Model Advisor Report – SWC_STM.slx

Simulink version: 10.1

System: SWC_STM

Treat as Referenced Model: off

Model version: 1.503

Current run: 2021/12/08 10:06:13

Run Summary

Pass	Fail	Warning	Not Run	Total
✅ 308	❌ 0	⚠️ 127	🗒️ 626	1061

📁 By Task

📁 Simulink Code Inspector compatibility checks   ✅53 ❌0 ⚠️16 🗒️0

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⚠️ Check code generation settings

Verify 'Code interface packaging' setting

Check whether **Code Generation > Interface > Code interface packaging** is set to `Nonreusable function or Reusable function`.

Passed

Code Generation > Interface > Code interface packaging is set to `Nonreusable function or Reusable function`.

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Verify 'Use dynamic memory allocation for model initialization' setting

Check whether **Code Generation > Interface > Use dynamic memory allocation for model initialization** is cleared.

Passed

Code Generation > Interface > Use dynamic memory allocation for model initialization is cleared.

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Verify 'Shared code placement' setting

Check whether **Code Generation > Interface > Shared code placement** is set to `Shared location`.

Passed

Code Generation > Interface > Shared code placement is set to `Shared location`.

_____

Verify 'Source file' setting

Check whether **Code Generation > Custom Code > Source file** is set to `""` (i.e. unspecified).

Warning

Code Generation > Custom Code > Source file is not set to `""` .

Recommended Action

Set **Code Generation > Custom Code > Source file** to `""` .

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Verify 'Header file' setting

Check whether **Code Generation > Custom Code > Header file** is set to `""` (i.e. unspecified).

Passed

Code Generation > Custom Code > Header file is set to `""`.

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Verify 'Initialize function' setting

Check whether **Code Generation > Custom Code > Initialize function** is set to `""` (i.e. unspecified).

Passed

Code Generation > Custom Code > Initialize function is set to `""`.

_____

Verify 'Terminate function' setting

Check whether **Code Generation > Custom Code > Terminate function** is set to `""` (i.e. unspecified).

Passed

Code Generation > Custom Code > Terminate function is set to `""`.

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Verify 'Disable incompatible optimizations' setting

Check whether **Code Generation > Optimization > Disable incompatible optimizations** is set to `-SLCI`.

Warning

Code Generation > Optimization > Disable incompatible optimizations is not set to `-SLCI` .

Recommended Action

Set **Code Generation > Optimization > Disable incompatible optimizations** to `-SLCI` .

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Verify 'Combine signal/state structures' setting

Check whether **Code Generation > Interface > Combine signal/state structures** is cleared.

Passed

Code Generation > Interface > Combine signal/state structures is cleared.

_____

Verify 'Array layout' setting

Check whether **Code Generation > Interface > Array layout** is set to `Column-major`.

Passed

Code Generation > Interface > Array layout is set to `Column-major`.

_____

Verify 'Remove code from floating-point to integer conversions that wraps out-of-range values' setting

Check whether **Code Generation > Optimization > Remove code from floating-point to integer conversions that wraps out-of-range values** is selected.

Warning

Code Generation > Optimization > Remove code from floating-point to integer conversions that wraps out-of-range values is cleared.

Recommended Action

Select the **Code Generation > Optimization > Remove code from floating-point to integer conversions that wraps out-of-range values** checkbox.

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Verify 'Remove code from floating-point to integer conversions with saturation that maps NaN to zero' setting

Check whether **Code Generation > Optimization > Remove code from floating-point to integer conversions with saturation that maps NaN to zero** is cleared.

Warning

Code Generation > Optimization > Remove code from floating-point to integer conversions with saturation that maps NaN to zero is selected.

Recommended Action

Clear the **Code Generation > Optimization > Remove code from floating-point to integer conversions with saturation that maps NaN to zero** checkbox.

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Verify 'Include comments' setting

Check whether **Code Generation > Comments > Include comments** is selected.

Passed

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Code Generation > Comments > Include comments is selected.

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Verify 'Preserve condition expression in if statement' setting

Check whether **Code Generation > Code Style > Preserve condition expression in if statement** is selected.

Warning

Code Generation > Code Style > Preserve condition expression in if statement is cleared.

Recommended Action

Select the **Code Generation > Code Style > Preserve condition expression in if statement** checkbox.

_____

Verify 'Code replacement library' setting

Check whether **Code Generation > Interface > Code replacement library** is set to `None`.

Passed

Code Generation > Interface > Code replacement library is set to `None`.

_____

Verify 'Standard math library' setting

Check whether **Code Generation > Interface > Standard math library** is set to `C89/C90 (ANSI)` or `C99 (ISO)`.

Passed

Code Generation > Interface > Standard math library is set to `C89/C90 (ANSI) or C99 (ISO)`.

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Verify 'Classic call interface' setting

Check whether **Code Generation > Interface > Classic call interface** is cleared.

Passed

Code Generation > Interface > Classic call interface is cleared.

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Verify 'Terminate function required' setting

Check whether **Code Generation > Interface > Terminate function required** is cleared.

Passed

Code Generation > Interface > Terminate function required is cleared.

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Verify 'Remove code that protects against division arithmetic exceptions' setting

Check whether **Code Generation > Optimization > Remove code that protects against division arithmetic exceptions** is cleared.

Passed

Code Generation > Optimization > Remove code that protects against division arithmetic exceptions is cleared.

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Verify 'MAT-file logging' setting

Check whether **Code Generation > Interface > MAT-file logging** is cleared.

Passed

Code Generation > Interface > MAT-file logging is cleared.

_____

Verify 'Maximum stack size (bytes)' setting

Check whether **Code Generation > Optimization > Maximum stack size (bytes)** is set to `inf`.

Warning

Code Generation > Optimization > Maximum stack size (bytes) is not set to `inf`.

Recommended Action

Set **Code Generation > Optimization > Maximum stack size (bytes)** to `inf`.

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Verify 'Pack Boolean data into bitfields' setting

Check whether **Code Generation > Optimization > Pack Boolean data into bitfields** is cleared.

Passed

Code Generation > Optimization > Pack Boolean data into bitfields is cleared.

_____

Verify 'Use bitsets for storing state configuration' setting

Check whether **Code Generation > Optimization > Use bitsets for storing state configuration** is cleared.

Passed

Code Generation > Optimization > Use bitsets for storing state configuration is cleared.

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Verify 'non-finite numbers' setting

Check whether **Code Generation > Interface > non-finite numbers** is cleared.

Passed

Code Generation > Interface > non-finite numbers is cleared.

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Verify 'absolute time' setting

Check whether **Code Generation > Interface > absolute time** is cleared.

Warning

Code Generation > Interface > absolute time is selected.

Recommended Action

Clear the **Code Generation > Interface > absolute time** checkbox.

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Verify 'Operator to represent Bitwise and Logical Operator blocks' setting

Check whether **Code Generation > Optimization > Operator to represent Bitwise and Logical Operator blocks** is set to `Same as modeled or Bitwise operator.`

Passed

Code Generation > Optimization > Operator to represent Bitwise and Logical Operator blocks is set to `Same as modeled or Bitwise operator.`

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Verify 'Default parameter behavior' setting

This check applies only to referenced models. Top models are compatible for all possible values of 'Default parameter behavior'.

Passed

'Default parameter behavior' setting is compatible.

_____

Verify 'Remove error status field in real-time model data structure' setting

Check whether **Code Generation > Interface > Remove error status field in real-time model data structure** is selected.

Warning

Code Generation > Interface > Remove error status field in real-time model data structure is cleared.

Recommended Action

Select the **Code Generation > Interface > Remove error status field in real-time model data structure** checkbox.

_____

Verify 'Create block' setting

Check whether **Code Generation > Verification > Create block** is set to `none.`

Passed

Code Generation > Verification > Create block is set to `none.`

_____

Verify 'Measure function execution times' setting

Check whether **Code Generation > Verification > Measure function execution times** is set to `off`.

Passed

Code Generation > Verification > Measure function execution times is set to `off`.

_____

Verify 'Signal naming' setting

Check whether **Code Generation > Identifiers > Signal naming** is set to `None`.

Passed

Code Generation > Identifiers > Signal naming is set to `None`.

_____

Verify 'Parameter naming' setting

Check whether **Code Generation > Identifiers > Parameter naming** is set to `None`.

Passed

Code Generation > Identifiers > Parameter naming is set to `None`.

_____

Verify 'TLC options' setting

Check whether **Code Generation > TLC options** is set to `""` (i.e. unspecified).

Passed

Code Generation > TLC options is set to `""`.

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Verify 'variable-size signals' setting

Check whether **Code Generation > Interface > variable-size signals** is cleared.

Passed

Code Generation > Interface > variable-size signals is cleared.

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Verify 'Single output/update function' setting

Check whether **Code Generation > Interface > Single output/update function** is selected.

Passed

Code Generation > Interface > Single output/update function is selected.

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Verify 'Generate an example main program' setting

Check whether **Code Generation > Templates > Generate an example main program** is selected.

Warning

Code Generation > Templates > Generate an example main program is cleared.

Recommended Action

Select the **Code Generation > Templates > Generate an example main program** checkbox.

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Verify 'Use bitsets for storing Boolean data' setting

Check whether **Code Generation > Optimization > Use bitsets for storing Boolean data** is cleared.

Passed

Code Generation > Optimization > Use bitsets for storing Boolean data is cleared.

_____

Verify 'Casting modes' setting

Check whether **Code Generation > Code Style > Casting modes** is set to `Nominal or Standards.`

Passed

Code Generation > Code Style > Casting modes is set to `Nominal or Standards.`

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Verify 'Suppress generation of default cases for Stateflow switch statements if unreachable' setting

Check whether **Code Generation > Code Style > Suppress generation of default cases for Stateflow switch statements if unreachable** is cleared.

Warning

Code Generation > Code Style > Suppress generation of default cases for Stateflow switch statements if unreachable is selected.

Recommended Action

Clear the **Code Generation > Code Style > Suppress generation of default cases for Stateflow switch statements if unreachable** checkbox.

_____

Verify 'Optimize using the specified minimum and maximum values' setting

Check whether **Code Generation > Optimization > Optimize using the specified minimum and maximum values** is cleared.

Passed

Code Generation > Optimization > Optimize using the specified minimum and maximum values is cleared.

_____

Verify 'Existing shared code' setting

Check whether **Code Generation > Interface > Existing shared code** is set to `""` (i.e. unspecified).

8

Passed

Code Generation > Interface > Existing shared code is set to   " ".

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Verify 'parameters' setting

Check whether **Code Generation > Interface > parameters** is cleared.

Passed

Code Generation > Interface > parameters is cleared.

_____

Verify 'signals' setting

Check whether **Code Generation > Interface > signals** is cleared.

Passed

Code Generation > Interface > signals is cleared.

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Verify 'states' setting

Check whether **Code Generation > Interface > states** is cleared.

Passed

Code Generation > Interface > states is cleared.

_____

Verify 'root-level I/O' setting

Check whether **Code Generation > Interface > root-level I/O** is cleared.

Passed

Code Generation > Interface > root-level I/O is cleared.

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Verify 'External mode' setting

Check whether **Code Generation > Interface > External mode** is cleared.

Passed

Code Generation > Interface > External mode is cleared.

_____

Verify 'ASAP2 interface' setting

Check whether **Code Generation > Interface > ASAP2 interface** is cleared.

Warning

Code Generation > Interface > ASAP2 interface is selected.

Recommended Action

Clear the **Code Generation > Interface > ASAP2 interface** checkbox.

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Verify 'Rate Transition block code' setting

Check whether **Code Generation > Code Placement > Rate Transition block code** is set to `Inline`.

Passed

Code Generation > Code Placement > Rate Transition block code is set to `Inline`.

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✅ Check data import and export settings

Verify 'Initial state' setting

Check whether **Data Import/Export > Initial state** is cleared.

Passed

Data Import/Export > Initial state is cleared.

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⚠️ Check diagnostic settings

Verify 'Multitask data store' setting

Check whether **Diagnostics > Data Validity > Multitask data store** is set to `error`.

Passed

Diagnostics > Data Validity > Multitask data store is set to `error`.

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Verify 'Multitask rate transition' setting

Check whether **Diagnostics > Sample Time > Multitask rate transition** is set to `error`.

Passed

Diagnostics > Sample Time > Multitask rate transition is set to `error`.

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Verify 'Multitask conditionally executed subsystem' setting

Check whether **Diagnostics > Sample Time > Multitask conditionally executed subsystem** is set to `error`.

Passed

Diagnostics > Sample Time > Multitask conditionally executed subsystem is set to `error`.

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Verify 'Algebraic loop' setting

Check whether **Diagnostics > Algebraic loop** is set to `error`.

Warning

Diagnostics > Algebraic loop is not set to `error` .

Recommended Action
Set **Diagnostics > Algebraic loop** to `error` .

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Verify 'Detect write after write' setting
Check whether **Diagnostics > Data Validity > Detect write after write** is set to `EnableAllAsError`.

Warning

Diagnostics > Data Validity > Detect write after write is not set to `EnableAllAsError` .

Recommended Action
Set **Diagnostics > Data Validity > Detect write after write** to `EnableAllAsError` .

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Verify 'Underspecified initialization detection' setting
Check whether **Diagnostics > Data Validity > Underspecified initialization detection** is set to `Simplified`.

Passed

Diagnostics > Data Validity > Underspecified initialization detection is set to `Simplified`.

_____

Verify 'Non-bus signals treated as bus signals' setting
Check whether **Diagnostics > Connectivity > Non-bus signals treated as bus signals** is set to `error`.

Warning

Diagnostics > Connectivity > Non-bus signals treated as bus signals is not set to `error` .This incompatibility is fatal and will prevent execution of the Code Inspector

Recommended Action
Set **Diagnostics > Connectivity > Non-bus signals treated as bus signals** to `error` .

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Verify 'Detect downcast' setting
Check whether **Diagnostics > Data Validity > Detect downcast** is set to `error`.

Passed

Diagnostics > Data Validity > Detect downcast is set to `error`.

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Verify 'Detect overflow' setting
Check whether **Diagnostics > Data Validity > Detect overflow** is set to `error`.

Passed

Diagnostics > Data Validity > Detect overflow is set to `error`.

_____

Verify 'Wrap on overflow' setting

Check whether **Diagnostics > Data Validity > Wrap on overflow** is set to `error`.

Warning

Diagnostics > Data Validity > Wrap on overflow is not set to `error` .

Recommended Action

Set **Diagnostics > Data Validity > Wrap on overflow** to `error` .

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Verify 'Saturate on overflow' setting

Check whether **Diagnostics > Data Validity > Saturate on overflow** is set to `error`.

Warning

Diagnostics > Data Validity > Saturate on overflow is not set to `error` .

Recommended Action

Set **Diagnostics > Data Validity > Saturate on overflow** to `error` .

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Verify 'Detect underflow' setting

Check whether **Diagnostics > Data Validity > Detect underflow** is set to `error`.

Warning

Diagnostics > Data Validity > Detect underflow is not set to `error` .

Recommended Action

Set **Diagnostics > Data Validity > Detect underflow** to `error` .

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Verify 'Detect loss of tunability' setting

Check whether **Diagnostics > Data Validity > Detect loss of tunability** is set to `error`.

Passed

Diagnostics > Data Validity > Detect loss of tunability is set to `error`.

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Verify 'Allow symbolic dimension specification' setting

Check whether **Diagnostics > Allow symbolic dimension specification** is cleared.

Warning

Diagnostics > Allow symbolic dimension specification is selected.

Recommended Action
Clear the **Diagnostics > Allow symbolic dimension specification** checkbox.
_____

Verify 'Invalid root Inport/Outport block connection' setting
Check whether **Diagnostics > Model Referencing > Invalid root Inport/Outport block connection** is set to `error`.

Warning
Diagnostics > Model Referencing > Invalid root Inport/Outport block connection is not set to `error` .

Recommended Action
Set **Diagnostics > Model Referencing > Invalid root Inport/Outport block connection** to `error` .
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Verify 'Unexpected backtracking' setting
Check whether **Diagnostics > Stateflow > Unexpected backtracking** is set to `error`.

Passed
Diagnostics > Stateflow > Unexpected backtracking is set to `error`.
_____

Verify 'Invalid input data access in chart initialization' setting
Check whether **Diagnostics > Stateflow > Invalid input data access in chart initialization** is set to `error`.

Warning
Diagnostics > Stateflow > Invalid input data access in chart initialization is not set to `error` .

Recommended Action
Set **Diagnostics > Stateflow > Invalid input data access in chart initialization** to `error` .
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Verify 'No unconditional default transitions' setting
Check whether **Diagnostics > Stateflow > No unconditional default transitions** is set to `error`.

Passed
Diagnostics > Stateflow > No unconditional default transitions is set to `error`.
_____

Verify 'Transition outside natural parent' setting
Check whether **Diagnostics > Stateflow > Transition outside natural parent** is set to `error`.

Diagnostics > Stateflow > Transition outside natural parent is not set to `error` .

Recommended Action

Set **Diagnostics > Stateflow > Transition outside natural parent** to `error` .

_____

Verify 'Unreachable execution path' setting

Check whether **Diagnostics > Stateflow > Unreachable execution path** is set to `error`.

Diagnostics > Stateflow > Unreachable execution path is not set to `error` .

Recommended Action

Set **Diagnostics > Stateflow > Unreachable execution path** to `error` .

_____

Verify 'Undirected event broadcasts' setting

Check whether **Diagnostics > Stateflow > Undirected event broadcasts** is set to `error`.

Diagnostics > Stateflow > Undirected event broadcasts is not set to `error` .

Recommended Action

Set **Diagnostics > Stateflow > Undirected event broadcasts** to `error` .

_____

Verify 'Transition action specified before condition action' setting

Check whether **Diagnostics > Stateflow > Transition action specified before condition action** is set to `error`.

Diagnostics > Stateflow > Transition action specified before condition action is not set to `error` .

Recommended Action

Set **Diagnostics > Stateflow > Transition action specified before condition action** to `error` .

_____

Verify Bus signal treated as vector setting

Check whether **Diagnostics > Connectivity > Bus signal treated as vector** is set to `'error'`

Diagnostics > Connectivity > Bus signal treated as vector is not set to `error`.This incompatibility is fatal and will prevent execution of the Code Inspector

Recommended Action

Set **Diagnostics > Connectivity > Bus signal treated as vector** to `error`.

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⚠️ Check hardware implementation settings

Verify 'char' setting

Check whether **Hardware Implementation > char** is set to 8.

Passed

Hardware Implementation > char is set to 8.

_____

Verify 'short' setting

Check whether **Hardware Implementation > short** is set to 16.

Passed

Hardware Implementation > short is set to 16.

_____

Verify 'int' setting

Check whether **Hardware Implementation > int** is set to 32.

Passed

Hardware Implementation > int is set to 32.

_____

Verify 'long' setting

Check whether **Hardware Implementation > long** is set to 32.

Passed

Hardware Implementation > long is set to 32.

_____

Verify 'float' setting

Check whether **Hardware Implementation > float** is set to 32.

Passed

Hardware Implementation > float is set to 32.

_____

Verify 'double' setting

Check whether **Hardware Implementation > double** is set to 64.

Passed

Hardware Implementation > double is set to 64.

_____

Verify 'pointer' setting

Check whether **Hardware Implementation > pointer** is set to 32.

Warning

Hardware Implementation > pointer is not set to 32 .

Recommended Action

Set **Hardware Implementation > pointer** to 32 . Select a compatible device with attributes matching those listed in the SLCI Hardware Implementation checks and the SLCI documentation.

_____

Verify 'size_t' setting

Check whether **Hardware Implementation > size_t** is set to 32.

Warning

Hardware Implementation > size_t is not set to 32 .

Recommended Action

Set **Hardware Implementation > size_t** to 32 . Select a compatible device with attributes matching those listed in the SLCI Hardware Implementation checks and the SLCI documentation.

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Verify 'ptrdiff_t' setting

Check whether **Hardware Implementation > ptrdiff_t** is set to 32.

Warning

Hardware Implementation > ptrdiff_t is not set to 32 .

Recommended Action

Set **Hardware Implementation > ptrdiff_t** to 32 . Select a compatible device with attributes matching those listed in the SLCI Hardware Implementation checks and the SLCI documentation.

_____

Verify 'native' setting

Check whether **Hardware Implementation > native** is set to 32.

Warning

Hardware Implementation > native is not set to 32 .

Recommended Action

Set **Hardware Implementation > native** to 32 . Select a compatible device with attributes matching those listed in the SLCI Hardware Implementation checks and the SLCI documentation.

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Verify 'Signed integer division rounds to' setting

Check whether **Hardware Implementation > Signed integer division rounds to** is set to Zero.

Passed

Hardware Implementation > Signed integer division rounds to is set to `Zero.`

_____

Verify 'Shift right on a signed integer as arithmetic shift' setting

Check whether **Hardware Implementation > Shift right on a signed integer as arithmetic shift** is selected.

Passed

Hardware Implementation > Shift right on a signed integer as arithmetic shift is selected.

_____

Verify 'Support long long' setting

Check whether **Hardware Implementation > Support long long** is cleared.

Passed

Hardware Implementation > Support long long is cleared.

_____

Verify 'Test hardware is the same as production hardware' setting

Check whether **Hardware Implementation > Test hardware is the same as production hardware** is selected.

Passed

Hardware Implementation > Test hardware is the same as production hardware is selected.

_____

Verify 'Device vendor' setting

Identify whether **Hardware Implementation > Device vendor** is not set to `ASIC/FPGA->ASIC/FPGA .`

Passed

Hardware Implementation > Device vendor is not set to `ASIC/FPGA->ASIC/FPGA .`

_____

✅ Check math and data types settings

Verify 'Implement logic signals as Boolean data (vs. double)' setting

Check whether **Math and Data Types > Implement logic signals as Boolean data (vs. double)** is selected.

Passed

Math and Data Types > Implement logic signals as Boolean data (vs. double) is selected.

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Verify 'Use algorithms optimized for row-major array layout' setting

Check whether **Math and Data Types > Use algorithms optimized for row-major array layout** is cleared.

Passed

Math and Data Types > Use algorithms optimized for row-major array layout is cleared.

_____

✅ Check solver settings

Verify 'Type' setting

Check whether **Solver > Type** is set to `Fixed-step`.

Passed

Solver > Type is set to `Fixed-step`.

_____

Verify 'Solver' setting

Check whether **Solver > Solver** is set to `FixedStepDiscrete`.

Passed

Solver > Solver is set to `FixedStepDiscrete`.

_____

Verify 'Periodic sample time constraint' setting

Check whether **Solver > Periodic sample time constraint** is set to `Unconstrained or STIndependent`.

Passed

Solver > Periodic sample time constraint is set to `Unconstrained or STIndependent`.

_____

Verify 'Automatically handle rate transition for data transfer' setting

Check whether **Solver > Automatically handle rate transition for data transfer** is cleared.

Passed

Solver > Automatically handle rate transition for data transfer is cleared.

_____

Verify 'Allow tasks to execute concurrently on target' setting

Check whether **Solver > Allow tasks to execute concurrently on target** is cleared.

Passed

Solver > Allow tasks to execute concurrently on target is cleared.

_____

✅ Check for unconnected objects in the model

Check for unconnected objects

Identify unconnected lines, input ports, and output ports in the model or subsystem

Passed

There are no unconnected lines, input ports, or output ports in the model or subsystem.

_____

✅ Check system target file setting

Verify System target file setting

Check whether Code Generation > System target file is ert.tlc or a System target file derived from ERT

Passed

The target is ERT or derived from ERT.

_____

✅ Check function specification setting

Check model interface settings

Check whether the `Configure arguments for Step function prototype` setting in the Configure C Step Function Interface dialog box is cleared.

Passed

The `Configure arguments for Step function prototype` setting in the Configure C Step Function Interface dialog box is cleared.

_____

✅ Check for usage of fixed-point instrumentation

Verify usage of fixed-point instrumentation

Simultaneous usage of fixed-point instrumentation and block reduction can lead to incompatibilities during code inspection

Passed

Fixed-point instrumentation and block reduction are not used simultaneously.

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⚠️ Check for unsupported blocks

Check for blocks not supported by Simulink Code Inspector

Identify blocks that are not supported by Simulink Code Inspector

19

The following block(s) are not supported by Simulink Code Inspector:

Blocks	Block Type
SWC_STM/SWC_STM_Init/Event Listener	EventListener

Recommended Action

Replace previously listed blocks with supported blocks. Review the unsupported block section of the Simulink Code Inspector documentation and follow the given advice.

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✅ Check storage class for workspace variables

Check storage class for workspace variables referenced by the model
Identify workspace variables using unsupported storage class in the model

Passed
All of the workspace variables referenced by the model use supported storage classes.

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✅ Check GetSet storage class for workspace variables

Check storage class for workspace variables referenced by the model
Identify GetSet storage class workspace variables in the model that use unsupported specifications

Passed
All GetSet storage class workspace variables in the model meet a supported specification.

_____

⚠️ Check for sample times in the model

Check sample times
Identify continuous, asynchronous, multiple, explicit discrete partition, data driven, union, or variable sample times

Warning

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The model uses exported discrete sample times.This incompatibility is fatal and will prevent execution of the Code Inspector

 Recommended Action

Modify the model so that no continuous, asynchronous, explicit discrete partition, data driven, union, exported discrete or variable sample times are being used.

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 Check for explicit partitions

Identify explicit partitions in the model

 Passed

No explicit partitions were found.

_____

✅ Check usage of Sources blocks

 Check Inport blocks

Identify Inport blocks that might impact compatibility with Simulink Code Inspector

 Passed

All Inport blocks are compatible with Simulink Code Inspector.

_____

 Check Inport Shadow blocks

Identify Inport Shadow blocks that might impact compatibility with Simulink Code Inspector

 Passed

No Inport Shadow blocks were found.

_____

 Check Constant blocks

Identify Constant blocks that might impact compatibility with Simulink Code Inspector

 Passed

All Constant blocks are compatible with Simulink Code Inspector.

_____

 Check Ground blocks

Identify Ground blocks that might impact compatibility with Simulink Code Inspector

 Passed

All Ground blocks are compatible with Simulink Code Inspector.

_____

⚠ Check usage of Signal Routing blocks

Check Bus Creator blocks

Identify Bus Creator blocks that might impact compatibility with Simulink Code Inspector

Passed

No Bus Creator blocks were found.

_____

Check Bus Selector blocks

Identify Bus Selector blocks that might impact compatibility with Simulink Code Inspector

Passed

No Bus Selector blocks were found.

_____

Check Bus Assignment blocks

Identify Bus Assignment blocks that might impact compatibility with Simulink Code Inspector

Passed

No Bus Assignment blocks were found.

_____

Check Data Store Memory blocks

Identify Data Store Memory blocks that might impact compatibility with Simulink Code Inspector

Passed

No Data Store Memory blocks were found.

_____

Check Data Store Read blocks

Identify Data Store Read blocks that might impact compatibility with Simulink Code Inspector

Passed

No Data Store Read blocks were found.

_____

Check Data Store Write blocks

Identify Data Store Write blocks that might impact compatibility with Simulink Code Inspector

Passed

No Data Store Write blocks were found.

_____

Check From blocks

Identify From blocks that might impact compatibility with Simulink Code Inspector

Passed

All From blocks are compatible with Simulink Code Inspector.

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Check Goto blocks

Identify Goto blocks that might impact compatibility with Simulink Code Inspector

Passed

All Goto blocks are compatible with Simulink Code Inspector.

_____

Check Merge blocks

Identify Merge blocks that might impact compatibility with Simulink Code Inspector

Passed

No Merge blocks were found.

_____

Check Switch blocks

Identify Switch blocks that might impact compatibility with Simulink Code Inspector

Warning

The following blocks are constant or have ports connected to Constant blocks or other blocks that are constant:

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Switch1

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Switch1

Recommended Action

Set the blocks to non-constant, and ensure that the source connected to inport 2 is not a Constant block or other block that is constant.

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Check Multiport Switch blocks

Identify Multiport Switch blocks that might impact compatibility with Simulink Code Inspector

Passed

No Multiport Switch blocks were found.

_____

Check Mux blocks

Identify Mux blocks that might impact compatibility with Simulink Code Inspector

Passed

No Mux blocks were found.

_____

Check Demux blocks

Identify Demux blocks that might impact compatibility with Simulink Code Inspector

Passed

No Demux blocks were found.

_____

Check Selector blocks

Identify Selector blocks that might impact compatibility with Simulink Code Inspector

Passed

No Selector blocks were found.

_____

Check Vector Concatenate blocks

Identify Vector Concatenate blocks that might impact compatibility with Simulink Code Inspector

Passed

No Vector Concatenate blocks were found.

_____

⚠ Check usage of Math Operations blocks

Check Absolute blocks

Identify Absolute blocks that might impact compatibility with Simulink Code Inspector

Passed

All Absolute blocks are compatible with Simulink Code Inspector.

_____

Check Bias blocks

Identify Bias blocks that might impact compatibility with Simulink Code Inspector

Passed

No Bias blocks were found.

_____

Check Gain blocks

Identify Gain blocks that might impact compatibility with Simulink Code Inspector

Passed

All Gain blocks are compatible with Simulink Code Inspector.

_____

Check Math blocks

Identify Math blocks that might impact compatibility with Simulink Code Inspector

Passed

No Math blocks were found.

_____

Check Product blocks

Identify Product blocks that might impact compatibility with Simulink Code Inspector

Passed

No Product blocks were found.

_____

Check Sum blocks

Identify Sum blocks that might impact compatibility with Simulink Code Inspector

Warning

The following Sum blocks use different data types for the input data type and the Accumulator data type:

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Add

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Add

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Add

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Add

Recommended Action

Modify the model so that each Sum block listed in the results uses the same data type for all its inputs and its accumulator. In the block parameters dialog boxes of these blocks, consider setting Accumulator data type to 'Inherit: Same as first input'.   **Warning**

The following block(s) use different data types for input and output ports:

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Add

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Add

Recommended Action

Modify the model so that each block listed in the results uses the same data type for all its input and output ports.

_____

Check Trigonometry blocks
Identify Trigonometry blocks that might impact compatibility with Simulink Code Inspector

Passed
No Trigonometry blocks were found.

_____

Check Minmax blocks
Identify Minmax blocks that might impact compatibility with Simulink Code Inspector

Passed
No Minmax blocks were found.

_____

Check Rounding Function blocks
Identify Rounding Function blocks that might impact compatibility with Simulink Code Inspector

Passed
No Rounding Function blocks were found.

_____

Check Reshape blocks
Identify Reshape blocks that might impact compatibility with Simulink Code Inspector

Passed
No Reshape blocks were found.

_____

Check Sign blocks

Identify Sign blocks that might impact compatibility with Simulink Code Inspector

Passed

No Sign blocks were found.

_____

Check Sqrt blocks

Identify Sqrt blocks that might impact compatibility with Simulink Code Inspector

Passed

No Sqrt blocks were found.

_____

Check Assignment blocks

Identify Assignment blocks that might impact compatibility with Simulink Code Inspector

Passed

No Assignment blocks were found.

_____

Check Polynomial blocks

Identify Polynomial blocks that might impact compatibility with Simulink Code Inspector

Passed

No Polynomial blocks were found.

_____

Check DotProduct blocks

Identify DotProduct blocks that might impact compatibility with Simulink Code Inspector

Passed

No DotProduct blocks were found.

_____

Check UnaryMinus blocks

Identify UnaryMinus blocks that might impact compatibility with Simulink Code Inspector

Passed

No UnaryMinus blocks were found.

_____

⚠ Check usage of Signal Attributes blocks

Check Data Type Conversion blocks

Identify Data Type Conversion blocks that might impact compatibility with Simulink Code Inspector

Passed

No Data Type Conversion blocks were found.

_____

Check Data Type Duplicate blocks

Identify Data Type Duplicate blocks that might impact compatibility with Simulink Code Inspector

Passed

No Data Type Duplicate blocks were found.

_____

Check Data Type Propagation blocks

Identify Data Type Propagation blocks that might impact compatibility with Simulink Code Inspector

Passed

No Data Type Propagation blocks were found.

_____

Check Initial Condition blocks

Identify Initial Condition blocks that might impact compatibility with Simulink Code Inspector

Passed

No Initial Condition blocks were found.

_____

Check Signal Specification blocks

Identify Signal Specification blocks that might impact compatibility with Simulink Code Inspector

Passed

No Signal Specification blocks were found.

_____

Check Signal Conversion blocks

Identify Signal Conversion blocks that might impact compatibility with Simulink Code Inspector

Warning

The following block(s) use an incompatible setting for OverrideOpt:

- SWC_STM/SWC_STM_1ms_sys/Signal Conversion

- SWC_STM/SWC_STM_1ms_sys/Signal Conversion1

Recommended Action

Set the parameter OverrideOpt for the blocks listed in the results to on.

_____

Check Probe blocks
Identify Probe blocks that might impact compatibility with Simulink Code Inspector

Passed
No Probe blocks were found.

_____

Check RateTransition blocks
Identify RateTransition blocks that might impact compatibility with Simulink Code Inspector

Passed
No RateTransition blocks were found.

_____

Check Width blocks
Identify Width blocks that might impact compatibility with Simulink Code Inspector

Passed
No Width blocks were found.

_____

Check Unit Conversion blocks
Identify Unit Conversion blocks that might impact compatibility with Simulink Code Inspector

Passed
No Unit Conversion blocks were found.

_____

⚠ Check usage of Logical and Bit Operations blocks

Check Relational Operator blocks
Identify Relational Operator blocks that might impact compatibility with Simulink Code Inspector

Passed
All Relational Operator blocks are compatible with Simulink Code Inspector.

_____

Check Logic blocks

Identify Logic blocks that might impact compatibility with Simulink Code Inspector

One or more output signals of the following blocks do not have their custom storage class Type set to 'Unstructured', or do not have their Data initialization set to 'None', or specify a signal object with a non-empty InitialValue.

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator1

Recommended Action

Modify the affected output signals such that their custom storage class Type is set to 'Unstructured', Data initialization is set to a value other than 'None', and the InitialValue of their signal object is empty.

_____

Check Bitwise Operator blocks
Identify Bitwise Operator blocks that might impact compatibility with Simulink Code Inspector

Passed
No Bitwise Operator blocks were found.

_____

Check ArithShift blocks
Identify ArithShift blocks that might impact compatibility with Simulink Code Inspector

Passed
No ArithShift blocks were found.

_____

Check Combinatorial Logic blocks
Identify Combinatorial Logic blocks that might impact compatibility with Simulink Code Inspector

Passed

No Combinatorial Logic blocks were found.

_____

✅ Check usage of Lookup Tables blocks

Check Lookup Table (n-D) blocks

Identify Lookup Table (n-D) blocks that might impact compatibility with Simulink Code Inspector

Passed

No Lookup Table (n-D) blocks were found.

_____

Check PreLookup blocks

Identify PreLookup blocks that might impact compatibility with Simulink Code Inspector

Passed

No PreLookup blocks were found.

_____

Check Interpolation Using Prelookup (n-D) blocks

Identify Interpolation Using Prelookup (n-D) blocks that might impact compatibility with Simulink Code Inspector

Passed

No Interpolation Using Prelookup (n-D) blocks were found.

_____

✅ Check usage of User-Defined Function blocks

Check S-Function blocks

Identify S-Function blocks that might impact compatibility with Simulink Code Inspector

Passed

No S-Function blocks were found.

_____

Check Fcn blocks

Identify Fcn blocks that might impact compatibility with Simulink Code Inspector

Passed

No Fcn blocks were found.

_____

⚠️ Check usage of Ports and Subsystems blocks

Check Enable Port blocks

Identify Enable Port blocks that might impact compatibility with Simulink Code Inspector

31

Passed

All Enable Port blocks are compatible with Simulink Code Inspector.

_____

Check Model Reference blocks

Identify Model Reference blocks that might impact compatibility with Simulink Code Inspector

Passed

No Model Reference blocks were found.

_____

Check Subsystem blocks

Identify Subsystem blocks that might impact compatibility with Simulink Code Inspector

Warning

One or more output signals of the following blocks do not have their custom storage class Type set to 'Unstructured', or do not have their Data initialization set to 'None', or specify a signal object with a non-empty InitialValue.

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon

Recommended Action

Modify the affected output signals such that their custom storage class Type is set to 'Unstructured', Data initialization is set to a value other than 'None', and the InitialValue of their signal object is empty.   **Warning**

The following subsystems are not supported:

- SWC_STM/SWC_STM_1ms_sys

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable

- SWC_STM/SWC_STM_Init

Recommended Action

Restructure the model so that the subsystems listed in the results set 'Function packaging (RTWSystemCode)' to 'Inline' , 'Nonreusable function' or 'Reusable function'.

If 'Nonreusable function' is selected, the subsystem must use the following configuration:

- 'Function name options (RTWFcnNameOpts)' is set to 'User specified'

- 'Function interface (FunctionInterfaceSpec)' is set to 'void_void'

- 'Function with separate data (FunctionWithSeparateData)' is set to 'off'.

For non-inlined subsystems, the model must set 'Code interface packaging (CodeInterfacePackaging)' to 'Nonreusable function'. If 'Reusable function' is selected, the model must set 'Pass reusable subsystem outputs as' to 'Individual arguments'.

Warning

The following reusable subsystems are not supported:

- SWC_STM/SWC_STM_1ms_sys/Debouncer

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer

Recommended Action

Modify reusable subsystems in the model so that they are from a library and are unmasked single rate atomic or function-call subsystems

_____

Check Action Subsystem blocks
Identify Action Subsystem blocks that might impact compatibility with Simulink Code Inspector

Passed
No Action Subsystem blocks were found.
_____

Check Trigger Port blocks

Identify Trigger Port blocks that might impact compatibility with Simulink Code Inspector

Passed

All Trigger Port blocks are compatible with Simulink Code Inspector.

_____

Check Action Port blocks

Identify Action Port blocks that might impact compatibility with Simulink Code Inspector

Passed

No Action Port blocks were found.

_____

Check If blocks

Identify If blocks that might impact compatibility with Simulink Code Inspector

Passed

No If blocks were found.

_____

Check Function-Call Generator blocks

Identify Function-Call Generator blocks that might impact compatibility with Simulink Code Inspector

Passed

No Function-Call Generator blocks were found.

_____

Check Function-Call Split blocks

Identify Function-Call Split blocks that might impact compatibility with Simulink Code Inspector

Passed

No Function-Call Split blocks were found.

_____

Check SwitchCase blocks

Identify SwitchCase blocks that might impact compatibility with Simulink Code Inspector

Passed

No SwitchCase blocks were found.

_____

Check For Iterator blocks

Identify For Iterator blocks that might impact compatibility with Simulink Code Inspector

Passed

No For Iterator blocks were found.

_____

Check For Each blocks

Identify For Each blocks that might impact compatibility with Simulink Code Inspector

Passed

No For Each blocks were found.

_____

Check State Control blocks

Identify State Control blocks that might impact compatibility with Simulink Code Inspector

Passed

No State Control blocks were found.

_____

✅ Check usage of Discontinuities blocks

Check Saturate blocks

Identify Saturate blocks that might impact compatibility with Simulink Code Inspector

Passed

No Saturate blocks were found.

_____

Check Relay blocks

Identify Relay blocks that might impact compatibility with Simulink Code Inspector

Passed

No Relay blocks were found.

_____

Check Dead Zone blocks

Identify Dead Zone blocks that might impact compatibility with Simulink Code Inspector

Passed

No Dead Zone blocks were found.

_____

✅ Check usage of Sinks blocks

Check Outport blocks

Identify Outport blocks that might impact compatibility with Simulink Code Inspector

Passed

All Outport blocks are compatible with Simulink Code Inspector.

_____

Check Terminator blocks

Identify Terminator blocks that might impact compatibility with Simulink Code Inspector

Passed

All Terminator blocks are compatible with Simulink Code Inspector.

_____

✅ Check usage of Discrete blocks

Check Unit Delay blocks

Identify Unit Delay blocks that might impact compatibility with Simulink Code Inspector

Passed

All Unit Delay blocks are compatible with Simulink Code Inspector.

_____

Check Discrete Integrator blocks

Identify Discrete Integrator blocks that might impact compatibility with Simulink Code Inspector

Passed

No Discrete Integrator blocks were found.

_____

Check Delay blocks

Identify Delay blocks that might impact compatibility with Simulink Code Inspector

Passed

All Delay blocks are compatible with Simulink Code Inspector.

_____

⚠️ Check usage of root Outport blocks

Verify sample times

Identify root Outport blocks that specify a constant sample time.

Passed

No root Outport blocks specify a constant sample time.

_____

Verify root Outports pass buses to parent models as structures

A root Outport block must pass a bus to a parent model as a structure so that Simulink does not introduce a hidden bus conversion block in the parent model.

Warning

This check failed because the following prerequisite(s) for the check failed :

Diagnostics > Connectivity > Bus signal treated as vector is not set to `error`.This incompatibility is fatal and will prevent execution of the Code Inspector

Recommended Action

Set **Diagnostics > Connectivity > Bus signal treated as vector** to `error`.

_____

✅ Check for unsupported Signal Conversion blocks automatically inserted at signals entering block input ports

Verify no unsupported Signal Conversion blocks are automatically inserted at signals entering block inports

Verification of Signal Conversion blocks that have been automatically inserted is not supported

Passed

No unsupported Signal Conversion blocks are automatically inserted at signals entering block inports.

_____

⚠️ Check usage of buses

Check for automatic conversion between virtual to non-virtual buses.

Verify that there is no automatic conversion from virtual to non-virtual buses.

