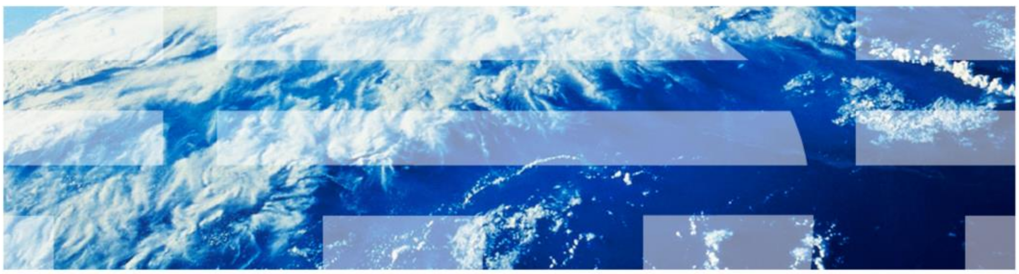
IBM

IBM Rational Requirements Composer V4.0

What is new in version 4.0



This is a presentation of some of the changes made in IBM Rational® Requirements Composer starting at version 4.0.

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- Key concepts
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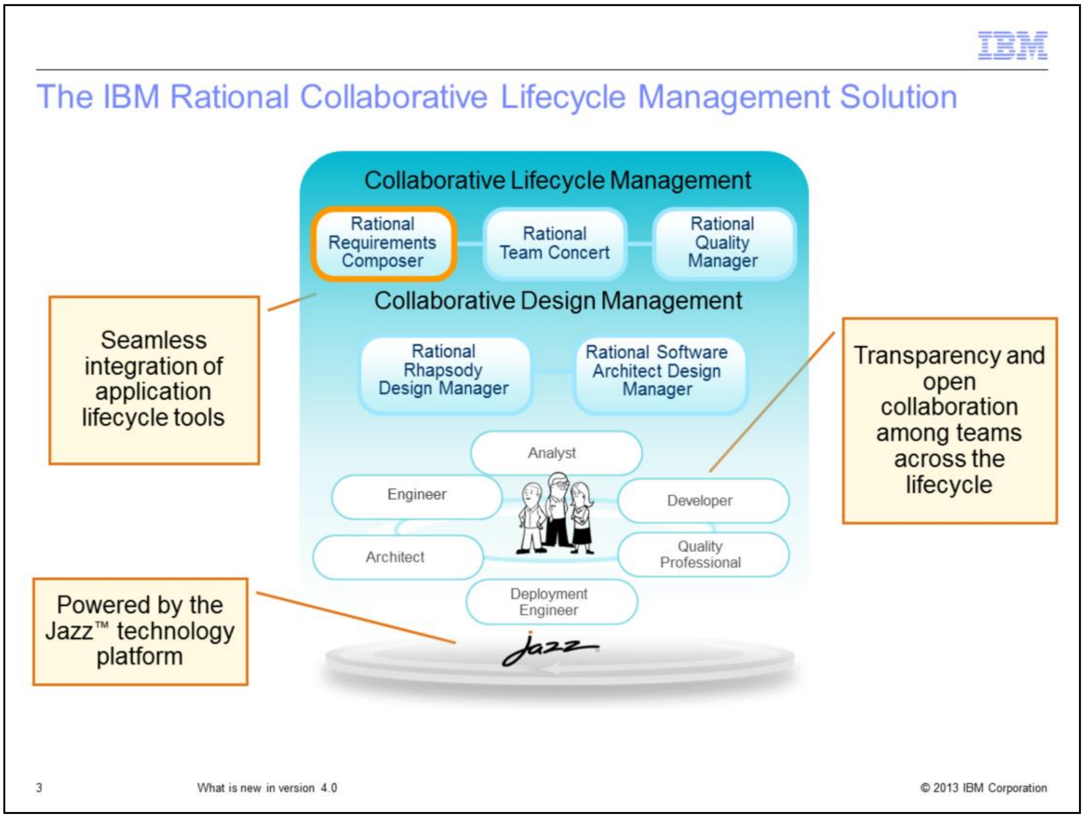
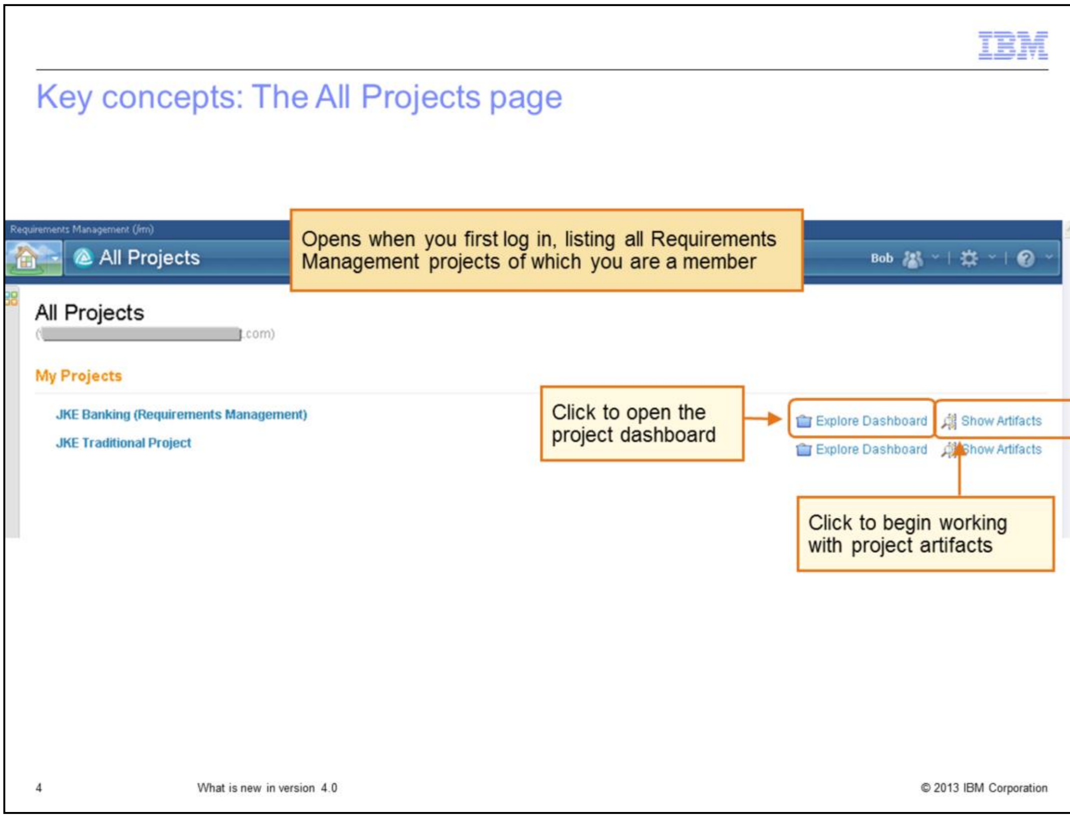
The next slide provides an overview of Rational Requirements Composer in the context of Collaborative Lifecycle Management. The rest of the presentation covers features such as dashboards and document-style reports.



Rational Requirements Composer, IBM Rational Team Concert™, and IBM Rational Quality Manager are tightly integrated applications that enable teams to work collaboratively across the software delivery lifecycle. Rational Requirements Composer software is part of a larger vision called “Jazz,” developed to advance the way teams work together to develop products and solutions. Rational Requirements Composer is based on IBM Jazz technology, the next-generation platform for collaborative software delivery. Built on web technology and Open Services for Lifecycle Collaboration, or OSLC, standards, the Jazz platform provides an extensible architecture that is designed to make project delivery more collaborative, productive and transparent.



The “All Projects” page opens when you first log in. The page lists all of the Requirements Management, or RM, projects of which you are a member. From the All Projects page, you can use the “Explore Dashboard” link to launch a project dashboard or the “Show Artifacts” link to navigate directly to a project’s “Artifacts” page. You can access the All Projects page from the Home menu.

