#ibminterconnect

InnerCircle
Unlocking Engineering Knowledge

Impact Analysis

IBM

InterConnect 2015

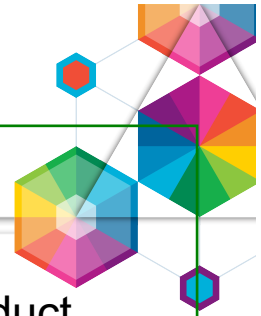
The Premier Cloud & Mobile Conference

February 22 – 26

MGM Grand & Mandalay Bay | Las Vegas, Nevada

© 2014 IBM Corporation

Please note



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.

Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput or performance that any user will experience will vary depending upon many factors, including considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve results similar to those stated here.

RESTRICTION ON DISCLOSURE AND USE OF DATA

- This presentation includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed -- in whole or in part -- for any purpose. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction is contained on pages marked: "IBM Confidential"
- The data in the pages of this presentation where so annotated contain trade secrets and commercial or financial information voluntarily submitted by IBM that are either specifically exempted from disclosure by statute or privileged or confidential within the meaning of the exemptions set forth in Section 552(b)(3) and (4), respectively, of the Freedom of Information Act, 5 U.S.C. 552, the disclosure of which could invoke the criminal sanctions of 18 U.S.C. 1905.

Acknowledgements and Disclaimers

Availability. References in this presentation to IBM products, programs, or services do not imply that they will be available in all countries in which IBM operates.

The workshops, sessions and materials have been prepared by IBM or the session speakers and reflect their own views. They are provided for informational purposes only, and are neither intended to, nor shall have the effect of being, legal or other guidance or advice to any participant. While efforts were made to verify the completeness and accuracy of the information contained in this presentation, it is provided AS-IS without warranty of any kind, express or implied. IBM shall not be responsible for any damages arising out of the use of, or otherwise related to, this presentation or any other materials. Nothing contained in this presentation is intended to, nor shall have the effect of, creating any warranties or representations from IBM or its suppliers or licensors, or altering the terms and conditions of the applicable license agreement governing the use of IBM software.

All customer examples described are presented as illustrations of how those customers have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics may vary by customer. Nothing contained in these materials is intended to, nor shall have the effect of, stating or implying that any activities undertaken by you will result in any specific sales, revenue growth or other results.

© Copyright IBM Corporation 2015. All rights reserved.

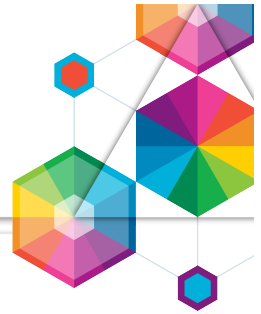
- ***U.S. Government Users Restricted Rights - Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.***

IBM, the IBM logo, ibm.com, Interconnect, Rational and DOORS are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at “Copyright and trademark information” at www.ibm.com/legal/copytrade.shtml

Other company, product, or service names may be trademarks or service marks of others.

- REMINDER: Please follow the guidelines for copying third party materials. Third party screen shots, logos, presentations and website content are copyrighted materials owned by the third party, and as such we need permission from the third party to use them. Also, be sure the information you put on a chart is verifiable. Be sure to cite the source on your deck when using words, ideas, facts, photos, news clips or other expression that did not originate from yourself. This applies even if the content is publicly available and not confidential. If you have any questions, please contact your IP Attorney.