Warning

This check failed because the following prerequisite(s) for the check failed :

Diagnostics > Connectivity > Bus signal treated as vector is not set to `error`.This incompatibility is fatal and will prevent execution of the Code Inspector

Recommended Action

Set **Diagnostics > Connectivity > Bus signal treated as vector** to `error`.

_____

Verify that blocks in the model do not perform unsupported operations on a bus

Non-virtual blocks must not operate on a virtual bus and Bus Assignment blocks must not operate on a non-virtual bus.

Warning

This check failed because the following prerequisite(s) for the check failed :

Diagnostics > Connectivity > Bus signal treated as vector is not set to `error`.This incompatibility is fatal and will prevent execution of the Code Inspector

Recommended Action

Set **Diagnostics > Connectivity > Bus signal treated as vector** to `error`.

_____

✅ Check for usage of synthesized local data stores

Verify synthesized local data store usage

Identify signal objects in the model workspace that are referenced as synthesized local data stores by Data Store Read or Data Store Write blocks. If Simulink software finds such a signal object, it creates a hidden Data Store Memory block at the model's root level. This model is not compatible with Simulink Code Inspector.

Passed

There are no signal objects in the model workspace referenced as synthesized local data stores by Data Store Read or Data Store Write blocks in this model.

_____

✅ Check usage of global data stores

Verify global data store usage

Global data store memory blocks may not be used unless parameters are inlined, and their InitialValue is not a tunable parameter

Passed

There is no unsupported usage of global data stores.

_____

✅ Check global data stores' name shadow

Verify global data store's name shadow

Global data store memory blocks may not be used if they are shadowed by local data store memory blocks

Passed

There is no shadowed usage of global data stores

_____

⚠ Check for root Outport blocks being conditionally assigned

Verify that root outports are not assigned conditionally

Code verification is not supported for submodels for which root outports are assigned by conditionally executed subsystems.

Warning

This check failed because the following prerequisite(s) for the check failed :

Diagnostics > Connectivity > Bus signal treated as vector is not set to `error`.This incompatibility is fatal and will prevent execution of the Code Inspector

Recommended Action

Set **Diagnostics > Connectivity > Bus signal treated as vector** to `error`.

✅ Check conditional input branch execution setting

Verify conditional input branch execution setting

Check whether 'Signal storage reuse' and 'Enable local block outputs' are set when conditional input branch execution is set

Passed

Conditional input branch execution setting is compatible.

_____

Verify conditional input branch execution setting when using Multiport Switch blocks

Check whether conditional input branch execution is cleared when using Multiport Switch blocks

Passed

Conditional input branch execution setting is compatible.

✅ Check usage of Stateflow blocks

Check Stateflow blocks

Identify Stateflow blocks that might impact compatibility with Simulink Code Inspector

Passed

No Stateflow blocks were found.

✅ Check for Stateflow machine data

All Stateflow data must be parented by a Stateflow chart

Simulink Code Inspector does not support Stateflow data of machine scope

Passed

No Stateflow data is of machine scope.

✅ Check for Stateflow machine events

All Stateflow events must be parented by a Stateflow chart

Simulink Code Inspector does not support Stateflow events of machine scope

Passed

No Stateflow events are of machine scope.

✅ Check usage of Stateflow charts

No Stateflow charts were found.

✅ Check usage of Stateflow data

No Stateflow data were found.

_____

✅ Check usage of Stateflow events

No Stateflow events were found.

_____

✅ Check usage of Stateflow states

No Stateflow states were found.

_____

✅ Check usage of Stateflow junctions

No Stateflow junctions were found.

_____

✅ Check usage of Stateflow transitions

No Stateflow transitions were found.

_____

✅ Check usage of Stateflow graphical functions

No Stateflow graphical functions were found.

_____

✅ Check usage of Stateflow truth tables

No Stateflow truth tables were found.

_____

✅ Check Loop unrolling threshold setting

Verify Loop unrolling threshold setting

Check whether 'Loop unrolling threshold' is set to a value such that no partially unrolled loops are generated.

Passed

Loop unrolling threshold setting is compatible.

_____

✅ Check destinations of If and Switchcase blocks

Check destination Action subsystems of If and Switchcase blocks

Check that Action subsystems connected to same If or Switch Case block uniformly combine or separate their output and update code

Passed

No Action subsystems that violated the above check were found

_____

⚠ Check for root Outport blocks that have non-auto storage class

Verify that the storage class of root outports is supported

Code verification is not supported for submodels with root outports of non-auto storage class if the parameter 'Pass reusable subsystem outputs as' is set to 'Individual arguments'.

Warning

This check failed because the following prerequisite(s) for the check failed :

Diagnostics > Connectivity > Bus signal treated as vector is not set to `error`.This incompatibility is fatal and will prevent execution of the Code Inspector

Recommended Action

Set **Diagnostics > Connectivity > Bus signal treated as vector** to `error`.

_____

⚠ Check for Terminator blocks connected to Model Reference block outports

Check for Model Reference block connectivity

Identify Model Reference blocks that are connected to Terminator blocks.

Warning

This check failed because the following prerequisite(s) for the check failed :

Diagnostics > Connectivity > Bus signal treated as vector is not set to `error`.This incompatibility is fatal and will prevent execution of the Code Inspector

Recommended Action

Set **Diagnostics > Connectivity > Bus signal treated as vector** to `error`.

_____

✓ Check for unsupported propagation of initial condition values

Check for unsupported propagation of initial condition values

Check if any block propagates initial condition during first time initialization

Passed

No unsupported propagation of initial condition values detected

_____

41

✅ Check data type replacement names

Identify replacement names that are not a Simulink Name or a Simulink.AliasType

Identify replacement names that are not a Simulink Name or a Simulink.AliasType

Passed

All replacement names are a Simulink Name or a Simulink.AliasType

_____

✅ Check usage of MATLAB Function Blocks

No MATLAB Function Blocks were found

_____

_____

✅ Check usage of Data in MATLAB Functions

No Data in MATLAB Functions were found

_____

_____

✅ Check usage of Code in MATLAB Functions

No Code in MATLAB Functions were found

_____

_____

✅ Check MATLAB Code Analyzer messages

Check MATLAB code used in MATLAB Function blocks

Passed

No MATLAB Function blocks found

_____

Check MATLAB functions defined in Stateflow charts

Passed

No MATLAB functions defined in Stateflow charts found

_____

Check called MATLAB functions

Passed

No external MATLAB functions found

_____

_____

✅ Check for multiple sample times in model used as a model reference target

Check for sample times in model used as model reference target

Identify models used as model reference targets that have multiple sample times

Passed

Model used as model reference target does not have multiple sample times

_____

✅ Check Treat each discrete rate as a separate task setting

Verify Treat each discrete rate as a separate task setting

Check whether 'Treat each discrete rate as a separate task' is selected for a model with multiple discrete rates.

Passed

'Treat each discrete rate as a separate task' setting is compatible. This check does not impact a model that has a single rate.

_____

⚠️ Check model for commented out blocks

Check for commented out blocks in the model

Identify blocks in the model that are commented out

Warning

The following blocks are commented out in the model:

- SWC_STM/SWC_STM_1ms_sys/SpdMonProc

Recommended Action

Modify the model by deleting the commented out blocks

_____

✅ Check model for instrumented signals

Check for instrumented signals in the model

Identify signals in the model that are instrumented

Passed

There are no instrumented signals in the model

_____

✅ Check model for void_void subsystems that use the same function name

Check function names used by void_void subsystems in the model

Identify void_void subsystems in the model that use the same function name

Passed

Void_void subsystems in the model use unique function names

_____

✅ Check n-D Lookup Table blocks for incompatible breakpoint data type

Check n-D Lookup Table blocks for incompatible breakpoint data type

Passed

n-D Lookup Table blocks have compatible breakpoint data type

_____

✅ Check model for reusable subsystems that use the same function interfaces

Check the model for reusable subsystems with the same function interfaces

Identify reusable subsystems with the same function interfaces that are from different library blocks

Passed

Reusable subsystems with the same function interfaces are from the same library blocks

_____

✅ Check for usage of shared synthesized local data stores

Check for unsupported usage of shared synthesized local Data Store Memory blocks

Identify unsupported hidden data store memory blocks inserted for shared synthesized local data store memory blocks

Passed

There are no unsupported hidden data store memory blocks inserted for shared synthesized local data store memory blocks.

_____

44

✅ Check the code generation folder structure for the model

Check the code generation folder structure for the model

Check that the code generation folder structure for the model is supported

Passed

The code generation folder structure for the model is supported

_____

✅ Check for unsupported Code Mapping settings

Check for unsupported usage of Storage Class on the Data Defaults tab of the Code Mapping Editor.

Identify unsupported Storage Class settings for model element categories on the Data Defaults tab of the Code Mapping Editor.

Passed

There is no unsupported Storage Class setting for model element categories on the Data Defaults tab of the Code Mapping Editor.

_____

✅ Check model for compiled and graphical block sorted order

Check for matching compiled and graphical block sorted order in the model

Identify blocks in the compiled block list of the model that do not match graphical block sorted order.

Passed

All blocks in the compiled block list follow graphical sorted order in the model

_____

✅ Check usage of String blocks

Check ASCIIToString blocks

Identify ASCIIToString blocks that might impact compatibility with Simulink Code Inspector

Passed

No ASCIIToString blocks were found.

_____
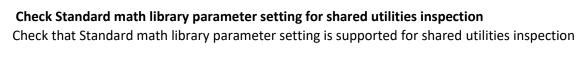
✅ Check usage of shared utilities

Check code generation symbols settings for shared utilities inspection

Code inspection for shared utilities is supported for default values of code generation symbols parameters

Passed

Values for code generation symbols parameters are supported for shared utilities inspection

_____

Check Standard math library parameter setting for shared utilities inspection

Check that Standard math library parameter setting is supported for shared utilities inspection

Passed

Standard math library parameter setting is supported for shared utilities inspection

_____

Check Code style parameters for shared utilities inspection

Check that Code style parameters are supported for shared utilities inspection

Passed

Code style parameters are supported for shared utilities inspection

_____

✅ Check model arguments for storage classes

Verify that model arguments do not have a storage class

Check if model arguments have a storage class.

Passed

The model does not contain any model arguments with a storage class.

_____

✅ Check usage of Stateflow MATLAB action language

No Stateflow MATLAB action language were found.

📁 Modeling Standards for DO-178C/DO-331   ✅0 ❌0 ⚠0 ▤114

_____

▤ Display model version information

Not Run

📁 High-Integrity Systems   ✅0 ❌0 ⚠0 ▤89

📁 _Simulink_   ✅_0_ ❌_0_ ⚠_0_ ▤_28_

_____

▤ Check usage of Abs blocks

Not Run

_____

▤ Check usage of Math Function blocks (rem and reciprocal functions)

Not Run

46

🖽 Check usage of Math Function blocks (log and log10 functions)

Not Run

🖽 Check usage of While Iterator blocks

Not Run

🖽 Check usage of For and While Iterator subsystems

Not Run

🖽 Check usage of For Iterator blocks

Not Run

🖽 Check usage of If blocks and If Action Subsystem blocks

Not Run

🖽 Check usage of Switch Case blocks and Switch Case Action Subsystem blocks

Not Run

🖽 Check usage of conditionally executed subsystems

Not Run

🖽 Check usage of Merge blocks

Not Run

🖽 Check Relational Operator blocks equating floating-point types

Not Run

🖽 Check usage of Relational Operator blocks

Not Run

📰 Check usage of Logical Operator blocks

Not Run

_____

📰 Check usage of bit operation blocks

Not Run

_____

📰 Check for blocks not recommended for C/C++ production code deployment

Not Run

_____

📰 Check for inconsistent vector indexing methods

Not Run

_____

📰 Check data types for blocks with index signals

Not Run

_____

📰 Check usage of variant blocks

Not Run

_____

📰 Check usage of lookup table blocks

Not Run

_____

📰 Check usage of Signal Routing blocks

Not Run

_____

📰 Check for root Inports with missing properties

Not Run

_____

📰 Check for root Inports with missing range definitions

Not Run

_____

📰 Check for root Outports with missing range definitions

Not Run

_____

⊞ Check usage of Assignment blocks
    Not Run

_____

⊞ Check global variables in graphical functions
    Not Run

_____

⊞ Check usage of Gain blocks
    Not Run

_____

⊞ Check for length of user-defined object names
    Not Run

_____

⊞ Check data type of loop control variables
    Not Run

📁 *Stateflow* ✅0 ❌0 ⚠️0 ⊞14

_____

⊞ Check state machine type of Stateflow charts
    Not Run

_____

⊞ Check Stateflow charts for ordering of states and transitions
    Not Run

_____

⊞ Check usage of bitwise operations in Stateflow charts
    Not Run

_____

⊞ Check for Strong Data Typing with Simulink I/O
    Not Run

_____

⊞ Check Stateflow debugging options
    Not Run

49

_____

📰 Check Stateflow charts for transition paths that cross parallel state boundaries

Not Run

_____

📰 Check for inappropriate use of transition paths

Not Run

_____

📰 Check Stateflow charts for strong data typing

Not Run

_____

📰 Check naming of ports in Stateflow charts

Not Run

_____

📰 Check scoping of Stateflow data objects

Not Run

_____

📰 Check Stateflow charts for uniquely defined data objects

Not Run

_____

📰 Check usage of shift operations for Stateflow data

Not Run

_____

📰 Check assignment operations in Stateflow charts

Not Run

_____

📰 Check Stateflow charts for unary operators

Not Run

📁 *MATLAB*   ✅*0* ❌*0* ⚠️*0* 📰*10*

_____

📰 Check usage of standardized MATLAB function headers

Not Run

50

📇 Check for MATLAB Function interfaces with inherited properties

Not Run

📇 Check MATLAB Function metrics

Not Run

📇 Check MATLAB Code Analyzer messages

Not Run

📇 Check if/elseif/else patterns in MATLAB Function blocks

Not Run

📇 Check switch statements in MATLAB Function blocks

Not Run

📇 Check usage of relational operators in MATLAB Function blocks

Not Run

📇 Check usage of equality operators in MATLAB Function blocks

Not Run

📇 Check usage of logical operators and functions in MATLAB Function blocks

Not Run

📇 Check type and size of condition expressions

Not Run

📁 *Configuration* ✅0 ❌0 ⚠️0 📋32

📇 Check safety-related diagnostic settings for data store memory

Not Run

51

_____

🔲 Check safety-related diagnostic settings for saving

   Not Run

_____

🔲 Check safety-related model referencing settings

   Not Run

_____

🔲 Check safety-related code generation settings for comments

   Not Run

_____

🔲 Check safety-related code generation interface settings

   Not Run

_____

🔲 Check safety-related solver settings for simulation time

   Not Run

_____

🔲 Check safety-related solver settings for solver options

   Not Run

_____

🔲 Check safety-related solver settings for tasking and sample-time

   Not Run

_____

🔲 Check safety-related diagnostic settings for solvers

   Not Run

_____

🔲 Check safety-related diagnostic settings for sample time

   Not Run

_____

🔲 Check safety-related optimization settings for logic signals

   Not Run

_____

Check safety-related block reduction optimization settings

Not Run

_____

Check safety-related code generation settings for code style

Not Run

_____

Check safety-related optimization settings for application lifespan

Not Run

_____

Check safety-related code generation identifier settings

Not Run

_____

Check safety-related optimization settings for loop unrolling threshold

Not Run

_____

Check safety-related optimization settings for data initialization

Not Run

_____

Check safety-related optimization settings for data type conversions

Not Run

_____

Check safety-related optimization settings for division arithmetic exceptions

Not Run

_____

Check safety-related optimization settings for specified minimum and maximum values

Not Run

_____

Check safety-related diagnostic settings for compatibility

Not Run

_____

Check safety-related diagnostic settings for parameters

Not Run

▦ Check safety-related diagnostic settings for Merge blocks
   Not Run

▦ Check safety-related diagnostic settings for model initialization
   Not Run

▦ Check safety-related diagnostic settings for data used for debugging
   Not Run

▦ Check safety-related diagnostic settings for signal connectivity
   Not Run

▦ Check safety-related diagnostic settings for bus connectivity
   Not Run

▦ Check safety-related diagnostic settings that apply to function-call connectivity
   Not Run

▦ Check safety-related diagnostic settings for type conversions
   Not Run

▦ Check safety-related diagnostic settings for model referencing
   Not Run

▦ Check safety-related diagnostic settings for Stateflow
   Not Run

▦ Check safety-related diagnostic settings for signal data
   Not Run

📁 *Naming* ✅0 ❌0 ⚠️0 🗒️2

_____

🗒️ Check model file name
   Not Run

_____

🗒️ Check model object names
   Not Run

📁 *Requirements* ✅0 ❌0 ⚠️0 🗒️1

_____

🗒️ Check for model elements that do not link to requirements
   Not Run

📁 *Code* ✅0 ❌0 ⚠️0 🗒️2

_____

🗒️ Check for blocks not recommended for MISRA C:2012
   Not Run

_____

🗒️ Check configuration parameters for MISRA C:2012
   Not Run

📁 Simulink ✅0 ❌0 ⚠️0 🗒️9

_____

🗒️ *Check for Discrete-Time Integrator blocks with initial condition uncertainty*
   Not Run

_____

🗒️ *Check root model Inport block specifications*
   Not Run

_____

🗒️ *Identify unconnected lines, input ports, and output ports*
   Not Run

_____

📄 *Check usage of tunable parameters in blocks*
   Not Run

_____

📄 *Check for blocks that have constraints on tunable parameters*
   Not Run

_____

📄 *Identify questionable subsystem settings*
   Not Run

_____

📄 *Check bus signals treated as vectors*
   Not Run

_____

📄 *Check for potentially delayed function-call block return values*
   Not Run

_____

📄 *Check usage of Merge blocks*
   Not Run

📁 Stateflow ✅0 ❌0 ⚠0 📄3

_____

📄 *Check for Strong Data Typing with Simulink I/O*
   Not Run

_____

📄 *Check definition of Stateflow data*
   Not Run

_____

📄 *Check usage of exclusive and default states in state machines*
   Not Run

📁 Library Links ✅0 ❌0 ⚠0 📄3

_____

Identify disabled library links

Not Run

_____

Identify parameterized library links

Not Run

_____

Identify unresolved library links

Not Run

📁 Model Referencing ✅0 ❌0 ⚠️0 📄2

_____

Check for model reference configuration mismatch

Not Run

_____

Check for parameter tunability information ignored for referenced models

Not Run

📁 Requirements Consistency ✅0 ❌0 ⚠️0 📄4

_____

Identify requirement links that specify invalid locations within documents

Not Run

_____

Identify requirement links with missing documents

Not Run

_____

Identify requirement links with path type inconsistent with preferences

Not Run

_____

Identify selection-based links having description fields that do not match their requirements document text

Not Run

📁 Simulink Coder ✅0 ❌0 ⚠0 🗒3

_____

🗒 *Check sample times and tasking mode*
    Not Run

_____

🗒 *Check solver for code generation*
    Not Run

_____

🗒 *Check the hardware implementation*
    Not Run

📁 Modeling Standards for DO-254 ✅0 ❌0 ⚠0 🗒91

_____

🗒 Display model version information
    Not Run

📁 High-Integrity Systems ✅0 ❌0 ⚠0 🗒48

📁 *Simulink* ✅0 ❌0 ⚠0 🗒16

_____

🗒 Check usage of Abs blocks
    Not Run

_____

🗒 Check usage of conditionally executed subsystems
    Not Run

_____

🗒 Check Relational Operator blocks equating floating-point types
    Not Run

_____

🗒 Check usage of Relational Operator blocks
    Not Run

_____

📋 Check usage of Logical Operator blocks

Not Run

📋 Check usage of bit operation blocks

Not Run

📋 Check for inconsistent vector indexing methods

Not Run

📋 Check data types for blocks with index signals

Not Run

📋 Check for root Inports with missing properties

Not Run

📋 Check for root Inports with missing range definitions

Not Run

📋 Check for root Outports with missing range definitions

Not Run

📋 Check usage of Assignment blocks

Not Run

📋 Check global variables in graphical functions

Not Run

📋 Check usage of Gain blocks

Not Run

📋 Check for length of user-defined object names

Not Run

_____

⊞ Check data type of loop control variables
    Not Run

📁 *Stateflow* ✅*0* ❌*0* ⚠️*0* ⊞*11*

_____

⊞ Check Stateflow charts for ordering of states and transitions
    Not Run

_____

⊞ Check usage of bitwise operations in Stateflow charts
    Not Run

_____

⊞ Check for Strong Data Typing with Simulink I/O
    Not Run

_____

⊞ Check Stateflow debugging options
    Not Run

_____

⊞ Check Stateflow charts for transition paths that cross parallel state boundaries
    Not Run

_____

⊞ Check for inappropriate use of transition paths
    Not Run

_____

⊞ Check naming of ports in Stateflow charts
    Not Run

_____

⊞ Check scoping of Stateflow data objects
    Not Run

_____

⊞ Check Stateflow charts for uniquely defined data objects
    Not Run

⊞ Check usage of shift operations for Stateflow data
    Not Run

_____

⊞ Check Stateflow charts for unary operators
    Not Run

📁 *MATLAB* ✅0 ❌0 ⚠0 ⊞7

_____

⊞ Check usage of standardized MATLAB function headers
    Not Run

_____

⊞ Check MATLAB Code Analyzer messages
    Not Run

_____

⊞ Check if/elseif/else patterns in MATLAB Function blocks
    Not Run

_____

⊞ Check switch statements in MATLAB Function blocks
    Not Run

_____

⊞ Check usage of relational operators in MATLAB Function blocks
    Not Run

_____

⊞ Check usage of equality operators in MATLAB Function blocks
    Not Run

_____

⊞ Check usage of logical operators and functions in MATLAB Function blocks
    Not Run

📁 *Configuration* ✅0 ❌0 ⚠0 ⊞11

_____

_____

Check safety-related diagnostic settings for saving
Not Run

_____

Check safety-related model referencing settings
Not Run

_____

Check safety-related block reduction optimization settings
Not Run

_____

Check safety-related diagnostic settings for parameters
Not Run

_____

Check safety-related diagnostic settings for model initialization
Not Run

_____

Check safety-related diagnostic settings for signal connectivity
Not Run

_____

Check safety-related diagnostic settings for bus connectivity
Not Run

_____

Check safety-related diagnostic settings for type conversions
Not Run

_____

Check safety-related diagnostic settings for model referencing
Not Run

_____

Check safety-related diagnostic settings for Stateflow
Not Run

_____

Check safety-related diagnostic settings for signal data
Not Run

📁 *Naming* ✅0 ❌0 ⚠️0 🗒️2

_____

🗒️ Check model file name
   Not Run

_____

🗒️ Check model object names
   Not Run

📁 *Requirements* ✅0 ❌0 ⚠️0 🗒️1

_____

🗒️ Check for model elements that do not link to requirements
   Not Run

📁 Library Links ✅0 ❌0 ⚠️0 🗒️3

_____

🗒️ *Identify disabled library links*
   Not Run

_____

🗒️ *Identify parameterized library links*
   Not Run

_____

🗒️ *Identify unresolved library links*
   Not Run

📁 Model Referencing ✅0 ❌0 ⚠️0 🗒️1

_____

🗒️ *Check for model reference configuration mismatch*
   Not Run

📁 Requirements Consistency ✅0 ❌0 ⚠️0 🗒️4

_____

▣ Identify requirement links that specify invalid locations within documents
    Not Run

_____

▣ Identify requirement links with missing documents
    Not Run

_____

▣ Identify requirement links with path type inconsistent with preferences
    Not Run

_____

▣ Identify selection-based links having description fields that do not match their requirements document text
    Not Run

📁 HDL Coder ✅0 ❌0 ⚠0 ▤34

📁 *Checks for blocks and block settings* ✅0 ❌0 ⚠0 ▤7

_____

▤ Check for infinite and continuous sample time sources
    Not Run

_____

▤ Check for unsupported blocks
    Not Run

_____

▤ Check for MATLAB Function block settings
    Not Run

_____

▤ Check for Stateflow chart settings
    Not Run

_____

▤ Check for obsolete Unit Delay Enabled/Resettable blocks
    Not Run

_____

▥ Check for unsupported storage class for signal objects

Not Run

_____

▥ Check for large matrix operations

Not Run

📁 *Industry standard checks*   ✅0 ❌0 ⚠0 ▤11

_____

▥ Check VHDL file extension

Not Run

_____

▥ Check naming conventions

Not Run

_____

▥ Check top-level subsystem/port names

Not Run

_____

▥ Check module/entity names

Not Run

_____

▥ Check package file names

Not Run

_____

▥ Check signal and port names

Not Run

_____

▥ Check generics

Not Run

_____

▥ Check clock, reset, and enable signals

Not Run

_____

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⊞ Check architecture name
    Not Run

_____

⊞ Check entity and architecture
    Not Run

_____

⊞ Check clock settings
    Not Run

📁 *Model configuration checks*   ✅0 ❌0 ⚠0 ⊞6

_____

⊞ Check for safe model parameters
    Not Run

_____

⊞ Check for global reset setting for Xilinx and Altera devices
    Not Run

_____

⊞ Check inline configurations setting
    Not Run

_____

⊞ Check for visualization settings
    Not Run

_____

⊞ Check delay balancing setting
    Not Run

_____

⊞ Check algebraic loops
    Not Run

📁 *Native Floating Point checks*   ✅0 ❌0 ⚠0 ⊞8

_____

📋 Check for blocks with nonzero output latency

Not Run

_____

📋 Check blocks with nonzero ulp error

Not Run

_____

📋 Check for single datatypes in the model

Not Run

_____

📋 Check for double datatypes in the model with Native Floating Point

Not Run

_____

📋 Check for Data Type Conversion blocks with incompatible settings

Not Run

_____

📋 Check for HDL Reciprocal block usage

Not Run

_____

📋 Check for Relational Operator block usage

Not Run

_____

📋 Check for unsupported blocks with Native Floating Point

Not Run

📁 *Checks for ports and subsystems*   ✅0 ❌0 ⚠️0 📋2

_____

📋 Check for invalid top level subsystem

Not Run

_____

📋 Check initial conditions of enabled and triggered subsystems

Not Run

📁 Modeling Standards for IEC 61508   ✅66 ❌0 ⚠️40 🗒️0
_____

✅ Display configuration management data
   Display model configuration and checksum information

   Model configuration and checksum information

Attribute	Value
Model Version	1.503
Author	dongliyuan
Date	Fri Dec 03 15:43:06 2021
Model Checksum	1235436107 551900630 1628127387 3038652197

_____

✅ Display model metrics and complexity report
   Display number of elements and name, level, and depth of subsystems for the model or subsystem

   Model metrics information

   Display number of elements for Simulink blocks and Stateflow constructs

   Summary

Element Type	Count
Inport	36
Outport	14
SubSystem	13

Simulink

Block Type	Count
Inport	36
Constant	19
Outport	14
SubSystem	13
Logic	11
RelationalOperator	11
From	11
Switch	8
Delay	6
Sum	5
Goto	5
Ground	4
EnablePort	3
Terminator	3
UnitDelay	2
SignalConversion	2
TriggerPort	1
Abs	1
Gain	1
EventListener	1

∧ Less

Model complexity information

Display name, level, and depth of subsystems

Maximum Subsystem Depth: 6

Subsystem Depth

Subsystem Name	Level	Depth
SWC_STM/SWC_STM_1ms_sys	1	5
SWC_STM/SWC_STM_1ms_sys/Debouncer	2	2
SWC_STM/SWC_STM_1ms_sys/Debouncer/Compare To Zero" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Compare To Zero	3	1
SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem	3	1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc	2	4
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon	3	3
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer	4	2
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Compare To Zero" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Compare To Zero	5	1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem	5	1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon	4	2
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Compare To Zero3"	5	1

title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Compare To Zero3		
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable	3	1
SWC_STM/SWC_STM_Init	1	1

∧ Less

_____

✅ Check for unconnected objects
  Identify unconnected lines, input ports, and output ports in the model

  Passed
  There are no unconnected lines, input ports, and output ports in this model.

📁 High-Integrity Systems ✅63 ❌0 ⚠26 🗒0

📁 *Simulink* ✅*27* ❌*0* ⚠*1* 🗒*0*

_____

✅ Check usage of Abs blocks
  Identify Abs blocks that have unreachable code or produce overflows

  Passed
  No Abs blocks found causing unreachable code or produce overflows.

_____

✅ Check usage of Math Function blocks (rem and reciprocal functions)
  Identify Math Function blocks using rem and reciprocal functions that cause non-finite results

  Passed
  All Math Function blocks in the model use operators appropriately.

_____

✅ Check usage of Math Function blocks (log and log10 functions)
  Identify Math Function blocks using log and log10 functions that cause non-finite results

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Passed

All Math Function blocks in the model use operators appropriately.

_____

✅ Check usage of While Iterator blocks

Identify While Iterator blocks that do not have a positive value for the maximum number of iterations

Passed

No While Iterator blocks found that might cause infinite loops

_____

✅ Check usage of For and While Iterator subsystems

Identify sample time-dependent blocks in While and For Iterator subsystems.

Passed

No sample time-dependent blocks in For or While Iterator subsystems.

_____

✅ Check usage of For Iterator blocks

Identify For Iterator blocks that cause variable loops

Passed

No For Iterator blocks found that cause variable loops.

_____

✅ Check usage of If blocks and If Action Subsystem blocks

Identify If and If Action Subsystem blocks without else conditions

Passed

No If blocks with questionable configurations or connections were found.

_____

✅ Check usage of Switch Case blocks and Switch Case Action Subsystem blocks

Identify inappropriately used Switch Case blocks and Switch Case Action Subsystem blocks

Passed

No Switch Case blocks with questionable configurations or connections were found.

_____

✅ Check usage of conditionally executed subsystems

Identify inappropriate blocks in conditionally executed subsystems.

Passed

No blocks with improper sample times or asynchronously executed sample-time dependent blocks were found.

_____

✅ Check usage of Merge blocks

Identify Merge blocks constructs which can lead to ambiguous behavior.

Passed

No merge blocks found which can lead to ambiguous behavior.

_____

✅ Check Relational Operator blocks equating floating-point types

Identify Relational Operator blocks that equate floating-point types

Passed

No Relational Operator blocks found that equate floating-point types.

_____

✅ Check usage of Relational Operator blocks

Identify Relational Operator blocks that operate on different data types or have a non-boolean output

Passed

No Relational Operator blocks found that operate on different data types or have a non-boolean output.

_____

✅ Check usage of Logical Operator blocks

Identify Logical Operator blocks that operate on non-boolean data types

Passed

No Logical Operator blocks found that operate on non-boolean data types.

_____

✅ Check usage of bit operation blocks

Identify bit operation blocks with signed data types as inputs

Passed

No bit operation blocks found with signed data types as inputs.

_____

✅ Check for blocks not recommended for C/C++ production code deployment

Identify blocks not supported by code generation or not recommended for C/C++ production code deployment.

Passed

No blocks found which are not recommended for C/C++ production code deployment.

_____

✅ Check for inconsistent vector indexing methods

Identify inconsistent usage of vector indexing methods across the model or subsystem

Passed

No blocks found using inconsistent indexing modes.

_____

✅ Check data types for blocks with index signals

Identify blocks with index signals that have data types other than integers or enums.

Passed

No blocks or charts found with index signals or variables that have data types other than integer or enums.

_____

✅ Check usage of variant blocks

Check variant block settings that might result in code that doesn't trace back to requirements.

Passed

There are no variant blocks that have "Generate preprocessor conditionals" active.

_____

✅ Check usage of lookup table blocks

Check for Lookup Table blocks, Prelookup blocks and Interpolation blocks that do not generate out-of-range checking code.

Passed

No lookup table blocks found to not generate out-of-range checking code.

_____

✅ Check usage of Signal Routing blocks

Identify usage of Signal Routing blocks in Simulink that might impact safety

Passed

No Switch blocks that might generate code with inequality operations (~=) in expressions where at least one side of the expression is a floating-point variable or constant were found.

_____

✅ Check for root Inports with missing properties

 Identify Inport blocks in the top-level of the model with missing or inherited sample times, data types, or port dimensions. Inport block properties are specified with block parameters or Simulink signal data objects that explicitly resolve to the connected signal lines.

Passed

There are no Inport blocks in the top-level of the model with missing or inherited sample times, data types, or port dimensions

_____

⚠️ Check for root Inports with missing range definitions

   Identify root-level Inport blocks with missing or erroneous minimum or maximum values. Inport block minimum and maximum values are specified with block parameters or Simulink signal objects that explicitly resolve to the connected signal lines.

Warning

The following Inport blocks and Simulink signal objects have missing or erroneous range definitions:

- SWC_STM/L2Com_ModeReq

- SWC_STM/L2Com_NSetP

- SWC_STM/L2Com_TrqSetP

- SWC_STM/SWD_nWoFlt

- SWC_STM/TCF_BlendTrq

- SWC_STM/TCF_TrqDir

- SWC_STM/TCF_nDir

Recommended Action

Model contains Inports with numeric data types that have missing range parameters (minimum and/or maximum). For the listed Inport blocks and Simulink signal objects, specify scalar minimum and maximum parameters.

_____

✅ Check for root Outports with missing range definitions

Identify root-level Outport blocks with missing or erroneous minimum or maximum values. Outport block minimum and maximum values are specified with block parameters or Simulink signal objects that explicitly resolve to the connected signal lines.

Passed

There are no missing or erroneous Outport range properties at the model root level.
Note: Root Outports with inherited data types are not analyzed by this check.

_____

✅ Check usage of Assignment blocks

Identify Assignment blocks whose array fields are not initialized.

Passed

All Assignment blocks are configured with block parameter "Action if any output element is not assigned" set to Warning or Error.

_____

✅ Check global variables in graphical functions

Identify expressions that both read and write to the same global data.

Passed

No expressions found that both read and write to the same global data.

_____

✅ Check usage of Gain blocks

Identify Gain blocks with value which resolves to 1

Passed

No Gain blocks found with value which resolves to 1.

_____

✅ Check for length of user-defined object names

Identify user-defined object names with length greater than threshold

Passed

No Subsystem blocks found with function name length greater than Maximum identifier length. There are no data objects with names having length greater than Maximum identifier length.

_____

✅ Check data type of loop control variables

Identify loop control variables using non-integer data types.

Passed

No For Iterator blocks or MATLAB Function blocks found using non-integer data type for loop control counter variable.

📁 *Stateflow* ✅*13* ❌*0* ⚠️*1* 🗒️*0*

_____

✅ Check state machine type of Stateflow charts

Identify Stateflow Charts whose State Machine Type differs from the type set in the Model Advisor Configuration Editor.

Passed

No Stateflow Charts found that deviate from recommended state machine type.

_____

✅ Check Stateflow charts for ordering of states and transitions

Identify Stateflow charts that do not use explicit ordering of parallel states and transitions.

Passed

No Stateflow Charts found that deviate from recommended state/transition execution order settings.

_____

✅ Check usage of bitwise operations in Stateflow charts

Identify usage of signed data type operands to bitwise operations in Stateflow charts.

Passed

No Stateflow objects found that use signed data type operands with bitwise operations.

_____

✅ Check for Strong Data Typing with Simulink I/O

Verify configuration settings for strong data typing on the boundaries between Simulink and Stateflow

Passed

No Stateflow charts found that set 'Use Strong Data Typing with Simulink I/O' to off.

_____

⚠️ Check Stateflow debugging options

Identify whether Stateflow debugging options are set appropriately

Warning

The following Stateflow debugging options are not set appropriately:

Parameter	Current Value	Recommended Values
Wrap on overflow (IntegerOverflowMsg)	warning	error
Simulation range checking (SignalRangeChecking)	none	error

Recommended Action

Change the Stateflow debugging options to the recommended value.

_____

✅ Check Stateflow charts for transition paths that cross parallel state boundaries
Identify transition paths that cross parallel state boundaries in Stateflow charts.

Passed
No transition paths crossing parallel state boundaries were found in Stateflow charts.

_____

✅ Check for inappropriate use of transition paths
Identify transition paths that go into and out of a state without ending on a substate.

Passed
No transition paths found that go into and out of a state without ending on a substate.

_____

✅ Check Stateflow charts for strong data typing
Identify expressions with variables and parameters of different data types in Stateflow objects.

Passed
No expressions were found with variables and parameters of different data types.

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✅ Check naming of ports in Stateflow charts

Identify mismatches between names of Stateflow ports and associated signals

Passed

There are no name mismatches between Stateflow ports and associated signals

---

✅ Check scoping of Stateflow data objects

Identify Stateflow data objects with local scope that are not scoped at the chart level or below

Passed

All Stateflow data objects are properly scoped.

✅ Check Stateflow charts for uniquely defined data objects

Identify local data identifiers that are defined in multiple scopes within a chart.

Passed

No Stateflow data identifiers found to be defined in multiple scopes.

✅ Check usage of shift operations for Stateflow data

Identify usage of Stateflow bit-shifting operations that might impact safety.

Passed

There are no Stateflow bit-shifting operations greater than the bit-width of the input or output type.

✅ Check assignment operations in Stateflow charts

Identify assignment operations in Stateflow objects which cast integer and fixed-point calculations to wider datatype.

Passed

No assignment operations were found which cast integer and fixed-point calculations to wider datatype.

✅ Check Stateflow charts for unary operators

Identify unary minus operators on unsigned data types in Stateflow objects.

Passed

No unary minus operations on unsigned data types were found in Stateflow objects.

📁 *MATLAB* ✅*10* ❌*0* ⚠️*0* 🗒️*0*

_____

✅ Check usage of standardized MATLAB function headers

Identify usage of standardized function headers in MATLAB function.

Passed

No MATLAB function blocks found without standardized function headers.

_____

✅ Check for MATLAB Function interfaces with inherited properties

Identify MATLAB Functions that have inputs, outputs, or parameters with inherited complexity or data type properties.

Passed

No MATLAB Function interfaces with inherited complexity or data type properties found.

_____

✅ Check MATLAB Function metrics

Identify MATLAB Functions that violate code and complexity metrics.

Passed

No MATLAB Function blocks found that violate code and complexity metrics.

_____

✅ Check MATLAB Code Analyzer messages

Check MATLAB functions for %#codegen directive, MATLAB Code Analyzer messages, and justification message IDs.

Passed

No MATLAB Function blocks found with Code Analyzer messages, missing %#codegen directive or inappropriate usage of justification message IDs.

_____

✅ Check if/elseif/else patterns in MATLAB Function blocks

Identify if/elseif/else patterns without appropriate else conditions in embedded MATLAB code

Passed

No inappropriate if/elseif/else patterns found.

_____

✅ Check switch statements in MATLAB Function blocks

Identify inappropriately used switch statements in embedded MATLAB code

Passed

No inappropriately used switch statements found.

_____

✅ Check usage of relational operators in MATLAB Function blocks

Identify relational operators operating on operands of different data types in MATLAB Function blocks.

Passed

No relational operators found operating on operands of different data types.

_____

✅ Check usage of equality operators in MATLAB Function blocks

Identify equality operators used with floating-point operands in MATLAB Function blocks.

Passed

No equality operators found operating on floating-point operands.

_____

✅ Check usage of logical operators and functions in MATLAB Function blocks

Identify logical operators and functions operating on operands with numerical data types.

Passed

No logical operators or functions found operating on operands with numerical data types.

_____

✅ Check type and size of condition expressions

Identify condition expressions which are not logical scalars.

Passed

No condition expressions found which are not logical scalars.

📁 *Configuration* ✅11 ❌0 ⚠21 🗒0

_____

⚠ Check safety-related diagnostic settings for data store memory

Check diagnostic settings in the model configuration that apply to data store memory and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Detect read before write (ReadBeforeWriteMsg)	UseLocalSettings	EnableAllAsError
Warning	Detect write after read (WriteAfterReadMsg)	UseLocalSettings	EnableAllAsError
Warning	Detect write after write (WriteAfterWriteMsg)	UseLocalSettings	EnableAllAsError
Warning	Duplicate data store names (UniqueDataStoreMsg)	none	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related diagnostic settings for saving
Check diagnostic settings in the model configuration that apply to saving model files.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Block diagram contains disabled library links (SaveWithDisabledLinksMsg)	warning	error
Warning	Block diagram contains parameterized library links (SaveWithParameterizedLinksMsg)	warning	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

✅ Check safety-related model referencing settings

Check model referencing settings in the model configuration that might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values
Pass	Rebuild (UpdateModelReferenceTargets)	IfOutOfDateOrStructuralChange	AssumeUpToDate, IfOutOfDateOrStructuralChange
Pass	Pass fixed-size scalar root inputs by value for code generation (ModelReferencePassRootInputsByReference) *	on	on

		off	off
Pass	Minimize algebraic loop occurrences (ModelReferenceMinAlgLoopOccurre nces)	off	off

Recommended Action

* The Command-Line values provided in the table are reverse of the settings in the Configuration Parameters Dialog. Therefore, 'on' in the Command-Line corresponds to an "Off" setting in the dialog, and 'off' in the Command-Line corresponds to an "On" setting in the dialog.

_____

⚠ Check safety-related code generation settings for comments

Check code generation settings in the model configuration that apply comments and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values	Prerequisites
Warning	Requirements in block comments (ReqsInCode)	off	on	SystemTargetFile, GenerateComments

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related code generation interface settings

Check code generation interface settings in the model configuration that might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values	Prerequisites
Warning	absolute time (SupportAbsoluteTime)	on	off	SystemTargetFile
Warning	Remove error status field in real-time model data structure (SuppressErrorStatus)	off	on	SystemTargetFile

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

✅ Check safety-related solver settings for simulation time

Identify if the model Start time is set to 0 and Stop time is less than the Application Life Span.

