IBM Software

Innovate2012

The Premier Event for Software and Systems Innovation

Next NOW!

IBM Vision and Strategy for Requirements Management tools

Richard Crisp

Director Systems Engineering

DISCLAIMER

- *This presentation represents future product direction and strategy and is presented under terms of a Confidentiality Agreement.*

- *IBM's statements regarding its plans, directions, and intent are subject to change or withdrawal without notice at IBM's sole discretion. Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for our products remains at our sole discretion.*

- *Information is confidential and must not be shared or redistributed without permission from IBM.*

What does it take to build smarter products?

Connect multiple products and services into a *"system of systems"* to deliver unique value



Leverage *systems engineering* to accelerate time to market, improve quality and reduce costs

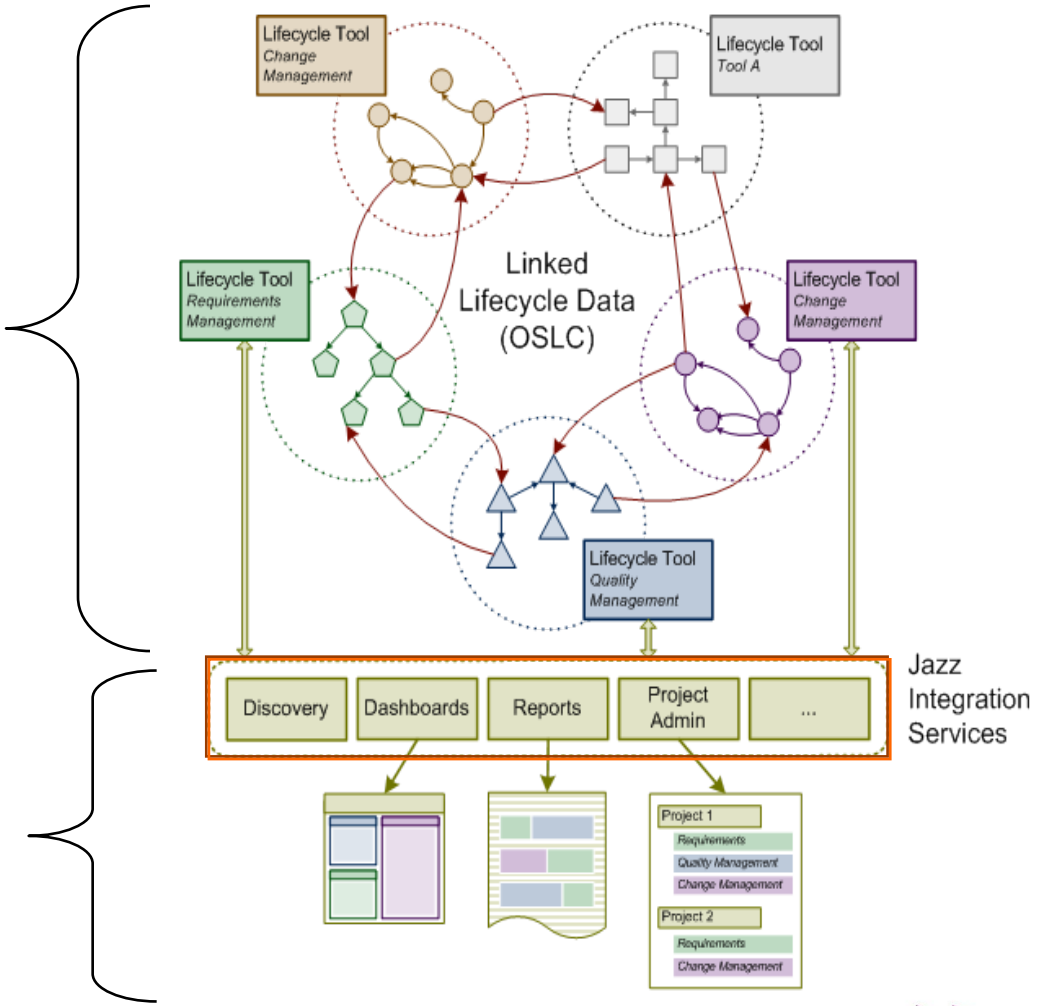



Develop a core competency in *software delivery* to produce products that are differentiated

OSLC – a New Standard for Cross-Domain Tool Integration

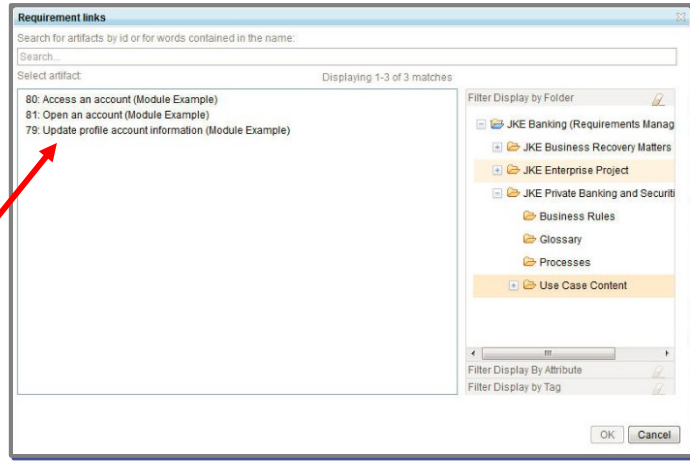
OSLC =
Open **S**ervices for
Lifecycle **C**ollaboration

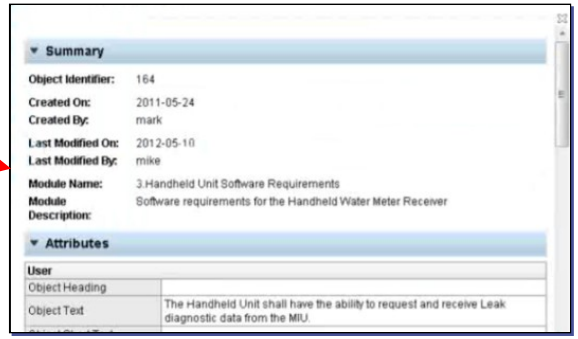
- **Linked Lifecycle Data (OSLC)**
  - Supporting a range of integration patterns
  - Sharing lifecycle resources
- **Jazz Integration Services & Protocols (Jazz Platform)**
  - Defining services for common capabilities like administration, reporting, dashboards, etc.

