IBM Technical Summit 2013

Démarquez-vous

17 octobre | IBM Client Center Paris

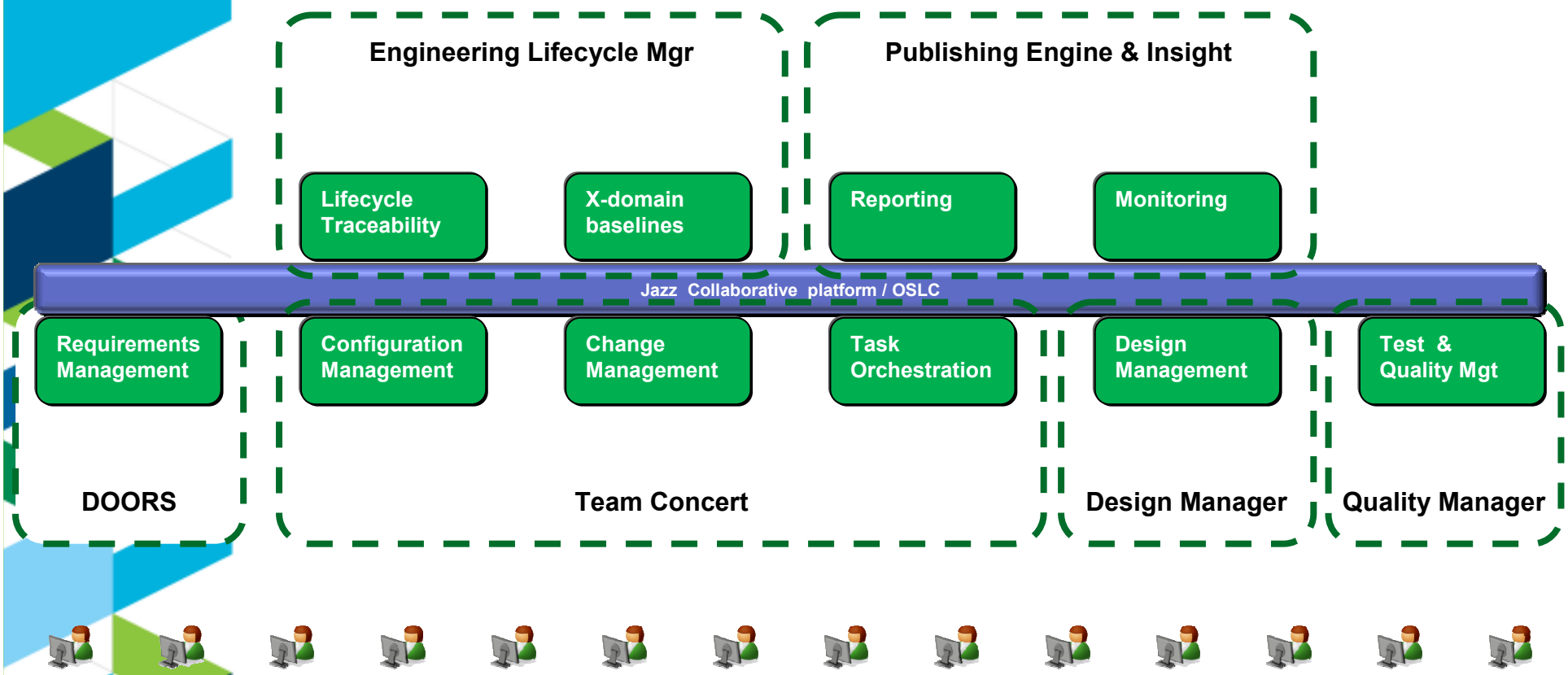
L'atelier d'Ingénierie Système et Logiciel Embarqué, nouveautés 2013

Charles-Henry JURD

European Solution Architect

IBM

SSE Jazz platform capabilities & tools



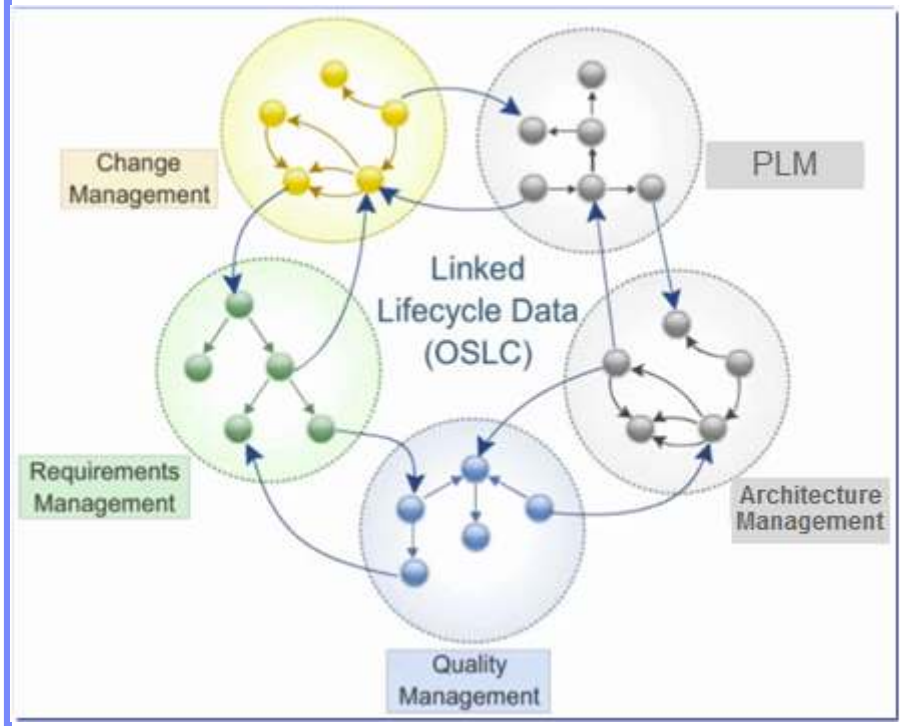
Market-driven standard-based platform integration

Open Services for Lifecycle Collaboration
Lifecycle integration inspired by the web

- Open Community – @ open-services.net
- Driven by OASIS open-standards consortium
- Open specifications for numerous disciplines
  - Including ALM, PLM, and DevOps
- Defined by scenarios
  - Solution oriented
- Inspired by the web
- Open world assumption – vs. rigid APIs approach
  - Web W3C Linked-Data approach
  - Internet Architecture
  - HTTP based RESTful protocols
- Decouple data from container
  - Unlock data from silo tools
- "Just enough" integration
  - Consume/Provide the necessary services
- IBM and EADS are part of the 22 founding members