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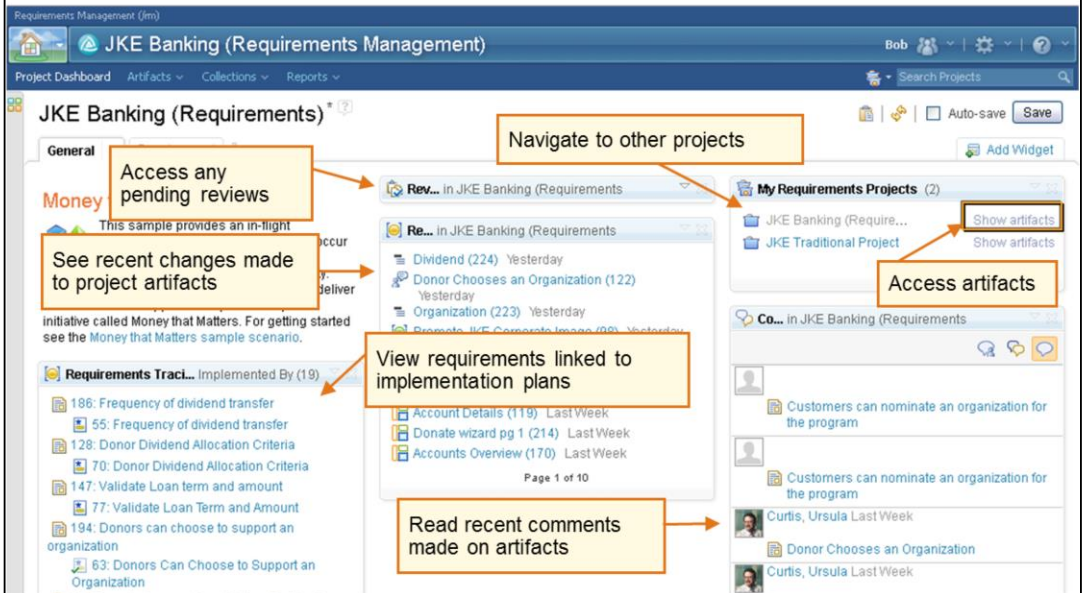
Key concepts: The Project Dashboard page



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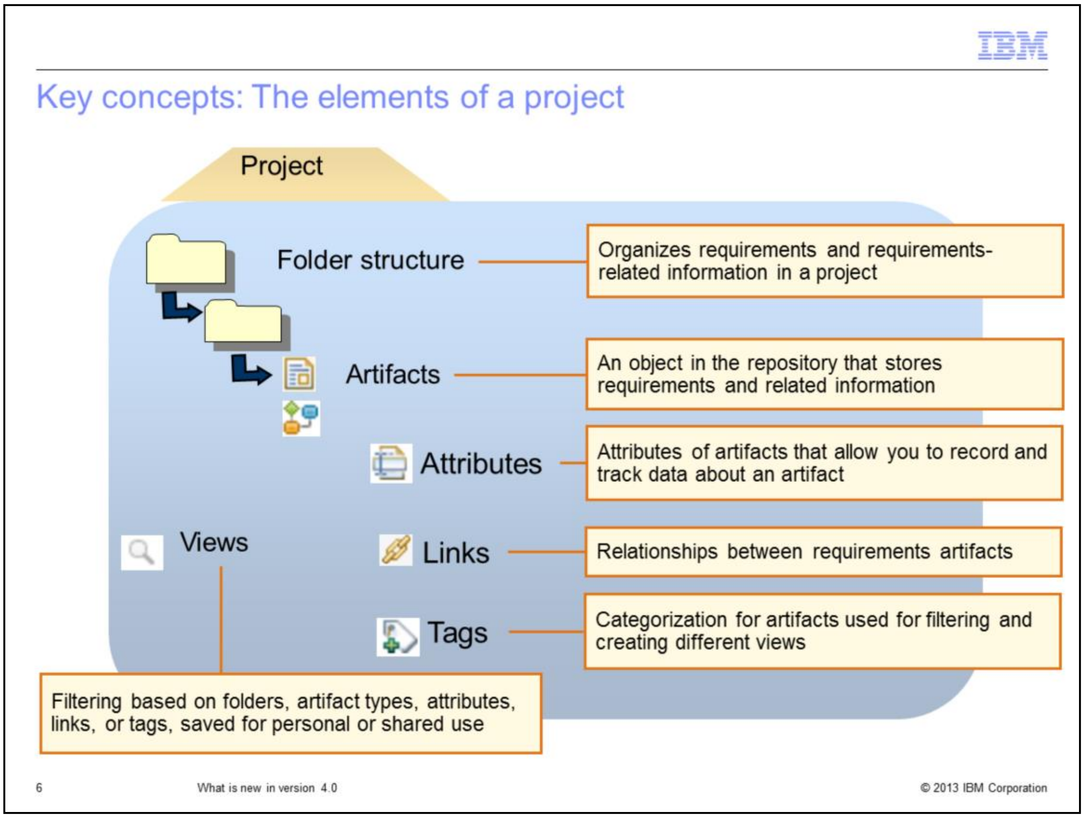
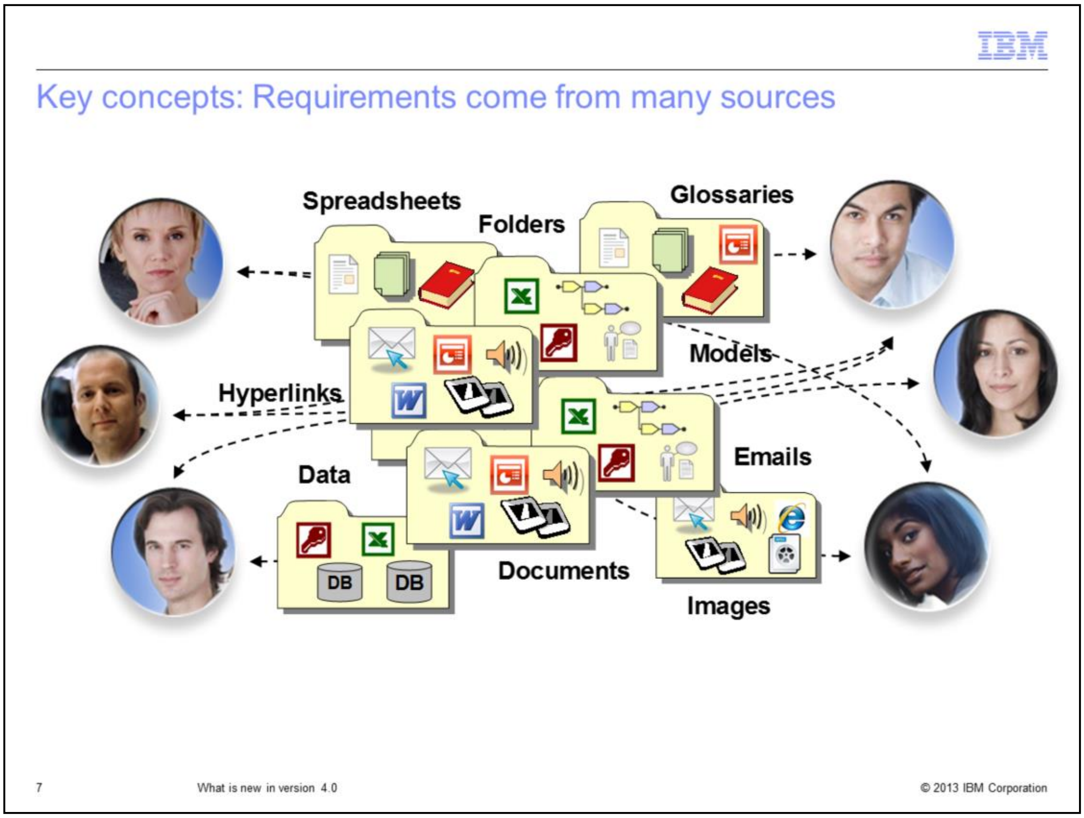
Each project has a dashboard. The Project Dashboard page is composed of widgets that provide high-level overviews of artifacts and requirements that are scoped to a specific Requirements Management project. Some of these widgets, for example “pending reviews”, are highlighted in the picture. The project dashboard can only be modified by a user who has administrative access to the project.



A project area is a top-level or root item in the storage of the repository. Each project area references project artifacts and stores the relationships between these artifacts. Access to a project area and its artifacts is controlled by permissions. With Folders, you can organize and manage requirements and requirements-related information in a project. “Artifact” is a general term for an object in the repository. Requirements, requirements-related context requirements and related information that you manage in Rational Requirements Composer are stored as individual artifacts. You can assign attribute values to requirements and other artifacts. Attributes can be used to track project status and organize artifacts by common properties such as owner, priority and risk. Links create relationships between artifacts and enable you to track traceability. Use traceability to trace a project element to related project elements, especially those related to requirements. For example, traceability helps determine that a requirement is satisfied from inception through implementation and testing. You can use tags and artifact attributes to filter artifacts in various ways. Collections also help organize requirements. You can apply filters and specific column layouts to create targeted views of artifacts. You can save them as personal or shared views.



