



Omnibus Cameo Modeler Adapter Datasheet Document

Document Version History		
Release	Date	Comment
Initial Release	10/27/2023	Created initial document version.
Revised Release	10/30/2023	Removed additional details such as Events exposed, Actions exposed, their related Operations, Relations exposed etc. from the initial document version. Inserted use case diagram.

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Business Need & Tool Overview

Modernizing engineering processes, tool chains, and product design is becoming essential in the digital age of smart and connected products. To cope up with this dynamic demand, **Model Based Systems Engineering (MBSE)** is progressively being used in the creation of these products. A formal understanding of product architectures is made possible by MBSE, for hybrid electrical, mechanical & electronic systems.

It is to be noted that for system modeling activities to be successful, data must flow freely & sequentially between MBSE tools, product design tools, and associated development tools. This is true for everything from fixing system requirements, to methodically creating both functional & logical models, and connecting these to the designing and testing activities. Therefore, you can only fully benefit from MBSE, when MBSE models are integrated with **Product Lifecycle Management (PLM)** techniques.

- The **Cameo Modeler** tool as a solution encompasses all the best diagramming, collaboration, persistence, and documentation capabilities while offering more customized capabilities tailored to systems engineering needs.
- Kovair provides a vendor-neutral integration platform called **Kovair Omnibus** Integration Platform to which the best-of-breed ALMs (**Application Lifecycle Management**), PLMs, and other enterprise tools can be integrated using its dedicated adapters.

Kovair Adapter for Cameo Modeler

Kovair Omnibus Adapter for Cameo Modeler connects this Cameo tool with the **JIRA** tool (or other similar ALM / PLM tools) in the SysML ecosystem, by enabling synchronization of supported data items such as SysML requirements. The Kovair Omnibus Adapter for Cameo Modeler is dedicated for systems engineers, who work in model-based requirements engineering.

Currently, Kovair Omnibus adapter supports integration with Cameo System Modeler version '19.0 SP3'.

Features & Benefits

The Kovair Omnibus Adapter for Cameo Modeler provides the following features and benefits:

- **Requirements & Parameter integration** - You can create corresponding, synced value properties simply with drag and drop facility of parameter definitions into SysML model.
- **Impeccable traceability** - You can enable the traceability between created system models and associated downstream design artifacts.
- **SysML model management** - Visualize, edit, and review your system model information with few mouse clicks. Achieve early validation of system design and architecture using system models.

Why Integrate Cameo Modeler with Kovair?

Cameo Modeler tool is a graphical interface powered by the Systems Modeling Language - 'SysML'. It displays system components, how components are connected, and how physical substances and information flow between components.

Systems engineers coordinate the work of multiple other engineering disciplines requiring information to flow between systems engineers and those involved in other disciplines. Using discipline-specific tools separately from system modeling tools typically leads to redundant, inconsistent & inefficient engineering processes.

This is where Kovair steps in. When SysML tools and physical interaction and signal flow simulators are used separately, simulation engineers must re-specify their systems in each tool they are using, including information that is also available in SysML models. The Kovair Omnibus Cameo Modeler adapter seamlessly removes this non-value-added activity of a redundant system re-specification, whenever a different tool is being integrated into the system. With this adapter, your teams can manage the challenges of a product creation that brings together multiple engineering disciplines.

Why Use Cameo Adapter by Kovair

This adapter enables you to handle the import, export, and management of SysML requirements.

- **Traceability** - The key advantage of Kovair Omnibus Cameo Modeler adapter is end-to-end traceability synchronized together with their inter-relationships. Work item properties such as attachments and links can all be synchronized. This permits complete traceability of the artifacts and allows the corresponding teams to continue operating within their respective environments.
- **Collaboration** - The secret to improved collaboration is to increase overall organizational efficiency across departments and the R&D Team to reduce lead times for the concurrent development of hardware and software products. This is done by integrating process, data, and various stakeholders in the product / model creation process.
- **Unified traceability across tools** - Kovair integration adapter for Cameo enables engineers to access traceability information from their native working environments and perform gap analysis. With the Kovair adapter for Cameo Modeler, system engineers in all disciplines can trace their

work starting from requirements to delivery. These features, which precisely synchronize software with hardware, enable various teams to collaborate more effectively, save time, and avoid errors.