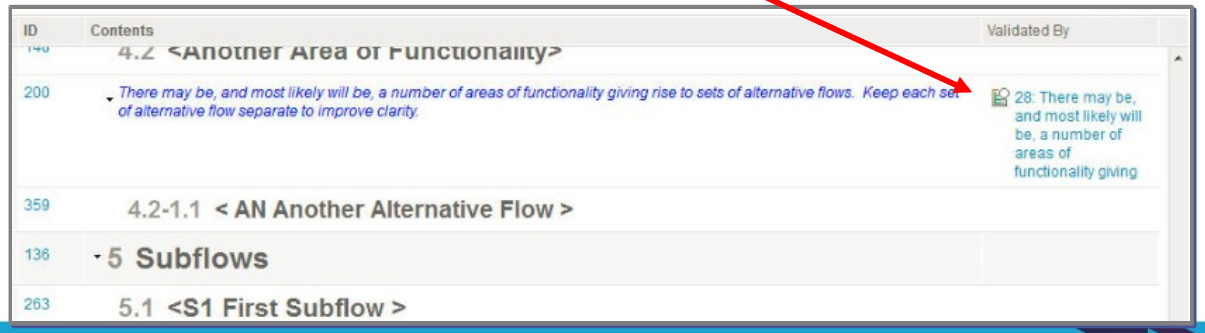


OSLC – Simplifying the integration landscape

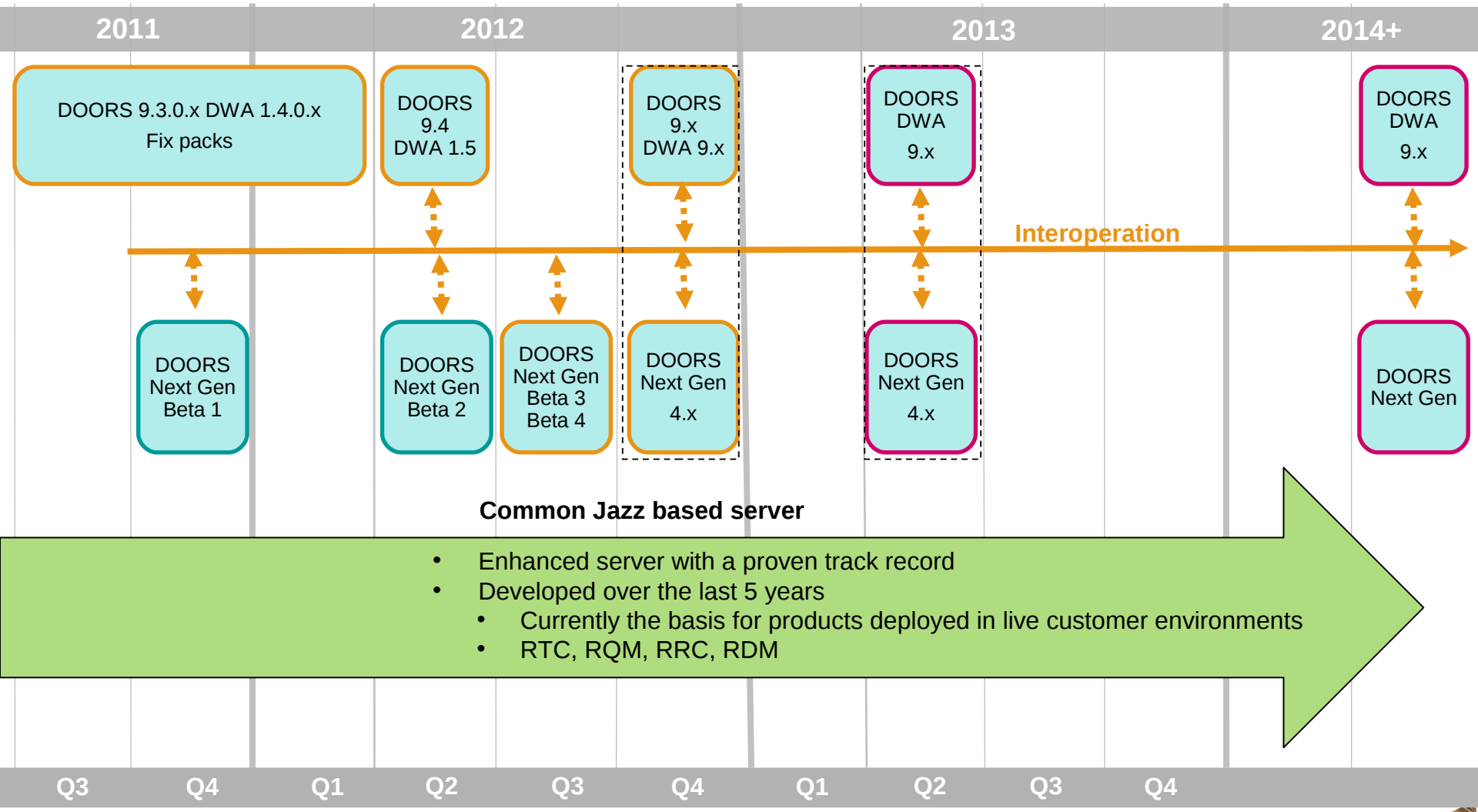
- OSLC provides a generic framework through which products can integrate together
- All IBM Rational Jazz based products use OSLC to integrate to each other
- Example operations include
  - Link to requirements from a different system without moving back to DOORS
  - See properties of requirements without moving back to DOORS
  - Trace columns to show impact analysis from requirements without moving to RQM





