Innovate2011
The Rational Software Conference
11th and 12th of October
Let's build a smarter planet.

Design and Construction Update

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Architecture Management team

Summary

Developer tooling

Modelling

Design Management

Developer tooling

IBM Rational Application Developer for WebSphere Software (RAD)

Tied to WebSphere Application Server and Portal release

Supports WAS/Portal *supported* versions

Tied to Eclipse releases

RAD v8.0.3

Eclipse 3.6-based

WAS unit test environment v6.0, v7.0, v8.0

Portal test environment v6.1 and v7

J2EE 1.2/3/4, EE5 and EE6

Test clients for EJB/Web Services

Cloud tooling (build *for* the cloud)

- IBM Workload Deployer

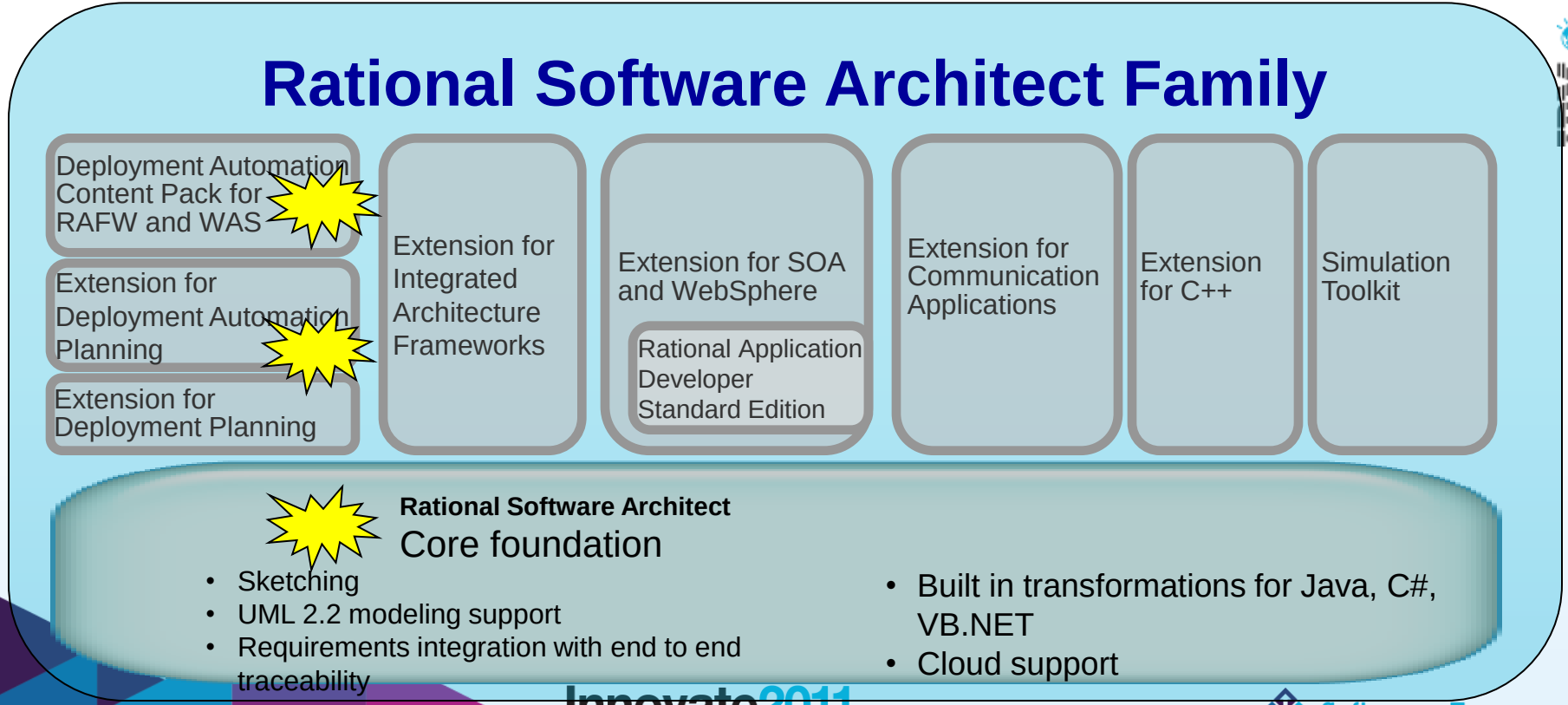
Modelling

Why do we build models?