Requirements come from many sources. People in various project roles can provide input and experiences to help drive requirements. Many items can provide input, including documents, pictures, and diagrams. The use case model is also vital to developing the right system. What do designers design? They design a system that enables users to do the tasks that are specified *in the use-case model*. What do testers test? They test to make sure that the system is able to perform all of the *use cases*. What will user documentation contain? It documents how to do all the tasks in the *use cases*.

Ways to create artifacts

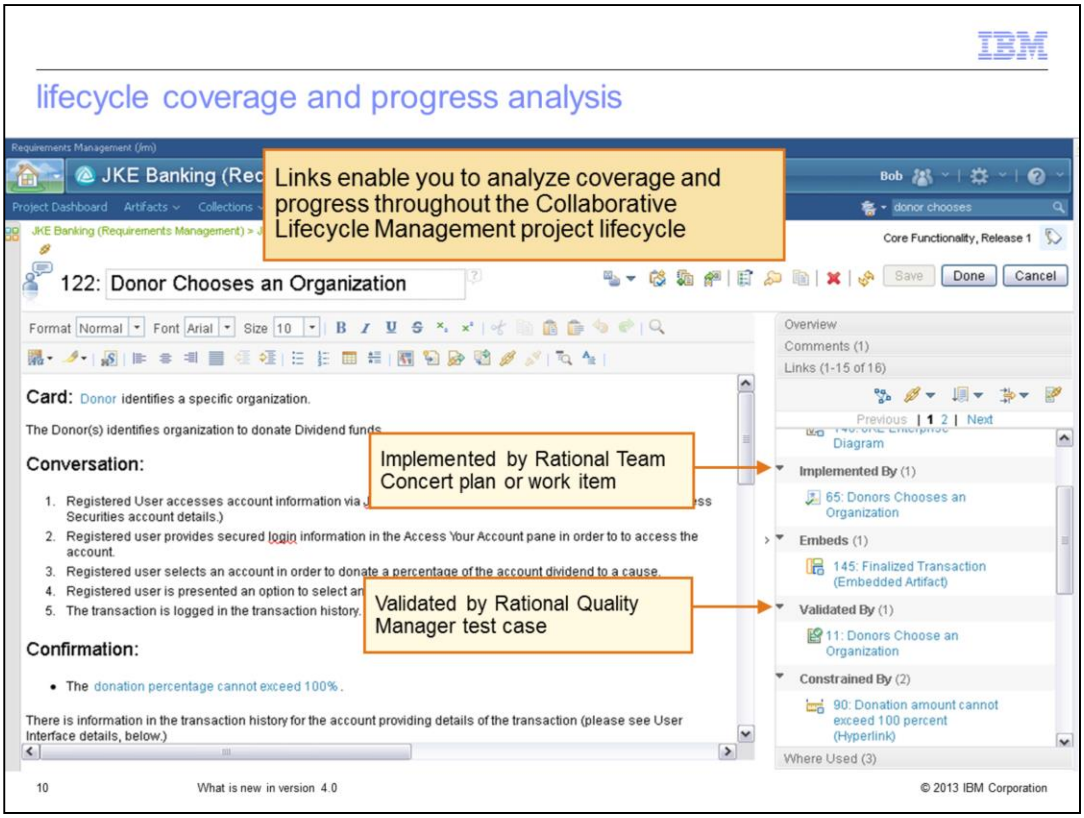
- Upload external files
- Import from external sources
  - CSV files, Microsoft Word files (parse file to create multiple artifacts), Open Document and Open Office files, rich text files
  - ReqIF file (Admin)
- Extract artifacts from documents
  - Microsoft Word files, Open Document and Open Office files, rich text files

In Rational Requirements Composer, an artifact is a general term for any object stored in the repository. You can represent any requirement or requirement-related asset as an artifact. With Rational Requirements Composer you can capture requirements from different sources. You can import requirements or requirements-related documents that are in CSV files, Microsoft Word documents, or other formats. The content of imported documents can be stored as one artifact, for reference, or converted to many editable requirements artifacts.

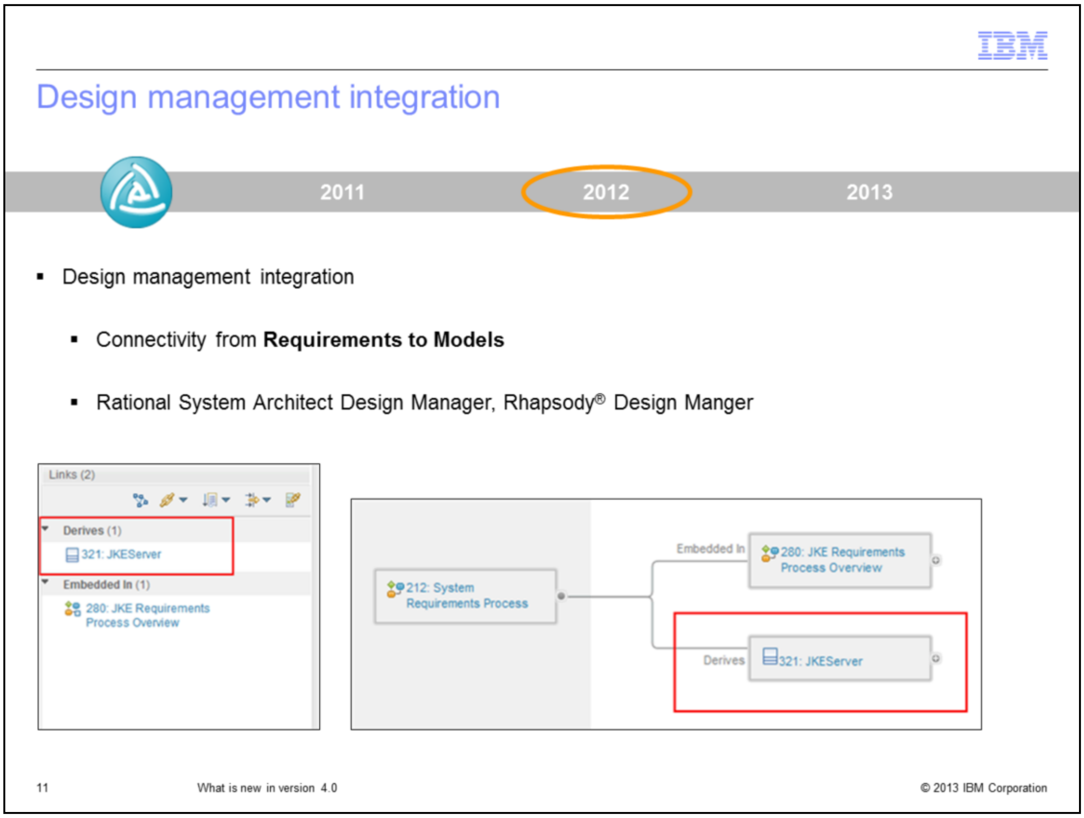
Ways to create artifacts

- Create new artifacts
  - Create Artifact wizard
  - One-click artifact creation
  - Artifact templates
  - OSLC-CLM actions
- Use existing artifacts to create artifacts
  - Copy artifacts
  - Create similar artifacts
  - Save a selection as new artifact and link or embed the artifact
  - Create a new project by using a template that contains artifacts (Admin)

