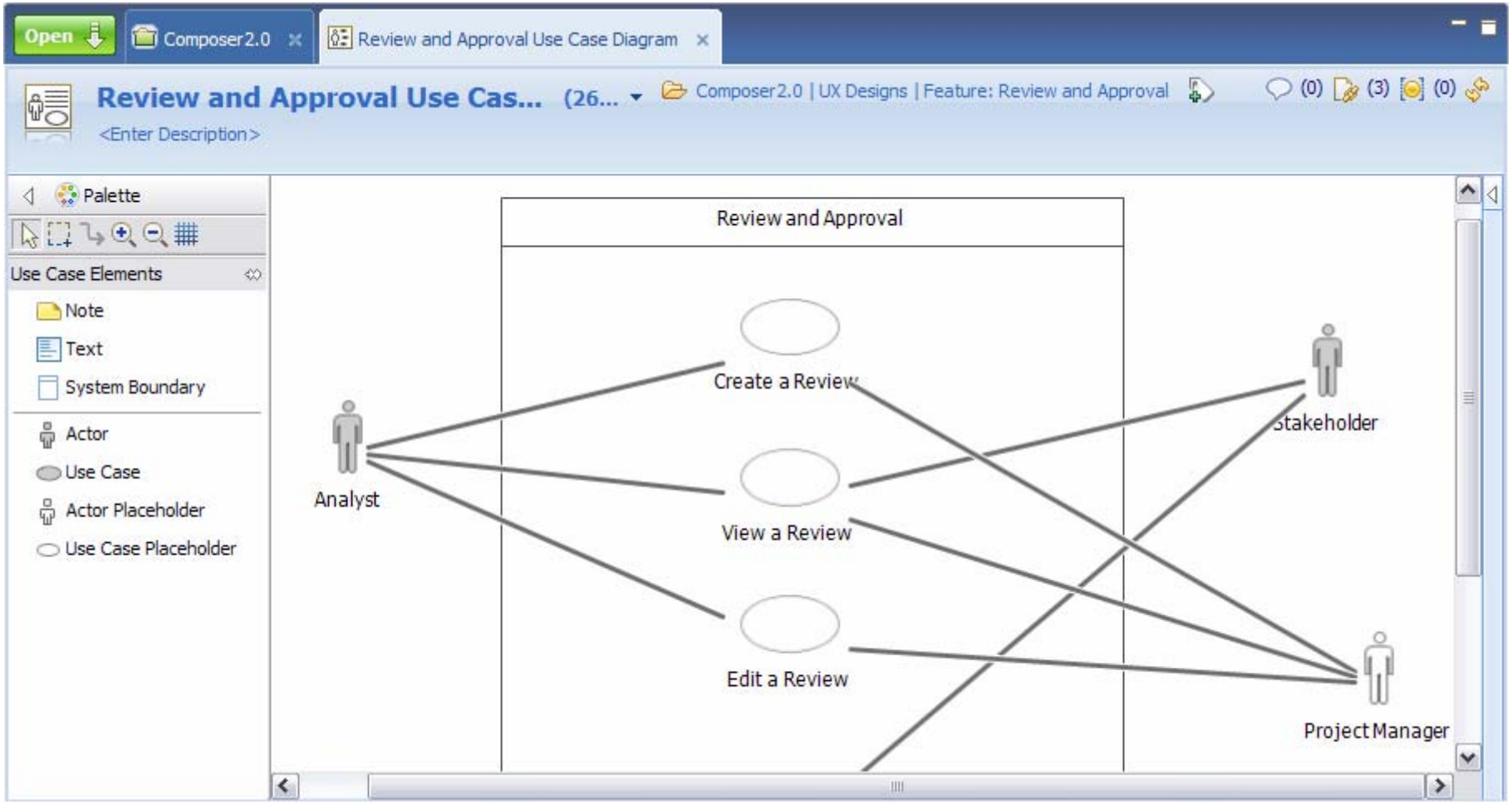
Process Sketch – Architect – 6 Revisions



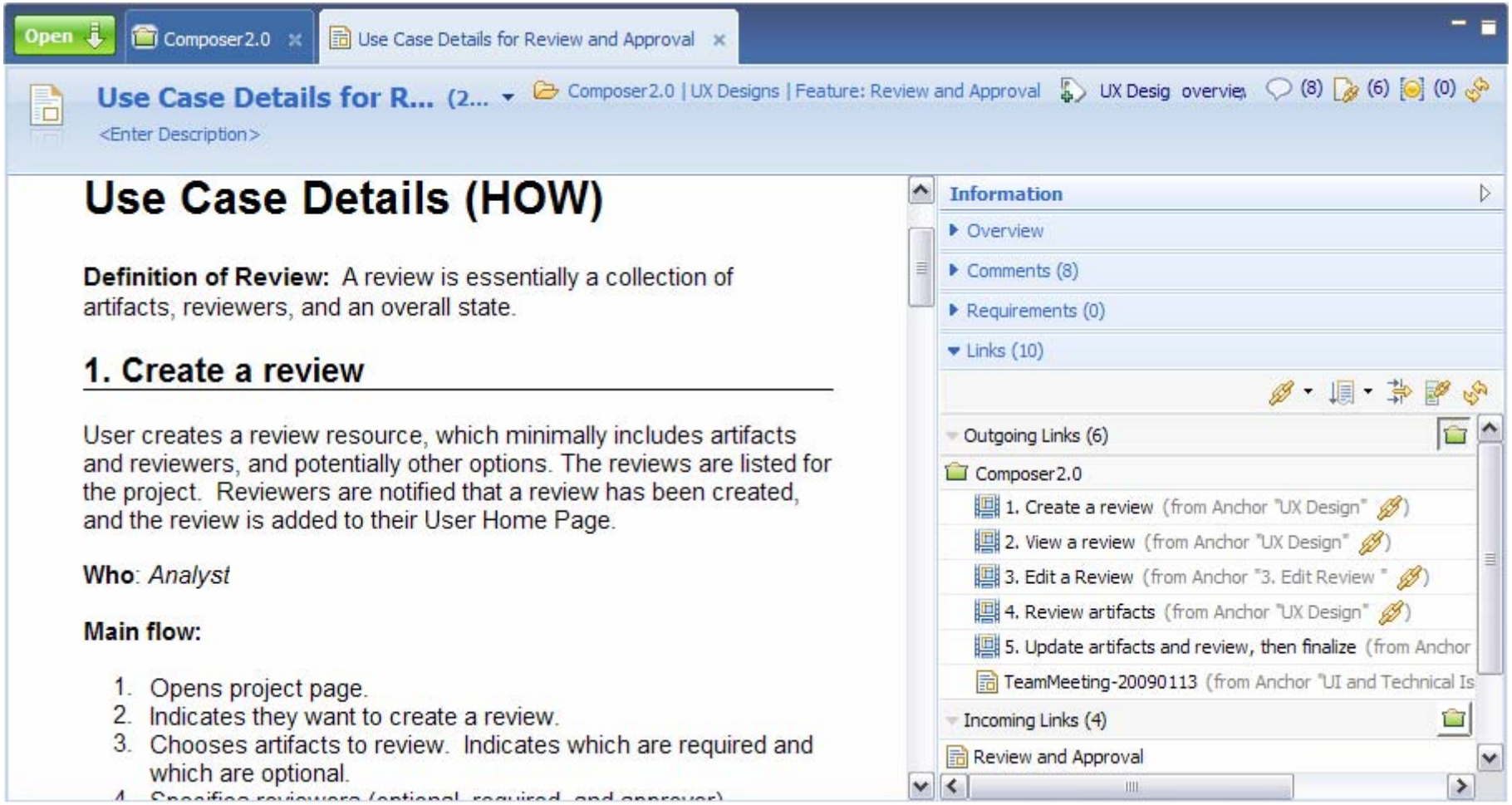
User interface example – Stakeholder – 5 Revisions



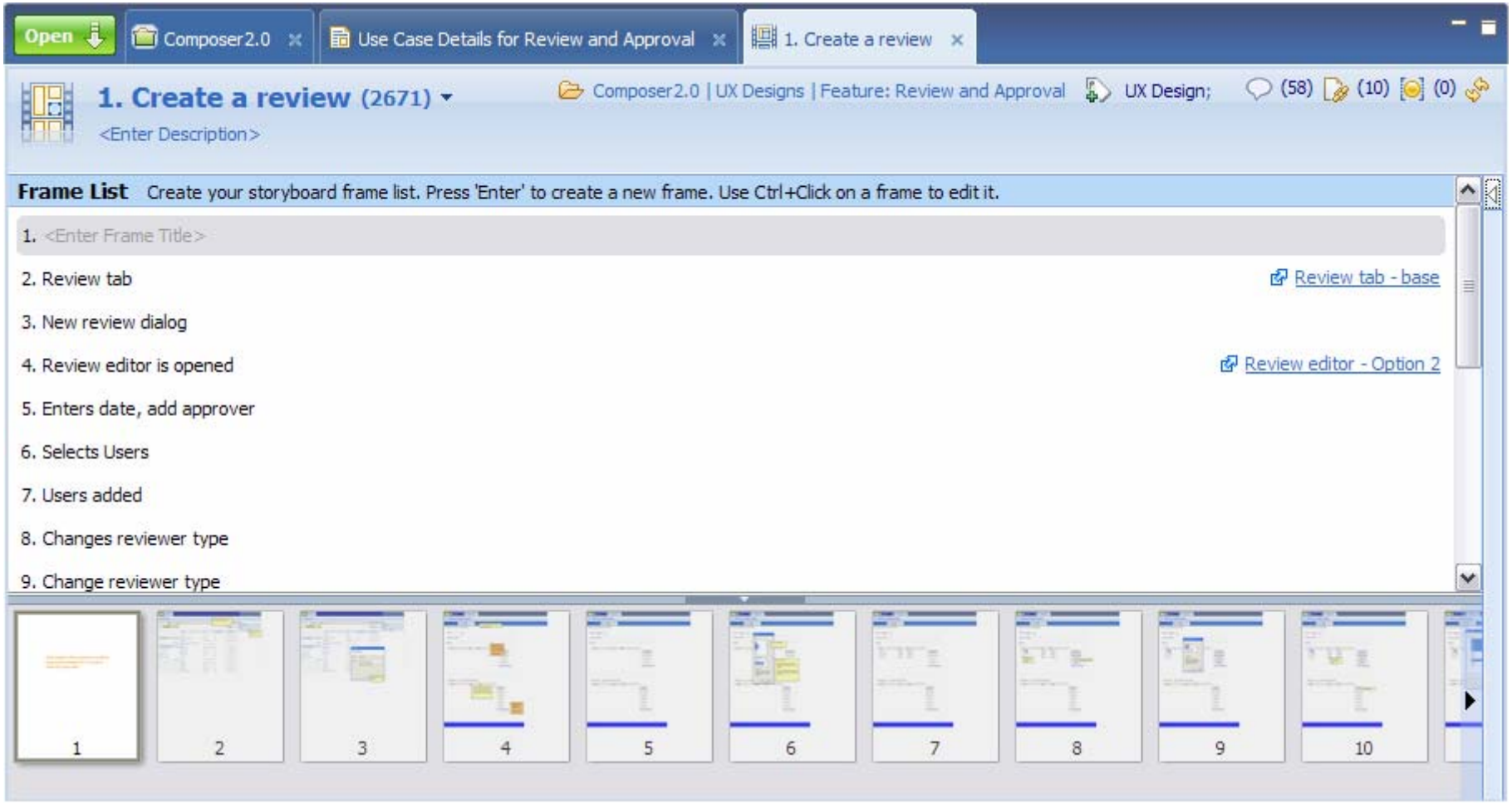
Use Case Diagram – Developer – 4 Revisions



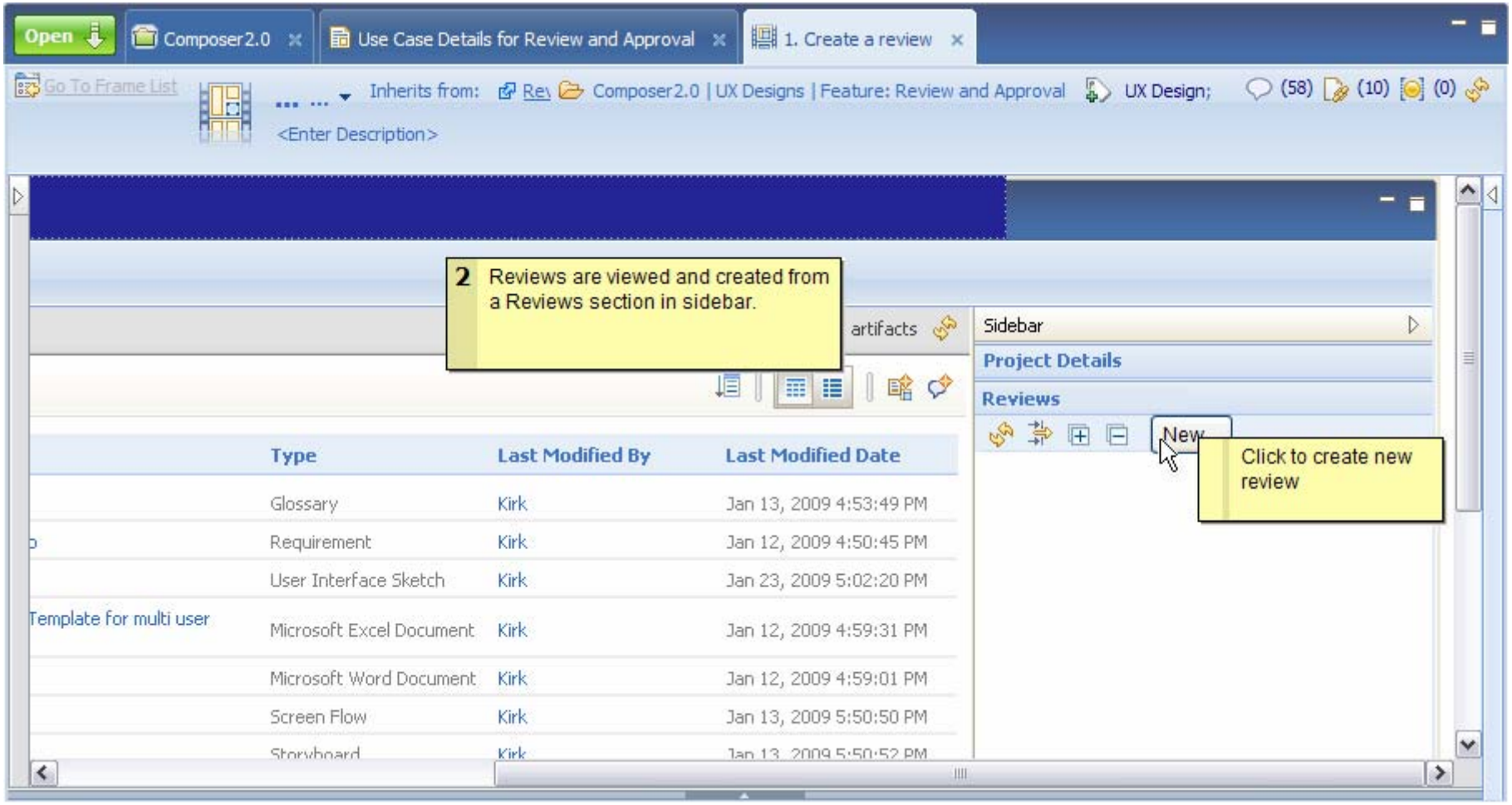
Use Case – Developer – 46 Revisions



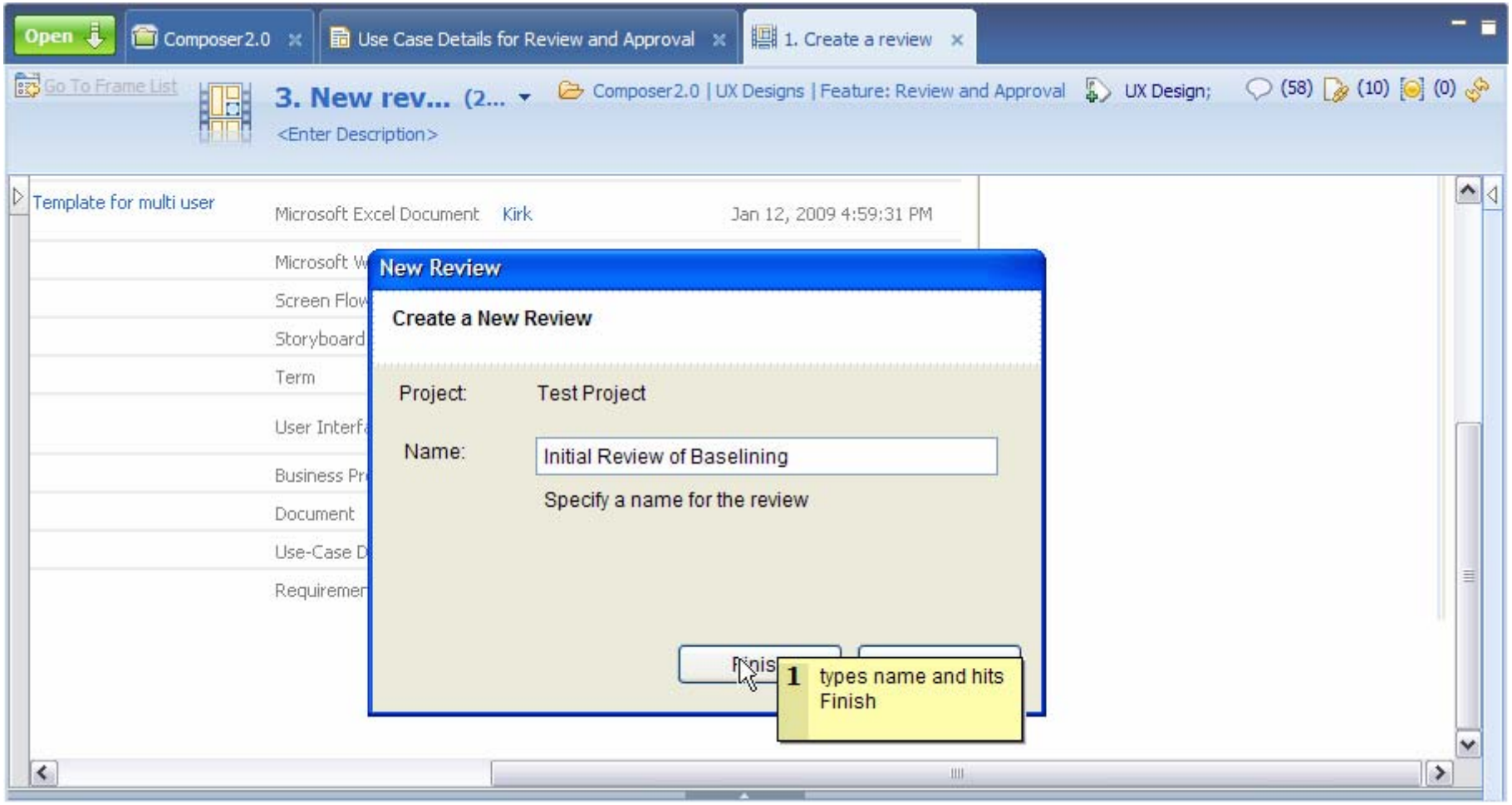
Frame List – User Interface Designer – 81 Revisions



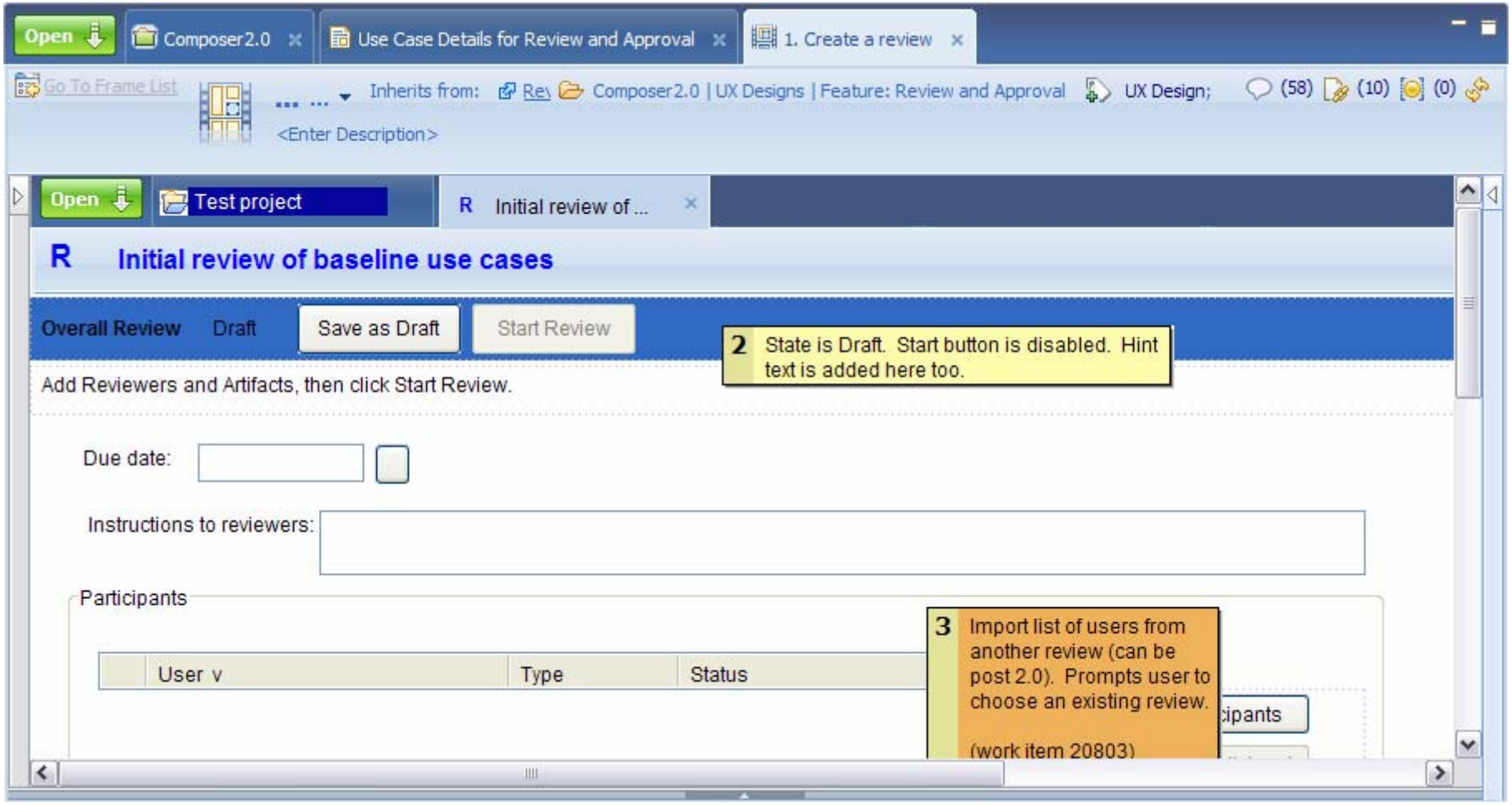
Storyboard – User Interface designer – 81 Revisions