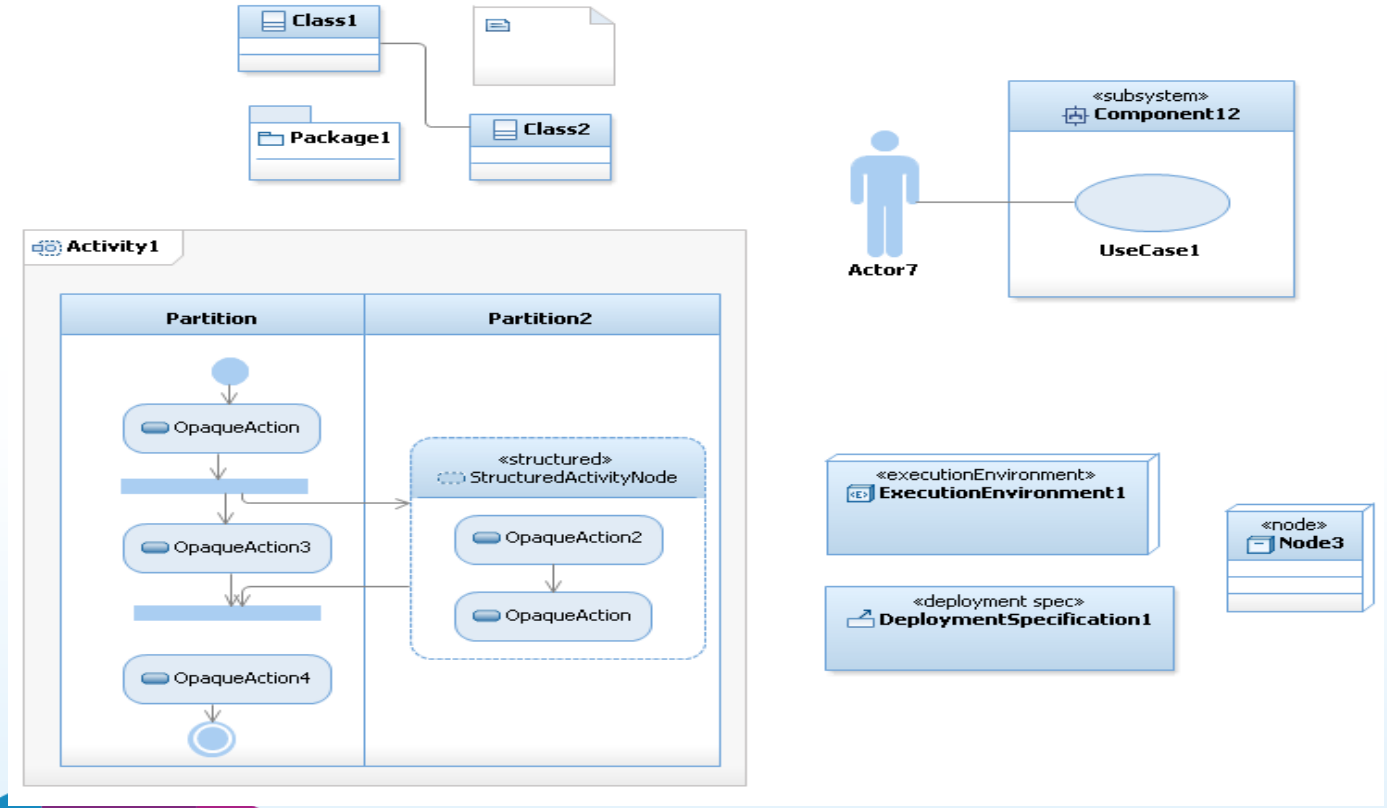
Rational Software Architect Family

UML 2.x

Revised Packaging



New Appearance



Layers

Show/hide layers to simplify diagrams without deleting elements or creating new diagrams

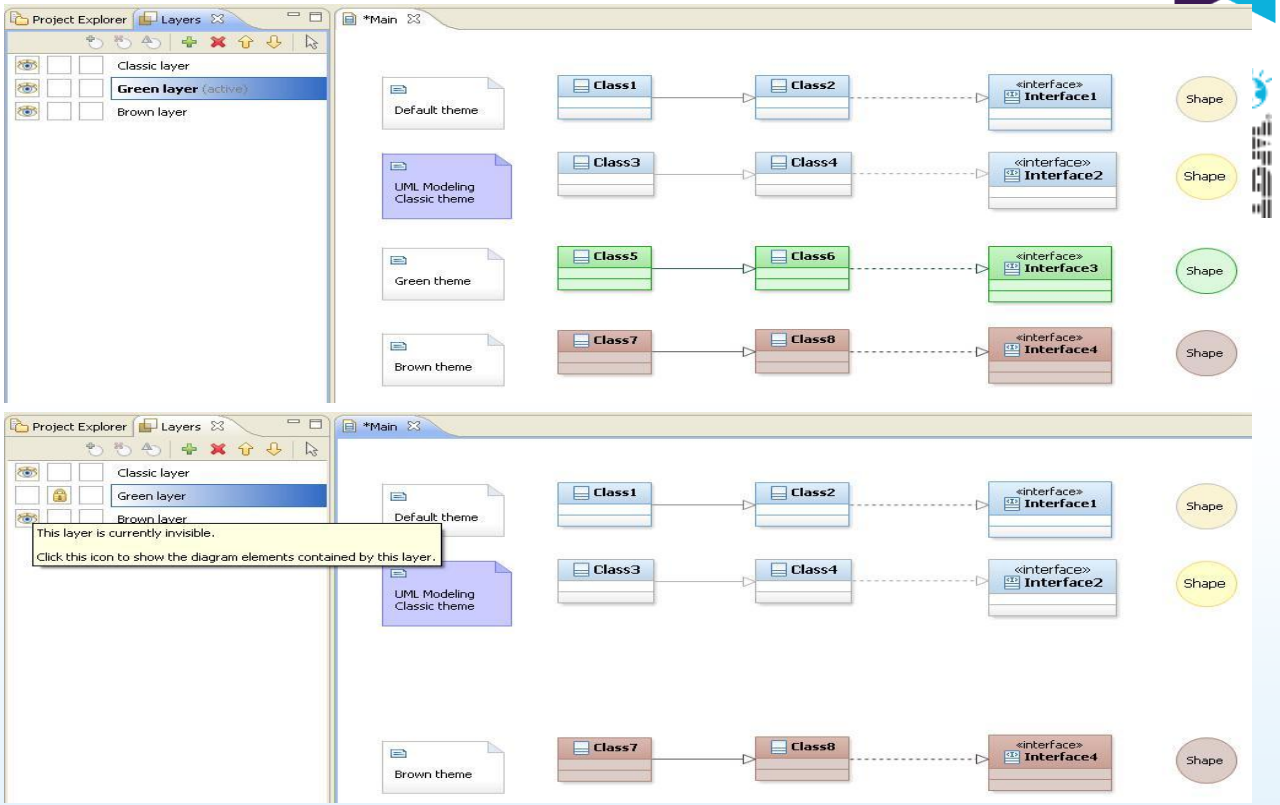
Locking / unlocking layers to prevent editing

