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Effective Collaboration for Better Design

What's new in Rational Software Architect extension for
Design management

Steve Arnold – Consulting IT Specialist – steve.arnold@uk.ibm.com   



What is collaborative design ?

Collaborating with other architects

Collaborating with stakeholders, analysts and developers

Understanding traceability

Understanding Impact Analysis

Reusing and improving other designs

Design Document management and generation

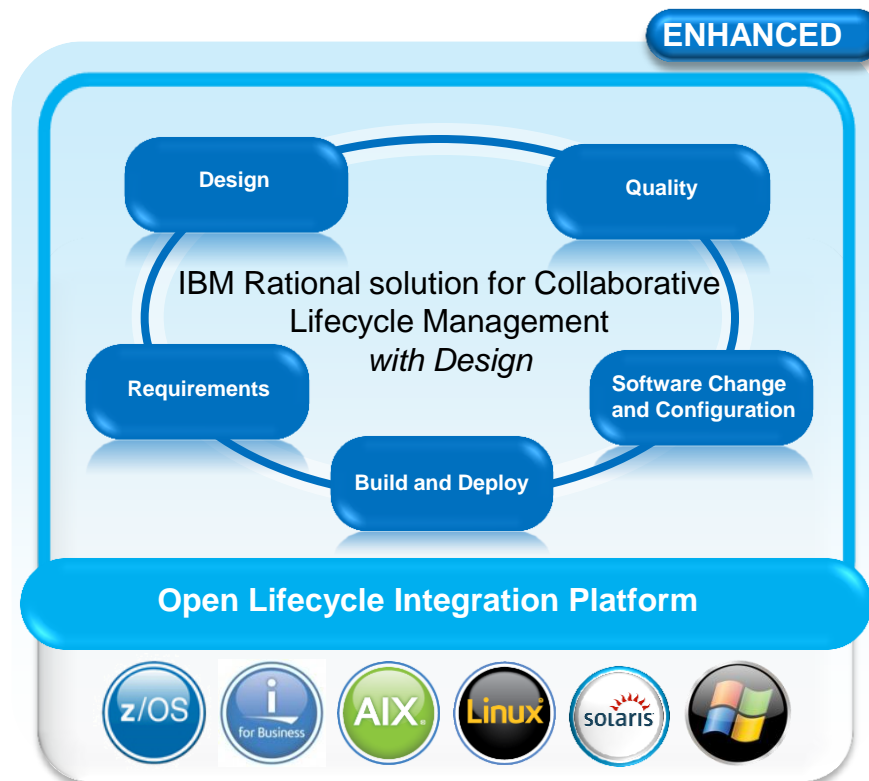


Deliver software faster with one integrated and effective Application Lifecycle Management (ALM) solution

- Reduce complexity and costs, improve quality and predictability, speed delivery and increase collaboration across the entire team with a focus on the five imperatives for effective ALM:
 - Start with the capabilities you need to address your priorities NOW. Extend them as your needs evolve.
- Integrate software design for broader collaboration and traceability
- Unify your infrastructure and protect your current investments with the open, extensible Jazz platform

IBM Rational solution for Collaborative Lifecycle Management

- Includes: Rational Requirements Composer 4.0, Rational Team Concert 4.0, and Rational Quality Manager 4.0
- Can be extended with Design Management by adding Rational Software Architect with Design Manager



“Once fully implemented, we expect to reduce friction and focus on delivering value to customers in each delivery stream, to reduce rework by improving end-to-end collaboration and its planning consistency, and to REDUCE our compliance efforts by AUTOMATING key process tasks and deliverables.”