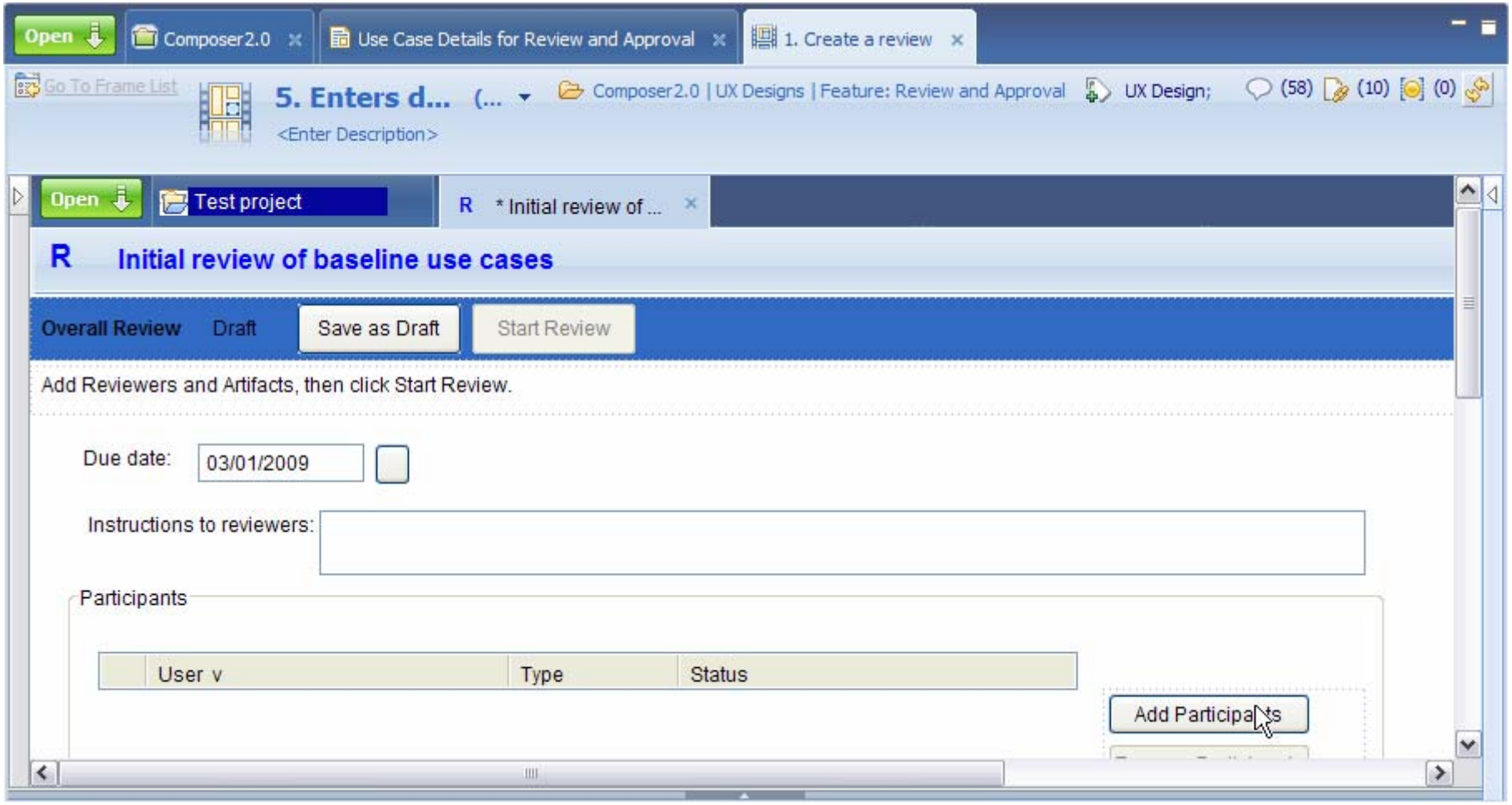
Storyboard – User Interface designer – 81 Revisions



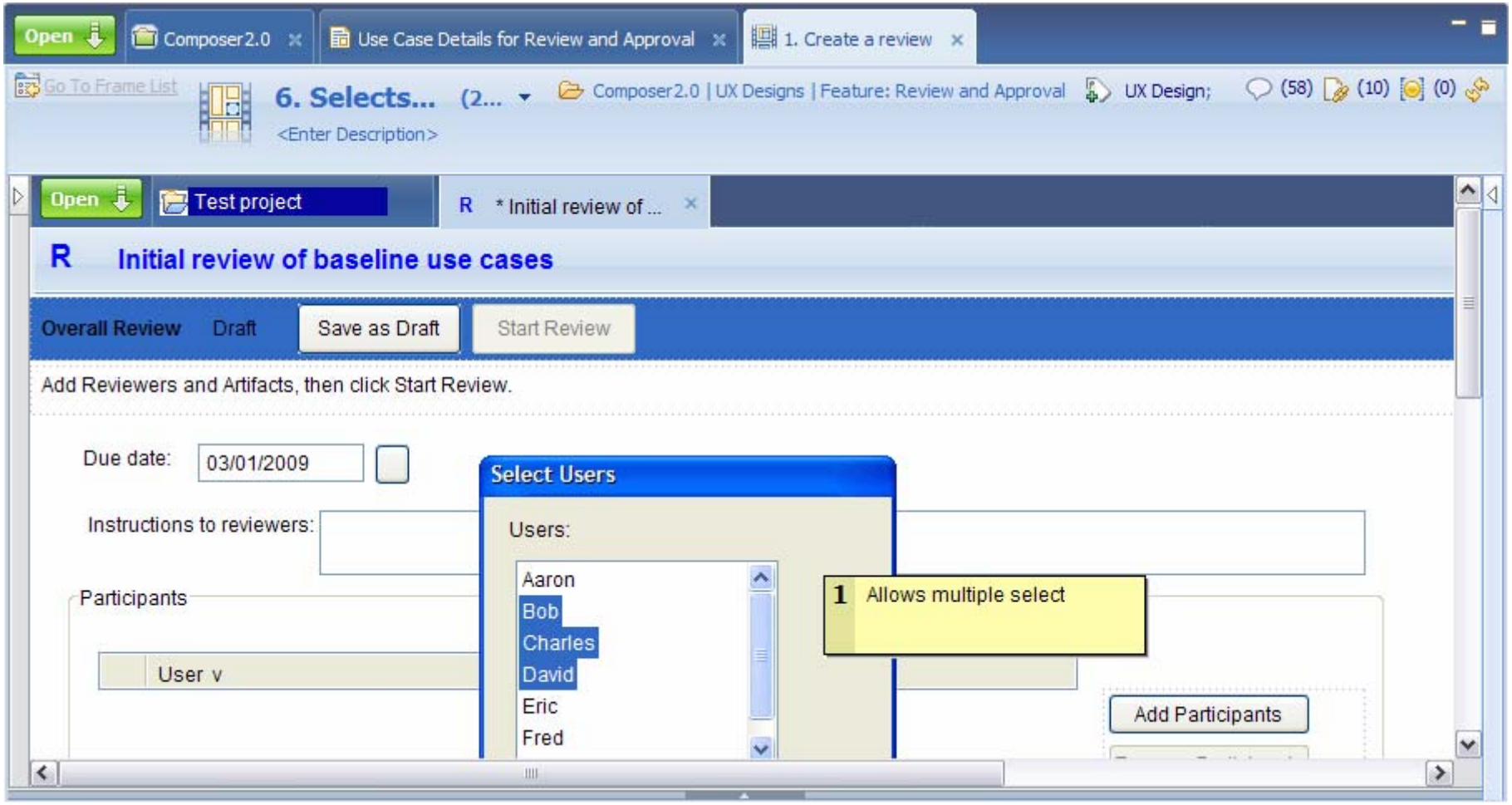
Storyboard – User Interface designer – 81 Revisions



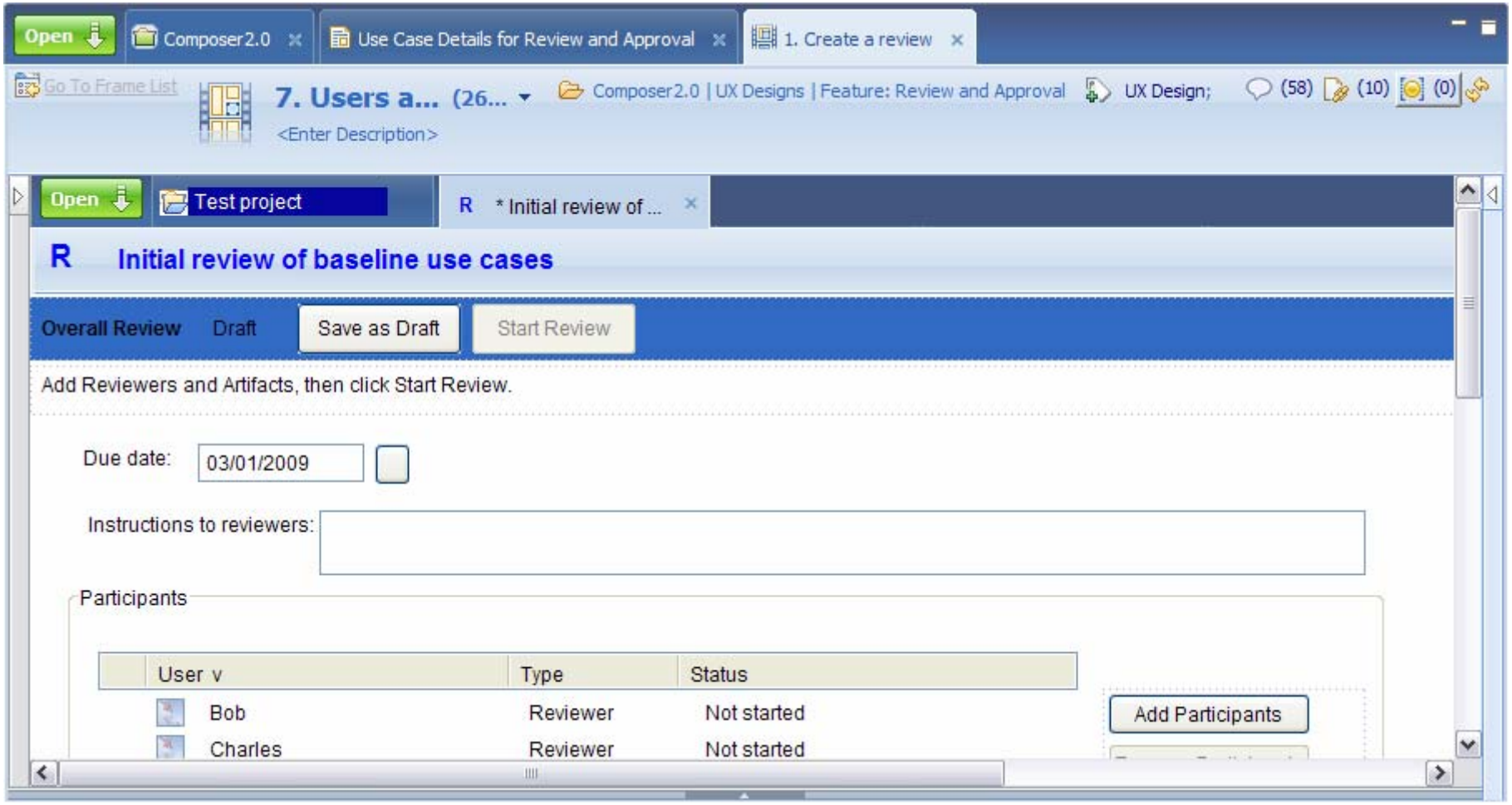
Storyboard – User Interface designer – 81 Revisions



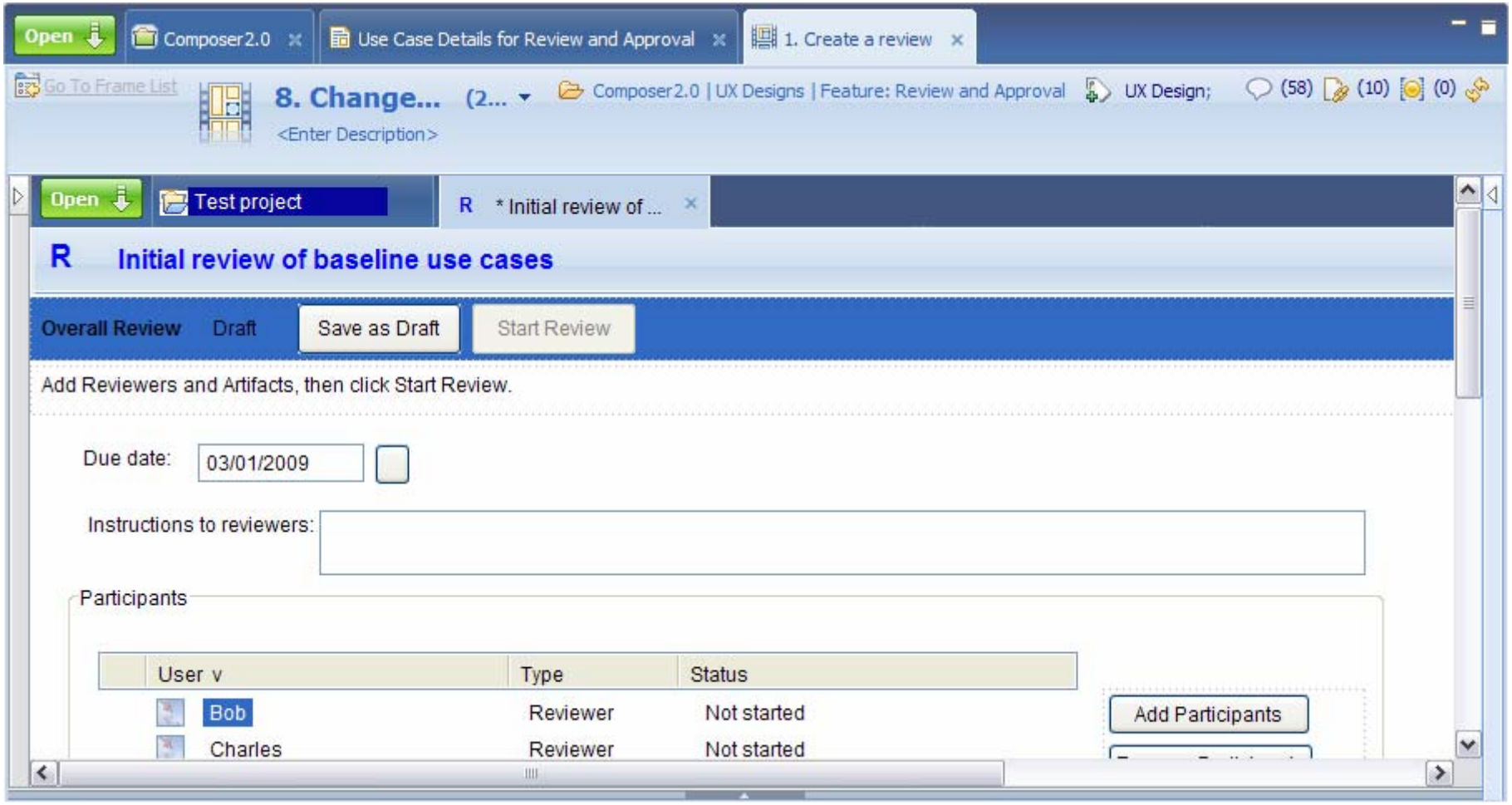
Storyboard – User Interface designer – 81 Revisions



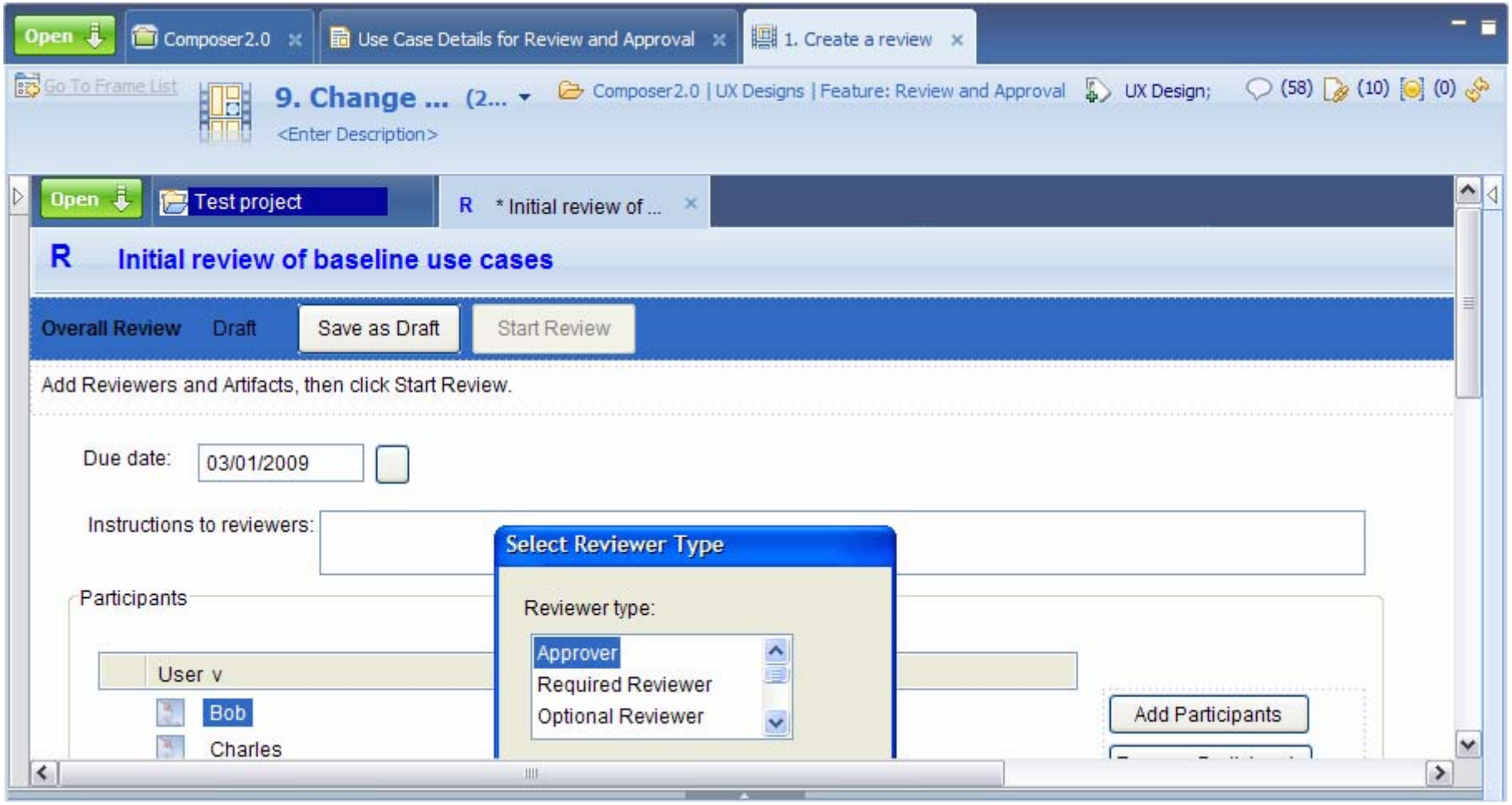
Storyboard – User Interface designer – 81 Revisions