Selecting all elements on layer quickly

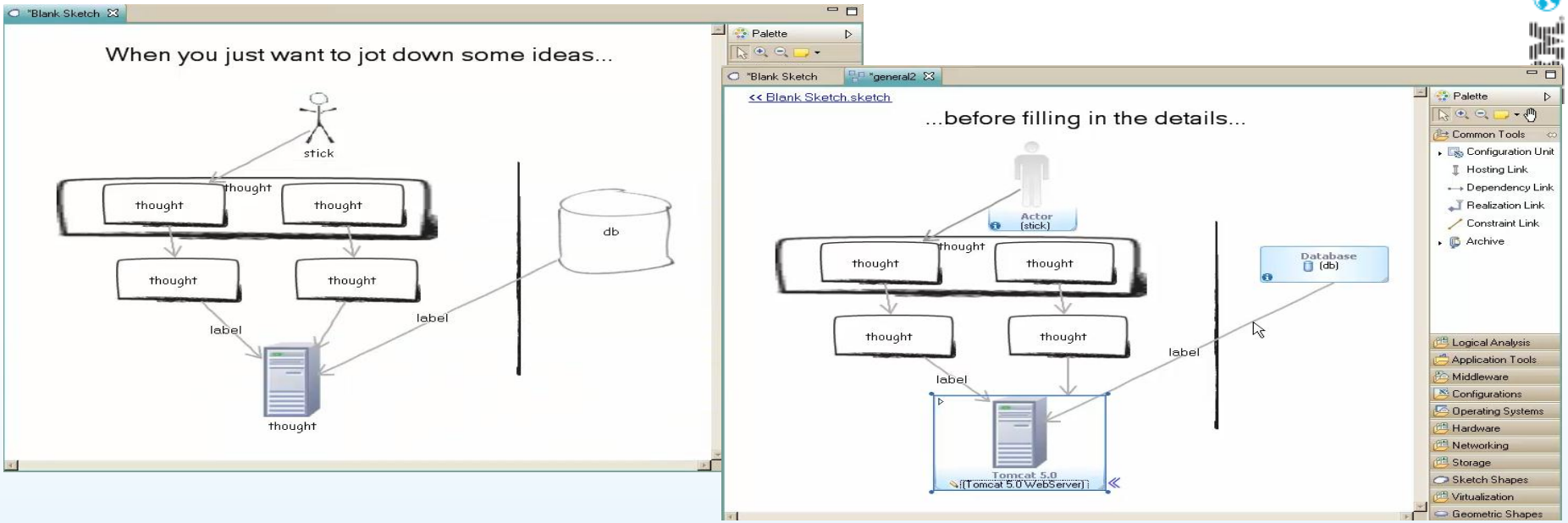
Reordering layers to reorder the z-order of shapes

Highlighted layer is currently active and new elements are automatically added there.

Content of a layer can be changed.



Agile sketching with incremental formalization



- Quickly capture thoughts – work at “think speed”
- Selectively formalize as semantic model elements
- Extend this “actionable whiteboard” across space and time

