TECH TALK | SODIUS CORP

2026 DSI DIGITAL ENGINEERING FOR DEFENSE SUMMIT

MBSE is the Backbone of Your Digital Thread

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SODIUS

Introduction

SODIUS Corp. is a U.S. company and is the global leader in **software solutions for data transformation in classified and non-classified environments, enterprise interoperability, and model-based code generation** to improve data exchange, transformation, traceability, and the linking of engineering data in mission- and safety-critical industries thereby enabling digital engineering workflows.

We're also completely Trade Agreements Act (TAA) compliant.

We primarily deploy our solutions in:

- **U.S. Aerospace & Defense Companies**
- **DoD Agencies**
- **Automotive**

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Presenter's Bio

Roughly 10 years of experience supporting aerospace and defense programs across systems engineering practices such as requirements management, architecture, test and validation etc.

Currently work as an Account Executive and Systems Architect at SODIUS Corp supporting A&D, Automotive and Med Device customers overcome systems engineering challenges.

Previously served as a Systems Architect at Northrop Grumman's Melbourne campus after working on Cape Canaveral doing launch engineering support.

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Your Mandate is Already Written

Two DoD strategies define exactly what this summit is about and what your programs are accountable to deliver.

DoD DIGITAL ENGINEERING STRATEGY | 2018

Goal 1:
"Exchange of information between disciplines should take place via model exchanges and automated transformations, whenever possible."

Goal 2:
"The authoritative source of truth will provide traceability as the system of interest evolves — connecting authoritative versions of models and data."

Goal 4:
"DoD's strategy is to focus on standards, data, formats, and interfaces between tools rather than being constrained to particular tools."

DoD DATA STRATEGY | 2020

VAULTIS - Make Data Interoperable:
"DoD systems must be designed, procured, and sustained with data interoperability as a key requirement."

VAULTIS - Make Data Linked:
"Data must be linked such that relationships and dependencies across disparate sources can be uncovered and maintained."

VAULTIS - Make Data Trustworthy:
"Data lineage and pedigree metadata must be bound throughout the lifecycle. Confidence in data enables timely decisions."

SODIUS Corp exists at the intersection of both mandates.

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The Gap Between Mandate and Reality

Siloed Models

DE Strategy Goal 1

Models live in one tool. Requirements in another. Tests somewhere else. The authoritative source of truth the DE Strategy demands simply doesn't exist.

Tool Lock-In

DE Strategy Goal 4

Acquisition contracts and program mandates change tools. DoD policy says focus on interfaces and standards, not particular tools. Yet model re-creation costs months.

Broken Traceability

Data Strategy VAULTIS

The Data Strategy mandates data that is Linked, Trustworthy, and Interoperable. Without MBSE integration, every handoff is a gap, a traceability failure and a review risk.

These aren't hypothetical problems. They're what your program engineers live every day and what your policy mandates you to fix.

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SODIUS Corp: MBSE Enablement for the Digital Enterprise

Systems Model Exchange

Migrate SysML, UML, DoDAF models between Rhapsody, Cameo/MagicDraw, Sparx EA, and RSA with full data integrity. Implement the 'automated model exchange' the DE Strategy mandates.

Associated offering: Publisher

Standards-Based Tool Integration

Connect modeling, requirements (DOORS/DOORS Next), test management, and workflow tools via open OSLC standards. Exactly the 'interfaces between tools, not tool lock-in' the DE Strategy calls for.

Associated offering: OSLC Connect

Unified Engineering Data

Publish model data from multiple tools into a single web platform for review, reporting, and oversight.
ASoT in action: one connected source your entire program can trust.

Associated offering: SECollab

Requirements ↔ Model Traceability

Connect ReqIF-based requirements directly into your modeling environment. Live traceability from requirements to model elements. Data that is Linked and Trustworthy per VAULTIS.

Associated offering: ReqXChanger

We don't replace your toolchain. We make it work together the way the Digital Engineering policy requires.