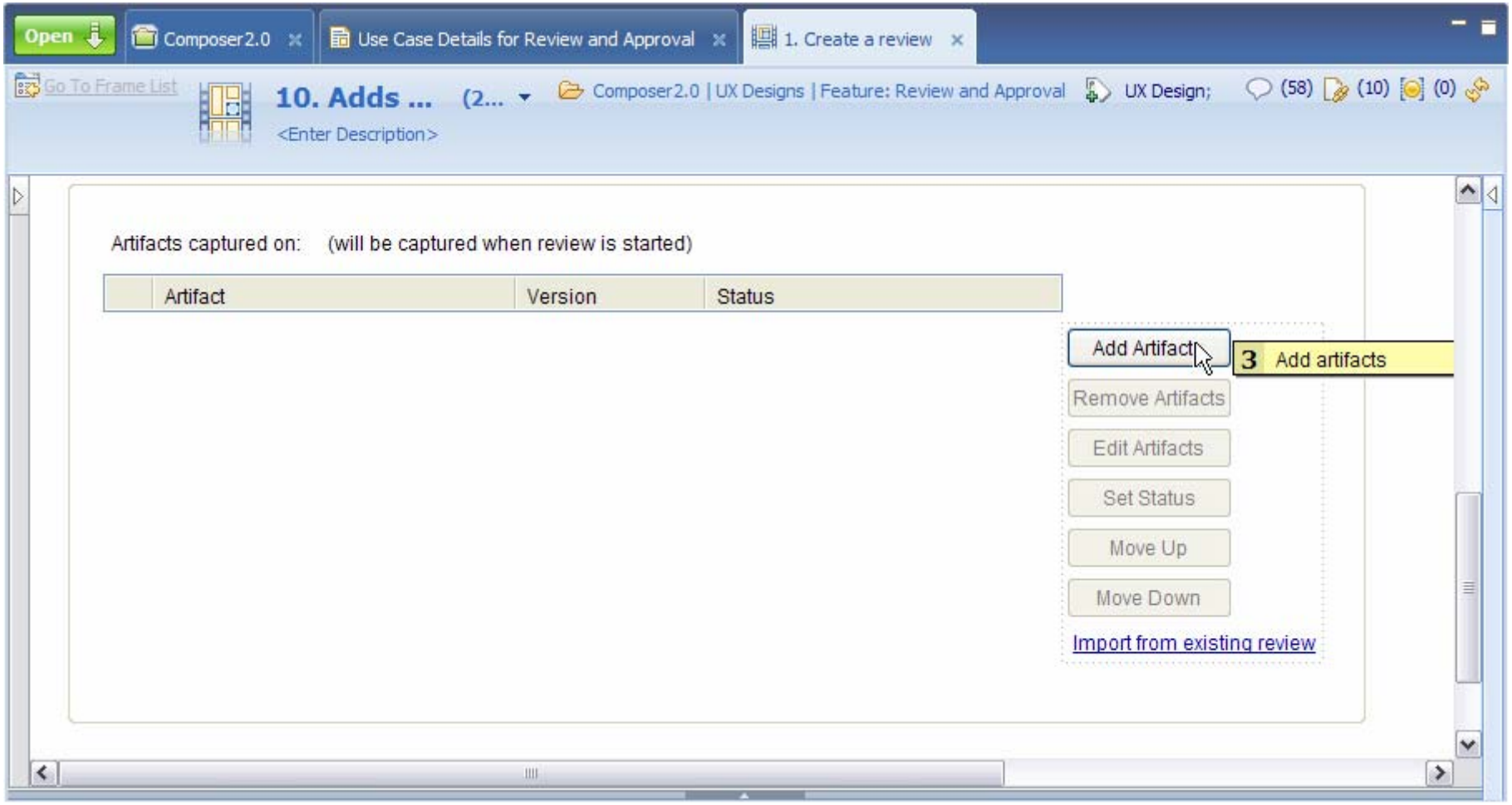
Storyboard – User Interface designer – 81 Revisions



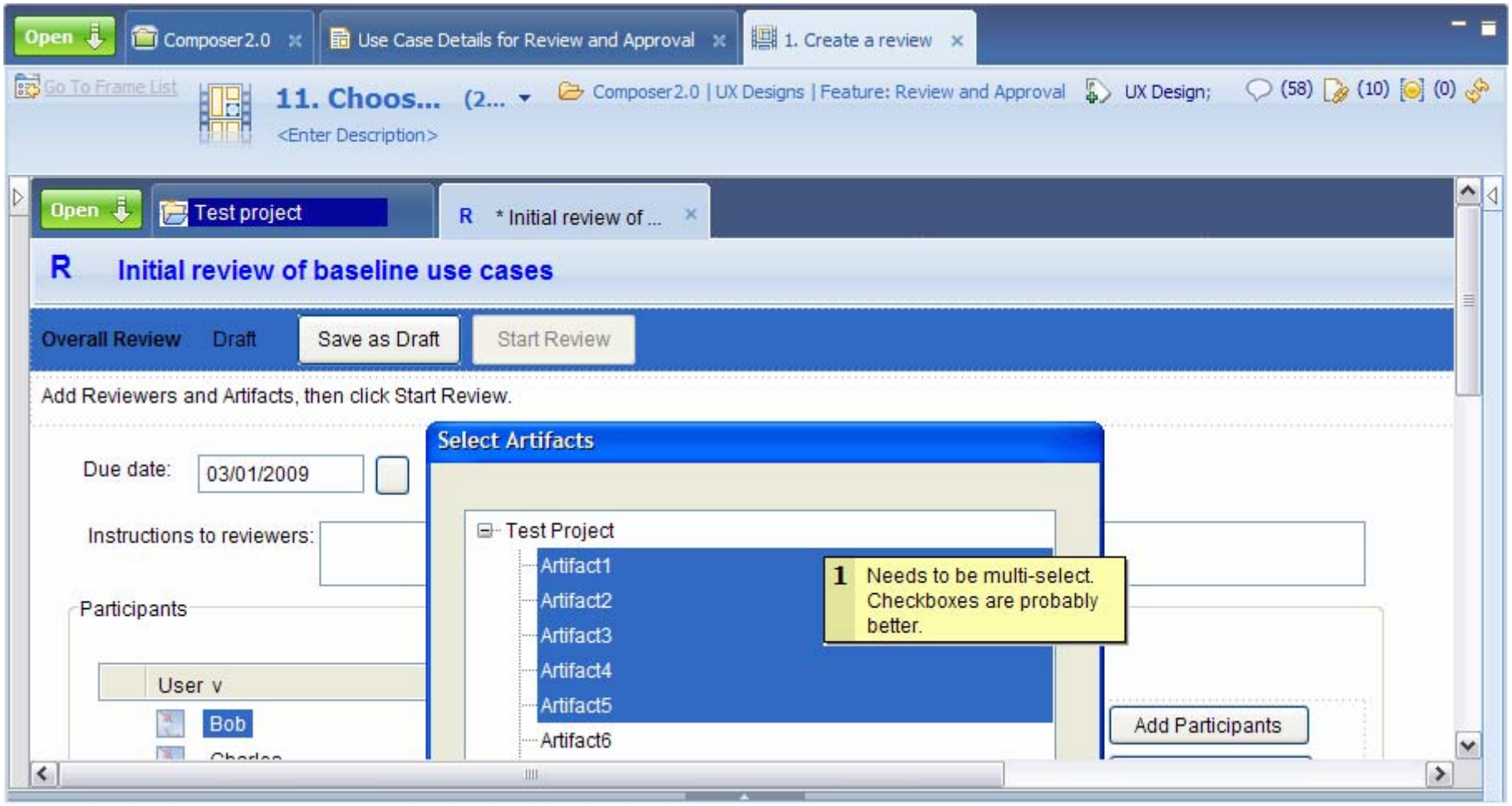
Storyboard – User Interface designer – 81 Revisions



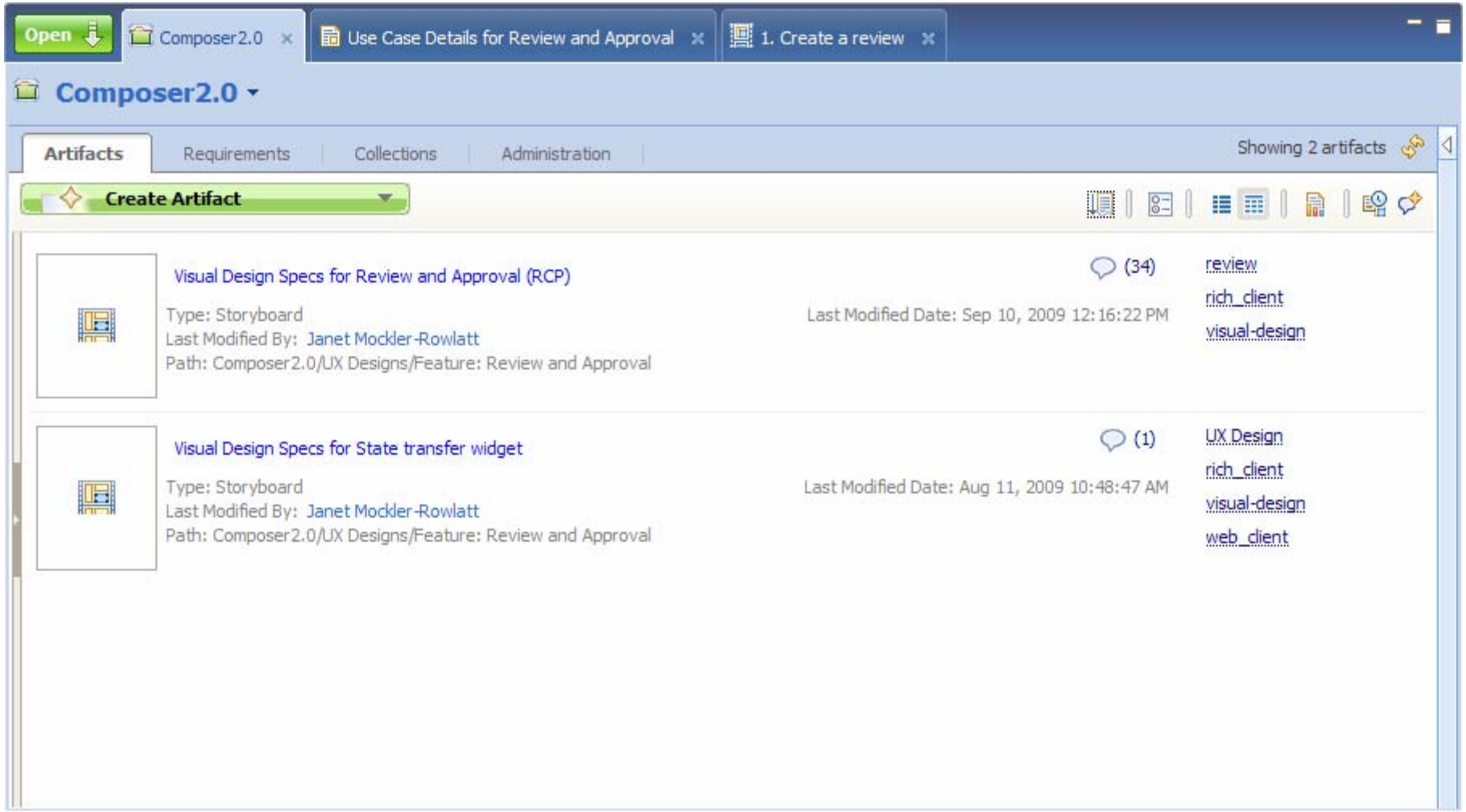
Storyboard – User Interface designer – 81 Revisions



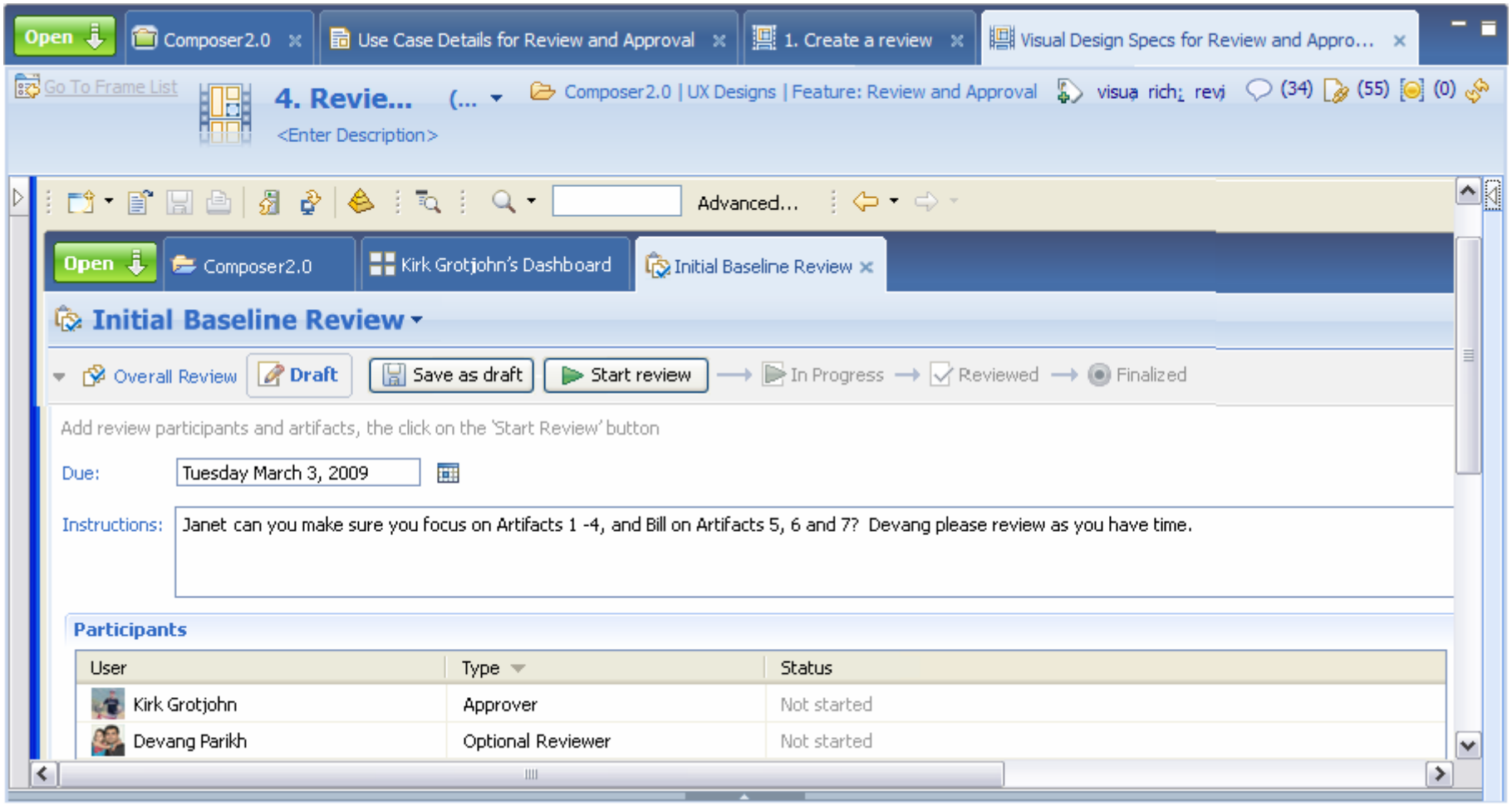
Storyboard – User Interface designer – 81 Revisions



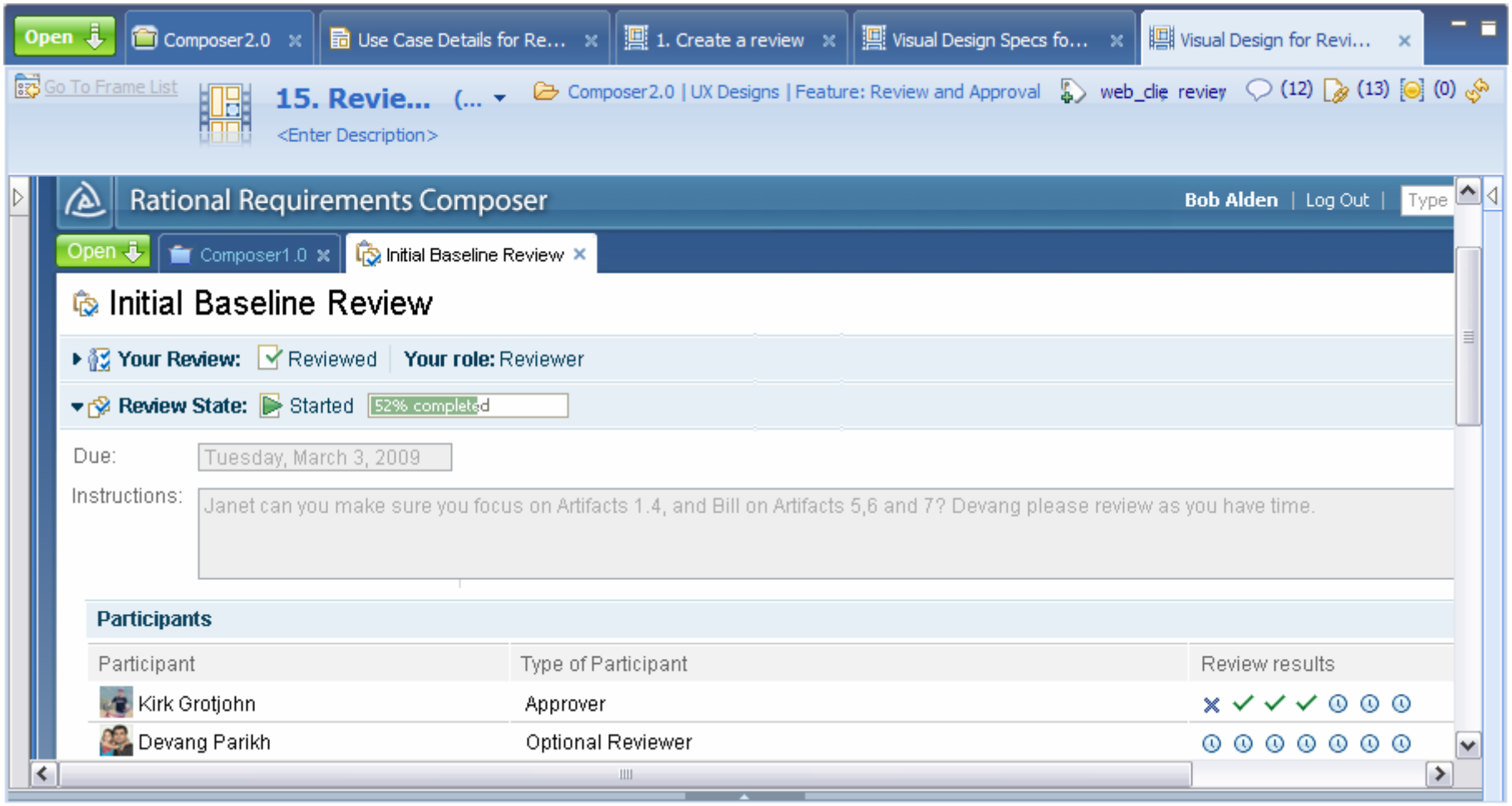
Visual Design – User Interface Designer



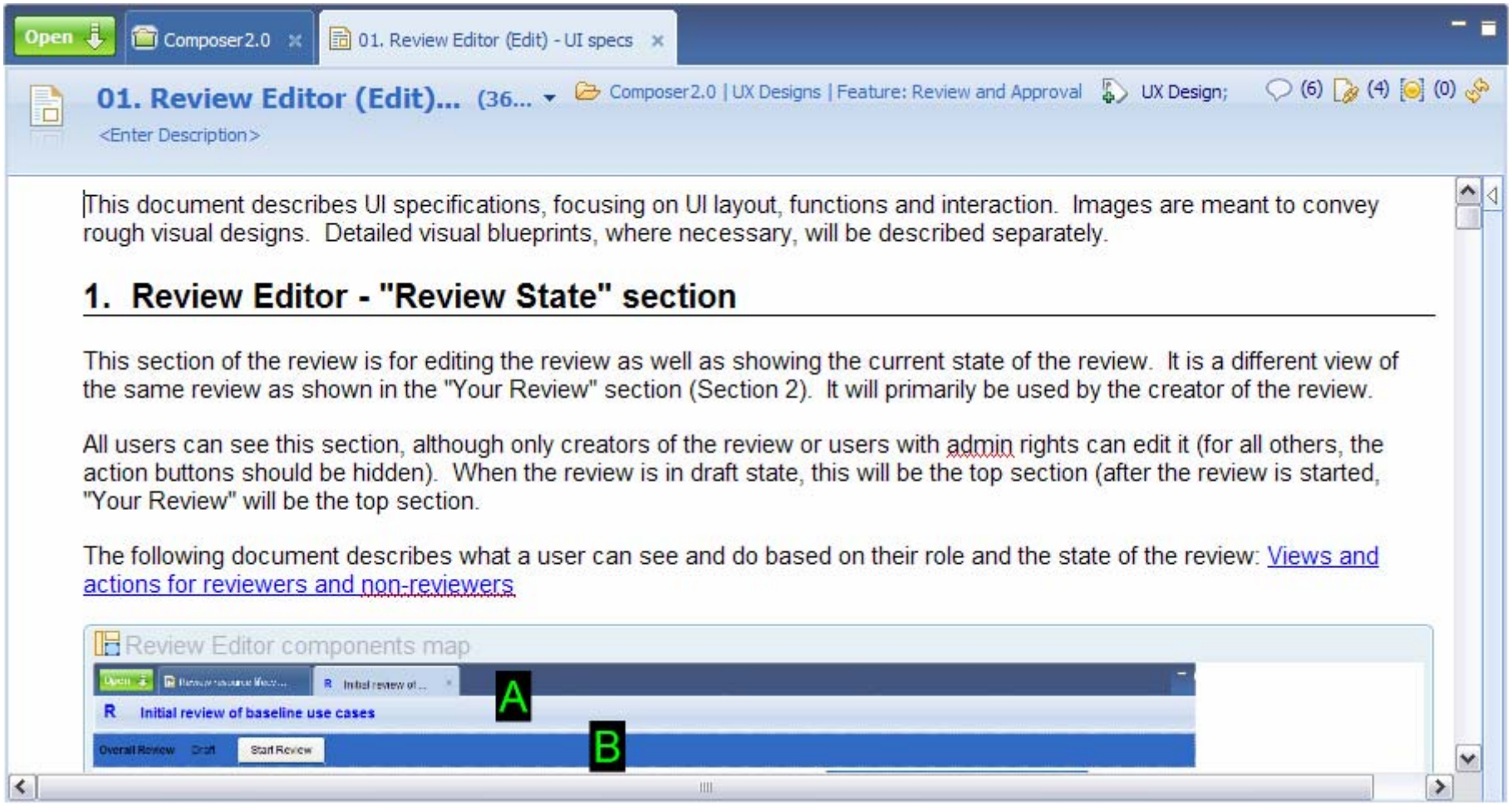
Rich Client – User Interface Designer – 19 Revisions



Web Client – User Interface Designer – 8 Revisions



Document – User Interface Designer – 52 Revisions



Document – User Interface Designer – 19 Revisions

Open | Composer2.0 | 01. Review Editor (Edit) - UI specs | Views and actions for reviewers and non-reviewers

Views and actions for reviewer... (6...