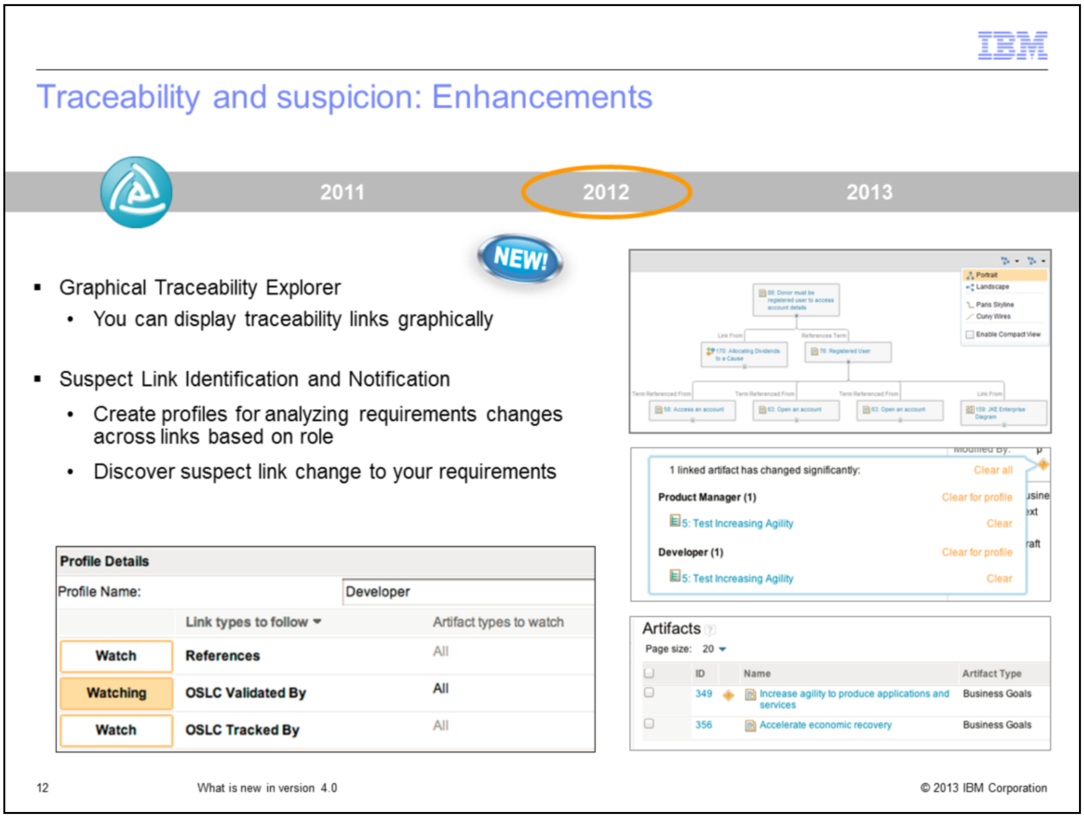
Additionally, you can create requirements directly in Rational Requirements Composer. You can create requirements artifacts by using OSLC-CLM actions. For example, you can link from a work item to a requirement artifact during the link process. You might do this when you want to create a storyboard to elaborate a user story. You can also create artifacts by creating a project from a template that contains requirements artifacts.



Here are examples of Collaborative Lifecycle Management links that provide details of coverage and progress throughout the project lifecycle. These examples use the “Money That Matters” sample Collaborative Lifecycle Management project. The “Implemented By” links demonstrate traceability between requirements and development using Rational Team Concert. The “Validated By” links demonstrate the coverage between requirements and testing in Rational Quality Manager.



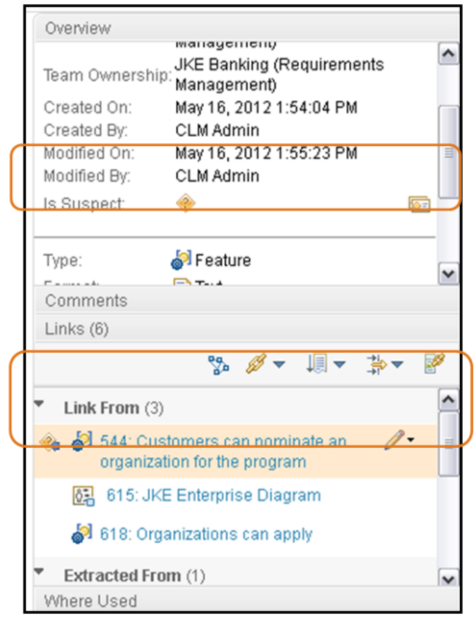
A new feature of Rational Requirements Composer version 4.0 is integration between requirements and design. Design Manager provides the ability to see traceability relationships between requirements and models stored in Rational System Architect and Rational Rhapsody.



In Rational Requirements Composer version 4.0, you can visualize traceability to help with the understanding of impact and dependencies. For example, you can display traceability graphically using the graphical tree editor. Analysts can also understand the impact of change using suspect links. You can create a profile to identify specific types of suspect information. For example, as a developer you require an understanding of suspect links between features that are linked to a work item.

Traceability and suspicion: Managing change

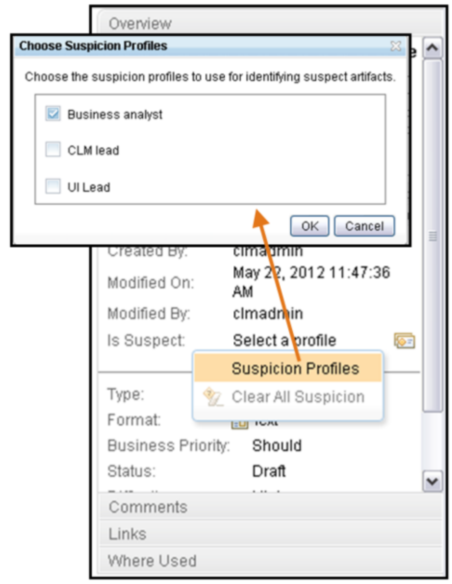
- Indicates the potential impact of changes to linked artifacts
- Linked artifacts marked with indicators to show change effects
- Identify changes to one or more artifacts to maintain logical consistency between the linked artifacts



Suspect traceability indicates the potential impact of changes to linked artifacts. With suspect traceability, linked artifacts are marked with indicators to show that the artifacts might be affected by changes. In some cases, you must modify one or more artifacts to maintain logical consistency between the linked artifacts.

Traceability and suspicion: Suspicion profiles

- Suspicion profiles are the basis of Suspect traceability
- Profiles created by the project administrator
- Profiles identify a set of link types, artifact types, and attributes to watch for changes.
- Users choose a suspicion profile
- The storage of the suspicion profile occurs in a cookie with the Internet browser



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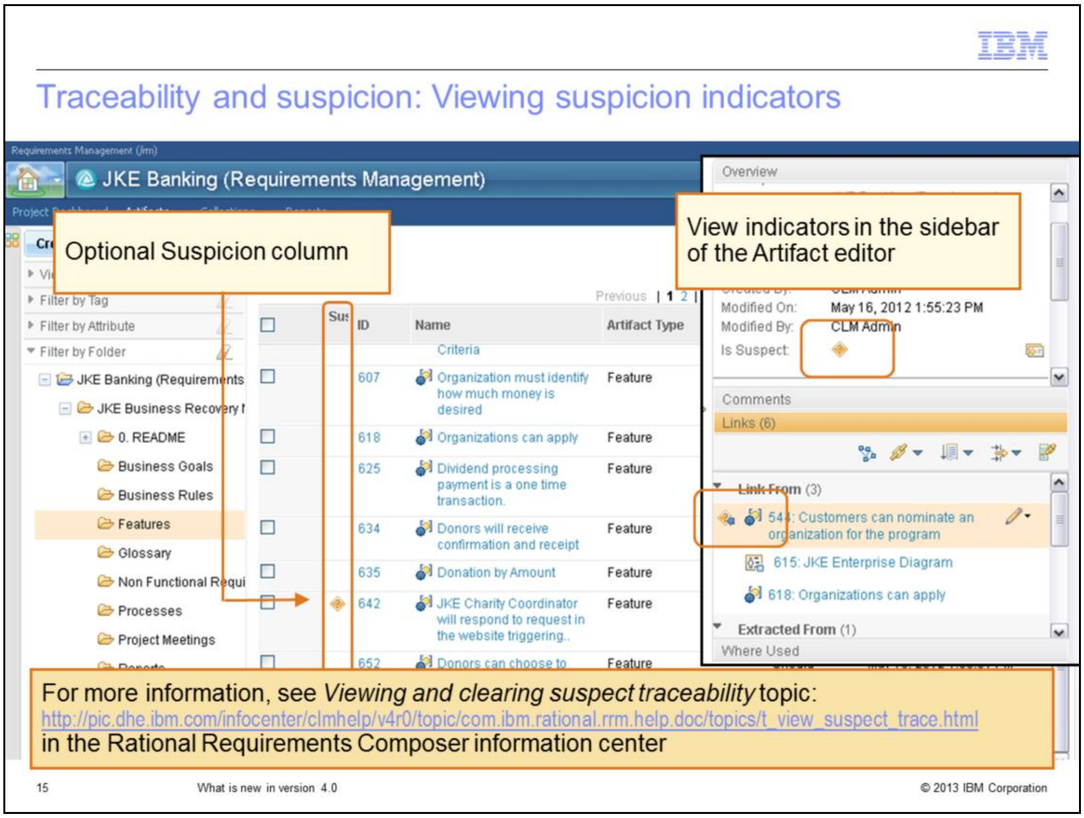
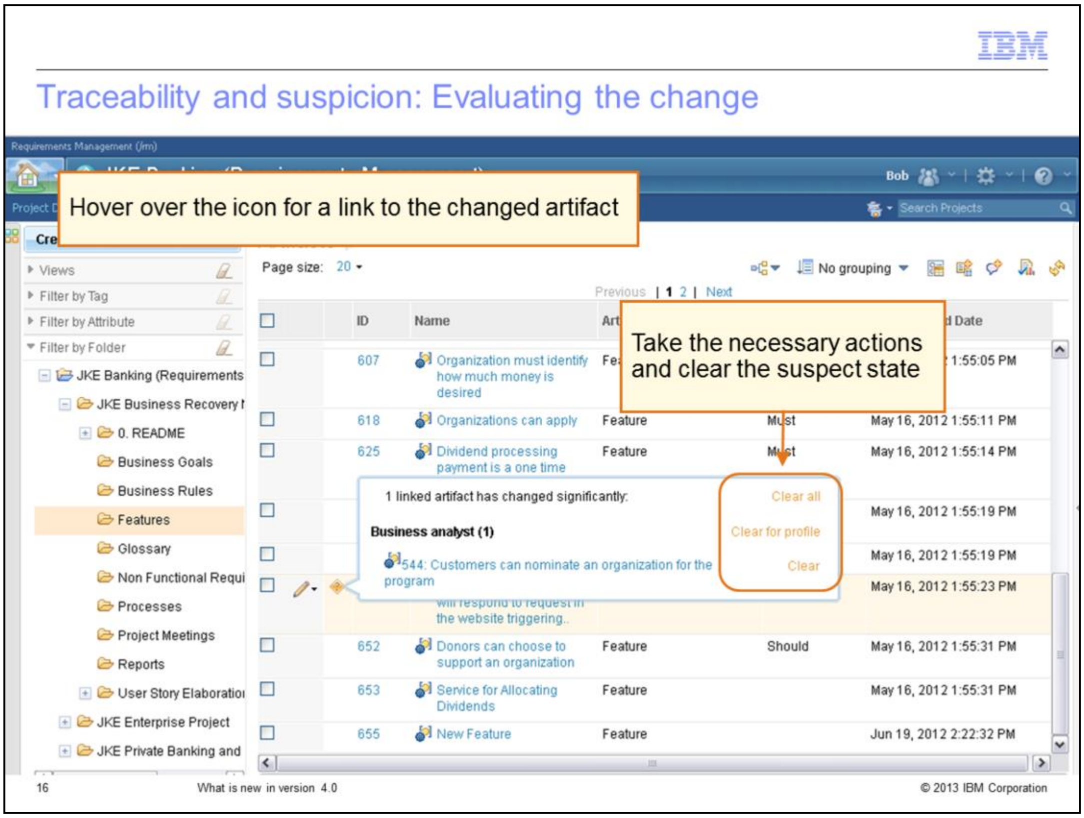
Suspect traceability is based on suspicion profiles created by the project administrator. A suspicion profile identifies a set of link types, artifact types, and attributes to watch for changes. When artifacts that match the profile criteria are changed, the linked artifacts are marked with a suspicion indicator to alert team members of possible impact of the change. Administrators can create multiple suspicion profiles that correspond to different roles or areas of interest in a project. Users choose an appropriate suspicion profile. To select a suspicion profile, open an artifact in the project. In the “Overview” section of the sidebar, click the “Suspicion Actions” icon next to the “Is Suspect” field and choose “Suspicion Profiles”. Your selection from the “Choose Suspicion Profiles” window is stored as a cookie in your Internet browser. And this profile is used by all sessions with that browser, unless you clear the browser cookies.