Stephan Pauletto, Engagement Manager, IMS Health

Rational Design Manager Features

Planning

- Integrated planning
- Effort estimation & progress tracking taskboards
- Out of the box process templates: formal or agile

Project Transparency

- Customizable web based dashboards
- Metrics and reports
- Project milestone tracking and status

Work Items

- Defects, enhancements and conversations
- View and share query results
- Support for approvals and discussions
- Query editor interface

Design Management

- **Design change tracking**
- **Configuration management**
- **Design documents**
- **Searching and design reuse**
- **Impact Analysis**

Collaboration

- **Agile online sketching**
- **Reviews**
- **Discussions**
- **Reporting**
- **Email notification**

Lifecycle

- **Design at your fingers tips - Central repository for design related artifacts**
- Role-based access control
- Common user administration with CLM
- Lifecycle projects with design
- **Design in context - Traceability between designs and requirements, work items, and quality artifacts**
- Reporting and analysis across the lifecycle
- Dashboards across the lifecycle



Collaborating with Other Designers – Server managed models

The screenshot displays the IBM Rational Design Studio interface. On the left, the Project Explorer shows a tree structure with 'Main (Locked in 'My changes'' selected. A callout bubble points to this element with the text 'Locked model element'. The main canvas shows a diagram with an actor labeled 'Actor1' and a use case labeled 'UseCase1'. A callout bubble points to the 'UseCase1' element with the text 'Modified model element'. At the bottom, the Properties and Design Changes panels are visible. The Design Changes panel shows a list of changes, with 'My changeset, with just a diagram in it (current)' selected. A callout bubble points to this entry with the text 'Changeset containing just elements that have been modified'.



Collaborating with Other Designers - Automate Design Reviews

- Automate manual and time consuming design reviews
- Users notified via email of the review and access their reviews from the dashboard
- Design Manager tracks progress of design review
- Link review to Team Concert work items for more formalized approvals

When & Why

Who

What

The screenshot shows the 'MyReview' interface with the following details:

- Overview:** Draft, Start Review, In progress, Reviewed, Finalized
- Metadata:** Name: MyReview, Due: Apr 1, 2011, Instructions: Please Review, Snapshot: No snapshot (current)
- Participants Table:**

Name	Role	Review results	Completed	Actions
Julian Jones	Reviewer	0 ✓ 0 ✗ 2 ⌚	0%	
jim conallen	Reviewer	0 ✓ 0 ✗ 2 ⌚	0%	
- Resources Table:**

Name	Description	Actions
Main	Main Diagram	
JKEClientApp	Application Interface	



Collaborating with Other Designers - planning

Browser: <https://localhost:9443/jazz/web/projects/Call%20Center#action=com.ibm.team.apt.viewPlan&page=viewMo> | Search: Google

Plan: Sprint 3 [Sprint 3] - IBM Rati... | Rational Team Concert - Call Centre

Rational Team Concert | Jean-Michel Lemieux | Log Out

Dashboards | Project Areas | Work Items | **Plans** | Source Control | Builds | Reports

Admin | Call Center

Plans Related to Timeline 'Main Development [Project Timeline]' >

Previous | 4 of 5 | Next

Sprint 3

Owner: Call Center | Iteration: Sprint 3 (11/30/09 - 1/15/10) | 5 Closed | 19 Open

