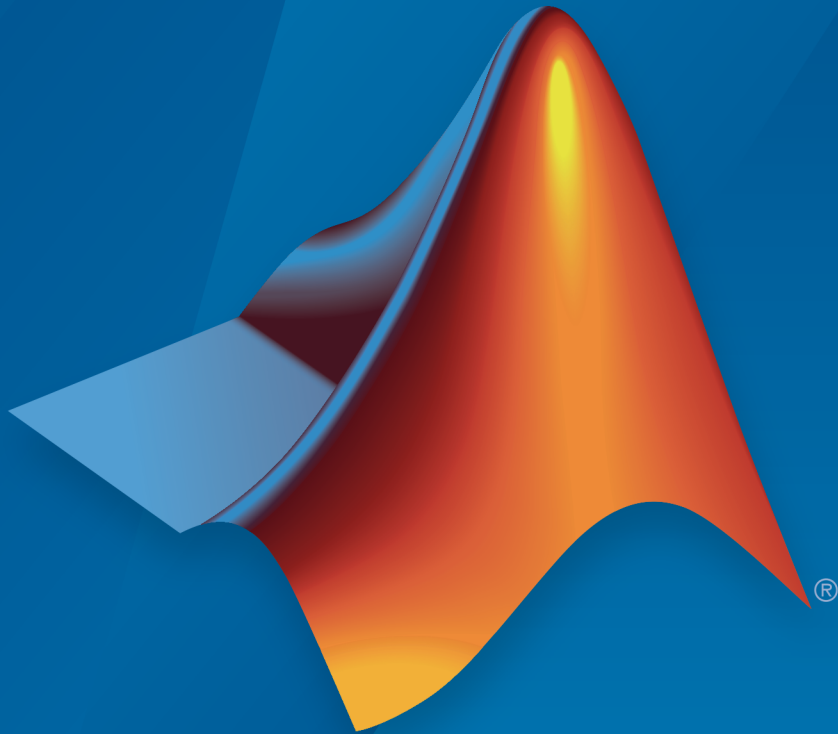


Simulink[®] Test[™] Release Notes



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Simulink[®] Test[™] Release Notes

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R2015b

Version: 1.1

New Features

Bug Fixes

Expanded Simulink Test API: Automate test creation, editing, and execution using MATLAB scripts

You can use functions, classes, and methods to programmatically:

- Generate test cases from a model based on existing test harnesses and signal builder groups. See `sltest.testmanager.createTestsFromModel`.
- Edit test case simulation properties, parameter sets, and comparison criteria
- Create test files, test suites, and test cases
- Copy and move test suites and test cases
- Run individual test suites and test cases
- Copy a test harness, including its contents, configuration set, properties, and model association, using the `sltest.harness.clone` function

For more information about using the API, see “Automate Tests Programmatically”.

Test Case Automation: Create test cases with inputs generated by Simulink Design Verifier

Starting with the results of a Simulink® Design Verifier™ analysis, Simulink Test™ creates test cases that use the inputs generated by Simulink Design Verifier. Test cases appear in the test manager and can use an existing or new test harness. See “Test Models Using Inputs Generated by Simulink Design Verifier”.

Qualification and Certification: Qualify Simulink Test for supported industry standards, including DO-178 and ISO 26262

You can use the IEC Certification Kit and DO Qualification Kit to qualify Simulink Test for supported industry standards, including DO-178, ISO 26262, and IEC 61508.

Enhanced Reporting: Use Microsoft Word templates to customize report generation

If you have a MATLAB® Report Generator™ license, you can insert report items from the Simulink Test generated report into your own Microsoft® Word templates. For more information on report generation, see “Export Test Results and Generate Reports”.

Additional tools for Test Sequence editing and debugging

The test sequence editor includes new tools you can use when creating, editing, and debugging a test sequence, including

- Undo and redo edits
- Cut, copy, and paste test steps using keyboard shortcuts
- Simulation rollback

Simulink Report Generator inclusion for Test Sequence block

You can include data from Test Sequence blocks in a report, using the Test Sequence component in Simulink Report Generator.

R2015a

Version: 1.0

New Features

Introduction to Simulink Test

Simulink Test provides tools for authoring, managing, and systematically executing simulation-based tests. You can create nonintrusive test harnesses to test models and subsystems. You can generate reports, archive and review test results, rerun failed tests, and debug the component or system under test.

Test harness for subsystem and model testing

Test harnesses provide a separate, nonintrusive testing environment for your models. A test harness associates with a particular model or model component and persists with the model. You define tests by adding inputs and assessments to the harness, and you can set harness-specific simulation parameters. The test harness synchronizes model changes to the main model. The test manager can access the test harnesses in your model. See *Refine, Test, and Debug a Subsystem and Test Harness and Model Relationship*.

Test Sequence block for defining tests and assessments

Test Sequence blocks concisely define a series of test steps and transitions using MATLAB action language. Each step defines the block output values and the condition that triggers the transition to another test step. You can define a test step hierarchy using different transition modes. Test Sequence blocks include concise output functions, such as square and sawtooth, and operators that return temporal information, such as the elapsed step time or the duration of a condition.

You can assess the model operation in the test sequence, or in a separate Test Sequence block. See *Test Downshift Points of a Transmission Controller and the Test Sequence block*.

Test manager for test authoring and systematic test execution

The Simulink Test manager enables you to organize and run large sets of tests for Simulink models. Using the test manager, you can author and execute test cases individually or as a batch. You can also link to test requirements from each test case if you have a Simulink Verification and Validation™ license. After you execute tests, the test outcome and any simulation output appear in the **Results and Artifacts** pane of the test manager.

Baseline, equivalence, and back-to-back testing with pass-fail criteria

You can test models using baseline and equivalence test case templates in the test manager. Baseline test cases compare simulation output to defined expected outputs. Equivalence test cases compare simulation output a second simulation. The simulation output comparison is evaluated according to absolute or relative tolerances, which you specify under **Baseline Criteria** or **Equivalence Criteria**. For more information on tolerances, see [How Tolerances Are Applied to Test Criteria](#).

Archiving and reporting test cases and test results

After you execute tests, you can export the results in the **Results and Artifacts** pane of the test manager to a file or save them in a report. For more information on exporting results and generating reports, see [Export Test Results and Generate Reports](#).

