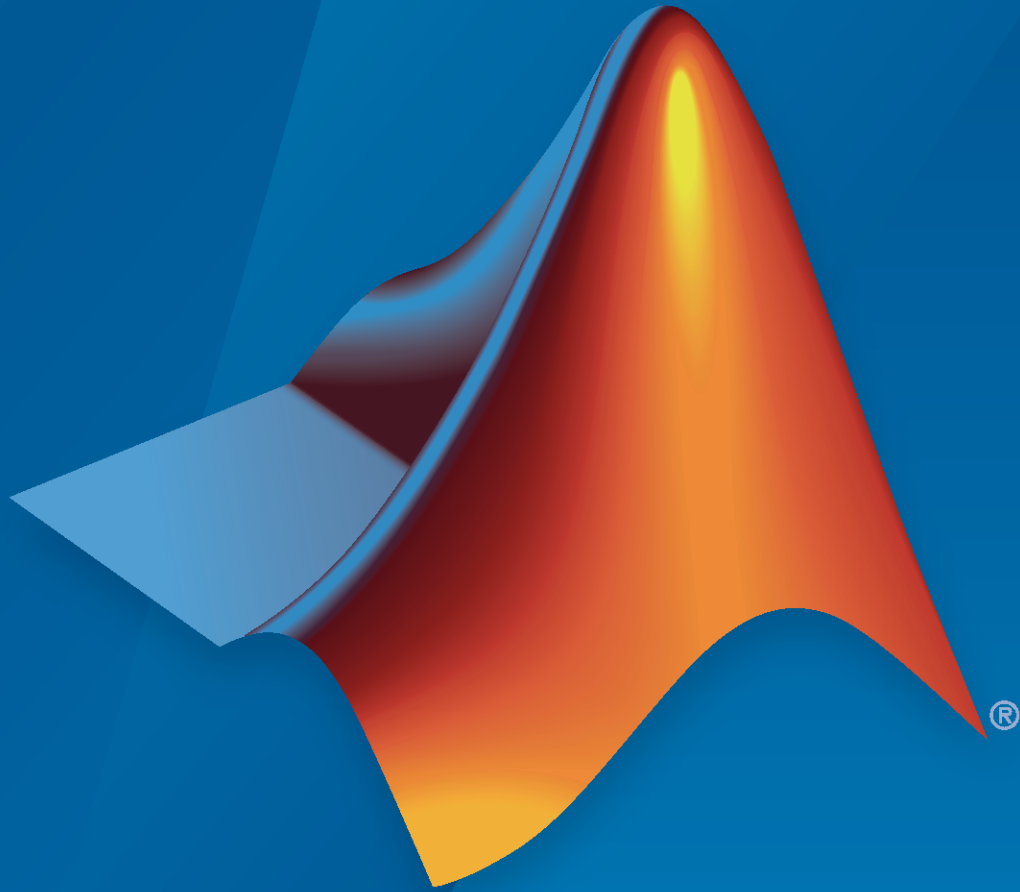


DDS Blockset Release Notes



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R2021a

Version: 1.0

New Features

Introducing DDS Blockset

DDS Blockset provides apps and blocks for modeling and simulating software applications that publish or subscribe to Data Distribution Service (DDS) middleware. The blockset includes a DDS dictionary that lets you manage, create, and edit your DDS definitions in Simulink®. You can import DDS specifications as XML files to create a skeleton Simulink model as a starting point for developing algorithms for DDS applications.

DDS Blockset provides blocks for publishing and subscribing samples to DDS, including their corresponding Quality of Service (QoS). It fully integrates with the RTI Connex DDS and eProsima DDS stacks.

DDS Blockset generates C++ code and XML files from Simulink models (with Embedded Coder®).

IDL/XML import and export

You can use the DDS Application Quick Start to import IDL/XML DDS definitions or create definitions to get started making DDS applications in the Simulink environment. For more information, see “Import or Create DDS Definitions”.

You can also export IDL/XML for your modeled application when you build your application model. For more information, see “Deploy DDS Applications”.

Manage Domains, Topics, Data Samples, and Quality of Service (QoS)

You can use a **DDS Dictionary** to manage the DDS aspects of your applications in the Simulink environment. The DDS Dictionary is an intuitive graphical interface that enables you to quickly create and edit the DDS Domains, Topics, Data Samples, and Quality of Service (QoS) you need to configure the Publisher, Subscriber, DataReader, and DataWriter aspects of your model. For more information, see “Manage DDS Definitions”.

Model and simulate Publishers and Subscribers

In Simulink, you can use the Take DDS Sample and Write DDS Sample blocks to construct or adapt Simulink models to behave as DDS Publishers and Subscribers. For more information, see “Model DDS Applications”.

You can use a **Code Mappings Editor** to apply DDS definitions like Domains, Topics, Types, and Quality of Service (QoS) to your modeled Publishers and Subscriber applications. For more information, see “Interactively Configure DDS Interface”.

Deploy DDS applications with RTI and eProsima and generate C++ code

DDS Blockset supports out-of-the box integration with the DDS vendors RTI and eProsima. Additionally, DDS Blockset supports C++ code generation. (requires Embedded Coder). For more information, see “Deploy DDS Applications”.