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Our solutions

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SECollab

SECollab: Digital Thread & Collaborative Reviews

Collect
Aggregate and share data, document and model content from any tool

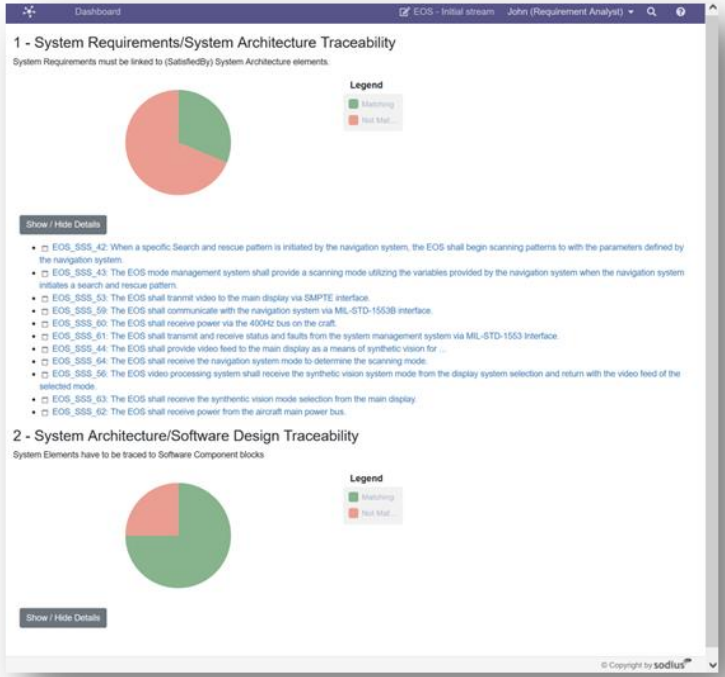
Configure
Configure versions locally and globally

Link
Link and connect configured data to enable end-to-end traceability

Review
Review heterogeneous set of data and link findings with CM system

Visualize
Visualize data among various viewpoints

Report
Monitor compliance using real time reporting



Integrates With

- *NoMagic MagicDraw, Cameo, IBM DOORS / Rhapsody, Jira, Polarion, Capella, SPARX EA, MS Office, PDF*

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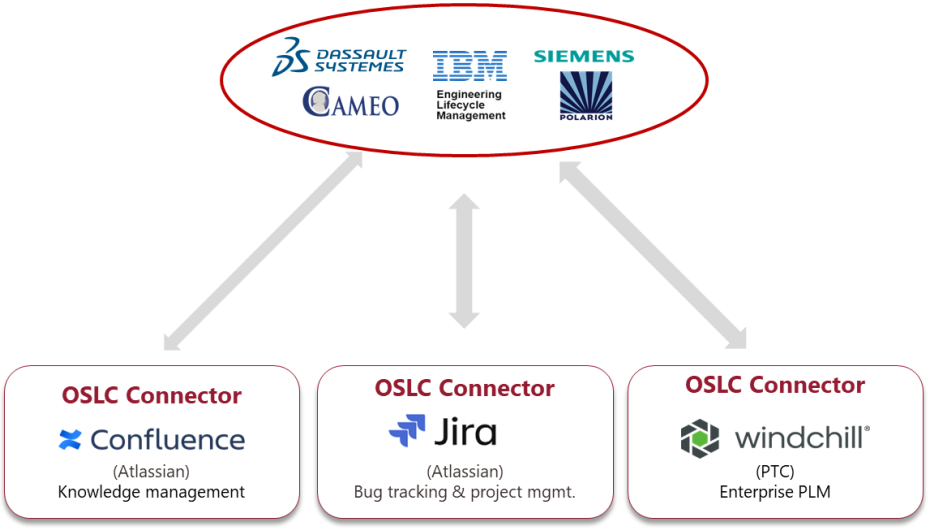
OSLC Standard-Based Tool Connectors

- OSLC-compliant connectors for Jira, Confluence and PTC Windchill
- Provides linking ability across engineering repositories
- Enables a Single Source of Truth for Engineering Data
- Ensures authenticated access to all data
- Always gets the up-to-date data
- Enables engineers to view external data in their current context