Passed

No issues found with solver settings for simulation time.

_____

✅ Check safety-related solver settings for solver options

Check solver settings in the model configuration that apply to solvers and might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values
Pass	Type (SolverType)	Fixed-step	Fixed-step
Pass	Solver (SolverName)	FixedStepDiscrete	FixedStepDiscrete

_____

✅ Check safety-related solver settings for tasking and sample-time

Check solver settings in the model configuration that apply to tasking and sample-time constraints and might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Not Recommended Values
Pass	Automatically handle rate transition for data transfer (AutoInsertRateTranBlk)	off	on

_____

⚠️ Check safety-related diagnostic settings for solvers

Check diagnostic settings in the model configuration that apply to solvers and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Algebraic loop (AlgebraicLoopMsg)	warning	error
Warning	Minimize algebraic loop (ArtificialAlgebraicLoopMsg)	warning	error
Warning	Block priority violation (BlockPriorityViolationMsg)	warning	error
Warning	Automatic solver parameter selection (SolverPrmCheckMsg)	none	error
Warning	State name clash (StateNameClashWarn)	none	warning

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related diagnostic settings for sample time

Check diagnostic settings in the model configuration that apply to sample time and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Source block specifies -1 sample time (InheritedTsInSrcMsg)	warning	error
Warning	Enforce sample times specified by Signal Specification blocks (SigSpecEnsureSampleTimeMsg)	warning	error
Warning	Single task rate transition (SingleTaskRateTransMsg)	none	error
Warning	Tasks with equal priority (TasksWithSamePriorityMsg)	warning	error
Warning	Unspecified inheritability of sample time (UnknownTsInhSupMsg)	warning	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

✅ Check safety-related optimization settings for logic signals

Check optimization settings in the model configuration that apply to logic signals and might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values
Pass	Implement logic signals as Boolean data (vs. double) (BooleanDataType)	on	on

_____

⚠ Check safety-related block reduction optimization settings

Check block reduction optimization settings in the model configuration that might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Block reduction (BlockReduction)	on	off

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related code generation settings for code style

Check code generation settings in the model configuration that apply to code style and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values	Prerequisites
Warning	Parentheses level (ParenthesesLevel)	Nominal	Maximum	SystemTargetFile
Warning	Preserve operand order in expression (PreserveExpressionOrder)	off	on	SystemTargetFile

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related optimization settings for application lifespan
Check optimization settings in the model configuration that apply to application lifespan and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Application lifespan (days) (LifeSpan)	auto	inf

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related code generation identifier settings

Check code generation identifier settings in the model configuration that might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Not Recommended Values	Prerequisites
Warning	Minimum mangle length (MangleLength)	1	1, 2, 3	SystemTargetFile

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

✅ Check safety-related optimization settings for loop unrolling threshold

Check optimization settings in the model configuration that apply to loop unrolling threshold and might impact safety.

Passed

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All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Not Recommended Values
Pass	Loop unrolling threshold (RollThreshold)	5	0, 1

_____

⚠ Check safety-related optimization settings for data initialization

Check optimization settings in the model configuration that apply to data initialization and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values	Prerequisites
Warning	Remove root level I/O zero initialization (ZeroExternalMemoryAtStartup) *	off	on	SystemTargetFile
Warning	Remove internal data zero initialization (ZeroInternalMemoryAtStartup) *	off	on	SystemTargetFile

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

* The Command-Line values provided in the table are reverse of the settings in the Configuration Parameters Dialog. Therefore, 'on' in the Command-Line corresponds to an "Off" setting in the dialog, and 'off' in the Command-Line corresponds to an "On" setting in the dialog.

_____

⚠ Check safety-related optimization settings for data type conversions

Check optimization settings in the model configuration that apply to data type conversions and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Remove code from floating-point to integer conversions that wraps out-of-range values (EfficientFloat2IntCast)	off	on

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

✅ Check safety-related optimization settings for division arithmetic exceptions

Check optimization settings in the model configuration that apply to division arithmetic exceptions and might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values	Prerequisites
D - Pass	System target file (SystemTargetFile)	ERT based target	ERT based target	
Pass	Remove code that protects against division arithmetic exceptions (NoFixptDivByZeroProtection)	off	off	SystemTargetFile

_____

✅ Check safety-related optimization settings for specified minimum and maximum values

Check optimization settings in the model configuration that apply to specified minimum and maximum values and might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values	Prerequisites
Pass	Optimize using the specified minimum and maximum values (UseSpecifiedMinMax)	off	off	SystemTargetFile
D - Pass	System target file (SystemTargetFile)	ERT based target	ERT based target	

_____

⚠ Check safety-related diagnostic settings for compatibility

Check diagnostic settings in the model configuration that affect compatibility and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	S-function upgrades needed (SFcnCompatibilityMsg)	none	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related diagnostic settings for parameters

Check diagnostic settings in the model configuration that apply to parameters and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

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Status	Parameter	Current Value	Recommended Values
Warning	Detect underflow (ParameterUnderflowMsg)	none	error
Warning	Detect precision loss (ParameterPrecisionLossMsg)	none	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

✅ Check safety-related diagnostic settings for Merge blocks

Check diagnostic settings in the model configuration that apply to Merge blocks and might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values
Pass	Detect multiple driving blocks executing at the same time step (MergeDetectMultiDrivingBlocksExec)	error	error

_____

✅ Check safety-related diagnostic settings for model initialization

Check diagnostic settings in the model configuration that affect model initialization and might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values
Pass	Underspecified initialization detection (UnderspecifiedInitializationDetection)	Simplified	Simplified

_____

⚠ Check safety-related diagnostic settings for data used for debugging

Check diagnostic settings in the model configuration that apply to data used for debugging and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Model Verification block enabling (AssertControl)	UseLocalSettings	DisableAll

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠️ Check safety-related diagnostic settings for signal connectivity

   Check diagnostic settings in the model configuration that apply to signal connectivity and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Signal label mismatch (SignalLabelMismatchMsg)	none	error
Warning	Unconnected block input ports (UnconnectedInputMsg)	warning	error
Warning	Unconnected block output ports (UnconnectedOutputMsg)	warning	error
Warning	Unconnected line (UnconnectedLineMsg)	warning	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠️ Check safety-related diagnostic settings for bus connectivity

   Check diagnostic settings in the model configuration that apply to bus connectivity and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Unspecified bus object at root Outport block (RootOutportRequireBusObject)	warning	error
Warning	Element name mismatch (BusObjectLabelMismatch)	warning	error
Warning	Bus signal treated as vector (StrictBusMsg)	WarnOnBusTreatedAsVector	ErrorOnBusTreatedAsVector
Warning	Non-bus signals treated as bus signals (NonBusSignalsTreatedAsBus)	warning	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

✅ Check safety-related diagnostic settings that apply to function-call connectivity

Check diagnostic settings in the model configuration that apply to function-call connectivity and might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values
Pass	InvalidFcnCallConnMsg	error	error
Pass	Context-dependent inputs (FcnCallInpInsideContextMsg)	error	error

_____

⚠ Check safety-related diagnostic settings for type conversions

Check diagnostic settings in the model configuration that apply to type conversions and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Vector/matrix block input conversion (VectorMatrixConversionMsg)	warning	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related diagnostic settings for model referencing

Check diagnostic settings in the model configuration that apply to model referencing and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Port and parameter mismatch (ModelReferenceIOMismatchMessage)	none	error
Warning	Invalid root Inport/Outport block connection (ModelReferenceIOMsg)	none	error
Warning	Unsupported data logging (ModelReferenceDataLoggingMessage)	warning	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related diagnostic settings for Stateflow

Check diagnostic settings in the model configuration that apply to Stateflow and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Invalid input data access in chart initialization (SFInvalidInputDataAccessInChartInitDiag)	warning	error
Warning	Transition outside natural parent (SFTransitionOutsideNaturalParentDiag)	warning	error
Warning	Unreachable execution path (SFUnreachableExecutionPathDiag)	warning	error
Warning	Undirected event broadcasts (SFUndirectedBroadcastEventsDiag)	warning	error
Warning	Transition action specified before condition action (SFTransitionActionBeforeConditionDiag)	warning	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related diagnostic settings for signal data

Check diagnostic settings in the model configuration that apply to signal data and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Division by singular matrix (CheckMatrixSingularityMsg)	none	error
Warning	Underspecified data types (UnderSpecifiedDataTypeMsg)	none	error
Warning	Wrap on overflow (IntegerOverflowMsg)	warning	error
Warning	Saturate on overflow (IntegerSaturationMsg)	warning	error
Warning	Inf or NaN block output (SignalInfNanChecking)	warning	error
Warning	Simulation range checking (SignalRangeChecking)	none	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

📁 *Naming* ✅1 ❌0 ⚠1 🗒0
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✅ Check model file name
Identify inappropriate characters and length issues in model file name

Passed
No issues found with model file name.

_____

⚠ Check model object names
Identify invalid names of following model objects (first invalid name fragment is highlighted):

- Blocks

- Signals

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- Parameters

- Buses

- Stateflow elements

  Warning

  The following model objects have invalid names:

Block	Name
SWC_STM/SWC_STM_1ms_sys/function	*(Reserved identifier)*
SWC_STM/SWC_STM_1ms_sys/Debouncer/Compare To Zero" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Compare To Zero	CompareToZero
SWC_STM/SWC_STM_1ms_sys/Debouncer/Logical Operator" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Logical Operator	LogicalOperator
SWC_STM/SWC_STM_1ms_sys/Debouncer/Logical Operator1" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Logical Operator1	LogicalOperator1
SWC_STM/SWC_STM_1ms_sys/Debouncer/Relational Operator" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Relational Operator	RelationalOperator
SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Relational Operator" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Relational Operator	RelationalOperator
SWC_STM/SWC_STM_1ms_sys/Debouncer/Unit Delay1" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Unit Delay1	UnitDelay1
SWC_STM/SWC_STM_1ms_sys/Signal Conversion" title="SWC_STM/SWC_STM_1ms_sys/Signal Conversion	SignalConversion
SWC_STM/SWC_STM_1ms_sys/Signal Conversion1" title="SWC_STM/SWC_STM_1ms_sys/Signal Conversion1	SignalConversion1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Compare To Zero" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Compare To Zero	CompareToZero
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator"	LogicalOperator

title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator	
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator1" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator1	LogicalOperator1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Relational Operator" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Relatio nal Operator	RelationalOperator
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Re lational Operator" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsyst em/Relational Operator	RelationalOperator
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Unit Delay1" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Unit Delay1	UnitDelay1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Compare To Zero3" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Co mpare To Zero3	CompareToZero3
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator1" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logi cal Operator1	LogicalOperator1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator10" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logi cal Operator10	LogicalOperator10
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator5" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logi cal Operator5	LogicalOperator5
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator6"	LogicalOperator6

title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator6	
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator7" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator7	LogicalOperator7
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator8" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator8	LogicalOperator8
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator9" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator9	LogicalOperator9
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator10" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator10	RelationalOperator10
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator11" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator11	RelationalOperator11
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator12" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator12	RelationalOperator12
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator13" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator13	RelationalOperator13
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator14" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator14	RelationalOperator14
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator15" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator15	RelationalOperator15

SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/Relational Operator1" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/Relational Operator1	RelationalOperator1
SWC_STM/SWC_STM_Init/Event Listener	EventListener

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Recommended Action
Change flagged names of model objects

📁 *Requirements*   ✅*0* ❌*0* ⚠*1* 🗒*0*
_____

⚠ Check for model elements that do not link to requirements
    Check for model elements that do not link to a requirements document.

Warning

The following model elements do not link to a requirements document:

- SWC_STM/SWC_STM_1ms_sys

- SWC_STM/SWC_STM_1ms_sys/Debouncer

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem

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- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable

- SWC_STM/SWC_STM_Init

Recommended Action

For each block in the list, in the Model Editor, right-click the block, select `Requirements`, and specify a requirement.

📁 *Code* ✅*1* ❌*0* ⚠️*1* 🗏*0*

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✅ Check for blocks not recommended for MISRA C:2012
Identify blocks that are not recommended for MISRA C:2012 compliant code generation.

Passed
None of the blocks are defined as "not recommended" for MISRA C:2012 compliant code generation.

_____

⚠️ Check configuration parameters for MISRA C:2012
Identify configuration parameters that might impact MISRA C:2012 compliant code generation.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values	Prerequisites
Warning	Model Verification block enabling (AssertControl)	UseLocalSettings	DisableAll	

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Warning	Generate shared constants (GenerateSharedConstants)	on	off	UtilityFuncGeneration
Warning	Parentheses level (ParenthesesLevel)	Nominal	Maximum	SystemTargetFile
Warning	Casting modes (CastingMode)	Nominal	Standards	SystemTargetFile
Warning	Use division for fixed-point net slope computation (UseDivisionForNetSlopeComputation)	off	on, UseDivisionForReciprocalsOfIntegersOnly	
Warning	Replace multiplications by powers of two with signed bitwise shifts (EnableSignedLeftShifts)	on	off	SystemTargetFile
Warning	Allow right shifts on signed integers (EnableSignedRightShifts)	on	off	SystemTargetFile
Warning	Undirected event broadcasts (SFUndirectedBroadcastEventsDiag)	warning	error	
Warning	Compile-time recursion limit for MATLAB functions (CompileTimeRecursionLimit)	50	0	
Warning	Enable run-time recursion for MATLAB functions (EnableRuntimeRecursion)	on	off	
Warning	MATLAB user comments (MATLABFcnDesc)	off	on	GenerateComments, SystemTargetFile

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Recommended Action

Modify the configuration parameters listed above to the recommended values.

📁 Bug Reports ✅0 ❌0 ⚠14 🗒0
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⚠ *Display bug reports for Embedded Coder*

Display bug reports for Embedded Coder (R2020a) available at
https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 150 Embedded Coder bug reports for release R2020a

ID	Bug Report Summary	Modified
2371665	Embedded Coder - Reset function in model reference generated code has incorrect signature	03 Dec 2021
2169827	Embedded Coder - Possible crash or error message 'Unexpected exception caught' when requesting static code metrics	15 Nov 2021
2572396	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing a Merge block that feeds into a Unit Delay block	15 Nov 2021
2394053	Embedded Coder - **Incorrect Code Generation**: MATLAB Function block containing sub-function with in-place specification on inputs with variable dimensions might result in incorrect code	15 Nov 2021

2542017	Embedded Coder - Function Caller block does not call scoped Simulink functions in SIL/PIL simulations	12 Nov 2021
2600086	Embedded Coder - **Incorrect Code Generation**: Wrong answer for model with Outports using GetSet or AccessFunction storage class and a referenced model containing a Function-Call Subsystem block	05 Nov 2021
2621403	Embedded Coder - Crash when generating code in a directory containing non-ASCII file paths	03 Nov 2021
2311678	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing a bus data type that is used across nested reusable atomic subsystems	11 Oct 2021
2359525	Embedded Coder - Setting the optimization option of ports of s-function blocks as SS_NOT_REUSABLE_AND_LOCAL does not prevent the code generator from optimizing the corresponding buffers away	22 Sep 2021
2361077	Embedded Coder - Simulink crashes when same identifier is used for root-level Inport or Outport of a subsystem or referenced model that use Auto storage class	22 Sep 2021
2354070	Embedded Coder - **Incorrect Code Generation**: Enable local block outputs configuration generates incorrect code for a model with Probe block.	22 Sep 2021
2366906	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a referenced model	22 Sep 2021
2397457	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for Mod block with AUTOSAR 4.0 code replacement library	22 Sep 2021
2366581	Embedded Coder - MATLAB might crash during code generation when a model contains a parameter with symbolic dimensions and a custom identifier	22 Sep 2021
2398628	Embedded Coder - Incorrect storage class access function is used for custom TLC code	22 Sep 2021
2433737	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing a conditionally executed subsystem	22 Sep 2021
2417506	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a root Outport block that has a fixed-point data type with nonzero bias and an initial condition specified on its input signal	22 Sep 2021
2417204	Embedded Coder - **Incorrect Code Generation**: Normal mode simulation and code generation results might not match if the model is composed of an atomic subsystem containing only a Bus Selector block	22 Sep 2021

2438057	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing Data Store Memory and Model blocks	22 Sep 2021
2451129	Embedded Coder - Invalid ARXML exported when AUTOSAR mapping specifies C type qualifiers for static or constant memory elements typed by data types of category TYPE_REFERENCE	22 Sep 2021
2398710	Embedded Coder - Model with inactive caller functions produces SIL/PIL simulation error	22 Sep 2021
2424554	Embedded Coder - SIL simulation for AUTOSAR model with imported system constants might produce different results from Normal mode or might not return data	22 Sep 2021
2437096	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing a conditional subsystem that inherits initial conditions for output values	22 Sep 2021
2358247	Embedded Coder - **Incorrect Code Generation**: Incorrect answers in rapid accelerator mode when Stateflow charts call multi-instance model blocks in export-function mode	22 Sep 2021
2436658	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing a Data Store Memory block and a Function-Call Subsystem block	22 Sep 2021
2451400	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur when a reusable subsystem input connects to a Model block input which connects to a Simulink Function block	22 Sep 2021
2473990	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model hierarchy in which one model has a single instance of a reusable library subsystem and another model has multiple instances of the same reusable library subsystem	22 Sep 2021
2480768	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model with a function-call subsystem that has feedback loop of output going into the input	22 Sep 2021
2441015	Embedded Coder - **Incorrect Code Generation**: Incorrect answer may be observed with reusable subsystems receiving N-D signals in the row-major mode	22 Sep 2021
2481749	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with local block outputs enabled and a Zero-Order Hold block with multiple rates inside a For Each subsystem	22 Sep 2021

2482170	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur if grounded Function-Call Subsystem with IC specified on subsystem's outport is present inside model reference block	22 Sep 2021
2479152	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur if reusable subsystem is connected to Conditional Subsystem's outport through Selector block with storage class on it's inport.	22 Sep 2021
2495845	Embedded Coder - Incorrect AUTOSAR IncludedDataTypeSet entries exported for Simulink enumerated types with custom storage class Exported Global	22 Sep 2021
2498858	Embedded Coder - **Incorrect Code Generation**: Simulink model containing a Demux block connected to a Stateflow chart might generate incorrect code	22 Sep 2021
2438077	Embedded Coder - **Incorrect Code Generation**: Incorrect behavior for models that contain a Rate Transition block that is not configured to ensure data integrity	22 Sep 2021
2482162	Embedded Coder - Boolean constants are not initialized properly in <model>_data.c.	22 Sep 2021
2538453	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing an Enabled or a Triggered Subsystem block that contains a Unit Delay block	22 Sep 2021
2527763	Embedded Coder - Data Type Propagation block does not support symbolic dimensions	24 Aug 2021
2478537	Embedded Coder - MATLAB might crash when building a model with the parameter RollThreshold higher than the number of iterations of a For Each Subsystem nested in a For Iterator Subsystem	19 Aug 2021
2269258	Embedded Coder - Compilation error occurs if For Each Subsystem is present within a graphical function of a resusable Stateflow chart	30 Jul 2021
2287601	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur if reusable subchart contains exported graphical function with return value	29 Jul 2021
2369300	Embedded Coder - Generated code may be incorrect if a mask parameter in reusable subsystems is used in multiple places	29 Jul 2021
2355624	Embedded Coder - Incorrect ARXML data constraints exported for an AUTOSAR model containing multiple lookup tables	29 Jul 2021
2352794	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Data Store Write block inside a conditional subsystem	29 Jul 2021

2349250	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing a triggered Model Reference block and a Data Store Write block	29 Jul 2021
2344149	Embedded Coder - ARXML exported for COM_AXIS lookup table in AUTOSAR model contains extra SwRecordLayoutGroup	29 Jul 2021
2539845	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model consisting of cascading Hit Crossing and Unit Delay blocks	28 Jul 2021
2295028	Embedded Coder - Embedded Coder replacement files may have incorrect encoding	20 May 2021
2329995	Embedded Coder - Functions generated for a Stateflow chart use the wrong memory section	18 May 2021
2364991	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing a Unit Delay block and an Assignment block	30 Mar 2021
2293509	Embedded Coder - TLC error when code is generated for an AUTOSAR model that contains a calibration parameter within a private scoped Simulink Function	15 Mar 2021
2184516	Embedded Coder - MATLAB might error out during code generation when the same identifier is used for a top model and a system within it	12 Mar 2021
2249030	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with Reset Function block	10 Mar 2021
2248045	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing Data Store Memory block and a For Iterator Subsystem or a While Iterator Subsystem	10 Mar 2021
2244678	Embedded Coder - **Incorrect Code Generation**: Incorrect code might be generated for a model containing a MATLAB Function block with similar expressions over struct type variables	10 Mar 2021
2238014	Embedded Coder - Error when calling TLC library function LibBlockInputSignalAllowScalarExpandedExpr	10 Mar 2021
2207911	Embedded Coder - **Incorrect Code Generation**: Incorrect generated code for model with DQ Limiter block and Inverse Park Transform block	10 Mar 2021
2194951	Embedded Coder - Performance regression caused during code generation for models with large data set	10 Mar 2021
2133942	Embedded Coder - Code generator places code for asynchronously triggered atomic subsystem in wrong location	10 Mar 2021

2029502	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing multiple Reusable custom storage class with a branched root Inport	10 Mar 2021
2248226	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing a Data Store Memory block interacting with a reusable subsystem configured to minimize algebraic loop occurrences	10 Mar 2021
2284691	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing a Data Store Write block inside a reusable subsystem that interacts with another subsystem that has an initialization function	10 Mar 2021
2284700	Embedded Coder - **Incorrect Code Generation**: Top model may not initialize global variable associated with signal originating in referenced model	10 Mar 2021
2204486	Embedded Coder - **Incorrect Code Generation**: Undefined simulation and code generation behavior might occur when signal that drives two Outport blocks resolves to a Simulink.Signal object	10 Mar 2021
2306101	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Unit Delay block connected to Stateflow chart output	10 Mar 2021
2297280	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a referenced model	10 Mar 2021
2292939	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur when a scalar signal that uses a custom storage class authored in TLC selects an element of a bus array	10 Mar 2021
2286124	Embedded Coder - **Incorrect Code Generation**: SIMD code generation results in incorrect answers for min/max operations operating on NaN inputs	10 Mar 2021
2282444	Embedded Coder - Code View hangs after post-processing generated code	10 Mar 2021
2306102	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Simulink Function block	10 Mar 2021
2305376	Embedded Coder - **Incorrect Code Generation**: Generated code might produce incorrect results for AUTOSAR model containing For Each subsystem	10 Mar 2021
2308491	Embedded Coder - Getter function for bus arrays, which return by value, used as a pointer return in the algorithm code	10 Mar 2021
2329608	Embedded Coder - Code generation fails with error "Unable to find Interface within the ModelReferenceInterfaces scope"	10 Mar 2021

2328023	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for MATLAB code in which the loop bounds are unknown at compile time and the lower bound is greater than the upper bound	10 Mar 2021
2313905	Embedded Coder - Code generation assertion when using matrix multiply operation in MATLAB Function Block with variable sized matrices	10 Mar 2021
2292131	Embedded Coder - Names of logged signals are not propagated during SIL and PIL simulations	10 Mar 2021
2306193	Embedded Coder - **Incorrect Code Generation**: Incorrect result might occur when a MATLAB System block calls a Simulink function that contains a Data Store Read or Data Store Write block	10 Mar 2021
2315073	Embedded Coder - **Incorrect Code Generation**: Model produces incorrect answer when one or more reusable subsystems receive 1-D input and N-D input in row-major layout	10 Mar 2021
2321014	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Model block	10 Mar 2021
2284457	Embedded Coder - **Incorrect Code Generation**: err output port of NR Polar Decoder gives wrong answer	10 Mar 2021
2309212	Embedded Coder - Code generation report creation fails when using rtwreport function	10 Mar 2021
2309735	Embedded Coder - Code generation may error with a 'Unrecognized method, property, or field 'Identifier' for class 'RTW.DataImplementation' message	10 Mar 2021
2342018	Embedded Coder - Generated code applies incorrect casting when ImportedDefine storage class is applied to a Simulink.Parameter object with a structure value	10 Mar 2021
2340236	Embedded Coder - **Incorrect Code Generation**: Incorrect code generation for function-call subsystem with reusable function packaging inside a triggered subsystem	10 Mar 2021
2293803	Embedded Coder - Assertion occurs when Simulink.Bus object containing 64-bit sized element is used in Rapid Accelerator or Accelerator mode	10 Mar 2021
2310514	Embedded Coder - Simulation fails due to an Embedded Coder Dictionary error	10 Mar 2021
2367149	Embedded Coder - **Incorrect Code Generation**: Multi-rate subsystem updates discrete state in an incorrect order	10 Mar 2021
2361290	Embedded Coder - Generated code does not compile when an Intel SSE (Windows) code replacement library is used with a MinGW64 compiler	10 Mar 2021

2340323	Embedded Coder - Code generation might produce uncompilable code for a model containing Nonreusable subsystems with Allow arguments (Optimized) interface	10 Mar 2021
2372862	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur when code for DSP System Toolbox blocks is replaced with library code	10 Mar 2021
2343315	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with Stateflow charts	10 Mar 2021
2339063	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Variant Source block	10 Mar 2021
2256563	Embedded Coder - MATLAB crashes when generating code from a Simulink model with a Function Caller block in an inactive variant	10 Mar 2021
2288409	Embedded Coder - MATLAB crashes when generating code from a Simulink model containing a Function Caller block	10 Mar 2021
2306177	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Unit Delay block inside a reusable conditionally executed subsystem	10 Mar 2021
2380346	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing a Selector block that connects to a Unit Delay block	10 Mar 2021
2239948	Embedded Coder - Code compilation failure due to missing AUTOSAR Rte_Read access function in generated code	10 Mar 2021
2400870	Embedded Coder - Subsystem parameter Memory section for execution functions not honored in model reference code	10 Mar 2021
2373749	Embedded Coder - Spurious error about conflicting symbols in the generated code	10 Mar 2021
2389004	Embedded Coder - "Unrecognized function or variable" error when validating or building AUTOSAR Classic Platform model that specifies symbolic values for root port Min and Max	10 Mar 2021
2352927	Embedded Coder - **Incorrect Code Generation**: If Action Subsystem block with function packaging using absolute time may produce incorrect results in generated code	10 Mar 2021
2294390	Embedded Coder - Code View fails to display code generated using Embedded Coder	25 Feb 2021
2423662	Embedded Coder - Uncompilable C code generated due to misplaced guards in header file	10 Feb 2021

2181053	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing directly connected Bus Creator blocks	04 Feb 2021
2184447	Embedded Coder - MATLAB crashes when generating code for a model that receives a message with an Enumeration or bus data type	23 Dec 2020
2199667	Embedded Coder - Incompatibility error during code generation for models with Simulink Function and Function Caller blocks with inconsistent C/C++ identifier names	17 Dec 2020
2211416	Embedded Coder - Accelerator mode model block simulation fails if referenced model uses storage classes on root-level ports	10 Dec 2020
2301617	Embedded Coder - **Incorrect Code Generation**: Model reference call gets removed when a Bus outport is directly attached to a Model block	30 Sep 2020
2131505	Embedded Coder - **Incorrect Code Generation**: Model that uses row-major array layout and complex types containing fixed-point data types might generate incorrect results	16 Sep 2020
2176228	Embedded Coder - Embedded Coder fails to generate correct code from a Simulink Code Inspector compatible model if it defines instance parameters	16 Sep 2020
2111370	Embedded Coder - Persistent global variable used within a Parallel for-Loops(parfor) present in a MATLAB Function block or MATLAB System block may result in code that does not compile	16 Sep 2020
2192558	Embedded Coder - **Incorrect Code Generation**: Customized step function prototype with custom storage class on Root-level Outport might generate incorrect code	16 Sep 2020
2189985	Embedded Coder - **Incorrect Code Generation**: Incorrect initial value for block output inside reusable subsystem	16 Sep 2020
2191117	Embedded Coder - **Incorrect Code Generation**: Tunable parameters in non-inlined S-function might lead to incorrect code	16 Sep 2020
2209352	Embedded Coder - Code generation error with global Data Store Memory and Export-Function model	16 Sep 2020
2190935	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing Data Store Memory and MATLAB System blocks	16 Sep 2020
2197821	MATLAB Coder - **Incorrect Code Generation**: Output of set operations with the 'rows' option might not be in sortrows order when NaNs are present	16 Sep 2020
2192241	Embedded Coder - XCP-based external mode fails for binaries with debug symbols for empty compilation units	16 Sep 2020

2190021	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing a Selector block that connects to a Unit Delay block	16 Sep 2020
2213080	Embedded Coder - MATLAB might crash when generating code for a model that contains subsystems	16 Sep 2020
2176178	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing a bus data type across a reusable atomic subsystem	16 Sep 2020
2218742	Embedded Coder - **Incorrect Code Generation**: Generated code does not initialize instance-specific parameters for models that specify dynamic allocation	16 Sep 2020
2216985	Embedded Coder - **Incorrect Code Generation**: Incorrect code generation for a function-call, triggered, or enabled and triggered subsystem that is configured for reusable function packaging	16 Sep 2020
2215349	Embedded Coder - MATLAB may crash when using the getDataInterfaces function of Code Descriptor API	16 Sep 2020
2199240	Embedded Coder - Code generation error when subsystem contains Stateflow chart and execution time profiling is enabled	16 Sep 2020
2218634	Embedded Coder - Missing example files in documentation topic "Access Data Through Functions by Using Storage Classes in Embedded Coder Dictionary"	16 Sep 2020
2178595	Embedded Coder - SIL simulation with Microsoft Visual C++ compiler option /TP produces compiler error	16 Sep 2020
2192341	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with Stateflow chart	16 Sep 2020
2221375	Embedded Coder - **Incorrect Code Generation**: Numerical mismatch between normal and accelerator mode simulation for variable dimension inputs when the configuration parameter UseRowMajorAlgorithm is selected	16 Sep 2020
2232273	Embedded Coder - **Incorrect Code Generation**: Constant sample time output signal in referenced model might lead to incorrect code	16 Sep 2020
2221392	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with a Unit Delay block inside a For Iterator or While Iterator subsystem	16 Sep 2020
2122070	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with Unit Delay block inside a For Each Subsystem block	16 Sep 2020

2203079	Embedded Coder - Uncompilable generated code might occur for MATLAB code containing a loop that operates on variables of different data types with SIMD enabled	16 Sep 2020
2204585	Embedded Coder - **Incorrect Code Generation**: Signal object InitialValue ignored on root inputs of referenced models when storage class is 'Model default'	16 Sep 2020
2210185	Embedded Coder - AUTOSAR Diagnostic Event Manager event failure or success not flagged if event ID counter exceeds rather than meets threshold	16 Sep 2020
2247270	Embedded Coder - **Incorrect Code Generation**: Incorrect initial value for block output inside reusable subsystem	16 Sep 2020
2119697	Embedded Coder - Stateflow chart inside rate grouped Simulink Function might lead to assertion during code generation	16 Sep 2020
2275086	Embedded Coder - Overwritten Embedded Coder Dictionary in Simulink data dictionary	16 Sep 2020
2293745	Embedded Coder - PIL:pil:ModelBlockLUTTableIsInput error from Model block SIL/PIL simulations with lookup table objects that are mapped to non-Auto storage class	16 Sep 2020
2225876	Embedded Coder - Error in Code view after running SIL/PIL simulation	16 Sep 2020
2063366	Embedded Coder - **Incorrect Code Generation**: AUTOSAR generated code might write uninitialized value if array data is conditionally and partially written to root outport	16 Jul 2020
2166906	Embedded Coder - SIL/PIL simulation fails if model contains Reset Function block and model step function uses function prototype control	14 May 2020
1934700	Embedded Coder - Model block SIL or PIL simulation produces error for AUTOSAR software component with model workspace parameters mapped to SharedParameter	06 Feb 2020
2133775	Embedded Coder - MATLAB might crash when generating code for a model containing C action language Stateflow Chart with shift operation applied to custom storage class	06 Feb 2020
2106435	Embedded Coder - Code generation error for AUTOSAR model in which Simulink Function sends message to root outport	19 Dec 2019
2072645	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for C++ std::string in MATLAB Function block	11 Oct 2019

1999672	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with a For Each subsystem block	16 Aug 2019
2007592	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model with a Bus Assignment block and an Assignment block	16 Aug 2019
1955846	Embedded Coder - MATLAB might crash while building a model with a Reusable custom storage class specification on root i/o	24 Apr 2019
1709275	Embedded Coder - Generated code for Stateflow Chart may contain dead initialization code	12 Feb 2018

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠ *Display bug reports for IEC Certification Kit*

Display bug reports for IEC Certification Kit (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 2 IEC Certification Kit bug reports for release R2020a

ID	Bug Report Summary	Modified
2384778	IEC Certification Kit - IEC Certification Kit validation suite for Simulink Requirements fails in time zones different than Eastern Time Zone (ET)	23 Sep 2021
2376284	IEC Certification Kit - The Simulink Check Generic Tool Classification is incorrect for potential malfunctions or erroneous output [SLCHK_E5]	10 Mar 2021

Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for Polyspace Code Prover*

Display bug reports for Polyspace Code Prover (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 13 Polyspace Code Prover bug reports for release R2020a

ID	Bug Report Summary	Modified
2190091	Polyspace Code Prover - Error during compilation of C++ file: stl_tree.h, line 2142: error: no instance of constructor	09 Nov 2021
2498314	Polyspace Code Prover - Polyspace compilation error when using option -osek-multitasking or -autosar-multitasking	27 Oct 2021
2463083	Polyspace Code Prover - Incorrect red Correctness condition check with message invalid function call on C++ code	22 Sep 2021
2283507	Polyspace Code Prover - Polyspace on Windows crashes in the C to intermediate language translation phase	29 Jul 2021
2053304	Polyspace Code Prover - Polyspace analysis stops with error: declaration is incompatible with "void OSEK_polyspace_ActivateTask(OSEK_polyspace_task_type)"	10 Mar 2021
2240865	Polyspace Code Prover - Polyspace remote analysis with MATLAB Parallel Server fails with error: Unable to create package polyspace.zip	10 Mar 2021
2392001	Polyspace Code Prover - Code Prover analysis stuck at Software Safety Analysis Level 1 (P_AE)	10 Mar 2021
2369001	Polyspace Code Prover - Bug Finder or Code Prover compilation stops at the linking phase with the message: The process "ps_cxx_fe" received the signal 11	10 Mar 2021
2291238	Polyspace Code Prover - In unit-by-unit mode Polyspace annotations are ignored on header files	04 Jan 2021
2184422	Polyspace Code Prover - Incorrect Function not called check when using compiler pragma inline=never	16 Sep 2020
2142882	Polyspace Code Prover - External constraints are not recognized on arguments passed by reference to stubbed functions	16 Sep 2020
1654557	Polyspace Code Prover - Operation using wrapped values from a previous orange overflow is green even if tooltip indicates a possible second overflow	16 Sep 2020
2234024	Polyspace Code Prover - Error with behavior specification options in Polyspace analysis in client-server mode	16 Sep 2020

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Recommended Action

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To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for Polyspace Bug Finder*

Display bug reports for Polyspace Bug Finder (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

 Warning

There are 36 Polyspace Bug Finder bug reports for release R2020a

ID	Bug Report Summary	Modified
2301383	Polyspace Bug Finder - Incorrect defect Unmodified variable not const-qualified on reference variable	22 Sep 2021
2418884	Polyspace Bug Finder - Polyspace compilation error on anonymous unions when using option -compiler greenhills	22 Sep 2021
2445355	Polyspace Bug Finder - AUTOSAR-C++14 A10-03-03 false positive violation on function member marked as "override final"	22 Sep 2021
2426444	Polyspace Bug Finder - False Positive violation of MISRA C++:2008 10-2-1 (AUTOSAR C++14 M10-2-1) when a class is derived from at least two different types of instantiation of the same template class	22 Sep 2021

2473718	Polyspace Bug Finder - MISRA-C:2012 20.1 False Positive violation after 2 consecutive #elif	22 Sep 2021
2505942	Polyspace Bug Finder - IAR Embedded Workbench (iar-ew) __section_begin and __section_end macros always return a pointer to address 0	22 Sep 2021
2509931	Polyspace Bug Finder - The ps_cxx_fe process crashes when the -code-metrics option is used with gnu or clang compilers	22 Sep 2021
2492695	Polyspace Bug Finder - False positive violation of UINT_CONSTANT_OVFL on unary operator ~	09 Aug 2021
2369018	Polyspace Bug Finder - Incorrect violations in AUTOSAR C++ 14 A8-5-2	25 Mar 2021
2437382	Polyspace Bug Finder - Analysis fails with incompatible language modes error message	16 Mar 2021
2260058	Polyspace Bug Finder - Incorrect MISRA-C:2012 5.4 violation for undefined macro	10 Mar 2021
2301358	Polyspace Bug Finder - False positive violations of AUTOSAR C++14 rule M8-4-4 on function calls to static methods from objects	10 Mar 2021
2304633	Polyspace Bug Finder - When computing AUTOSAR C++14 or other C++ rules, analysis gets stuck on the message Verifying sources ...	10 Mar 2021
2352341	Polyspace Bug Finder - Polyspace analysis of C++ code stops with error: function returning function is not allowed	10 Mar 2021
2293279	Polyspace Bug Finder - Incorrect MISRA-C:2012 9.1 violation when different cells of the same array are given to two parameters of a function	10 Mar 2021
2291608	Polyspace Bug Finder - Incorrect AUTOSAR-C++14 Rule A12-6-1 violation when using member default initializer	10 Mar 2021
2281905	Polyspace Bug Finder - Incorrect AUTOSAR-C++14 Rule M5-0-15 or MISRA-C++ Rule 5-0-15 violation on std container's iterators	10 Mar 2021
2321394	Polyspace Bug Finder - Polyspace linking phase for C++ coding standards shows error: The process "ps_cxx_fe" received the signal 6	10 Mar 2021
2331139	Polyspace Bug Finder - AUTOSAR-C++14 A10-1-1 checker does not recognize some interface classes and incorrectly flags some multiple inheritances	10 Mar 2021
2380036	Polyspace Bug Finder - MISRA-C:2012 Rule 10.3 checker does not detect conversions in structure initializations using initializer list	10 Mar 2021

2375987	Polyspace Bug Finder - Incorrect MISRA C:2012 rule 10.4 violation when operands are Boolean types	10 Mar 2021
2381392	Polyspace Bug Finder - Bug Finder might not detect some numerical defects involving float computations	10 Mar 2021
2378192	Polyspace Bug Finder - AUTOSAR-C++14 A03-03-02 false positive on a constexpr constructor with only constant arguments	10 Mar 2021
2396863	Polyspace Bug Finder - False positive on MISRA-C:2012 rule 1.3 with offsetof macro definition	10 Mar 2021
2356961	Polyspace Bug Finder - Abnormal analysis termination when MISRA-C++ or AUTOSAR-C++14 coding rules are activated	10 Mar 2021
2376134	Polyspace Bug Finder - Polyspace configset attachment popup halts the server workflow using polyspace.ModelLinkOptions	10 Mar 2021
2284143	Polyspace Bug Finder - MISRA C 2012 Rule 13.2 not detected for volatile field of a struct variable	16 Dec 2020
2287440	Polyspace Bug Finder - Polyspace fails to report some results, with the error: Database::connect: failed to open the interprocess mutex	21 Sep 2020
2211362	Polyspace Bug Finder - Polyspace analysis fails with error about anonymous union members	16 Sep 2020
2198724	Polyspace Bug Finder - Launching an analysis from MATLAB generates the error: Product required for 'pslinkrunImpl' not installed	16 Sep 2020
2292126	Polyspace Bug Finder - Polyspace code metrics values saturate at 2147483647	16 Sep 2020
2151011	Polyspace Bug Finder - Missing source files or compiler options in Polyspace project when polyspace-configure fails to read compiler options file	16 Sep 2020
2196298	Polyspace Bug Finder - polyspace-configure could not open options file	16 Sep 2020
2276516	Polyspace Bug Finder - polyspace-access command in Linux crashes or fails to upload or download results	16 Sep 2020
2088723	Polyspace Bug Finder - Polyspace annotation not correctly applied when syntax incomplete or severity field missing	16 Sep 2020
2132811	Polyspace Bug Finder - polyspace-configure could not open temporary options file when using Renesas SH	25 Aug 2020

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for Polyspace Code Prover Server*

Display bug reports for Polyspace Code Prover Server (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 10 Polyspace Code Prover Server bug reports for release R2020a

ID	Bug Report Summary	Modified
2498314	Polyspace Code Prover - Polyspace compilation error when using option -osek-multitasking or -autosar-multitasking	27 Oct 2021
2463083	Polyspace Code Prover - Incorrect red Correctness condition check with message invalid function call on C++ code	22 Sep 2021
2283507	Polyspace Code Prover - Polyspace on Windows crashes in the C to intermediate language translation phase	29 Jul 2021