Overview | **Planned Items** | Charts

Progress: 36/171 | -51.75 h | Estimated: 79%

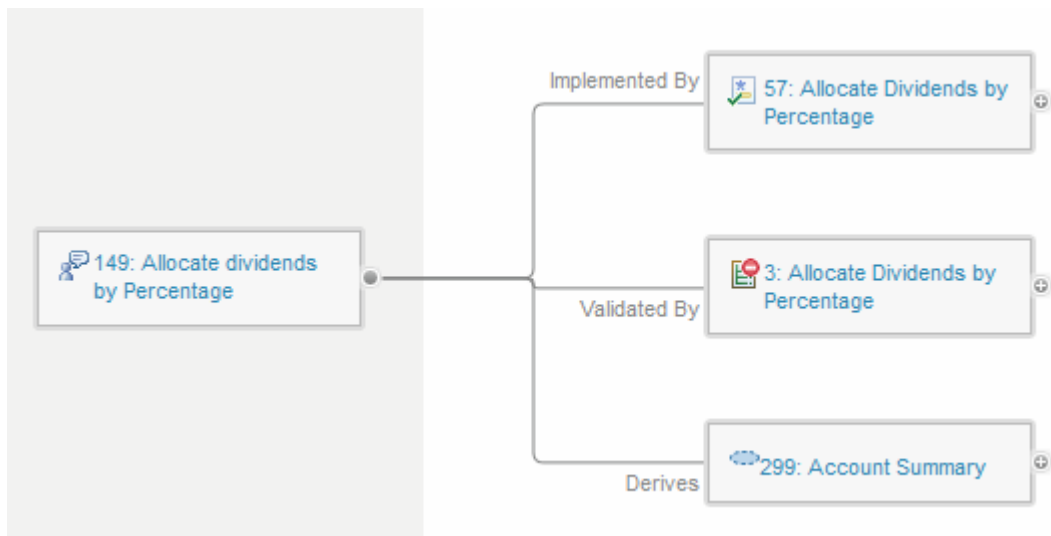
View As: Work Breakdown

Item	Assignee	Status	Due	Est. Hours	Est. %
Jean-Michel Lemieux Closed Items: 1 Open Items: 6 Load: 57/132.75 +75.5 h Estimated: 83%					
Backport call hang-up fix to Sprint 1		New	-	157	
Fix up unit tests to avoid having to re-initialize for each suite		New	2 days	156	
Update blocked listed table		New	5 minutes	155	
Prepare sample data for call demos		New	0/27 h	144	
Problem with build I20091217-1336		Done	4 hours	143	
Adding new content to the server		New	2 days	140	
Jennifer Ginness Closed Items: 1 Open Items: 6 Load: 32/132.75 +100.75 h Estimated: 67%					
Prepare sample data for call demos		New	0/27 h	144	
Allow adding features via addons that can be added to a running call center application		In Progress	32/64 h	87	
Allow home handlers to call in and take calls		New	-	84	
Markus Kent Closed Items: 0 Open Items: 3 Load: 44/132.75 +88.75 h Estimated: 100%					



Lifecycle Traceability - from Requirements to Design

Name	Derives	Validated By	Implemented By
Donor Chooses an Organization		11: Donors Choose an Organization	65: Donors Chooses an Organization
Allocate dividends by Percentage	299: Account Summary	3: Allocate Dividends by Percentage	57: Allocate Dividends by Percentage
Donor Chooses Multiple Organizations			
Allocate dividends by amount and frequency		7: Allocate dividends by amount and frequency	61: Allocate dividends by amount and frequency



Collaborative development with others – Comments and feedback

The screenshot displays the Rational Software Architect interface with a UML diagram titled 'JKEDesign::JKE Overview'. The diagram shows a 'donor' actor connected to a 'client' component, which in turn connects to a larger component containing 'logic', 'beans', and 'persistence' sub-components. The 'persistence' component is connected to a 'DB2' database. A red circle highlights a portion of the diagram, with a callout pointing to it.

View markup associated with comments

View design comments

Connect to DM servers, navigate server projects, and preview designs from server

View OSLC link information including pop-up previews

Comments
JKEDesign Overview
Need server logging ()
Joe Stakeholder 14 minutes ago
The sketch should include a component for server side logging with persistence to DB2.
Don Yantzi 7 minutes ago
Okay, will add this for next milestone.

