DATASHEET

ModelCenter Datasheet

ModelCenter® consists of 4 major components: **MBSE**, **Integration & Automation**, **Design Exploration & Optimization**, and the ***new*** **Behavioral Execution Engine**

ModelCenter Overview Video »

/ MBSE

Engineers can now connect ModelCenter workflows to system engineering models created with Dassault/NoMagic's MagicDraw/Cameo, IBM's Rhapsody, Vitech Genesys and PTC's Windchill Modeler. This connection allows systems engineers to validate system requirements and behavior, trade off cost and performance, and optimize the system design using any engineering analysis tool or cost analysis. ModelCenter enables Model Based Systems Engineering (MBSE), helping to reduce the cost and risk of complex system design.

Learn More »

/ Integrate & Automate

Enables users to combine existing software applications into repeatable, automated workflows. Once these workflows are created, they are easily modified, maintained, and updated. ModelCenter's Integrate & Automate capability allows engineers to share these automated models and workflows across networks both internally and within their supply chain. ModelCenter's powerful integration technology allows users to automate almost any software application, including design (CAD), engineering (CAE), accounting, and operational tools.

Learn More »

/ Design Exploration & Optimization

Users can iteratively execute their workflow and perform trade studies. Modelcenter's trade studies include Sensitivity Analysis, Design of Experiments (DOE), Optimization, and Probabilistic analysis. ModelCenter also includes powerful multi-dimensional trade space visualization tools that allow users to quickly slice through large amounts of data to understand key variable relationships, ask "what-if" questions, and ultimately make better design decisions.

Learn More »

/ Behavioral Execution Engine

New and powerful behavioral execution engine that allows customers to execute SysML state machine diagrams in MagicDraw to verify system behavior. This new capability enables engineers to accurately verify system behavior and performance early in the design cycle, helping to reduce costs and design better products.

/ Customer Success Stories

The following are links to customer success stories that how specific customers have used ModelCenter to improve productivity, reduce costs, and design better products.

LOCKHEED MARTIN

Integrating MBSE into a Model-Based Engineering Environment | **LOCKHEED MARTIN SPACE**

Click Here for Link to Webinar »

NORTHROP GRUMMAN

MDAO for Conceptual Aircraft Design at Northrop Grumman | **NORTHROP GRUMMAN**

Click Here for Link to Webinar »

SYSTEMS ENGINEERING Research Center

Applications for Three Research Use Cases in Model Centric Engineering using ModelCenter and ModelCenter MBSE | **STEVENS INSTITUTE OF TECHNOLOGY**

Click Here for Link to Webinar »

CAPABILITIES

AUTOMATION/ INTEGRATION/ EXPLORATION

ModelCenter is an easy to use framework for automating any software application (engineering analysis, cost analysis, etc.), and integrating these applications into repeatable automated workflows. These automated workflows allow customers to quickly generate the data and information needed for making meaningful business and engineering decisions. ModelCenter's drag and drop graphical interface allows engineers to create, maintain, and update these automated workflows without tedious programming or scripting. Once a workflow is created, users can also perform Multi-Disciplinary Analysis and Optimization (MDAO) to fully explore the multi-dimensional design space.

More Information »

DISTRIBUTED ENGINEERING

ModelCenter allows engineers to share their automated models and workflows with other engineers across their organization and supply chain. ModelCenter can be configured to ensure that Intellectual Property (IP) remains protected; only selected parameters and results are passed from computer to computer (the models themselves are not transferred). ModelCenter provides a very powerful mechanism for sharing engineering models and collaborating with colleagues within an organization and across organizational boundaries.

More Information »

/ Demonstrations of ModelCenter

PARSONS	Comprehensive Demonstration of MBSE, MDAO in a Geographically Distributed Engineering Environment to Satisfy a Satellite Mission	Link to Webinar »
Massachusetts Institute of Technology	Architecture and Systems Engineering: Models and Methods to Manage Complex Systems	Link to Webinar »

Click Here for additional ModelCenter Demonstrations »

/ Get Started Immediately

The ModelCenter Training and Services team can help you to immediately begin automating and integrating your models and exploring design alternatives. Classes can be configured online and onsite. In addition, Phoenix engineers can help you kick start a project via an onsite or web-based quick-start consulting program.

More Information »

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