Composer2.0 | UX Designs | Feature: Review and Approval

(0) (1) (0)

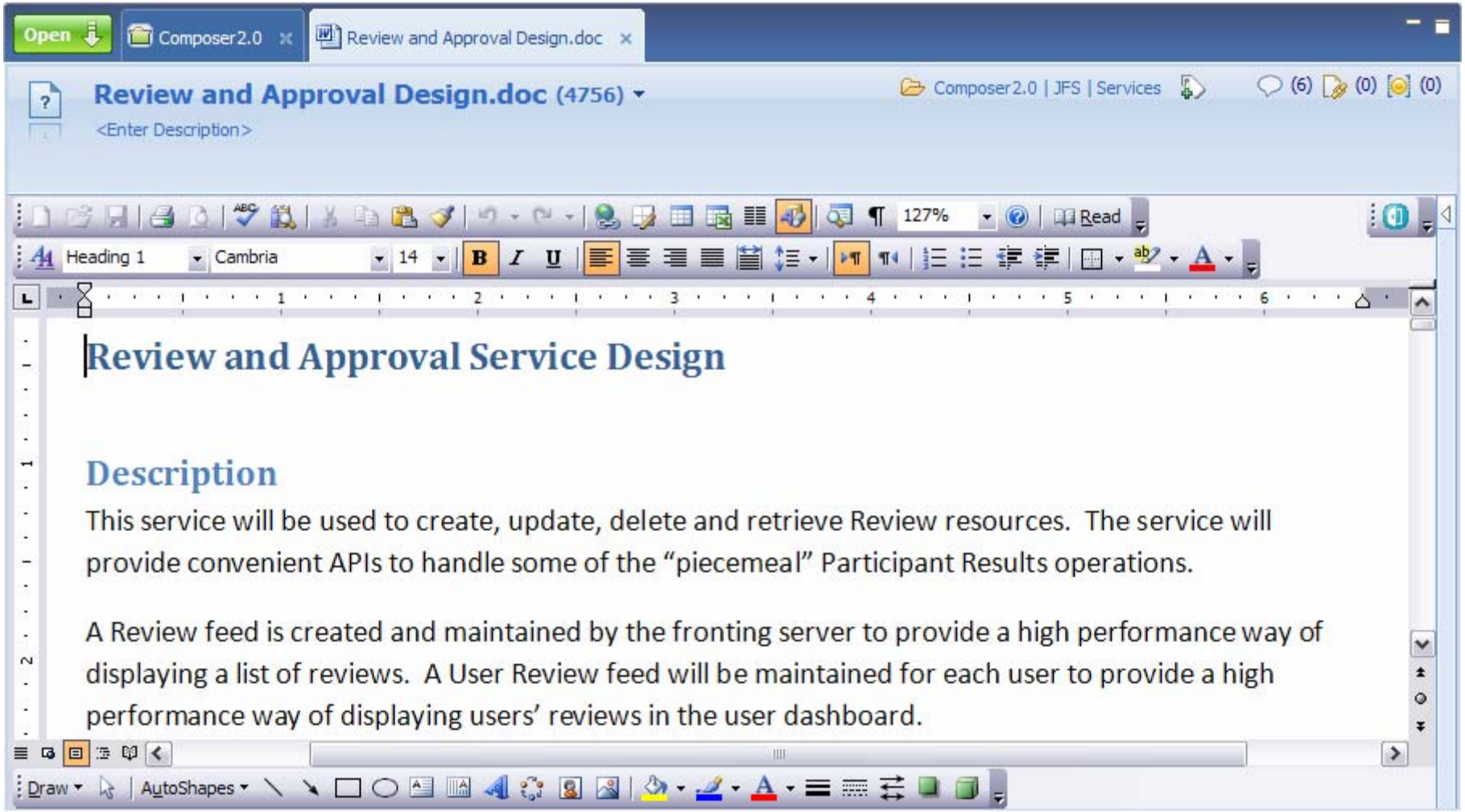
<Enter Description>

I think the current designs are a little unclear on what happens when you open a review artifact from different states of the review, or b whether you are a reviewer or not. This table hopefully clears this up. Let me know if there's anything in here you don't understand or with.

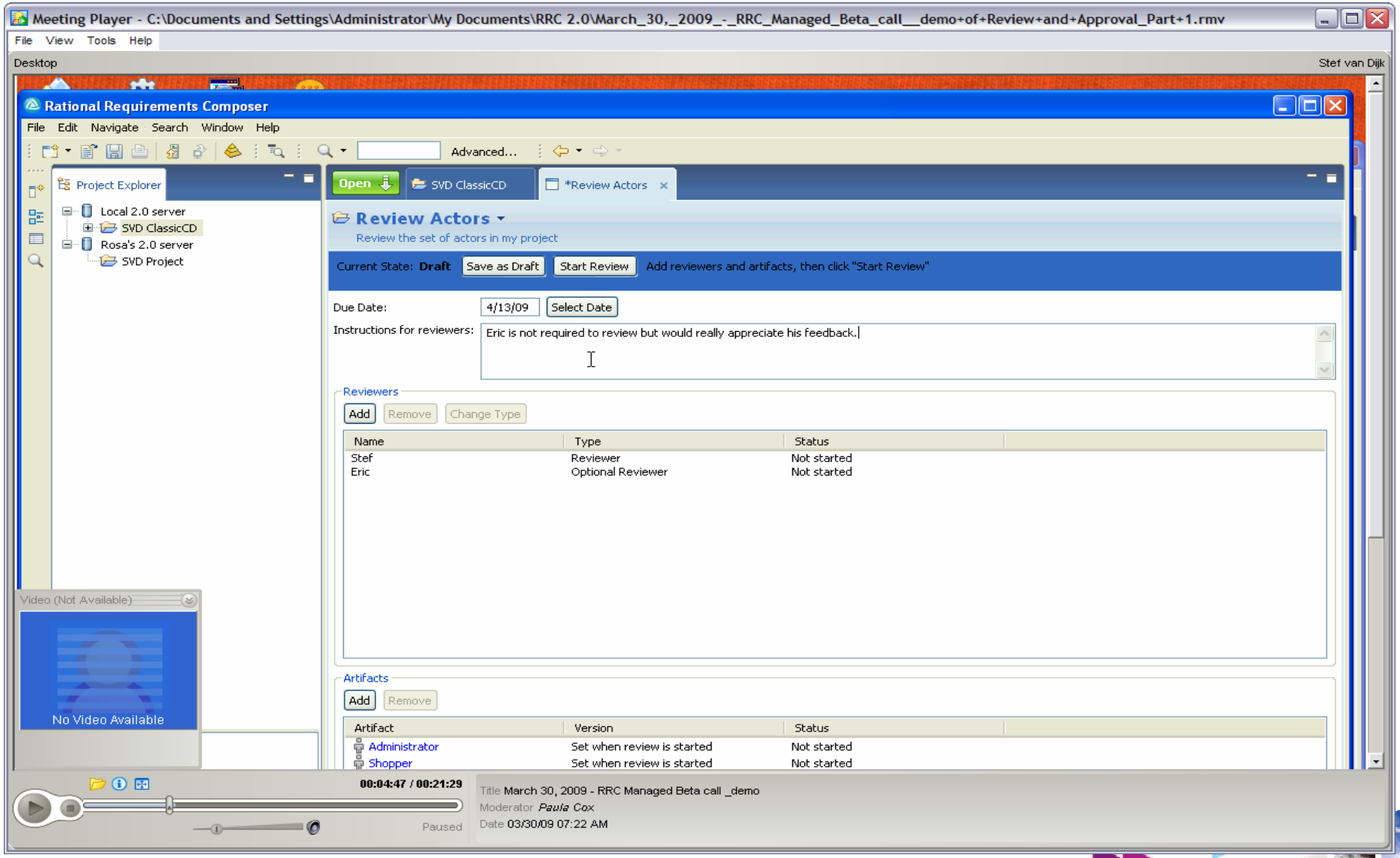
Note that the last column applies to whether you open an artifact from the My review section or the Overall review section. We might consider a context menu action to "Open current version".

Role	Opens review from:	Review State	Review sections shown	Opening artifact, what they see/can do?
Reviewer	• Project page sidebar after review is started: • User home page • E-mail link	Draft	Overall review (Individual reviewer page doesn't exist yet)	• **Opens head** version of artifact (since specific v hasn't been captured yet). Normal artifact editin capabilities (including normal commenting)
		Started	Overall review My Review	• Opens **review artifact editor** with all reviewing • Comments added are flagged as review comm
		Stopped	Overall review My Review (with action buttons disabled)	• Opens review artifact editor showing status, but **buttons (Approve, etc.) disabled.** • Commenting disabled
		Complete	Overall review My Review (with action buttons	• Opens review artifact editor showing status, but **buttons (Approve, etc.) disabled.**