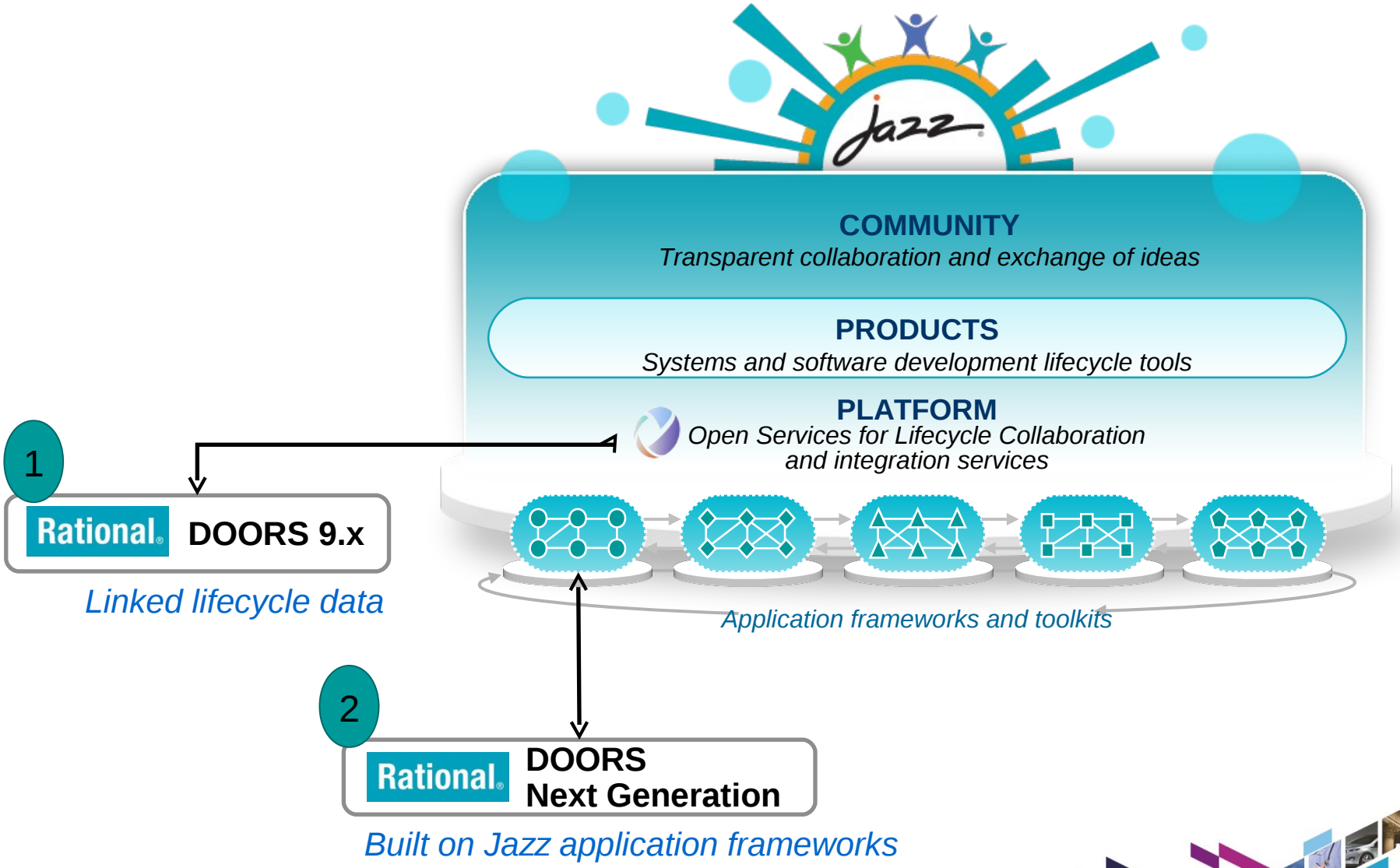


DOORS Roadmap



Future specifications subject to change

DOORS two-pronged strategy

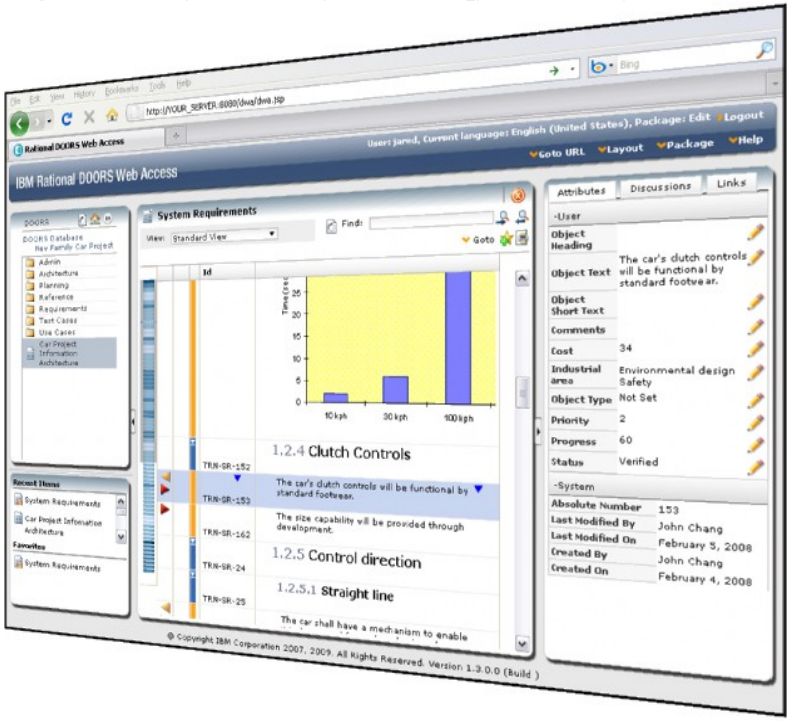


DOORS 9.x releases 2012

2011 | 2012 | 2013 | 2014 | 2015…

2Q12 DOORS 9.4

- Beginning to transition integrations from synchronization to linked lifecycle data
  - DOORS & RQM
  - Improved visibility of DOORS attributes
  - Invoke DXL using OSLC
  - Link between DOORS 9, DOORS Next Generation
- Upgrade RIF to the latest version of ReqIF
  - Data exchange: DOORS 9 and DOORS Next Generation
  - Improved support for your supply chain
- Security Enhancements
  - Move authentication / authorization to DOORS server
- Document generation
  - Run user-defined templates without an RPE license
- Usability Improvements
- DOORS – HP Quality Center v11

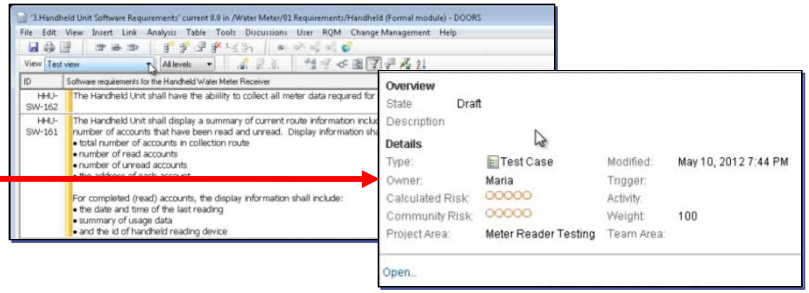


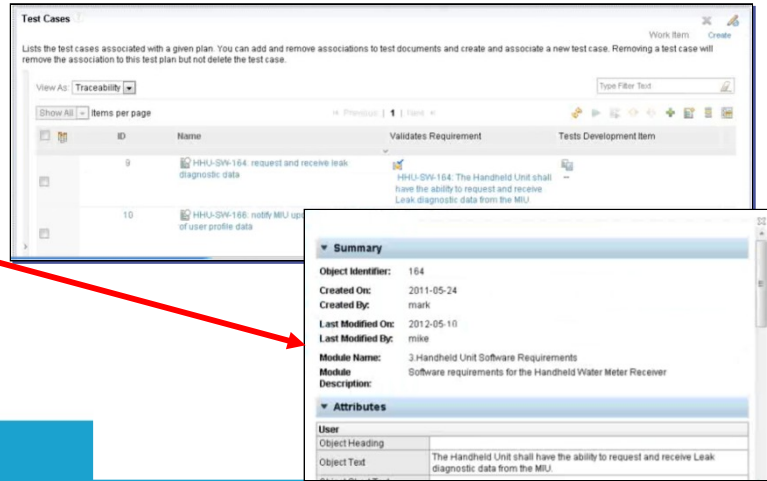
4Q12 DOORS 9.x

- DOORS – TFS 2010, DOORS – Rhapsody Design Manager
- IBM Rational DOORS Kit for ISO 26262 & IEC 61508
- Supporting the “Tracked Resource Set Protocol”, contributing data tor RELM

DOORS 9.4 integration to Rational Quality Manager 4.0

- DOORS user:
  - Specifies requirements needing to be tested
  - Monitors traceability to tests
  - Follows test reviews down into RQM
  - Evaluates test verdicts for release readiness
- RQM User:
  - Automatically creates draft tests based on new requirements
  - Reviews requirements information from within RQM
  - Follows requirements audit trail back to DOORS





Reporting
Document Generation and Dashboards

- Document generation using RRDG / RPE custom templates
  - Direct from the DOORS client without need for an RPE license
  - A full RPE installation is still needed where extended template capabilities are used – such as parameters
- A license is needed to create custom templates – but not to drive the reports

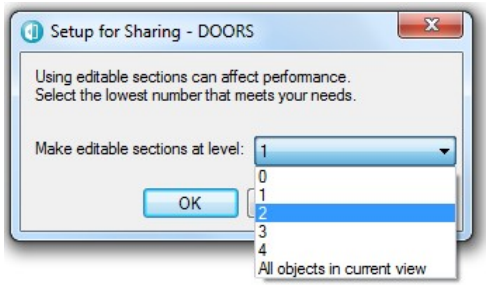
	DOORS 9.3	DOORS 9.x
Use Standard Templates	Built in	Built in
Use Custom Templates	License needed	Built in
Create Custom Templates	License needed	License needed