W3C WORLD WIDE WEB consortium

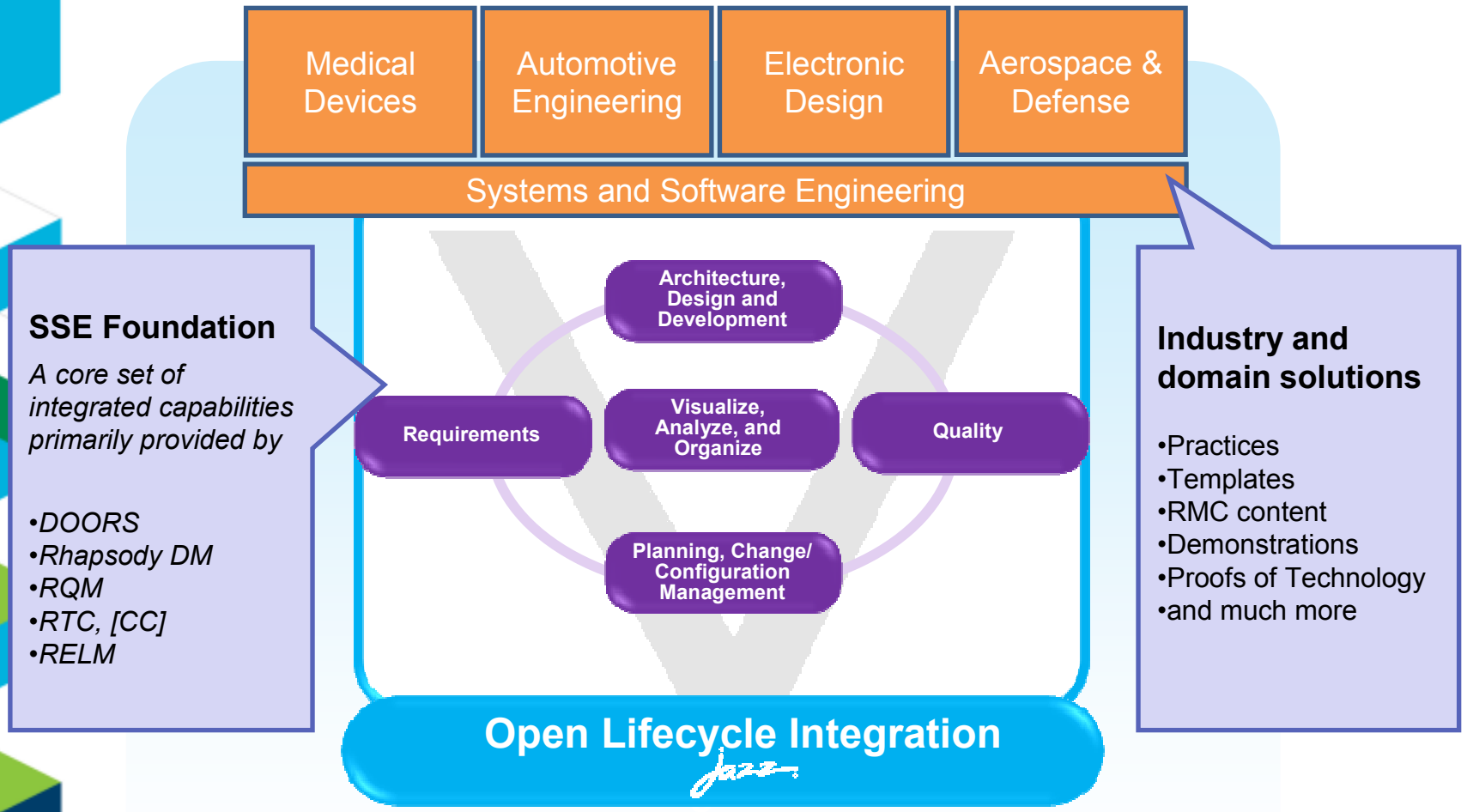
Linked Data Platform Working Group



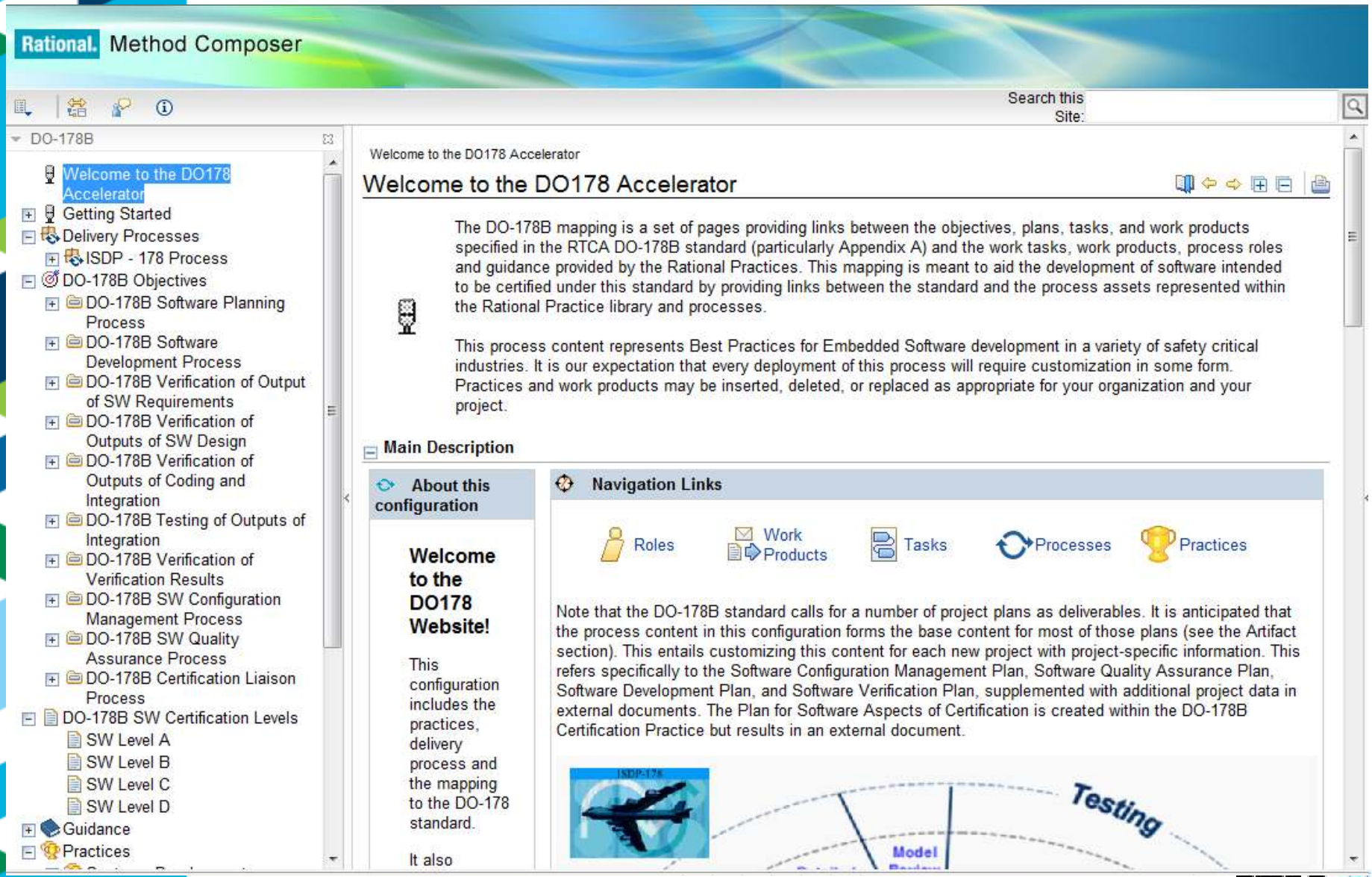
OASIS
Advancing open standards for the information society