Impact Analysis



- The IBM solution for Continuous Engineering delivers rich capabilities for impact analysis

- We are continuing to invest in capabilities for analyzing engineering relationships and impact from change across the design lifecycle
- And we are seeking ways to make use of these capabilities easier by
  - Removing tool boundaries
  - Enabling collaboration in the I/A process
  - Simplifying building and using tabular and diagram report views
  - Simplifying building and using visual views

- In this session we would like to broaden the discussion on Analysis and understand your needs
  - Introduce Impact Analysis and exemplify current tool capabilities (20 min)
  - Round-table breakout w/ discussions on your needs for I/A (40 min)
  - Breakout summary and conclusions (45 min)

Capabilities for Impact Analysis

Origins of impact

- Changing requirements
- Enhancements
- Defects

- Release plans

Impact Analysis

- Impacted requirements and use-cases
- Impacted design and implementation
- Impacted streams and baselines

Tool capabilities

- Artifact traceability
- Dependency diagrams
- Suspects analysis
- Tracking impact
- Find use and delivered change-sets
- Estimates and risks
- Plans and Tasks

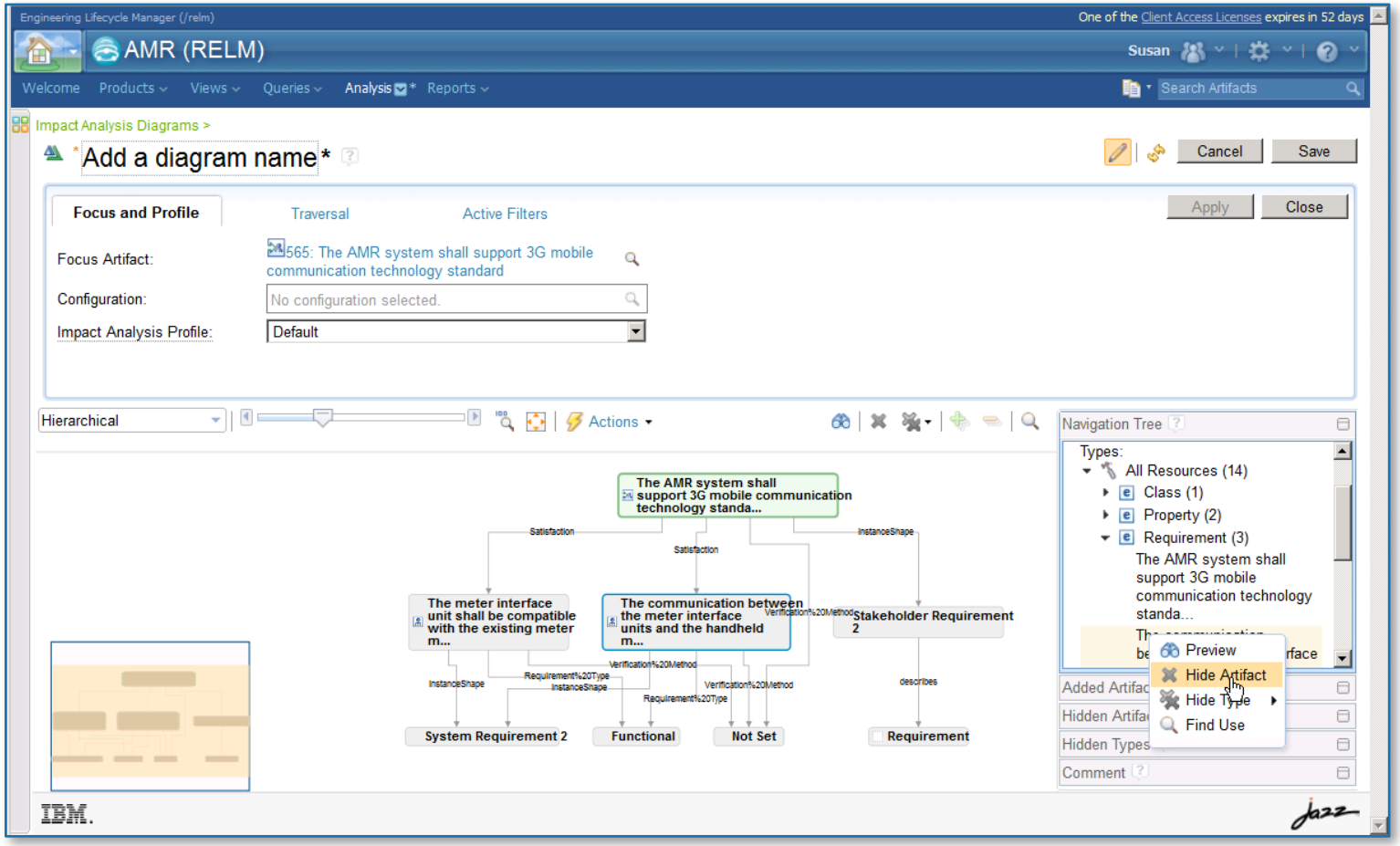
Outcome of analysis

- Scope of change
- Reports on impacted artifacts
- Change approvals

- Collaboration
- Report on change history
- Audits and Compliance documents

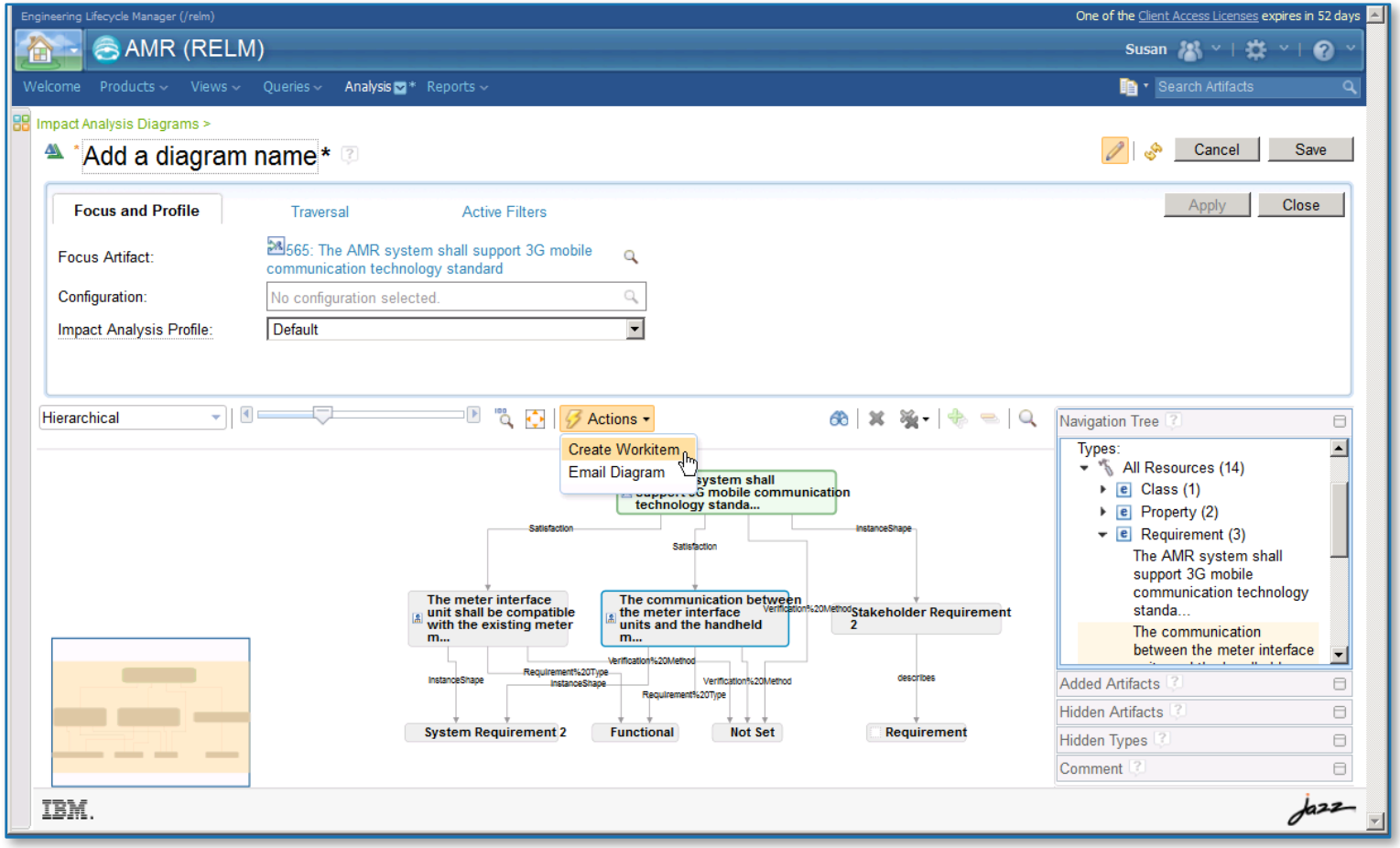
Visualizing Traceability – Impact Analysis views