- **Effective model management** - You can trace requirements (as per your model-based requirements engineering) to other model elements of business, hardware, or systems architecture and align requirements with your established model. You can analyze the impact of changes and track associated metrics. You can capture requirements in dedicated diagrams, matrices, and tables and proceed to document requirements.

Services Supported in Kovair Cameo Adapter

The following list illustrates the exposed entities which are supported by the Kovair Omnibus Cameo adapter.

A. Entities Exposed

Entity Name
Requirement
Business Requirement
System Requirement*
Functional Safety Requirement*
Technical Safety Requirement*
Block
Part Property
Instance Specification
Property
Package
Extended Requirement
Slot

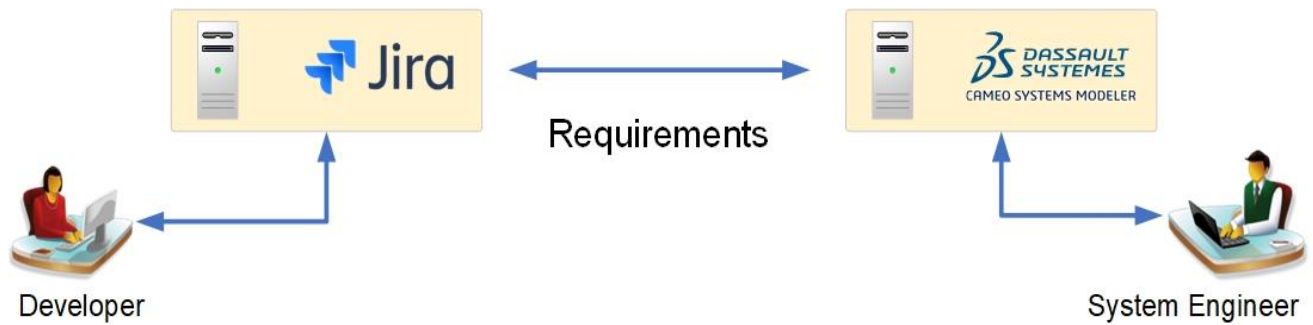
NOTE: The asterisk (*) sign represents that the entities mentioned above are of custom stereotype.

Use Cases of Kovair Integration with Cameo

To address various stakeholder concerns, system models can be published to documents, images, and web views, managed in remote repositories, or stored as standard XMI (XML Metadata Interchange) files. By creating and applying a single, consistent model that aligns with multiple product domain-specific models and endures over the course of the system life cycle, MBSE formalizes the application of systems engineering.

You can define, track, and visualize all aspects of systems in the most standard-compliant SysML models and diagrams. The environment enables systems engineers to:

- Run engineering analysis for design decision evaluation & requirements verification
- Continuously check model consistency
- Track design progress with metrics



Consider the following ALM-PLM-MBSE tools integration use cases:

ALM <-> PLM	MBSE modeler <-> PLM	MBSE modeler <-> ALM
Trace linking capabilities between ALM work items to PLM documents.	Integrating PLM parts, components, and sub-assemblies to system diagrams in modeler.	Linking system diagrams in modeler with System Requirements in ALM. Also, linking system model blocks & sub-blocks with componential level requirement(s).

A. JIRA- Cameo Use Cases

Use Case	Description	Scenario
Bidirectional requirements import	Import of Requirements from JIRA to Cameo and from Cameo to JIRA, to keep the Requirements synced across the tools.	<ol style="list-style-type: none"> 1. A feature to import a single requirement or complete requirement in Cameo and JIRA application. 2. Requirements will be imported across the supported tools.
Bidirectional requirements synchronization	The requirements and relations once populated, are synchronized with respect to the changes done in either tool.	Requirements data will be synced across the two integrated tools.
Requirements traceability mapping	Appropriate mapping options are available.	Modifications made to the requirements traceability mappings will be updated in the supported tools.

Note: The adapter as developed and offered by Kovair follows the subject tool's standard specifications. Any deviations from the tool's typical use pattern may not have been anticipated in our off-the-shelf product. For any customization or special configuration needs, please contact Kovair Sales - sales@kovair.com
 Kovair Software Inc.: Kovair is a California based software product company specializing in the domain of Application Lifecycle Management (ALM). Kovair's focus on integrating third party best-of-breed ALM tools enables creation of applications in a synchronized tools environment.

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