OSLC Member Section IBM

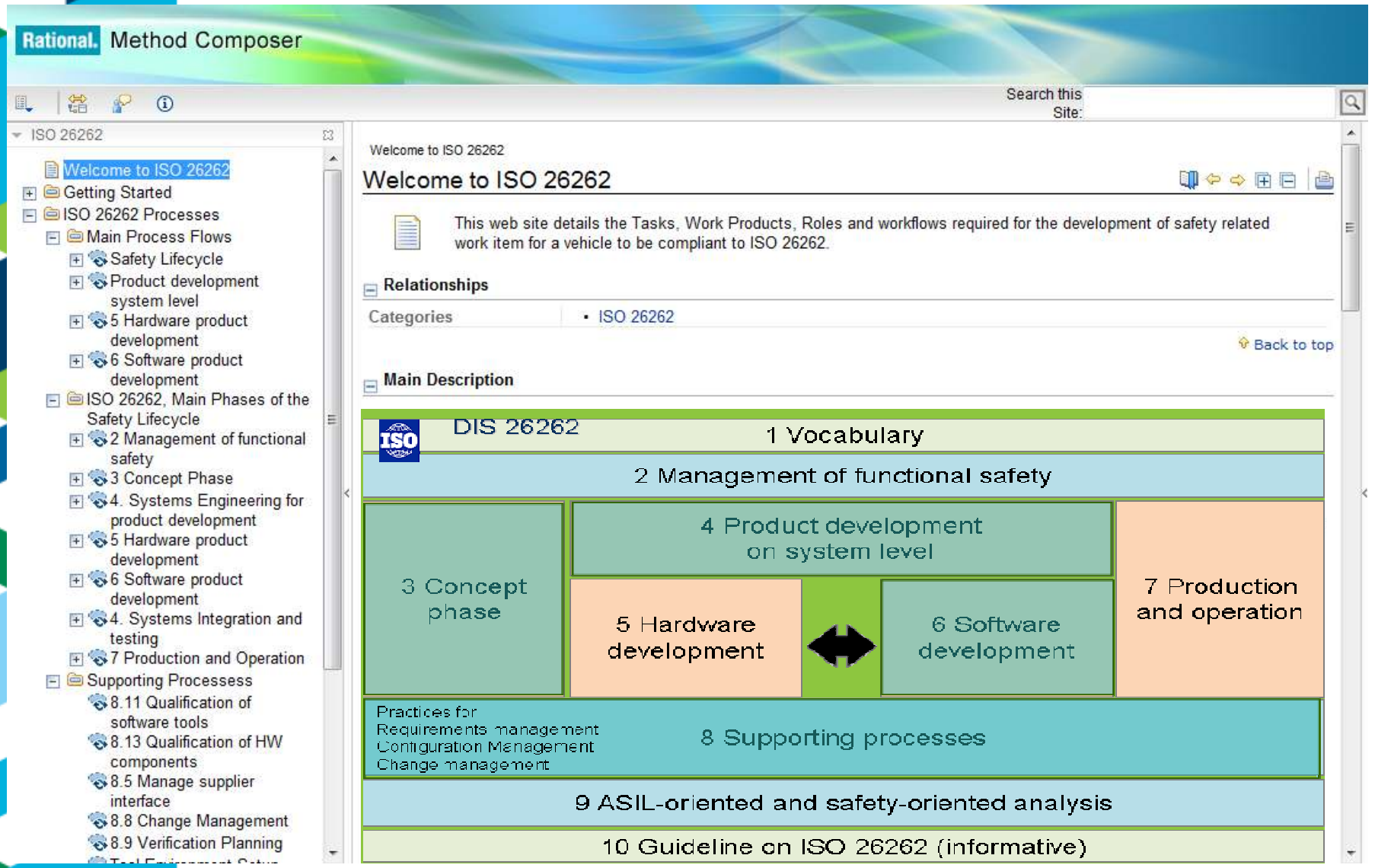
Systems & Software Engineering Accelerators



Support for DO-178B/C



Support for ISO 26262



IBM Rational DOORS Next Generation

DOORS concepts improved and much more….

Definition

NEW!

- Rich-text documents
- Diagrams: Process, Use Case
- Storyboards, UI sketching & flow
- Project glossaries
- Templates

Visibility

NEW!

- Customizable dashboards
- Analysis views
- Collections
- Milestone tracking & status

Collaboration

NEW!

- Review & Approval
- Discussions
- Email Notification

Management

Improved!

- Structure, Attributes/Types
- Traceability, Filtering, Tags
- Baselines, Change History
- Reuse (reqs & types)
- Reporting Metrics & Doc.

Lifecycle

NEW!

- Central requirements, test, & development repository
- Common administration and role-based user licensing
- Warehouse reporting

Planning

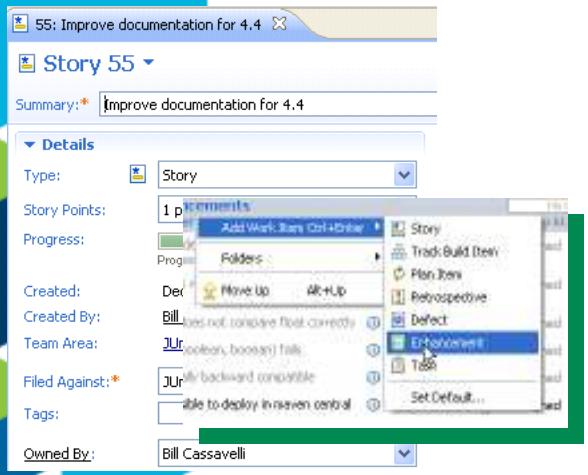
NEW!