BPMN

BPMN support added into RSA

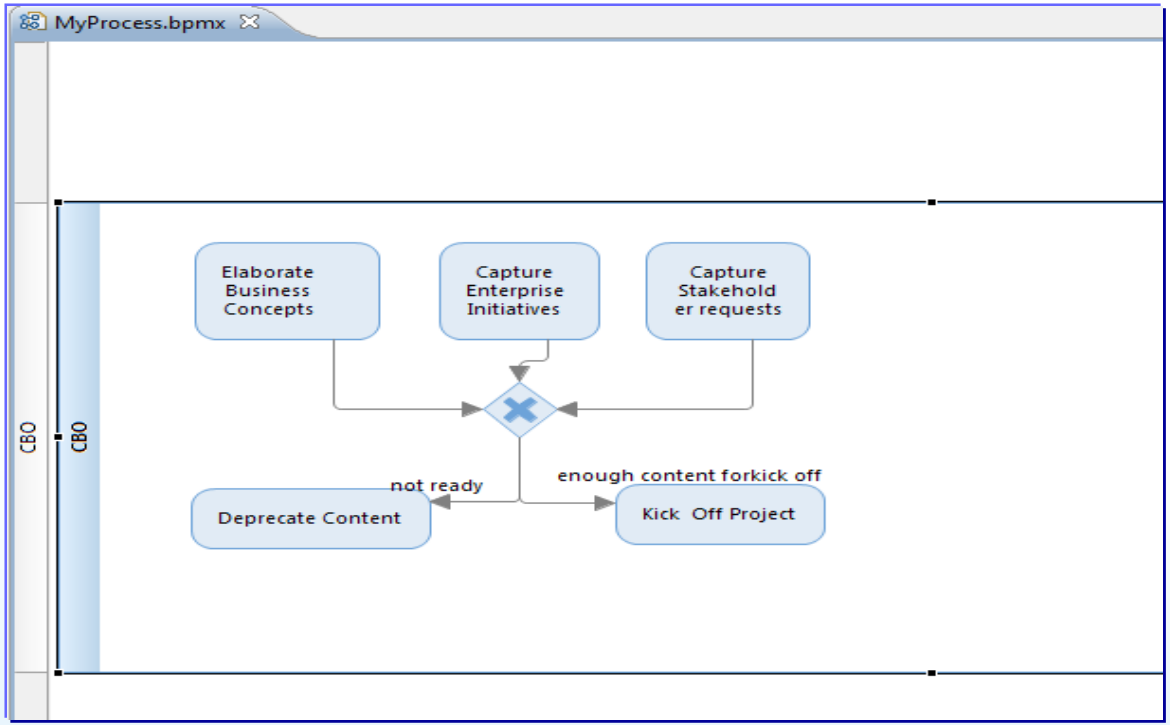
Provides context for other models

BPMN2 interchange supported

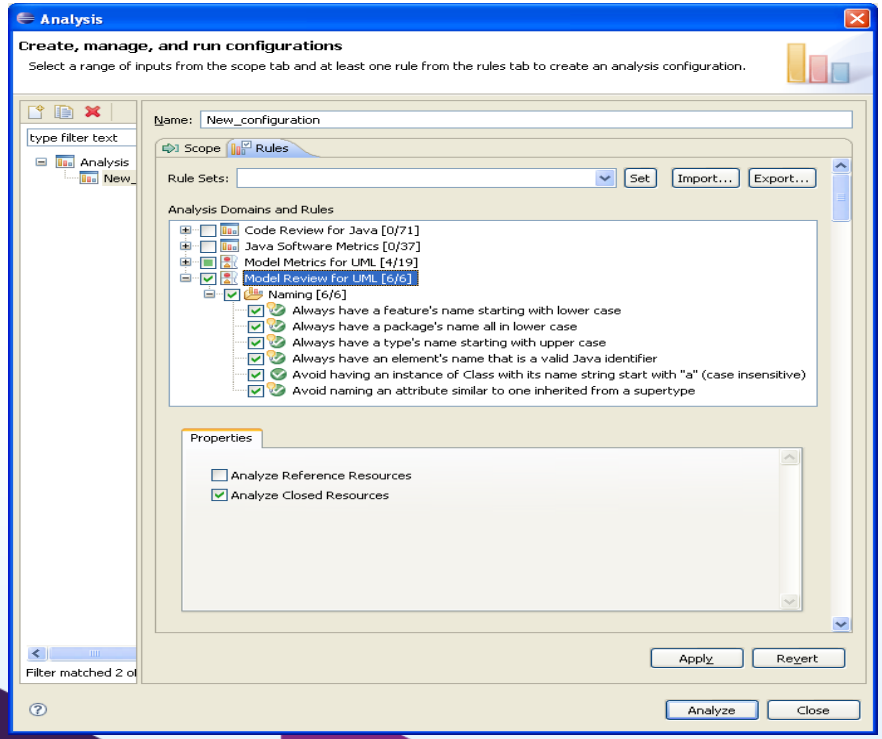
- Can bring process models in from other sources