2053304	Polyspace Code Prover - Polyspace analysis stops with error: declaration is incompatible with "void OSEK_polyspace_ActivateTask(OSEK_polyspace_task_type)"	10 Mar 2021
2240865	Polyspace Code Prover - Polyspace remote analysis with MATLAB Parallel Server fails with error: Unable to create package polyspace.zip	10 Mar 2021
2392001	Polyspace Code Prover - Code Prover analysis stuck at Software Safety Analysis Level 1 (P_AE)	10 Mar 2021
2369001	Polyspace Code Prover - Bug Finder or Code Prover compilation stops at the linking phase with the message: The process "ps_cxx_fe" received the signal 11	10 Mar 2021
2291238	Polyspace Code Prover - In unit-by-unit mode Polyspace annotations are ignored on header files	04 Jan 2021
2184422	Polyspace Code Prover - Incorrect Function not called check when using compiler pragma inline=never	16 Sep 2020
1654557	Polyspace Code Prover - Operation using wrapped values from a previous orange overflow is green even if tooltip indicates a possible second overflow	16 Sep 2020

Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for Polyspace Bug Finder Server*

Display bug reports for Polyspace Bug Finder Server (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 16 Polyspace Bug Finder Server bug reports for release R2020a

ID	Bug Report Summary	Modified
2418884	Polyspace Bug Finder - Polyspace compilation error on anonymous unions when using option -compiler greenhills	22 Sep 2021
2473718	Polyspace Bug Finder - MISRA-C:2012 20.1 False Positive violation after 2 consecutive #elif	22 Sep 2021
2505942	Polyspace Bug Finder - IAR Embedded Workbench (iar-ew) __section_begin and __section_end macros always return a pointer to address 0	22 Sep 2021
2260058	Polyspace Bug Finder - Incorrect MISRA-C:2012 5.4 violation for undefined macro	10 Mar 2021
2321394	Polyspace Bug Finder - Polyspace linking phase for C++ coding standards shows error: The process "ps_cxx_fe" received the signal 6	10 Mar 2021
2293279	Polyspace Bug Finder - Incorrect MISRA-C:2012 9.1 violation when different cells of the same array are given to two parameters of a function	10 Mar 2021
2381392	Polyspace Bug Finder - Bug Finder might not detect some numerical defects involving float computations	10 Mar 2021
2396863	Polyspace Bug Finder - False positive on MISRA-C:2012 rule 1.3 with offsetof macro definition	10 Mar 2021
2376134	Polyspace Bug Finder - Polyspace configset attachment popup halts the server workflow using polyspace.ModelLinkOptions	10 Mar 2021
2284143	Polyspace Bug Finder - MISRA C 2012 Rule 13.2 not detected for volatile field of a struct variable	16 Dec 2020
2287440	Polyspace Bug Finder - Polyspace fails to report some results, with the error: Database::connect: failed to open the interprocess mutex	21 Sep 2020
2211362	Polyspace Bug Finder - Polyspace analysis fails with error about anonymous union members	16 Sep 2020

2198724	Polyspace Bug Finder - Launching an analysis from MATLAB generates the error: Product required for 'pslinkrunImpl' not installed	16 Sep 2020
2292126	Polyspace Bug Finder - Polyspace code metrics values saturate at 2147483647	16 Sep 2020
2088723	Polyspace Bug Finder - Polyspace annotation not correctly applied when syntax incomplete or severity field missing	16 Sep 2020
2132811	Polyspace Bug Finder - polyspace-configure could not open temporary options file when using Renesas SH	25 Aug 2020

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠ *Display bug reports for Simulink Design Verifier*

Display bug reports for Simulink Design Verifier (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 63 Simulink Design Verifier bug reports for release R2020a

ID	Bug Report Summary	Modified
2580839	Simulink Design Verifier - Stubbed constructs are incorrectly treated as returning the same value each time they are called in that time step	18 Nov 2021
2548201	Simulink Design Verifier - Incorrect Unsatisfiable objectives for Saturation blocks with a vector of Inf bounds	17 Nov 2021
2469655	Simulink Design Verifier - Simulink Design Verifier might report incorrect Unsatisfiable objectives for Relational Operator blocks where vector inputs are compared to a minimum or maximum values for a particular data type	15 Nov 2021
2522967	Simulink Design Verifier - Potential incorrect Dead Logic or Unsatisfiable objectives for MinMax blocks with large vector inputs with fixed-point or boolean arguments	11 Nov 2021
2504906	Simulink Design Verifier - Incorrect Dead Logic or Unsatisfiable objectives for Relational Operator blocks that have muxed vector signal inputs	18 Oct 2021
2585244	Simulink Design Verifier - Incorrect Unsatisfiable or Dead Logic objectives for Simulink Function with multiple callers	18 Oct 2021
2561592	Simulink Design Verifier - Simulink Design Verifier incorrectly reuses model representation when CovLogicBlockShortCircuit or CovMcdcMode parameter value is changed	07 Oct 2021
2402262	Simulink Design Verifier - Simulink Design Verifier analysis may provide incorrect results on models containing Simulink Functions with certain settings	28 Sep 2021
2552454	Simulink Design Verifier - Model with a shift by an explicit negative constant may experience incorrect Unsatisfiable or Valid objectives	24 Sep 2021
2371826	Simulink Design Verifier - Satisfied - No Test Case reported for all the model coverage objectives, even when analysis runs for a longer time	22 Sep 2021
2433983	Simulink Design Verifier - Incorrect error message when generating test cases for Simulink Test harness using existing coverage data	22 Sep 2021
2419195	Simulink Design Verifier - Sldvgencov function may return coverage data that does not include coverage metrics for which it generates test cases	22 Sep 2021
2444147	Simulink Design Verifier - Simulink Design Verifier compatibility check fails with an error Empty character vector corresponding to an enumerated value	22 Sep 2021

2269840	Simulink Design Verifier - Simulation of newly generated tests fail in Simulink Test Manager for export function models	22 Sep 2021
2483709	Simulink Design Verifier - Simulink Design Verifier analysis on a subsystem fails if model parameter SolverPrmCheckMsg is disabled	22 Sep 2021
2453018	Simulink Design Verifier - Simulink Design Verifier may error out for models containing Stateflow Charts with exported functions that contain reads or writes to global variables	22 Sep 2021
2453651	Simulink Design Verifier - Simulink Design Verifier Compatibility check fails with error changing property '<parameterName>' is not allowed	22 Sep 2021
2452582	Simulink Design Verifier - Statuses of test objectives reported incorrectly while trying to run Coverage Top off workflow	22 Sep 2021
2495455	Simulink Design Verifier - Expected Output field in sldvData during Test Generation workflow is not populated completely	22 Sep 2021
2512200	Simulink Design Verifier - Simulink Design Verifier incorrectly reports decision objective for the last input index of a Multiport switch block as Unsatisfiable.	22 Sep 2021
2476223	Simulink Design Verifier - Report generation using saved sldvData fails in the subsystem extraction workflow	22 Sep 2021
2400971	Simulink Design Verifier - Simulink Design Verifier analysis report may contain garbled text on non-English MATLAB on Windows platform	22 Sep 2021
2408922	Simulink Design Verifier - Exporting test-cases from Simulink Design Verifier to Simulink Test causes Export operation aborted error	19 Aug 2021
2476025	Simulink Design Verifier - Coverage objectives incorrectly reported as Unsatisfiable or Dead Logic inside reachable MATLAB function	02 Aug 2021
2145862	Simulink Design Verifier - Analysis may terminate with an Internal error in Simulink Design Verifier back end error message.	29 Jul 2021
2324804	Simulink Design Verifier - Analysis may terminate with an Internal error in Simulink Design Verifier back end error message.	29 Jul 2021
2508622	Simulink Design Verifier - In Design Error Detection workflow, upcasting the datatype for Abs block shows an overflow objective being falsified, but the simulation of the counterexample does not result in an overflow	15 Jul 2021
2358135	Simulink Design Verifier - Test generation shows objectives status as Undecided with Testcases for certain models with Block Reduction off	11 Jun 2021
2474796	Simulink Design Verifier - Analysis terminates with an Internal error in Simulink Design Verifier abstract interpretation back end message	19 Apr 2021

2221035	Simulink Design Verifier - Simulink Design Verifier throws a nonintuitive error message on certain models containing MATLAB Function blocks	10 Mar 2021
2263987	Simulink Design Verifier - Generating tests based on existing coverage data may fail to complete normally for models with Logical Operator blocks having unsatisfiable objectives	10 Mar 2021
2245496	Simulink Design Verifier - Error with exporting the test cases generated by Simulink Design Verifier to Simulink Test to a Signal Builder harness	10 Mar 2021
2321185	Simulink Design Verifier - Simulink Design Verifier ignores certain justification rules in filter files	10 Mar 2021
2316213	Simulink Design Verifier - Simulation of a SLDV generated harness containing a Stateflow chart does not use JIT	10 Mar 2021
2308596	Simulink Design Verifier - MATLAB crashes when extending manually generated test cases using Simulink Design Verifier	10 Mar 2021
2298193	Simulink Design Verifier - slvnvmakeharness and sldvmakeharness error out and pauses the simulation when the Bus element port is of inherit:auto data type	10 Mar 2021
2301432	Simulink Design Verifier - Incompatibility reported for models with custom block replacement rules to stub Initialize, Reset or Terminate Function blocks	10 Mar 2021
2254501	Simulink Design Verifier - Analysis with coverage filter errors out when reference configuration set does not have Design Verifier component	10 Mar 2021
2337774	Simulink Design Verifier - Coverage not recorded for the referenced model during simulation of the generated harness	10 Mar 2021
2344201	Simulink Design Verifier - Simulink Design Verifier may error out for models containing Lookup Table (n-D) blocks with certain parameter values	10 Mar 2021
2323604	Simulink Design Verifier - Compatibility check fails for models containing blocks with ports at top or bottom	10 Mar 2021
2289025	Simulink Design Verifier - Compatibility check fails when signal name defined at an outport of referenced model is referred by a downstream block	10 Mar 2021
2241151	Simulink Design Verifier - Analysis may terminate with an Internal error in Simulink Design Verifier back end error message	10 Mar 2021
2294121	Simulink Design Verifier - Block replacement fails for models containing Saturation Dynamic block	11 Feb 2021
2069355	Simulink Design Verifier - Range Collection Mode as Derived ranges in Fixed-point Tool fails for export function models	11 Feb 2021

2289718	Simulink Design Verifier - Simulink Design Verifier might fail to complete normally when performing Out of bound array access detection on models containing matrix-typed data with an InitialValue	23 Dec 2020
2181612	Simulink Design Verifier - MATLAB crashes in Test Extension workflow when the configured parameters result in dead logic	10 Dec 2020
2187119	Simulink Design Verifier - sldvisactive may incorrectly return false when translating a model with model blocks	10 Dec 2020
2149712	Simulink Design Verifier - Compatibility check results in unclear error message for a model with Initialize-Reset-Terminate (IRT) Subsystem inside a Model Reference	10 Dec 2020
2118180	Simulink Design Verifier - Compatibility check fails for models with erroneous block specific copy action callbacks	16 Sep 2020
2126877	Simulink Design Verifier - Reusing Simulink cache file errors out when no replacement model is generated for a custom block replacement rule	16 Sep 2020
2209498	Simulink Design Verifier - Incorrect objective status reported when a model is analyzed in Accelerator simulation mode	16 Sep 2020
2202755	Simulink Design Verifier - Simulation mode set to Normal mode, once the analysis is finished	16 Sep 2020
2202754	Simulink Design Verifier - Fast Restart mode gets disabled after Simulink Design Verifier analysis	16 Sep 2020
2026246	Simulink Design Verifier - Compatibility check may fail for models containing Data Store Memory blocks	16 Sep 2020
2150560	Simulink Design Verifier - Compatibility check may fail for models containing Subsystem Reference blocks	16 Sep 2020
2172228	Simulink Design Verifier - The Simulink Design Verifier generated harness model does not simulate with design model having Out Bus Elements of heterogeneous types	16 Sep 2020
2167393	Simulink Design Verifier - Incorrect error message with sldvlogsignals when its first argument refers to a model with bus element port blocks	16 Sep 2020
1796913	Simulink Design Verifier - Incorrect Code Generation: Incorrect dead logic reported for multiport switch having constant array as control input	16 Sep 2020
2172875	Simulink Design Verifier - The change in enabled status of Proof Objective is not considered while rerunning property proving analysis	16 Sep 2020
2165435	Simulink Design Verifier - Testcases are not extended when the configured parameters are of fixed-point type	16 Sep 2020

| 2168044 | Simulink Design Verifier - Incorrect results for the Relational operator block when the block input is a nonscalar complex signal | 16 Sep 2020 |
| 2278458 | Simulink Design Verifier - Incorrect analysis results on certain models containing Sqrt blocks with fixed-point input signal | 16 Sep 2020 |

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for Simulink PLC Coder*

Display bug reports for Simulink PLC Coder (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 22 Simulink PLC Coder bug reports for release R2020a

ID	Bug Report Summary	Modified

2416453	Simulink PLC Coder - MATLAB might crash or hang during PLC code generation from Stateflow chart	22 Sep 2021
2441951	Simulink PLC Coder - Incorrect Code Generation: Using an assignment block with partial element assignments could result in incorrect code	22 Sep 2021
2478983	Simulink PLC Coder - PLC Coder could generate incorrectly typed matrix address expressions	22 Sep 2021
2457505	Simulink PLC Coder - Incorrect Code Generation: PLC code generated for Stateflow models that contain temporal conditions inside IF statements may be incorrect	22 Sep 2021
2450425	Simulink PLC Coder - PLC code generation errors out for some Stateflow models	22 Sep 2021
2442004	Simulink PLC Coder - Incorrect Code Generation: Using an assignment block with 2-D matrix and vector assignment with for-iterator indexing could result in incorrect code generation	18 Jun 2021
2495472	Simulink PLC Coder - PLC Code generation for MultiProg and PCWorx targets may fail for some models	16 Jun 2021
2220730	Simulink PLC Coder - Incorrect Code Generation: Incorrect code generation for PC Worx 6.0 target when using models with Shift Arithmetic blocks	10 Mar 2021
2422081	Simulink PLC Coder - Incorrect Code Generation: Code generated from models containing Assignment block may be incorrect	10 Mar 2021
2180371	Simulink PLC Coder - Simulink PLC Coder does not support the Simulink.LookupTable, Simulink.Breakpoint, and Simulink.DualScaledParameter objects for code generation	11 Feb 2021
2147418	Simulink PLC Coder - Incorrect Code Generation: Incorrect code generation for CODESYS target when using models with Shift Arithmetic blocks	18 Sep 2020
2147686	Simulink PLC Coder - Incorrect Code Generation: Incorrect code generated when using y=f(y) style MATLAB function in a Simulink function inside a Stateflow chart	16 Sep 2020
2182040	Simulink PLC Coder - Simulink PLC coder throws a typecast assertion during code generation	16 Sep 2020
2176576	Simulink PLC Coder - Incorrect Code Generation: Output variables not updated for sub-function block calls related to initialization	16 Sep 2020
2201973	Simulink PLC Coder - Incorrect Code Generation: Generated PLC code might produce incorrect results due to automated type conversion from unsigned to signed integer	16 Sep 2020

2208060	Simulink PLC Coder - Incorrect Code Generation: Code generated for the TIA Portal: Double Precision target IDE could experience inconsistent behavior when type casting a floating-point data type to an integer data type.	16 Sep 2020
2092179	Simulink PLC Coder - Code generation errors out for tunable parameters having fixed-point data type	16 Sep 2020
2221963	Simulink PLC Coder - Multi-testbench signal group time range check may cause multi-testbench code generation workflow to error	16 Sep 2020
2265288	Simulink PLC Coder - Incorrect Code Generation: Bus signal connecting Unit delay block to MATLAB function block may generate wrong code	16 Sep 2020
2261693	Simulink PLC Coder - Incorrect Code Generation: Simulink.CoderInfo object that has Identifier property set causes missing initial values in generated PLC code	16 Sep 2020
2216089	Simulink PLC Coder - MATLAB might crash when generating PLC code for a model that uses Simulink.Signal	11 Jun 2020
2062037	Simulink PLC Coder - Incorrect Code Generation: PLC Coder generates wrong code for the Discrete-time Integrator block using unsupported integrator methods	11 Oct 2019

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for Simulink Check*

Display bug reports for Simulink Check (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 71 Simulink Check bug reports for release R2020a

ID	Bug Report Summary	Modified
2626539	Simulink Check - JMAAB check for db_0042 incorrectly flags hidden Simulink blocks	28 Nov 2021
2540383	Simulink Check - JMAAB check for jc_0009 does not flag input signals across subsystem hierarchy	25 Nov 2021
2624304	Simulink Check - sub-check b of JMAAB check for jc_0121 does not flag when the Sum block is part of feedback loop	25 Nov 2021
2624994	Simulink Check - JMAAB check for jc_0451 use of unary minus on Boolean is not detected	25 Nov 2021
2581481	Simulink Check - JMAAB check for na_0002: sub-checks do not correspond to correct sub-ids	18 Nov 2021
2583147	Simulink Check - Metrics Dashboard and model metrics API use incorrect bin edges for metric distributions when the metric results are close in value	15 Nov 2021
2607625	Simulink Check - JMAAB check for jc_0231 displays an incorrect warning for hidden Simulink blocks inside Stateflow charts	09 Nov 2021
2605220	Simulink Check - JMAAB check for jc_0643 does not detect fixed point data type in Simulink data object	02 Nov 2021
2486728	Simulink Check - Model Advisor check Check for optimal bus virtuality does not display warning for subsystem boundaries	02 Nov 2021
2400771	Simulink Check - JMAAB check for db_0146 displays an incorrect warning for Trigger block	29 Oct 2021
2366579	Simulink Check - JMAAB check for jc_0531 does not comply with its JMAAB 5.1 modeling guideline	19 Oct 2021

2574563	Simulink Check - JMAAB check for jc_0734 displays an incorrect warning for states with words that start with action labels	04 Oct 2021
2374594	Simulink Check - The Model Advisor check Check fundamental logical and numerical operations displays an error when using Simulink.AliasType	22 Sep 2021
2376225	Simulink Check - JMAAB check Consistency in model element names incorrectly warns about Truth Table block	22 Sep 2021
2387305	Simulink Requirements - Save All action might update unmodified requirement set and link set files	22 Sep 2021
2417352	Simulink Check - On launching Model Slicer, an incompatibility message incorrectly indicates that a Model block inside a For Each subsystem is configured in normal mode	22 Sep 2021
2432791	Simulink Check - NA-MAAB check for number of called function levels always assumes Function Call Level parameter to be 3	22 Sep 2021
2428380	Simulink Check - Removing a widget from the Metrics Dashboard layout crashes MATLAB	22 Sep 2021
2437043	Simulink Coverage - Error when alternating coverage collection between normal simulation mode and SIL/PIL	22 Sep 2021
2441988	Simulink Coverage - Generating a code coverage report using cvhtml might cause MATLAB to crash	22 Sep 2021
2450434	Simulink Check - The MATLAB High-integrity checks need Stateflow license to appear in the Model Advisor	22 Sep 2021
2438353	Simulink Check - Model Slicer displays an error when slicing a model that has variant subsystems that contain bus ports	22 Sep 2021
2382463	Simulink Check - JMAAB check jc_0792 erroneously displays warning for enum types defined in the data dictionary	22 Sep 2021
2462216	Simulink Check - Launching Model Slicer to debug or inspect a Simulink Design Verifier objective displays an error when the model has a Referenced Configuration Set	22 Sep 2021
2507338	Simulink Check - JMAAB check for db_0032 displays an incorrect warning for signal lines crossing over one another	22 Sep 2021
2483880	Simulink Coverage - Generating coverage report takes very long time	22 Sep 2021
2511933	Simulink Check - High-Integrity check MATLAB code with logical operators and functions does not analyze external MATLAB files at secondary and further levels	22 Sep 2021

2530441	Simulink Check - JMAAB check for jc_0741 displays an incorrect warning for variables used in transitions	22 Sep 2021
2469462	Simulink Check - Edit-time checks incorrectly flag blocks on non-English platforms	22 Sep 2021
2568871	Simulink Check - JMAAB check for jc_0628 displays an incorrect warning for Saturation and Saturation Dynamic blocks	13 Sep 2021
2574556	Simulink Check - JMAAB check for jc_0733 does not report states having action types written out of order with spaces	08 Sep 2021
2568870	Simulink Check - JMAAB check for jc_0623 does not report delay blocks used in continuous type model or subsystem	08 Sep 2021
2287850	Simulink Requirements - Simulink Requirements link is not copied from library block to referenced instance of library block	25 Aug 2021
2148105	Simulink Coverage - Coverage incorrectly reported as unsatisfied for MATLAB functions	05 Aug 2021
2446841	Simulink Check - JMAAB check for jc_0651 displays an incorrect warning for root-level Outport blocks	29 Jul 2021
2166247	Simulink Check - JMAAB check for jc_0602 displays an incorrect warning for Outports connected to Bus Selector signals	29 Jul 2021
2546461	Simulink Check - The JMAAB check for jc_760 displays incorrect result for Subcharts	28 Jul 2021
2422239	Simulink Coverage - Aggregated coverage results show more than 100% for model with variable-dimension signals	12 Mar 2021
2282734	Simulink Check - MAAB check Stateflow transition appearance incorrectly flags transitions crossing junctions	10 Mar 2021
2305505	Simulink Check - JMAAB check Prohibited use of implicit type casting in Stateflow reports issue when comparing same enumeration type	10 Mar 2021
2302551	Simulink Check - JMAAB check "Check usage of transition conditions in Stateflow transitions" (ID: mathworks.jmaab.jc_0772) incorrectly flags single internal transitions in a Stateflow chart	10 Mar 2021
2299587	Simulink Check - JMAAB check Condition actions and transition actions in Stateflow incorrectly flags condition actions with C-style comments	10 Mar 2021
2299606	Simulink Check - JMAAB check Use of named Stateflow parameters and constants incorrectly flags numeric literal 1 used in increment or decrement statement	10 Mar 2021

2301018	Simulink Check - The model advisor check Check safety-related optimization settings for data initialization displays incorrect recommended action when Code interface packaging is set to C++	10 Mar 2021
2302437	Simulink Check - JMAAB check Prohibition of logical value comparison in Stateflow incorrectly flags transitions where no logical constants are used	10 Mar 2021
2303251	Simulink Check - JMAAB check Comment position in transition label reports issue for correctly positioned comment	10 Mar 2021
2319269	Simulink Requirements - Requirements Traceability Report for MATLAB code file mentions obsolete file type	10 Mar 2021
2321391	Simulink Check - The Model Advisor check Check usage of floating-point expressions in Stateflow charts does not check ~= and != operators	10 Mar 2021
2256035	Simulink Check - Model Metrics Dashboard crashes MATLAB when collecting metric data for a demo model	10 Mar 2021
2328722	Simulink Check - Model Advisor check Display model metrics and complexity report fails for models containing Stateflow Charts defined in a library	10 Mar 2021
2302676	Simulink Check - The input parameter settings and corresponding modify actions for sub-ids B & D of the JMAAB check Check Model font settings (ID: mathworks.jmaab.db_0043) do not work as expected	10 Mar 2021
2361684	Simulink Check - High-Integrity check Inport interface definition incorrectly analyzes root model when run on subsystem	10 Mar 2021
2241878	Simulink Check - JMAAB check Clarification of connections between structural subsystems results in abnormal exit	10 Mar 2021
2236705	Simulink Requirements - Property Inspector is not correctly updated after link is deleted	10 Mar 2021
2345307	Simulink Check - JMAAB check for db_0141 displays an incorrect warning for feedback loops	10 Mar 2021
2282260	Simulink Check - The JMAAB checks for jc_0025 and jc_0026 flag bus elements of Boolean data type for missing mix/max values	10 Mar 2021
2179943	Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent	11 Feb 2021
2231694	Simulink Check - Model Advisor check Data type selection for index signals produces an error	10 Dec 2020
2172579	Simulink Check - Incorrect warning with Check use of default variants(mathworks.maab.na_0036) for Label variant control mode	10 Dec 2020

2033655	Simulink Check - Collecting model metrics produces an error with Diagnostic Event Manager caller blocks	10 Dec 2020
2266293	Simulink Check - Check trigger signal names flags Simulink functions nested in stateflow charts	18 Sep 2020
2195350	Simulink Check - The check for JMAAB Check Stateflow transition appearance (mathworks.jmaab.db_0129) displays an incorrect warning	16 Sep 2020
2198087	Simulink Coverage - Incorrect execution coverage for referenced export-function model	16 Sep 2020
2173909	Simulink Requirements - Bullet points not imported correctly from DOORS 9	16 Sep 2020
2181624	Simulink Check - Model Transformer tool generates an error while refactoring a model to eliminate Data Store Memory blocks	16 Sep 2020
2227557	Simulink Check - Model Advisor check Check usage of Merge block flags Initialize Function block	16 Sep 2020
2255599	Simulink Check - The Model Advisor check Check for optimal bus virtuality (ID: mathworks.design.OptBusVirtuality) flags virtual bus crossing model boundary	16 Sep 2020
2254719	Simulink Check - Model Advisor checks fail when executed by using the command line API with parallel mode option	16 Sep 2020
2253699	Simulink Check - MATLAB crashes when collecting model metrics on a model that references a protected model	16 Sep 2020
2294944	Simulink Check - Check for model elements that do not link to requirement results in an abnormal exit	16 Sep 2020
2244386	Simulink Check - JMAAB check Consistency in model element names incorrectly flags models with Bus Selector block	16 Sep 2020

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for Simulink Coverage*

Display bug reports for Simulink Coverage (R2020a) available at
https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 23 Simulink Coverage bug reports for release R2020a

ID	Bug Report Summary	Modified
2583147	Simulink Check - Metrics Dashboard and model metrics API use incorrect bin edges for metric distributions when the metric results are close in value	15 Nov 2021
2567786	Simulink Coverage - Collecting code coverage for a model might cause a compiler error	12 Nov 2021
2504462	Simulink Coverage - Simulink blocks with fixed-point input might report incorrect relational boundary coverage results	12 Oct 2021
2376346	Simulink Coverage - __MW_INSTRUM_ text in compilation error from SIL or PIL simulation configured for code coverage analysis	22 Sep 2021
2437043	Simulink Coverage - Error when alternating coverage collection between normal simulation mode and SIL/PIL	22 Sep 2021
2441988	Simulink Coverage - Generating a code coverage report using cvhtml might cause MATLAB to crash	22 Sep 2021

2417071	Simulink Coverage - Running consecutive coverage analyses on a subsystem harness might cause an error	22 Sep 2021
2483880	Simulink Coverage - Generating coverage report takes very long time	22 Sep 2021
2454026	Simulink Coverage - Coverage not recorded for referenced Subsystem simulated using a test harness	22 Sep 2021
2287850	Simulink Requirements - Simulink Requirements link is not copied from library block to referenced instance of library block	25 Aug 2021
2148105	Simulink Coverage - Coverage incorrectly reported as unsatisfied for MATLAB functions	05 Aug 2021
2314625	Simulink Coverage - Coverage might return incorrect information when run on a Stateflow chart that contains an enumeration of a custom base type	03 Aug 2021
2422239	Simulink Coverage - Aggregated coverage results show more than 100% for model with variable-dimension signals	12 Mar 2021
2267735	Simulink Coverage - Scoping coverage to requirements-based tests causes 0% coverage for subsystem test harnesses	10 Mar 2021
2305692	Simulink Coverage - MATLAB crashes when executing test file in SIL mode	10 Mar 2021
2396507	Simulink Coverage - Simulink Coverage throws errors after a harness model simulation fails	10 Mar 2021
2179943	Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent	11 Feb 2021
2033655	Simulink Check - Collecting model metrics produces an error with Diagnostic Event Manager caller blocks	10 Dec 2020
2276842	Simulink Coverage - Generating a coverage report in the Test Manager for subsystem harnesses at different levels in a library causes an assertion failure	02 Dec 2020
2304122	Simulink Coverage - Aggregated coverage data description missing from coverage report	13 Oct 2020
2198087	Simulink Coverage - Incorrect execution coverage for referenced export-function model	16 Sep 2020
2179804	Simulink Coverage - An error occurs when a Simulink Subsystem Harness contains a block and subsystem with identical names	16 Sep 2020

2247819	Simulink Coverage - An error occurs in the Simulink Test Manager while aggregating coverage data for a Subsystem Harness if the subsystem contains a call to an external MATLAB file	16 Sep 2020

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for Simulink Test*

Display bug reports for Simulink Test (R2020a) available at
https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 49 Simulink Test bug reports for release R2020a

ID	Bug Report Summary	Modified

2549562	Simulink Test - Rebuilding test harness slow when system being tested outputs bus objects and harness source is Chart or Test Sequence	12 Nov 2021
2477659	Simulink Test - Recovered Stateflow Charts block inserted when Subsystem Reference block added to test harness	22 Sep 2021
2442673	Simulink Test - Simulink Test Manager degraded performance when test case has many baseline signals	22 Sep 2021
2544869	Simulink Test - Running sldvcompat on an externally saved test harness might error	22 Sep 2021
2354503	Simulink Test - Creating a software-in-the-loop (SIL) harness for a subsystem block might cause MATLAB to crash	28 Apr 2021
2362054	Simulink Test - Run with Stepper button for test debugging cannot be used at test file or test suite level	30 Mar 2021
2237793	Simulink Test - Changed ports in an observer model do not highlight correctly in Manager Observer dialog box	30 Mar 2021
2255433	Simulink Test - Loading externally saved test harness using load_system might cause MATLAB to crash.	10 Mar 2021
2241749	Simulink Test - Running R2015a test cases with mapped inputs in R2020a might fail in Test Manager	10 Mar 2021
2286940	Simulink Test - Project does not automatically rename usages of data dictionaries inside internal test harnesses	10 Mar 2021
2261095	Simulink Test - Simulink tests using MATLAB Unit Test framework might fail if signals are logged from referenced models and iterations run in fast restart mode	10 Mar 2021
2249151	Simulink Test - ModelCoveragePlugin used with Project errors or returns incorrect coverage metrics when running tests using the MATLAB Unit TestRunner	10 Mar 2021
2361601	Simulink Test - Empty simulation output with failed equivalence test case	10 Mar 2021
2328718	Simulink Test - Compiling a model with an observer reference might crash MATLAB when the observer model has an asynchronous sample time	10 Mar 2021
2319563	Simulink Test - Real-time test cases in Test Manager for models with Stateflow chart using verify keyword errors	10 Mar 2021
2324694	Simulink Test - Block LoadFcn callbacks do not execute in test harnesses	10 Mar 2021

2329548	Simulink Test - Incorrect parameter override values applied during test execution	10 Mar 2021
2344553	Simulink Test - Fixed-point data type strings might be generated incorrectly in test harness global stub functions	10 Mar 2021
2295026	Simulink Test - MATLAB crashes when capturing baseline to Excel file if the file already exists and is open	10 Mar 2021
2383409	Simulink Test - Older versions of Simulink might crash when loading model that has harnessInfo.xml file created or modified in newer release	10 Mar 2021
2420611	Simulink Test - Using Parameter Overrides with a baseline test causes MATLAB to crash	10 Mar 2021
2403257	Simulink Test - Simulink Test execution might error if parallel builds is enabled	10 Mar 2021
2390112	Simulink Test - Signal selection in 'BaselineCriteria' table of test case not applied correctly	10 Mar 2021
2420217	Simulink Test - Override SIL/PIL mode setting might be incorrect in the test result report	11 Feb 2021
2188828	Simulink Test - Invalid simulation output in failed test case result	10 Dec 2020
2236833	Simulink Test - Recovered Stateflow Charts block inserted in Subsystem Reference test harness	02 Nov 2020
2290935	Simulink Test - Test execution failure with parameter overrides and SIL or PIL simulation mode	09 Oct 2020
2253936	Simulink Test - Signals specified for test case in Test Manager Simulation Output section not included in results	01 Oct 2020
2326680	Simulink Test - Plot index specified in Test Manager Simulation Output Logged Signal Set not applied correctly	21 Sep 2020
2194996	Simulink Test - Results export or import fails when custom criteria diagnostic contains a null character	16 Sep 2020
2160783	Simulink Test - Observer port moved to new signal shows link to original signal	16 Sep 2020
2212150	Simulink Test - Incorrect override of parameters in Simulink Test	16 Sep 2020
2210475	Simulink Test - Test suite and test file cleanup callbacks are executed before all test cases are complete	16 Sep 2020

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2224093	Simulink Test - Cannot override logging for data store defined in data dictionary using Test Manager.	16 Sep 2020
2204045	Simulink Test - MATLAB might crash when capturing a baseline to a spreadsheet	16 Sep 2020
2249535	Simulink Test - Test result report that includes Signal Editor block data values produces an error	16 Sep 2020
2252259	Simulink Test - Iterations configured for Fast Restart mode run in Normal mode	16 Sep 2020
2267804	Simulink Test - Simulink Test Manager might crash when running tests that collect coverage	16 Sep 2020
2201774	Simulink Test - Running steps in Test Sequence are not highlighted in the animation during simulation	16 Sep 2020
2257194	Simulink Test - MATLAB stalls during test execution	16 Sep 2020
2248616	Simulink Test - Test For Model Component wizard errors when generating tests for models with configuration set references	16 Sep 2020
2236006	Simulink Test - Test using sltest.testmanager.run on models with fast restart fail, but pass when using Test Manager	11 Jun 2020
2237774	Simulink Test - Dragging ports of a subsystem interface might cause lost connections in associated test harnesses	11 Jun 2020
2239108	Simulink Test - Test execution compiles model multiple times	11 Jun 2020
2248003	Simulink Test - Testing a component in a library when simulation mode is overridden to not use model settings might fail	11 Jun 2020
2249557	Simulink Test - Running a test file containing test cases with external test harnesses that contain a Signal Builder block might error	11 Jun 2020
2112483	Simulink Test - Test that overrides Signal Editor scenario and includes inputs in the results produces an error	13 Dec 2019
2114999	Simulink Test - Running test harnesses using Run with Stepper button on toolstrip is not supported	13 Dec 2019
2120213	Simulink Test - Comparison results for complex signals produce "Signals not aligned" warning	13 Dec 2019

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for Simulink Requirements*

Display bug reports for Simulink Requirements (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 51 Simulink Requirements bug reports for release R2020a

ID	Bug Report Summary	Modified
2583147	Simulink Check - Metrics Dashboard and model metrics API use incorrect bin edges for metric distributions when the metric results are close in value	15 Nov 2021
2287906	Simulink Requirements - Requirements report fails to generate if links in the report have a custom link type	28 Sep 2021
2387305	Simulink Requirements - Save All action might update unmodified requirement set and link set files	22 Sep 2021

2437043	Simulink Coverage - Error when alternating coverage collection between normal simulation mode and SIL/PIL	22 Sep 2021
2441988	Simulink Coverage - Generating a code coverage report using cvhtml might cause MATLAB to crash	22 Sep 2021
2386157	Simulink Requirements - Requirement links are incorrectly copied from Subsystem Reference blocks to instances in Simulink models	22 Sep 2021
2466226	Simulink Requirements - Error when attempting to import a DOORS 9 requirements module	22 Sep 2021
2440193	Simulink Requirements - False positive indication of updated referenced requirements when updating from some ReqIF files	22 Sep 2021
2404198	Simulink Requirements - When importing multiple ReqIF specifications into one requirement set, manually mapping attributes only works for one specification	22 Sep 2021
2483880	Simulink Coverage - Generating coverage report takes very long time	22 Sep 2021
2287850	Simulink Requirements - Simulink Requirements link is not copied from library block to referenced instance of library block	25 Aug 2021
2210569	Simulink Requirements - Unrecgonized date-time format error when importing DOORS module	30 Mar 2021
2422239	Simulink Coverage - Aggregated coverage results show more than 100% for model with variable-dimension signals	12 Mar 2021
2253967	Simulink Requirements - MATLAB stops responding after updating previously imported requirements in Requirements Editor	10 Mar 2021
2251452	Simulink Requirements - ReqIF ID values might change between revisions when exporting to ReqIF	10 Mar 2021
2292859	Simulink Requirements - Error when trying to enter a numeric DNG ID into the Location field of Outgoing Links dialog	10 Mar 2021
2319269	Simulink Requirements - Requirements Traceability Report for MATLAB code file mentions obsolete file type	10 Mar 2021
2326401	Simulink Requirements - Import from IBM DOORS Next not working when configuration management is enabled for project	10 Mar 2021
2329744	Simulink Requirements - Requirements authored in Excel, imported to Simulink Requirements, and exported as ReqIF file might contain undefined XML namespace	10 Mar 2021

2375155	Simulink Requirements - Unable to import requirements from IBM DOORS Next using direct import	10 Mar 2021
2377437	Simulink Requirements - Navigation to requirements in exported Web view file does not behave as expected	10 Mar 2021
2236705	Simulink Requirements - Property Inspector is not correctly updated after link is deleted	10 Mar 2021
2361827	Simulink Requirements - Error dialog box appears when updating requirements imported from Excel	10 Mar 2021
2287923	Simulink Requirements - Error when linking MATLAB Function block code to selection in IBM DOORS Next	11 Feb 2021
2179943	Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent	11 Feb 2021
2278221	Simulink Requirements - Requirements imported directly from IBM DOORS Next have incomplete contents	21 Dec 2020
2033655	Simulink Check - Collecting model metrics produces an error with Diagnostic Event Manager caller blocks	10 Dec 2020
2278239	Simulink Requirements - Navigation broken from imported DOORS Next item to the original item in DOORS Next project	10 Dec 2020
2299729	Simulink Requirements - Error when creating link with IBM DOORS Next (DNG)	18 Sep 2020
2286619	Simulink Requirements - Requirements Editor might not display images in description for requirements imported with ReqIF	18 Sep 2020
2206550	Simulink Requirements - Requirements report displays unrelated text with requirement description	18 Sep 2020
2198087	Simulink Coverage - Incorrect execution coverage for referenced export-function model	16 Sep 2020
2172917	Simulink Requirements - Links to imported DOORS Next items not listed in browser popup window on DOORS Next side	16 Sep 2020
2161457	Simulink Requirements - Import or Update from Microsoft Word fails with an error popup	16 Sep 2020
2182761	Simulink Requirements - Requirements Editor might become frozen after deleting multiple objects	16 Sep 2020
2173909	Simulink Requirements - Bullet points not imported correctly from DOORS 9	16 Sep 2020

2192264	Simulink Requirements - Simulink Requirements exported ReqIF file has wrong attribute definition references	16 Sep 2020
2200430	Simulink Requirements - Import from IBM DOORS Next Generation broken for non-default server instance	16 Sep 2020
2191769	Simulink Requirements - Requirements links lost in round trip workflow when exporting with ReqIF	16 Sep 2020
2172030	Simulink Requirements - Requirements Editor becomes slow when opening requirement sets with large number of incoming links	16 Sep 2020
2222794	Simulink Requirements - Traceability link from Requirement to Simulink Test Case appears unresolved	16 Sep 2020
2282997	Simulink Requirements - Failure to login to IBM DOORS Next when performing oslc.configure() procedure	16 Sep 2020
2277377	Simulink Requirements - Import from DOORS Next module or query does not work with port number 443	16 Sep 2020
2123991	Simulink Requirements - Requirements imported from IBM DOORS Next missing "Updated on" Revision information	16 Sep 2020
2210749	Simulink Requirements - 3rd-Party requirements tool does not accept ReqIF exported by Simulink Requirements	11 Jun 2020
2247724	Simulink Requirements - Failure to connect with IBM DOORS Next (DNG) when importing requirements	11 Jun 2020
2247892	Simulink Requirements - Traceability Matrix does not render link icons correctly	11 Jun 2020
2232550	Simulink Requirements - Displayed column widths in Requirements Editor might be reset	14 May 2020
2205640	Simulink Requirements - MATLAB crashes while updating requirement from IBM DOORS Next server	22 Apr 2020
2163041	Simulink Requirements - Missing requirement links for Stateflow objects in library after resolve-push	06 Feb 2020
1970160	Simulink Requirements - Error when clicking Show in document for references imported from IBM Rational DOORS Next Generation module	24 Apr 2019

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for AUTOSAR Blockset*

Display bug reports for AUTOSAR Blockset (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 38 AUTOSAR Blockset bug reports for release R2020a

ID	Bug Report Summary	Modified
2566047	AUTOSAR Blockset - SwSystemConstantValueSets contains NaN values in generated ARXML	12 Nov 2021
2429904	AUTOSAR Blockset - Short name uniqueness error after consecutive builds of AUTOSAR component model that inherits architecture model XML options	22 Sep 2021
2364896	AUTOSAR Blockset - Running Model Advisor checks for an AUTOSAR model with a Stateflow Chart receiving messages from a root-level Inport block might crash MATLAB	22 Sep 2021
2451417	AUTOSAR Blockset - AUTOSAR map block: error message for invalid fixed point word length configuration of two input ports is not clear	22 Sep 2021