- Integrated planning
- Effort estimation
- Task Management

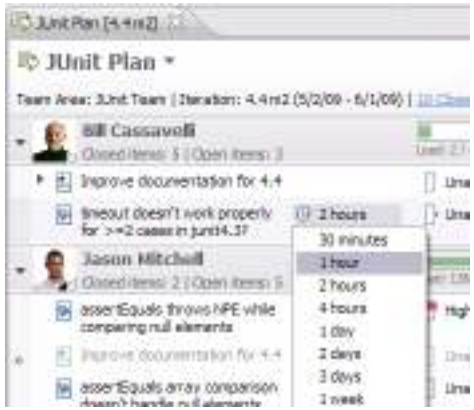
IBM

Rational Team Concert

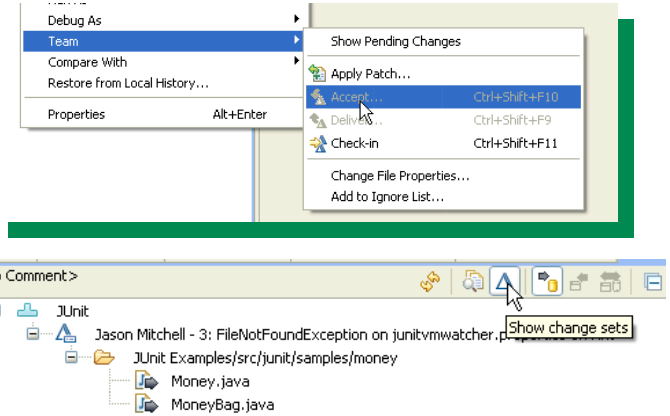
- Work Items



- Planning



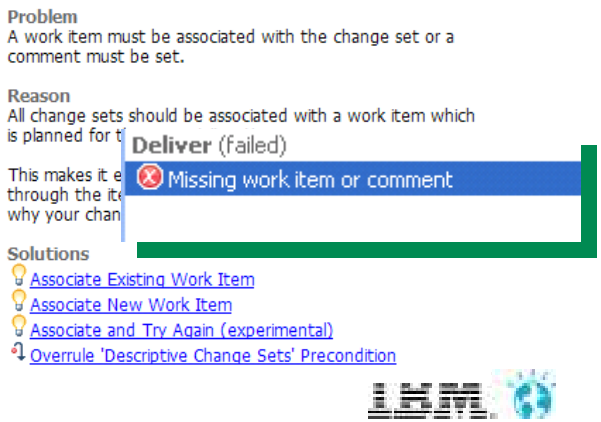
- Source Control



- Builds – Continuous Integration

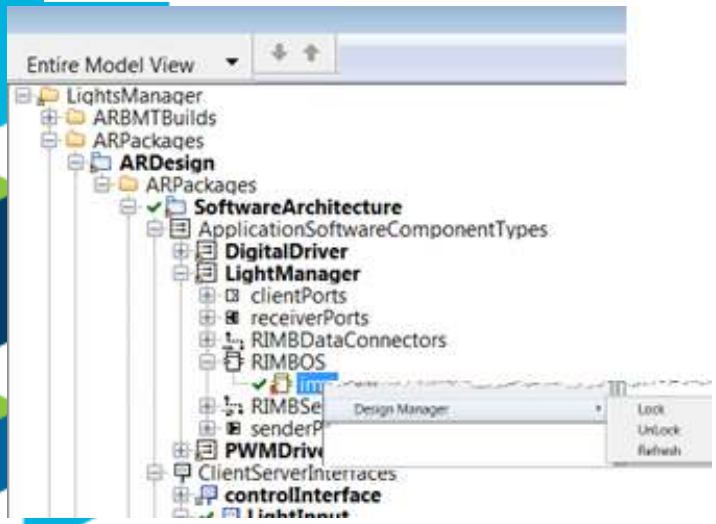
- Dashboards & Reporting

- Method Enforcement and Automation

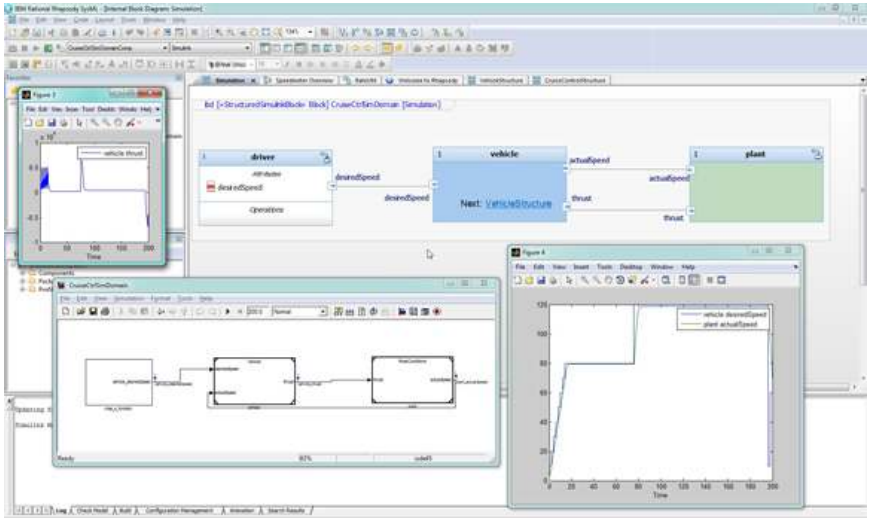


Rational Design Manager

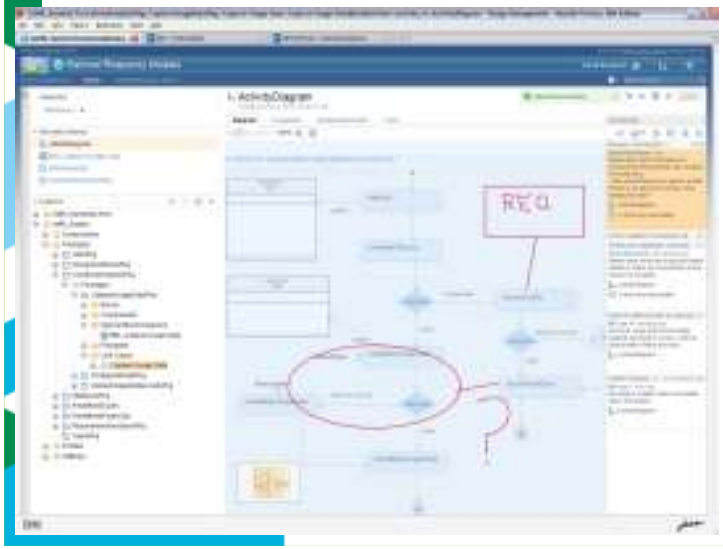
- Simplified Design Collaboration



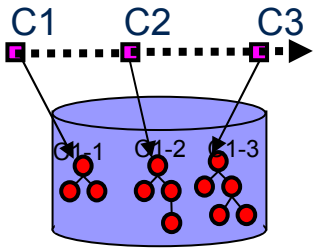
- Flexible Rhapsody & Simulink model management



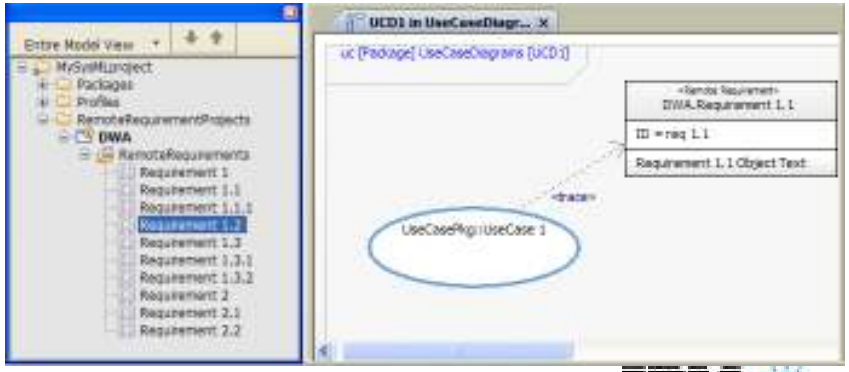
- Web-client for commenting & Reviewing



- Model Version & Variant Control

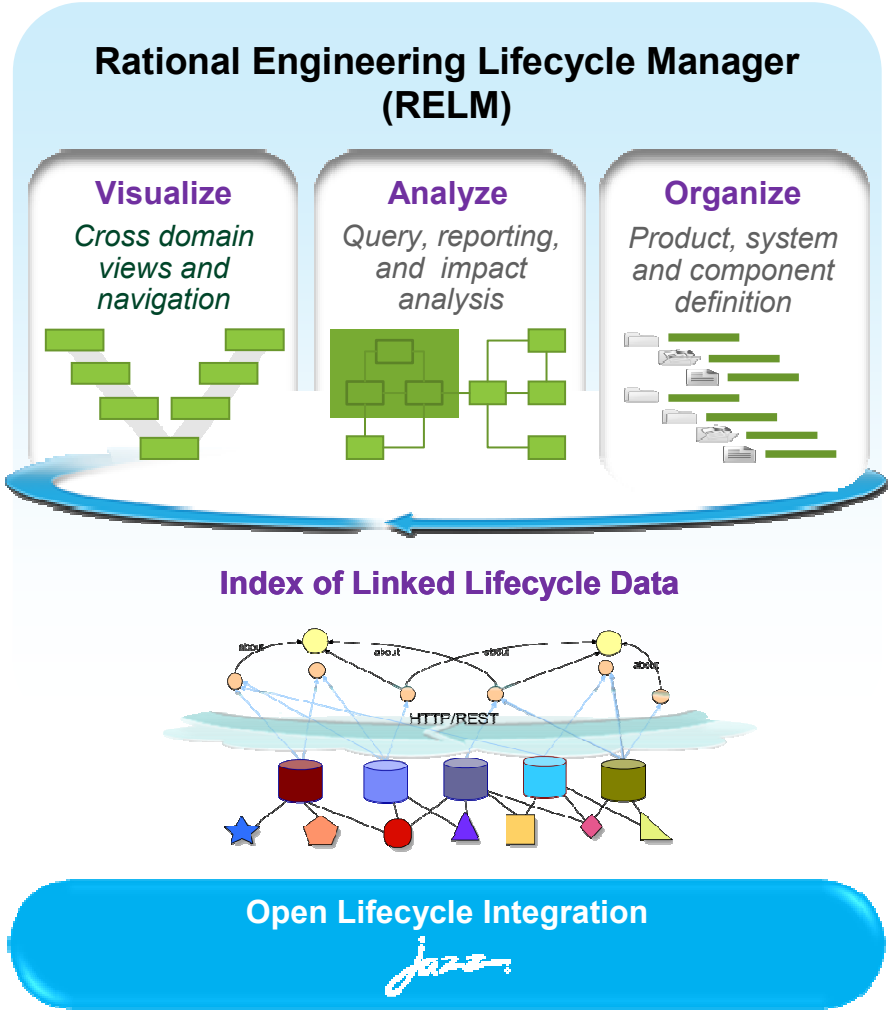


- Linking Designs to Requirements via OSLC



Rational Engineering Lifecycle Manager

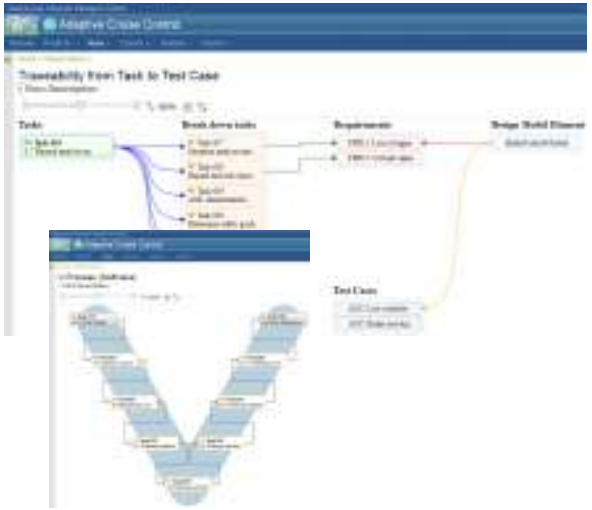
- **Leverages the Linked Data/Traceability to enable**
  - ***Visibility*** – cross-lifecycle queries & views
  - **Analysis** - answer questions using contextualized information
  - ***Organization*** – global configurations & product line engineering
- **Which allows engineering organizations to**
  - Manage growing data size and complexity
  - Find relevant information quickly
  - Determine and understand the impact of change
  - Make timely and correct engineering decisions
- **In order to**
  - Improve engineering agility
  - Increase innovative capacity
  - More easily achieve, maintain and demonstrate compliance to standards