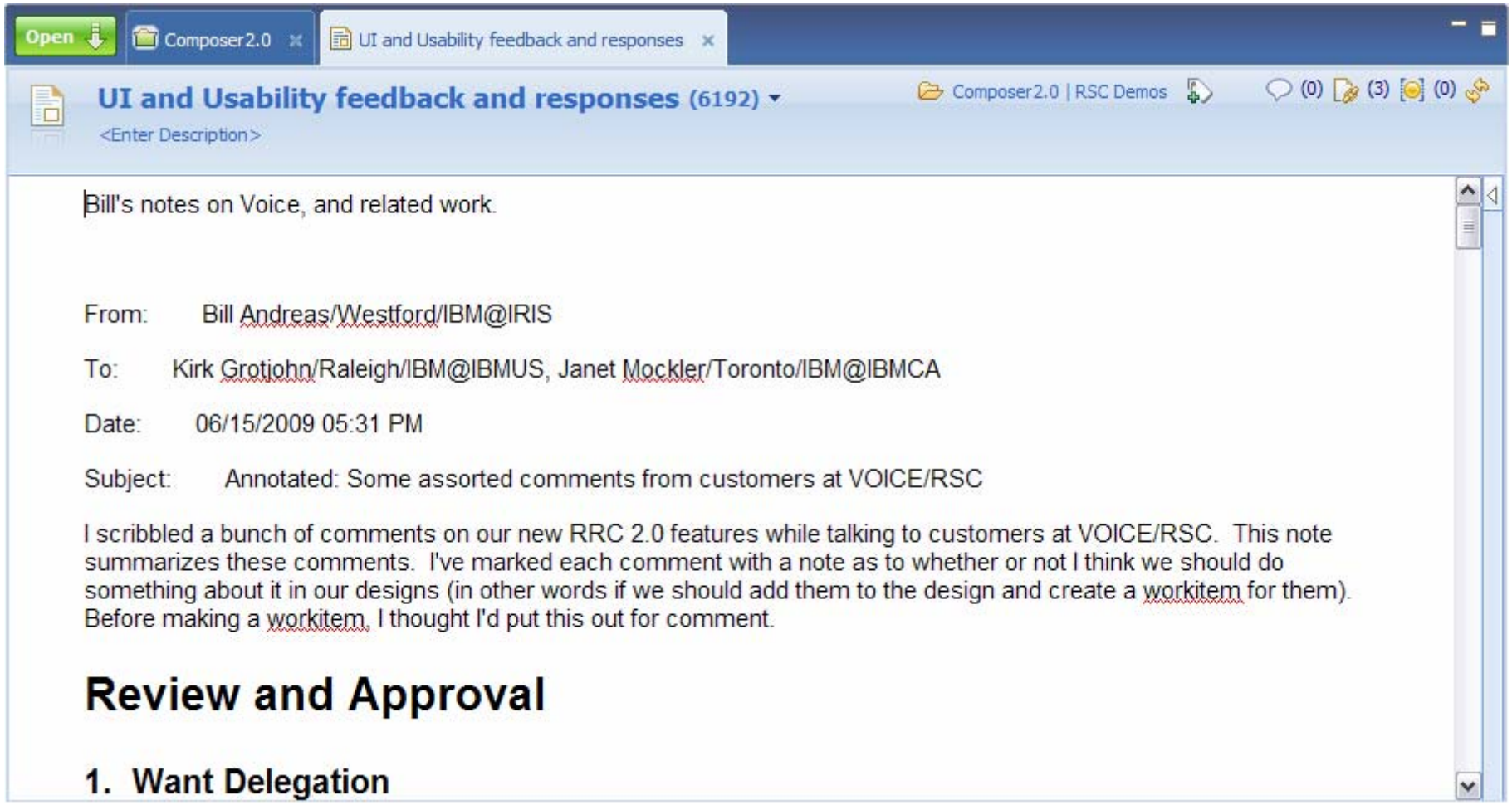
Document – Developer – 2 Revisions



Development demo - Developer

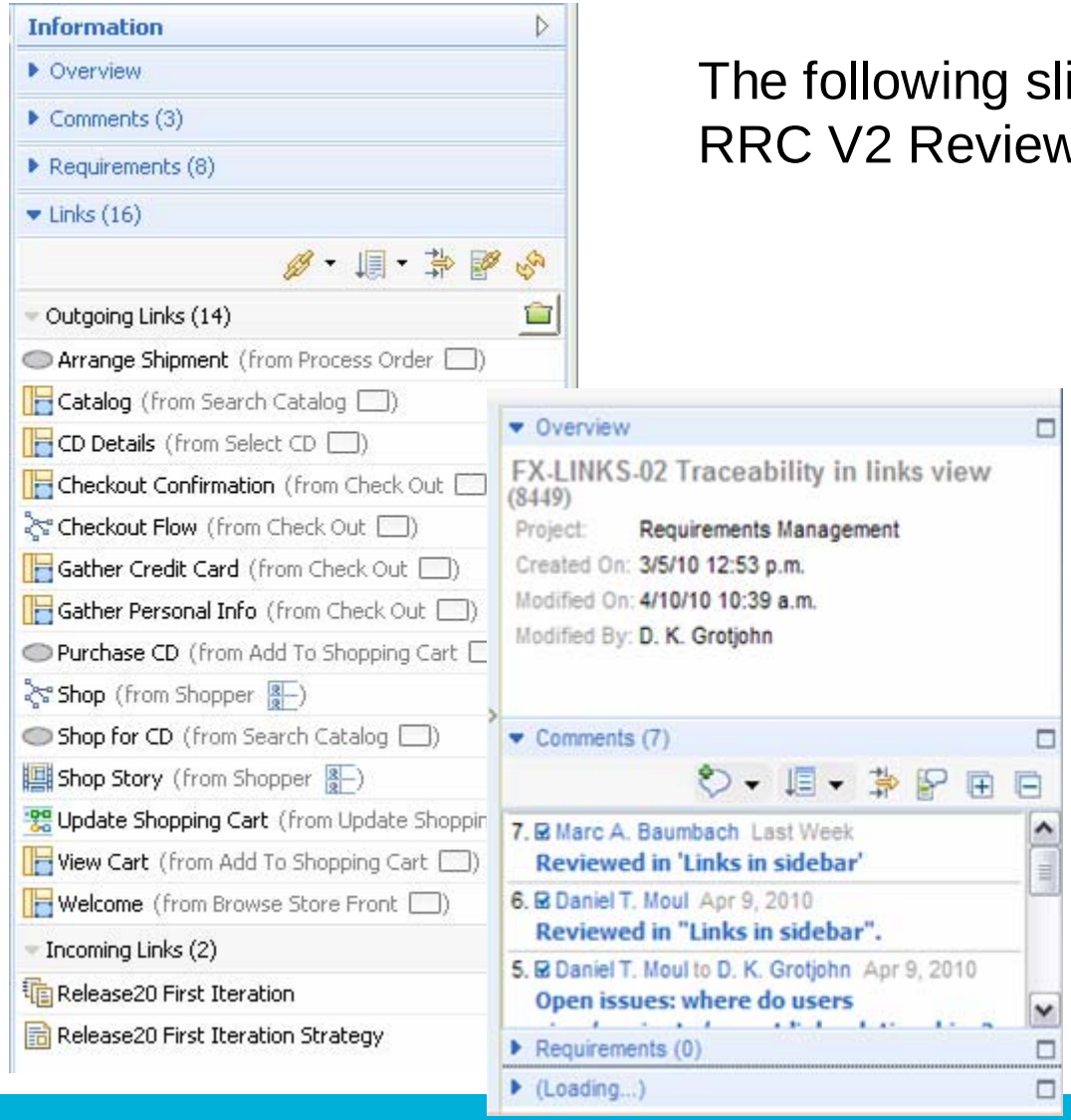


Usability feedback – User Interface Designer



2010

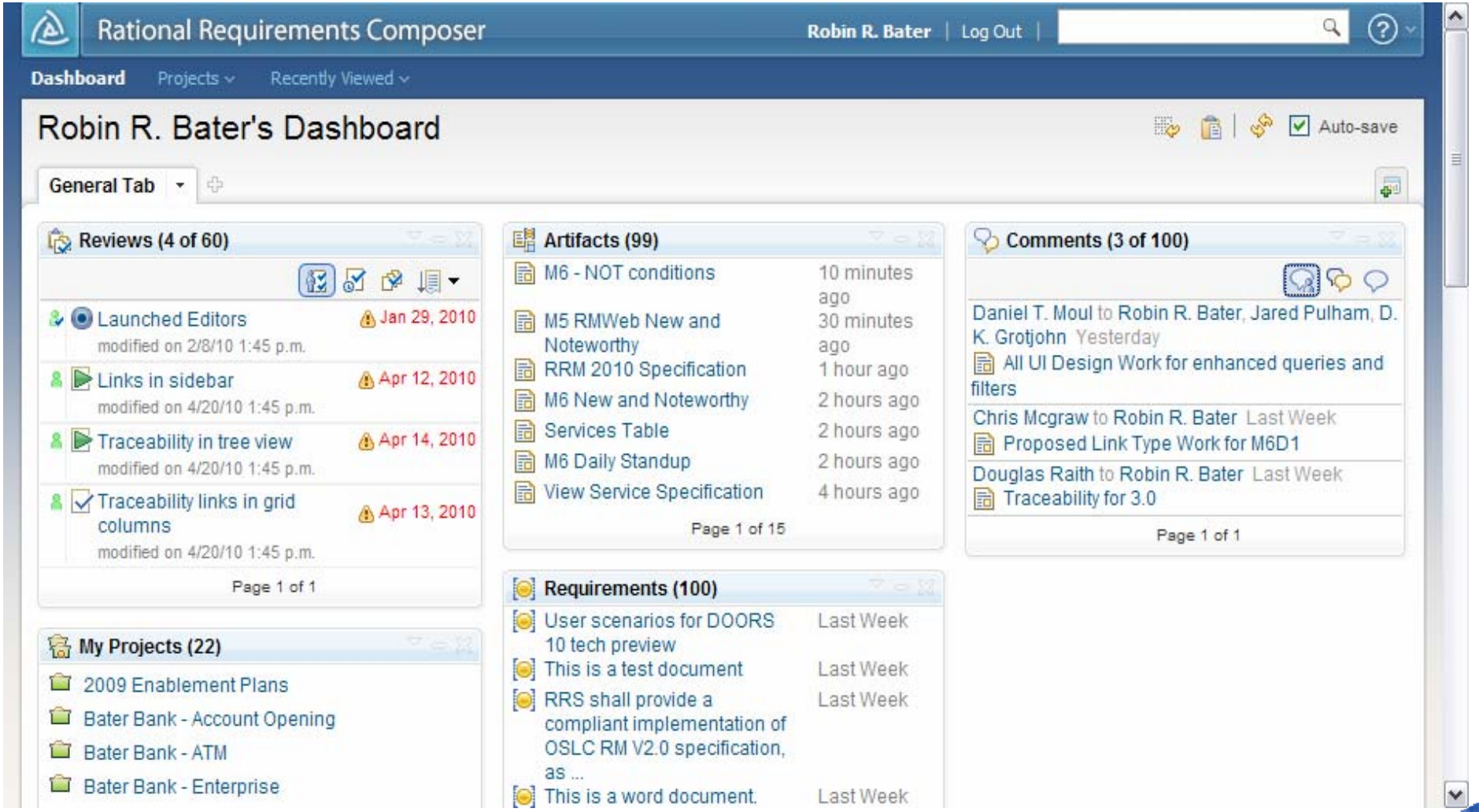
Drinking Our Own Champagne



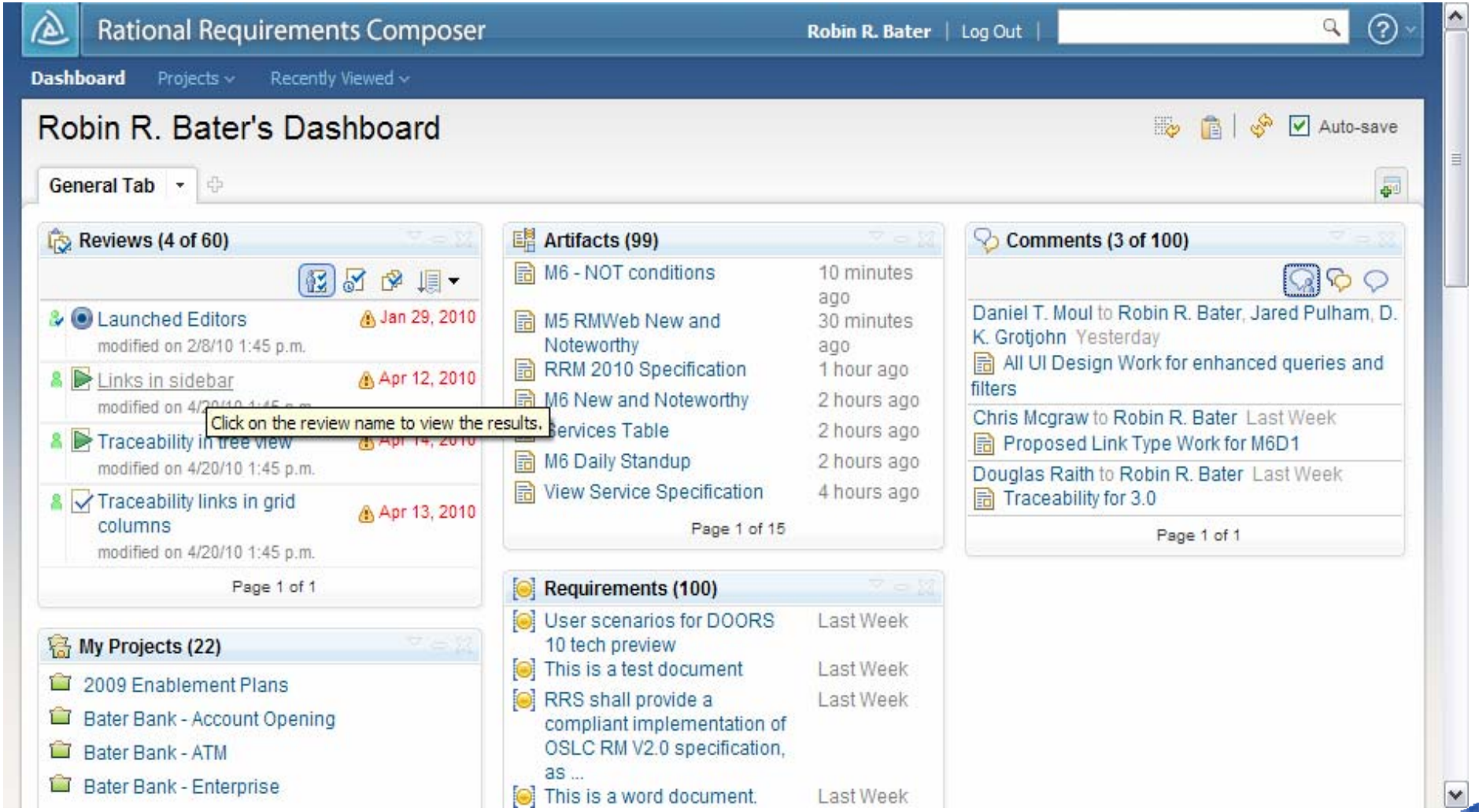
The following slides show the *use* of the RRC V2 Review and Approval feature

Case Study: Improvements to the Links sidebar

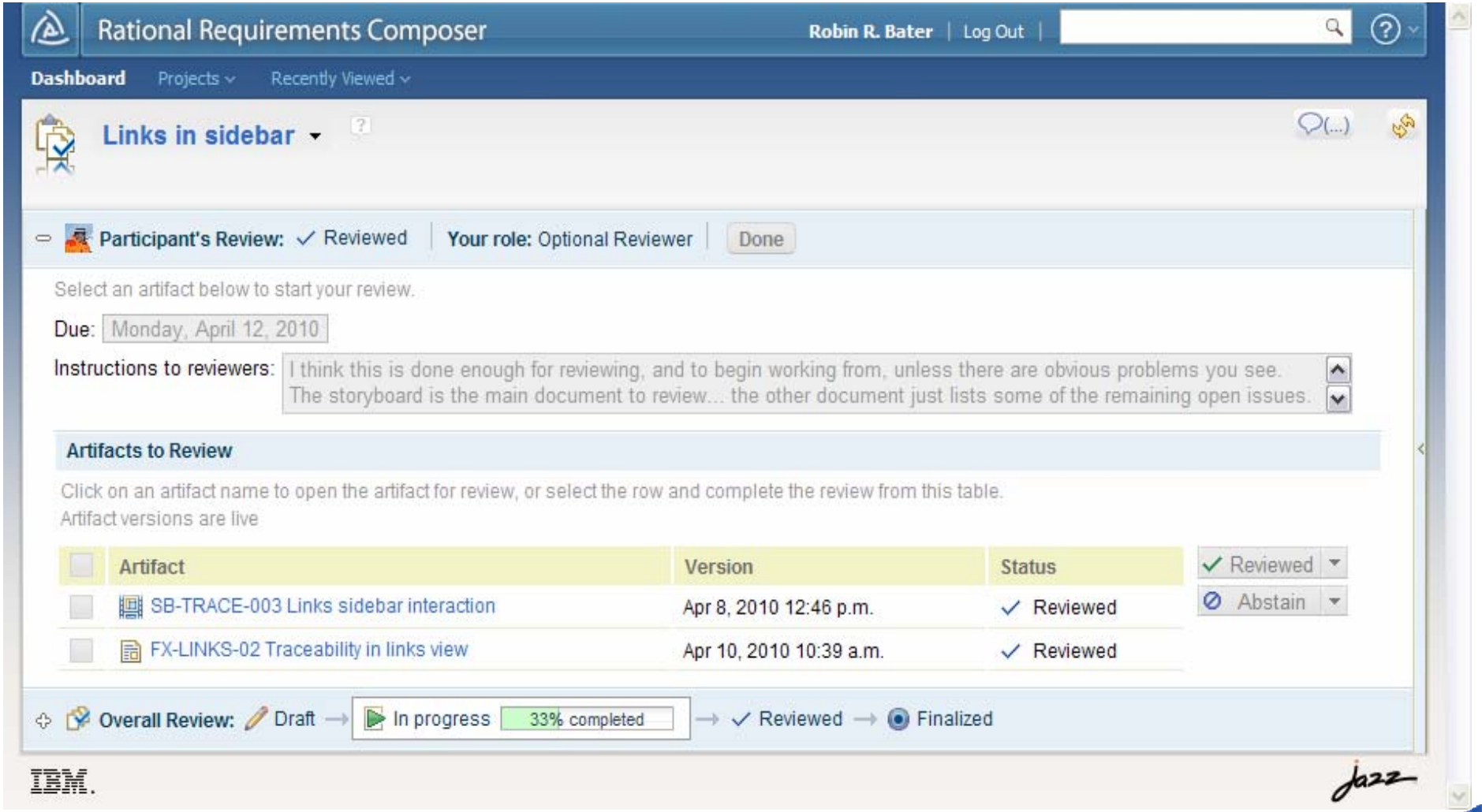
Dashboard


Rational Requirements Composer
Robin R. Bater | Log Out |
Dashboard
Projects
Recently Viewed
Robin R. Bater's Dashboard
Auto-save
General Tab
Reviews (4 of 60)
Launched Editors
modified on 2/8/10 1:45 p.m.
Jan 29, 2010
Links in sidebar
modified on 4/20/10 1:45 p.m.
Apr 12, 2010
Traceability in tree view
modified on 4/20/10 1:45 p.m.
Apr 14, 2010
Traceability links in grid columns
modified on 4/20/10 1:45 p.m.
Apr 13, 2010
Page 1 of 1
Artifacts (99)
M6 - NOT conditions 10 minutes ago
M5 RMWeb New and Noteworthy 30 minutes ago
RRM 2010 Specification 1 hour ago
M6 New and Noteworthy 2 hours ago
Services Table 2 hours ago
M6 Daily Standup 2 hours ago
View Service Specification 4 hours ago
Page 1 of 15
Comments (3 of 100)
Daniel T. Moul to Robin R. Bater, Jared Pulham, D. K. Grotjohn Yesterday
All UI Design Work for enhanced queries and filters
Chris Mcgraw to Robin R. Bater Last Week
Proposed Link Type Work for M6D1
Douglas Raith to Robin R. Bater Last Week
Traceability for 3.0
Page 1 of 1
Requirements (100)
User scenarios for DOORS 10 tech preview Last Week
This is a test document Last Week
RRS shall provide a compliant implementation of OSLC RM V2.0 specification, as ... Last Week
This is a word document. Last Week
My Projects (22)
2009 Enablement Plans
Bater Bank - Account Opening
Bater Bank - ATM
Bater Bank - Enterprise

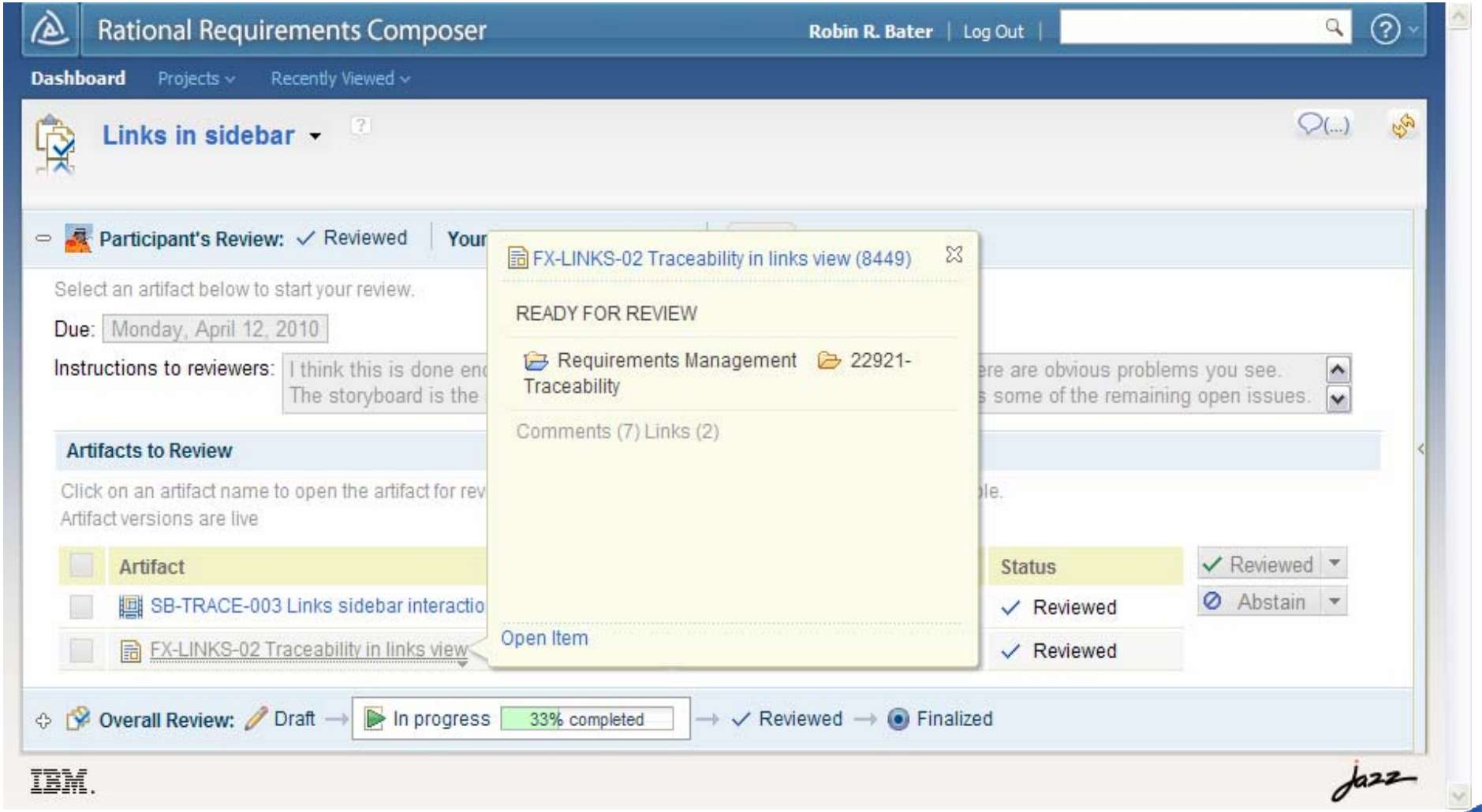
Dashboard


Rational Requirements Composer
Robin R. Bater | Log Out |
Dashboard
Projects
Recently Viewed
Robin R. Bater's Dashboard
Auto-save
General Tab
Reviews (4 of 60)
Launched Editors
modified on 2/8/10 1:45 p.m.
Jan 29, 2010
Links in sidebar
Apr 12, 2010
Click on the review name to view the results.
Traceability in tree view
modified on 4/20/10 1:45 p.m.
Traceability links in grid columns
modified on 4/20/10 1:45 p.m.
Apr 13, 2010
Page 1 of 1
My Projects (22)
2009 Enablement Plans
Bater Bank - Account Opening
Bater Bank - ATM
Bater Bank - Enterprise
Artifacts (99)
M6 - NOT conditions
10 minutes ago
M5 RMWeb New and Noteworthy
30 minutes ago
RRM 2010 Specification
1 hour ago
M6 New and Noteworthy
2 hours ago
2 hours ago
M6 Daily Standup
2 hours ago
View Service Specification
4 hours ago
Page 1 of 15
Requirements (100)
User scenarios for DOORS 10 tech preview
Last Week
This is a test document
Last Week
RRS shall provide a compliant implementation of OSLC RM V2.0 specification, as ...
Last Week
This is a word document.
Last Week
Comments (3 of 100)
Daniel T. Moul to Robin R. Bater, Jared Pulham, D. K. Grotjohn Yesterday
All UI Design Work for enhanced queries and filters
Chris Mcgraw to Robin R. Bater Last Week
Proposed Link Type Work for M6D1
Douglas Raith to Robin R. Bater Last Week
Traceability for 3.0
Page 1 of 1

