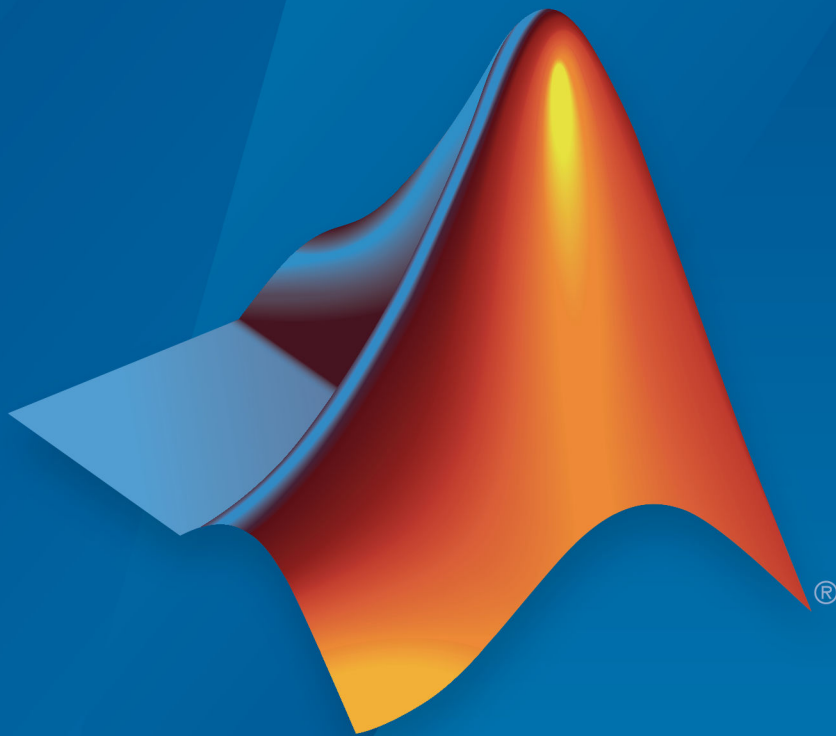


# System Composer™ Release Notes



MATLAB® & SIMULINK®

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## *System Composer™ Release Notes*

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## R2019b

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# R2019b

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**Version: 1.1**

**New Features**

**Bug Fixes**

## Architecture Views

You can author and generate multiple views for specific viewpoints for design, analysis or communication. Create a view by writing queries against the model using the System Composer model query language. See “Creating Architecture Views Interactively”.

## Interface Adaptor

Visually specify an interface mapping between components with different but compatible interfaces. For example, map a signal with different interface names. See “Interface Adapter”.

## Import and Export Architecture Models

Import a system architecture into System Composer using Excel spreadsheets or MATLAB tables. The tables define components, ports, and connections. See “Importing and Exporting Architecture Models”.

## AUTOSAR Software Architecture

AUTOSAR Composition Editor: Author compositions, simulate functional behavior with basic software services using Composition Editor.

Support for architecture and composition modeling for the AUTOSAR Classic Platform. You can:

- Create AUTOSAR architecture models.
- Use AUTOSAR composition editor to add and connect Composition and Component blocks.
- Link AUTOSAR components to Simulink requirements.
- Define AUTOSAR component behavior by creating or linking Simulink implementation models.
- Configure AUTOSAR scheduling and simulation, including AUTOSAR Basic Software services.
- Generate and package composition AUTOSAR XML description and component code.

# 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 of components, ports, and connections and specify information exchange between components with interfaces. Decompose components to add detail and define hierarchical relationships. Create reusable architectures.

## 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.

## 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.



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## **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.

## **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.

## **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.