- Impact Analysis diagrams in RELM based on indexed data
- Define profiles for impact analysis
- Interactive usage. Set artifact focus – Filter artifact types - Hide artifacts



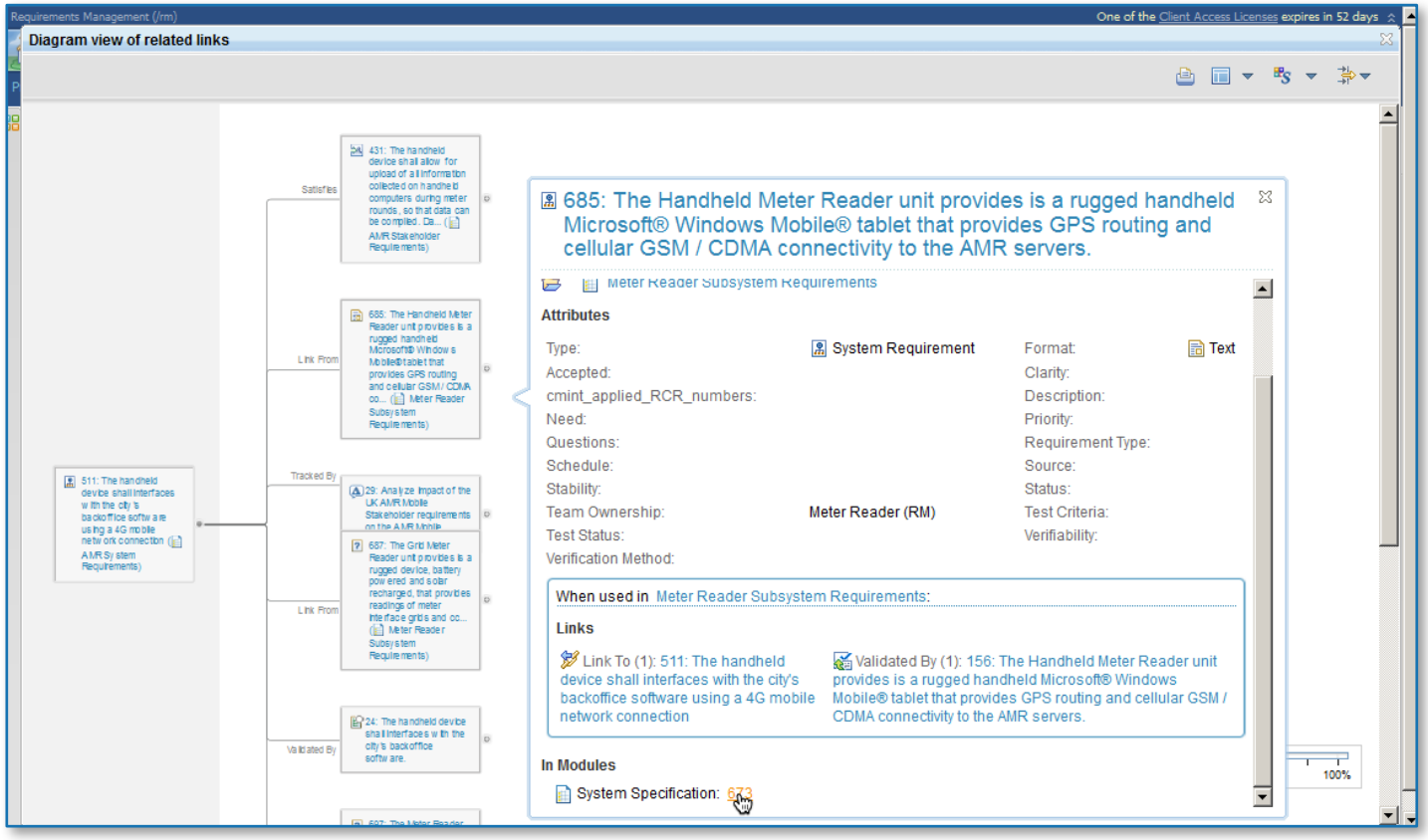
Visualizing Traceability – Impact Analysis views