2365463	AUTOSAR Blockset - Extraneous AUTOSAR array data types exported when shared base data type has min or max values	19 Aug 2021
2380646	AUTOSAR Blockset - Slow loading or update diagram for AUTOSAR models when imported compositions contain a large number of components	19 Mar 2021
2275260	AUTOSAR Blockset - MATLAB might crash when opening AUTOSAR model in which blocks are linked to a library	10 Mar 2021
2266489	AUTOSAR Blockset - Incorrect Code Generation: Code generation might ignore AUTOSAR per-instance properties of mapped signal, state, or data store	10 Mar 2021
2301336	AUTOSAR Blockset - AUTOSAR model build fails for lookup table with unmapped breakpoints	10 Mar 2021
2371363	AUTOSAR Blockset - Simulink Design Verifier compatibility checking fails for model containing AUTOSAR Blockset lookup table blocks	10 Mar 2021
2389247	AUTOSAR Blockset - Incorrect Code Generation: Non-reentrant code error not reported when AUTOSAR model has concurrent server runnable inside subsystem	10 Mar 2021
2258834	AUTOSAR Blockset - Diagnostic Service Component internal error during simulation of AUTOSAR Basic Software service calls	10 Dec 2020
2184242	AUTOSAR Blockset - AUTOSAR createEnumeration function does not group imported BITFIELD_TEXTTABLE elements by short label	10 Dec 2020
2177276	AUTOSAR Blockset - Using file enum (derived from Simulink.IntEnumType) generates error on code generation	16 Sep 2020
2176249	AUTOSAR Blockset - Storage class for data objects in the model workspace not honored for models with AUTOSAR target	16 Sep 2020
2169930	AUTOSAR Blockset - Error during integration of AUTOSAR Adaptive artifacts from an existing model into another one	16 Sep 2020
2172258	AUTOSAR Blockset - Code generated from model configured for the AUTOSAR Adaptive Platform does not honor function interface configuration settings for Function Caller blocks	16 Sep 2020
2181174	AUTOSAR Blockset - Header file name for enumeration data types is not validated against the AUTOSAR Adaptive Platform standard	16 Sep 2020
2169925	AUTOSAR Blockset - AUTOSAR Component Quick Start for adaptive models does not honor specified component package	16 Sep 2020
2140480	AUTOSAR Blockset - Build error for AUTOSAR model with bus inports and Concatenate block	16 Sep 2020

2186526	AUTOSAR Blockset - AUTOSAR adaptive model fails to generate code when root inport message data type is an enumeration	16 Sep 2020
2186553	AUTOSAR Blockset - AUTOSAR adaptive model fails to generate code when root inport message data type is an array of fixed-point data	16 Sep 2020
2190882	AUTOSAR Blockset - Code generation error for AUTOSAR model that uses AUTOSAR.Parameter in Simulink.Variant object	16 Sep 2020
2196883	AUTOSAR Blockset - Incorrect Code Generation: Incorrect Rte read function call generated for AUTOSAR model with bus ports and ErrorStatus inport	16 Sep 2020
2195897	AUTOSAR Blockset - ARXML import of enumeration data type for AUTOSAR adaptive software component does not create Simulink enumeration data type	16 Sep 2020
2195328	AUTOSAR Blockset - ARXML import for AUTOSAR adaptive software component ignores data types specified as STD-CPP-IMPLEMENTATION-DATA-TYPE of category TYPE_REFERENCE	16 Sep 2020
2199121	AUTOSAR Blockset - ARXML import for AUTOSAR adaptive software component validates existing enumerations against header file requirements for AUTOSAR Classic Platform instead of AUTOSAR Adaptive Platform	16 Sep 2020
2192435	AUTOSAR Blockset - ARXML export from an AUTOSAR adaptive model generates incorrect tag, IMPLEMENTATION-DATA-TYPE, for Enumeration data types and references inside DataTypeMaps	16 Sep 2020
2191143	AUTOSAR Blockset - ARXML import for AUTOSAR adaptive software component errors out when an ApplicationDataType is mapped to an AUTOSAR Adaptive Platform type	16 Sep 2020
2194672	AUTOSAR Blockset - AUTOSAR XML import fails with Unrecognized method, property, or field 'IsApplication' for class 'M3I.Object'	16 Sep 2020
2204908	AUTOSAR Blockset - Incorrect Code Generation: Code generation assertion or incorrect code generated for model containing error-status ports for two elements of the same AUTOSAR receiver port	16 Sep 2020
2194284	AUTOSAR Blockset - AUTOSAR mappings for blocks within referenced subsystem do not persist when model is reopened	16 Sep 2020
2263759	AUTOSAR Blockset - Code generation assertion for AUTOSAR model with corrupt signal, state, or data store mapping	16 Sep 2020
2198048	AUTOSAR Blockset - Model Advisor check for an AUTOSAR adaptive model with message root I/O crashes MATLAB	16 Sep 2020

2134859	AUTOSAR Blockset - Component creation from ARXML fails if ClientServerOperation arguments are 64-bit integers	30 Jan 2020
2160270	AUTOSAR Blockset - MATLAB crashes during code generation for an AUTOSAR model that has mapped signals, states, or data stores	30 Jan 2020
2118436	AUTOSAR Blockset - Incorrect Code Generation: Incorrect event data received in AUTOSAR adaptive model when Message Receive block specifies Use initial value for Value source when queue is empty	13 Dec 2019
2123864	AUTOSAR Blockset - AUTOSAR model build fails with "Unrecognized function or variable 'calPrmGraphicalName'"	13 Dec 2019

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠ *Display bug reports for HDL Coder*

Display bug reports for HDL Coder (R2020a) available at
https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 152 HDL Coder bug reports for release R2020a

ID	Bug Report Summary	Modified
2457738	HDL Coder - Incorrect Code Generation: Accumulation operations modeled in Simulink using feedback loops may cause latency related HDL mismatch	15 Nov 2021
2359554	HDL Coder - Incorrect Code Generation: Generated VHDL code fails to simulate with generated test bench code in HDL simulator tools	22 Sep 2021
2322712	HDL Coder - Numerical difference between Simulink and HDL Coder in Sqrt block for certain input values and datatypes.	22 Sep 2021
2315303	HDL Coder - Incorrect Code Generation: HDL code generated for integer division by a constant power of two in MATLAB code might be incorrect	22 Sep 2021
2300111	HDL Coder - Incorrect Code Generation: Stateflow charts with nonzero initial values for outputs and containing input events might generate incorrect HDL code	22 Sep 2021
2272974	HDL Coder - HDL blocks with 'inf' sample time may result in delay balancing failure.	22 Sep 2021
2258039	HDL Coder - Incorrect Code Generation: Distributed Pipelining adds invalid registers when a model contains non-constant source blocks	22 Sep 2021
2228896	HDL Coder - Inefficient code generation for models with Clock Rate Pipelining and SqrtNewton architectures	22 Sep 2021
2226678	HDL Coder - Incorrect Code Generation: Accumulation operations modeled in Simulink using feedback loops might cause HDL mismatch due to latency introduced by optimizations upstream	22 Sep 2021
2369068	HDL Coder - Cryptic error in the presence of filter blocks and when Generate resource utilization report enabled	22 Sep 2021
2343081	HDL Coder - Enabling 'Flatten Hierarchy' on a masked subsystem generates incorrect warning message.	22 Sep 2021
2403722	HDL Coder - Task 4.2 Run Synthesis may fail in HDL Workflow advisor when using any version including and after Microsemi Libero SoC 12.1	22 Sep 2021
2401827	HDL Coder - Generated VHDL code might fail to compile because of collision between component type names and the library name	22 Sep 2021
2389179	HDL Coder - MATLAB may crash during HDL Code Generation with multiple instances of same model reference and ClockRatePipelining enabled	22 Sep 2021

2372622	HDL Coder - Internal error during HDL code generation from subsystem containing DocBlock in Native Floating Point mode	22 Sep 2021
2359606	HDL Coder - MATLAB crash during HDL code generation when parametrized code generation is enabled for masked Triggered subsystem	22 Sep 2021
2354425	HDL Coder - Incorrect Code Generation: Using non-fixed-point constant literals in fixed-point division in Stateflow charts might cause incorrect HDL code generation	22 Sep 2021
2346684	HDL Coder - Incorrect Code Generation: Missing zero protection logic in the MATLAB to HDL workflow may result in simulation mismatch or out of bounds indexing errors	22 Sep 2021
2421048	HDL Coder - Delay balancing on the system might not work if global delay balancing is disabled and the model uses scoped delay balancing	22 Sep 2021
2413512	HDL Coder - Incorrect Code Generation: HDL Code generated from a MATLAB code containing division by a constant may result in incorrect code	22 Sep 2021
2321239	HDL Coder - MATLAB may crash or take long time during HDL code generation from a subsystem with a large matrix multiplication	22 Sep 2021
2440476	HDL Coder - Simscape HDL Workflow Advisor fails to generate the implementation model when the Simscape model contains model references	22 Sep 2021
2419461	HDL Coder - HDL Code generation may cause assertion for a switch case block with fixed-point type in case values	22 Sep 2021
2430694	HDL Coder - HDL code generation may fail for a subsystem containing a referenced model with certain bus configurations when traceability is enabled	22 Sep 2021
2434295	HDL Coder - Test bench generation may fail when the bus selector block output signal having a name is connected to the bus creator block.	22 Sep 2021
2435457	HDL Coder - Incorrect Code Generation: Fixed-point division that uses certain rounding methods might produce incorrect HDL code	22 Sep 2021
2456091	HDL Coder - HDL Coder throws internal error during Model Generation when using buses and Clock Rate Pipelining	22 Sep 2021
2432516	HDL Coder - cordicsin and cordiccos functions may throw error during HDL code generation with fixed-point conversion	22 Sep 2021
2402935	HDL Coder - Gain block with boolean output type generates incorrect HDL code	22 Sep 2021
2535370	HDL Coder - Adaptive Pipelining does not insert pipelines for Microsemi Libero SoC or Intel Quartus Pro devices	22 Sep 2021

2479593	HDL Coder - Incorrect Code Generation: HDL code generated for a subsystem might be incorrect when the Bus signals in a subsystem uses fixed-point datatypes specification with 'Slope and Bias'.	22 Sep 2021
2451234	HDL Coder - MATLAB Function block with input names same as enumeration member names has name conflict in generated VHDL	17 Sep 2021
1860261	HDL Coder - Incorrect Code Generation: FIR Rate Conversion HDL Optimized block may generate incorrect HDL code if it uses the request port	07 Sep 2021
2312398	HDL Coder - Subsystem configured with Treat as atomic unit containing bus element ports generates internal assertion during HDL code generation	03 Sep 2021
2503862	HDL Coder - Using From/Goto blocks in HDL Coder may result in a crash	11 Aug 2021
2538599	HDL Coder - Generated VHDL can show out of bounds errors can occur during simulation at time step 0	09 Aug 2021
2207352	HDL Coder - Incorrect Code Generation: Unit Delay block with non-virtual bus as input generates incorrect HDL code	29 Jul 2021
2479571	HDL Coder - Incorrect Code Generation: Generated code results might be incorrect when solver setting Automatically handle rate transition for data transfer is enabled	29 Jul 2021
2538817	HDL Coder - The generated model may fail to compile for Bus Creator or Bus Selector blocks containing named signals	27 Jul 2021
2340654	HDL Coder - sharing applied on a subsystem with matrix as output results in GM compilation issue	27 Jul 2021
2331452	HDL Coder - Incorrect Code Generation: Certain HDL configuration parameter values might produce Verilog code that has same instance name and register name in the module	27 Jul 2021
2516457	HDL Coder - Invalid HDL code can be generated from General CRC Syndrome Detector HDL Optimized	27 Jul 2021
2294796	HDL Coder - HDL Coder Toolstrip can cause an internal error to be thrown if DUT subsystem name contains a new line	20 Jul 2021
2457774	HDL Coder - Simulation mismatches for the selector block	28 Jun 2021
2488883	HDL Coder - Generated model after HDL code generation may give incorrect results when Clock-rate pipelining and Sharing optimizations turned on.	18 Jun 2021
1916569	HDL Coder - Incorrect Code Generation: Streaming/Sharing with Hierarchical Clock-Rate Pipelining can cause validation model mismatch	02 Jun 2021

2469717	HDL Coder - Incorrect Code Generation: Stateflow charts or MATLAB Function blocks containing persistent variables might produce incorrect HDL code because of pipeline latencies	19 May 2021
2481452	HDL Coder - Incorrect Code Generation: Selecting a "Device Vendor" other than "ASIC/FPGA" can lead to generation of mismatching HDL code for models containing Stateflow Charts.	24 Apr 2021
2396693	HDL Coder - The generated HDL code seen in the Code generation report may contain unwanted lines with the text '@tracestart'	19 Apr 2021
2181877	HDL Coder - Incorrect Code Generation: Data mismatch between Simulink and HDL simulation for partly serial architecture of Discrete FIR Filter HDL Optimized block	10 Mar 2021
2186960	HDL Coder - Xilinx System Generator and HDL Coder integration broken due to Vivado incompatible upgrades	10 Mar 2021
2212077	HDL Coder - Matrix multiplication in Simulink causes long code generation times for large matrices	10 Mar 2021
2265492	HDL Coder - Incorrect Code Generation: Simscape HDL Workflow Advisor run might run incorrectly when filter input setting used for Simulink to physical signal converter blocks	10 Mar 2021
2251486	HDL Coder - Incorrect Code Generation: Lookup Table block with linear interpolation and output word length less than or equal to table word length causes HDL mismatch	10 Mar 2021
2264840	HDL Coder - Unhelpful error message when delay balancing is unsuccesful for a multirate model with resource sharing	10 Mar 2021
2275090	HDL Coder - Physical signals at the same level as the DUT subsystem might generate errors when creating HDL test bench	10 Mar 2021
2253404	HDL Coder - MATLAB crash when generating HDL code for model with hierarchy flattening applied when a black box subsystem is used inside For Each Subsystem	10 Mar 2021
2237349	HDL Coder - Incorrect Code Generation: Delay introduced in locally upsampled regions leads to mismatch in validation model	10 Mar 2021
2205228	HDL Coder - Generated Verilog code for Moore charts due to mix of blocking (=) and non-blocking (<=) assignments in the same process	10 Mar 2021
2281688	HDL Coder - Streaming modes of Multiply-Accumulate block might fail to generate HDL test bench	10 Mar 2021

2258428	HDL Coder - HDL code generation error when Generated Model check box is disabled and optimizations such as Hierarchical Distributed Pipelining is enabled	10 Mar 2021
2250162	HDL Coder - Sine HDL Optimized block shows incorrect port label for exp function.	10 Mar 2021
2257170	HDL Coder - Sharing report is incorrect when clock-rate pipelining is enabled on blocks inside a feedback loop with specified oversampling factor	10 Mar 2021
2272652	HDL Coder - VHDLLibraryName customization is ignored during HDL test bench generation	10 Mar 2021
2294775	HDL Coder - Incorrect Code Generation: Gain block with fixed point inputs and Multiplication block parameter set to Matrix(K*u) (u vector) generates incorrect HDL code.	10 Mar 2021
2286765	HDL Coder - Delay balancing might fail during HDL code generation in the presence of From and Goto blocks implementing a feedback loop in large complex models	10 Mar 2021
2152847	HDL Coder - Code generation time increases significantly for complex designs with reporting features	10 Mar 2021
2221487	HDL Coder - Assertion generated during HDL code generation with Optimization Report turned on	10 Mar 2021
2189551	HDL Coder - Assertion generated when bus input with input port parameter Latch input by delaying outside signal selected is input to a Triggered Subsystem	10 Mar 2021
2305463	HDL Coder - Error during model generation when generating HDL code for a model with large number of test points	10 Mar 2021
2256046	HDL Coder - HDL code generation fails for Simulink model that has bus element ports at the interface level of model reference blocks	10 Mar 2021
2301208	HDL Coder - Assertion generated during HDL code generation for model using complex matrices with MATLAB Function block	10 Mar 2021
2218200	HDL Coder - Potential HDL test bench simulation error for models containing Selector blocks with one-based indexing and index ports	10 Mar 2021
2312936	HDL Coder - Stateflow charts that perform floating point operations might assert during HDL code generation in Native Floating Point mode	10 Mar 2021
2309546	HDL Coder - NCO HDL Optimized HDL simulation doesn't match Simulink simulation when reset is applied at reset input port	10 Mar 2021

2307924	HDL Coder - Multiply-Accumulate block in Serial architecture generates internal assertion during HDL code generation when input bit width exceeds 63 bits	10 Mar 2021
2302723	HDL Coder - Assertion thrown during HDL code generation from a Simulink model containing Gain blocks that are operating in "u*K" mode	10 Mar 2021
2330221	HDL Coder - NCO HDL Optimized block errors out when phase increment is zero and you are using frame-based output	10 Mar 2021
2334589	HDL Coder - Gain block whose gain constant is a boolean vector generates internal assertion during HDL code generation	10 Mar 2021
2318155	HDL Coder - Incorrect Code Generation: MATLAB code with System objects stored in cell arrays generates HDL code with only one instance for all objects in the cell array	10 Mar 2021
2309814	HDL Coder - Incorrect Code Generation: Direct Lookup Table(n-D) block with complex floating point table data might generate incorrect HDL code	10 Mar 2021
2361070	HDL Coder - Incorrect Code Generation: Unit conversions on PS-S converters are not captured in the implementation model when using Simscape to HDL Workflow Advisor	10 Mar 2021
2322710	HDL Coder - Incorrect Code Generation: HDL Code generated for the Signed Sqrt block with double data type may be incorrect	10 Mar 2021
2322714	HDL Coder - Incorrect Code Generation: Code generated for the Sqrt block with fixed point input may mismatch simulation behavior	10 Mar 2021
2361304	HDL Coder - Incorrect Code Generation: HDL Coder sharing semantics might be incompatible with conditional subsystems	10 Mar 2021
2343695	HDL Coder - Simscape to HDL Workflow Advisor produces an algorithm containing a delay	10 Mar 2021
2328677	HDL Coder - Generating HDL code from MATLAB Function blocks and Stateflow charts may result in violation of HDL Coding standard rule 2.F.B.1 in the generated code	10 Mar 2021
2322958	HDL Coder - Clock Rate Pipelining with Scoped Delay Balancing may result in MATLAB crash/freeze during HDL code generation	10 Mar 2021
2340587	HDL Coder - Incorrect Code Generation: Using enumeration generated from "Active State Data" monitoring of Stateflow charts can result in generation of incorrect Verilog code.	10 Mar 2021
2321297	HDL Coder - EnableTestpoints can disable ClockRatePipelineOutputPorts	10 Mar 2021

2357107	HDL Coder - Incorrect error message regarding Simulink code generation folder thrown during IP core generation	10 Mar 2021
2384513	HDL Coder - HDL code generation might crash if a subsystem with hierarchy flattening enabled contains multiple instances of an atomic subsystem, and those atomic subsystems contain a MATLAB function block or a Stateflow chart.	10 Mar 2021
2374357	HDL Coder - FlattenHierarchy wrongly flattens subsystems with different BalanceDelays option from parent	10 Mar 2021
2412055	HDL Coder - Rate Transition block with deterministic data transfer disabled might produce code generation error for sample times that are almost integer multiples	10 Mar 2021
2399087	HDL Coder - Sharing on data dependent floating point operators with non-scalar types causes delay balancing error	10 Mar 2021
2221645	HDL Coder - MATLAB might crash during floating-point target code generation if both ClockRatePipelineOutputPorts and ScalarizePorts are set to 'on'	10 Mar 2021
2367550	HDL Coder - Reshape block with matrix input may generate unintuitive error during Floating Point HDL code generation for Intel/Altera Target	10 Mar 2021
2438689	HDL Coder - Incorrect Code Generation: Nested if statements or switch statements may generate incorrect HDL Code when used in System objects or with optimizations enabled	25 Feb 2021
2411786	HDL Coder - Streaming optimization doesn't support MinMax block.	18 Feb 2021
2052966	HDL Coder - Incorrect Code Generation: Native floating-point with hierarchical clock-rate pipelining might cause validation model mismatch	17 Feb 2021
2387881	HDL Coder - HDL code generation for DUT, containing a multiplier of complex datatype that has unconnected output, might cause crash	11 Feb 2021
2331912	HDL Coder - Assigning an array to a bus output from persistent variable in MATLAB Function block may generate extra variables in VHDL	21 Dec 2020
2255441	HDL Coder - Incorrect Code Generation: Lookup Table(n-D) block with fixed point inputs containing negative fraction length generates incorrect HDL code	18 Sep 2020
2226722	HDL Coder - Incorrect Code Generation: Streaming and sharing of resources that are clock-rate pipelined can cause HDL mismatch	18 Sep 2020

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2221957	HDL Coder - Incorrect Code Generation: Mismatch in value of parameter Scalarize vector ports between protected model and model in which it is used generates incorrect HDL code	18 Sep 2020
2216400	HDL Coder - Incorrect Code Generation: HDL coder might generate incorrect code for 1-bit HDL Counter with step value of -1	18 Sep 2020
2202192	HDL Coder - Incorrect Code Generation: MATLAB Function block using MATLAB Datapath architecture might result in mismatch with nested user function calls	18 Sep 2020
2134208	HDL Coder - Initial values of RAMs created during HDL code generation of MATLAB Function blocks with MATLAB Datapath architecture have lower precision	16 Sep 2020
2118897	HDL Coder - Streaming and sharing on same resource fails when clock-rate pipelining is enabled	16 Sep 2020
2109833	HDL Coder - HDL Code generation errors out for a model with n-D Lookup Table block indicating incompatible extrapolation method	16 Sep 2020
2117374	HDL Coder - Incorrect Code Generation: Masked For Each Subsystem when used as a top-level DUT generates incorrect HDL code	16 Sep 2020
2118903	HDL Coder - HDL code generated from models containing Bus Element ports may have incorrect syntax with Traceability Style set to Line Level	16 Sep 2020
2129524	HDL Coder - Incorrect Code Generation: Potential validation model mismatch for model with redundant logic in presence of streaming and clock rate pipelining	16 Sep 2020
2195750	HDL Coder - Generated VHDL code fails to compile when HDL RAM System blocks have initial value of data type fixdt(0,1, 0)	16 Sep 2020
2169597	HDL Coder - HDL code generation error for Matrix Multiply block using DotProductStrategy other than fully parallel with floating-point types	16 Sep 2020
2187160	HDL Coder - Incorrect Code Generation: MATLAB Function block that performs comparisons with constant value in LHS generates incorrect HDL code with MATLAB Datapath architecture	16 Sep 2020
2112830	HDL Coder - Error when generating VHDL code for models that contain signals ending in terminators	16 Sep 2020
2164887	HDL Coder - Error when generating HDL code for Product block set to matrix multiply using serial multiply-accumulate DotProductStrategy	16 Sep 2020
2137919	HDL Coder - MATLAB might crash when generating HDL code for large models that contain Switch blocks with unconnected output ports	16 Sep 2020

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2212672	HDL Coder - Modifications to HDL Block Properties of blocks inside Subsystem Reference are not saved on to the model	16 Sep 2020
2176417	HDL Coder - State-space parameter extraction fails in Extract Equations task of Simscape HDL Workflow Advisor though Check switched linear task might pass for unsupported Simscape elements	16 Sep 2020
2198765	HDL Coder - Extract Equations step in Simscape HDL Workflow Advisor does not terminate when Stop time of a model is Inf	16 Sep 2020
2205741	HDL Coder - Divide block with ShiftAdd architecture generates internal error for vector dividend and scalar divisor	16 Sep 2020
2244823	HDL Coder - Index exceeds array dimensions error thrown while running HDL implementation model generated from Simscape HDL Workflow Advisor	16 Sep 2020
2242229	HDL Coder - Signal logging might cause issues with clock rate pipelining and delay balancing	16 Sep 2020
2218161	HDL Coder - Wrong sample time inferred in HDL implementation model when model base rate is faster than Simscape solver sample time	16 Sep 2020
2227856	HDL Coder - HDL code generation error when sending an array of bus signal into both an Assignment block and a For Each Subsystem block	16 Sep 2020
2231197	HDL Coder - Incorrect Code Generation: Precision error in double-typed initial values in RAM blocks inferred during HDL code generation from persistent variables in MATLAB function block	16 Sep 2020
2191543	HDL Coder - Internal assertion during HDL code generation for Matrix Multiply block with a row vector output and sharing or streaming optimization	16 Sep 2020
2117385	HDL Coder - Internal assertion during HDL code generation for RAM mapping of double-typed persistent variables using MATLAB Function block in Native Floating Point mode	16 Sep 2020
2160410	HDL Coder - MATLAB might crash when generating HDL code for models configured for IP Core Generation workflow that introduce blocks with unused ports and have critical path estimation enabled	16 Sep 2020
2207625	HDL Coder - Internal assertion during HDL code generation for certain operators with mix of single and double types in Native Floating Point mode for MATLAB Function block	16 Sep 2020
2204655	HDL Coder - Traceability report in HDL Coder leads to cryptic error message during code generation.	16 Sep 2020

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2221682	HDL Coder - Error when generating VHDL test bench for model reference as DUT when ScalarizePorts value mismatches between top and referenced model and referenced model contains Single Port RAM	16 Sep 2020
2180948	HDL Coder - MATLAB Datapath architecture for MATLAB Function blocks incorrectly throws error about unsupported functions using complex integer types	16 Sep 2020
2180068	HDL Coder - Fixed-Point Designer > Matrix Operations Library blocks throw confusing errors for MATLAB Function blocks during HDL code generation with floating-point types	16 Sep 2020
2176073	HDL Coder - Error message generated for reals in Stateflow Chart does not show location of unsupported code when Native Floating Point is used	16 Sep 2020
2169298	HDL Coder - MATLAB Datapath architecture of MATLAB Function block generates internal error when coder pragma is used as an input to a function	16 Sep 2020
2210576	HDL Coder - Internal assertion generated during HDL code generation for floating-point operators inside model reference in Native Floating Point mode	16 Sep 2020
2195553	HDL Coder - Generating code for Bus Creator with bus inputs can lead to assertion indicating Empty records are present	16 Sep 2020
2247328	HDL Coder - Error during HDL code generation from hierarchical masked and enable subsystems if signal logging is enabled	16 Sep 2020
2281502	HDL Coder - Persistent variable access inside an if condition preceded by a for loop can generate an assertion during HDL code generation	16 Sep 2020
2251493	HDL Coder - Bus input for blocks inside model reference can generate HDL code generation error when optimizations are enabled.	16 Sep 2020
2199761	HDL Coder - Annotation comments with color leads to collapsed HDL code generation check report	16 Sep 2020
2181835	HDL Coder - Design having RAM block under masked subsystems with HDL optimizations applied generates unusable generated model	16 Sep 2020
2157017	HDL Coder - hdlset_param function for specifying synthesis tool is case sensitive	16 Sep 2020
2175122	HDL Coder - HDL Coder generates ambiguous error for design having bus element port as input to model reference	16 Sep 2020
2163039	HDL Coder - For Each Subsystem generates assertion during HDL code generation if Partition Dimension is greater than 2	16 Sep 2020

2214596	HDL Coder - Error when generating VHDL test bench for model reference used as DUT with mismatch in value of ScalarizePorts property between the top model and referenced model	11 Jun 2020
2082623	HDL Coder - HDL implementation model with validation logic can generate assertions during simulation for default Validation logic tolerance setting	11 Jun 2020
2214587	HDL Coder - Incorrect Code Generation: Potentially incorrect VHDL test bench code generated for multirate design with a vector port named phase at DUT interface and ScalarizePorts parameter set to on	11 Jun 2020
2005355	HDL Coder - Incorrect Code Generation: Sharing with certain configurations of enabled subsystems results in a mismatch in the validation model	16 Aug 2019

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

📁 Modeling Standards for IEC 62304   ✅0 ❌0 ⚠0 🗒106
_____

🗒 Display configuration management data

Not Run

_____

🗒 Display model metrics and complexity report

Not Run

_____

🗒 Check for unconnected objects

Not Run

📁 High-Integrity Systems ✅0 ❌0 ⚠0 ▤89

📁 *Simulink* ✅*0* ❌*0* ⚠*0* ▤*28*

_____

▤ Check usage of Abs blocks
    Not Run

_____

▤ Check usage of Math Function blocks (rem and reciprocal functions)
    Not Run

_____

▤ Check usage of Math Function blocks (log and log10 functions)
    Not Run

_____

▤ Check usage of While Iterator blocks
    Not Run

_____

▤ Check usage of For and While Iterator subsystems
    Not Run

_____

▤ Check usage of For Iterator blocks
    Not Run

_____

▤ Check usage of If blocks and If Action Subsystem blocks
    Not Run

_____

▤ Check usage of Switch Case blocks and Switch Case Action Subsystem blocks
    Not Run

_____

▤ Check usage of conditionally executed subsystems
    Not Run

_____

▦ Check usage of Merge blocks

Not Run

_____

▦ Check Relational Operator blocks equating floating-point types

Not Run

_____

▦ Check usage of Relational Operator blocks

Not Run

_____

▦ Check usage of Logical Operator blocks

Not Run

_____

▦ Check usage of bit operation blocks

Not Run

_____

▦ Check for blocks not recommended for C/C++ production code deployment

Not Run

_____

▦ Check for inconsistent vector indexing methods

Not Run

_____

▦ Check data types for blocks with index signals

Not Run

_____

▦ Check usage of variant blocks

Not Run

_____

▦ Check usage of lookup table blocks

Not Run

_____

▦ Check usage of Signal Routing blocks

Not Run

📋 Check for root Inports with missing properties

Not Run

📋 Check for root Inports with missing range definitions

Not Run

📋 Check for root Outports with missing range definitions

Not Run

📋 Check usage of Assignment blocks

Not Run

📋 Check global variables in graphical functions

Not Run

📋 Check usage of Gain blocks

Not Run

📋 Check for length of user-defined object names

Not Run

📋 Check data type of loop control variables

Not Run

📁 *Stateflow* ✅0 ❌0 ⚠️0 📋14

📋 Check state machine type of Stateflow charts

Not Run

📋 Check Stateflow charts for ordering of states and transitions

Not Run

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_____

Check usage of bitwise operations in Stateflow charts

Not Run

_____

Check for Strong Data Typing with Simulink I/O

Not Run

_____

Check Stateflow debugging options

Not Run

_____

Check Stateflow charts for transition paths that cross parallel state boundaries

Not Run

_____

Check for inappropriate use of transition paths

Not Run

_____

Check Stateflow charts for strong data typing

Not Run

_____

Check naming of ports in Stateflow charts

Not Run

_____

Check scoping of Stateflow data objects

Not Run

_____

Check Stateflow charts for uniquely defined data objects

Not Run

_____

Check usage of shift operations for Stateflow data

Not Run

_____

⊞ Check assignment operations in Stateflow charts
  Not Run

_____

⊞ Check Stateflow charts for unary operators
  Not Run

📁 *MATLAB* ✅*0* ❌*0* ⚠️*0* ⊞*10*

_____

⊞ Check usage of standardized MATLAB function headers
  Not Run

_____

⊞ Check for MATLAB Function interfaces with inherited properties
  Not Run

_____

⊞ Check MATLAB Function metrics
  Not Run

_____

⊞ Check MATLAB Code Analyzer messages
  Not Run

_____

⊞ Check if/elseif/else patterns in MATLAB Function blocks
  Not Run

_____

⊞ Check switch statements in MATLAB Function blocks
  Not Run

_____

⊞ Check usage of relational operators in MATLAB Function blocks
  Not Run

_____

⊞ Check usage of equality operators in MATLAB Function blocks
  Not Run

_____

📃 Check usage of logical operators and functions in MATLAB Function blocks

Not Run

_____

📃 Check type and size of condition expressions

Not Run

📁 *Configuration* ✅0 ❌0 ⚠️0 📃32

_____

📃 Check safety-related diagnostic settings for data store memory

Not Run

_____

📃 Check safety-related diagnostic settings for saving

Not Run

_____

📃 Check safety-related model referencing settings

Not Run

_____

📃 Check safety-related code generation settings for comments

Not Run

_____

📃 Check safety-related code generation interface settings

Not Run

_____

📃 Check safety-related solver settings for simulation time

Not Run

_____

📃 Check safety-related solver settings for solver options

Not Run

_____

📃 Check safety-related solver settings for tasking and sample-time

Not Run

_____

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Check safety-related diagnostic settings for solvers
    Not Run

_____

Check safety-related diagnostic settings for sample time
    Not Run

_____

Check safety-related optimization settings for logic signals
    Not Run

_____

Check safety-related block reduction optimization settings
    Not Run

_____

Check safety-related code generation settings for code style
    Not Run

_____

Check safety-related optimization settings for application lifespan
    Not Run

_____

Check safety-related code generation identifier settings
    Not Run

_____

Check safety-related optimization settings for loop unrolling threshold
    Not Run

_____

Check safety-related optimization settings for data initialization
    Not Run

_____

Check safety-related optimization settings for data type conversions
    Not Run

_____

Check safety-related optimization settings for division arithmetic exceptions
    Not Run

174

_____

🗒 Check safety-related optimization settings for specified minimum and maximum values

Not Run

_____

🗒 Check safety-related diagnostic settings for compatibility

Not Run

_____

🗒 Check safety-related diagnostic settings for parameters

Not Run

_____

🗒 Check safety-related diagnostic settings for Merge blocks

Not Run

_____

🗒 Check safety-related diagnostic settings for model initialization

Not Run

_____

🗒 Check safety-related diagnostic settings for data used for debugging

Not Run

_____

🗒 Check safety-related diagnostic settings for signal connectivity

Not Run

_____

🗒 Check safety-related diagnostic settings for bus connectivity

Not Run

_____

🗒 Check safety-related diagnostic settings that apply to function-call connectivity

Not Run

_____

🗒 Check safety-related diagnostic settings for type conversions

Not Run

_____

📃 Check safety-related diagnostic settings for model referencing
    Not Run

_____

📃 Check safety-related diagnostic settings for Stateflow
    Not Run

_____

📃 Check safety-related diagnostic settings for signal data
    Not Run

📁 *Naming* ✅0 ❌0 ⚠0 📃2

_____

📃 Check model file name
    Not Run

_____

📃 Check model object names
    Not Run

📁 *Requirements* ✅0 ❌0 ⚠0 📃1

_____

📃 Check for model elements that do not link to requirements
    Not Run

📁 *Code* ✅0 ❌0 ⚠0 📃2

_____

📃 Check for blocks not recommended for MISRA C:2012
    Not Run

_____

📃 Check configuration parameters for MISRA C:2012
    Not Run

📁 Bug Reports ✅0 ❌0 ⚠0 📃14

_____

176

Display bug reports for Embedded Coder

Not Run

_____

Display bug reports for IEC Certification Kit

Not Run

_____

Display bug reports for Polyspace Code Prover

Not Run

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Display bug reports for Polyspace Bug Finder

Not Run

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Display bug reports for Polyspace Code Prover Server

Not Run

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Display bug reports for Polyspace Bug Finder Server

Not Run

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Display bug reports for Simulink Design Verifier

Not Run

_____

Display bug reports for Simulink PLC Coder

Not Run

_____

Display bug reports for Simulink Check

Not Run

_____

Display bug reports for Simulink Coverage

Not Run

_____

Display bug reports for Simulink Test

Not Run

_____

📄 *Display bug reports for Simulink Requirements*

    Not Run

_____

📄 *Display bug reports for AUTOSAR Blockset*

    Not Run

_____

📄 *Display bug reports for HDL Coder*

    Not Run

📁 Modeling Standards for ISO 26262   ✅66 ❌0 ⚠️40 📄0

_____

✅ Display configuration management data

    Display model configuration and checksum information

  Model configuration and checksum information

Attribute	Value
Model Version	1.503
Author	dongliyuan
Date	Fri Dec 03 15:43:06 2021
Model Checksum	1235436107 551900630 1628127387 3038652197

_____

✅ Display model metrics and complexity report

    Display number of elements and name, level, and depth of subsystems for the model or subsystem

  Model metrics information

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Display number of elements for Simulink blocks and Stateflow constructs

Summary

Element Type	Count
Inport	36
Outport	14
SubSystem	13

Simulink

Block Type	Count
Inport	36
Constant	19
Outport	14
SubSystem	13
Logic	11
RelationalOperator	11
From	11
Switch	8
Delay	6
Sum	5
Goto	5
Ground	4
EnablePort	3
Terminator	3
UnitDelay	2

SignalConversion	2
TriggerPort	1
Abs	1
Gain	1
EventListener	1

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Model complexity information

Display name, level, and depth of subsystems

Maximum Subsystem Depth: 6

Subsystem Depth

Subsystem Name	Level	Depth
SWC_STM/SWC_STM_1ms_sys	1	5
SWC_STM/SWC_STM_1ms_sys/Debouncer	2	2
SWC_STM/SWC_STM_1ms_sys/Debouncer/Compare To Zero" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Compare To Zero	3	1
SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem	3	1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc	2	4
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon	3	3

SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer	4	2
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Compare To Zero" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Compare To Zero	5	1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem	5	1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon	4	2
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Compare To Zero3" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Compar e To Zero3	5	1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable	3	1
SWC_STM/SWC_STM_Init	1	1

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_____

✅ Check for unconnected objects

Identify unconnected lines, input ports, and output ports in the model

Passed

There are no unconnected lines, input ports, and output ports in this model.

📁 High-Integrity Systems ✅63 ❌0 ⚠️26 📄0

📁 *Simulink* ✅*27* ❌*0* ⚠️*1* 📄*0*

_____

✅ Check usage of Abs blocks

Identify Abs blocks that have unreachable code or produce overflows

Passed

No Abs blocks found causing unreachable code or produce overflows.

_____

✅ Check usage of Math Function blocks (rem and reciprocal functions)

Identify Math Function blocks using rem and reciprocal functions that cause non-finite results

Passed

All Math Function blocks in the model use operators appropriately.

_____

✅ Check usage of Math Function blocks (log and log10 functions)

Identify Math Function blocks using log and log10 functions that cause non-finite results

Passed

All Math Function blocks in the model use operators appropriately.

_____

✅ Check usage of While Iterator blocks

Identify While Iterator blocks that do not have a positive value for the maximum number of iterations

Passed

No While Iterator blocks found that might cause infinite loops

_____

✅ Check usage of For and While Iterator subsystems

Identify sample time-dependent blocks in While and For Iterator subsystems.

Passed

No sample time-dependent blocks in For or While Iterator subsystems.

_____

✅ Check usage of For Iterator blocks

Identify For Iterator blocks that cause variable loops

Passed

No For Iterator blocks found that cause variable loops.

_____

✅ Check usage of If blocks and If Action Subsystem blocks

Identify If and If Action Subsystem blocks without else conditions

Passed

No If blocks with questionable configurations or connections were found.

_____

✅ Check usage of Switch Case blocks and Switch Case Action Subsystem blocks

Identify inappropriately used Switch Case blocks and Switch Case Action Subsystem blocks

Passed

No Switch Case blocks with questionable configurations or connections were found.

_____

✅ Check usage of conditionally executed subsystems

Identify inappropriate blocks in conditionally executed subsystems.

Passed

No blocks with improper sample times or asynchronously executed sample-time dependent blocks were found.

_____

✅ Check usage of Merge blocks

Identify Merge blocks constructs which can lead to ambiguous behavior.

Passed

No merge blocks found which can lead to ambiguous behavior.

_____

✅ Check Relational Operator blocks equating floating-point types

Identify Relational Operator blocks that equate floating-point types

Passed

No Relational Operator blocks found that equate floating-point types.

_____

✅ Check usage of Relational Operator blocks

Identify Relational Operator blocks that operate on different data types or have a non-boolean output

Passed

No Relational Operator blocks found that operate on different data types or have a non-boolean output.

_____

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✅ Check usage of Logical Operator blocks

Identify Logical Operator blocks that operate on non-boolean data types

Passed

No Logical Operator blocks found that operate on non-boolean data types.

_____

✅ Check usage of bit operation blocks

Identify bit operation blocks with signed data types as inputs

Passed

No bit operation blocks found with signed data types as inputs.

_____

✅ Check for blocks not recommended for C/C++ production code deployment

Identify blocks not supported by code generation or not recommended for C/C++ production code deployment.

Passed

No blocks found which are not recommended for C/C++ production code deployment.

_____

✅ Check for inconsistent vector indexing methods

Identify inconsistent usage of vector indexing methods across the model or subsystem

Passed

No blocks found using inconsistent indexing modes.

_____

✅ Check data types for blocks with index signals

Identify blocks with index signals that have data types other than integers or enums.

Passed

No blocks or charts found with index signals or variables that have data types other than integer or enums.

_____

✅ Check usage of variant blocks

Check variant block settings that might result in code that doesn't trace back to requirements.

Passed

There are no variant blocks that have "Generate preprocessor conditionals" active.

_____

184

✅ Check usage of lookup table blocks

Check for Lookup Table blocks, Prelookup blocks and Interpolation blocks that do not generate out-of-range checking code.

Passed

No lookup table blocks found to not generate out-of-range checking code.

_____

✅ Check usage of Signal Routing blocks

Identify usage of Signal Routing blocks in Simulink that might impact safety

Passed

No Switch blocks that might generate code with inequality operations (~=) in expressions where at least one side of the expression is a floating-point variable or constant were found.

_____

✅ Check for root Inports with missing properties

Identify Inport blocks in the top-level of the model with missing or inherited sample times, data types, or port dimensions. Inport block properties are specified with block parameters or Simulink signal data objects that explicitly resolve to the connected signal lines.

Passed

There are no Inport blocks in the top-level of the model with missing or inherited sample times, data types, or port dimensions

_____

⚠️ Check for root Inports with missing range definitions

Identify root-level Inport blocks with missing or erroneous minimum or maximum values. Inport block minimum and maximum values are specified with block parameters or Simulink signal objects that explicitly resolve to the connected signal lines.

Warning

The following Inport blocks and Simulink signal objects have missing or erroneous range definitions:

- SWC_STM/L2Com_ModeReq

- SWC_STM/L2Com_NSetP

- SWC_STM/L2Com_TrqSetP

- SWC_STM/SWD_nWoFlt

- SWC_STM/TCF_BlendTrq

- SWC_STM/TCF_TrqDir

- SWC_STM/TCF_nDir

Recommended Action

Model contains Inports with numeric data types that have missing range parameters (minimum and/or maximum). For the listed Inport blocks and Simulink signal objects, specify scalar minimum and maximum parameters.