You can add a Suspicion column to an artifacts or collections list. View indicators are in the sidebar of the Artifact editor or in the Links section of the sidebar. The suspect icon is a yellow diamond containing a question mark. It shows the source of the change that caused the suspect state. If the icon shows a black arrow that points out of the icon, the change is in the current artifact. If the icon shows a blue arrow that points into the icon, the change is in the linked artifact. If the icon shows a red double arrow, there are changes in both the current artifact and the linked artifact. There is a “Viewing and clearing suspect traceability” topic in the Collaborative Lifecycle Management information center with more information.

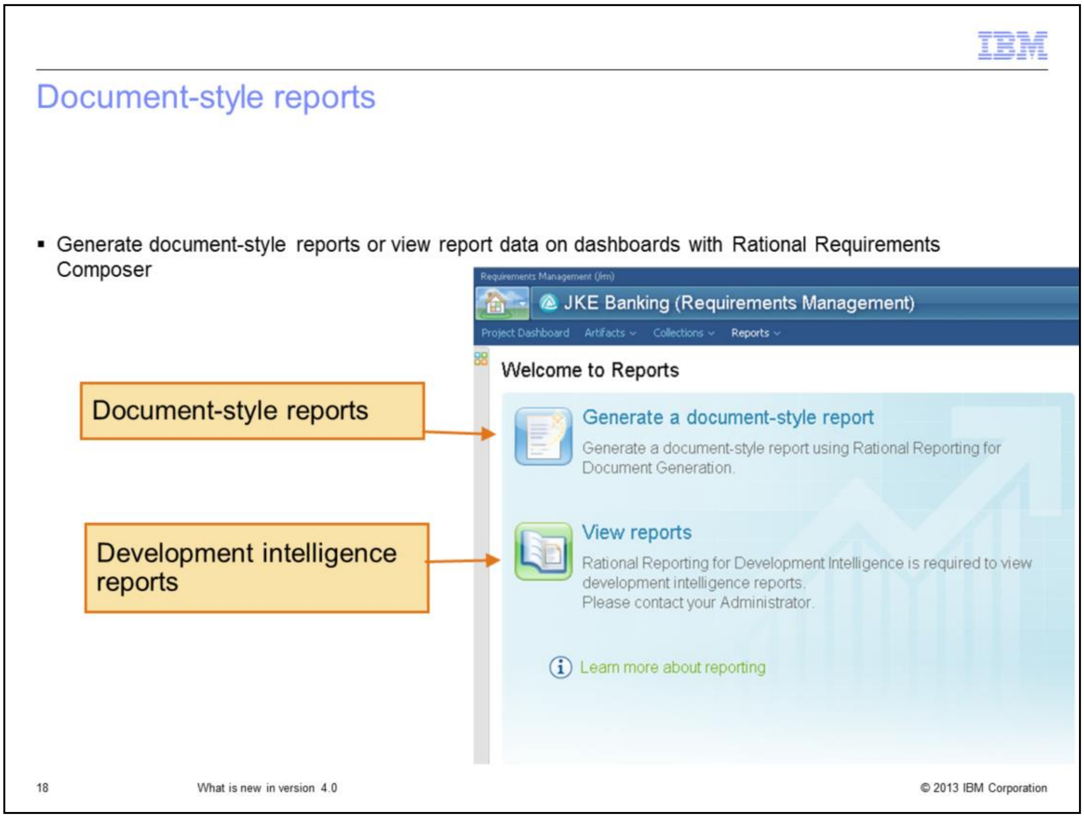


Hover over the suspicion icon to display a bubble with the list of changed artifacts. For each changed artifact, use the link to navigate to it; and view its audit history to review the changes. Once you perform the necessary updates, the next step is to clear the suspect indicator. To clear the indicator, one option is to click “Clear all” to remove the suspicion for all artifacts listed in the bubble. Alternatively, you can click “Clear for profile” to remove the suspicion for all artifacts listed in a profile group in the bubble. Although it is not shown on this slide, a bubble might contain multiple profile groups. Your third option is to click “Clear” to remove the suspicion for an individual artifact listed in the bubble.

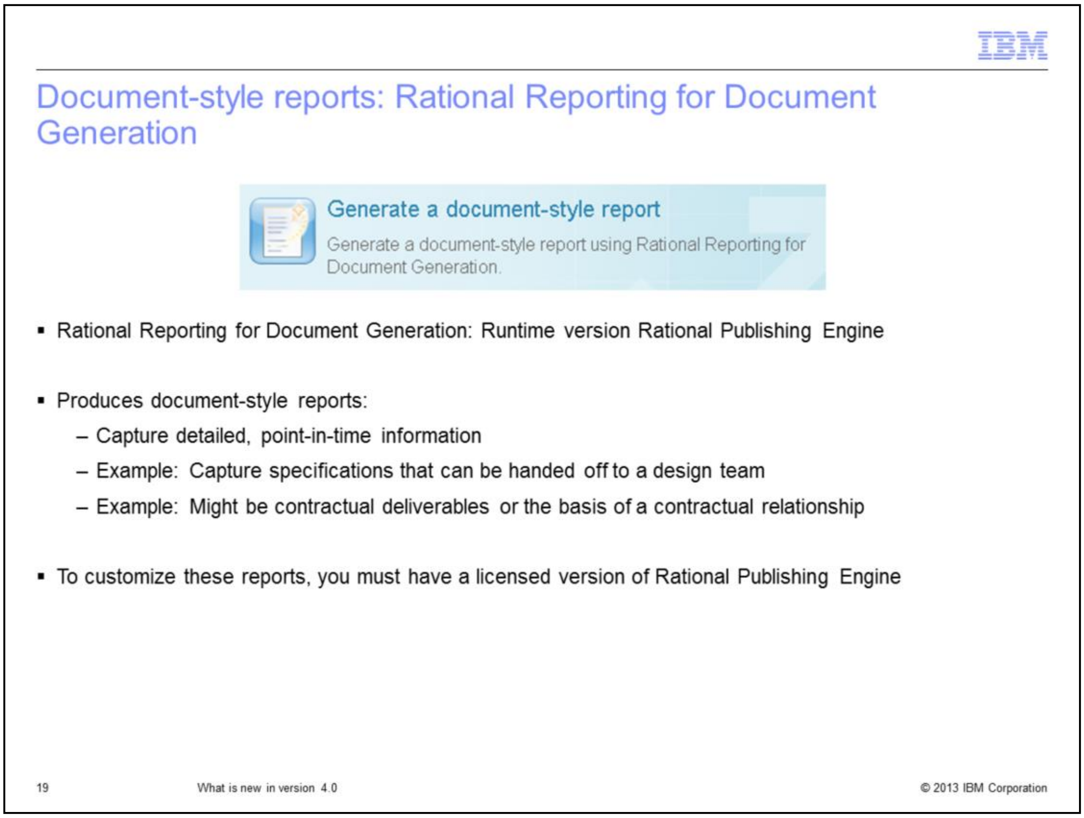
Traceability and suspicion: Which suspicion profiles to use