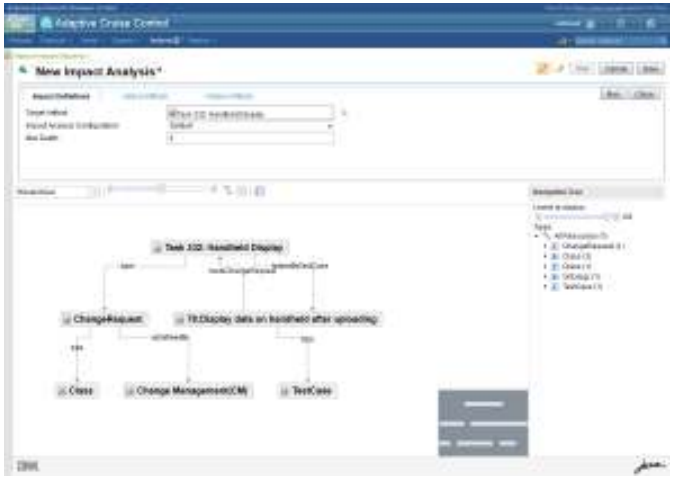
Rational Engineering Lifecycle Manager

- Search & Query

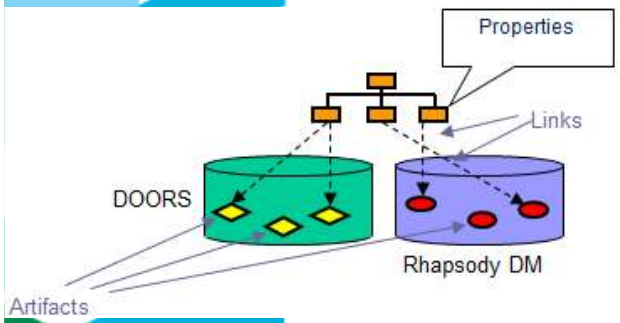
- Views & Navigation



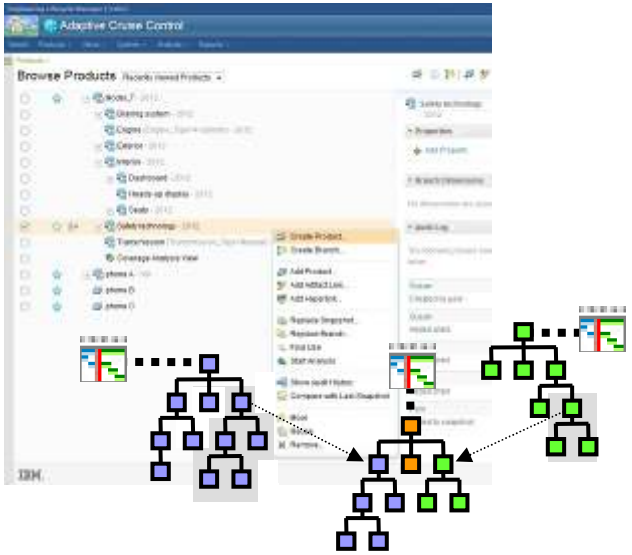
- Impact Analysis



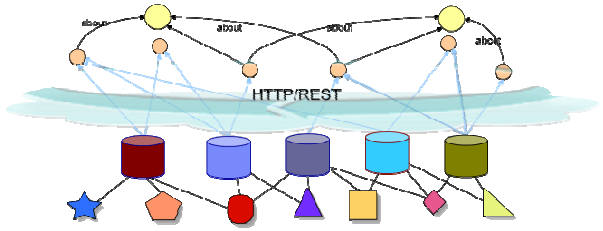
- Global CM



- Product Line Engineering

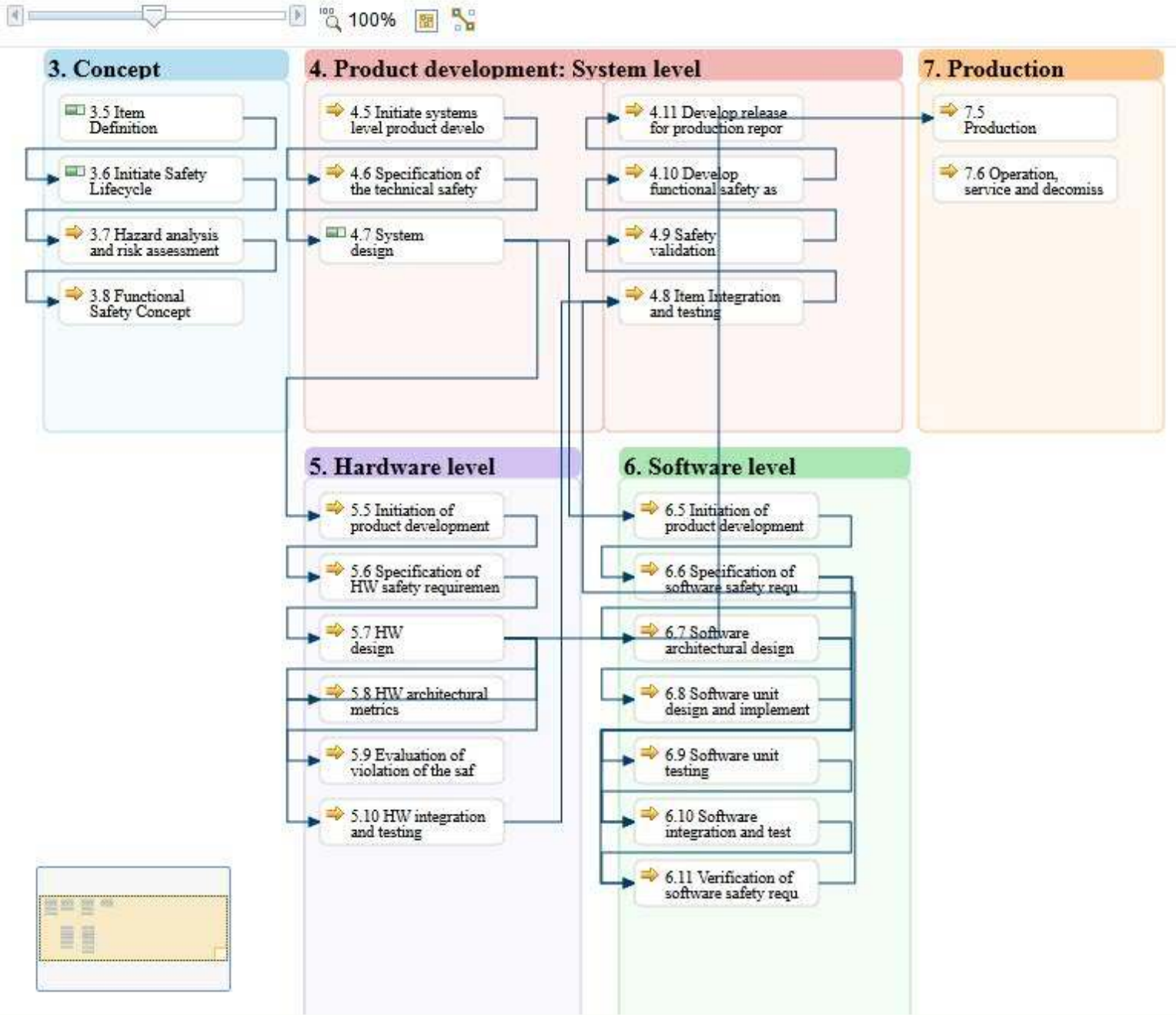


- Indexing of Lifecycle Data



ISO-26262 Overview

▸ View Description



DO178B/C Overview

View Description

70% Actions

Task 161
do178b_comp_sw_plan

Task 91
Software Development process objec

Task 92