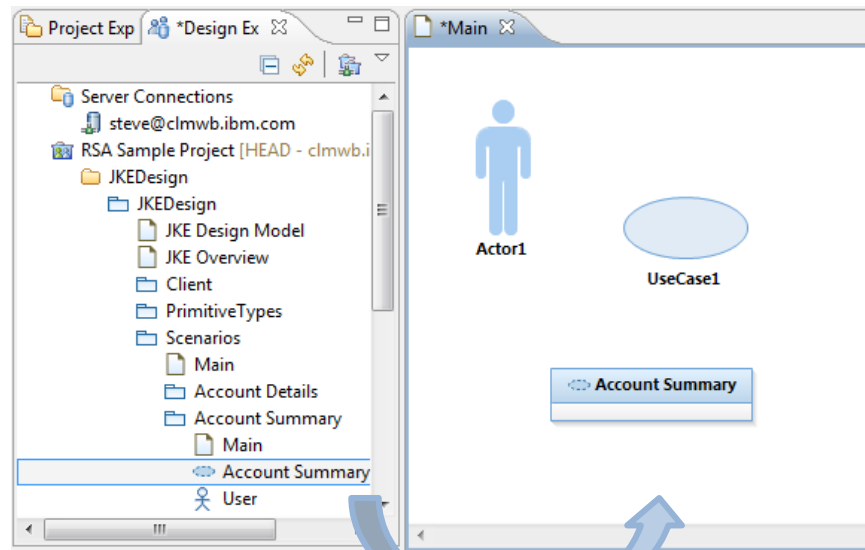
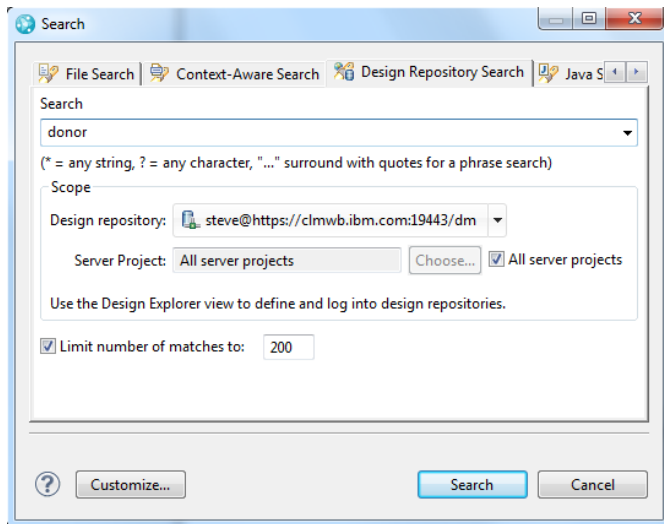
Server Connections
Friend Servers
yantzi@DesignManagementServer
Demo Project [DesignManagementSer
banking activity diagram
banking class diagram
banking sequence diagram
banking use case diagram
Design Management Models
JKEDesign
Modernization Models

Links
Rulers & Grid
Commenting
Appearance
Advanced
Graph Layout

75: Implement server logging

Location	Match	Long name	Type
Repository	Account	[banking activity diagram] Analysis Model::Telle...	«Entity
Repository	Account	[banking class diagram] Design Model::itso.ad.b...	Class
Repository	Account	[banking sequence diagram] Analysis Model::Tel...	«Entity
Repository	Account	[JKEDesign] JKEDesign::Server::Resources::Ac...	Class
Repository	AccountBean	[JKEDesign] JKESource::com.jke.beans::Accou...	Class
Repository	AccountInfoWidget	[JKEDesign] JKESource::com.jke.ui::AccountInf...	Class
Repository	AccountLogic	[JKEDesign] JKESource::com.jke.logic::Account...	Class