- Enabling collaboration and managing work for impact analysis
- Attach work items – Share diagrams – In context discussions



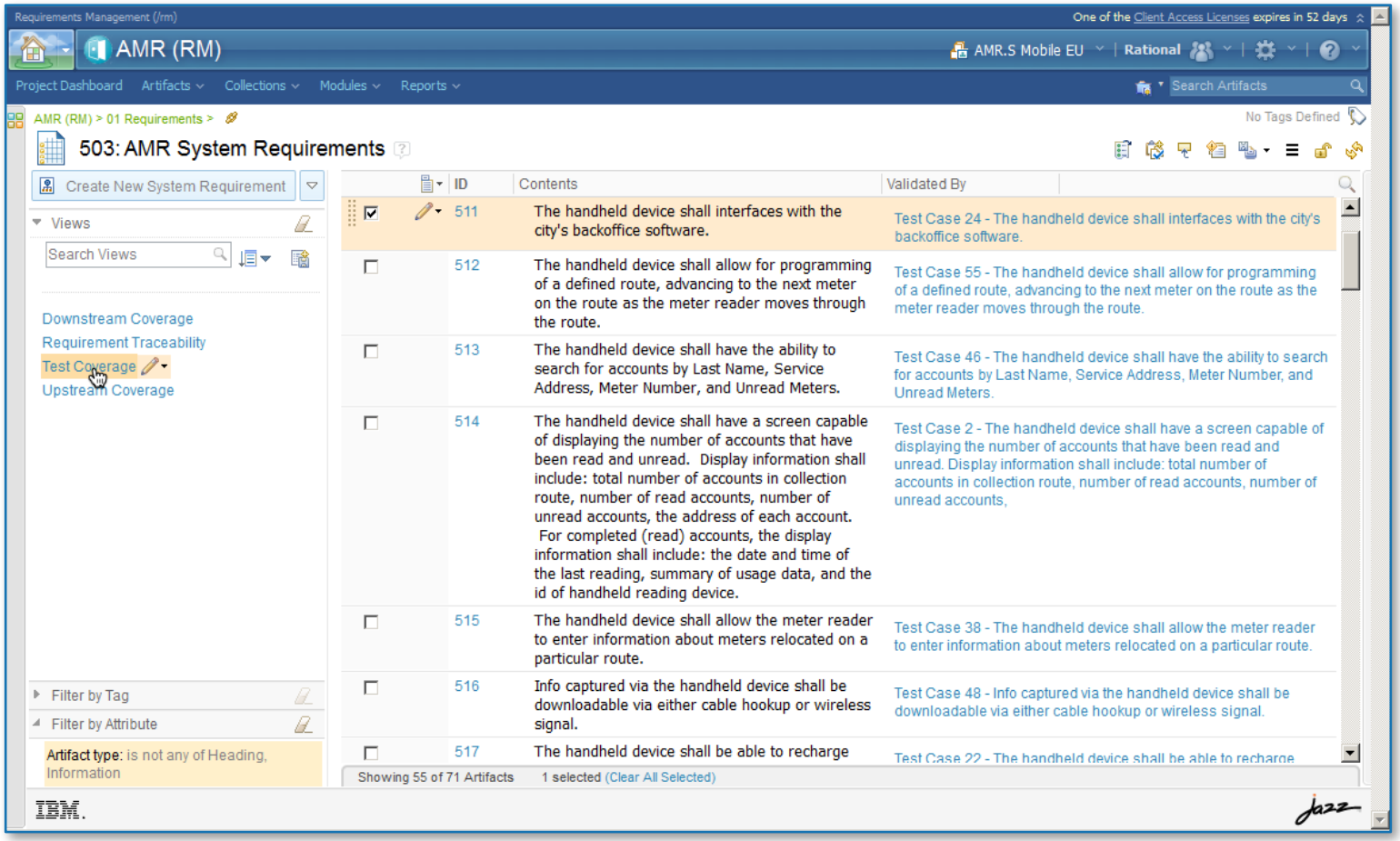
Visualizing Traceability – Diagram views

