jama connect®

Integration to Leading MBSE Tools Through Intercax: Syndeia

Enabling engineers with Model-based Systems Engineering (MBSE) linked to requirements management

Integration Overview

The strategic partnership between Intercax and Jama Software helps companies manage the complexities of product development by seamlessly integrating requirements management with Model-based Systems Engineering. Through the Syndeia interoperability platform, we are able to provide an integration from Jama Connect® to SysML modeling tools such as Cameo and Rhapsody, and version-managed traceability to a wide range of PLM, ALM, CAD, simulation, test, and other models. This is critical for engineering teams in aerospace, defense, automotive, and other fields building complex cyberphysical systems with both hardware and software components.

Linking Requirements Management to Market-leading MBSE Tools

Jama Connect® is a solution for managing product requirements from idea through development, launch, and iteration. It creates Living Requirements™ by bringing people and data together in one place, providing visibility and actionable insights into the entire product development lifecycle.

SysML	Cameo, Teamwork Cloud, Rhapsody
PLM	Teamcenter, Windchill, Aras
CAD	Creo, NX
Simulation	Simulink, Stateflow
ALM	JIRA, Bitbucket, GitHub, GitLab
Databases	MS Excel, MySQL, Confluence, Artifactory
Requirements	DOORS NG
Test	TestRail, Zephyr Scale

JAMA CONNECT + SYNDEIA KEY BENEFITS

Seamless Integration to Support SYSML Models

Integrating requirements management with system architecture enables systems engineers to quickly detect and correct problems earlier in the development process—evaluating functional requirements, analysis models, and prototypes before they cause significant impacts to the project.

Configuration-Managed Traceability

Persistent links from Jama Connect to PLM, ALM, CAD, test and project management models provide quick access to the information that team members need to do their jobs and awareness when something changes at the end of those connections. Syndeia provides a time history of those connections for documentation and compliance.

Flexible, Agile Solution

Syndeia provides Jama Connect with the same kind of flexible workflow automation and real-time validation and verification for MBSE that agile software development brings to pure digital systems.

How the Syndeia Solution is Integrated to Jama Connect

Intercax and Jama Software help product development teams collaborate more effectively and streamline the engineering process. This integrated solution links the key activities of model-based systems engineering from concept of operations to system architecture, design, analysis, and test through the entire development lifecycle. Powerful graph analysis capabilities let users navigate the Jama model and the entire digital thread as a single network, identifying extended chains of connection from requirement to final design, manufacture, and deployment, and highlighting the impact of changes as they propagate through the system model.

A Range of Use Cases for the Integration

The integrated solution supports various use cases to provide customer value:

- **Model transforms that allow a full hierarchy of requirements, including attributes, to be transferred from Jama Connect to SysML, or from SysML to Jama Connect**
  - ✅ Customized mapping between Jama and SysML artifact types
  - ✅ Customized mapping between Jama and SysML relation types
- **Comparison and bidirectional update of linked requirements models between tools**
- **Reference connections from a Jama Connect element to model elements in SysML, PLM systems, Simulink models, JIRA issues and many others**
  - ✅ Connections that let the user find and open a linked Jama Connect requirement from a SysML block or activity in a SysML diagram
  - ✅ Connections that detect new versions of connected elements
- **Graph analysis visualization of Jama model elements and relations**
- **Graph analysis visualization of links from Jama to other models**
- **Digital documents and reports of traceability**

Intercax has focused exclusively on software for MBSE since its founding in December 2007 as a commercialization spin-off and technology licensee from the Georgia Institute of Technology. In 2014, Intercax offered the first commercial release of Syndeia™, the "practice of bringing things together", enabling fine-grained connection between architecture, design and analysis models. Supporting customers primarily in defense, aerospace and automotive markets, Syndeia has added new tool integrations with each product release and evolved into a scalable enterprise application able to support the largest teams and projects. Learn more at: intercax.com

Jama Software® is focused on maximizing innovation success in multidisciplinary engineering organizations. Numerous firsts for humanity in fields such as fuel cells, electrification, space, software-defined vehicles, surgical robotics, and more all rely on Jama Connect® requirements management software to minimize the risk of defects, rework, cost overruns, and recalls. Using Jama Connect, engineering organizations can now intelligently manage the development process by leveraging Live Traceability™ across best-of-breed tools to measurably improve outcomes. Our rapidly growing customer base spans the automotive, medical device, life sciences, semiconductor, aerospace & defense, industrial manufacturing, consumer electronics, financial services, and insurance industries. To learn more, visit us at: jamasoftware.com.