Reuse – drag and drop to reuse existing elements



Properties Search

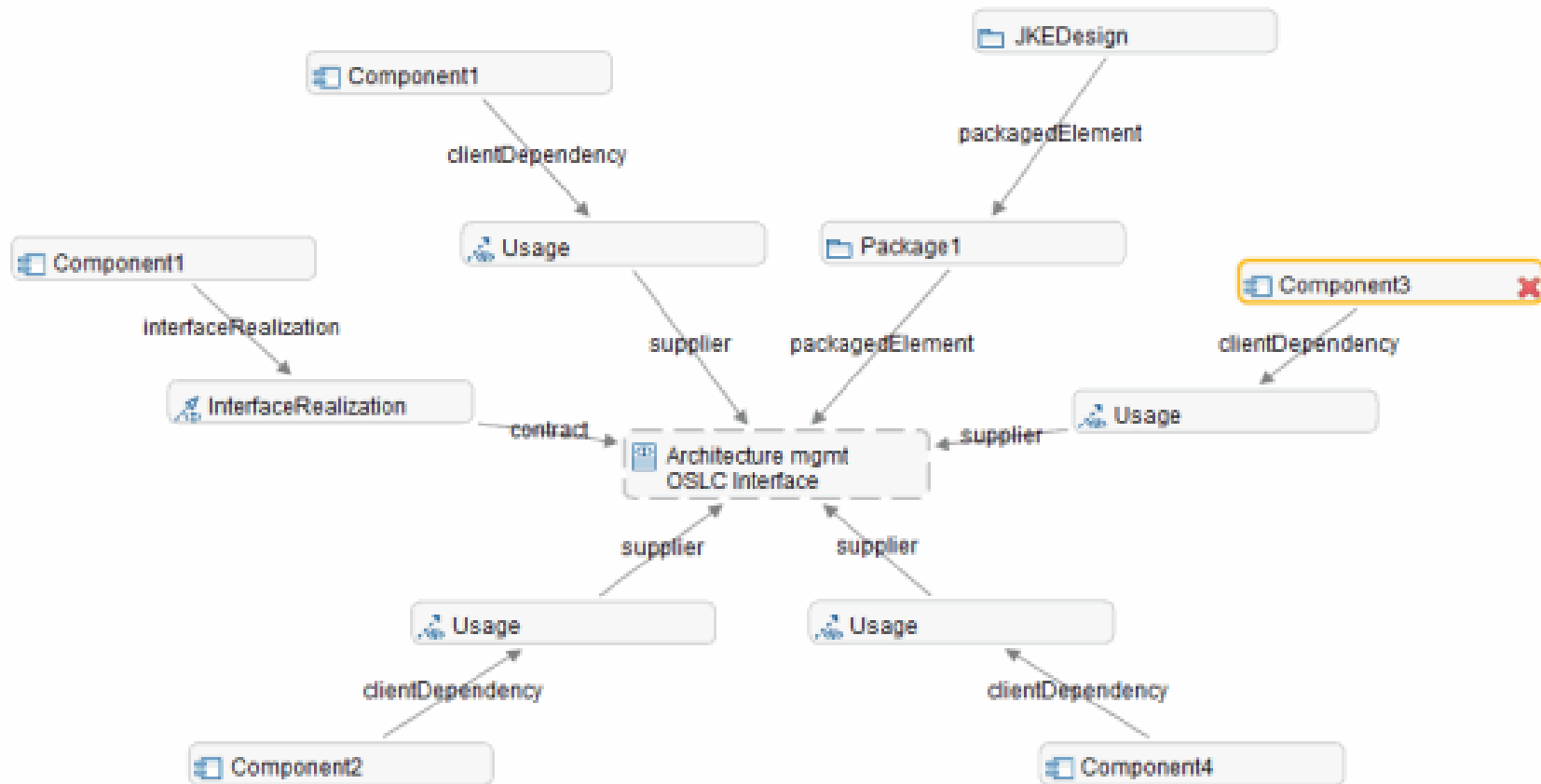
'Account Summary' - 10 matches in selected location

Location	ID	Match	Long name	Type	Resource
Repository	96	Account Summary	[JKEDesign] JKEDesign::Scenarios::Account ...	uml - Collaboration	https://clmwb.ibm.com
Repository	87	Account Summary	[JKEDesign] JKEDesign::Scenarios::Account S...	uml - Collaboration	https://clmwb.ibm.com
Repository	97	Account Summary	[JKEDesign] JKEDes		
Repository	88	Account Summary	[JKEDesign] JKEDes		
Repository	88	account summary	[JKEDesign] JKEDes		
Repository	88	account summary	[JKEDesign] JKEDes		
Repository	54	account summary	[JKEDesign] JKEDes		
Repository	57	account summary	[JKEDesign] JKEDesign::Client::JKE Client::ac...	uml - Operation	https://clmwb.ibm.com
Repository	85	Account Summary	[JKEDesign] JKEDesign::Scenarios::Account S...	uml - Package	https://clmwb.ibm.com
Repository	89	Account Summary	[JKEDesign] JKEDesign::Scenarios::Account S...	umlnotation - Sequ...	https://clmwb.ibm.com

- Show in
 - Project Explorer
- Open in
 - History
 - Design Explorer View
- Relationship Diagram
- Copy Resource Location



Impact Analysis – across models and CLM artefacts



Document Management and Generation

- Two options
 - Create documents on the design server – and embed diagrams
 - Use RPE to generate documents – and optionally store and manage them on the design server

Document 219: Overview ?