Profile name	Links to watch	Artifact types	Attributes
Analyst	Satisfaction	Business Goal, Feature, User Story Elaboration	Primary text, priority, status, stability
UI Designer	Illustration	User Story Elaboration, Storyboard	Primary text, priority, status
Collaborative Lifecycle Management Lead	Implemented by, Validated by	User Story Elaboration, Story, Test Case	Priority, Status
Business	Constrains, Satisfaction	Business Rule, Business Goal, Vision	

You can create profiles for specific roles. For each role, you define the link types to watch for specific artifact types and their attributes. For example, an Analyst needs to know which high-priority business goals, features, and user story elaborations have been satisfied.



You can create predefined reports using the report templates included with Rational Requirements Composer. There are currently two formats of predefined reports. The first is Rational Reporting for Document Generation, which uses a runtime version of IBM Rational Publishing Engine to produce document-style reports. The second is Rational Reporting for Development Intelligence, which uses business-intelligence technology to produce dashboard-based reports that pull data from a data warehouse.



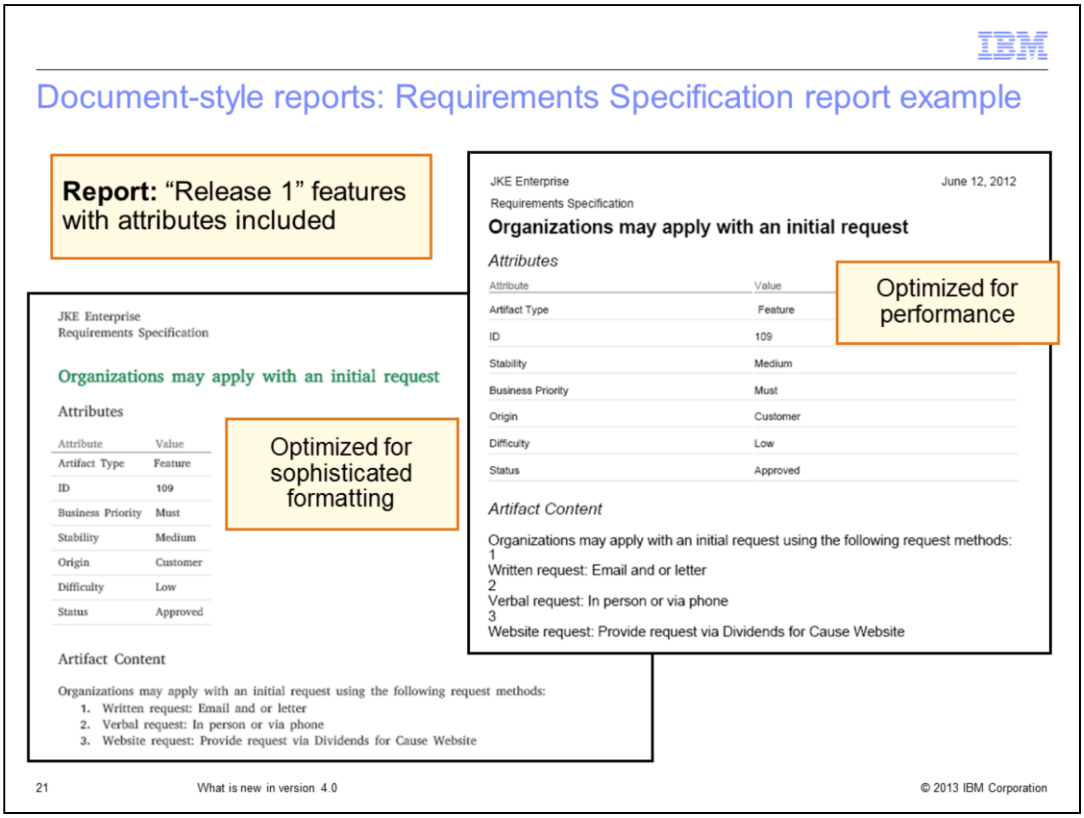
Rational Reporting for Document Generation provides the ability to create document-style report deliverables. The information in the report is point-in-time. There are some predefined reports included with Rational Requirements Composer. Alternatively, you can create your own custom report templates and generate them in Rational Reporting for Document Generation. However, creating and customizing reports requires a licensed version of Rational Publishing Engine.

Document-style reports: Predefined reports

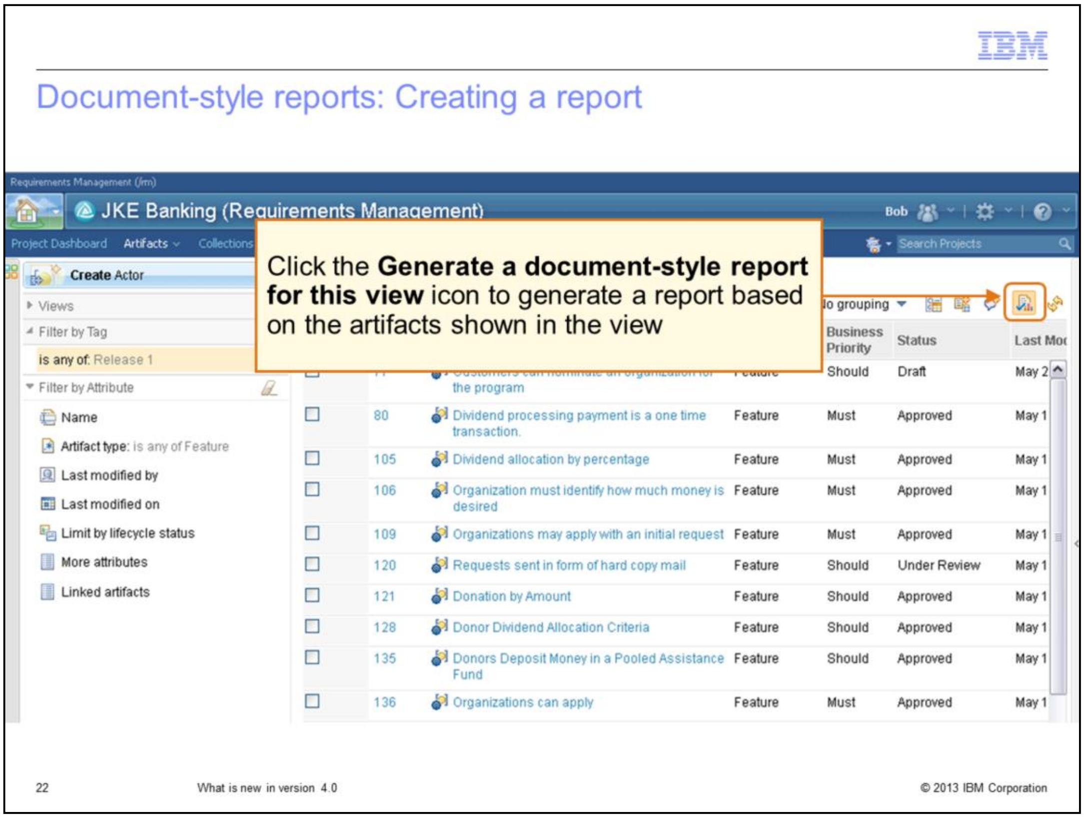
- Rational Requirements Composer comes with predefined document-style reports

Name	Description
Use-Case Diagram Specification	Shows organized requirements by use case diagram.
Requirements Specification	Shows both functional requirements (for example, use-case) and non-functional requirements (for example, supplementary requirements).
User Interface Specification (by Screen Flow Diagram, by Sketches, and by Storyboards)	Shows the artifact description and artifact type in addition to showing pictures of the specified graphical artifacts
Traceability Reports	Show a requirement-centered view of links to work items that implement the requirement and test suites that validate the requirements.
Audit History	Shows a history of changes to the selected artifacts.
Reviews	Provides a detailed summary of the current state of the selected reviews and their associated artifacts.