_____

Check for root Outports with missing range definitions

Identify root-level Outport blocks with missing or erroneous minimum or maximum values. Outport block minimum and maximum values are specified with block parameters or Simulink signal objects that explicitly resolve to the connected signal lines.

Passed

There are no missing or erroneous Outport range properties at the model root level.
Note: Root Outports with inherited data types are not analyzed by this check.

_____

Check usage of Assignment blocks

Identify Assignment blocks whose array fields are not initialized.

Passed

All Assignment blocks are configured with block parameter "Action if any output element is not assigned" set to Warning or Error.

_____

Check global variables in graphical functions

Identify expressions that both read and write to the same global data.

Passed

No expressions found that both read and write to the same global data.

_____

Check usage of Gain blocks

Identify Gain blocks with value which resolves to 1

Passed

No Gain blocks found with value which resolves to 1.

_____

✅ Check for length of user-defined object names

Identify user-defined object names with length greater than threshold

Passed

No Subsystem blocks found with function name length greater than Maximum identifier length. There are no data objects with names having length greater than Maximum identifier length.

_____

✅ Check data type of loop control variables

Identify loop control variables using non-integer data types.

Passed

No For Iterator blocks or MATLAB Function blocks found using non-integer data type for loop control counter variable.

📁 *Stateflow*   ✅13 ❌0 ⚠️1 📄0

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✅ Check state machine type of Stateflow charts

Identify Stateflow Charts whose State Machine Type differs from the type set in the Model Advisor Configuration Editor.

Passed

No Stateflow Charts found that deviate from recommended state machine type.

_____

✅ Check Stateflow charts for ordering of states and transitions

Identify Stateflow charts that do not use explicit ordering of parallel states and transitions.

Passed

No Stateflow Charts found that deviate from recommended state/transition execution order settings.

_____

✅ Check usage of bitwise operations in Stateflow charts

Identify usage of signed data type operands to bitwise operations in Stateflow charts.

Passed

No Stateflow objects found that use signed data type operands with bitwise operations.

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✅ Check for Strong Data Typing with Simulink I/O

Verify configuration settings for strong data typing on the boundaries between Simulink and Stateflow

Passed

No Stateflow charts found that set 'Use Strong Data Typing with Simulink I/O' to off.

⚠️ Check Stateflow debugging options

Identify whether Stateflow debugging options are set appropriately

Warning

The following Stateflow debugging options are not set appropriately:

Parameter	Current Value	Recommended Values
Wrap on overflow (IntegerOverflowMsg)	warning	error
Simulation range checking (SignalRangeChecking)	none	error

Recommended Action

Change the Stateflow debugging options to the recommended value.

✅ Check Stateflow charts for transition paths that cross parallel state boundaries

Identify transition paths that cross parallel state boundaries in Stateflow charts.

Passed

No transition paths crossing parallel state boundaries were found in Stateflow charts.

✅ Check for inappropriate use of transition paths

Identify transition paths that go into and out of a state without ending on a substate.

Passed

No transition paths found that go into and out of a state without ending on a substate.

_____

✅ Check Stateflow charts for strong data typing

Identify expressions with variables and parameters of different data types in Stateflow objects.

Passed

No expressions were found with variables and parameters of different data types.

_____

✅ Check naming of ports in Stateflow charts

Identify mismatches between names of Stateflow ports and associated signals

Passed

There are no name mismatches between Stateflow ports and associated signals

_____

✅ Check scoping of Stateflow data objects

Identify Stateflow data objects with local scope that are not scoped at the chart level or below

Passed

All Stateflow data objects are properly scoped.

_____

✅ Check Stateflow charts for uniquely defined data objects

Identify local data identifiers that are defined in multiple scopes within a chart.

Passed

No Stateflow data identifiers found to be defined in multiple scopes.

_____

✅ Check usage of shift operations for Stateflow data

Identify usage of Stateflow bit-shifting operations that might impact safety.

Passed

There are no Stateflow bit-shifting operations greater than the bit-width of the input or output type.

_____

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✅ Check assignment operations in Stateflow charts

Identify assignment operations in Stateflow objects which cast integer and fixed-point calculations to wider datatype.

Passed

No assignment operations were found which cast integer and fixed-point calculations to wider datatype.

_____

✅ Check Stateflow charts for unary operators

Identify unary minus operators on unsigned data types in Stateflow objects.

Passed

No unary minus operations on unsigned data types were found in Stateflow objects.

📁 *MATLAB* ✅*10* ❌*0* ⚠*0* ▤*0*

_____

✅ Check usage of standardized MATLAB function headers

Identify usage of standardized function headers in MATLAB function.

Passed

No MATLAB function blocks found without standardized function headers.

_____

✅ Check for MATLAB Function interfaces with inherited properties

Identify MATLAB Functions that have inputs, outputs, or parameters with inherited complexity or data type properties.

Passed

No MATLAB Function interfaces with inherited complexity or data type properties found.

_____

✅ Check MATLAB Function metrics

Identify MATLAB Functions that violate code and complexity metrics.

Passed

No MATLAB Function blocks found that violate code and complexity metrics.

_____

✅ Check MATLAB Code Analyzer messages

Check MATLAB functions for %#codegen directive, MATLAB Code Analyzer messages, and justification message IDs.

Passed

No MATLAB Function blocks found with Code Analyzer messages, missing %#codegen directive or inappropriate usage of justification message IDs.

_____

✅ Check if/elseif/else patterns in MATLAB Function blocks

Identify if/elseif/else patterns without appropriate else conditions in embedded MATLAB code

Passed

No inappropriate if/elseif/else patterns found.

_____

✅ Check switch statements in MATLAB Function blocks

Identify inappropriately used switch statements in embedded MATLAB code

Passed

No inappropriately used switch statements found.

_____

✅ Check usage of relational operators in MATLAB Function blocks

Identify relational operators operating on operands of different data types in MATLAB Function blocks.

Passed

No relational operators found operating on operands of different data types.

_____

✅ Check usage of equality operators in MATLAB Function blocks

Identify equality operators used with floating-point operands in MATLAB Function blocks.

Passed

No equality operators found operating on floating-point operands.

_____

✅ Check usage of logical operators and functions in MATLAB Function blocks

Identify logical operators and functions operating on operands with numerical data types.

Passed

No logical operators or functions found operating on operands with numerical data types.

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_____

✅ Check type and size of condition expressions

Identify condition expressions which are not logical scalars.

Passed

No condition expressions found which are not logical scalars.

📁 *Configuration*   ✅11 ❌0 ⚠️21 📋0

_____

⚠️ Check safety-related diagnostic settings for data store memory

Check diagnostic settings in the model configuration that apply to data store memory and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Detect read before write (ReadBeforeWriteMsg)	UseLocalSettings	EnableAllAsError
Warning	Detect write after read (WriteAfterReadMsg)	UseLocalSettings	EnableAllAsError
Warning	Detect write after write (WriteAfterWriteMsg)	UseLocalSettings	EnableAllAsError
Warning	Duplicate data store names (UniqueDataStoreMsg)	none	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠️ Check safety-related diagnostic settings for saving
　　Check diagnostic settings in the model configuration that apply to saving model files.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Block diagram contains disabled library links (SaveWithDisabledLinksMsg)	warning	error
Warning	Block diagram contains parameterized library links (SaveWithParameterizedLinksMsg)	warning	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

✅ Check safety-related model referencing settings
　　Check model referencing settings in the model configuration that might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values
Pass	Rebuild (UpdateModelReferenceTargets)	IfOutOfDateOrStructuralChange	AssumeUpToDate, IfOutOfDateOrStructuralChange
Pass	Pass fixed-size scalar root inputs by value for code generation (ModelReferencePassRootInputsByReference) *	on	on
Pass	Minimize algebraic loop occurrences (ModelReferenceMinAlgLoopOccurrences)	off	off

Recommended Action

* The Command-Line values provided in the table are reverse of the settings in the Configuration Parameters Dialog. Therefore, 'on' in the Command-Line corresponds to an "Off" setting in the dialog, and 'off' in the Command-Line corresponds to an "On" setting in the dialog.

_____

Check safety-related code generation settings for comments

Check code generation settings in the model configuration that apply comments and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values	Prerequisites
Warning	Requirements in block comments (ReqsInCode)	off	on	SystemTargetFile, GenerateComments

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related code generation interface settings

Check code generation interface settings in the model configuration that might impact safety.

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values	Prerequisites
Warning	absolute time (SupportAbsoluteTime)	on	off	SystemTargetFile
Warning	Remove error status field in real-time model data structure (SuppressErrorStatus)	off	on	SystemTargetFile

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

✅ Check safety-related solver settings for simulation time

Identify if the model Start time is set to 0 and Stop time is less than the Application Life Span.

Passed

No issues found with solver settings for simulation time.

_____

✅ Check safety-related solver settings for solver options

Check solver settings in the model configuration that apply to solvers and might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values
Pass	Type (SolverType)	Fixed-step	Fixed-step
Pass	Solver (SolverName)	FixedStepDiscrete	FixedStepDiscrete

_____

✅ Check safety-related solver settings for tasking and sample-time

Check solver settings in the model configuration that apply to tasking and sample-time constraints and might impact safety.

Passed

All constraints on model configuration parameters have been met.

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Status	Parameter	Current Value	Not Recommended Values
Pass	Automatically handle rate transition for data transfer (AutoInsertRateTranBlk)	off	on

_____

⚠ Check safety-related diagnostic settings for solvers

Check diagnostic settings in the model configuration that apply to solvers and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Algebraic loop (AlgebraicLoopMsg)	warning	error
Warning	Minimize algebraic loop (ArtificialAlgebraicLoopMsg)	warning	error
Warning	Block priority violation (BlockPriorityViolationMsg)	warning	error
Warning	Automatic solver parameter selection (SolverPrmCheckMsg)	none	error
Warning	State name clash (StateNameClashWarn)	none	warning

Recommended Action

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Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related diagnostic settings for sample time

Check diagnostic settings in the model configuration that apply to sample time and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Source block specifies -1 sample time (InheritedTsInSrcMsg)	warning	error
Warning	Enforce sample times specified by Signal Specification blocks (SigSpecEnsureSampleTimeMsg)	warning	error
Warning	Single task rate transition (SingleTaskRateTransMsg)	none	error
Warning	Tasks with equal priority (TasksWithSamePriorityMsg)	warning	error
Warning	Unspecified inheritability of sample time (UnknownTsInhSupMsg)	warning	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

✅ Check safety-related optimization settings for logic signals

Check optimization settings in the model configuration that apply to logic signals and might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values
Pass	Implement logic signals as Boolean data (vs. double) (BooleanDataType)	on	on

_____

⚠️ Check safety-related block reduction optimization settings

Check block reduction optimization settings in the model configuration that might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Block reduction (BlockReduction)	on	off

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related code generation settings for code style

Check code generation settings in the model configuration that apply to code style and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values	Prerequisites
Warning	Parentheses level (ParenthesesLevel)	Nominal	Maximum	SystemTargetFile
Warning	Preserve operand order in expression (PreserveExpressionOrder)	off	on	SystemTargetFile

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related optimization settings for application lifespan

Check optimization settings in the model configuration that apply to application lifespan and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Application lifespan (days) (LifeSpan)	auto	inf

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related code generation identifier settings

Check code generation identifier settings in the model configuration that might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Not Recommended Values	Prerequisites
Warning	Minimum mangle length (MangleLength)	1	1, 2, 3	SystemTargetFile

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

✅ Check safety-related optimization settings for loop unrolling threshold

Check optimization settings in the model configuration that apply to loop unrolling threshold and might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Not Recommended Values
Pass	Loop unrolling threshold (RollThreshold)	5	0, 1

_____

⚠️ Check safety-related optimization settings for data initialization

Check optimization settings in the model configuration that apply to data initialization and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values	Prerequisites
Warning	Remove root level I/O zero initialization (ZeroExternalMemoryAtStartup) *	off	on	SystemTargetFile

Warning	Remove internal data zero initialization (ZeroInternalMemoryAtStartup) *	off	on	SystemTargetFile

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

* The Command-Line values provided in the table are reverse of the settings in the Configuration Parameters Dialog. Therefore, 'on' in the Command-Line corresponds to an "Off" setting in the dialog, and 'off' in the Command-Line corresponds to an "On" setting in the dialog.

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⚠ Check safety-related optimization settings for data type conversions

   Check optimization settings in the model configuration that apply to data type conversions and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Remove code from floating-point to integer conversions that wraps out-of-range values (EfficientFloat2IntCast)	off	on

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

✅ Check safety-related optimization settings for division arithmetic exceptions

Check optimization settings in the model configuration that apply to division arithmetic exceptions and might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values	Prerequisites
D - Pass	System target file (SystemTargetFile)	ERT based target	ERT based target	
Pass	Remove code that protects against division arithmetic exceptions (NoFixptDivByZeroProtection)	off	off	SystemTargetFile

_____

✅ Check safety-related optimization settings for specified minimum and maximum values

Check optimization settings in the model configuration that apply to specified minimum and maximum values and might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values	Prerequisites
Pass	Optimize using the specified minimum and maximum values (UseSpecifiedMinMax)	off	off	SystemTargetFile
D - Pass	System target file (SystemTargetFile)	ERT based target	ERT based target	

_____

⚠ Check safety-related diagnostic settings for compatibility

Check diagnostic settings in the model configuration that affect compatibility and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	S-function upgrades needed (SFcnCompatibilityMsg)	none	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related diagnostic settings for parameters

    Check diagnostic settings in the model configuration that apply to parameters and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Detect underflow (ParameterUnderflowMsg)	none	error
Warning	Detect precision loss (ParameterPrecisionLossMsg)	none	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

✅ Check safety-related diagnostic settings for Merge blocks

    Check diagnostic settings in the model configuration that apply to Merge blocks and might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values
Pass	Detect multiple driving blocks executing at the same time step (MergeDetectMultiDrivingBlocksExec)	error	error

_____

✅ Check safety-related diagnostic settings for model initialization

Check diagnostic settings in the model configuration that affect model initialization and might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values
Pass	Underspecified initialization detection (UnderspecifiedInitializationDetection)	Simplified	Simplified

_____

⚠️ Check safety-related diagnostic settings for data used for debugging

Check diagnostic settings in the model configuration that apply to data used for debugging and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Model Verification block enabling (AssertControl)	UseLocalSettings	DisableAll

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠️ Check safety-related diagnostic settings for signal connectivity

Check diagnostic settings in the model configuration that apply to signal connectivity and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Signal label mismatch (SignalLabelMismatchMsg)	none	error
Warning	Unconnected block input ports (UnconnectedInputMsg)	warning	error
Warning	Unconnected block output ports (UnconnectedOutputMsg)	warning	error

	Unconnected line (UnconnectedLineMsg)	warning	error
Warning			

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related diagnostic settings for bus connectivity

Check diagnostic settings in the model configuration that apply to bus connectivity and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warnin g	Unspecified bus object at root Outport block (RootOutportRequireBusObjec t)	warning	error
Warnin g	Element name mismatch (BusObjectLabelMismatch)	warning	error
Warnin g	Bus signal treated as vector (StrictBusMsg)	WarnOnBusTreatedAsVect or	ErrorOnBusTreatedAsVect or
Warnin g	Non-bus signals treated as bus signals (NonBusSignalsTreatedAsBus)	warning	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

✅ Check safety-related diagnostic settings that apply to function-call connectivity

Check diagnostic settings in the model configuration that apply to function-call connectivity and might impact safety.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values
Pass	InvalidFcnCallConnMsg	error	error
Pass	Context-dependent inputs (FcnCallInpInsideContextMsg)	error	error

_____

⚠️ Check safety-related diagnostic settings for type conversions

Check diagnostic settings in the model configuration that apply to type conversions and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Vector/matrix block input conversion (VectorMatrixConversionMsg)	warning	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related diagnostic settings for model referencing

Check diagnostic settings in the model configuration that apply to model referencing and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Port and parameter mismatch (ModelReferenceIOMismatchMessage)	none	error
Warning	Invalid root Inport/Outport block connection (ModelReferenceIOMsg)	none	error
Warning	Unsupported data logging (ModelReferenceDataLoggingMessage)	warning	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related diagnostic settings for Stateflow

Check diagnostic settings in the model configuration that apply to Stateflow and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Invalid input data access in chart initialization (SFInvalidInputDataAccessInChartInitDiag)	warning	error
Warning	Transition outside natural parent (SFTransitionOutsideNaturalParentDiag)	warning	error
Warning	Unreachable execution path (SFUnreachableExecutionPathDiag)	warning	error
Warning	Undirected event broadcasts (SFUndirectedBroadcastEventsDiag)	warning	error
Warning	Transition action specified before condition action (SFTransitionActionBeforeConditionDiag)	warning	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠ Check safety-related diagnostic settings for signal data

    Check diagnostic settings in the model configuration that apply to signal data and might impact safety.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Division by singular matrix (CheckMatrixSingularityMsg)	none	error
Warning	Underspecified data types (UnderSpecifiedDataTypeMsg)	none	error
Warning	Wrap on overflow (IntegerOverflowMsg)	warning	error
Warning	Saturate on overflow (IntegerSaturationMsg)	warning	error
Warning	Inf or NaN block output (SignalInfNanChecking)	warning	error
Warning	Simulation range checking (SignalRangeChecking)	none	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

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📁 *Naming*   ✅1 ⛔0 ⚠️1 🗒0

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✅ Check model file name

Identify inappropriate characters and length issues in model file name

Passed

No issues found with model file name.

_____

⚠️ Check model object names

Identify invalid names of following model objects (first invalid name fragment is highlighted):

- Blocks

- Signals

- Parameters

- Buses

- Stateflow elements

Warning

The following model objects have invalid names:

Block	Name
SWC_STM/SWC_STM_1ms_sys/function	*(Reserved identifier)*
SWC_STM/SWC_STM_1ms_sys/Debouncer/Compare To Zero" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Compare To Zero	CompareToZero
SWC_STM/SWC_STM_1ms_sys/Debouncer/Logical Operator" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Logical Operator	LogicalOperator
SWC_STM/SWC_STM_1ms_sys/Debouncer/Logical Operator1" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Logical Operator1	LogicalOperator1
SWC_STM/SWC_STM_1ms_sys/Debouncer/Relational Operator" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Relational Operator	RelationalOperator

SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Relational Operator" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Relational Operator	RelationalOperator
SWC_STM/SWC_STM_1ms_sys/Debouncer/Unit Delay1" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Unit Delay1	UnitDelay1
SWC_STM/SWC_STM_1ms_sys/Signal Conversion" title="SWC_STM/SWC_STM_1ms_sys/Signal Conversion	SignalConversion
SWC_STM/SWC_STM_1ms_sys/Signal Conversion1" title="SWC_STM/SWC_STM_1ms_sys/Signal Conversion1	SignalConversion1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Compare To Zero" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Compare To Zero	CompareToZero
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator	LogicalOperator
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator1" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator1	LogicalOperator1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Relational Operator" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Relational Operator	RelationalOperator
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Relational Operator" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Relational Operator	RelationalOperator
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Unit Delay1" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Unit Delay1	UnitDelay1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Compare To Zero3"	CompareToZero3

title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Compare To Zero3	
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator1" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator1	LogicalOperator1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator10" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator10	LogicalOperator10
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator5" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator5	LogicalOperator5
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator6" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator6	LogicalOperator6
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator7" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator7	LogicalOperator7
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator8" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator8	LogicalOperator8
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator9" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator9	LogicalOperator9
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator10" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator10	RelationalOperator10
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator11" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator11	RelationalOperator11

SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator12" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator12	RelationalOperator12
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator13" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator13	RelationalOperator13
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator14" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator14	RelationalOperator14
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator15" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational Operator15	RelationalOperator15
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/Relational Operator1" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/Relational Operator1	RelationalOperator1
SWC_STM/SWC_STM_Init/Event Listener	EventListener

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Recommended Action
Change flagged names of model objects

📁 *Requirements*   ✅*0* ❌*0* ⚠*1* 🗒*0*

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⚠️ Check for model elements that do not link to requirements

Check for model elements that do not link to a requirements document.

Warning

The following model elements do not link to a requirements document:

- SWC_STM/SWC_STM_1ms_sys

- SWC_STM/SWC_STM_1ms_sys/Debouncer

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable

- SWC_STM/SWC_STM_Init

Recommended Action

For each block in the list, in the Model Editor, right-click the block, select `Requirements,` and specify a requirement.

📁 *Code* ✅1 ❌0 ⚠️1 🗒️0

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✅ Check for blocks not recommended for MISRA C:2012

Identify blocks that are not recommended for MISRA C:2012 compliant code generation.

Passed

None of the blocks are defined as "not recommended" for MISRA C:2012 compliant code generation.

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⚠️ Check configuration parameters for MISRA C:2012

Identify configuration parameters that might impact MISRA C:2012 compliant code generation.

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values	Prerequisites
Warning	Model Verification block enabling (AssertControl)	UseLocalSettings	DisableAll	
Warning	Generate shared constants (GenerateSharedConstants)	on	off	UtilityFuncGeneration
Warning	Parentheses level (ParenthesesLevel)	Nominal	Maximum	SystemTargetFile
Warning	Casting modes (CastingMode)	Nominal	Standards	SystemTargetFile
Warning	Use division for fixed-point net slope computation (UseDivisionForNetSlopeComputation)	off	on, UseDivisionForReciprocalsOfIntegersOnly	
Warning	Replace multiplications by powers of two with signed bitwise shifts (EnableSignedLeftShifts)	on	off	SystemTargetFile
Warning	Allow right shifts on signed integers (EnableSignedRightShifts)	on	off	SystemTargetFile

	Undirected event broadcasts (SFUndirectedBroadcastEventsDiag)	warning	error	
Warning				
Warning	Compile-time recursion limit for MATLAB functions (CompileTimeRecursionLimit)	50	0	
Warning	Enable run-time recursion for MATLAB functions (EnableRuntimeRecursion)	on	off	
Warning	MATLAB user comments (MATLABFcnDesc)	off	on	GenerateComments, SystemTargetFile

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Recommended Action

Modify the configuration parameters listed above to the recommended values.

📁 Bug Reports   ✅0 ❌0 ⚠️14 📋0

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⚠️ *Display bug reports for Embedded Coder*

Display bug reports for Embedded Coder (R2020a) available at
https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

There are 150 Embedded Coder bug reports for release R2020a

ID	Bug Report Summary	Modified
2371665	Embedded Coder - Reset function in model reference generated code has incorrect signature	03 Dec 2021
2169827	Embedded Coder - Possible crash or error message 'Unexpected exception caught' when requesting static code metrics	15 Nov 2021
2572396	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing a Merge block that feeds into a Unit Delay block	15 Nov 2021
2394053	Embedded Coder - **Incorrect Code Generation**: MATLAB Function block containing sub-function with in-place specification on inputs with variable dimensions might result in incorrect code	15 Nov 2021
2542017	Embedded Coder - Function Caller block does not call scoped Simulink functions in SIL/PIL simulations	12 Nov 2021
2600086	Embedded Coder - **Incorrect Code Generation**: Wrong answer for model with Outports using GetSet or AccessFunction storage class and a referenced model containing a Function-Call Subsystem block	05 Nov 2021
2621403	Embedded Coder - Crash when generating code in a directory containing non-ASCII file paths	03 Nov 2021
2311678	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing a bus data type that is used across nested reusable atomic subsystems	11 Oct 2021
2359525	Embedded Coder - Setting the optimization option of ports of s-function blocks as SS_NOT_REUSABLE_AND_LOCAL does not prevent the code generator from optimizing the corresponding buffers away	22 Sep 2021
2361077	Embedded Coder - Simulink crashes when same identifier is used for root-level Inport or Outport of a subsystem or referenced model that use Auto storage class	22 Sep 2021
2354070	Embedded Coder - **Incorrect Code Generation**: Enable local block outputs configuration generates incorrect code for a model with Probe block.	22 Sep 2021

2366906	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a referenced model	22 Sep 2021
2397457	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for Mod block with AUTOSAR 4.0 code replacement library	22 Sep 2021
2366581	Embedded Coder - MATLAB might crash during code generation when a model contains a parameter with symbolic dimensions and a custom identifier	22 Sep 2021
2398628	Embedded Coder - Incorrect storage class access function is used for custom TLC code	22 Sep 2021
2433737	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing a conditionally executed subsystem	22 Sep 2021
2417506	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a root Outport block that has a fixed-point data type with nonzero bias and an initial condition specified on its input signal	22 Sep 2021
2417204	Embedded Coder - **Incorrect Code Generation**: Normal mode simulation and code generation results might not match if the model is composed of an atomic subsystem containing only a Bus Selector block	22 Sep 2021
2438057	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing Data Store Memory and Model blocks	22 Sep 2021
2451129	Embedded Coder - Invalid ARXML exported when AUTOSAR mapping specifies C type qualifiers for static or constant memory elements typed by data types of category TYPE_REFERENCE	22 Sep 2021
2398710	Embedded Coder - Model with inactive caller functions produces SIL/PIL simulation error	22 Sep 2021
2424554	Embedded Coder - SIL simulation for AUTOSAR model with imported system constants might produce different results from Normal mode or might not return data	22 Sep 2021
2437096	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing a conditional subsystem that inherits initial conditions for output values	22 Sep 2021
2358247	Embedded Coder - **Incorrect Code Generation**: Incorrect answers in rapid accelerator mode when Stateflow charts call multi-instance model blocks in export-function mode	22 Sep 2021
2436658	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing a Data Store Memory block and a Function-Call Subsystem block	22 Sep 2021

2451400	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur when a reusable subsystem input connects to a Model block input which connects to a Simulink Function block	22 Sep 2021
2473990	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model hierarchy in which one model has a single instance of a reusable library subsystem and another model has multiple instances of the same reusable library subsystem	22 Sep 2021
2480768	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model with a function-call subsystem that has feedback loop of output going into the input	22 Sep 2021
2441015	Embedded Coder - **Incorrect Code Generation**: Incorrect answer may be observed with reusable subsystems receiving N-D signals in the row-major mode	22 Sep 2021
2481749	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with local block outputs enabled and a Zero-Order Hold block with multiple rates inside a For Each subsystem	22 Sep 2021
2482170	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur if grounded Function-Call Subsystem with IC specified on subsystem's outport is present inside model reference block	22 Sep 2021
2479152	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur if reusable subsystem is connected to Conditional Subsystem's outport through Selector block with storage class on it's inport.	22 Sep 2021
2495845	Embedded Coder - Incorrect AUTOSAR IncludedDataTypeSet entries exported for Simulink enumerated types with custom storage class Exported Global	22 Sep 2021
2498858	Embedded Coder - **Incorrect Code Generation**: Simulink model containing a Demux block connected to a Stateflow chart might generate incorrect code	22 Sep 2021
2438077	Embedded Coder - **Incorrect Code Generation**: Incorrect behavior for models that contain a Rate Transition block that is not configured to ensure data integrity	22 Sep 2021
2482162	Embedded Coder - Boolean constants are not initialized properly in <model>_data.c.	22 Sep 2021
2538453	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing an Enabled or a Triggered Subsystem block that contains a Unit Delay block	22 Sep 2021
2527763	Embedded Coder - Data Type Propagation block does not support symbolic dimensions	24 Aug 2021

2478537	Embedded Coder - MATLAB might crash when building a model with the parameter RollThreshold higher than the number of iterations of a For Each Subsystem nested in a For Iterator Subsystem	19 Aug 2021
2269258	Embedded Coder - Compilation error occurs if For Each Subsystem is present within a graphical function of a resusable Stateflow chart	30 Jul 2021
2287601	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur if reusable subchart contains exported graphical function with return value	29 Jul 2021
2369300	Embedded Coder - Generated code may be incorrect if a mask parameter in reusable subsystems is used in multiple places	29 Jul 2021
2355624	Embedded Coder - Incorrect ARXML data constraints exported for an AUTOSAR model containing multiple lookup tables	29 Jul 2021
2352794	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Data Store Write block inside a conditional subsystem	29 Jul 2021
2349250	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing a triggered Model Reference block and a Data Store Write block	29 Jul 2021
2344149	Embedded Coder - ARXML exported for COM_AXIS lookup table in AUTOSAR model contains extra SwRecordLayoutGroup	29 Jul 2021
2539845	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model consisting of cascading Hit Crossing and Unit Delay blocks	28 Jul 2021
2295028	Embedded Coder - Embedded Coder replacement files may have incorrect encoding	20 May 2021
2329995	Embedded Coder - Functions generated for a Stateflow chart use the wrong memory section	18 May 2021
2364991	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing a Unit Delay block and an Assignment block	30 Mar 2021
2293509	Embedded Coder - TLC error when code is generated for an AUTOSAR model that contains a calibration parameter within a private scoped Simulink Function	15 Mar 2021
2184516	Embedded Coder - MATLAB might error out during code generation when the same identifier is used for a top model and a system within it	12 Mar 2021
2249030	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with Reset Function block	10 Mar 2021

2248045	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing Data Store Memory block and a For Iterator Subsystem or a While Iterator Subsystem	10 Mar 2021
2244678	Embedded Coder - **Incorrect Code Generation**: Incorrect code might be generated for a model containing a MATLAB Function block with similar expressions over struct type variables	10 Mar 2021
2238014	Embedded Coder - Error when calling TLC library function LibBlockInputSignalAllowScalarExpandedExpr	10 Mar 2021
2207911	Embedded Coder - **Incorrect Code Generation**: Incorrect generated code for model with DQ Limiter block and Inverse Park Transform block	10 Mar 2021
2194951	Embedded Coder - Performance regression caused during code generation for models with large data set	10 Mar 2021
2133942	Embedded Coder - Code generator places code for asynchronously triggered atomic subsystem in wrong location	10 Mar 2021
2029502	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing multiple Reusable custom storage class with a branched root Inport	10 Mar 2021
2248226	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing a Data Store Memory block interacting with a reusable subsystem configured to minimize algebraic loop occurrences	10 Mar 2021
2284691	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing a Data Store Write block inside a reusable subsystem that interacts with another subsystem that has an initialization function	10 Mar 2021
2284700	Embedded Coder - **Incorrect Code Generation**: Top model may not initialize global variable associated with signal originating in referenced model	10 Mar 2021
2204486	Embedded Coder - **Incorrect Code Generation**: Undefined simulation and code generation behavior might occur when signal that drives two Outport blocks resolves to a Simulink.Signal object	10 Mar 2021
2306101	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Unit Delay block connected to Stateflow chart output	10 Mar 2021
2297280	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a referenced model	10 Mar 2021
2292939	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur when a scalar signal that uses a custom storage class authored in TLC selects an element of a bus array	10 Mar 2021

2286124	Embedded Coder - **Incorrect Code Generation**: SIMD code generation results in incorrect answers for min/max operations operating on NaN inputs	10 Mar 2021
2282444	Embedded Coder - Code View hangs after post-processing generated code	10 Mar 2021
2306102	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Simulink Function block	10 Mar 2021
2305376	Embedded Coder - **Incorrect Code Generation**: Generated code might produce incorrect results for AUTOSAR model containing For Each subsystem	10 Mar 2021
2308491	Embedded Coder - Getter function for bus arrays, which return by value, used as a pointer return in the algorithm code	10 Mar 2021
2329608	Embedded Coder - Code generation fails with error "Unable to find Interface within the ModelReferenceInterfaces scope"	10 Mar 2021
2328023	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for MATLAB code in which the loop bounds are unknown at compile time and the lower bound is greater than the upper bound	10 Mar 2021
2313905	Embedded Coder - Code generation assertion when using matrix multiply operation in MATLAB Function Block with variable sized matrices	10 Mar 2021
2292131	Embedded Coder - Names of logged signals are not propagated during SIL and PIL simulations	10 Mar 2021
2306193	Embedded Coder - **Incorrect Code Generation**: Incorrect result might occur when a MATLAB System block calls a Simulink function that contains a Data Store Read or Data Store Write block	10 Mar 2021
2315073	Embedded Coder - **Incorrect Code Generation**: Model produces incorrect answer when one or more reusable subsystems receive 1-D input and N-D input in row-major layout	10 Mar 2021
2321014	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Model block	10 Mar 2021
2284457	Embedded Coder - **Incorrect Code Generation**: err output port of NR Polar Decoder gives wrong answer	10 Mar 2021
2309212	Embedded Coder - Code generation report creation fails when using rtwreport function	10 Mar 2021
2309735	Embedded Coder - Code generation may error with a 'Unrecognized method, property, or field 'Identifier' for class 'RTW.DataImplementation' message	10 Mar 2021

2342018	Embedded Coder - Generated code applies incorrect casting when ImportedDefine storage class is applied to a Simulink.Parameter object with a structure value	10 Mar 2021
2340236	Embedded Coder - **Incorrect Code Generation**: Incorrect code generation for function-call subsystem with reusable function packaging inside a triggered subsystem	10 Mar 2021
2293803	Embedded Coder - Assertion occurs when Simulink.Bus object containing 64-bit sized element is used in Rapid Accelerator or Accelerator mode	10 Mar 2021
2310514	Embedded Coder - Simulation fails due to an Embedded Coder Dictionary error	10 Mar 2021
2367149	Embedded Coder - **Incorrect Code Generation**: Multi-rate subsystem updates discrete state in an incorrect order	10 Mar 2021
2361290	Embedded Coder - Generated code does not compile when an Intel SSE (Windows) code replacement library is used with a MinGW64 compiler	10 Mar 2021
2340323	Embedded Coder - Code generation might produce uncompilable code for a model containing Nonreusable subsystems with Allow arguments (Optimized) interface	10 Mar 2021
2372862	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur when code for DSP System Toolbox blocks is replaced with library code	10 Mar 2021
2343315	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with Stateflow charts	10 Mar 2021
2339063	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Variant Source block	10 Mar 2021
2256563	Embedded Coder - MATLAB crashes when generating code from a Simulink model with a Function Caller block in an inactive variant	10 Mar 2021
2288409	Embedded Coder - MATLAB crashes when generating code from a Simulink model containing a Function Caller block	10 Mar 2021
2306177	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Unit Delay block inside a reusable conditionally executed subsystem	10 Mar 2021
2380346	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing a Selector block that connects to a Unit Delay block	10 Mar 2021
2239948	Embedded Coder - Code compilation failure due to missing AUTOSAR Rte_Read access function in generated code	10 Mar 2021

2400870	Embedded Coder - Subsystem parameter Memory section for execution functions not honored in model reference code	10 Mar 2021
2373749	Embedded Coder - Spurious error about conflicting symbols in the generated code	10 Mar 2021
2389004	Embedded Coder - "Unrecognized function or variable" error when validating or building AUTOSAR Classic Platform model that specifies symbolic values for root port Min and Max	10 Mar 2021
2352927	Embedded Coder - **Incorrect Code Generation**: If Action Subsystem block with function packaging using absolute time may produce incorrect results in generated code	10 Mar 2021
2294390	Embedded Coder - Code View fails to display code generated using Embedded Coder	25 Feb 2021
2423662	Embedded Coder - Uncompilable C code generated due to misplaced guards in header file	10 Feb 2021
2181053	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model containing directly connected Bus Creator blocks	04 Feb 2021
2184447	Embedded Coder - MATLAB crashes when generating code for a model that receives a message with an Enumeration or bus data type	23 Dec 2020
2199667	Embedded Coder - Incompatibility error during code generation for models with Simulink Function and Function Caller blocks with inconsistent C/C++ identifier names	17 Dec 2020
2211416	Embedded Coder - Accelerator mode model block simulation fails if referenced model uses storage classes on root-level ports	10 Dec 2020
2301617	Embedded Coder - **Incorrect Code Generation**: Model reference call gets removed when a Bus outport is directly attached to a Model block	30 Sep 2020
2131505	Embedded Coder - **Incorrect Code Generation**: Model that uses row-major array layout and complex types containing fixed-point data types might generate incorrect results	16 Sep 2020
2176228	Embedded Coder - Embedded Coder fails to generate correct code from a Simulink Code Inspector compatible model if it defines instance parameters	16 Sep 2020
2111370	Embedded Coder - Persistent global variable used within a Parallel for-Loops(parfor) present in a MATLAB Function block or MATLAB System block may result in code that does not compile	16 Sep 2020

2192558	Embedded Coder - **Incorrect Code Generation**: Customized step function prototype with custom storage class on Root-level Outport might generate incorrect code	16 Sep 2020
2189985	Embedded Coder - **Incorrect Code Generation**: Incorrect initial value for block output inside reusable subsystem	16 Sep 2020
2191117	Embedded Coder - **Incorrect Code Generation**: Tunable parameters in non-inlined S-function might lead to incorrect code	16 Sep 2020
2209352	Embedded Coder - Code generation error with global Data Store Memory and Export-Function model	16 Sep 2020
2190935	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing Data Store Memory and MATLAB System blocks	16 Sep 2020
2197821	MATLAB Coder - **Incorrect Code Generation**: Output of set operations with the 'rows' option might not be in sortrows order when NaNs are present	16 Sep 2020
2192241	Embedded Coder - XCP-based external mode fails for binaries with debug symbols for empty compilation units	16 Sep 2020
2190021	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing a Selector block that connects to a Unit Delay block	16 Sep 2020
2213080	Embedded Coder - MATLAB might crash when generating code for a model that contains subsystems	16 Sep 2020
2176178	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing a bus data type across a reusable atomic subsystem	16 Sep 2020
2218742	Embedded Coder - **Incorrect Code Generation**: Generated code does not initialize instance-specific parameters for models that specify dynamic allocation	16 Sep 2020
2216985	Embedded Coder - **Incorrect Code Generation**: Incorrect code generation for a function-call, triggered, or enabled and triggered subsystem that is configured for reusable function packaging	16 Sep 2020
2215349	Embedded Coder - MATLAB may crash when using the getDataInterfaces function of Code Descriptor API	16 Sep 2020
2199240	Embedded Coder - Code generation error when subsystem contains Stateflow chart and execution time profiling is enabled	16 Sep 2020
2218634	Embedded Coder - Missing example files in documentation topic "Access Data Through Functions by Using Storage Classes in Embedded Coder Dictionary"	16 Sep 2020

2178595	Embedded Coder - SIL simulation with Microsoft Visual C++ compiler option /TP produces compiler error	16 Sep 2020
2192341	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with Stateflow chart	16 Sep 2020
2221375	Embedded Coder - **Incorrect Code Generation**: Numerical mismatch between normal and accelerator mode simulation for variable dimension inputs when the configuration parameter UseRowMajorAlgorithm is selected	16 Sep 2020
2232273	Embedded Coder - **Incorrect Code Generation**: Constant sample time output signal in referenced model might lead to incorrect code	16 Sep 2020
2221392	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with a Unit Delay block inside a For Iterator or While Iterator subsystem	16 Sep 2020
2122070	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with Unit Delay block inside a For Each Subsystem block	16 Sep 2020
2203079	Embedded Coder - Uncompilable generated code might occur for MATLAB code containing a loop that operates on variables of different data types with SIMD enabled	16 Sep 2020
2204585	Embedded Coder - **Incorrect Code Generation**: Signal object InitialValue ignored on root inputs of referenced models when storage class is 'Model default'	16 Sep 2020
2210185	Embedded Coder - AUTOSAR Diagnostic Event Manager event failure or success not flagged if event ID counter exceeds rather than meets threshold	16 Sep 2020
2247270	Embedded Coder - **Incorrect Code Generation**: Incorrect initial value for block output inside reusable subsystem	16 Sep 2020
2119697	Embedded Coder - Stateflow chart inside rate grouped Simulink Function might lead to assertion during code generation	16 Sep 2020
2275086	Embedded Coder - Overwritten Embedded Coder Dictionary in Simulink data dictionary	16 Sep 2020
2293745	Embedded Coder - PIL:pil:ModelBlockLUTTableIsInput error from Model block SIL/PIL simulations with lookup table objects that are mapped to non-Auto storage class	16 Sep 2020
2225876	Embedded Coder - Error in Code view after running SIL/PIL simulation	16 Sep 2020

2063366	Embedded Coder - **Incorrect Code Generation**: AUTOSAR generated code might write uninitialized value if array data is conditionally and partially written to root outport	16 Jul 2020
2166906	Embedded Coder - SIL/PIL simulation fails if model contains Reset Function block and model step function uses function prototype control	14 May 2020
1934700	Embedded Coder - Model block SIL or PIL simulation produces error for AUTOSAR software component with model workspace parameters mapped to SharedParameter	06 Feb 2020
2133775	Embedded Coder - MATLAB might crash when generating code for a model containing C action language Stateflow Chart with shift operation applied to custom storage class	06 Feb 2020
2106435	Embedded Coder - Code generation error for AUTOSAR model in which Simulink Function sends message to root outport	19 Dec 2019
2072645	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for C++ std::string in MATLAB Function block	11 Oct 2019
1999672	Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with a For Each subsystem block	16 Aug 2019
2007592	Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model with a Bus Assignment block and an Assignment block	16 Aug 2019
1955846	Embedded Coder - MATLAB might crash while building a model with a Reusable custom storage class specification on root i/o	24 Apr 2019
1709275	Embedded Coder - Generated code for Stateflow Chart may contain dead initialization code	12 Feb 2018

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value

Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for IEC Certification Kit*

Display bug reports for IEC Certification Kit (R2020a) available at
https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 2 IEC Certification Kit bug reports for release R2020a