Properties Related Elements Links Source

Title: Overview

Body

Format Normal Font Arial Size 10 B I U S x x² [Clipboard] [Find] [Undo] [Redo] [Align] [List] [Table]

Summary

here is a short document providing a summary of the designs...

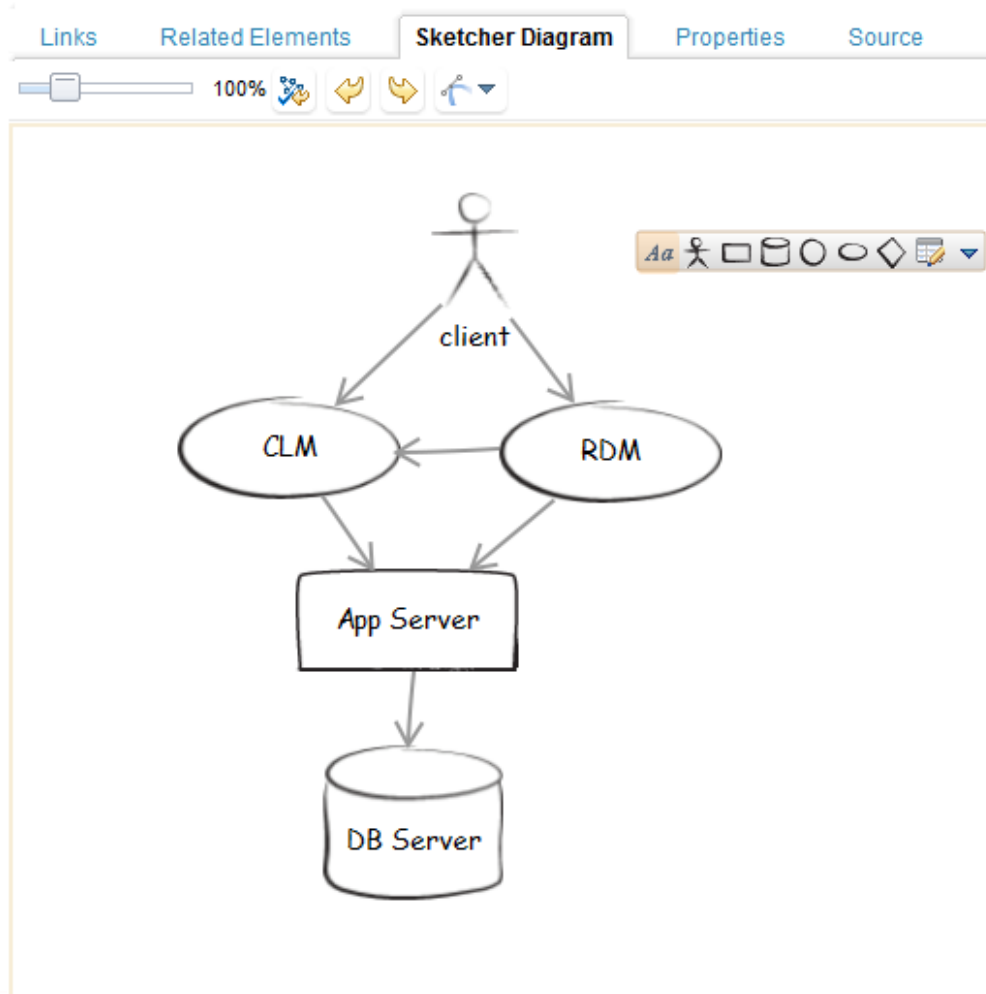
```
graph TD
    Donor[donor] --> Client[client]
    Client --> Server
    subgraph Server
        Logic[logic] --> Beans[beans]
        Logic --> Persistence[persistence]
        Beans --> Persistence
    end
    Persistence --> Derby[(derby)]
```