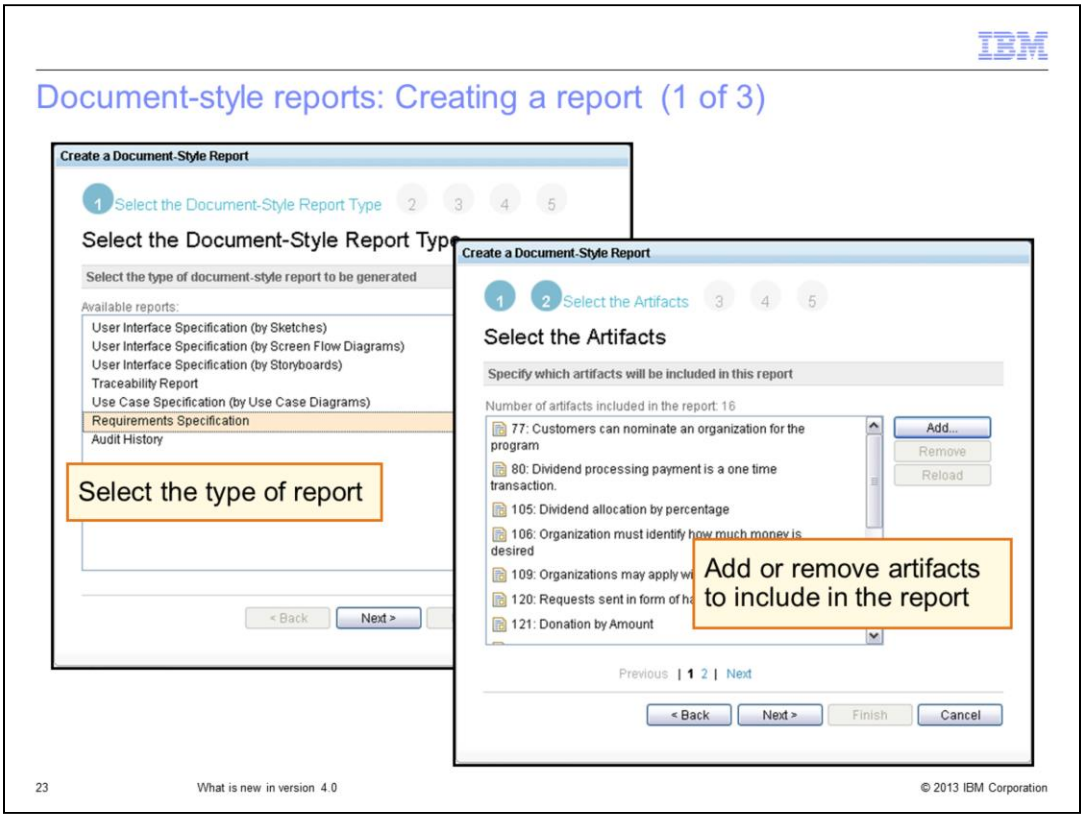
Here are the predefined, document-style reports you can generate with Rational Requirements Composer. As mentioned on the previous slide, you can customize these reports using Rational Publishing Engine.



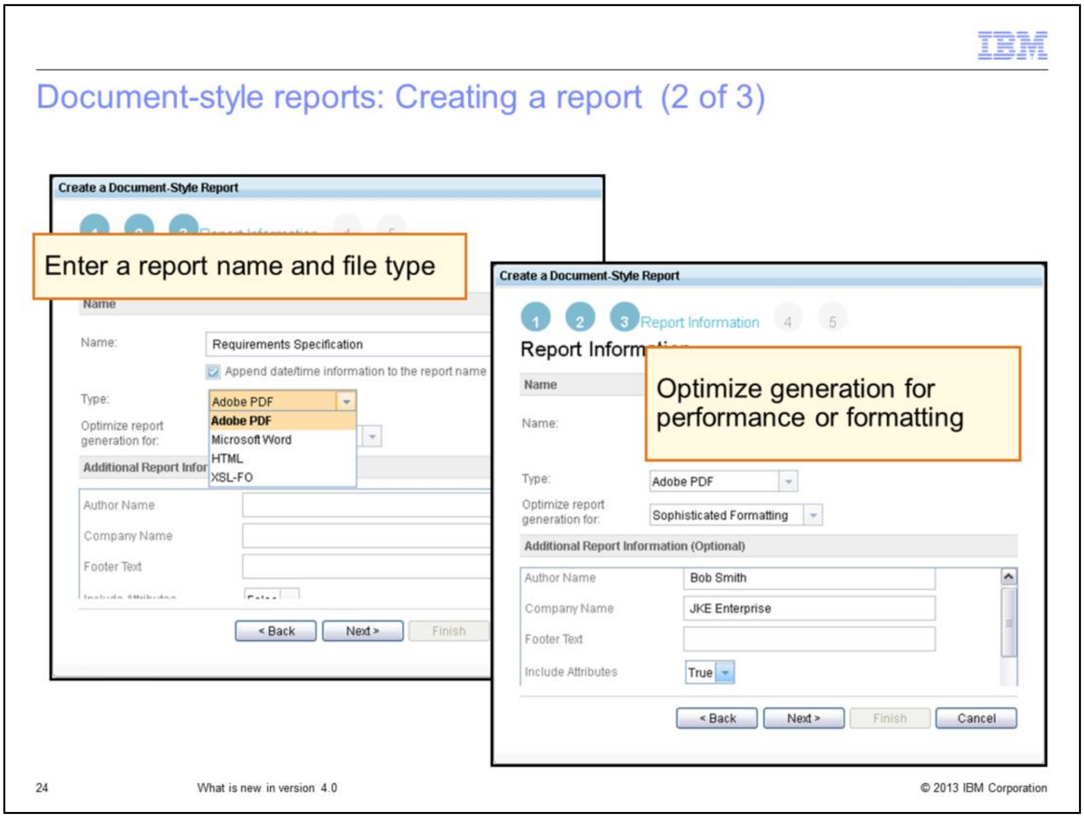
Here is an example of the Requirements Specification report. This report is a predefined report included with Rational Requirements Composer. The report provides details about the requirement including attributes, traceability links, and primary text information. Note that you can optimize the report for formatting or performance.



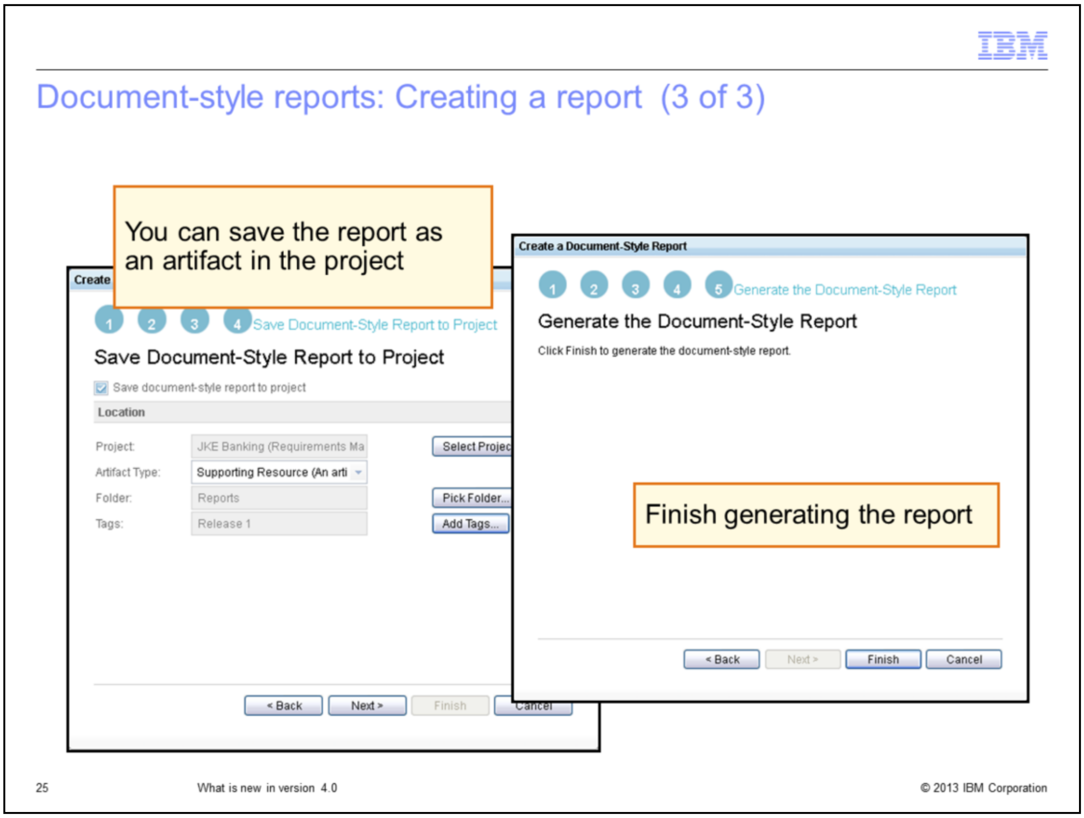
You can generate a document-style report of a filtered view. Open a view and click the button to generate a document-style report for one or more of the artifacts in the view.