Verification of Outputs of SW Requ

Task 93
Verification of Outputs of SW desi

Task 97
SW Configuration Management ASIL B

Task 98
Certification Liason Process ASIL

Task 99
SW Quality Assurace Process Object

Task 96
Verification of Verification Resul

task 95
Testing of Outputs of Integration

task 94
Verification of Output of Coding a

Top View of DO178B/C objectives

Status View

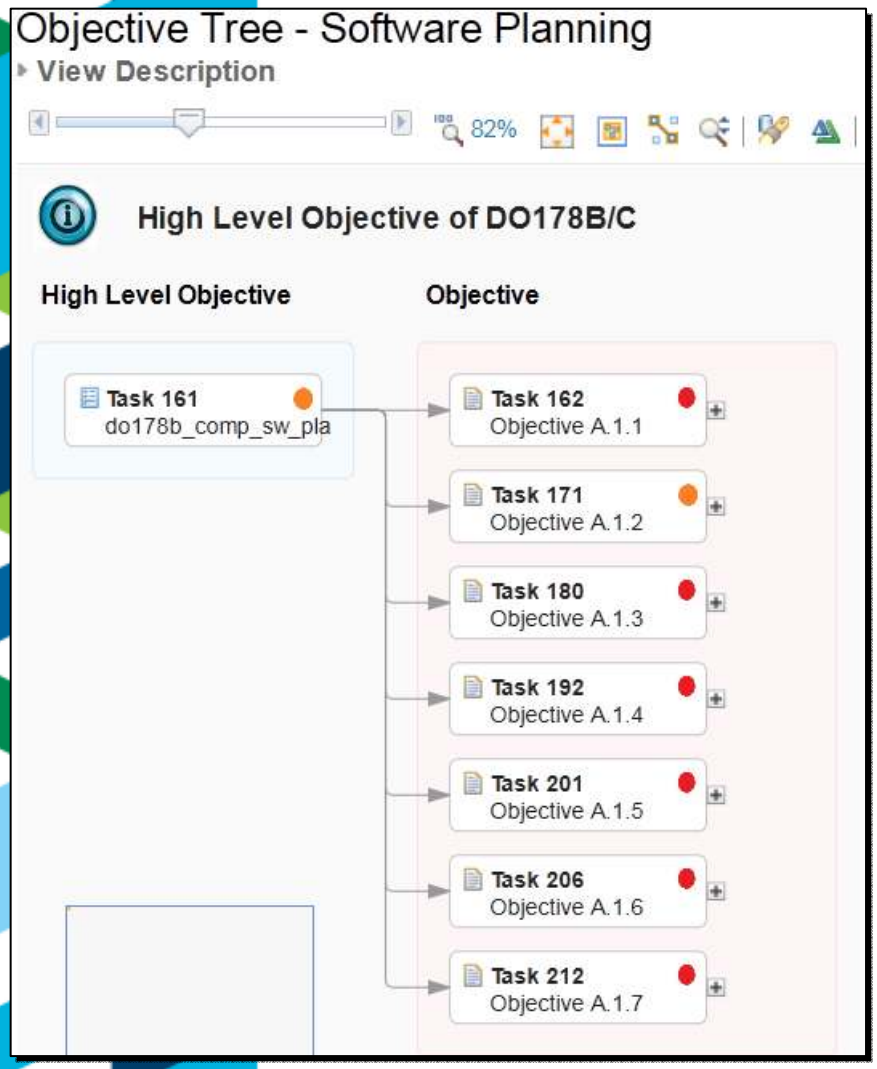
View Description

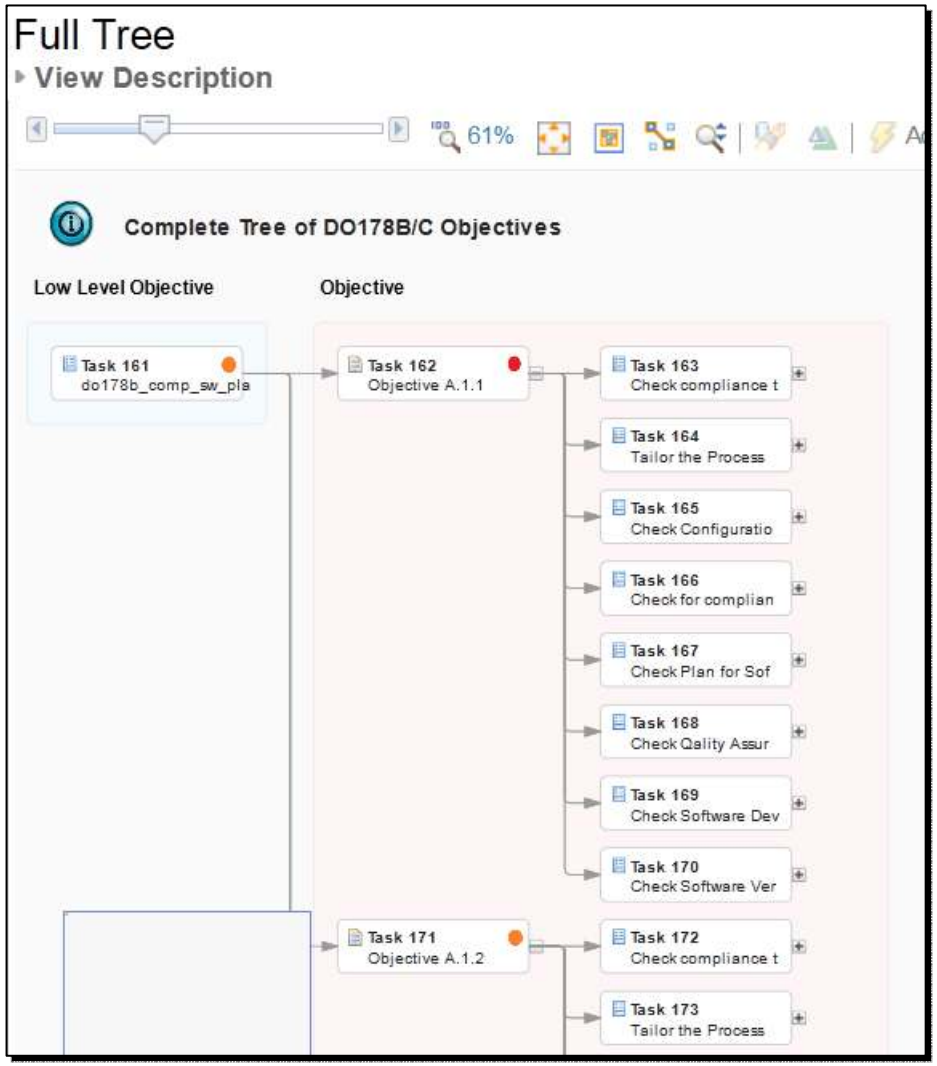
88% Actions

Objective Status	Percentage (%)	Objective Count
RED	88%	6
ORANGE	15%	1
GREEN	0%	0