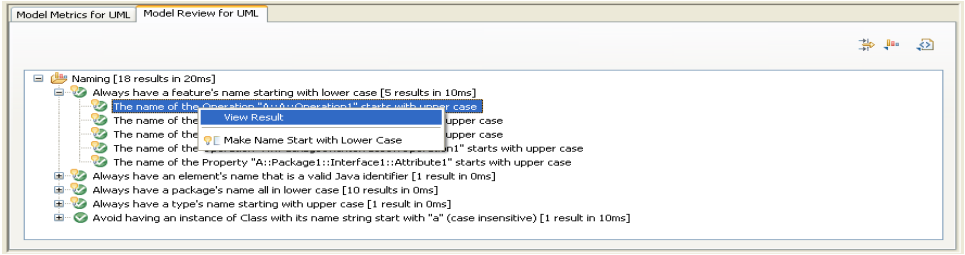
Can use model in SOA transforms

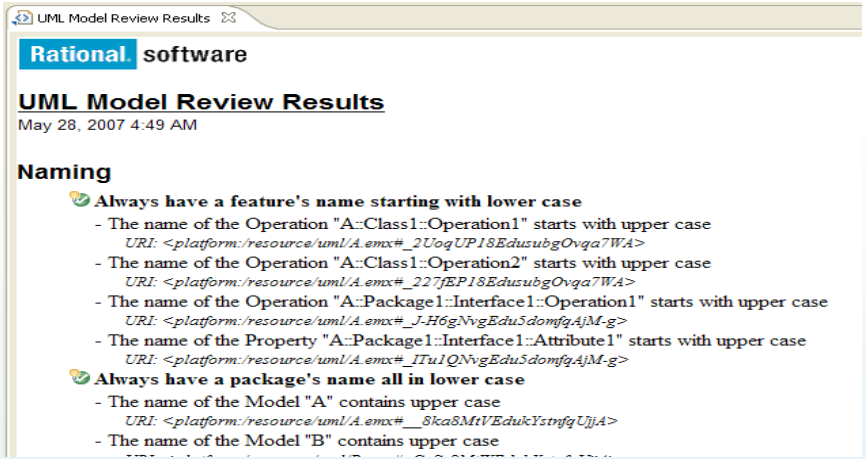
Can simulate BPMN models as well



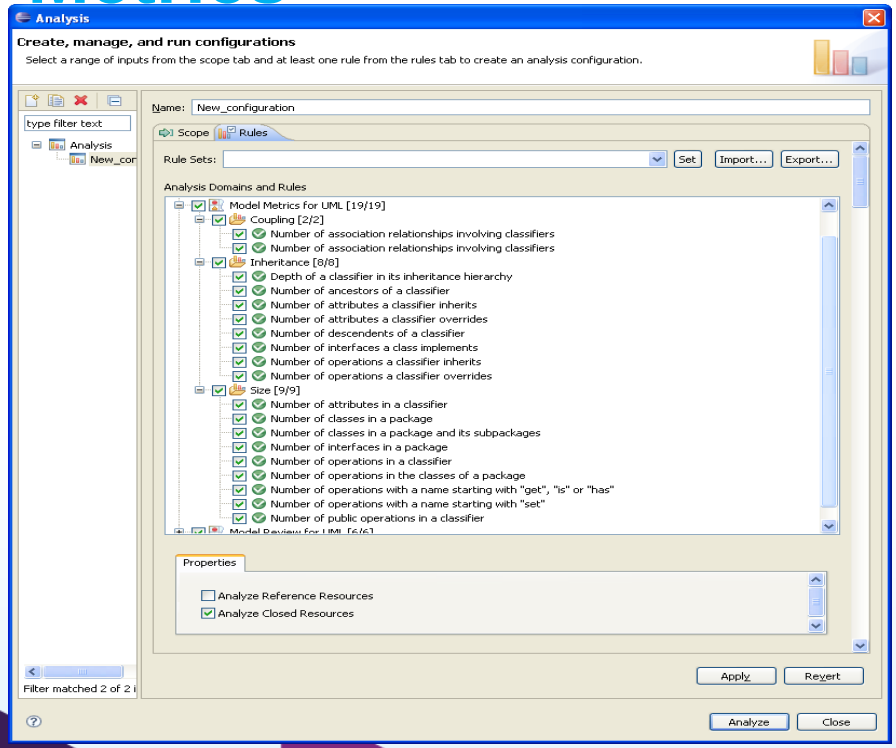
Model Analysis

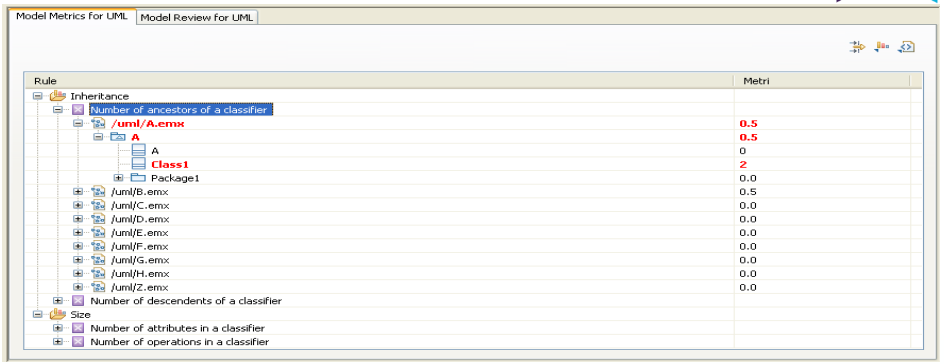






Metrics


Analysis
Create, manage, and run configurations
Select a range of inputs from the scope tab and at least one rule from the rules tab to create an analysis configuration.
type filter text
Analysis
New_cor
Filter matched 2 of 2 i
Name: New_configuration
Scope
Rules
Rule Sets:
Set
Import...
Export...
Analysis Domains and Rules
Model Metrics for UML [19/19]
Coupling [2/2]
Number of association relationships involving classifiers
Number of association relationships involving classifiers
Inheritance [8/8]
Depth of a classifier in its inheritance hierarchy
Number of ancestors of a classifier
Number of attributes a classifier inherits
Number of attributes a classifier overrides
Number of descendents of a classifier
Number of interfaces a class implements
Number of operations a classifier inherits
Number of operations a classifier overrides
Size [9/9]
Number of attributes in a classifier
Number of classes in a package
Number of classes in a package and its subpackages
Number of interfaces in a package
Number of operations in a classifier
Number of operations in the classes of a package
Number of operations with a name starting with "get", "is" or "has"
Number of operations with a name starting with "set"
Number of public operations in a classifier
Model Review for UML [6/6]
Properties
Analyze Reference Resources
Analyze Closed Resources
Apply
Revert
Analyze
Close


Model Metrics for UML
Model Review for UML
Rule
Metri
Inheritance
Number of ancestors of a classifier
/uml/A.emx
0.5
A
0.5
A
0
Class1
2
Package1
0.0
/uml/B.emx
0.5
/uml/C.emx
0.0
/uml/D.emx
0.0
/uml/E.emx
0.0
/uml/F.emx
0.0
/uml/G.emx
0.0
/uml/H.emx
0.0
/uml/Z.emx
0.0
Number of descendents of a classifier
Size
Number of attributes in a classifier
Number of operations in a classifier

UML Model Metrics Problem Results
Rational software
Page: 1
UML Model Metrics Results
May 28, 2007 4:59 AM
Inheritance
- Number of ancestors of a classifier
Resource: /uml/A.emx
A 0.5
A::Class1 2
- Number of descendents of a classifier
Resource: /uml/E.emx
E 1.0
E::Class3 2
Size
- Number of attributes in a classifier
Resource: /uml/A.emx
A 4.0
A::Class1 2
Resource: /uml/B.emx
B 2.0
B::Class2 2
Resource: /uml/E.emx
E 2.0