License Summary

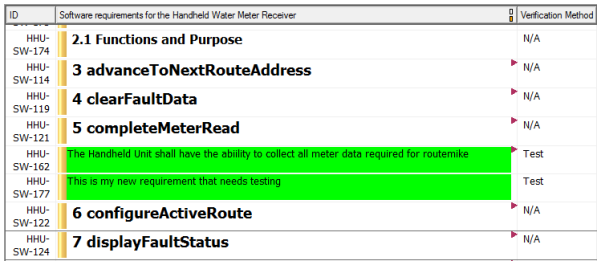
- DOORS to provide ETLs for Data Warehousing (Insight) – Expected in H2 2012
  - Support for project dashboards
  - Insight to monitor and report on project trends

Usability improvements

- Management of shareable edit mode improved
  - Stronger support to define and manage how multiple people can work on a module at the same time
  - Reset shared sections to a known state (select 0 in dialog)
  - Apply shared sections to all displayed objects in a view



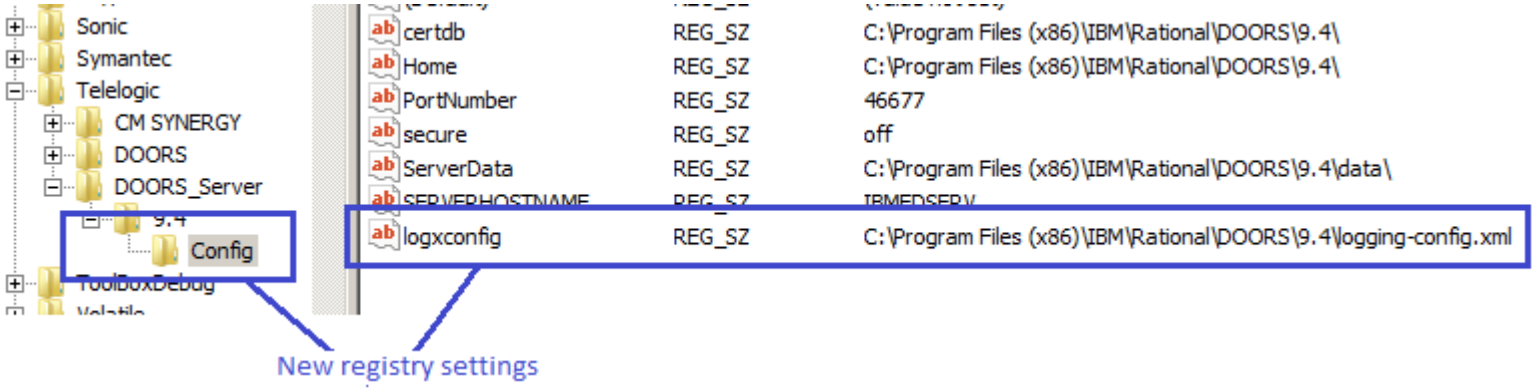
- Usability
  - Manage users dialog now expandable in size
- Excel
  - Support for rich text exporting to Excel



- Views
  - Extending colour by attribute
    - The ability to control background colour of an attribute (we can already set the foreground colour)
  - Importing attributes from a common place
  - Extend views to support 128 columns (extended from 32)
  - Enhanced view management to be able to remove multiple views in a single action
- Usability
  - Import multiple attributes from a different module in a single action

Serviceability – making DOORS easier to manage and support

- Enhancing the server side logging of DOORS to aid deployment and support
- Severity based multi level logging capability
  - TRACE < DEBUG < INFO < WARN < ERROR < FATAL
- Run-time configurable
  - Control around logfile maximum size and overall format
  - Disabled by default, sample configuration file provided with the installation
  - Logging can be activated by environment variable or command line parameter.




```
C:\Program Files (x86)\IBM\Rational\DOORS\9.4\bin>doorsd -start -logxconfig "C:\
Program Files (x86)\IBM\Rational\DOORS\9.4\logging-config.xml"
Starting DOORS DB Server 9.4
DOORS DB Server 9.4 started.
```

DOORS Web Access

- Open more than 4 modules at a time in a new tab control
- Electronic signatures
  - Used with module baselines to provide a secure way of reviewing and signing information
  - Provides a history of the users who have reviewed and signed the document, including timestamps and detailed information about access rights
  - Users cannot change any part of their signature after it has been submitted
  - Signatures are created in DOORS Web Access but still configured in DOORS
  - Signatures are created by opening a module baseline and selecting the relevant button on the module toolbar
  - Existing signatures can be viewed by selecting a module baseline in the Database Explorer
- The edit experience has been over-hauled to use a new set of graphical components
  - New edit control for rich text editing experience (same technology as RRC)
  - Ability to reset attribute values to default
  - Ability to filter enumeration values in corresponding editors
  - Editing of table cells can now be started directly from the module view

Future releases of DOORS 9.x – candidates

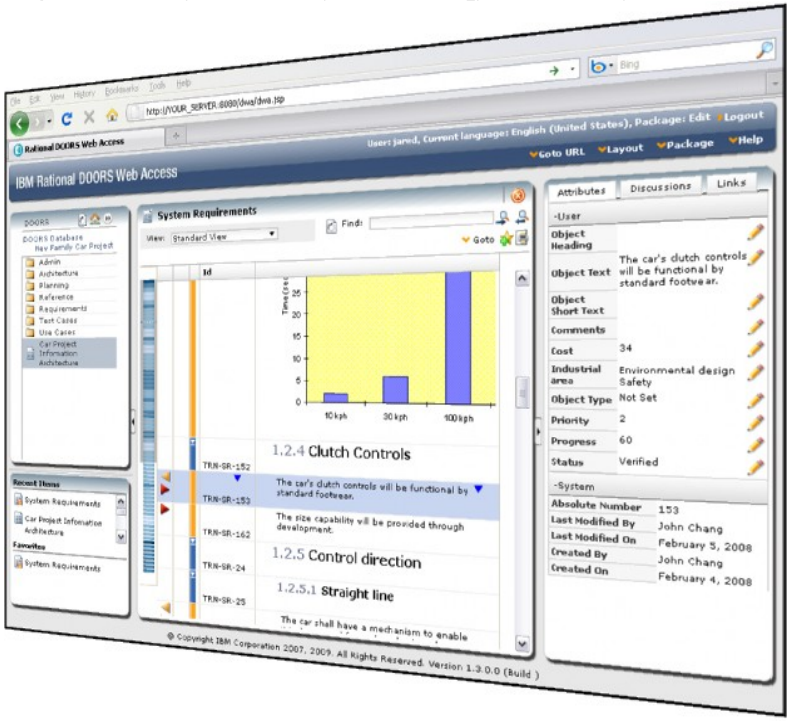
2011 | 2012 | 2013 | 2014 | 2015…

DOORS

- Usability Enhancements
  - Prioritized through the RFE community and other customer groups
- Reporting over system engineering metrics
  - Powered through Insight
- Database-wide query
- Richer OSLC Integrations
  - Linking to baselines
  - Rich hover to support views for attribute selection
  - Configuration options to define link types and direction
  - Support for baselines over lifecycle products
- Additional Integrations