The diagram illustrates a client-server architecture. On the left, a stick figure labeled 'donor' points to a box labeled 'client'. An arrow from the 'client' box points to a large rectangular box labeled 'Server'. Inside the 'Server' box, there are three boxes: 'logic' at the top, 'beans' at the bottom left, and 'persistence' at the bottom right. Arrows show 'logic' pointing to both 'beans' and 'persistence', and 'beans' pointing to 'persistence'. An arrow from the 'persistence' box points to a cylinder labeled 'derby', representing a database.

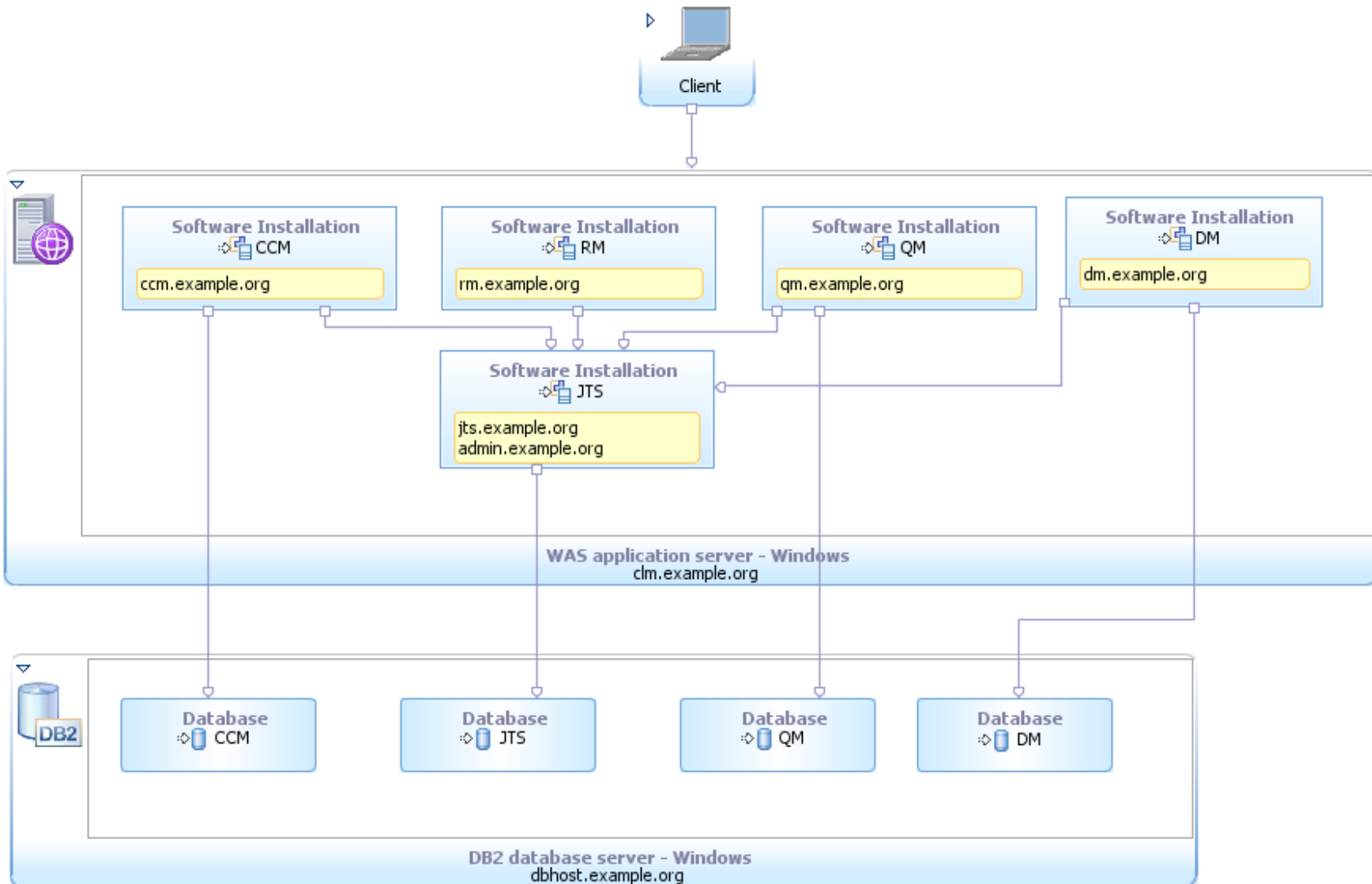


Sketching – Sketching in the web