Design Manager

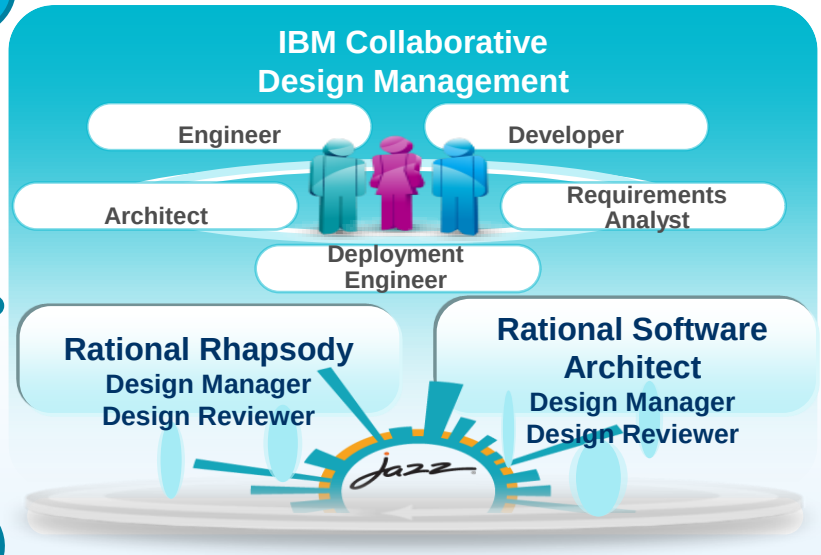
What problems do you want to solve?

- **Hard to get meaningful feedback**
- **Lack of traceability**
- **Hard to assess impact of change**
- **Hard to link to other tooling**
- **Can’t report across the lifecycle**

Rational Design Manager

Centralised design repository

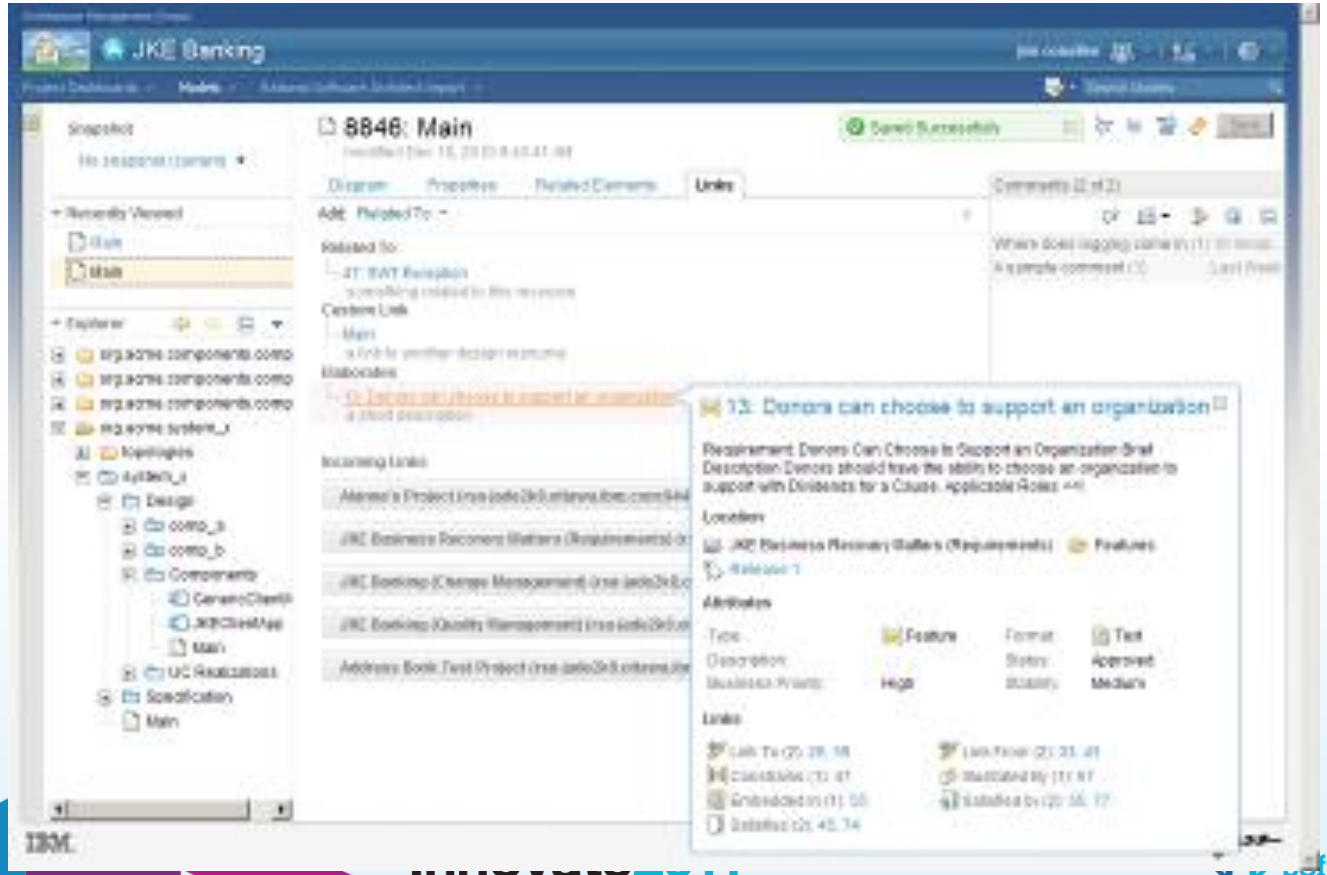
Improved collaboration with commenting and review