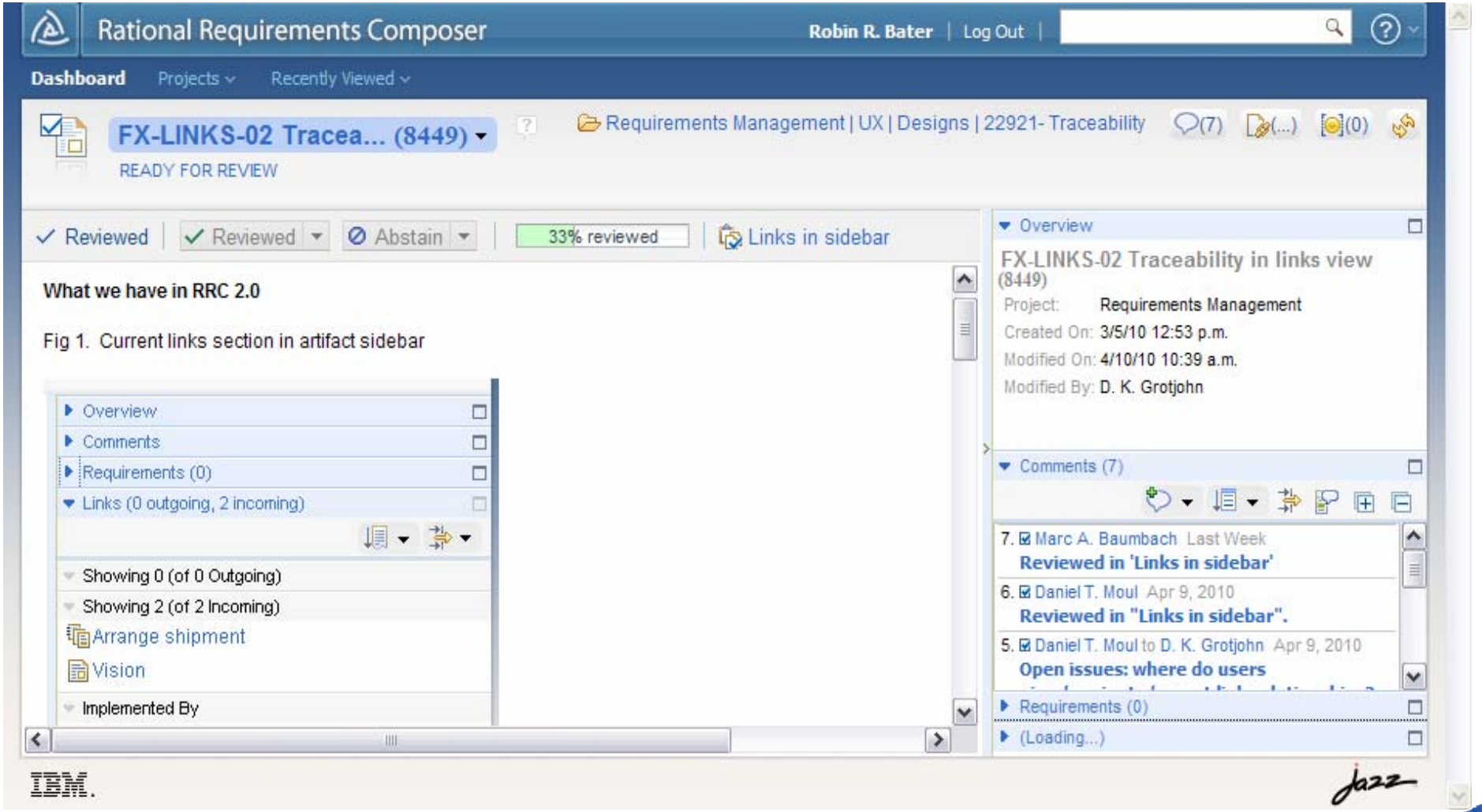
Participant's Review



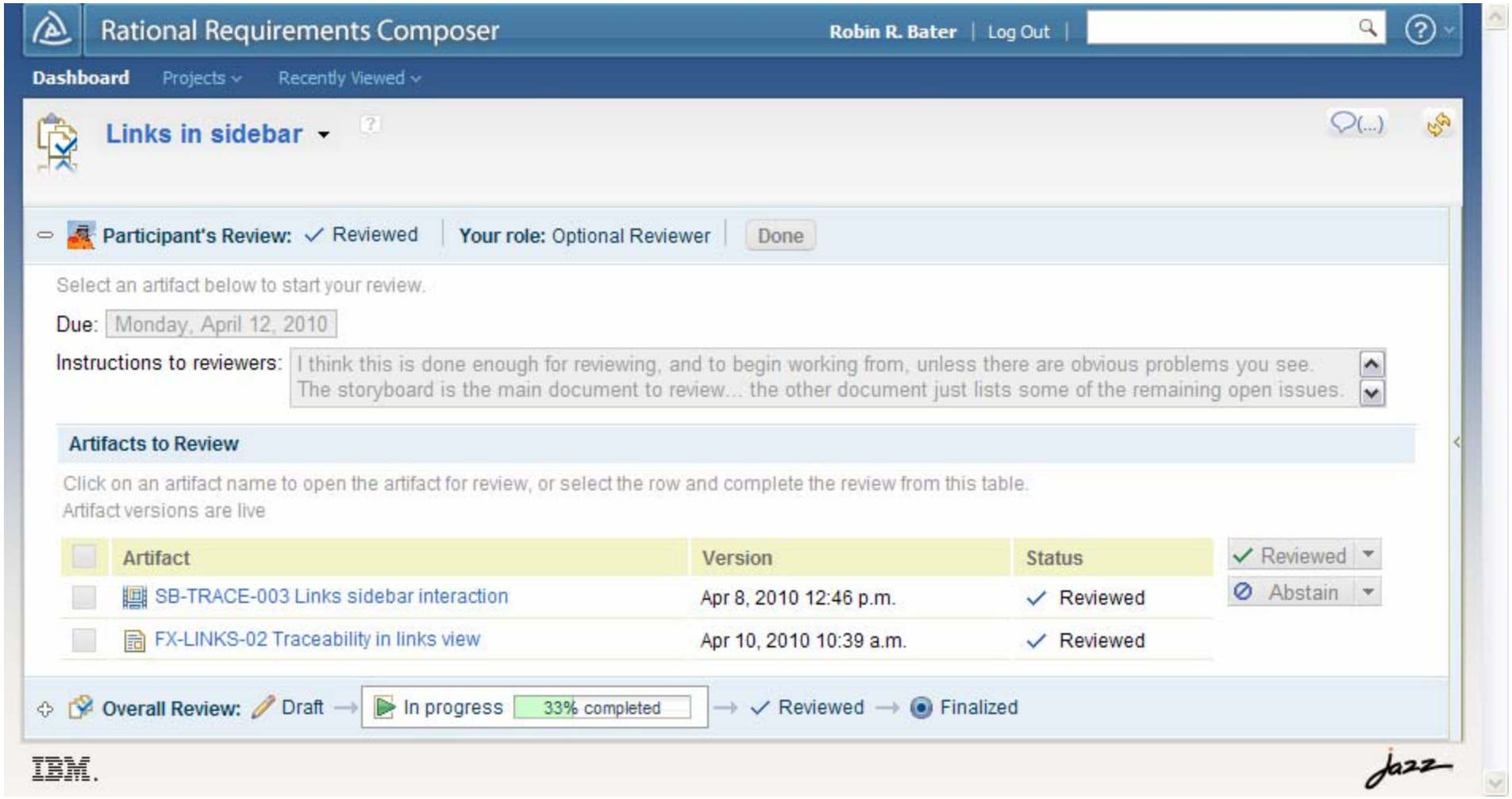
Participant's Review - Artifact



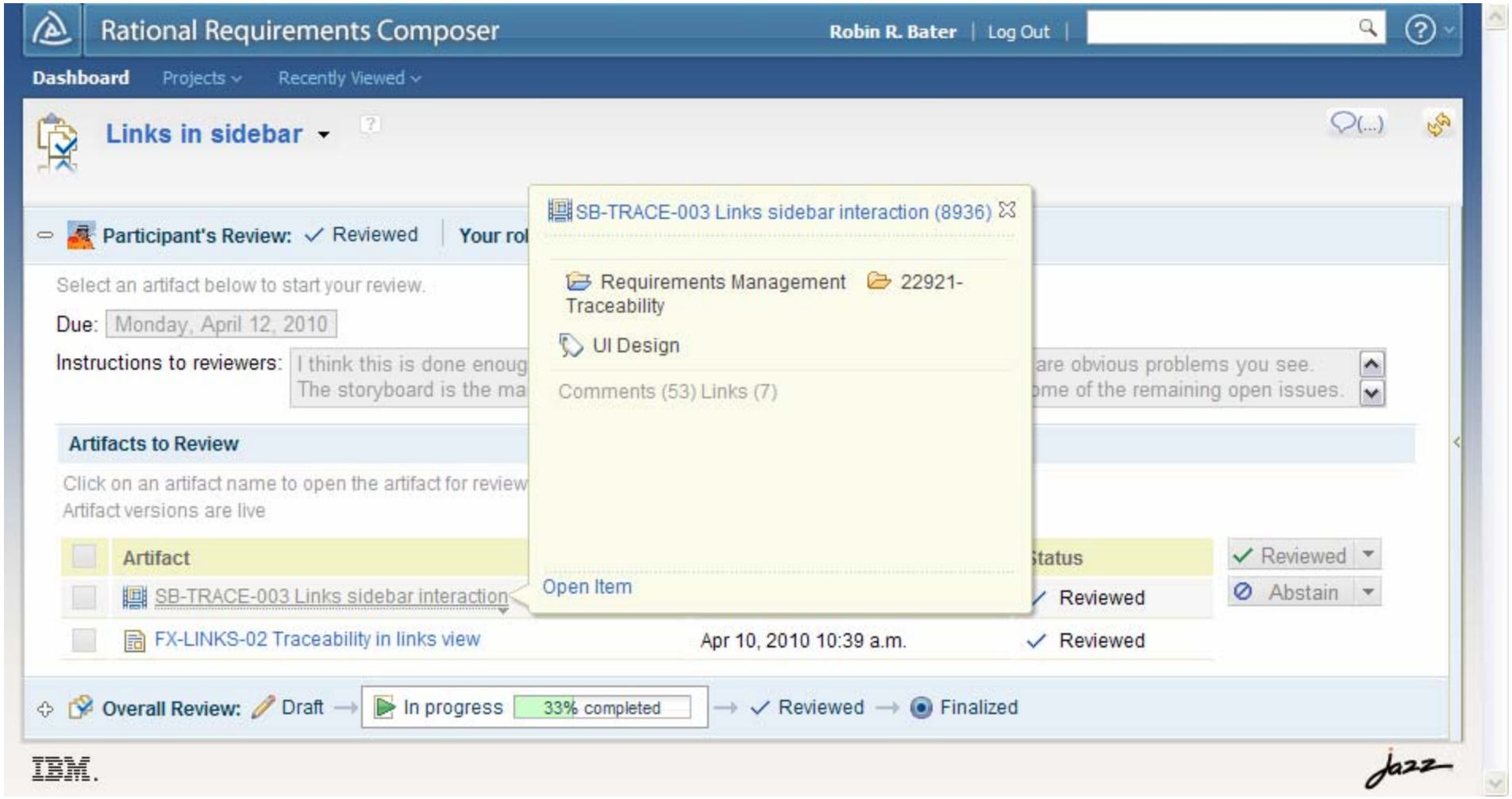
Participant's Review - Document



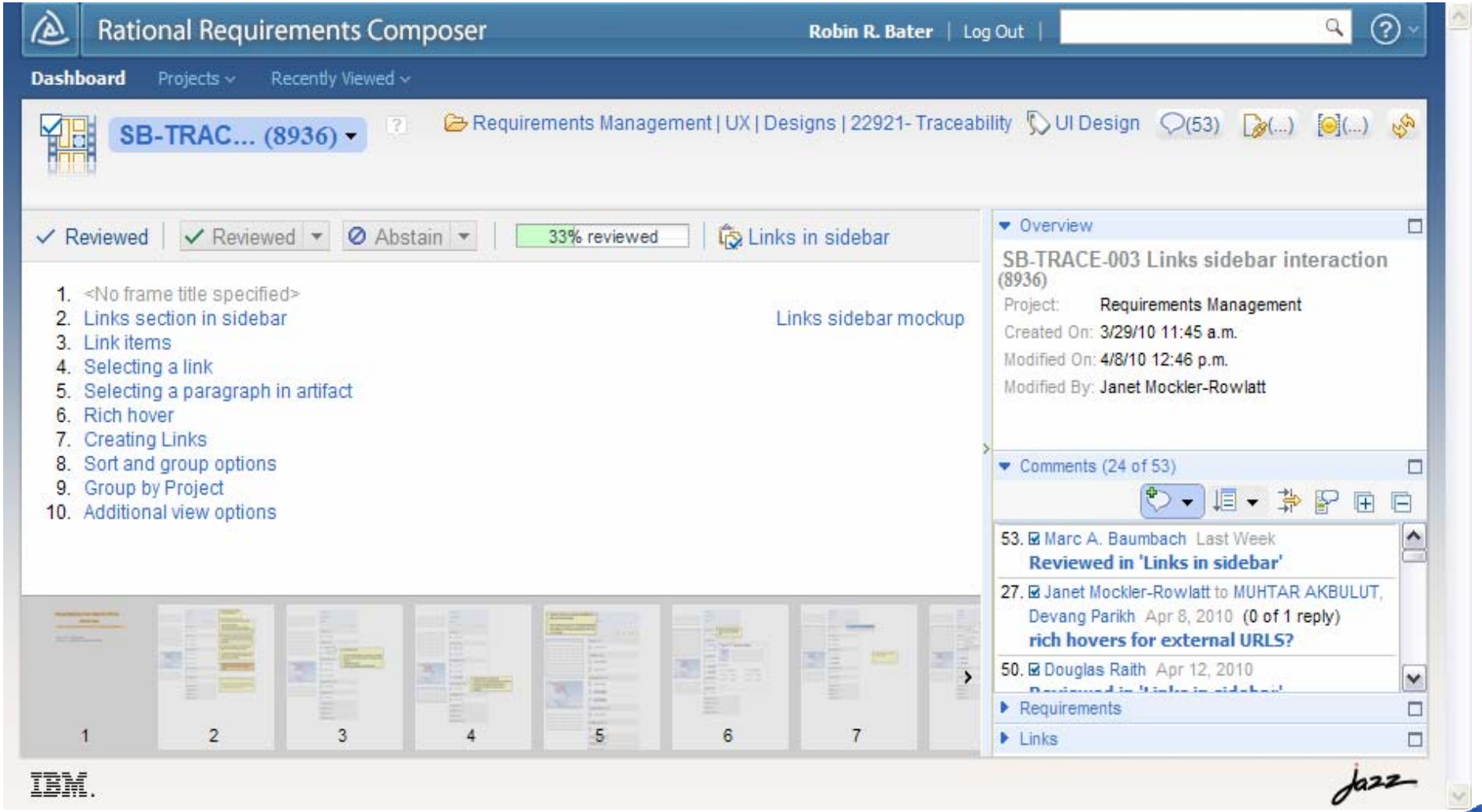
Participant's Review



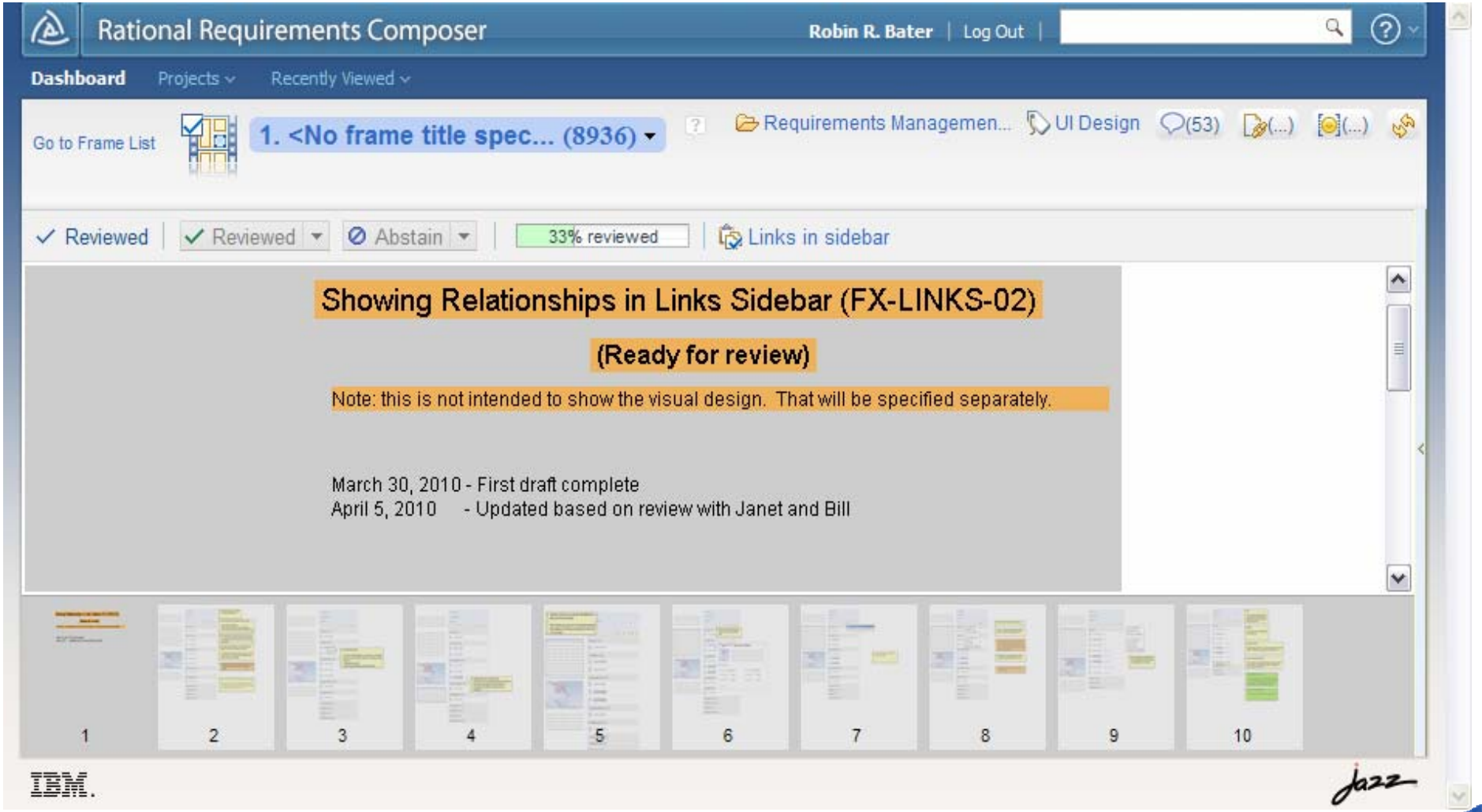
Participant's Review - Storyboard



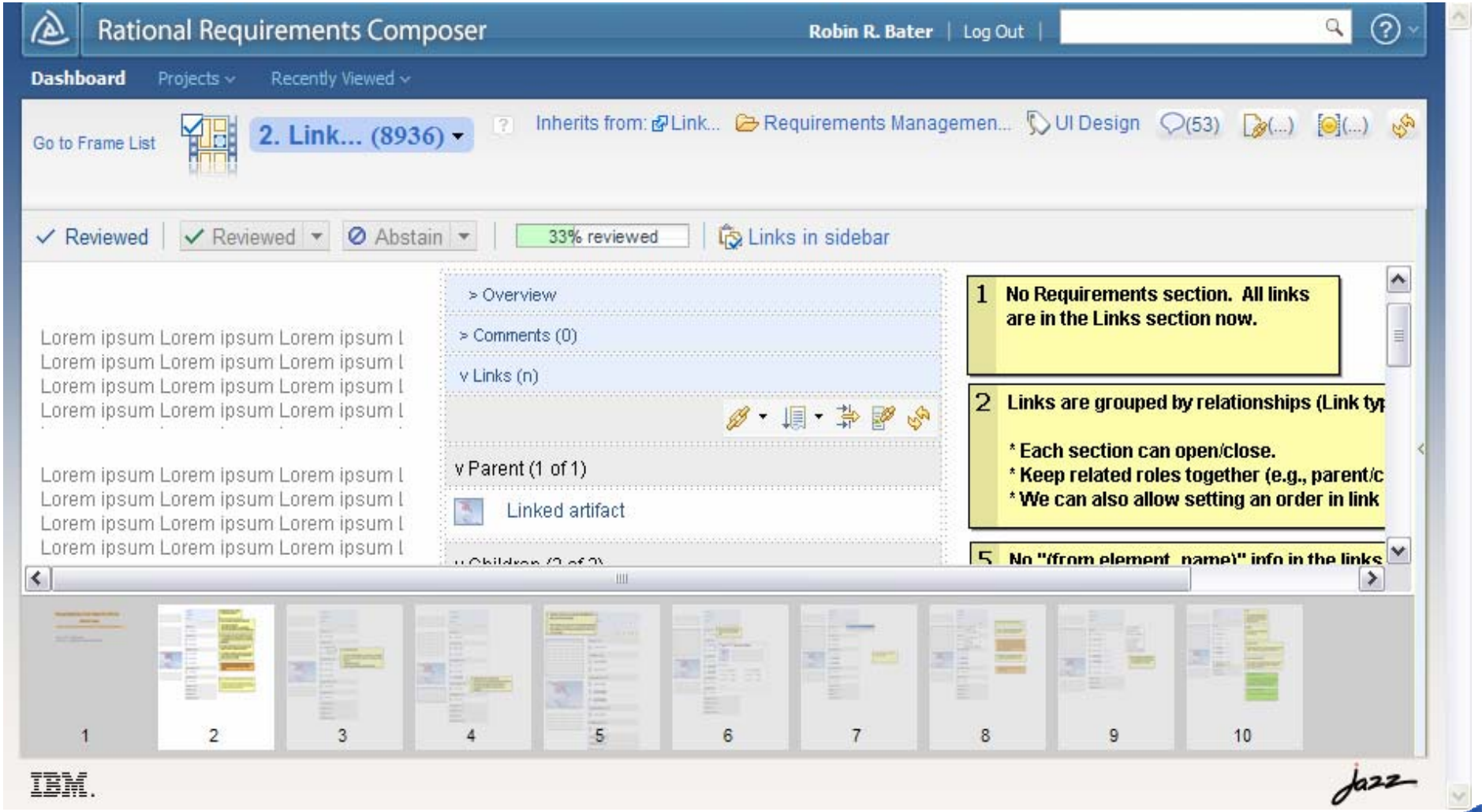
Participant's Review – Storyboard – Frame List



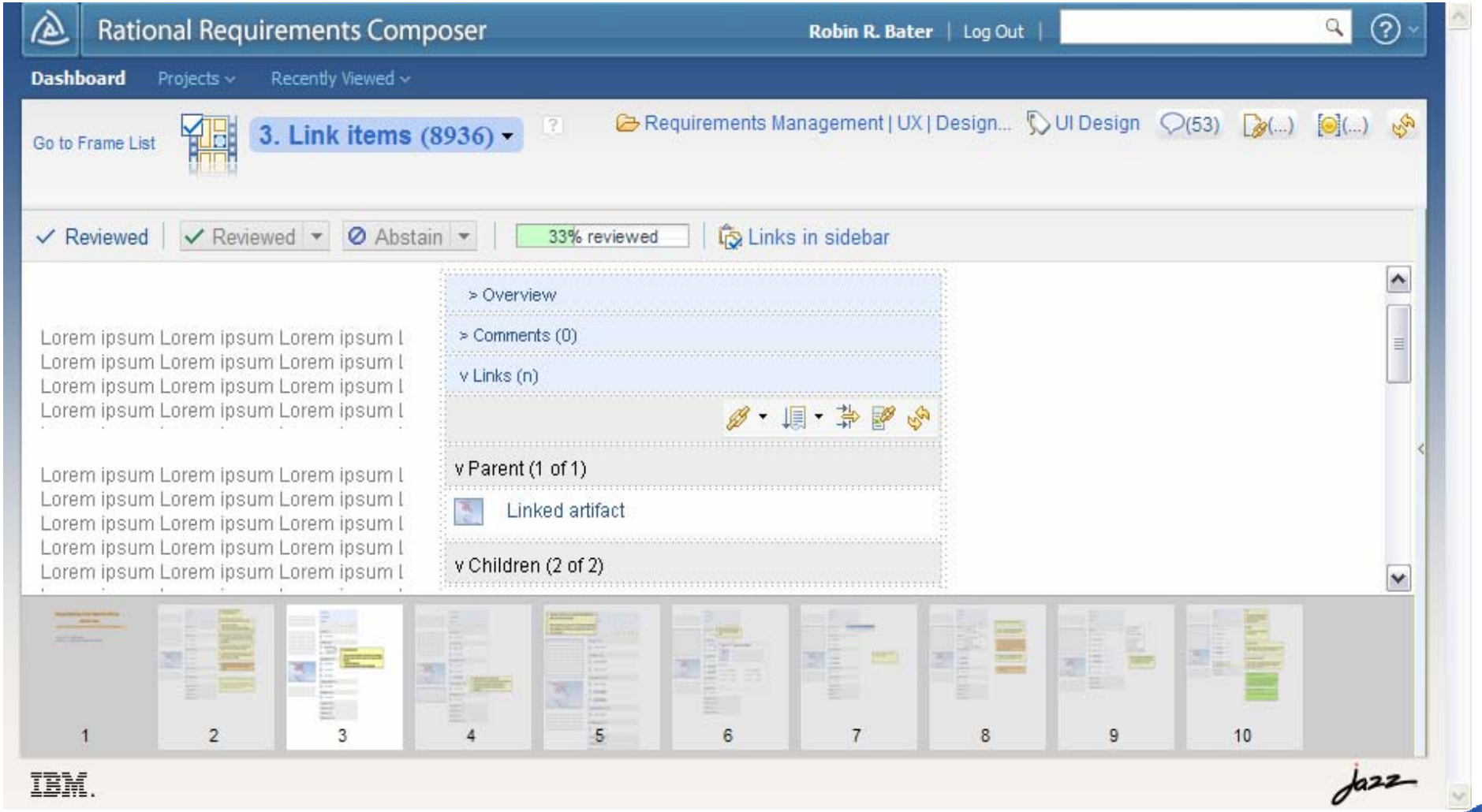
Participant's Review – Storyboard – Frame 1



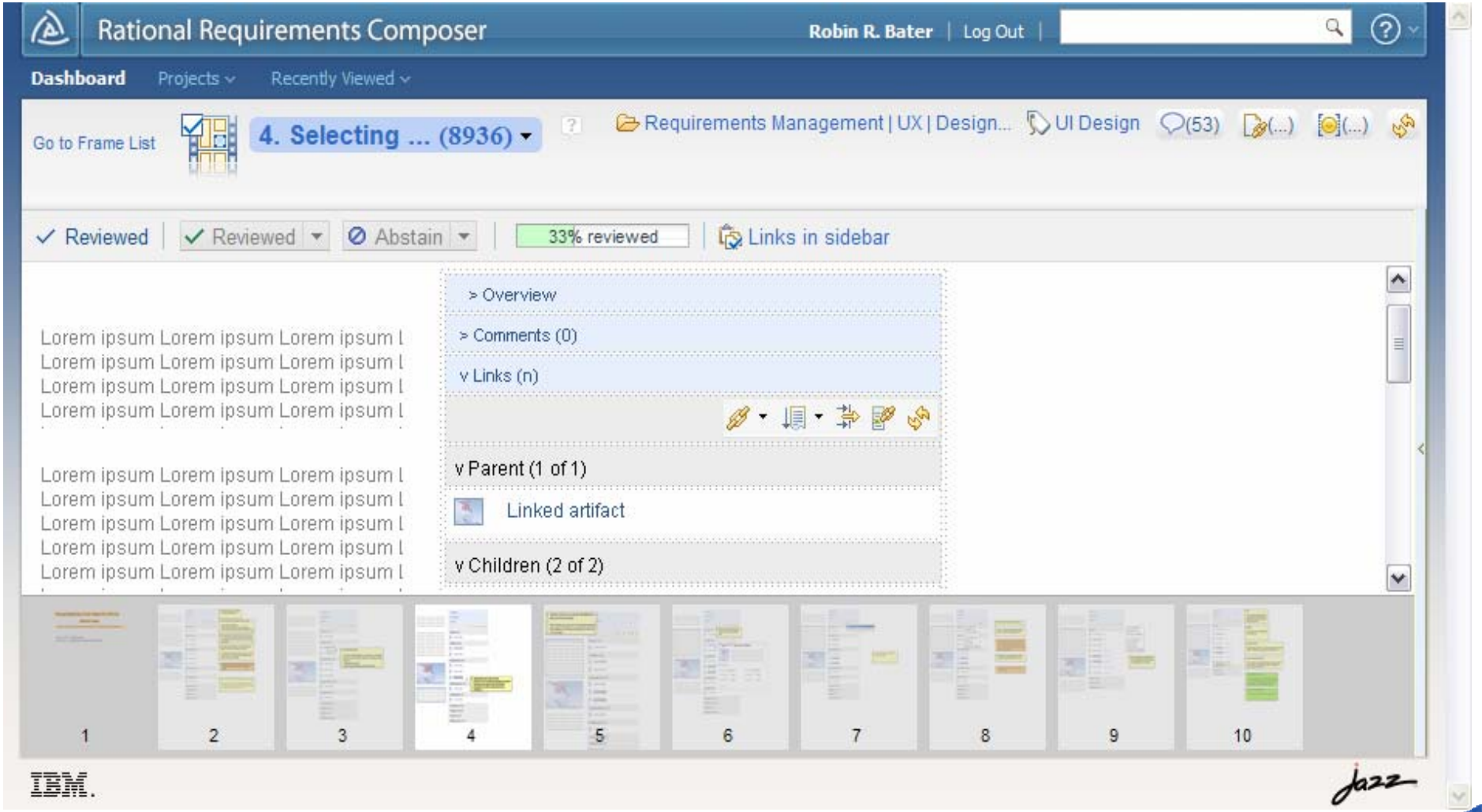
Participant's Review – Storyboard – Frame 2