RDM 4 introduces the ability to create sketches through the web – so great for agile teams, infrequent users, or early stages of design



CLM and RSA DM Evaluation Installation Topology – 2012



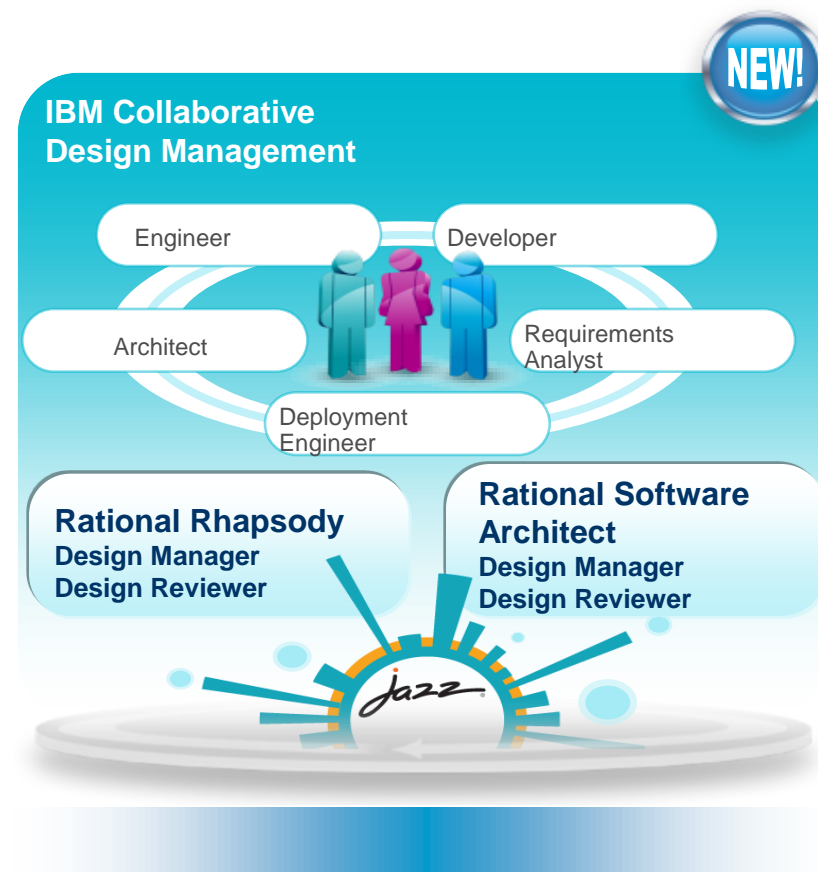
QUESTIONS

www.ibm/software/rational



Summary

- ✓ **CDM 2012** provides great new features, with
 - ✓ Deeper integration with CLM
 - ✓ Bi-directional traceability with RRC and DOORS
 - ✓ Simple design reuse
 - ✓ Great collaboration around designs
- ✓ **CDM 2012** will benefit customers
 - ✓ Providing better governance
 - ✓ Less effort to share models
 - ✓ More reuse
 - ✓ Improved designs and software through better collaboration





www.ibm/software/rational

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