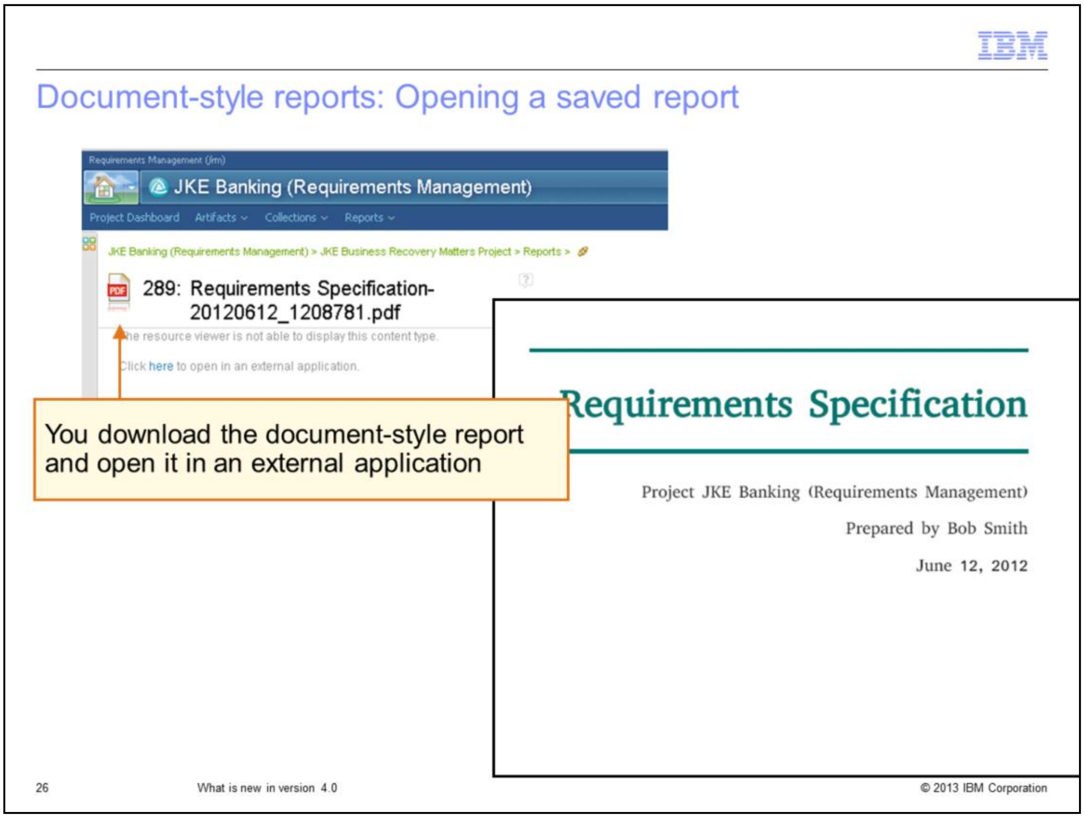
You can customize the list of reports in the report wizard to match your organizational standards. You can install custom report templates generated in Rational Publishing Engine on the server. After installing templates, they are available to all users when running the report wizard. Remember that creating custom report templates in Rational Publishing Engine requires a Rational Publishing Engine license.



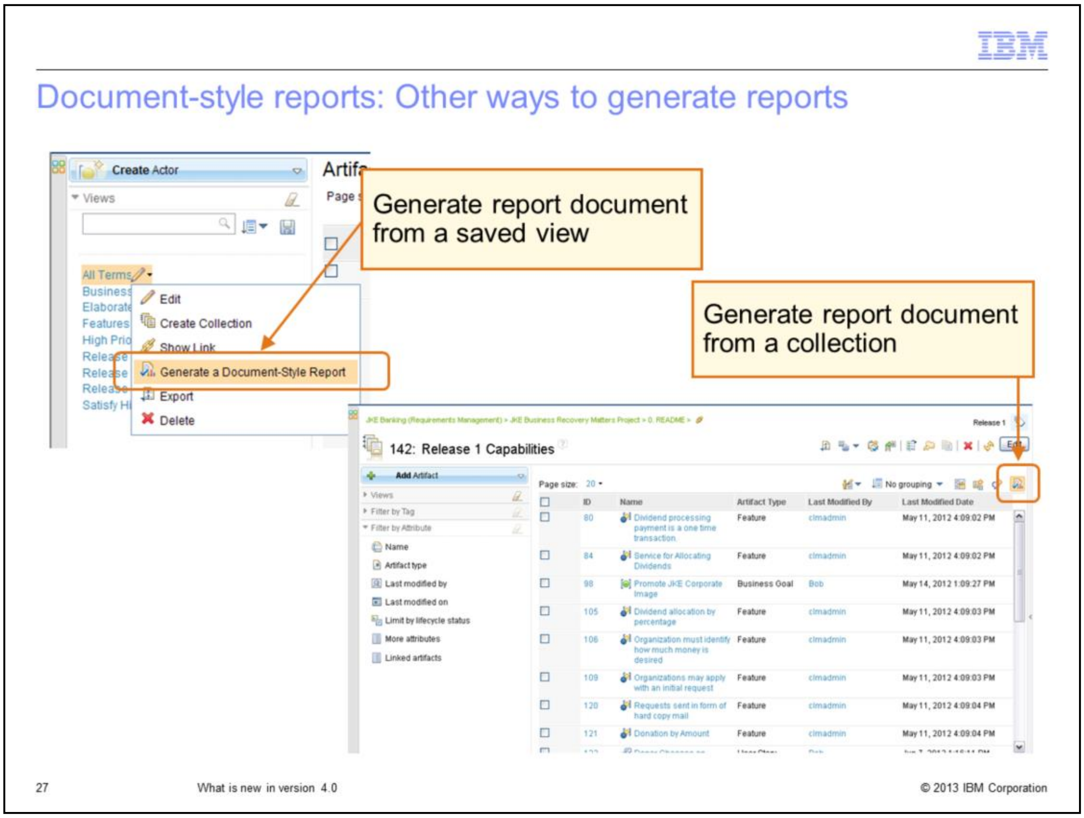
You can generate reports in Adobe PDF, Microsoft Word, and HTML file formats. Or you can generate reports in XSL Formatting Objects, or XSL-FO, file format. Note that XSL-FO is a standard, unified presentation language for documents. You can use the XSL-FO format with post-processors to generate printable or renderable output. You can also use XSL-FO with scripts to post-process your results. You can customize the report to include information such as author, company, footer text, attributes, comments, or company logo.



You can save the report in the project as an artifact. When saving a report, you specify the artifact type, folder location, and tags.



You can open a document-style report from within the project. Rational Requirements Composer prompts you to open the report using an external application. You can download the report as either a PDF or Word document. Therefore, when opening the report, you will use either Adobe Acrobat or Microsoft Word.



You can also use Rational Publishing Engine to generate report documents. You can generate a report document from a saved view, a collection or module.

Other changes

- Improved quality and performance
- Team members widget
- New CK (web) Editor
- Simple URL
- Sample project improvement
- RequisitePro® migration
- Multi-value attributes conversion
- User assistance

Other improvements available in Rational Requirements Composer version 4.0 include better quality and performance. There is now a Team Members widget. There is a new CK web editor that provides better performance and usability. There is a usability enhancement for simple URLs, with breadcrumb links for each artifact. The “Money That Matters” sample project now contains new process guidance, artifacts, icons, and artifact types. There is now an IBM Rational RequisitePro migration feature and multi-value attributes. Finally, there are user assistance improvements, including coverage of deploying a clustered environment and an interactive upgrade guide.

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