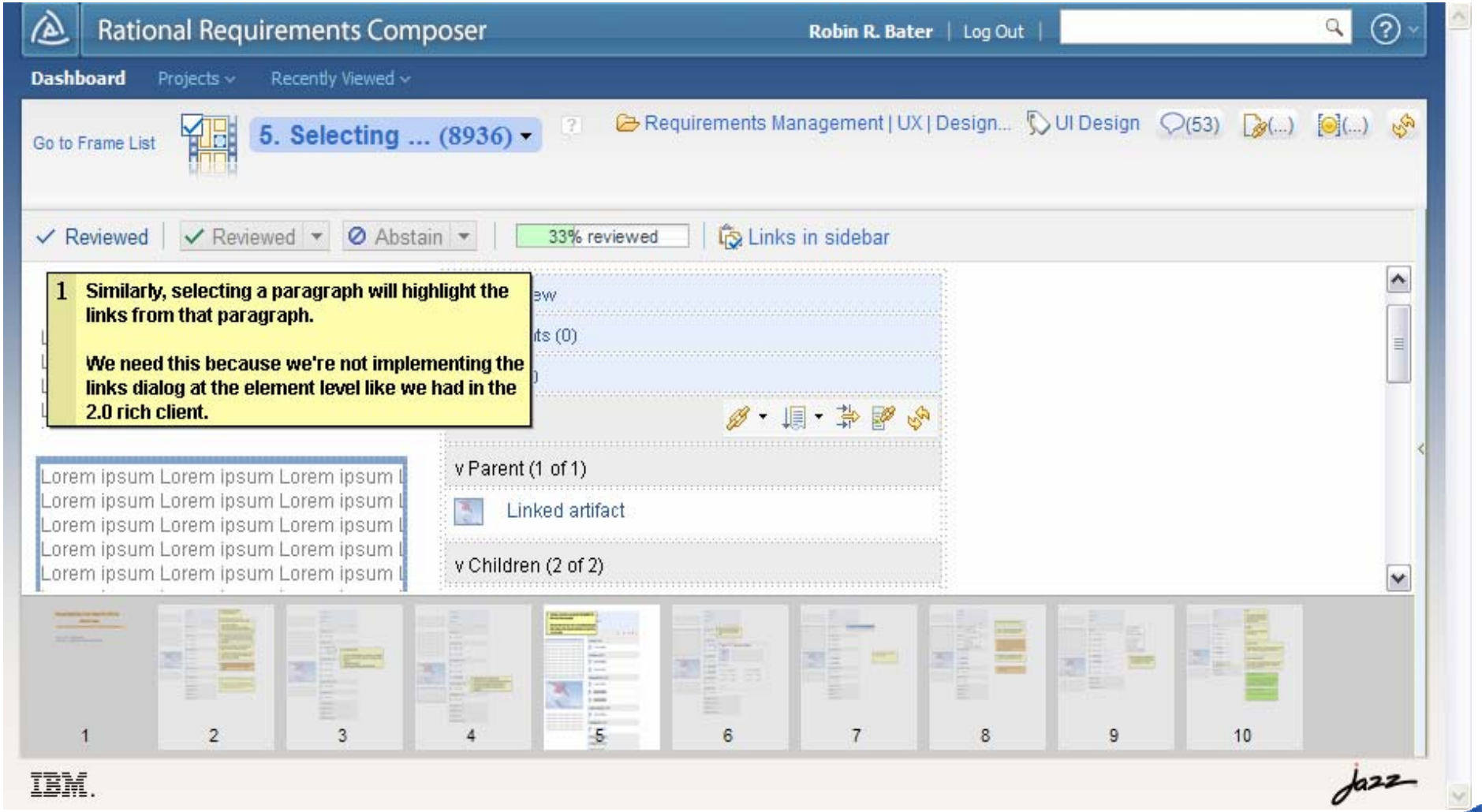
Participant's Review – Storyboard – Frame 3



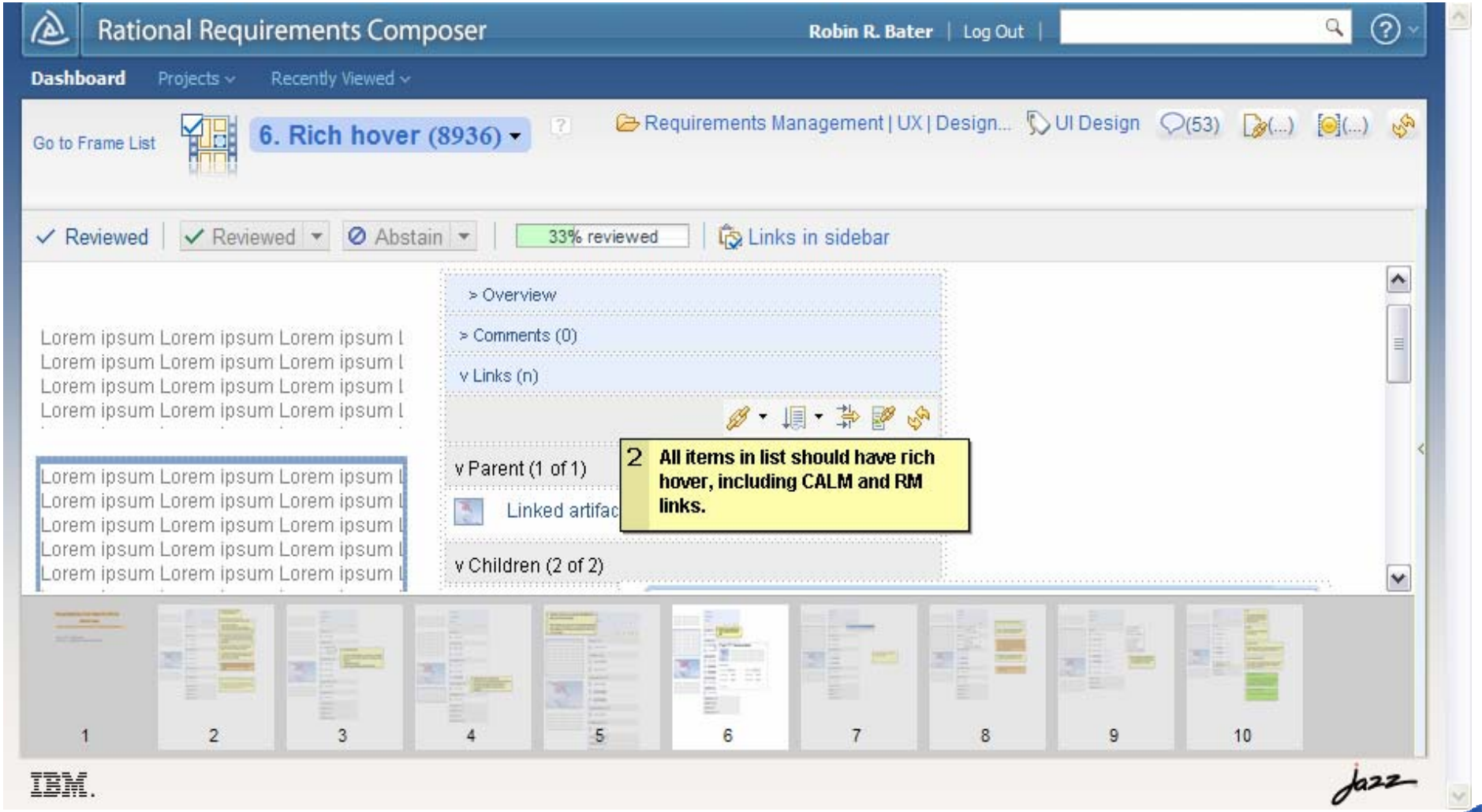
Participant's Review – Storyboard – Frame 4



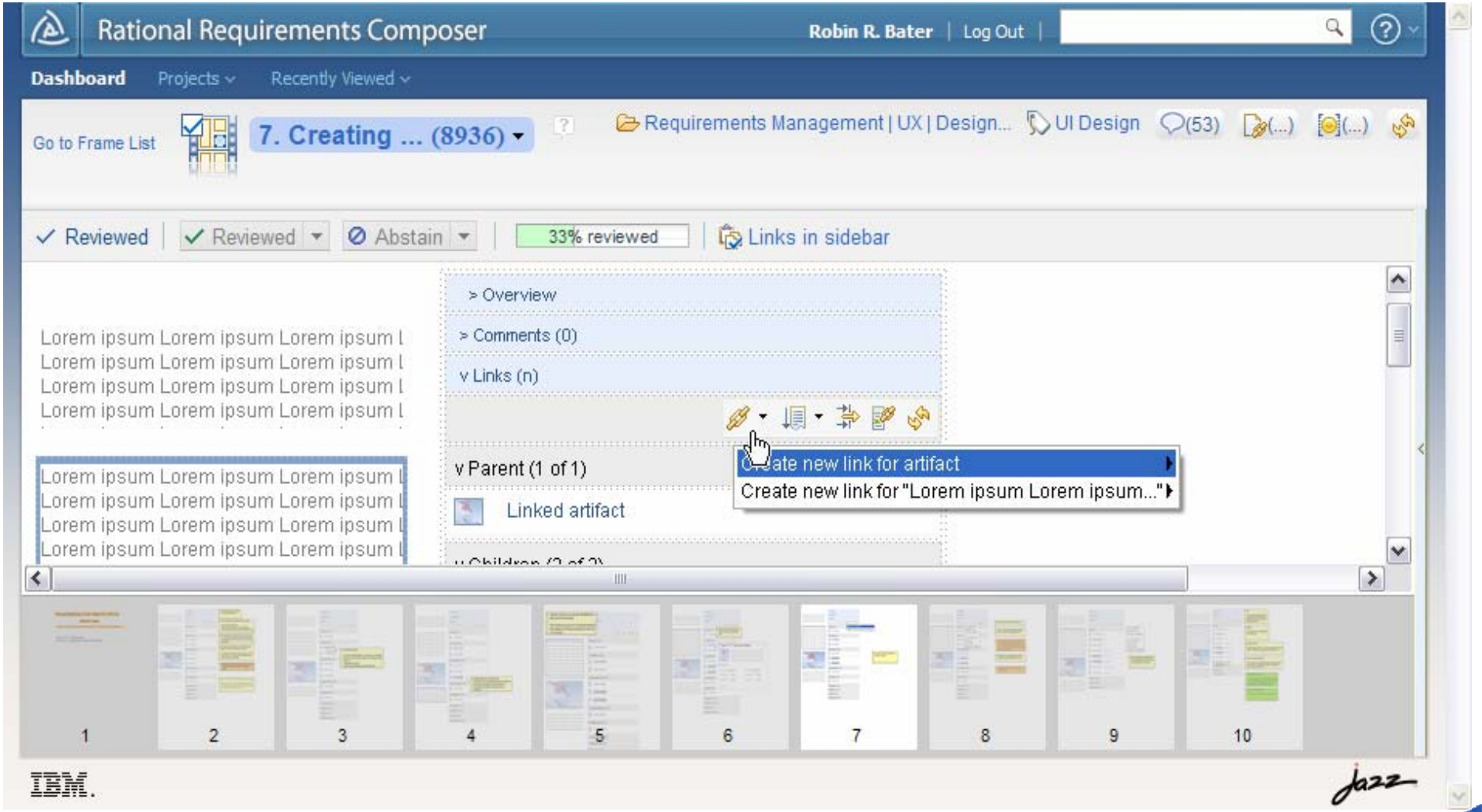
Participant's Review – Storyboard – Frame 5



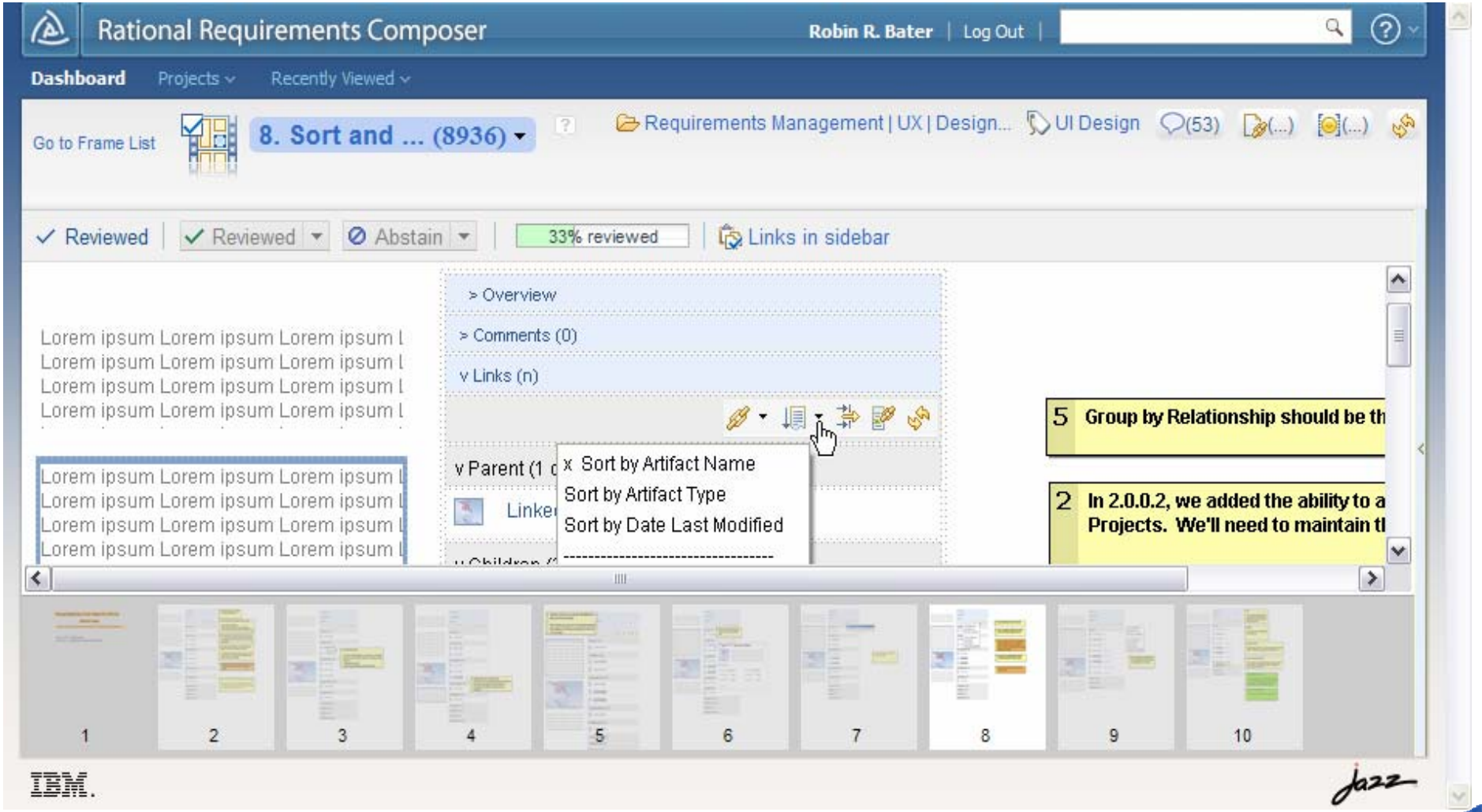
Participant's Review – Storyboard – Frame 6



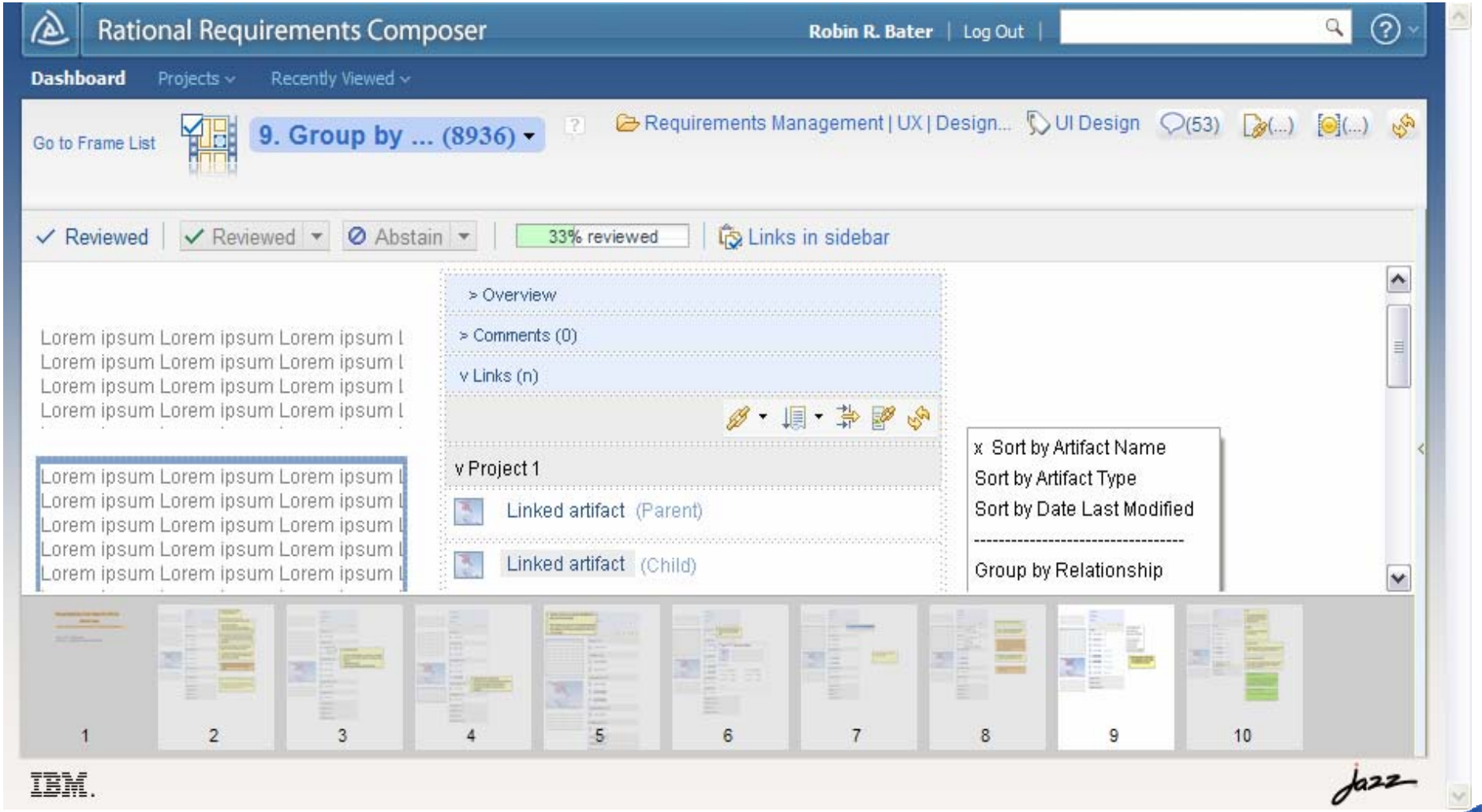
Participant's Review – Storyboard – Frame 7



