ReqXChanger

SODIUS WILLERT

PRODUCT SHEET

Enable traceability between requirements and models with ReqXChanger

ReqXChanger creates bi-directional traceability between requirements management and UML/SysML modeling by leveraging the based the ReqIF standard.

CONNECT AND SYNCHRONIZE REQIF COMPLIANT REQUIREMENTS DATA WITH YOUR UML OR SYSML MODELS

Close the traceability gap between your requirements management environment and your modeling tools by sharing requirements data across tool boundaries.

Within your preferred tool, click on a link and you will see a representation of the linked artifact that is stored in the remote tool. Traceability will no longer be limited to your requirements management environment but extends to modeling artifacts. Requirements engineers can see the models corresponding to particular requirements, and design engineers are able to visualize the requirements that corresponds to their models.

USE CASES

- Share requirements with UML modeling tools.
- Establish traceability from requirements to architecture and source code.

TRANSFER REQUIREMENTS TO YOUR MODELING TOOL

Export ReqIF-compatible requirements data from your requirements management tool. ReqXChanger transforms those requirements into UML-compatible elements so those requirements can be visualized in your UML diagrams and linked to the corresponding model elements in your UML tool.

TRANSFER MODEL DATA TO YOUR REQUIREMENTS MANAGEMENT TOOL

Transfer representations of model elements and diagrams associated with requirements into your requirements management tool (RM tool). ReqXChanger encapsulates these items for visualization in the requirements management environment. See how requirements have been implemented in modeling, and perform coverage and impact analysis.

DETECT CHANGES (SUSPECT LINKS)

When synchronizing, ReqXChanger detects any changes to requirements that are linked to model elements. Model elements linked to a changed requirements are tagged with a «Suspect Link» icon, indicating that these model elements should be reviewed to see if there are adjustments required to reflect the updated requirement.

PRODUCT FEATURES

Import of requirements in ReqIF standard format

Convert your requirements into the ReqIF standard format in your requirements management environment. Transfer these assets to the UML tool and create trace relationships. Check for changes (suspect links).

Linking within your UML/SysML Tool

In IBM Rhapsody or Sparx Enterprise Architect, link the imported requirements to the corresponding model elements. Every model element can be linked, e.g. use cases, classes, operations, attributes or state diagrams.

Traceability and changes («Suspect Links»)

During synchronization, ReqXChanger determines whether linked requirements have been changed and tags the link accordingly. Search for those tags and review the model elements for any adjustements needed to reflect the updated requirement.

Transfer model data to your requirements management tool

Import trace information and representations of model elements and diagrams associated with requirements into your requirements management tool. See how requirements have been implemented as model elements, and perform coverage and impact analysis.

Automated routine processes

Control routine processes by script via the commandline interface. Initiate export, import and synchronization of data via script and execute the routines in the background without causing any waiting times during normal operation.

BENEFITS OF REQXCHANGER

Avoid misunderstandings

See the up-to-date description of the requirements when working in the modeling tool and develop your solution based on the agreed expectations. Misunderstandings due to incorrect or incomplete requirements representation are eliminated.

Clarity on coverage and impact

Benefit from end-to-end traceability and see the exact coverage level achieved with the current model and understand in detail the impact of any updates to artifacts. As a result, the risk of potential gaps or inconsistent changes is minimized.

Transparency through bi-directional links

Once representations of linked model elements have been imported into the RM tool, those links will work in both directions. From your RM tool, check the model elements implementing your requirements. From your modeling tool, explore the requirements corresponding to your model. Regular synchronization ensures that information is always up-to-date.

Save time through change alerts

Never again design a model implementing a requirement that was changed without notice. ReqXChanger detects any changes to linked assets during each synchronization and sets the corresponding flag to «Changed». Save time by focusing on changed requirements and explore if your model needs to be adjusted as well.

Future-proof thanks to ReqIF

The OMG ReqIF standard has long been established and is supported by many requirements management tools.

Prove compliance more easily

Reduce the efforts involved with demonstrating regulatory compliance through clear visualization of traceability and requirements coverage.

About SodiusWillert

SodiusWillert designs and distributes software solutions for Enterprise Interoperability, Data Transformation, and Model-Based Code Generation to improve traceability, exchange, and sharing of engineering data for the Aerospace, Automotive, Transportation, Defense and Medical industries. For more information, visit sodiuswillert.com.

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