DOORS Web Access

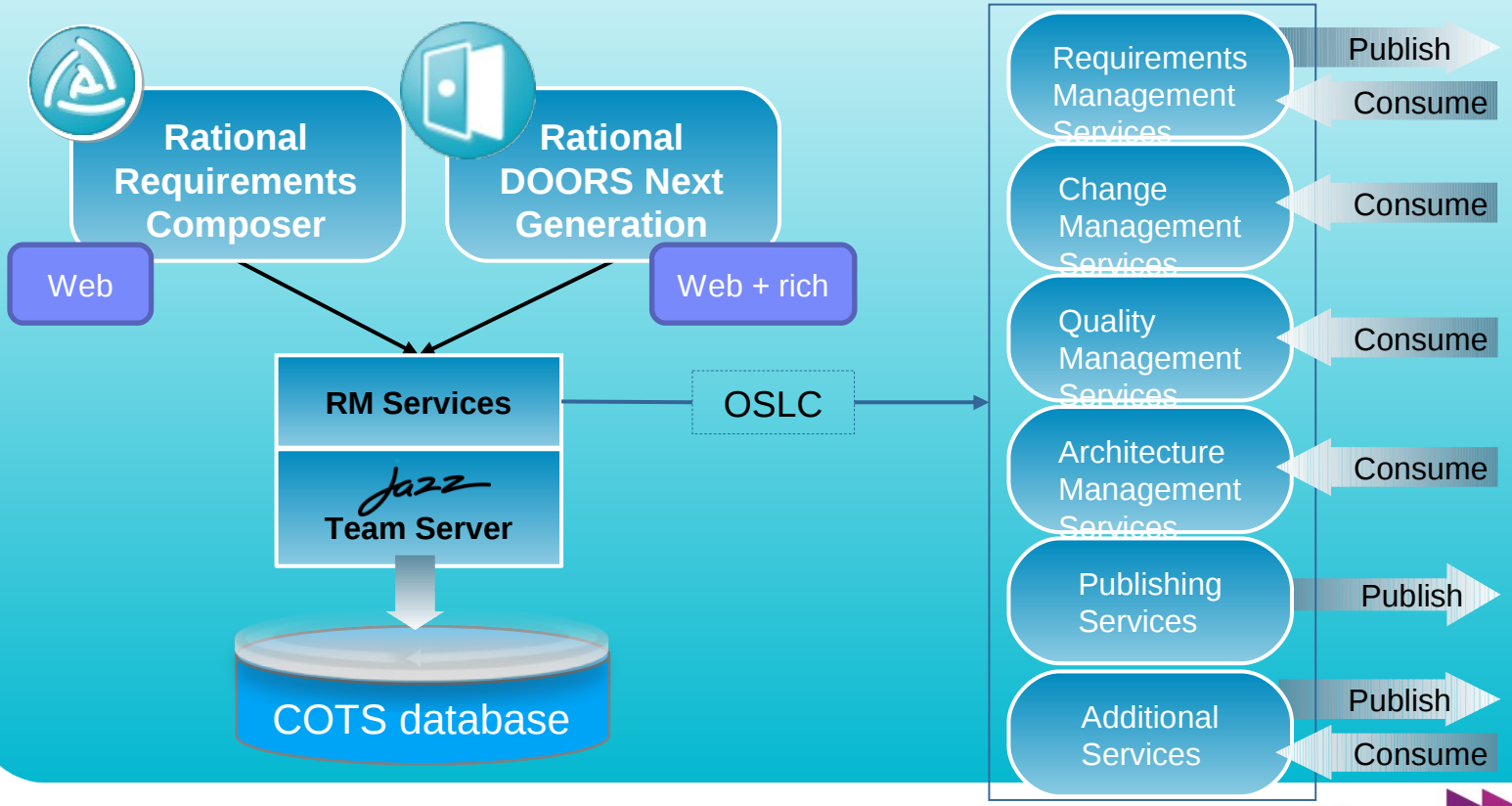
- Persistent user preferences
  - Panel docking, open last module, favourites
- Document generation



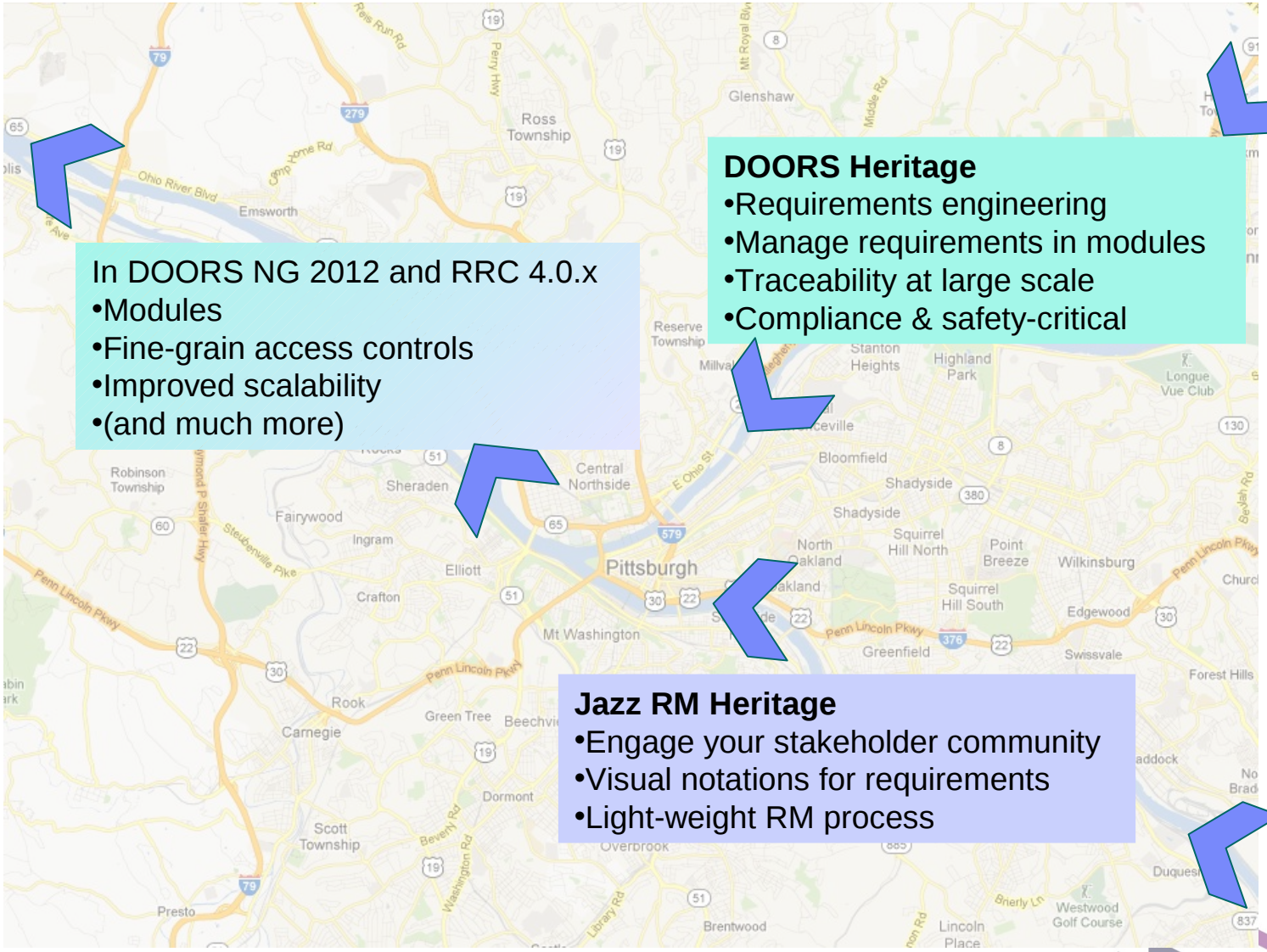
STATUS: Released Planned Conceptual

Two products from same technology base

- Requirements visibility and traceability across the lifecycle
- Open integration architecture built on the Jazz Team Server
- Integrations using Open Services for Lifecycle Collaboration (OSLC)