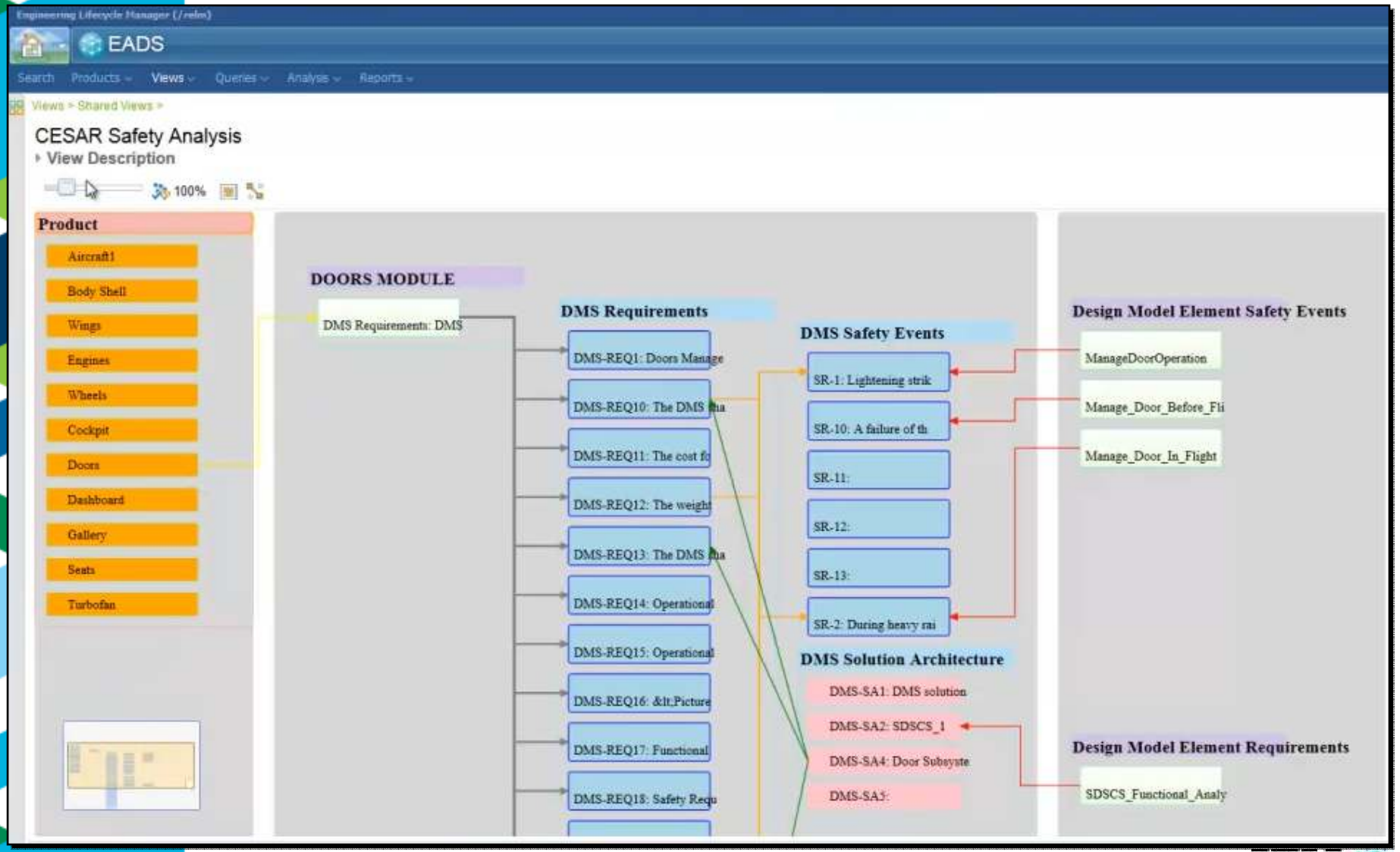
Status Report !!!