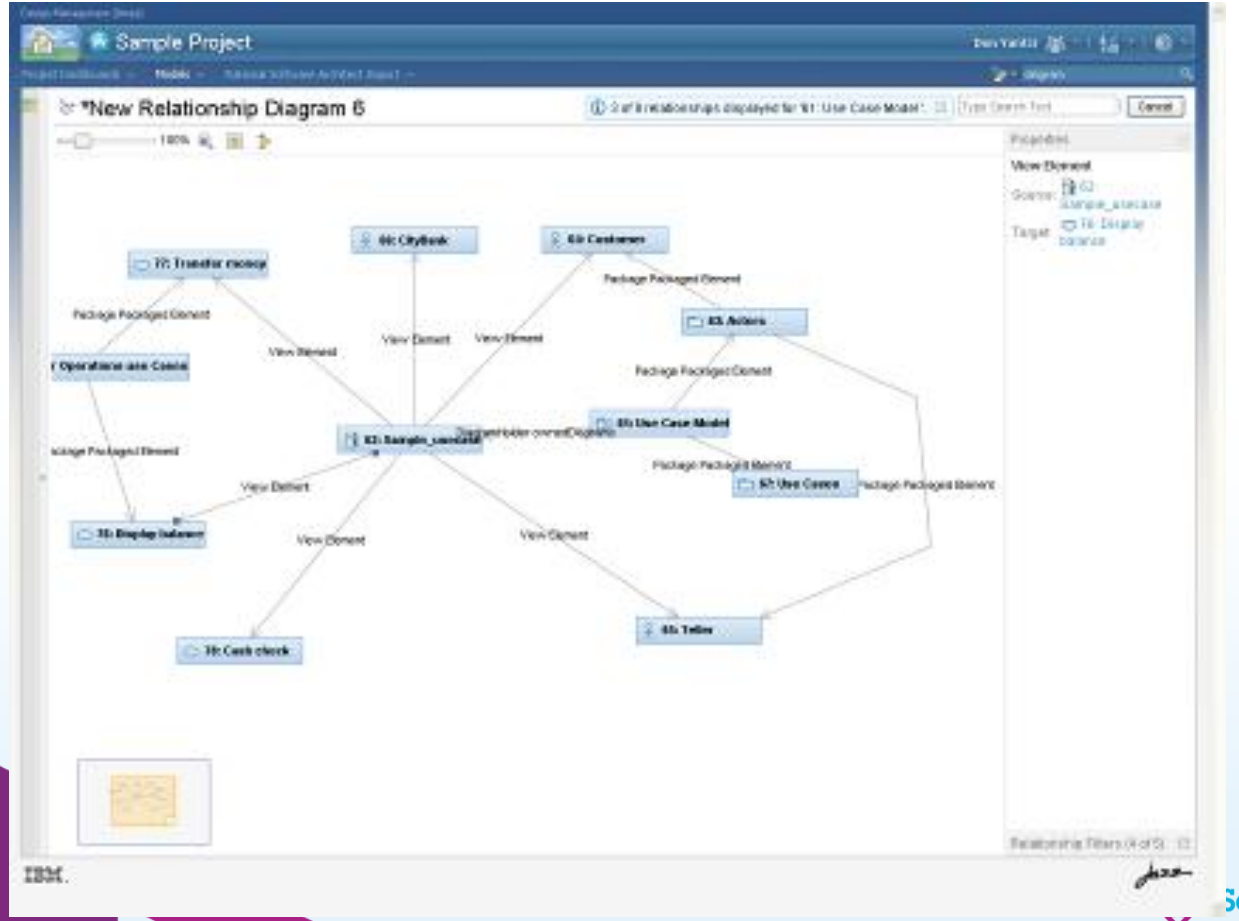
Lifecycle linking to work items and requirements