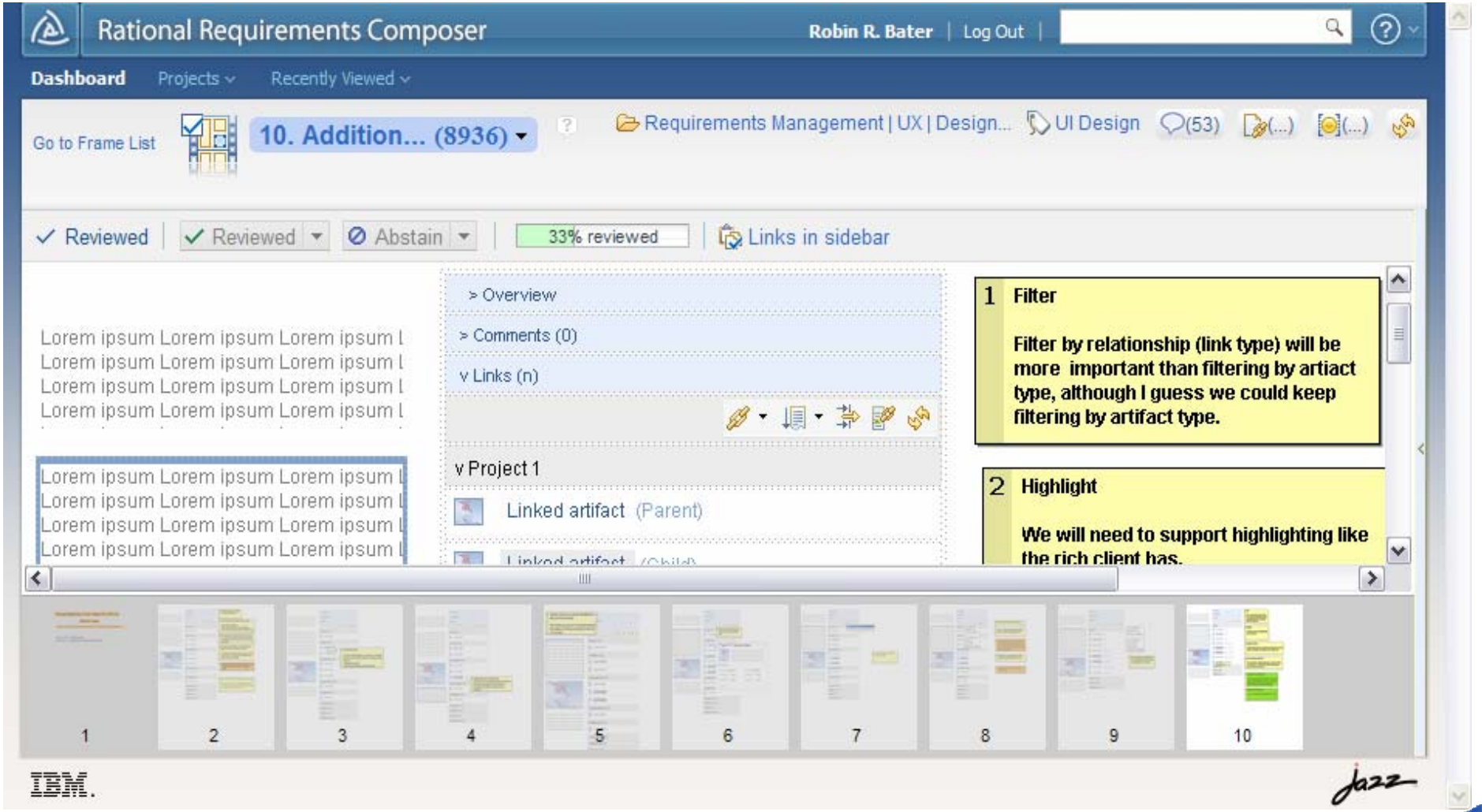
Participant's Review – Storyboard – Frame 8



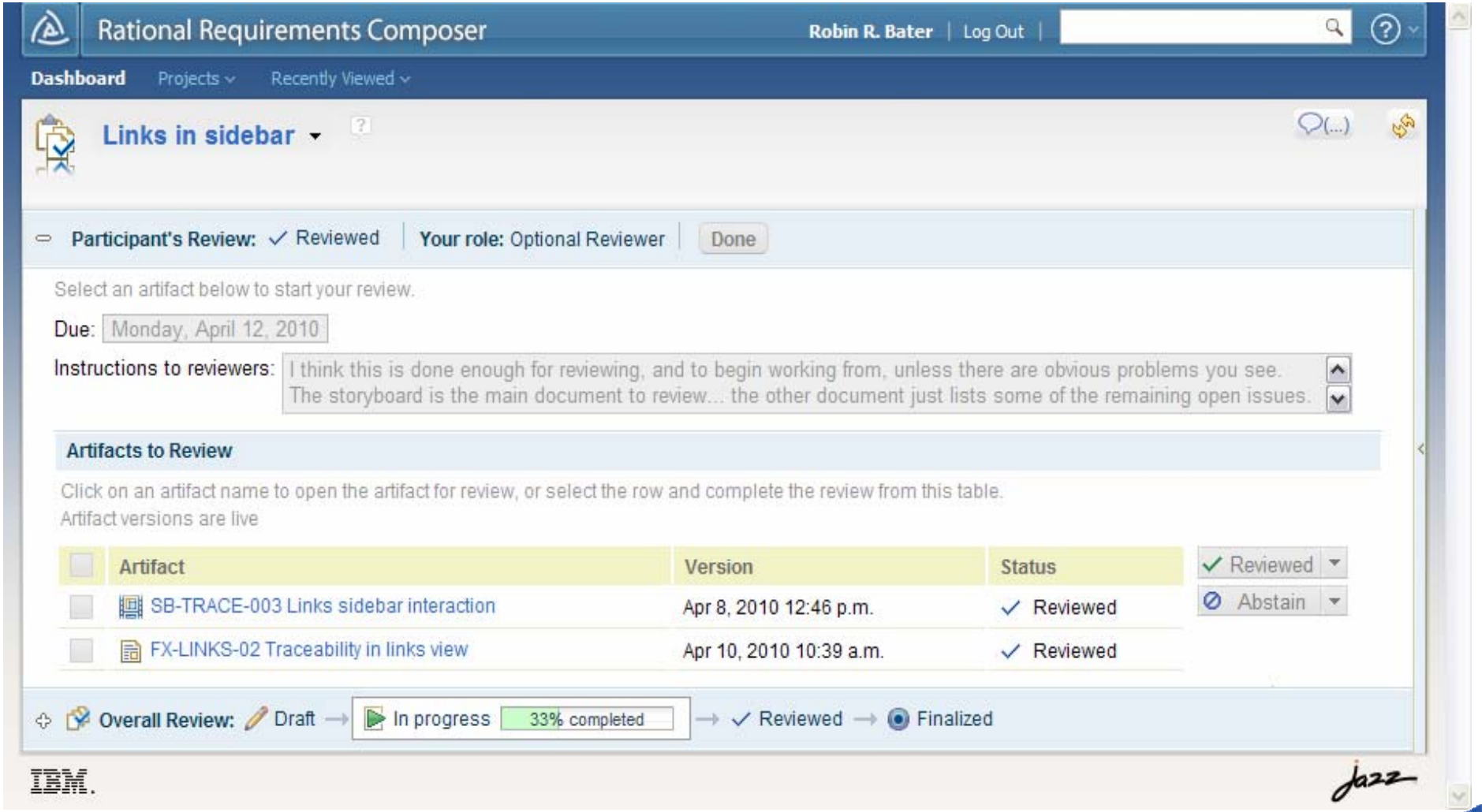
Participant's Review – Storyboard – Frame 9



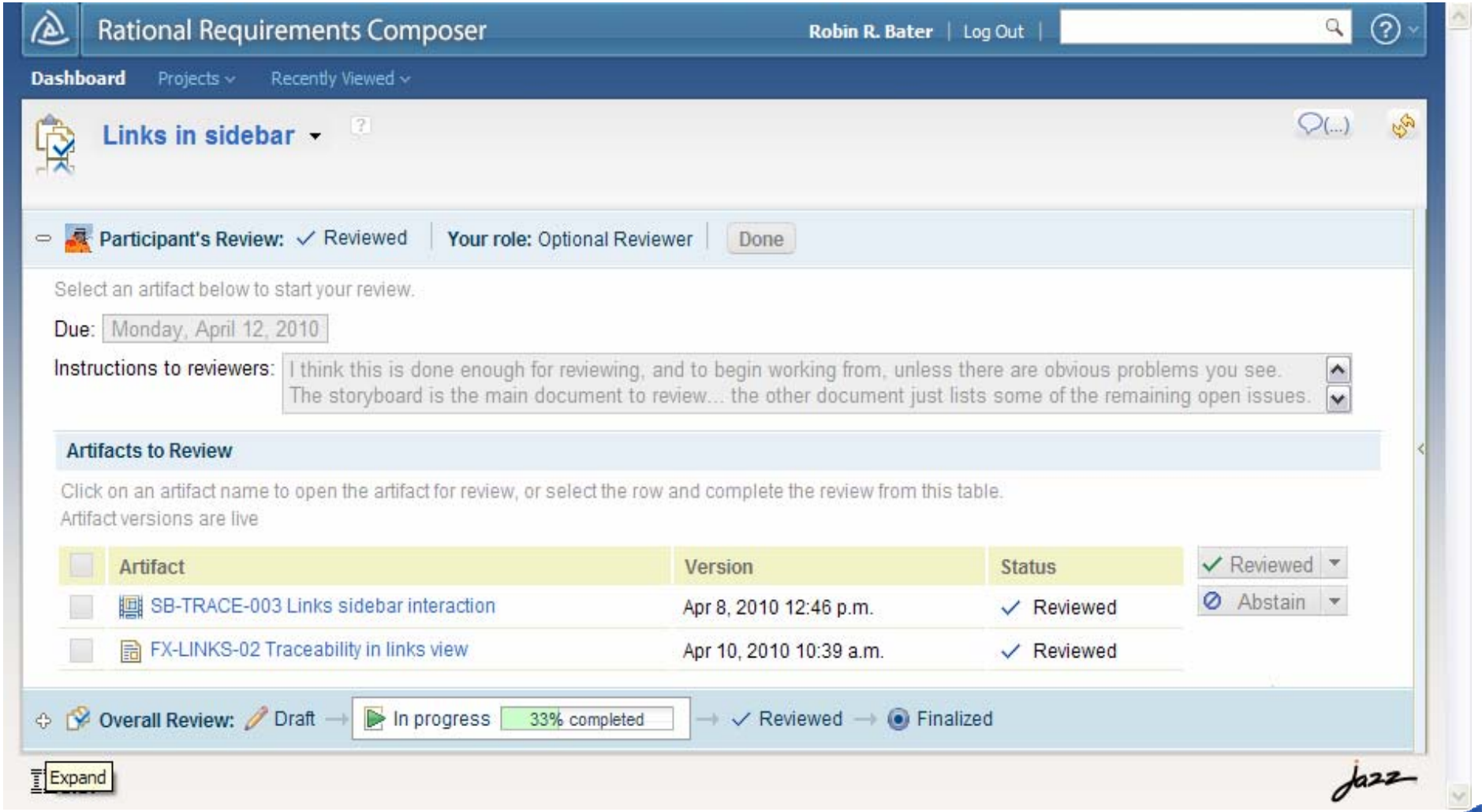
Participant's Review – Storyboard – Frame 10



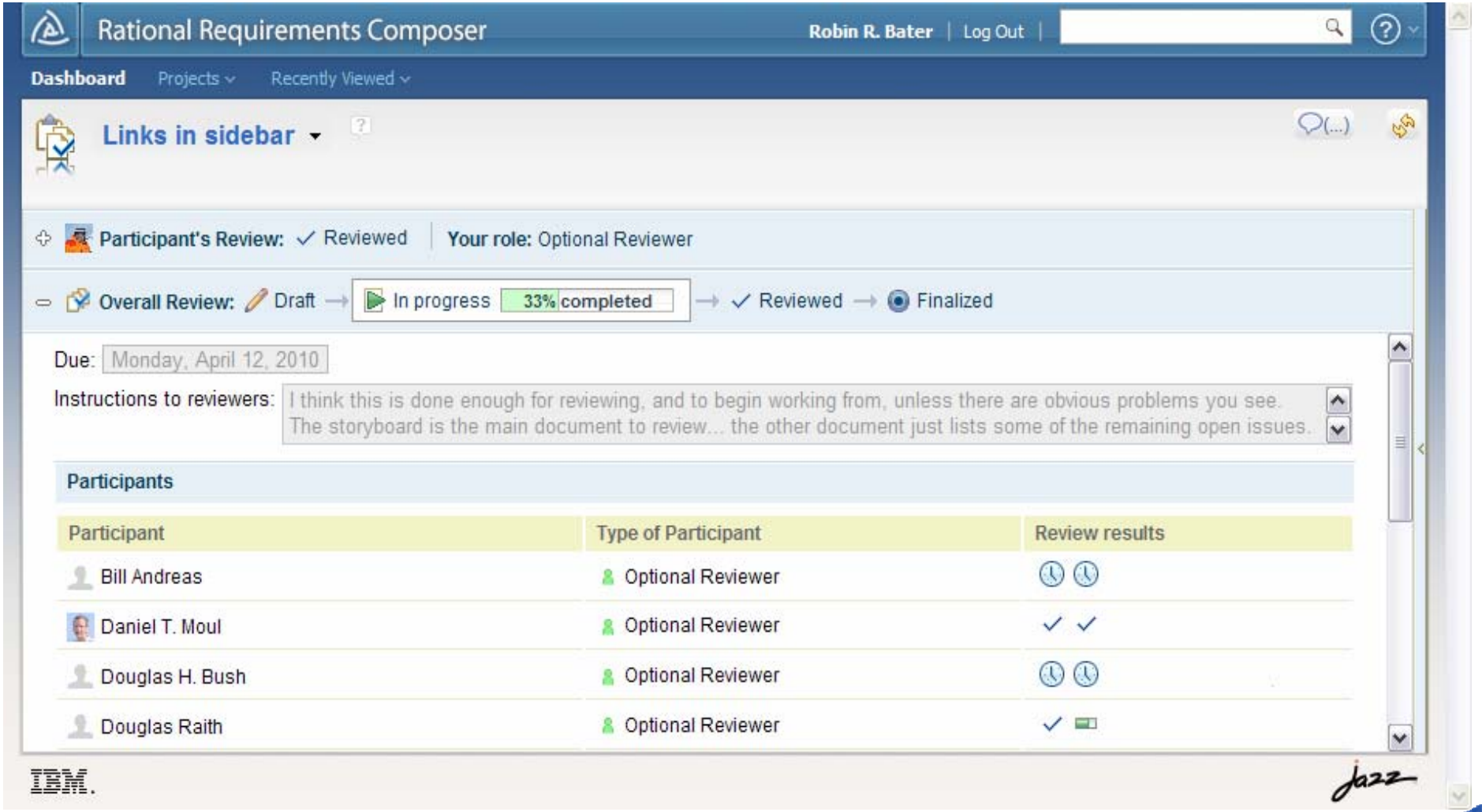
Participant's Review



Overall Review



Overall Review



Benefits

Key benefits experienced by the team

Increased the range and depth of stakeholder participation	Elicited more and better feedback before code was written ▸ In requirements ▸ In feature design
Less churn / rework	Converged faster on the “right” requirements Identified gaps and clarified misunderstandings more quickly
Better productivity through lower cost, higher value communication	Developers and testers communicated better among themselves, especially across component teams.

Stakeholders

- Product managers
  - *“RRC made possible a new level of transparent collaboration between our various stakeholders... the product management team was more involved in early reviews of feature designs. Information was more visible, and RRC's collaborative platform made it easier to provide feedback on a daily basis. This led to better decisions made earlier, fewer surprises, and less rework due to misunderstood requirements*.” – Daniel Moul
- User Experience Designer
  - *"Using the UI sketches and storyboards, you can very quickly create some high level designs that illustrate the basic flow, UI components, layout, etc. You can then get immediate feedback from anybody on the product team and easily iterate on UI designs based on the feedback.“* – Kirk Grotjohn, User Experience Engineer
- Architects
  - *"Composer allowed me to enable scenario driven development and address the key pain points in defining integrations with other products. Rational Requirements Composer has definition techniques that brought clarity to aspects like Release Requirements, Green Thread/ Scenario Definitions, Technical Architecture, Data Model (Resource Representations), System Use Cases, Usability, and Integrations with other products. The Collaboration capabilities allowed me to quickly socialize with key stakeholders…“* – Vishy Ramaswamy, Architect

Stakeholders

- Quality Test Engineers
  - "*It was a "one stop shop" to get everything needed related to design and proposed implementation. This makes collecting input for testing easier*"
    – Mario Maldari, System Test Lead
- Developers
  - "*As a collaborative leader, Rational Requirements Composer is a perfect fit for me. It allowed me to share ideas easily using comments, sketches and textual documents*"
    - Devang Parikh, Development Lead
- Consultants
  - *"..As a member of the field I am not invited or able to attend many of the development discussions, so by spending 10 minutes, I log onto the self-host project dashboard and see what is new…and if there is clarification or contribution I can make I add a comment and direct it to the appropriate team member*"
    – Robin Bater

Rational Requirements Composer Customer Quote

"We have chosen to evaluate Rational Requirements Composer (RRC) in a number of pilot projects and we will potentially deploy it to more than 300 users. We are doing this as we believe that RRC will enable us to improve both the efficiency and effectiveness with which we perform business analysis in our development projects. This includes a faster path to identifying the right solution, describing what to develop and establishing a basis for follow-up on benefit realization.

We are especially looking forward to leveraging the many features in the tool that enable close collaboration with various representatives of the intended users of the solution being developed. As we work to further enable and adopt agile development practices in Danske Bank, RRC will be an important component in allowing us to scale agile development practices to meet the needs of a large development organization with an extensive portfolio of systems and a diverse set of stakeholders."

Christian Michael Bornfeld
First Vice President, Architecture, Business Development and Test
Danske Bank

Rational Requirements Composer Customer Quote

"In general, the product is very simple and easy to use with a nice and customizable UI. The Web UI is a great addition to (Requirements Composer) v2 so that we can review, comment and verify artifacts with clients and other team members."

- A financial consulting client

Rational Requirements Composer Customer Quote

"Our project team used RRC on a requirements definition project involving 13000 stakeholders and very tight timeframe to deliver.

We used RRC in our environment internally to capture and organize the client's existing documentation, to capture and organize our interview notes, whiteboard sketches, survey results etc. for re-work and ultimately assembly into a final deliverable document for the client.

RRC dramatically reduced the time taken to do internal assembly, discussion, and finalization of deliverable documents internally. If we had provided the client stakeholders with access, the time would have been reduced even more dramatically.

We integrated with Requisite Pro as we identified requirements to manage them formally and then brought back reports from Requisite Pro into the deliverable documents as we sliced and diced the requirements identified in different ways.

Although we did not use all the functionality of the RRC product on this particular engagement, I highly recommend the product for other consulting organizations, particularly if they can involve the client stakeholders in the collaborative process."

- Brian Beveridge, Co-Founder, Greenridge Business Systems

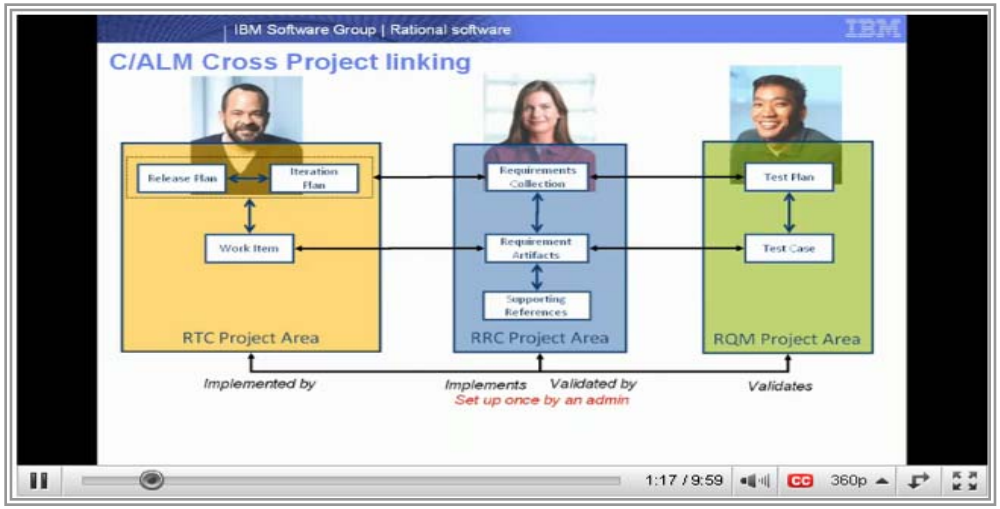
Rational Requirements Composer Customer Quote

"Rational Requirements Composer has been engineered with the business analyst in mind. The vast array of options linking artifacts sensibly with one another give it a definite benefit over using older, document-based approached to defining requirements. The web access to these artifacts brings the requirements domain into the current technology space. I can simply send a URL out for review over managing numbers of files for consensus. This product is clearly a step up from our current methodology."

- *Randy Haven, IBM Global Business Services*

Questions

Videos: Rational Requirements Composer in Collaborative Application Lifecycle Management



See how Requirements Composer works with **both** **Rational Team Concert** and **Rational Quality Manager**

www.youtube.com/watch?v=rpNQiGsAhyU

Why requirements are the foundation of your collaborative lifecycle management solution

www.ibm/software/rational

© Copyright IBM Corporation 2010. All rights reserved. The information contained in these materials is provided for informational purposes only, and is provided AS IS without warranty of any kind, express or implied. IBM shall not be responsible for any damages arising out of the use of, or otherwise related to, these materials. Nothing contained in these materials is intended to, nor shall have the effect of, creating any warranties or representations from IBM or its suppliers or licensors, or altering the terms and conditions of the applicable license agreement governing the use of IBM software. References in these materials to IBM products, programs, or services do not imply that they will be available in all countries in which IBM operates. Product release dates and/or capabilities referenced in these materials may change at any time at IBM's sole discretion based on market opportunities or other factors, and are not intended to be a commitment to future product or feature availability in any way. IBM, the IBM logo, Rational, the Rational logo, Telelogic, the Telelogic logo, and other IBM products and services are trademarks of the International Business Machines Corporation, in the United States, other countries or both. Other company, product, or service names may be trademarks or service marks of others.