- Use diagram views in RM and DM applications to view and browse traceability information



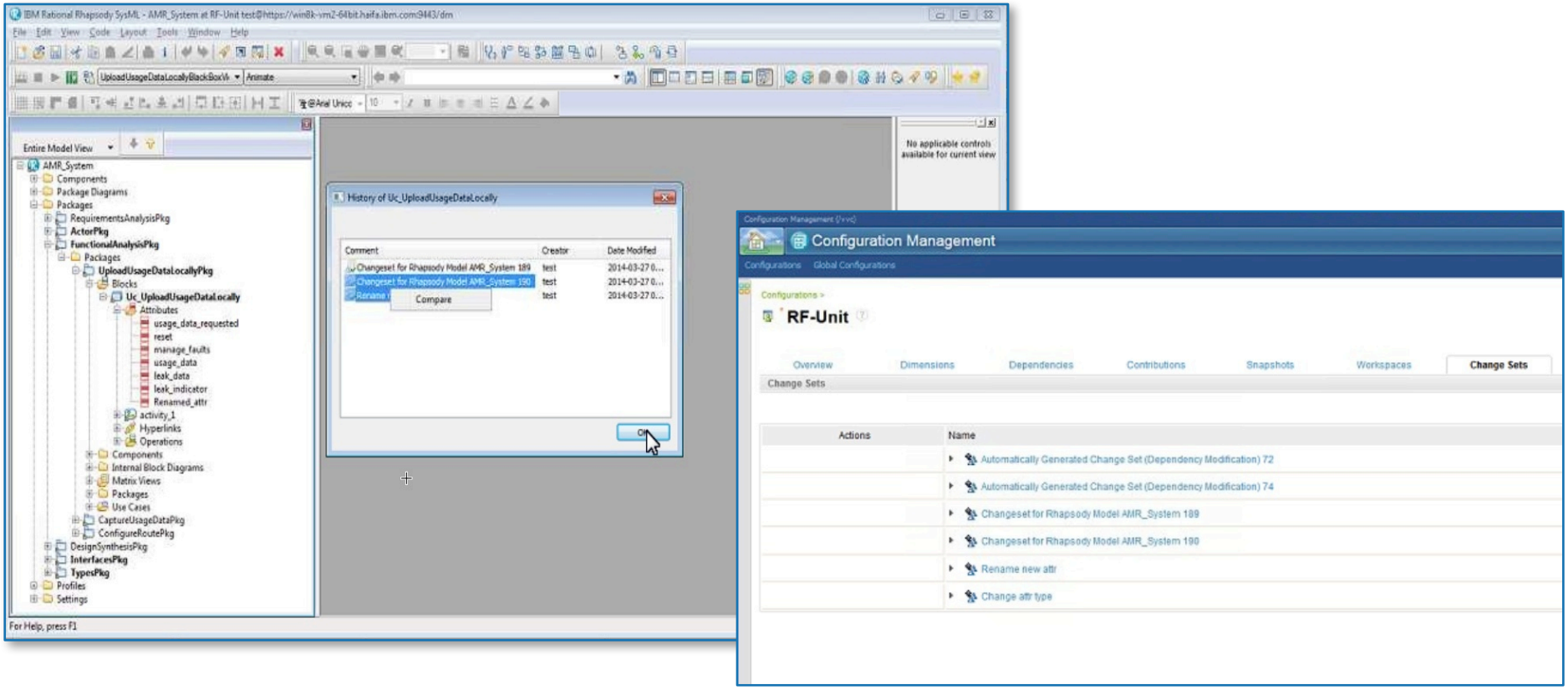
Visualizing Traceability – Tabular views