The confluence of two streams



DOORS Heritage
- Requirements engineering
- Manage requirements in modules
- Traceability at large scale
- Compliance & safety-critical

In DOORS NG 2012 and RRC 4.0.x
- Modules
- Fine-grain access controls
- Improved scalability
- (and much more)

Jazz RM Heritage
- Engage your stakeholder community
- Visual notations for requirements
- Light-weight RM process

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

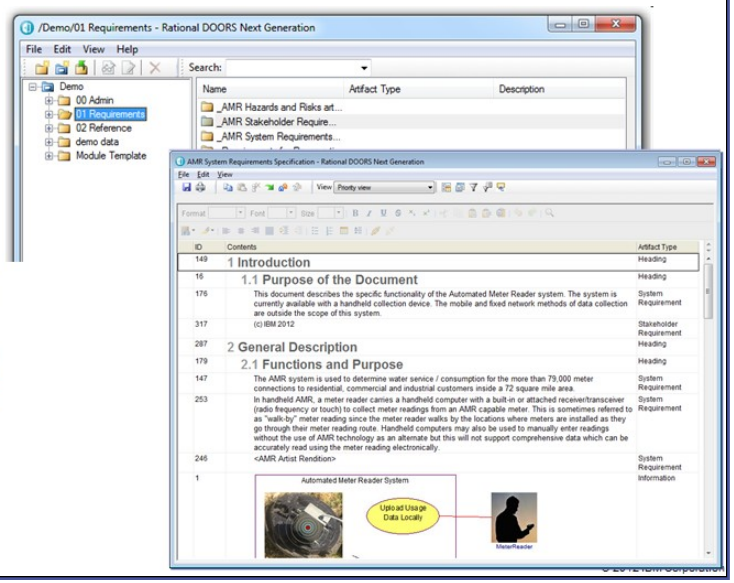
Planning

NEW!

- Integrated planning
- Effort estimation
- Task Management

Familiar rich client for existing DOORS users

DOORS NG module view (rich client)

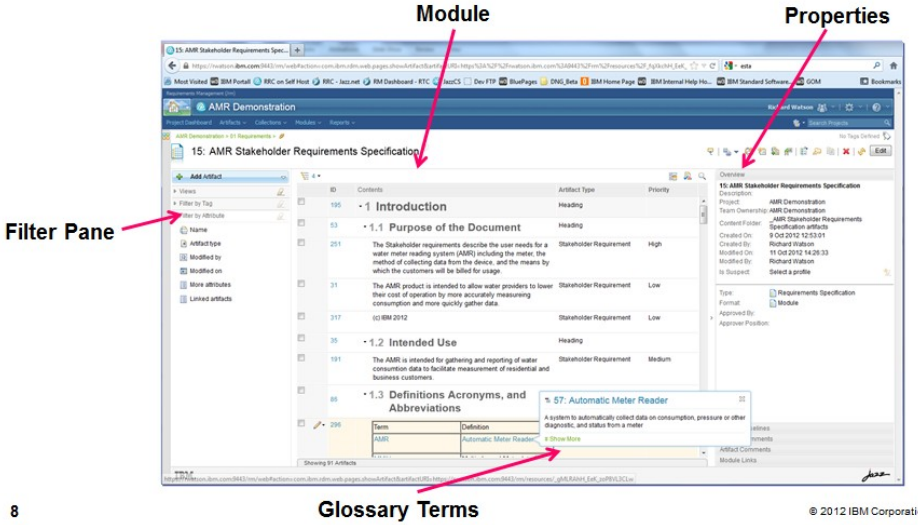


Familiar look and feel minimizes transition training for existing users

Fully functional web client

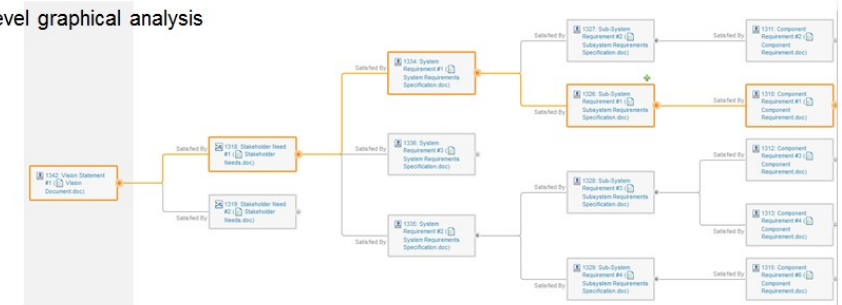
DOORS NG module view (web client)