ID	Bug Report Summary	Modified
2384778	IEC Certification Kit - IEC Certification Kit validation suite for Simulink Requirements fails in time zones different than Eastern Time Zone (ET)	23 Sep 2021
2376284	IEC Certification Kit - The Simulink Check Generic Tool Classification is incorrect for potential malfunctions or erroneous output [SLCHK_E5]	10 Mar 2021

Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for Polyspace Code Prover*

Display bug reports for Polyspace Code Prover (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 13 Polyspace Code Prover bug reports for release R2020a

ID	Bug Report Summary	Modified
2190091	Polyspace Code Prover - Error during compilation of C++ file: stl_tree.h, line 2142: error: no instance of constructor	09 Nov 2021
2498314	Polyspace Code Prover - Polyspace compilation error when using option -osek-multitasking or -autosar-multitasking	27 Oct 2021
2463083	Polyspace Code Prover - Incorrect red Correctness condition check with message invalid function call on C++ code	22 Sep 2021
2283507	Polyspace Code Prover - Polyspace on Windows crashes in the C to intermediate language translation phase	29 Jul 2021
2053304	Polyspace Code Prover - Polyspace analysis stops with error: declaration is incompatible with "void OSEK_polyspace_ActivateTask(OSEK_polyspace_task_type)"	10 Mar 2021
2240865	Polyspace Code Prover - Polyspace remote analysis with MATLAB Parallel Server fails with error: Unable to create package polyspace.zip	10 Mar 2021
2392001	Polyspace Code Prover - Code Prover analysis stuck at Software Safety Analysis Level 1 (P_AE)	10 Mar 2021
2369001	Polyspace Code Prover - Bug Finder or Code Prover compilation stops at the linking phase with the message: The process "ps_cxx_fe" received the signal 11	10 Mar 2021

2291238	Polyspace Code Prover - In unit-by-unit mode Polyspace annotations are ignored on header files	04 Jan 2021
2184422	Polyspace Code Prover - Incorrect Function not called check when using compiler pragma inline=never	16 Sep 2020
2142882	Polyspace Code Prover - External constraints are not recognized on arguments passed by reference to stubbed functions	16 Sep 2020
1654557	Polyspace Code Prover - Operation using wrapped values from a previous orange overflow is green even if tooltip indicates a possible second overflow	16 Sep 2020
2234024	Polyspace Code Prover - Error with behavior specification options in Polyspace analysis in client-server mode	16 Sep 2020

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠ *Display bug reports for Polyspace Bug Finder*

Display bug reports for Polyspace Bug Finder (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 36 Polyspace Bug Finder bug reports for release R2020a

ID	Bug Report Summary	Modified
2301383	Polyspace Bug Finder - Incorrect defect Unmodified variable not const-qualified on reference variable	22 Sep 2021
2418884	Polyspace Bug Finder - Polyspace compilation error on anonymous unions when using option -compiler greenhills	22 Sep 2021
2445355	Polyspace Bug Finder - AUTOSAR-C++14 A10-03-03 false positive violation on function member marked as "override final"	22 Sep 2021
2426444	Polyspace Bug Finder - False Positive violation of MISRA C++:2008 10-2-1 (AUTOSAR C++14 M10-2-1) when a class is derived from at least two different types of instantiation of the same template class	22 Sep 2021
2473718	Polyspace Bug Finder - MISRA-C:2012 20.1 False Positive violation after 2 consecutive #elif	22 Sep 2021
2505942	Polyspace Bug Finder - IAR Embedded Workbench (iar-ew) __section_begin and __section_end macros always return a pointer to address 0	22 Sep 2021
2509931	Polyspace Bug Finder - The ps_cxx_fe process crashes when the -code-metrics option is used with gnu or clang compilers	22 Sep 2021
2492695	Polyspace Bug Finder - False positive violation of UINT_CONSTANT_OVFL on unary operator ~	09 Aug 2021
2369018	Polyspace Bug Finder - Incorrect violations in AUTOSAR C++ 14 A8-5-2	25 Mar 2021
2437382	Polyspace Bug Finder - Analysis fails with incompatible language modes error message	16 Mar 2021
2260058	Polyspace Bug Finder - Incorrect MISRA-C:2012 5.4 violation for undefined macro	10 Mar 2021
2301358	Polyspace Bug Finder - False positive violations of AUTOSAR C++14 rule M8-4-4 on function calls to static methods from objects	10 Mar 2021
2304633	Polyspace Bug Finder - When computing AUTOSAR C++14 or other C++ rules, analysis gets stuck on the message Verifying sources ...	10 Mar 2021

2352341	Polyspace Bug Finder - Polyspace analysis of C++ code stops with error: function returning function is not allowed	10 Mar 2021
2293279	Polyspace Bug Finder - Incorrect MISRA-C:2012 9.1 violation when different cells of the same array are given to two parameters of a function	10 Mar 2021
2291608	Polyspace Bug Finder - Incorrect AUTOSAR-C++14 Rule A12-6-1 violation when using member default initializer	10 Mar 2021
2281905	Polyspace Bug Finder - Incorrect AUTOSAR-C++14 Rule M5-0-15 or MISRA-C++ Rule 5-0-15 violation on std container's iterators	10 Mar 2021
2321394	Polyspace Bug Finder - Polyspace linking phase for C++ coding standards shows error: The process "ps_cxx_fe" received the signal 6	10 Mar 2021
2331139	Polyspace Bug Finder - AUTOSAR-C++14 A10-1-1 checker does not recognize some interface classes and incorrectly flags some multiple inheritances	10 Mar 2021
2380036	Polyspace Bug Finder - MISRA-C:2012 Rule 10.3 checker does not detect conversions in structure initializations using initializer list	10 Mar 2021
2375987	Polyspace Bug Finder - Incorrect MISRA C:2012 rule 10.4 violation when operands are Boolean types	10 Mar 2021
2381392	Polyspace Bug Finder - Bug Finder might not detect some numerical defects involving float computations	10 Mar 2021
2378192	Polyspace Bug Finder - AUTOSAR-C++14 A03-03-02 false positive on a constexpr constructor with only constant arguments	10 Mar 2021
2396863	Polyspace Bug Finder - False positive on MISRA-C:2012 rule 1.3 with offsetof macro definition	10 Mar 2021
2356961	Polyspace Bug Finder - Abnormal analysis termination when MISRA-C++ or AUTOSAR-C++14 coding rules are activated	10 Mar 2021
2376134	Polyspace Bug Finder - Polyspace configset attachment popup halts the server workflow using polyspace.ModelLinkOptions	10 Mar 2021
2284143	Polyspace Bug Finder - MISRA C 2012 Rule 13.2 not detected for volatile field of a struct variable	16 Dec 2020
2287440	Polyspace Bug Finder - Polyspace fails to report some results, with the error: Database::connect: failed to open the interprocess mutex	21 Sep 2020
2211362	Polyspace Bug Finder - Polyspace analysis fails with error about anonymous union members	16 Sep 2020
2198724	Polyspace Bug Finder - Launching an analysis from MATLAB generates the error: Product required for 'pslinkrunImpl' not installed	16 Sep 2020

2292126	Polyspace Bug Finder - Polyspace code metrics values saturate at 2147483647	16 Sep 2020
2151011	Polyspace Bug Finder - Missing source files or compiler options in Polyspace project when polyspace-configure fails to read compiler options file	16 Sep 2020
2196298	Polyspace Bug Finder - polyspace-configure could not open options file	16 Sep 2020
2276516	Polyspace Bug Finder - polyspace-access command in Linux crashes or fails to upload or download results	16 Sep 2020
2088723	Polyspace Bug Finder - Polyspace annotation not correctly applied when syntax incomplete or severity field missing	16 Sep 2020
2132811	Polyspace Bug Finder - polyspace-configure could not open temporary options file when using Renesas SH	25 Aug 2020

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠ *Display bug reports for Polyspace Code Prover Server*

Display bug reports for Polyspace Code Prover Server (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

There are 10 Polyspace Code Prover Server bug reports for release R2020a

ID	Bug Report Summary	Modified
2498314	Polyspace Code Prover - Polyspace compilation error when using option -osek-multitasking or -autosar-multitasking	27 Oct 2021
2463083	Polyspace Code Prover - Incorrect red Correctness condition check with message invalid function call on C++ code	22 Sep 2021
2283507	Polyspace Code Prover - Polyspace on Windows crashes in the C to intermediate language translation phase	29 Jul 2021
2053304	Polyspace Code Prover - Polyspace analysis stops with error: declaration is incompatible with "void OSEK_polyspace_ActivateTask(OSEK_polyspace_task_type)"	10 Mar 2021
2240865	Polyspace Code Prover - Polyspace remote analysis with MATLAB Parallel Server fails with error: Unable to create package polyspace.zip	10 Mar 2021
2392001	Polyspace Code Prover - Code Prover analysis stuck at Software Safety Analysis Level 1 (P_AE)	10 Mar 2021
2369001	Polyspace Code Prover - Bug Finder or Code Prover compilation stops at the linking phase with the message: The process "ps_cxx_fe" received the signal 11	10 Mar 2021
2291238	Polyspace Code Prover - In unit-by-unit mode Polyspace annotations are ignored on header files	04 Jan 2021
2184422	Polyspace Code Prover - Incorrect Function not called check when using compiler pragma inline=never	16 Sep 2020
1654557	Polyspace Code Prover - Operation using wrapped values from a previous orange overflow is green even if tooltip indicates a possible second overflow	16 Sep 2020

Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for Polyspace Bug Finder Server*

Display bug reports for Polyspace Bug Finder Server (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 16 Polyspace Bug Finder Server bug reports for release R2020a

ID	Bug Report Summary	Modified
2418884	Polyspace Bug Finder - Polyspace compilation error on anonymous unions when using option -compiler greenhills	22 Sep 2021
2473718	Polyspace Bug Finder - MISRA-C:2012 20.1 False Positive violation after 2 consecutive #elif	22 Sep 2021
2505942	Polyspace Bug Finder - IAR Embedded Workbench (iar-ew) __section_begin and __section_end macros always return a pointer to address 0	22 Sep 2021
2260058	Polyspace Bug Finder - Incorrect MISRA-C:2012 5.4 violation for undefined macro	10 Mar 2021
2321394	Polyspace Bug Finder - Polyspace linking phase for C++ coding standards shows error: The process "ps_cxx_fe" received the signal 6	10 Mar 2021

2293279	Polyspace Bug Finder - Incorrect MISRA-C:2012 9.1 violation when different cells of the same array are given to two parameters of a function	10 Mar 2021
2381392	Polyspace Bug Finder - Bug Finder might not detect some numerical defects involving float computations	10 Mar 2021
2396863	Polyspace Bug Finder - False positive on MISRA-C:2012 rule 1.3 with offsetof macro definition	10 Mar 2021
2376134	Polyspace Bug Finder - Polyspace configset attachment popup halts the server workflow using polyspace.ModelLinkOptions	10 Mar 2021
2284143	Polyspace Bug Finder - MISRA C 2012 Rule 13.2 not detected for volatile field of a struct variable	16 Dec 2020
2287440	Polyspace Bug Finder - Polyspace fails to report some results, with the error: Database::connect: failed to open the interprocess mutex	21 Sep 2020
2211362	Polyspace Bug Finder - Polyspace analysis fails with error about anonymous union members	16 Sep 2020
2198724	Polyspace Bug Finder - Launching an analysis from MATLAB generates the error: Product required for 'pslinkrunImpl' not installed	16 Sep 2020
2292126	Polyspace Bug Finder - Polyspace code metrics values saturate at 2147483647	16 Sep 2020
2088723	Polyspace Bug Finder - Polyspace annotation not correctly applied when syntax incomplete or severity field missing	16 Sep 2020
2132811	Polyspace Bug Finder - polyspace-configure could not open temporary options file when using Renesas SH	25 Aug 2020

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value

Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for Simulink Design Verifier*

Display bug reports for Simulink Design Verifier (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 63 Simulink Design Verifier bug reports for release R2020a

ID	Bug Report Summary	Modified
2580839	Simulink Design Verifier - Stubbed constructs are incorrectly treated as returning the same value each time they are called in that time step	18 Nov 2021
2548201	Simulink Design Verifier - Incorrect Unsatisfiable objectives for Saturation blocks with a vector of Inf bounds	17 Nov 2021
2469655	Simulink Design Verifier - Simulink Design Verifier might report incorrect Unsatisfiable objectives for Relational Operator blocks where vector inputs are compared to a minimum or maximum values for a particular data type	15 Nov 2021
2522967	Simulink Design Verifier - Potential incorrect Dead Logic or Unsatisfiable objectives for MinMax blocks with large vector inputs with fixed-point or boolean arguments	11 Nov 2021
2504906	Simulink Design Verifier - Incorrect Dead Logic or Unsatisfiable objectives for Relational Operator blocks that have muxed vector signal inputs	18 Oct 2021
2585244	Simulink Design Verifier - Incorrect Unsatisfiable or Dead Logic objectives for Simulink Function with multiple callers	18 Oct 2021

2561592	Simulink Design Verifier - Simulink Design Verifier incorrectly reuses model representation when CovLogicBlockShortCircuit or CovMcdcMode parameter value is changed	07 Oct 2021
2402262	Simulink Design Verifier - Simulink Design Verifier analysis may provide incorrect results on models containing Simulink Functions with certain settings	28 Sep 2021
2552454	Simulink Design Verifier - Model with a shift by an explicit negative constant may experience incorrect Unsatisfiable or Valid objectives	24 Sep 2021
2371826	Simulink Design Verifier - Satisfied - No Test Case reported for all the model coverage objectives, even when analysis runs for a longer time	22 Sep 2021
2433983	Simulink Design Verifier - Incorrect error message when generating test cases for Simulink Test harness using existing coverage data	22 Sep 2021
2419195	Simulink Design Verifier - Sldvgencov function may return coverage data that does not include coverage metrics for which it generates test cases	22 Sep 2021
2444147	Simulink Design Verifier - Simulink Design Verifier compatibility check fails with an error Empty character vector corresponding to an enumerated value	22 Sep 2021
2269840	Simulink Design Verifier - Simulation of newly generated tests fail in Simulink Test Manager for export function models	22 Sep 2021
2483709	Simulink Design Verifier - Simulink Design Verifier analysis on a subsystem fails if model parameter SolverPrmCheckMsg is disabled	22 Sep 2021
2453018	Simulink Design Verifier - Simulink Design Verifier may error out for models containing Stateflow Charts with exported functions that contain reads or writes to global variables	22 Sep 2021
2453651	Simulink Design Verifier - Simulink Design Verifier Compatibility check fails with error changing property '<parameterName>' is not allowed	22 Sep 2021
2452582	Simulink Design Verifier - Statuses of test objectives reported incorrectly while trying to run Coverage Top off workflow	22 Sep 2021
2495455	Simulink Design Verifier - Expected Output field in sldvData during Test Generation workflow is not populated completely	22 Sep 2021
2512200	Simulink Design Verifier - Simulink Design Verifier incorrectly reports decision objective for the last input index of a Multiport switch block as Unsatisfiable.	22 Sep 2021
2476223	Simulink Design Verifier - Report generation using saved sldvData fails in the subsystem extraction workflow	22 Sep 2021
2400971	Simulink Design Verifier - Simulink Design Verifier analysis report may contain garbled text on non-English MATLAB on Windows platform	22 Sep 2021

2408922	Simulink Design Verifier - Exporting test-cases from Simulink Design Verifier to Simulink Test causes Export operation aborted error	19 Aug 2021
2476025	Simulink Design Verifier - Coverage objectives incorrectly reported as Unsatisfiable or Dead Logic inside reachable MATLAB function	02 Aug 2021
2145862	Simulink Design Verifier - Analysis may terminate with an Internal error in Simulink Design Verifier back end error message.	29 Jul 2021
2324804	Simulink Design Verifier - Analysis may terminate with an Internal error in Simulink Design Verifier back end error message.	29 Jul 2021
2508622	Simulink Design Verifier - In Design Error Detection workflow, upcasting the datatype for Abs block shows an overflow objective being falsified, but the simulation of the counterexample does not result in an overflow	15 Jul 2021
2358135	Simulink Design Verifier - Test generation shows objectives status as Undecided with Testcases for certain models with Block Reduction off	11 Jun 2021
2474796	Simulink Design Verifier - Analysis terminates with an Internal error in Simulink Design Verifier abstract interpretation back end message	19 Apr 2021
2221035	Simulink Design Verifier - Simulink Design Verifier throws a nonintuitive error message on certain models containing MATLAB Function blocks	10 Mar 2021
2263987	Simulink Design Verifier - Generating tests based on existing coverage data may fail to complete normally for models with Logical Operator blocks having unsatisfiable objectives	10 Mar 2021
2245496	Simulink Design Verifier - Error with exporting the test cases generated by Simulink Design Verifier to Simulink Test to a Signal Builder harness	10 Mar 2021
2321185	Simulink Design Verifier - Simulink Design Verifier ignores certain justification rules in filter files	10 Mar 2021
2316213	Simulink Design Verifier - Simulation of a SLDV generated harness containing a Stateflow chart does not use JIT	10 Mar 2021
2308596	Simulink Design Verifier - MATLAB crashes when extending manually generated test cases using Simulink Design Verifier	10 Mar 2021
2298193	Simulink Design Verifier - slvnvmakeharness and sldvmakeharness error out and pauses the simulation when the Bus element port is of inherit:auto data type	10 Mar 2021
2301432	Simulink Design Verifier - Incompatibility reported for models with custom block replacement rules to stub Initialize, Reset or Terminate Function blocks	10 Mar 2021
2254501	Simulink Design Verifier - Analysis with coverage filter errors out when reference configuration set does not have Design Verifier component	10 Mar 2021

2337774	Simulink Design Verifier - Coverage not recorded for the referenced model during simulation of the generated harness	10 Mar 2021
2344201	Simulink Design Verifier - Simulink Design Verifier may error out for models containing Lookup Table (n-D) blocks with certain parameter values	10 Mar 2021
2323604	Simulink Design Verifier - Compatibility check fails for models containing blocks with ports at top or bottom	10 Mar 2021
2289025	Simulink Design Verifier - Compatibility check fails when signal name defined at an outport of referenced model is referred by a downstream block	10 Mar 2021
2241151	Simulink Design Verifier - Analysis may terminate with an Internal error in Simulink Design Verifier back end error message	10 Mar 2021
2294121	Simulink Design Verifier - Block replacement fails for models containing Saturation Dynamic block	11 Feb 2021
2069355	Simulink Design Verifier - Range Collection Mode as Derived ranges in Fixed-point Tool fails for export function models	11 Feb 2021
2289718	Simulink Design Verifier - Simulink Design Verifier might fail to complete normally when performing Out of bound array access detection on models containing matrix-typed data with an InitialValue	23 Dec 2020
2181612	Simulink Design Verifier - MATLAB crashes in Test Extension workflow when the configured parameters result in dead logic	10 Dec 2020
2187119	Simulink Design Verifier - sldvisactive may incorrectly return false when translating a model with model blocks	10 Dec 2020
2149712	Simulink Design Verifier - Compatibility check results in unclear error message for a model with Initialize-Reset-Terminate (IRT) Subsystem inside a Model Reference	10 Dec 2020
2118180	Simulink Design Verifier - Compatibility check fails for models with erroneous block specific copy action callbacks	16 Sep 2020
2126877	Simulink Design Verifier - Reusing Simulink cache file errors out when no replacement model is generated for a custom block replacement rule	16 Sep 2020
2209498	Simulink Design Verifier - Incorrect objective status reported when a model is analyzed in Accelerator simulation mode	16 Sep 2020
2202755	Simulink Design Verifier - Simulation mode set to Normal mode, once the analysis is finished	16 Sep 2020
2202754	Simulink Design Verifier - Fast Restart mode gets disabled after Simulink Design Verifier analysis	16 Sep 2020

2026246	Simulink Design Verifier - Compatibility check may fail for models containing Data Store Memory blocks	16 Sep 2020
2150560	Simulink Design Verifier - Compatibility check may fail for models containing Subsystem Reference blocks	16 Sep 2020
2172228	Simulink Design Verifier - The Simulink Design Verifier generated harness model does not simulate with design model having Out Bus Elements of heterogeneous types	16 Sep 2020
2167393	Simulink Design Verifier - Incorrect error message with sldvlogsignals when its first argument refers to a model with bus element port blocks	16 Sep 2020
1796913	Simulink Design Verifier - Incorrect Code Generation: Incorrect dead logic reported for multiport switch having constant array as control input	16 Sep 2020
2172875	Simulink Design Verifier - The change in enabled status of Proof Objective is not considered while rerunning property proving analysis	16 Sep 2020
2165435	Simulink Design Verifier - Testcases are not extended when the configured parameters are of fixed-point type	16 Sep 2020
2168044	Simulink Design Verifier - Incorrect results for the Relational operator block when the block input is a nonscalar complex signal	16 Sep 2020
2278458	Simulink Design Verifier - Incorrect analysis results on certain models containing Sqrt blocks with fixed-point input signal	16 Sep 2020

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠ *Display bug reports for Simulink PLC Coder*

Display bug reports for Simulink PLC Coder (R2020a) available at
https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

There are 22 Simulink PLC Coder bug reports for release R2020a

ID	Bug Report Summary	Modified
2416453	Simulink PLC Coder - MATLAB might crash or hang during PLC code generation from Stateflow chart	22 Sep 2021
2441951	Simulink PLC Coder - Incorrect Code Generation: Using an assignment block with partial element assignments could result in incorrect code	22 Sep 2021
2478983	Simulink PLC Coder - PLC Coder could generate incorrectly typed matrix address expressions	22 Sep 2021
2457505	Simulink PLC Coder - Incorrect Code Generation: PLC code generated for Stateflow models that contain temporal conditions inside IF statements may be incorrect	22 Sep 2021
2450425	Simulink PLC Coder - PLC code generation errors out for some Stateflow models	22 Sep 2021
2442004	Simulink PLC Coder - Incorrect Code Generation: Using an assignment block with 2-D matrix and vector assignment with for-iterator indexing could result in incorrect code generation	18 Jun 2021
2495472	Simulink PLC Coder - PLC Code generation for MultiProg and PCWorx targets may fail for some models	16 Jun 2021
2220730	Simulink PLC Coder - Incorrect Code Generation: Incorrect code generation for PC Worx 6.0 target when using models with Shift Arithmetic blocks	10 Mar 2021
2422081	Simulink PLC Coder - Incorrect Code Generation: Code generated from models containing Assignment block may be incorrect	10 Mar 2021

2180371	Simulink PLC Coder - Simulink PLC Coder does not support the Simulink.LookupTable, Simulink.Breakpoint, and Simulink.DualScaledParameter objects for code generation	11 Feb 2021
2147418	Simulink PLC Coder - Incorrect Code Generation: Incorrect code generation for CODESYS target when using models with Shift Arithmetic blocks	18 Sep 2020
2147686	Simulink PLC Coder - Incorrect Code Generation: Incorrect code generated when using y=f(y) style MATLAB function in a Simulink function inside a Stateflow chart	16 Sep 2020
2182040	Simulink PLC Coder - Simulink PLC coder throws a typecast assertion during code generation	16 Sep 2020
2176576	Simulink PLC Coder - Incorrect Code Generation: Output variables not updated for sub-function block calls related to initialization	16 Sep 2020
2201973	Simulink PLC Coder - Incorrect Code Generation: Generated PLC code might produce incorrect results due to automated type conversion from unsigned to signed integer	16 Sep 2020
2208060	Simulink PLC Coder - Incorrect Code Generation: Code generated for the TIA Portal: Double Precision target IDE could experience inconsistent behavior when type casting a floating-point data type to an integer data type.	16 Sep 2020
2092179	Simulink PLC Coder - Code generation errors out for tunable parameters having fixed-point data type	16 Sep 2020
2221963	Simulink PLC Coder - Multi-testbench signal group time range check may cause multi-testbench code generation workflow to error	16 Sep 2020
2265288	Simulink PLC Coder - Incorrect Code Generation: Bus signal connecting Unit delay block to MATLAB function block may generate wrong code	16 Sep 2020
2261693	Simulink PLC Coder - Incorrect Code Generation: Simulink.CoderInfo object that has Identifier property set causes missing initial values in generated PLC code	16 Sep 2020
2216089	Simulink PLC Coder - MATLAB might crash when generating PLC code for a model that uses Simulink.Signal	11 Jun 2020
2062037	Simulink PLC Coder - Incorrect Code Generation: PLC Coder generates wrong code for the Discrete-time Integrator block using unsupported integrator methods	11 Oct 2019

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for Simulink Check*

Display bug reports for Simulink Check (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 71 Simulink Check bug reports for release R2020a

ID	Bug Report Summary	Modified
2626539	Simulink Check - JMAAB check for db_0042 incorrectly flags hidden Simulink blocks	28 Nov 2021
2540383	Simulink Check - JMAAB check for jc_0009 does not flag input signals across subsystem hierarchy	25 Nov 2021
2624304	Simulink Check - sub-check b of JMAAB check for jc_0121 does not flag when the Sum block is part of feedback loop	25 Nov 2021
2624994	Simulink Check - JMAAB check for jc_0451 use of unary minus on Boolean is not detected	25 Nov 2021

2581481	Simulink Check - JMAAB check for na_0002: sub-checks do not correspond to correct sub-ids	18 Nov 2021
2583147	Simulink Check - Metrics Dashboard and model metrics API use incorrect bin edges for metric distributions when the metric results are close in value	15 Nov 2021
2607625	Simulink Check - JMAAB check for jc_0231 displays an incorrect warning for hidden Simulink blocks inside Stateflow charts	09 Nov 2021
2605220	Simulink Check - JMAAB check for jc_0643 does not detect fixed point data type in Simulink data object	02 Nov 2021
2486728	Simulink Check - Model Advisor check Check for optimal bus virtuality does not display warning for subsystem boundaries	02 Nov 2021
2400771	Simulink Check - JMAAB check for db_0146 displays an incorrect warning for Trigger block	29 Oct 2021
2366579	Simulink Check - JMAAB check for jc_0531 does not comply with its JMAAB 5.1 modeling guideline	19 Oct 2021
2574563	Simulink Check - JMAAB check for jc_0734 displays an incorrect warning for states with words that start with action labels	04 Oct 2021
2374594	Simulink Check - The Model Advisor check Check fundamental logical and numerical operations displays an error when using Simulink.AliasType	22 Sep 2021
2376225	Simulink Check - JMAAB check Consistency in model element names incorrectly warns about Truth Table block	22 Sep 2021
2387305	Simulink Requirements - Save All action might update unmodified requirement set and link set files	22 Sep 2021
2417352	Simulink Check - On launching Model Slicer, an incompatibility message incorrectly indicates that a Model block inside a For Each subsystem is configured in normal mode	22 Sep 2021
2432791	Simulink Check - NA-MAAB check for number of called function levels always assumes Function Call Level parameter to be 3	22 Sep 2021
2428380	Simulink Check - Removing a widget from the Metrics Dashboard layout crashes MATLAB	22 Sep 2021
2437043	Simulink Coverage - Error when alternating coverage collection between normal simulation mode and SIL/PIL	22 Sep 2021
2441988	Simulink Coverage - Generating a code coverage report using cvhtml might cause MATLAB to crash	22 Sep 2021

2450434	Simulink Check - The MATLAB High-integrity checks need Stateflow license to appear in the Model Advisor	22 Sep 2021
2438353	Simulink Check - Model Slicer displays an error when slicing a model that has variant subsystems that contain bus ports	22 Sep 2021
2382463	Simulink Check - JMAAB check jc_0792 erroneously displays warning for enum types defined in the data dictionary	22 Sep 2021
2462216	Simulink Check - Launching Model Slicer to debug or inspect a Simulink Design Verifier objective displays an error when the model has a Referenced Configuration Set	22 Sep 2021
2507338	Simulink Check - JMAAB check for db_0032 displays an incorrect warning for signal lines crossing over one another	22 Sep 2021
2483880	Simulink Coverage - Generating coverage report takes very long time	22 Sep 2021
2511933	Simulink Check - High-Integrity check MATLAB code with logical operators and functions does not analyze external MATLAB files at secondary and further levels	22 Sep 2021
2530441	Simulink Check - JMAAB check for jc_0741 displays an incorrect warning for variables used in transitions	22 Sep 2021
2469462	Simulink Check - Edit-time checks incorrectly flag blocks on non-English platforms	22 Sep 2021
2568871	Simulink Check - JMAAB check for jc_0628 displays an incorrect warning for Saturation and Saturation Dynamic blocks	13 Sep 2021
2574556	Simulink Check - JMAAB check for jc_0733 does not report states having action types written out of order with spaces	08 Sep 2021
2568870	Simulink Check - JMAAB check for jc_0623 does not report delay blocks used in continuous type model or subsystem	08 Sep 2021
2287850	Simulink Requirements - Simulink Requirements link is not copied from library block to referenced instance of library block	25 Aug 2021
2148105	Simulink Coverage - Coverage incorrectly reported as unsatisfied for MATLAB functions	05 Aug 2021
2446841	Simulink Check - JMAAB check for jc_0651 displays an incorrect warning for root-level Outport blocks	29 Jul 2021
2166247	Simulink Check - JMAAB check for jc_0602 displays an incorrect warning for Outports connected to Bus Selector signals	29 Jul 2021

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2546461	Simulink Check - The JMAAB check for jc_760 displays incorrect result for Subcharts	28 Jul 2021
2422239	Simulink Coverage - Aggregated coverage results show more than 100% for model with variable-dimension signals	12 Mar 2021
2282734	Simulink Check - MAAB check Stateflow transition appearance incorrectly flags transitions crossing junctions	10 Mar 2021
2305505	Simulink Check - JMAAB check Prohibited use of implicit type casting in Stateflow reports issue when comparing same enumeration type	10 Mar 2021
2302551	Simulink Check - JMAAB check "Check usage of transition conditions in Stateflow transitions" (ID: mathworks.jmaab.jc_0772) incorrectly flags single internal transitions in a Stateflow chart	10 Mar 2021
2299587	Simulink Check - JMAAB check Condition actions and transition actions in Stateflow incorrectly flags condition actions with C-style comments	10 Mar 2021
2299606	Simulink Check - JMAAB check Use of named Stateflow parameters and constants incorrectly flags numeric literal 1 used in increment or decrement statement	10 Mar 2021
2301018	Simulink Check - The model advisor check Check safety-related optimization settings for data initialization displays incorrect recommended action when Code interface packaging is set to C++	10 Mar 2021
2302437	Simulink Check - JMAAB check Prohibition of logical value comparison in Stateflow incorrectly flags transitions where no logical constants are used	10 Mar 2021
2303251	Simulink Check - JMAAB check Comment position in transition label reports issue for correctly positioned comment	10 Mar 2021
2319269	Simulink Requirements - Requirements Traceability Report for MATLAB code file mentions obsolete file type	10 Mar 2021
2321391	Simulink Check - The Model Advisor check Check usage of floating-point expressions in Stateflow charts does not check ~= and != operators	10 Mar 2021
2256035	Simulink Check - Model Metrics Dashboard crashes MATLAB when collecting metric data for a demo model	10 Mar 2021
2328722	Simulink Check - Model Advisor check Display model metrics and complexity report fails for models containing Stateflow Charts defined in a library	10 Mar 2021
2302676	Simulink Check - The input parameter settings and corresponding modify actions for sub-ids B & D of the JMAAB check Check Model font settings (ID: mathworks.jmaab.db_0043) do not work as expected	10 Mar 2021

2361684	Simulink Check - High-Integrity check Inport interface definition incorrectly analyzes root model when run on subsystem	10 Mar 2021
2241878	Simulink Check - JMAAB check Clarification of connections between structural subsystems results in abnormal exit	10 Mar 2021
2236705	Simulink Requirements - Property Inspector is not correctly updated after link is deleted	10 Mar 2021
2345307	Simulink Check - JMAAB check for db_0141 displays an incorrect warning for feedback loops	10 Mar 2021
2282260	Simulink Check - The JMAAB checks for jc_0025 and jc_0026 flag bus elements of Boolean data type for missing mix/max values	10 Mar 2021
2179943	Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent	11 Feb 2021
2231694	Simulink Check - Model Advisor check Data type selection for index signals produces an error	10 Dec 2020
2172579	Simulink Check - Incorrect warning with Check use of default variants(mathworks.maab.na_0036) for Label variant control mode	10 Dec 2020
2033655	Simulink Check - Collecting model metrics produces an error with Diagnostic Event Manager caller blocks	10 Dec 2020
2266293	Simulink Check - Check trigger signal names flags Simulink functions nested in stateflow charts	18 Sep 2020
2195350	Simulink Check - The check for JMAAB Check Stateflow transition appearance (mathworks.jmaab.db_0129) displays an incorrect warning	16 Sep 2020
2198087	Simulink Coverage - Incorrect execution coverage for referenced export-function model	16 Sep 2020
2173909	Simulink Requirements - Bullet points not imported correctly from DOORS 9	16 Sep 2020
2181624	Simulink Check - Model Transformer tool generates an error while refactoring a model to eliminate Data Store Memory blocks	16 Sep 2020
2227557	Simulink Check - Model Advisor check Check usage of Merge block flags Initialize Function block	16 Sep 2020
2255599	Simulink Check - The Model Advisor check Check for optimal bus virtuality (ID: mathworks.design.OptBusVirtuality) flags virtual bus crossing model boundary	16 Sep 2020

2254719	Simulink Check - Model Advisor checks fail when executed by using the command line API with parallel mode option	16 Sep 2020
2253699	Simulink Check - MATLAB crashes when collecting model metrics on a model that references a protected model	16 Sep 2020
2294944	Simulink Check - Check for model elements that do not link to requirement results in an abnormal exit	16 Sep 2020
2244386	Simulink Check - JMAAB check Consistency in model element names incorrectly flags models with Bus Selector block	16 Sep 2020

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠ *Display bug reports for Simulink Coverage*

Display bug reports for Simulink Coverage (R2020a) available at
https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 23 Simulink Coverage bug reports for release R2020a

ID	Bug Report Summary	Modified
2583147	Simulink Check - Metrics Dashboard and model metrics API use incorrect bin edges for metric distributions when the metric results are close in value	15 Nov 2021
2567786	Simulink Coverage - Collecting code coverage for a model might cause a compiler error	12 Nov 2021
2504462	Simulink Coverage - Simulink blocks with fixed-point input might report incorrect relational boundary coverage results	12 Oct 2021
2376346	Simulink Coverage - __MW_INSTRUM_ text in compilation error from SIL or PIL simulation configured for code coverage analysis	22 Sep 2021
2437043	Simulink Coverage - Error when alternating coverage collection between normal simulation mode and SIL/PIL	22 Sep 2021
2441988	Simulink Coverage - Generating a code coverage report using cvhtml might cause MATLAB to crash	22 Sep 2021
2417071	Simulink Coverage - Running consecutive coverage analyses on a subsystem harness might cause an error	22 Sep 2021
2483880	Simulink Coverage - Generating coverage report takes very long time	22 Sep 2021
2454026	Simulink Coverage - Coverage not recorded for referenced Subsystem simulated using a test harness	22 Sep 2021
2287850	Simulink Requirements - Simulink Requirements link is not copied from library block to referenced instance of library block	25 Aug 2021
2148105	Simulink Coverage - Coverage incorrectly reported as unsatisfied for MATLAB functions	05 Aug 2021
2314625	Simulink Coverage - Coverage might return incorrect information when run on a Stateflow chart that contains an enumeration of a custom base type	03 Aug 2021
2422239	Simulink Coverage - Aggregated coverage results show more than 100% for model with variable-dimension signals	12 Mar 2021
2267735	Simulink Coverage - Scoping coverage to requirements-based tests causes 0% coverage for subsystem test harnesses	10 Mar 2021
2305692	Simulink Coverage - MATLAB crashes when executing test file in SIL mode	10 Mar 2021

2396507	Simulink Coverage - Simulink Coverage throws errors after a harness model simulation fails	10 Mar 2021
2179943	Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent	11 Feb 2021
2033655	Simulink Check - Collecting model metrics produces an error with Diagnostic Event Manager caller blocks	10 Dec 2020
2276842	Simulink Coverage - Generating a coverage report in the Test Manager for subsystem harnesses at different levels in a library causes an assertion failure	02 Dec 2020
2304122	Simulink Coverage - Aggregated coverage data description missing from coverage report	13 Oct 2020
2198087	Simulink Coverage - Incorrect execution coverage for referenced export-function model	16 Sep 2020
2179804	Simulink Coverage - An error occurs when a Simulink Subsystem Harness contains a block and subsystem with identical names	16 Sep 2020
2247819	Simulink Coverage - An error occurs in the Simulink Test Manager while aggregating coverage data for a Subsystem Harness if the subsystem contains a call to an external MATLAB file	16 Sep 2020

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠ *Display bug reports for Simulink Test*

Display bug reports for Simulink Test (R2020a) available at
https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

There are 49 Simulink Test bug reports for release R2020a

ID	Bug Report Summary	Modified
2549562	Simulink Test - Rebuilding test harness slow when system being tested outputs bus objects and harness source is Chart or Test Sequence	12 Nov 2021
2477659	Simulink Test - Recovered Stateflow Charts block inserted when Subsystem Reference block added to test harness	22 Sep 2021
2442673	Simulink Test - Simulink Test Manager degraded performance when test case has many baseline signals	22 Sep 2021
2544869	Simulink Test - Running sldvcompat on an externally saved test harness might error	22 Sep 2021
2354503	Simulink Test - Creating a software-in-the-loop (SIL) harness for a subsystem block might cause MATLAB to crash	28 Apr 2021
2362054	Simulink Test - Run with Stepper button for test debugging cannot be used at test file or test suite level	30 Mar 2021
2237793	Simulink Test - Changed ports in an observer model do not highlight correctly in Manager Observer dialog box	30 Mar 2021
2255433	Simulink Test - Loading externally saved test harness using load_system might cause MATLAB to crash.	10 Mar 2021
2241749	Simulink Test - Running R2015a test cases with mapped inputs in R2020a might fail in Test Manager	10 Mar 2021
2286940	Simulink Test - Project does not automatically rename usages of data dictionaries inside internal test harnesses	10 Mar 2021

2261095	Simulink Test - Simulink tests using MATLAB Unit Test framework might fail if signals are logged from referenced models and iterations run in fast restart mode	10 Mar 2021
2249151	Simulink Test - ModelCoveragePlugin used with Project errors or returns incorrect coverage metrics when running tests using the MATLAB Unit TestRunner	10 Mar 2021
2361601	Simulink Test - Empty simulation output with failed equivalence test case	10 Mar 2021
2328718	Simulink Test - Compiling a model with an observer reference might crash MATLAB when the observer model has an asynchronous sample time	10 Mar 2021
2319563	Simulink Test - Real-time test cases in Test Manager for models with Stateflow chart using verify keyword errors	10 Mar 2021
2324694	Simulink Test - Block LoadFcn callbacks do not execute in test harnesses	10 Mar 2021
2329548	Simulink Test - Incorrect parameter override values applied during test execution	10 Mar 2021
2344553	Simulink Test - Fixed-point data type strings might be generated incorrectly in test harness global stub functions	10 Mar 2021
2295026	Simulink Test - MATLAB crashes when capturing baseline to Excel file if the file already exists and is open	10 Mar 2021
2383409	Simulink Test - Older versions of Simulink might crash when loading model that has harnessInfo.xml file created or modified in newer release	10 Mar 2021
2420611	Simulink Test - Using Parameter Overrides with a baseline test causes MATLAB to crash	10 Mar 2021
2403257	Simulink Test - Simulink Test execution might error if parallel builds is enabled	10 Mar 2021
2390112	Simulink Test - Signal selection in 'BaselineCriteria' table of test case not applied correctly	10 Mar 2021
2420217	Simulink Test - Override SIL/PIL mode setting might be incorrect in the test result report	11 Feb 2021
2188828	Simulink Test - Invalid simulation output in failed test case result	10 Dec 2020
2236833	Simulink Test - Recovered Stateflow Charts block inserted in Subsystem Reference test harness	02 Nov 2020

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2290935	Simulink Test - Test execution failure with parameter overrides and SIL or PIL simulation mode	09 Oct 2020
2253936	Simulink Test - Signals specified for test case in Test Manager Simulation Output section not included in results	01 Oct 2020
2326680	Simulink Test - Plot index specified in Test Manager Simulation Output Logged Signal Set not applied correctly	21 Sep 2020
2194996	Simulink Test - Results export or import fails when custom criteria diagnostic contains a null character	16 Sep 2020
2160783	Simulink Test - Observer port moved to new signal shows link to original signal	16 Sep 2020
2212150	Simulink Test - Incorrect override of parameters in Simulink Test	16 Sep 2020
2210475	Simulink Test - Test suite and test file cleanup callbacks are executed before all test cases are complete	16 Sep 2020
2224093	Simulink Test - Cannot override logging for data store defined in data dictionary using Test Manager.	16 Sep 2020
2204045	Simulink Test - MATLAB might crash when capturing a baseline to a spreadsheet	16 Sep 2020
2249535	Simulink Test - Test result report that includes Signal Editor block data values produces an error	16 Sep 2020
2252259	Simulink Test - Iterations configured for Fast Restart mode run in Normal mode	16 Sep 2020
2267804	Simulink Test - Simulink Test Manager might crash when running tests that collect coverage	16 Sep 2020
2201774	Simulink Test - Running steps in Test Sequence are not highlighted in the animation during simulation	16 Sep 2020
2257194	Simulink Test - MATLAB stalls during test execution	16 Sep 2020
2248616	Simulink Test - Test For Model Component wizard errors when generating tests for models with configuration set references	16 Sep 2020
2236006	Simulink Test - Test using sltest.testmanager.run on models with fast restart fail, but pass when using Test Manager	11 Jun 2020
2237774	Simulink Test - Dragging ports of a subsystem interface might cause lost connections in associated test harnesses	11 Jun 2020