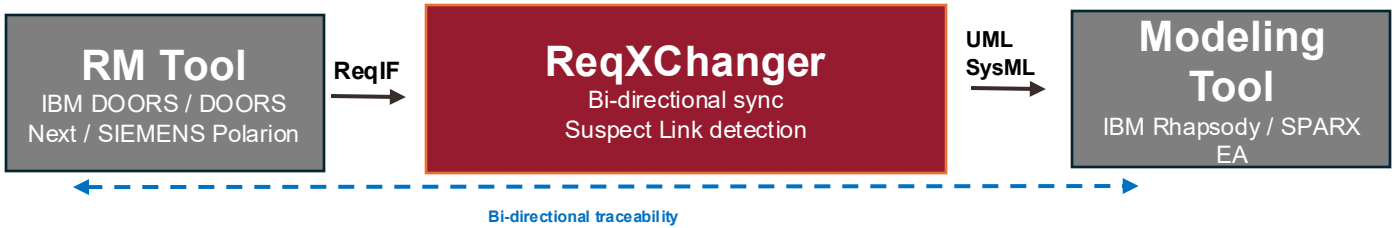
OSLC
Inspired by the web

Open Services For Lifecycle Collaboration (OSLC) is a standardized means to integrate data between engineering applications without synchronizing or copying data

Connecting Requirements to Models - End-to-End Traceability via ReqIF

ReqXChanger enables bi-directional synchronization between ReqIF-compatible RM tools and UML/SysML modeling environments.

HOW IT WORKS



WHY IT MATTERS FOR DEFENSE PROGRAMS

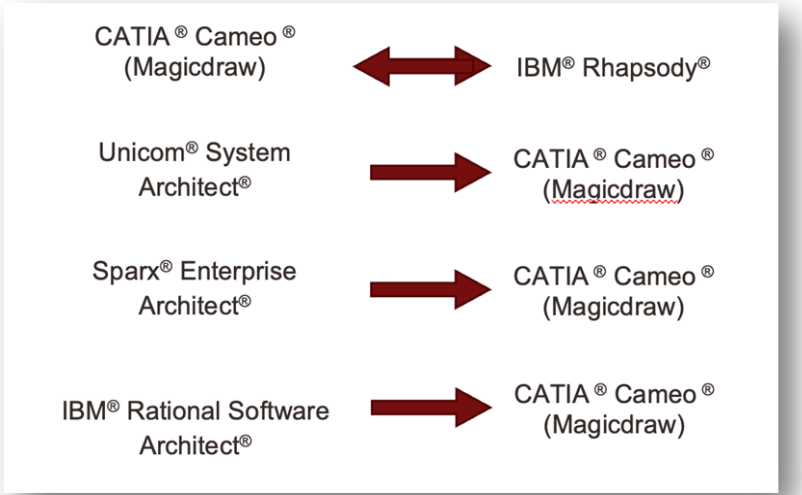
- ✓ **Compliance-ready:** Clear req-to-model traceability for DO-178C, MIL-STD-882, DAL audits
- ✓ **Interoperability**: ReqIF standard bridges IBM DOORS, Polarion to a selection of SysML/UML tool
- ✓ **Change Velocity:** Automated suspect link alerts cut re-design risk on evolving programs
- ✓ **Digital Thread:** Continuous bi-directional sync sustains a live reuirements-model thread

Publisher

Systems Models Exchange Solutions

How do you get years of modeling IP exported and imported quickly?
How do you transfer data consistently and accurately for very large models?
How do you transfer thousands of diagrams?

- Model Transformation Tool to Tool
- End-to-end model interoperability
- Automated, fast, and standards-compliant exchange
- Designed for mission and safety critical systems
- Design in one modeling tool and deliver in another
- Migrate from one modeling tool to another



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Publisher

Customer Proof Points

Raytheon
Integrated Defense Systems

Content to export:
200 diagrams,
18,000 elements.

Expected time w/o Publisher:
"a quick computation leads to 18 weeks of remodeling and validation without the reproducibility and confidence brought by automated solution."