DO178B/C compliance views

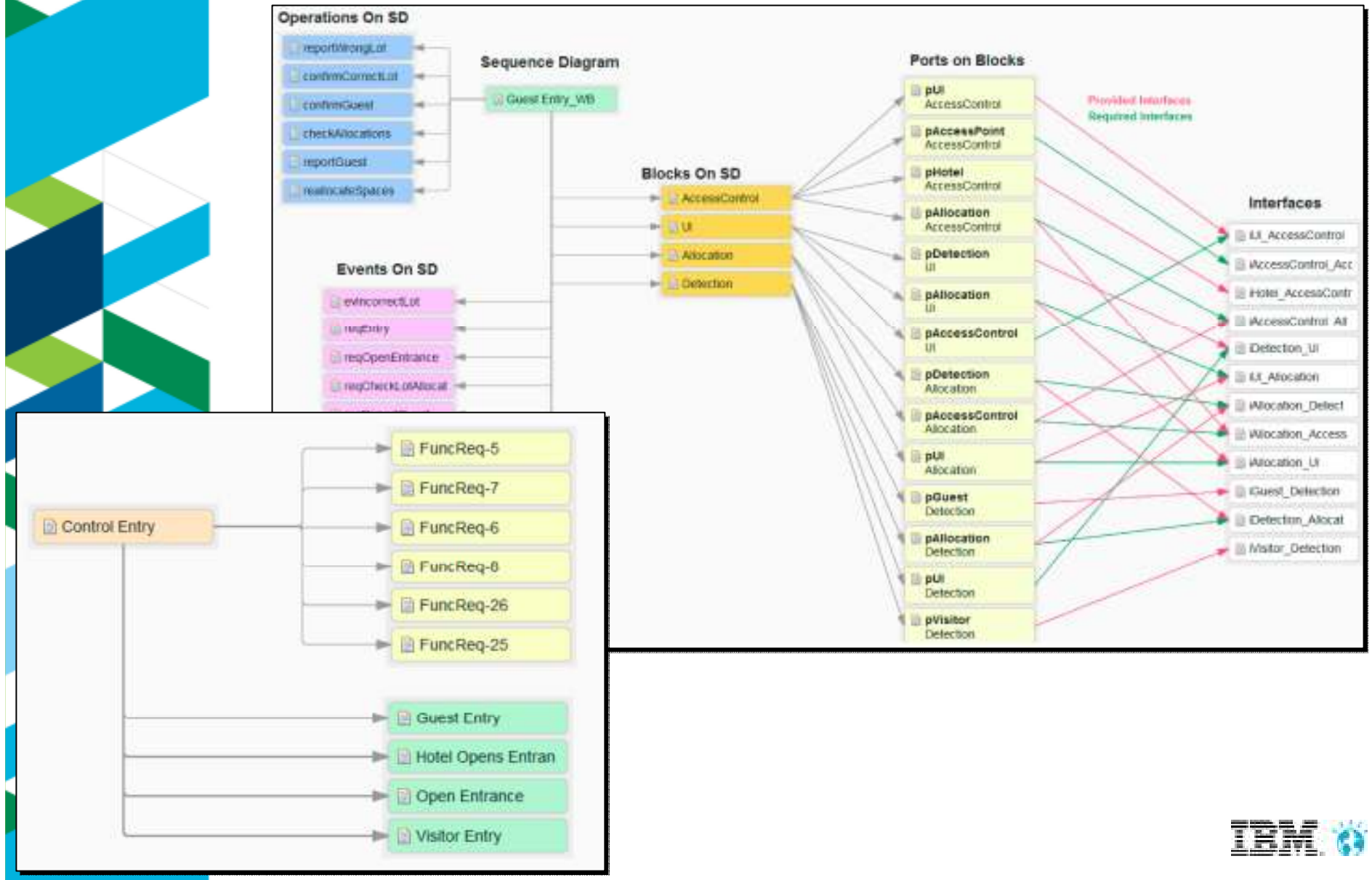




EADS Safety Critical Systems-Traceability



RELM Views of a Rhapsody model

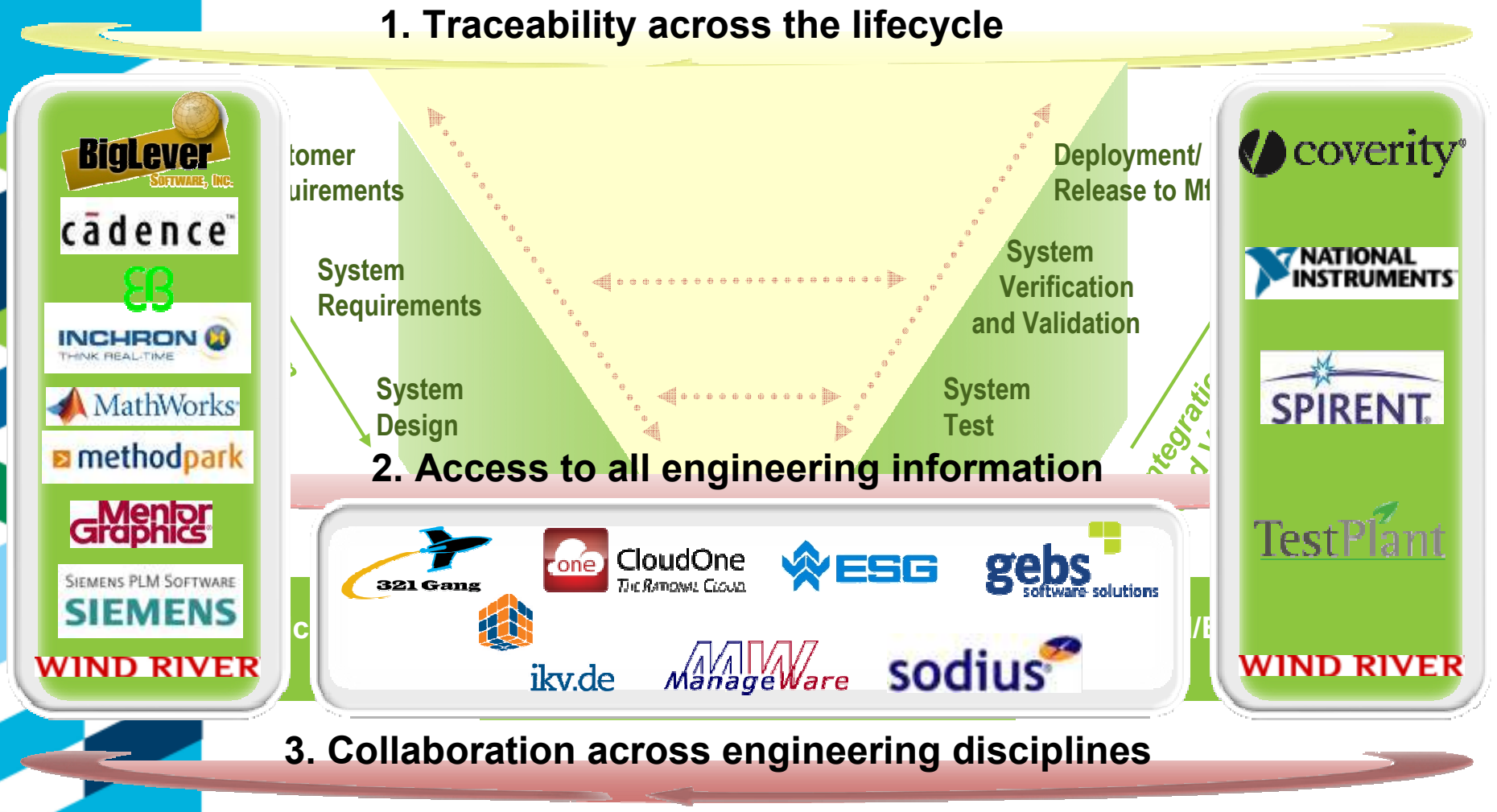


DEMO

Requirement-driven design update & verification

Collaboration Across Engineering Disciplines

Extend the collaboration ecosystem



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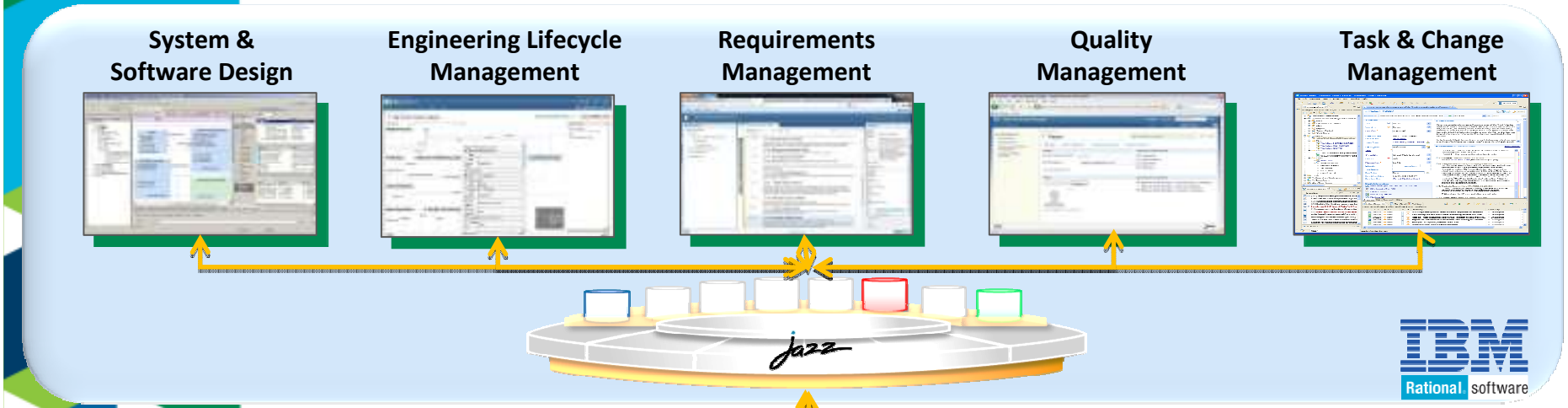
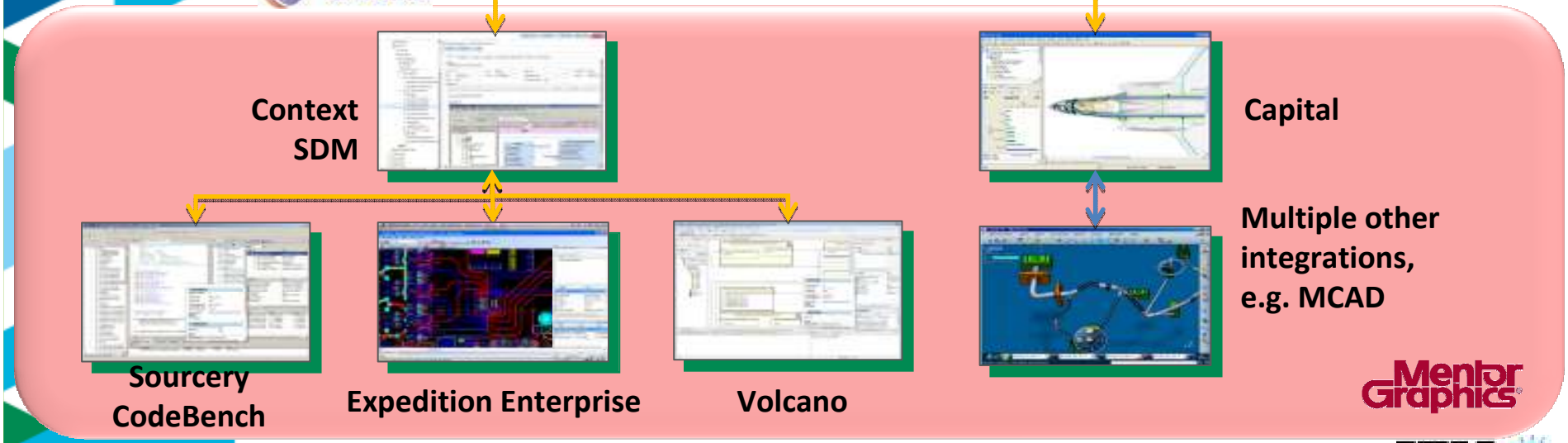
Connect across systems, software and electrical/electronic engineering



OSLC

OASIS



Connect across product development and test

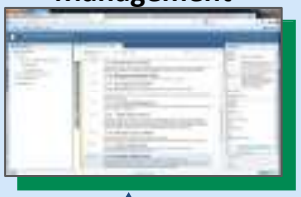
NATIONAL INSTRUMENTS

System & Software Design

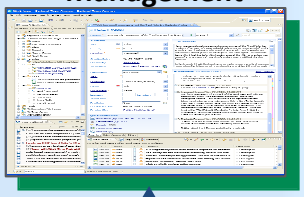
Engineering Lifecycle Management

Quality Management

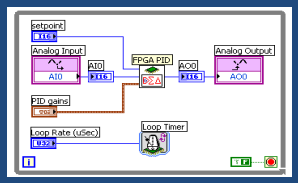
Requirements Management



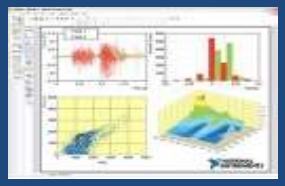
Task & Change Management



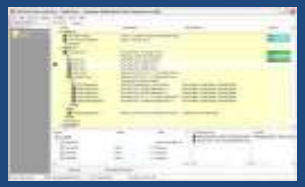
IBM Rational. software



Graphical Programming



Analysis and Reporting



Test Automation

Real-Time Testing

Enterprise Connectivity

Multi-Chassis Systems

PXI

NI CompactRIO

NI CompactDAQ

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http://www.ibm.com/software/fr/rational/

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