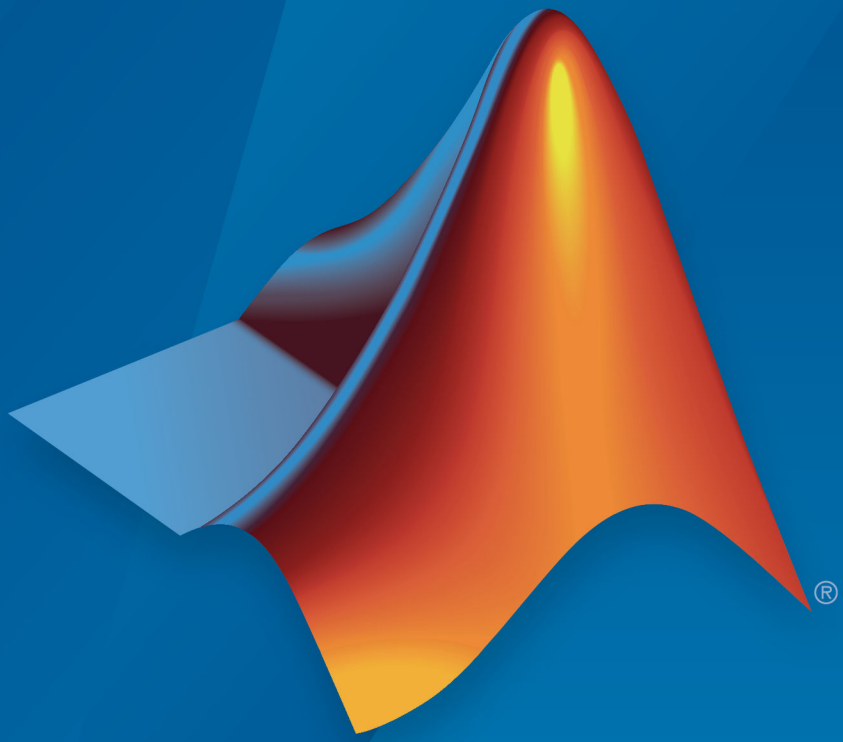
System Composer™ Release Notes



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Contents

R2019a

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Version: 1.0

New Features

Introducing System Composer

System Composer enables the definition, analysis, and specification of architectures and compositions for model-based systems engineering and software design. With System Composer, you allocate requirements while refining an architecture model that can then be designed and simulated in Simulink®.

System Composer lets you create architecture models that describe a system in terms of components and interfaces. You can also populate an architecture model from the architectural elements of Simulink designs or C/C++ code. You can create custom live views of the model to study specific design or analysis concerns. With these architecture models, you can analyze requirements, capture properties via stereotyping, perform trade studies, and produce specifications and ICDs.

Composition Editor

Author and edit architecture models in the Composition Editor. Model physical and logical architecture of a system. Create a visual representation pf components, ports, and connections and specify information exchange between components with interfaces. Decompose components to add detail and define hierarchical relationships. Create reusable architectures. For more information, see “Create an Architecture Model”.

Spotlight Views

You can create Spotlight views to analyze component dependencies and hierarchy. A Spotlight view is a simplified view of a model that captures the upstream and downstream dependencies of a specific component of interest. You can shift the spotlight to a different component from within the Spotlight view. You can also trace an element from the Spotlight view back to the composition. For more information, see “Inspect Components in Custom Views”.

Linking Simulink Behavior Models

You can use Simulink models with System Composer to define component behavior by creating or linking to a Simulink behavior model. Take advantage of System Composer architecture editing and analysis capabilities for Simulink behavior models by exporting them as architecture models. For more information, see “Implement Component Behavior in Simulink”.

Linking and Managing Requirements

You can link components to requirements using the Requirements perspective. Create requirement sets, organize requirements into hierarchies, and link requirements to components using Simulink Requirements™. Annotate architecture models with requirements information and navigate to the source requirement. For more information, see “Link and Trace Requirements”.

Stereotypes and Profiles

You can create stereotypes as extensions of components, ports, and connections by defining additional properties. Use Profile Editor to define profiles as self-consistent sets of stereotypes. Import profiles into architecture models. Assign stereotypes to model elements. For more information, see “Apply Stereotypes to Model Elements”.

Architecture Model Analysis

You can use MATLAB® analytics with System Composer API to write scripts to generate data that can be used for trade studies or for verifying nonfunctional requirements. For more information, see “Perform an Analysis”.