Total time to export: ~ 1 hours

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"By leveraging the MagicDraw Publisher for Rhapsody, the total time to export the end-customer deliverable was less than two hours."

Chris Finlay – Project Manager

U.S.ARMY

Content to export:
37,331 files in Rhapsody UML format with 812,405 elements and 703 diagrams

Expected time w/o Publisher:
"This kind of transformation, if done manually, would take man-years to complete."

Total time to export: Less than half a day

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"The Publisher for Rhapsody quickly enabled us to automate the migration from Rhapsody UML models to Cameo/MagicDraw SysML models."

Sean F., Dynetics Project Manager and Lead Systems Architect
Redstone Arsenal

NORTHROP GRUMMAN

Content to export:
220,000 elements and 300 diagrams in Rhapsody SysML

Expected time w/o Publisher:
"Redoing an entire model that months were spent on because of tool changes, would have been a huge waste of resources."

Total time to export: 20 minutes

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"We like it, and the management is very pleased. Redoing an entire model that months were spent on because of tool changes, would have been a huge waste of resources."

Maxwell Yavaraski., Principal System Engineer

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Full Model Conversion Between Tools

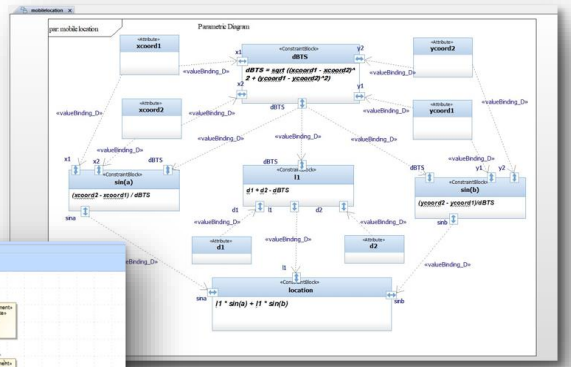
The Publisher converts SysML Structure Diagrams:

- Block Definition Diagrams
- Internal Block Diagrams
- Package Diagrams
- Parametric Diagrams

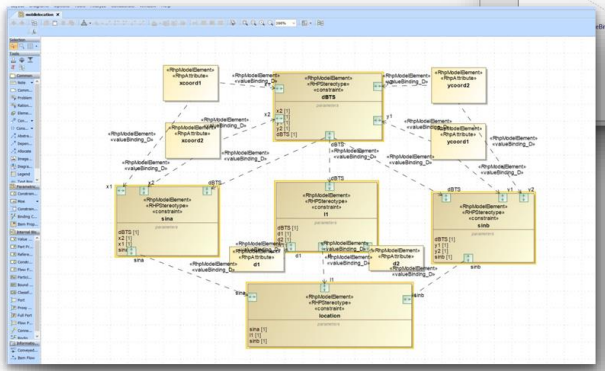
And SysML Behavior Diagrams:

- Activity Diagrams
- Sequence Diagrams
- State Machine Diagrams
- Use Case Diagrams

Rhapsody



MagicDraw



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Industry leaders trust Sodius to help them improve productivity

LOCKHEED MARTIN

BOEING

NORTHROP GRUMMAN

Raytheon

BAE SYSTEMS

AIRBUS

Dynetics
A Leidos Company

L3HARRIS™

SAIC

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Commercial Item Description (CID) for the Publisher from NAVAIR

Sodius Corp. is excited to announce that in April 2023, we received CUI from the U.S. NAVAL AIR SYSTEMS COMMAND HEADQUARTERS with a **Commercial Item Description (CID) for the Publisher for Rhapsody** per definitions (1)(i) and (1)(ii) of FAR 2.101 for a commercial product **that "enables single source of truth data for the MQ-25 Stingray MBSE program."**

Defense Contract Management Agency (DCMA) Commercial Item Group (CIG) stated that "**this CID will make it much easier for systems engineers to leverage the Publisher for Rhapsody on other DoD programs."**

Ready to accelerate your development projects?
Our team is here to help you.

Contact Us:
Email: contact@sodiuswillert.com
Website: www.sodiuswillert.com

Let’s connect!