Multi-discipline document generation

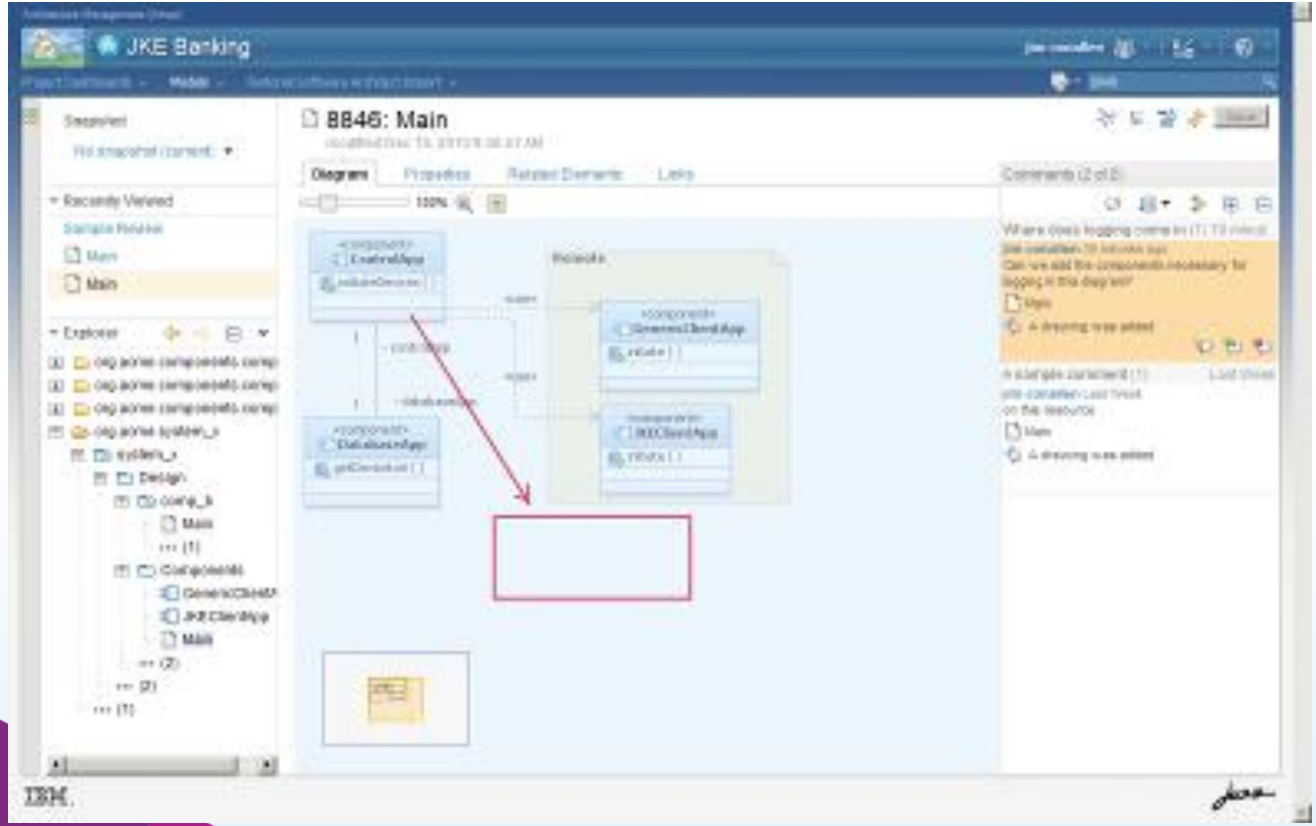
Web Browser for models



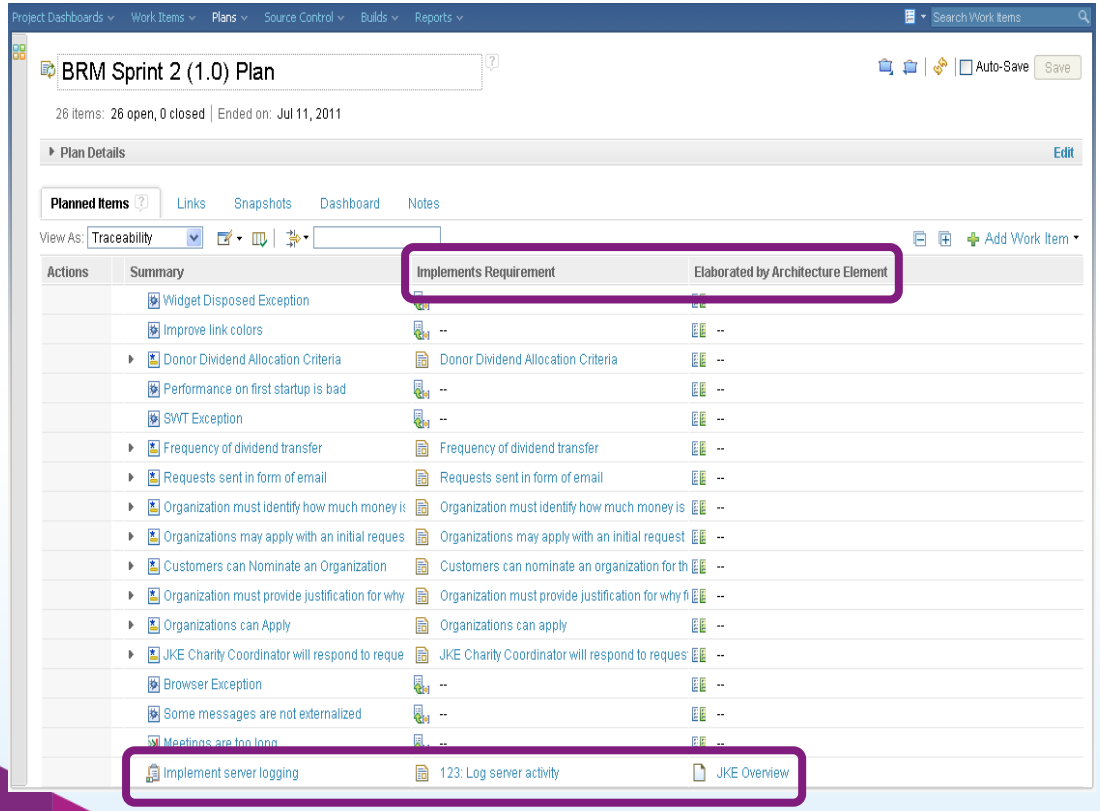
Relationship diagram



Comments/Annotations



Links back to plans



Collaborative Design Management User Roles

Rational Software Architect Design Manager 3.0

	Design Reviewer	Design Manager
	For extended team members who need to access and collaborate on models and designs	For design practitioners using RSA or Rhapsody to create models and designs
View and search designs	✓	✓
Attach comments and markup	✓	✓
View designs in dependency diagram	✓	✓
View and create design links	✓	✓
Dashboards	✓	✓
Import designs directly from RSA or Rhapsody workspace		✓
Import designs from SCM		✓
Setup design reviews		✓
Create design baselines		✓

Links

RAD v8

http://www-01.ibm.com/software/awdtools/developer/application/features/index.html

http://www.redbooks.ibm.com/abstracts/sg247835.html?Open=_&cm_sp=MTE17848

RSA v8

http://www.ibm.con/software/awdtools/swarchitect/

Design Manager 3.5 M1 (Domain modeling)

http://youtu.be/9YIboUoBZwI?hd=1

www.ibm/software/rational

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