Modern web look and feel minimizes adoption cost for new and casual users

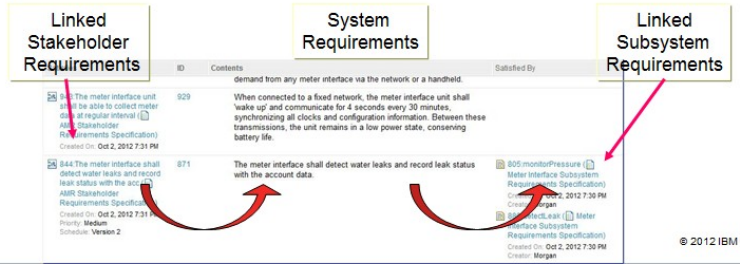


Traceability

- Multi-level graphical analysis

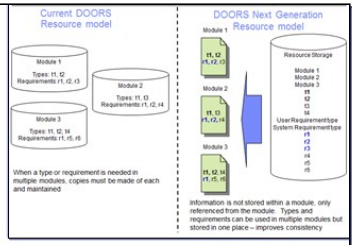


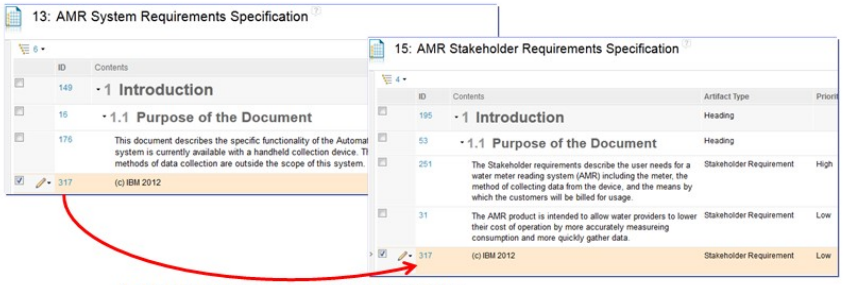
- Traceability views similar to DOORS



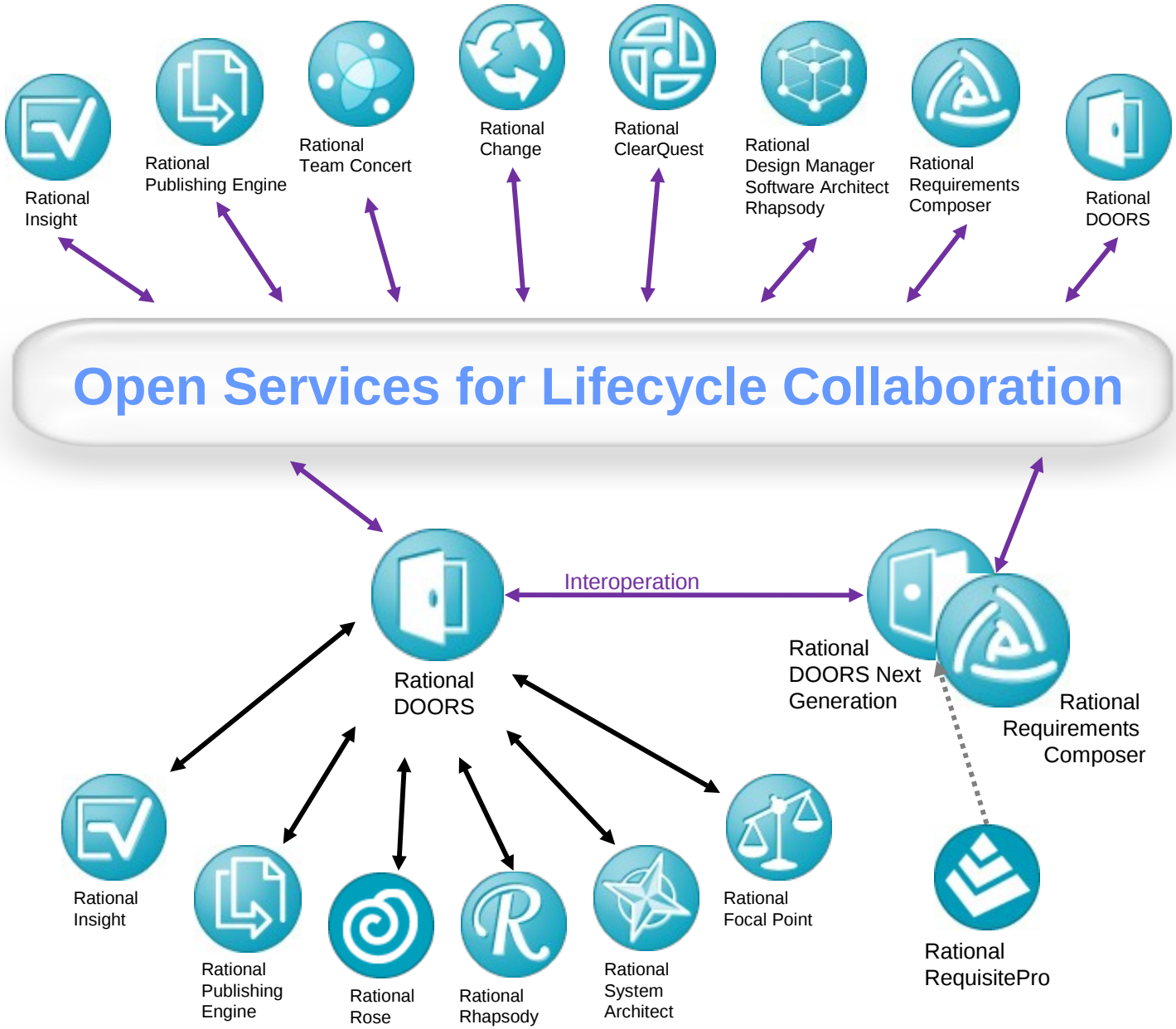
Requirements reuse

- Central store of requirements information
- Referenced by specifications
- Reuse on an individual basis
  - Or as part of a module template





Reusing the same requirements in multiple places



3rd Party tools

HP Quality Center

Microsoft Team Foundation Server

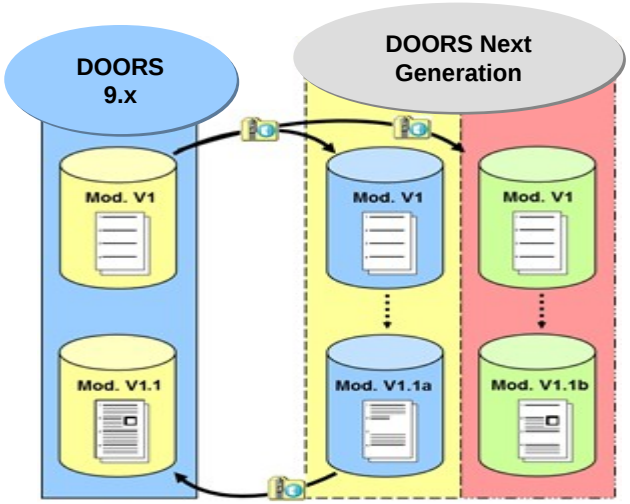
JIRA

iRise VISUALIZE. INNOVATE. DELIVER.

DOORS 9 and DOORS Next inter-operation scenarios under consideration

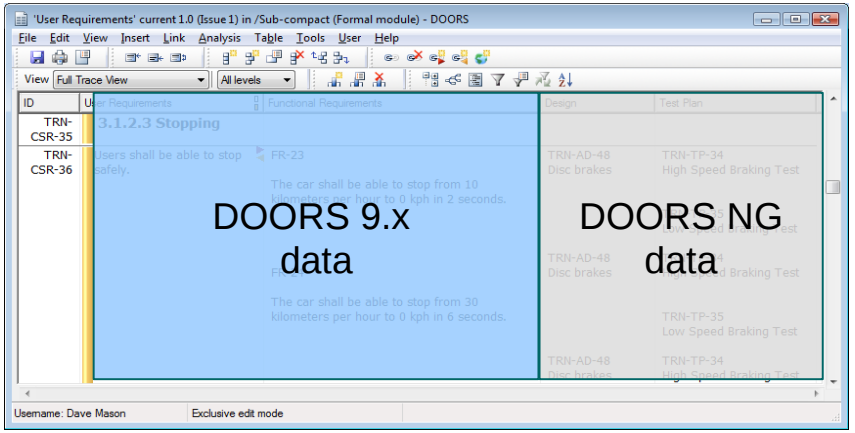
1. Offline data exchange

- Support import / export of ReqIF requirements data between DOORS 9.x and DOORS Next Generation.
- Support supply chain scenarios where downstream suppliers can use the DOORS Next Generation and exchange data with your DOORS 9.x projects.



2. Cross application linking and query

- Support linked data across DOORS 9.x and DOORS Next Generation projects.
- Rich hover and traceability columns supported in DOORS 9.x and DOORS Next generation



3. Cross application reporting and publishing

- Metrics reporting across DOORS 9.x and DOORS Next Generation via Rational Insight.
- Document generation across DOORS 9.x and DOORS Next. Generation via RPE

4. Dashboards

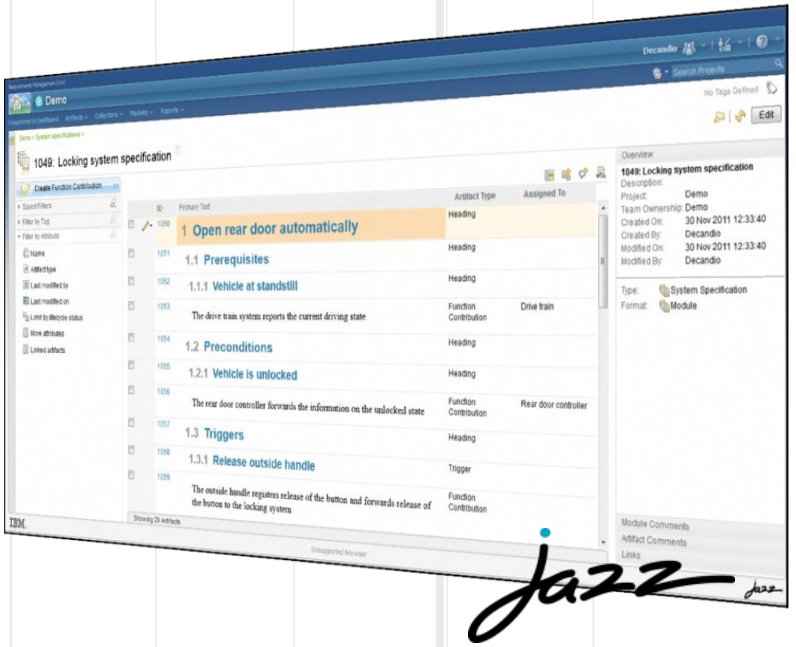
- View data from DOORS Next Generation and data in DOORS 9.x.