- Use tabular view in RM and QM applications, or in JRS reports, to view and browse traceability information and suspects



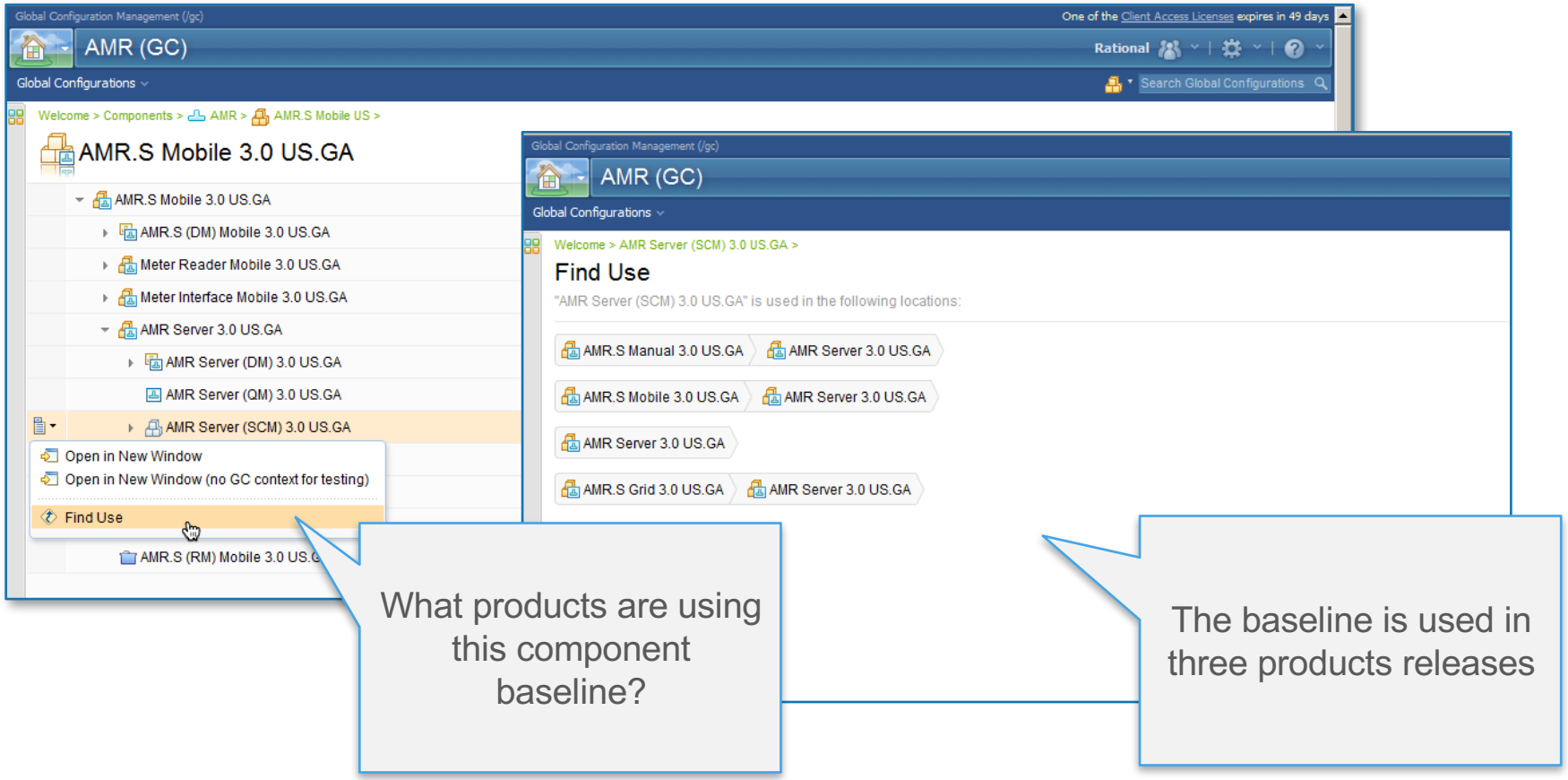
Tracking Changes

- Identify root-cause of Defect and contained Change Set
- Identify delivery targets of Change Set across impacted streams and baselines



Configuration dependencies

- Explore '*use of*' component configurations to analyze impact from found defects, or planned releases impacted by changing requirements



Your needs for Analysis

Origins of impact

- For what reasons do your teams undertake analysis?
- What questions are you analyzing and what answers are you seeking?

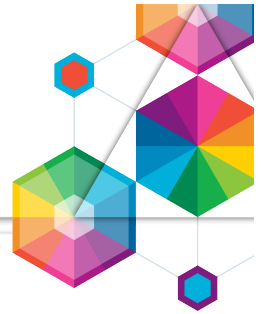
Analysis

- What job roles do what type of analysis?
- What are typical inputs?
- How much effort and time do a typically analysis take

Outcome of analysis

- What are typical outputs?
- What formality do you apply?
- How are the outputs used?

Breakout – Roundtable discussions



- Discuss your Impact Analysis needs in roundtables.
- Use current seating, or regroup if needed.
- IBM'ers will facilitate discussions and take notes

- Consider
  - Your origin of impact
  - Your Impact Analysis workflows
  - Your desired and reported outcome
- Also consider other (optional) questions on next slide

- Time: 40 minutes
- Prepare to summarize your discussions

Questions - Your needs for Impact Analysis

- Which roles in your engineering teams do the most impact analysis?
  Can you summarize types of I/A by role?
- Is there a flow of tasks and decisions across teams?
  What analysis outcome is exchanged and how?
- In what ways are the Rational tools most effective today in helping your teams with impact analysis?
- What are your teams' biggest criticisms / gaps in the capabilities Rational provides for doing impact analysis?
- Do your teams use "suspect links"?
  What do they like / not like about the implementation in our tools?
- What's more useful: suspect links or an approach like the requirements reconciliation feature in RQM?
- Have any of you seen (or used) the interactive I/A tool in RELM?
  What are your thoughts about this approach?
  What's missing to make this the essential approach to team-based impact analysis in your programs?

Questions - Your needs for Impact Analysis

Analysis of traceability assumes the following:

- The existence of an information model
- An ALM implementation of the information model
- Controls to ensure the artifact consistency in the ALM implementation
- Information model views generated from the ALM implementation that supports Impact Analysis

- Do you have / intend to have an information model and ALM implementation that supports your Impact Analysis needs?

#ibminterconnect

Thank You

Your Feedback is Important!

Access the InterConnect 2015 Conference CONNECT Attendee Portal to complete your session surveys from your smartphone, laptop or conference kiosk.

IBM

InterConnect 2015

The Premier Cloud & Mobile Conference