DOORS Next Generation candidates for the future

2011 | 2012 | 2013 | 2014 | 2015…

DOORS Next Generation

- Continued focus to bring the maturity of the rich client inline with the web client
- Structure reuse
- Requirements Configuration Management
  - Working on different versions of the same requirements in parallel
- ReqIF – Distributed locking of data
- Migration
  - Support for the controlled migration of DOORS 9 data including audit trail, history and access controls
- Configuration and Customization
  - Offering the ability to extend the product user interface
  - Applying process constraints over requirements data



Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4

21

Entitlement

- Protecting our customers investments
- Allowing customers to transition between DOORS and DOORS Next Generation
- The following **'Statement of Direction'** was made with the release of DOORS 9.4:

IBM intends to include next-generation capabilities as part of a future DOORS release.

For each DOORS license entitlement that has active Subscription and Support, a customer will be able to use either DOORS V9 or next-generation capabilities.

Adopt DOORS Next Generation at your own speed

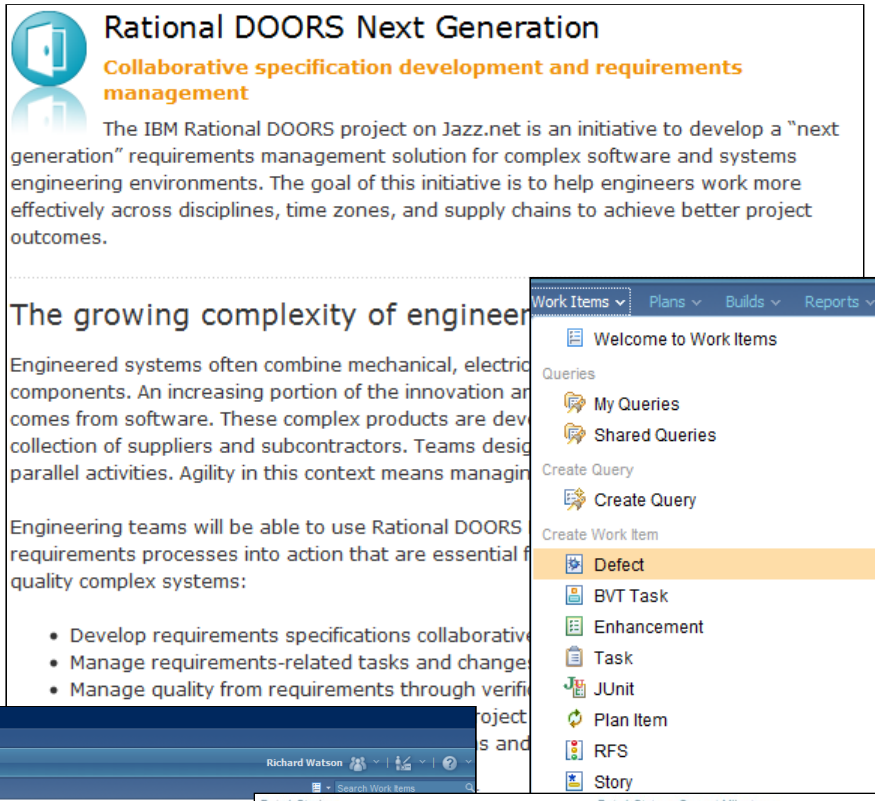
Both products can be used in parallel to ensure pragmatic low-risk stepwise migration

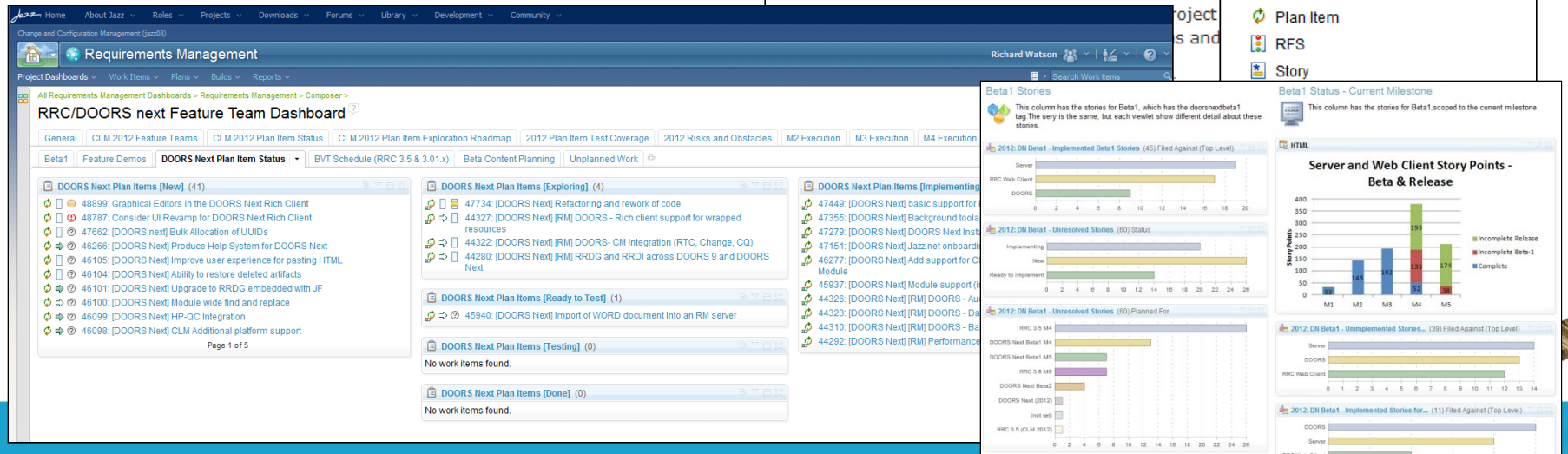
- Continue to work with DOORS and DWA
  - Initial version of DOORS Next Generation is not intended to replace existing DOORS 9 projects
  - DOORS 9 will continue to evolve in future releases
    - Releases planned for 2013, 2014 and further
- Use DOORS Next Generation with DOORS 9.x
  - “Recognizably DOORS” to aid adoption
  - Use DOORS Next Generation for new projects as it meets your needs
  - Data Import / Export between DOORS Next Generation and DOORS 9.x projects
  - Bi-directional linking between DOORS Next Generation and DOORS 9.x
- Use DOORS Next Generation for “white space” users who wish to use a new tool
  - Wish to see a single infrastructure over Jazz based products
  - Want a vibrant new user interface
  - Need to use facilities such as requirements reuse, not available in DOORS 9

DOORS Next Generation on Jazz.net

http://jazz.net

- Introducing DOORS Next Generation in an open forum
- Transparent development of DOORS Next Generation
  - Full details of product plans
  - Interact directly with developers
  - Explore a library of articles, videos, etc.
  - Get answers in the forums





25