2239108	Simulink Test - Test execution compiles model multiple times	11 Jun 2020
2248003	Simulink Test - Testing a component in a library when simulation mode is overridden to not use model settings might fail	11 Jun 2020
2249557	Simulink Test - Running a test file containing test cases with external test harnesses that contain a Signal Builder block might error	11 Jun 2020
2112483	Simulink Test - Test that overrides Signal Editor scenario and includes inputs in the results produces an error	13 Dec 2019
2114999	Simulink Test - Running test harnesses using Run with Stepper button on toolstrip is not supported	13 Dec 2019
2120213	Simulink Test - Comparison results for complex signals produce "Signals not aligned" warning	13 Dec 2019

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for Simulink Requirements*

Display bug reports for Simulink Requirements (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

There are 51 Simulink Requirements bug reports for release R2020a

ID	Bug Report Summary	Modified
2583147	Simulink Check - Metrics Dashboard and model metrics API use incorrect bin edges for metric distributions when the metric results are close in value	15 Nov 2021
2287906	Simulink Requirements - Requirements report fails to generate if links in the report have a custom link type	28 Sep 2021
2387305	Simulink Requirements - Save All action might update unmodified requirement set and link set files	22 Sep 2021
2437043	Simulink Coverage - Error when alternating coverage collection between normal simulation mode and SIL/PIL	22 Sep 2021
2441988	Simulink Coverage - Generating a code coverage report using cvhtml might cause MATLAB to crash	22 Sep 2021
2386157	Simulink Requirements - Requirement links are incorrectly copied from Subsystem Reference blocks to instances in Simulink models	22 Sep 2021
2466226	Simulink Requirements - Error when attempting to import a DOORS 9 requirements module	22 Sep 2021
2440193	Simulink Requirements - False positive indication of updated referenced requirements when updating from some ReqIF files	22 Sep 2021
2404198	Simulink Requirements - When importing multiple ReqIF specifications into one requirement set, manually mapping attributes only works for one specification	22 Sep 2021
2483880	Simulink Coverage - Generating coverage report takes very long time	22 Sep 2021
2287850	Simulink Requirements - Simulink Requirements link is not copied from library block to referenced instance of library block	25 Aug 2021
2210569	Simulink Requirements - Unrecgonized date-time format error when importing DOORS module	30 Mar 2021
2422239	Simulink Coverage - Aggregated coverage results show more than 100% for model with variable-dimension signals	12 Mar 2021

2253967	Simulink Requirements - MATLAB stops responding after updating previously imported requirements in Requirements Editor	10 Mar 2021
2251452	Simulink Requirements - ReqIF ID values might change between revisions when exporting to ReqIF	10 Mar 2021
2292859	Simulink Requirements - Error when trying to enter a numeric DNG ID into the Location field of Outgoing Links dialog	10 Mar 2021
2319269	Simulink Requirements - Requirements Traceability Report for MATLAB code file mentions obsolete file type	10 Mar 2021
2326401	Simulink Requirements - Import from IBM DOORS Next not working when configuration management is enabled for project	10 Mar 2021
2329744	Simulink Requirements - Requirements authored in Excel, imported to Simulink Requirements, and exported as ReqIF file might contain undefined XML namespace	10 Mar 2021
2375155	Simulink Requirements - Unable to import requirements from IBM DOORS Next using direct import	10 Mar 2021
2377437	Simulink Requirements - Navigation to requirements in exported Web view file does not behave as expected	10 Mar 2021
2236705	Simulink Requirements - Property Inspector is not correctly updated after link is deleted	10 Mar 2021
2361827	Simulink Requirements - Error dialog box appears when updating requirements imported from Excel	10 Mar 2021
2287923	Simulink Requirements - Error when linking MATLAB Function block code to selection in IBM DOORS Next	11 Feb 2021
2179943	Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent	11 Feb 2021
2278221	Simulink Requirements - Requirements imported directly from IBM DOORS Next have incomplete contents	21 Dec 2020
2033655	Simulink Check - Collecting model metrics produces an error with Diagnostic Event Manager caller blocks	10 Dec 2020
2278239	Simulink Requirements - Navigation broken from imported DOORS Next item to the original item in DOORS Next project	10 Dec 2020
2299729	Simulink Requirements - Error when creating link with IBM DOORS Next (DNG)	18 Sep 2020

2286619	Simulink Requirements - Requirements Editor might not display images in description for requirements imported with ReqIF	18 Sep 2020
2206550	Simulink Requirements - Requirements report displays unrelated text with requirement description	18 Sep 2020
2198087	Simulink Coverage - Incorrect execution coverage for referenced export-function model	16 Sep 2020
2172917	Simulink Requirements - Links to imported DOORS Next items not listed in browser popup window on DOORS Next side	16 Sep 2020
2161457	Simulink Requirements - Import or Update from Microsoft Word fails with an error popup	16 Sep 2020
2182761	Simulink Requirements - Requirements Editor might become frozen after deleting multiple objects	16 Sep 2020
2173909	Simulink Requirements - Bullet points not imported correctly from DOORS 9	16 Sep 2020
2192264	Simulink Requirements - Simulink Requirements exported ReqIF file has wrong attribute definition references	16 Sep 2020
2200430	Simulink Requirements - Import from IBM DOORS Next Generation broken for non-default server instance	16 Sep 2020
2191769	Simulink Requirements - Requirements links lost in round trip workflow when exporting with ReqIF	16 Sep 2020
2172030	Simulink Requirements - Requirements Editor becomes slow when opening requirement sets with large number of incoming links	16 Sep 2020
2222794	Simulink Requirements - Traceability link from Requirement to Simulink Test Case appears unresolved	16 Sep 2020
2282997	Simulink Requirements - Failure to login to IBM DOORS Next when performing oslc.configure() procedure	16 Sep 2020
2277377	Simulink Requirements - Import from DOORS Next module or query does not work with port number 443	16 Sep 2020
2123991	Simulink Requirements - Requirements imported from IBM DOORS Next missing "Updated on" Revision information	16 Sep 2020
2210749	Simulink Requirements - 3rd-Party requirements tool does not accept ReqIF exported by Simulink Requirements	11 Jun 2020
2247724	Simulink Requirements - Failure to connect with IBM DOORS Next (DNG) when importing requirements	11 Jun 2020

	Simulink Requirements - Traceability Matrix does not render link icons correctly	11 Jun 2020
2247892		
2232550	Simulink Requirements - Displayed column widths in Requirements Editor might be reset	14 May 2020
2205640	Simulink Requirements - MATLAB crashes while updating requirement from IBM DOORS Next server	22 Apr 2020
2163041	Simulink Requirements - Missing requirement links for Stateflow objects in library after resolve-push	06 Feb 2020
1970160	Simulink Requirements - Error when clicking Show in document for references imported from IBM Rational DOORS Next Generation module	24 Apr 2019

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

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⚠ *Display bug reports for AUTOSAR Blockset*

Display bug reports for AUTOSAR Blockset (R2020a) available at https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 38 AUTOSAR Blockset bug reports for release R2020a

ID	Bug Report Summary	Modified
2566047	AUTOSAR Blockset - SwSystemConstantValueSets contains NaN values in generated ARXML	12 Nov 2021
2429904	AUTOSAR Blockset - Short name uniqueness error after consecutive builds of AUTOSAR component model that inherits architecture model XML options	22 Sep 2021
2364896	AUTOSAR Blockset - Running Model Advisor checks for an AUTOSAR model with a Stateflow Chart receiving messages from a root-level Inport block might crash MATLAB	22 Sep 2021
2451417	AUTOSAR Blockset - AUTOSAR map block: error message for invalid fixed point word length configuration of two input ports is not clear	22 Sep 2021
2365463	AUTOSAR Blockset - Extraneous AUTOSAR array data types exported when shared base data type has min or max values	19 Aug 2021
2380646	AUTOSAR Blockset - Slow loading or update diagram for AUTOSAR models when imported compositions contain a large number of components	19 Mar 2021
2275260	AUTOSAR Blockset - MATLAB might crash when opening AUTOSAR model in which blocks are linked to a library	10 Mar 2021
2266489	AUTOSAR Blockset - Incorrect Code Generation: Code generation might ignore AUTOSAR per-instance properties of mapped signal, state, or data store	10 Mar 2021
2301336	AUTOSAR Blockset - AUTOSAR model build fails for lookup table with unmapped breakpoints	10 Mar 2021
2371363	AUTOSAR Blockset - Simulink Design Verifier compatibility checking fails for model containing AUTOSAR Blockset lookup table blocks	10 Mar 2021
2389247	AUTOSAR Blockset - Incorrect Code Generation: Non-reentrant code error not reported when AUTOSAR model has concurrent server runnable inside subsystem	10 Mar 2021
2258834	AUTOSAR Blockset - Diagnostic Service Component internal error during simulation of AUTOSAR Basic Software service calls	10 Dec 2020
2184242	AUTOSAR Blockset - AUTOSAR createEnumeration function does not group imported BITFIELD_TEXTTABLE elements by short label	10 Dec 2020

2177276	AUTOSAR Blockset - Using file enum (derived from Simulink.IntEnumType) generates error on code generation	16 Sep 2020
2176249	AUTOSAR Blockset - Storage class for data objects in the model workspace not honored for models with AUTOSAR target	16 Sep 2020
2169930	AUTOSAR Blockset - Error during integration of AUTOSAR Adaptive artifacts from an existing model into another one	16 Sep 2020
2172258	AUTOSAR Blockset - Code generated from model configured for the AUTOSAR Adaptive Platform does not honor function interface configuration settings for Function Caller blocks	16 Sep 2020
2181174	AUTOSAR Blockset - Header file name for enumeration data types is not validated against the AUTOSAR Adaptive Platform standard	16 Sep 2020
2169925	AUTOSAR Blockset - AUTOSAR Component Quick Start for adaptive models does not honor specified component package	16 Sep 2020
2140480	AUTOSAR Blockset - Build error for AUTOSAR model with bus inports and Concatenate block	16 Sep 2020
2186526	AUTOSAR Blockset - AUTOSAR adaptive model fails to generate code when root inport message data type is an enumeration	16 Sep 2020
2186553	AUTOSAR Blockset - AUTOSAR adaptive model fails to generate code when root inport message data type is an array of fixed-point data	16 Sep 2020
2190882	AUTOSAR Blockset - Code generation error for AUTOSAR model that uses AUTOSAR.Parameter in Simulink.Variant object	16 Sep 2020
2196883	AUTOSAR Blockset - Incorrect Code Generation: Incorrect Rte read function call generated for AUTOSAR model with bus ports and ErrorStatus inport	16 Sep 2020
2195897	AUTOSAR Blockset - ARXML import of enumeration data type for AUTOSAR adaptive software component does not create Simulink enumeration data type	16 Sep 2020
2195328	AUTOSAR Blockset - ARXML import for AUTOSAR adaptive software component ignores data types specified as STD-CPP-IMPLEMENTATION-DATA-TYPE of category TYPE_REFERENCE	16 Sep 2020
2199121	AUTOSAR Blockset - ARXML import for AUTOSAR adaptive software component validates existing enumerations against header file requirements for AUTOSAR Classic Platform instead of AUTOSAR Adaptive Platform	16 Sep 2020
2192435	AUTOSAR Blockset - ARXML export from an AUTOSAR adaptive model generates incorrect tag, IMPLEMENTATION-DATA-TYPE, for Enumeration data types and references inside DataTypeMaps	16 Sep 2020

2191143	AUTOSAR Blockset - ARXML import for AUTOSAR adaptive software component errors out when an ApplicationDataType is mapped to an AUTOSAR Adaptive Platform type	16 Sep 2020
2194672	AUTOSAR Blockset - AUTOSAR XML import fails with Unrecognized method, property, or field 'IsApplication' for class 'M3I.Object'	16 Sep 2020
2204908	AUTOSAR Blockset - Incorrect Code Generation: Code generation assertion or incorrect code generated for model containing error-status ports for two elements of the same AUTOSAR receiver port	16 Sep 2020
2194284	AUTOSAR Blockset - AUTOSAR mappings for blocks within referenced subsystem do not persist when model is reopened	16 Sep 2020
2263759	AUTOSAR Blockset - Code generation assertion for AUTOSAR model with corrupt signal, state, or data store mapping	16 Sep 2020
2198048	AUTOSAR Blockset - Model Advisor check for an AUTOSAR adaptive model with message root I/O crashes MATLAB	16 Sep 2020
2134859	AUTOSAR Blockset - Component creation from ARXML fails if ClientServerOperation arguments are 64-bit integers	30 Jan 2020
2160270	AUTOSAR Blockset - MATLAB crashes during code generation for an AUTOSAR model that has mapped signals, states, or data stores	30 Jan 2020
2118436	AUTOSAR Blockset - Incorrect Code Generation: Incorrect event data received in AUTOSAR adaptive model when Message Receive block specifies Use initial value for Value source when queue is empty	13 Dec 2019
2123864	AUTOSAR Blockset - AUTOSAR model build fails with "Unrecognized function or variable 'calPrmGraphicalName'"	13 Dec 2019

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Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Input Parameters Selection

Name	Value

Only show bug reports modified after date(mm/dd/yyyy)	

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⚠️ *Display bug reports for HDL Coder*

Display bug reports for HDL Coder (R2020a) available at
https://www.mathworks.com/support/bugreports .

NOTE: This check does not determine whether your model might be affected by these bugs.

Warning

There are 152 HDL Coder bug reports for release R2020a

ID	Bug Report Summary	Modified
2457738	HDL Coder - Incorrect Code Generation: Accumulation operations modeled in Simulink using feedback loops may cause latency related HDL mismatch	15 Nov 2021
2359554	HDL Coder - Incorrect Code Generation: Generated VHDL code fails to simulate with generated test bench code in HDL simulator tools	22 Sep 2021
2322712	HDL Coder - Numerical difference between Simulink and HDL Coder in Sqrt block for certain input values and datatypes.	22 Sep 2021
2315303	HDL Coder - Incorrect Code Generation: HDL code generated for integer division by a constant power of two in MATLAB code might be incorrect	22 Sep 2021
2300111	HDL Coder - Incorrect Code Generation: Stateflow charts with nonzero initial values for outputs and containing input events might generate incorrect HDL code	22 Sep 2021
2272974	HDL Coder - HDL blocks with 'inf' sample time may result in delay balancing failure.	22 Sep 2021
2258039	HDL Coder - Incorrect Code Generation: Distributed Pipelining adds invalid registers when a model contains non-constant source blocks	22 Sep 2021

2228896	HDL Coder - Inefficient code generation for models with Clock Rate Pipelining and SqrtNewton architectures	22 Sep 2021
2226678	HDL Coder - Incorrect Code Generation: Accumulation operations modeled in Simulink using feedback loops might cause HDL mismatch due to latency introduced by optimizations upstream	22 Sep 2021
2369068	HDL Coder - Cryptic error in the presence of filter blocks and when Generate resource utilization report enabled	22 Sep 2021
2343081	HDL Coder - Enabling 'Flatten Hierarchy' on a masked subsystem generates incorrect warning message.	22 Sep 2021
2403722	HDL Coder - Task 4.2 Run Synthesis may fail in HDL Workflow advisor when using any version including and after Microsemi Libero SoC 12.1	22 Sep 2021
2401827	HDL Coder - Generated VHDL code might fail to compile because of collision between component type names and the library name	22 Sep 2021
2389179	HDL Coder - MATLAB may crash during HDL Code Generation with multiple instances of same model reference and ClockRatePipelining enabled	22 Sep 2021
2372622	HDL Coder - Internal error during HDL code generation from subsystem containing DocBlock in Native Floating Point mode	22 Sep 2021
2359606	HDL Coder - MATLAB crash during HDL code generation when parametrized code generation is enabled for masked Triggered subsystem	22 Sep 2021
2354425	HDL Coder - Incorrect Code Generation: Using non-fixed-point constant literals in fixed-point division in Stateflow charts might cause incorrect HDL code generation	22 Sep 2021
2346684	HDL Coder - Incorrect Code Generation: Missing zero protection logic in the MATLAB to HDL workflow may result in simulation mismatch or out of bounds indexing errors	22 Sep 2021
2421048	HDL Coder - Delay balancing on the system might not work if global delay balancing is disabled and the model uses scoped delay balancing	22 Sep 2021
2413512	HDL Coder - Incorrect Code Generation: HDL Code generated from a MATLAB code containing division by a constant may result in incorrect code	22 Sep 2021
2321239	HDL Coder - MATLAB may crash or take long time during HDL code generation from a subsystem with a large matrix multiplication	22 Sep 2021
2440476	HDL Coder - Simscape HDL Workflow Advisor fails to generate the implementation model when the Simscape model contains model references	22 Sep 2021
2419461	HDL Coder - HDL Code generation may cause assertion for a switch case block with fixed-point type in case values	22 Sep 2021

2430694	HDL Coder - HDL code generation may fail for a subsystem containing a referenced model with certain bus configurations when traceability is enabled	22 Sep 2021
2434295	HDL Coder - Test bench generation may fail when the bus selector block output signal having a name is connected to the bus creator block.	22 Sep 2021
2435457	HDL Coder - Incorrect Code Generation: Fixed-point division that uses certain rounding methods might produce incorrect HDL code	22 Sep 2021
2456091	HDL Coder - HDL Coder throws internal error during Model Generation when using buses and Clock Rate Pipelining	22 Sep 2021
2432516	HDL Coder - cordicsin and cordiccos functions may throw error during HDL code generation with fixed-point conversion	22 Sep 2021
2402935	HDL Coder - Gain block with boolean output type generates incorrect HDL code	22 Sep 2021
2535370	HDL Coder - Adaptive Pipelining does not insert pipelines for Microsemi Libero SoC or Intel Quartus Pro devices	22 Sep 2021
2479593	HDL Coder - Incorrect Code Generation: HDL code generated for a subsystem might be incorrect when the Bus signals in a subsystem uses fixed-point datatypes specification with 'Slope and Bias'.	22 Sep 2021
2451234	HDL Coder - MATLAB Function block with input names same as enumeration member names has name conflict in generated VHDL	17 Sep 2021
1860261	HDL Coder - Incorrect Code Generation: FIR Rate Conversion HDL Optimized block may generate incorrect HDL code if it uses the request port	07 Sep 2021
2312398	HDL Coder - Subsystem configured with Treat as atomic unit containing bus element ports generates internal assertion during HDL code generation	03 Sep 2021
2503862	HDL Coder - Using From/Goto blocks in HDL Coder may result in a crash	11 Aug 2021
2538599	HDL Coder - Generated VHDL can show out of bounds errors can occur during simulation at time step 0	09 Aug 2021
2207352	HDL Coder - Incorrect Code Generation: Unit Delay block with non-virtual bus as input generates incorrect HDL code	29 Jul 2021
2479571	HDL Coder - Incorrect Code Generation: Generated code results might be incorrect when solver setting Automatically handle rate transition for data transfer is enabled	29 Jul 2021
2538817	HDL Coder - The generated model may fail to compile for Bus Creator or Bus Selector blocks containing named signals	27 Jul 2021

2340654	HDL Coder - sharing applied on a subsystem with matrix as output results in GM compilation issue	27 Jul 2021
2331452	HDL Coder - Incorrect Code Generation: Certain HDL configuration parameter values might produce Verilog code that has same instance name and register name in the module	27 Jul 2021
2516457	HDL Coder - Invalid HDL code can be generated from General CRC Syndrome Detector HDL Optimized	27 Jul 2021
2294796	HDL Coder - HDL Coder Toolstrip can cause an internal error to be thrown if DUT subsystem name contains a new line	20 Jul 2021
2457774	HDL Coder - Simulation mismatches for the selector block	28 Jun 2021
2488883	HDL Coder - Generated model after HDL code generation may give incorrect results when Clock-rate pipelining and Sharing optimizations turned on.	18 Jun 2021
1916569	HDL Coder - Incorrect Code Generation: Streaming/Sharing with Hierarchical Clock-Rate Pipelining can cause validation model mismatch	02 Jun 2021
2469717	HDL Coder - Incorrect Code Generation: Stateflow charts or MATLAB Function blocks containing persistent variables might produce incorrect HDL code because of pipeline latencies	19 May 2021
2481452	HDL Coder - Incorrect Code Generation: Selecting a "Device Vendor" other than "ASIC/FPGA" can lead to generation of mismatching HDL code for models containing Stateflow Charts.	24 Apr 2021
2396693	HDL Coder - The generated HDL code seen in the Code generation report may contain unwanted lines with the text '@tracestart'	19 Apr 2021
2181877	HDL Coder - Incorrect Code Generation: Data mismatch between Simulink and HDL simulation for partly serial architecture of Discrete FIR Filter HDL Optimized block	10 Mar 2021
2186960	HDL Coder - Xilinx System Generator and HDL Coder integration broken due to Vivado incompatible upgrades	10 Mar 2021
2212077	HDL Coder - Matrix multiplication in Simulink causes long code generation times for large matrices	10 Mar 2021
2265492	HDL Coder - Incorrect Code Generation: Simscape HDL Workflow Advisor run might run incorrectly when filter input setting used for Simulink to physical signal converter blocks	10 Mar 2021

2251486	HDL Coder - Incorrect Code Generation: Lookup Table block with linear interpolation and output word length less than or equal to table word length causes HDL mismatch	10 Mar 2021
2264840	HDL Coder - Unhelpful error message when delay balancing is unsuccesful for a multirate model with resource sharing	10 Mar 2021
2275090	HDL Coder - Physical signals at the same level as the DUT subsystem might generate errors when creating HDL test bench	10 Mar 2021
2253404	HDL Coder - MATLAB crash when generating HDL code for model with hierarchy flattening applied when a black box subsystem is used inside For Each Subsystem	10 Mar 2021
2237349	HDL Coder - Incorrect Code Generation: Delay introduced in locally upsampled regions leads to mismatch in validation model	10 Mar 2021
2205228	HDL Coder - Generated Verilog code for Moore charts due to mix of blocking (=) and non-blocking (<=) assignments in the same process	10 Mar 2021
2281688	HDL Coder - Streaming modes of Multiply-Accumulate block might fail to generate HDL test bench	10 Mar 2021
2258428	HDL Coder - HDL code generation error when Generated Model check box is disabled and optimizations such as Hierarchical Distributed Pipelining is enabled	10 Mar 2021
2250162	HDL Coder - Sine HDL Optimized block shows incorrect port label for exp function.	10 Mar 2021
2257170	HDL Coder - Sharing report is incorrect when clock-rate pipelining is enabled on blocks inside a feedback loop with specified oversampling factor	10 Mar 2021
2272652	HDL Coder - VHDLLibraryName customization is ignored during HDL test bench generation	10 Mar 2021
2294775	HDL Coder - Incorrect Code Generation: Gain block with fixed point inputs and Multiplication block parameter set to Matrix(K*u) (u vector) generates incorrect HDL code.	10 Mar 2021
2286765	HDL Coder - Delay balancing might fail during HDL code generation in the presence of From and Goto blocks implementing a feedback loop in large complex models	10 Mar 2021
2152847	HDL Coder - Code generation time increases significantly for complex designs with reporting features	10 Mar 2021
2221487	HDL Coder - Assertion generated during HDL code generation with Optimization Report turned on	10 Mar 2021

2189551	HDL Coder - Assertion generated when bus input with input port parameter Latch input by delaying outside signal selected is input to a Triggered Subsystem	10 Mar 2021
2305463	HDL Coder - Error during model generation when generating HDL code for a model with large number of test points	10 Mar 2021
2256046	HDL Coder - HDL code generation fails for Simulink model that has bus element ports at the interface level of model reference blocks	10 Mar 2021
2301208	HDL Coder - Assertion generated during HDL code generation for model using complex matrices with MATLAB Function block	10 Mar 2021
2218200	HDL Coder - Potential HDL test bench simulation error for models containing Selector blocks with one-based indexing and index ports	10 Mar 2021
2312936	HDL Coder - Stateflow charts that perform floating point operations might assert during HDL code generation in Native Floating Point mode	10 Mar 2021
2309546	HDL Coder - NCO HDL Optimized HDL simulation doesn't match Simulink simulation when reset is applied at reset input port	10 Mar 2021
2307924	HDL Coder - Multiply-Accumulate block in Serial architecture generates internal assertion during HDL code generation when input bit width exceeds 63 bits	10 Mar 2021
2302723	HDL Coder - Assertion thrown during HDL code generation from a Simulink model containing Gain blocks that are operating in "u*K" mode	10 Mar 2021
2330221	HDL Coder - NCO HDL Optimized block errors out when phase increment is zero and you are using frame-based output	10 Mar 2021
2334589	HDL Coder - Gain block whose gain constant is a boolean vector generates internal assertion during HDL code generation	10 Mar 2021
2318155	HDL Coder - Incorrect Code Generation: MATLAB code with System objects stored in cell arrays generates HDL code with only one instance for all objects in the cell array	10 Mar 2021
2309814	HDL Coder - Incorrect Code Generation: Direct Lookup Table(n-D) block with complex floating point table data might generate incorrect HDL code	10 Mar 2021
2361070	HDL Coder - Incorrect Code Generation: Unit conversions on PS-S converters are not captured in the implementation model when using Simscape to HDL Workflow Advisor	10 Mar 2021
2322710	HDL Coder - Incorrect Code Generation: HDL Code generated for the Signed Sqrt block with double data type may be incorrect	10 Mar 2021

2322714	HDL Coder - Incorrect Code Generation: Code generated for the Sqrt block with fixed point input may mismatch simulation behavior	10 Mar 2021
2361304	HDL Coder - Incorrect Code Generation: HDL Coder sharing semantics might be incompatible with conditional subsystems	10 Mar 2021
2343695	HDL Coder - Simscape to HDL Workflow Advisor produces an algorithm containing a delay	10 Mar 2021
2328677	HDL Coder - Generating HDL code from MATLAB Function blocks and Stateflow charts may result in violation of HDL Coding standard rule 2.F.B.1 in the generated code	10 Mar 2021
2322958	HDL Coder - Clock Rate Pipelining with Scoped Delay Balancing may result in MATLAB crash/freeze during HDL code generation	10 Mar 2021
2340587	HDL Coder - Incorrect Code Generation: Using enumeration generated from "Active State Data" monitoring of Stateflow charts can result in generation of incorrect Verilog code.	10 Mar 2021
2321297	HDL Coder - EnableTestpoints can disable ClockRatePipelineOutputPorts	10 Mar 2021
2357107	HDL Coder - Incorrect error message regarding Simulink code generation folder thrown during IP core generation	10 Mar 2021
2384513	HDL Coder - HDL code generation might crash if a subsystem with hierarchy flattening enabled contains multiple instances of an atomic subsystem, and those atomic subsystems contain a MATLAB function block or a Stateflow chart.	10 Mar 2021
2374357	HDL Coder - FlattenHierarchy wrongly flattens subsystems with different BalanceDelays option from parent	10 Mar 2021
2412055	HDL Coder - Rate Transition block with deterministic data transfer disabled might produce code generation error for sample times that are almost integer multiples	10 Mar 2021
2399087	HDL Coder - Sharing on data dependent floating point operators with non-scalar types causes delay balancing error	10 Mar 2021
2221645	HDL Coder - MATLAB might crash during floating-point target code generation if both ClockRatePipelineOutputPorts and ScalarizePorts are set to 'on'	10 Mar 2021
2367550	HDL Coder - Reshape block with matrix input may generate unintuitive error during Floating Point HDL code generation for Intel/Altera Target	10 Mar 2021

2438689	HDL Coder - Incorrect Code Generation: Nested if statements or switch statements may generate incorrect HDL Code when used in System objects or with optimizations enabled	25 Feb 2021
2411786	HDL Coder - Streaming optimization doesn't support MinMax block.	18 Feb 2021
2052966	HDL Coder - Incorrect Code Generation: Native floating-point with hierarchical clock-rate pipelining might cause validation model mismatch	17 Feb 2021
2387881	HDL Coder - HDL code generation for DUT, containing a multiplier of complex datatype that has unconnected output, might cause crash	11 Feb 2021
2331912	HDL Coder - Assigning an array to a bus output from persistent variable in MATLAB Function block may generate extra variables in VHDL	21 Dec 2020
2255441	HDL Coder - Incorrect Code Generation: Lookup Table(n-D) block with fixed point inputs containing negative fraction length generates incorrect HDL code	18 Sep 2020
2226722	HDL Coder - Incorrect Code Generation: Streaming and sharing of resources that are clock-rate pipelined can cause HDL mismatch	18 Sep 2020
2221957	HDL Coder - Incorrect Code Generation: Mismatch in value of parameter Scalarize vector ports between protected model and model in which it is used generates incorrect HDL code	18 Sep 2020
2216400	HDL Coder - Incorrect Code Generation: HDL coder might generate incorrect code for 1-bit HDL Counter with step value of -1	18 Sep 2020
2202192	HDL Coder - Incorrect Code Generation: MATLAB Function block using MATLAB Datapath architecture might result in mismatch with nested user function calls	18 Sep 2020
2134208	HDL Coder - Initial values of RAMs created during HDL code generation of MATLAB Function blocks with MATLAB Datapath architecture have lower precision	16 Sep 2020
2118897	HDL Coder - Streaming and sharing on same resource fails when clock-rate pipelining is enabled	16 Sep 2020
2109833	HDL Coder - HDL Code generation errors out for a model with n-D Lookup Table block indicating incompatible extrapolation method	16 Sep 2020
2117374	HDL Coder - Incorrect Code Generation: Masked For Each Subsystem when used as a top-level DUT generates incorrect HDL code	16 Sep 2020
2118903	HDL Coder - HDL code generated from models containing Bus Element ports may have incorrect syntax with Traceability Style set to Line Level	16 Sep 2020

2129524	HDL Coder - Incorrect Code Generation: Potential validation model mismatch for model with redundant logic in presence of streaming and clock rate pipelining	16 Sep 2020
2195750	HDL Coder - Generated VHDL code fails to compile when HDL RAM System blocks have initial value of data type fixdt(0,1, 0)	16 Sep 2020
2169597	HDL Coder - HDL code generation error for Matrix Multiply block using DotProductStrategy other than fully parallel with floating-point types	16 Sep 2020
2187160	HDL Coder - Incorrect Code Generation: MATLAB Function block that performs comparisons with constant value in LHS generates incorrect HDL code with MATLAB Datapath architecture	16 Sep 2020
2112830	HDL Coder - Error when generating VHDL code for models that contain signals ending in terminators	16 Sep 2020
2164887	HDL Coder - Error when generating HDL code for Product block set to matrix multiply using serial multiply-accumulate DotProductStrategy	16 Sep 2020
2137919	HDL Coder - MATLAB might crash when generating HDL code for large models that contain Switch blocks with unconnected output ports	16 Sep 2020
2212672	HDL Coder - Modifications to HDL Block Properties of blocks inside Subsystem Reference are not saved on to the model	16 Sep 2020
2176417	HDL Coder - State-space parameter extraction fails in Extract Equations task of Simscape HDL Workflow Advisor though Check switched linear task might pass for unsupported Simscape elements	16 Sep 2020
2198765	HDL Coder - Extract Equations step in Simscape HDL Workflow Advisor does not terminate when Stop time of a model is Inf	16 Sep 2020
2205741	HDL Coder - Divide block with ShiftAdd architecture generates internal error for vector dividend and scalar divisor	16 Sep 2020
2244823	HDL Coder - Index exceeds array dimensions error thrown while running HDL implementation model generated from Simscape HDL Workflow Advisor	16 Sep 2020
2242229	HDL Coder - Signal logging might cause issues with clock rate pipelining and delay balancing	16 Sep 2020
2218161	HDL Coder - Wrong sample time inferred in HDL implementation model when model base rate is faster than Simscape solver sample time	16 Sep 2020
2227856	HDL Coder - HDL code generation error when sending an array of bus signal into both an Assignment block and a For Each Subsystem block	16 Sep 2020

2231197	HDL Coder - Incorrect Code Generation: Precision error in double-typed initial values in RAM blocks inferred during HDL code generation from persistent variables in MATLAB function block	16 Sep 2020
2191543	HDL Coder - Internal assertion during HDL code generation for Matrix Multiply block with a row vector output and sharing or streaming optimization	16 Sep 2020
2117385	HDL Coder - Internal assertion during HDL code generation for RAM mapping of double-typed persistent variables using MATLAB Function block in Native Floating Point mode	16 Sep 2020
2160410	HDL Coder - MATLAB might crash when generating HDL code for models configured for IP Core Generation workflow that introduce blocks with unused ports and have critical path estimation enabled	16 Sep 2020
2207625	HDL Coder - Internal assertion during HDL code generation for certain operators with mix of single and double types in Native Floating Point mode for MATLAB Function block	16 Sep 2020
2204655	HDL Coder - Traceability report in HDL Coder leads to cryptic error message during code generation.	16 Sep 2020
2221682	HDL Coder - Error when generating VHDL test bench for model reference as DUT when ScalarizePorts value mismatches between top and referenced model and referenced model contains Single Port RAM	16 Sep 2020
2180948	HDL Coder - MATLAB Datapath architecture for MATLAB Function blocks incorrectly throws error about unsupported functions using complex integer types	16 Sep 2020
2180068	HDL Coder - Fixed-Point Designer > Matrix Operations Library blocks throw confusing errors for MATLAB Function blocks during HDL code generation with floating-point types	16 Sep 2020
2176073	HDL Coder - Error message generated for reals in Stateflow Chart does not show location of unsupported code when Native Floating Point is used	16 Sep 2020
2169298	HDL Coder - MATLAB Datapath architecture of MATLAB Function block generates internal error when coder pragma is used as an input to a function	16 Sep 2020
2210576	HDL Coder - Internal assertion generated during HDL code generation for floating-point operators inside model reference in Native Floating Point mode	16 Sep 2020
2195553	HDL Coder - Generating code for Bus Creator with bus inputs can lead to assertion indicating Empty records are present	16 Sep 2020
2247328	HDL Coder - Error during HDL code generation from hierarchical masked and enable subsystems if signal logging is enabled	16 Sep 2020

2281502	HDL Coder - Persistent variable access inside an if condition preceded by a for loop can generate an assertion during HDL code generation	16 Sep 2020
2251493	HDL Coder - Bus input for blocks inside model reference can generate HDL code generation error when optimizations are enabled.	16 Sep 2020
2199761	HDL Coder - Annotation comments with color leads to collapsed HDL code generation check report	16 Sep 2020
2181835	HDL Coder - Design having RAM block under masked subsystems with HDL optimizations applied generates unusable generated model	16 Sep 2020
2157017	HDL Coder - hdlset_param function for specifying synthesis tool is case sensitive	16 Sep 2020
2175122	HDL Coder - HDL Coder generates ambiguous error for design having bus element port as input to model reference	16 Sep 2020
2163039	HDL Coder - For Each Subsystem generates assertion during HDL code generation if Partition Dimension is greater than 2	16 Sep 2020
2214596	HDL Coder - Error when generating VHDL test bench for model reference used as DUT with mismatch in value of ScalarizePorts property between the top model and referenced model	11 Jun 2020
2082623	HDL Coder - HDL implementation model with validation logic can generate assertions during simulation for default Validation logic tolerance setting	11 Jun 2020
2214587	HDL Coder - Incorrect Code Generation: Potentially incorrect VHDL test bench code generated for multirate design with a vector port named phase at DUT interface and ScalarizePorts parameter set to on	11 Jun 2020
2005355	HDL Coder - Incorrect Code Generation: Sharing with certain configurations of enabled subsystems results in a mismatch in the validation model	16 Aug 2019

∧ Less

Recommended Action

To determine if your model is affected by the bugs, review the bug report descriptions and workarounds in the links provided in the ID column.

Name	Value
Only show bug reports modified after date(mm/dd/yyyy)	

📁 **Modeling Standards for EN 50128** ✅0 ❌0 ⚠0 📋106

_____

📋 Display configuration management data
   Not Run

_____

📋 Display model metrics and complexity report
   Not Run

_____

📋 Check for unconnected objects
   Not Run

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📁 High-Integrity Systems ✅0 ❌0 ⚠0 📋89

📁 _Simulink_ ✅_0_ ❌_0_ ⚠_0_ 📋_28_

_____

📋 Check usage of Abs blocks
   Not Run

_____

📋 Check usage of Math Function blocks (rem and reciprocal functions)
   Not Run

_____

📋 Check usage of Math Function blocks (log and log10 functions)
   Not Run

_____

📋 Check usage of While Iterator blocks
   Not Run

_____

Check usage of For and While Iterator subsystems

Not Run

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Check usage of For Iterator blocks

Not Run

_____

Check usage of If blocks and If Action Subsystem blocks

Not Run

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Check usage of Switch Case blocks and Switch Case Action Subsystem blocks

Not Run

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Check usage of conditionally executed subsystems

Not Run

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Check usage of Merge blocks

Not Run

_____

Check Relational Operator blocks equating floating-point types

Not Run

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Check usage of Relational Operator blocks

Not Run

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Check usage of Logical Operator blocks

Not Run

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Check usage of bit operation blocks

Not Run

_____

Check for blocks not recommended for C/C++ production code deployment

Not Run

_____

▦ Check for inconsistent vector indexing methods

Not Run

_____

▦ Check data types for blocks with index signals

Not Run

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▦ Check usage of variant blocks

Not Run

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▦ Check usage of lookup table blocks

Not Run

_____

▦ Check usage of Signal Routing blocks

Not Run

_____

▦ Check for root Inports with missing properties

Not Run

_____

▦ Check for root Inports with missing range definitions

Not Run

_____

▦ Check for root Outports with missing range definitions

Not Run

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▦ Check usage of Assignment blocks

Not Run

_____

▦ Check global variables in graphical functions

Not Run

_____

▤ Check usage of Gain blocks

    Not Run

_____

▤ Check for length of user-defined object names

    Not Run

_____

▤ Check data type of loop control variables

    Not Run

📁 *Stateflow* ✅0 ❌0 ⚠0 ▤14

_____

▤ Check state machine type of Stateflow charts

    Not Run

_____

▤ Check Stateflow charts for ordering of states and transitions

    Not Run

_____

▤ Check usage of bitwise operations in Stateflow charts

    Not Run

_____

▤ Check for Strong Data Typing with Simulink I/O

    Not Run

_____

▤ Check Stateflow debugging options

    Not Run

_____

▤ Check Stateflow charts for transition paths that cross parallel state boundaries

    Not Run

_____

▤ Check for inappropriate use of transition paths

    Not Run

_____

▦ Check Stateflow charts for strong data typing
Not Run

_____

▦ Check naming of ports in Stateflow charts
Not Run

_____

▦ Check scoping of Stateflow data objects
Not Run

_____

▦ Check Stateflow charts for uniquely defined data objects
Not Run

_____

▦ Check usage of shift operations for Stateflow data
Not Run

_____

▦ Check assignment operations in Stateflow charts
Not Run

_____

▦ Check Stateflow charts for unary operators
Not Run

📁 *MATLAB* ✅0 ❌0 ⚠0 ▦10

_____

▦ Check usage of standardized MATLAB function headers
Not Run

_____

▦ Check for MATLAB Function interfaces with inherited properties
Not Run

_____

▦ Check MATLAB Function metrics
Not Run

_____

⊞ Check MATLAB Code Analyzer messages
  Not Run

_____

⊞ Check if/elseif/else patterns in MATLAB Function blocks
  Not Run

_____

⊞ Check switch statements in MATLAB Function blocks
  Not Run

_____

⊞ Check usage of relational operators in MATLAB Function blocks
  Not Run

_____

⊞ Check usage of equality operators in MATLAB Function blocks
  Not Run

_____

⊞ Check usage of logical operators and functions in MATLAB Function blocks
  Not Run

_____

⊞ Check type and size of condition expressions
  Not Run

📁 *Configuration* ✅0 ❌0 ⚠0 ⊞32

_____

⊞ Check safety-related diagnostic settings for data store memory
  Not Run

_____

⊞ Check safety-related diagnostic settings for saving
  Not Run

_____

⊞ Check safety-related model referencing settings
  Not Run

_____

Check safety-related code generation settings for comments
Not Run

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Check safety-related code generation interface settings
Not Run

_____

Check safety-related solver settings for simulation time
Not Run

_____

Check safety-related solver settings for solver options
Not Run

_____

Check safety-related solver settings for tasking and sample-time
Not Run

_____

Check safety-related diagnostic settings for solvers
Not Run

_____

Check safety-related diagnostic settings for sample time
Not Run

_____

Check safety-related optimization settings for logic signals
Not Run

_____

Check safety-related block reduction optimization settings
Not Run

_____

Check safety-related code generation settings for code style
Not Run

_____

Check safety-related optimization settings for application lifespan
Not Run

📋 Check safety-related code generation identifier settings

Not Run

_____

📋 Check safety-related optimization settings for loop unrolling threshold

Not Run

_____

📋 Check safety-related optimization settings for data initialization

Not Run

_____

📋 Check safety-related optimization settings for data type conversions

Not Run

_____

📋 Check safety-related optimization settings for division arithmetic exceptions

Not Run

_____

📋 Check safety-related optimization settings for specified minimum and maximum values

Not Run

_____

📋 Check safety-related diagnostic settings for compatibility

Not Run

_____

📋 Check safety-related diagnostic settings for parameters

Not Run

_____

📋 Check safety-related diagnostic settings for Merge blocks

Not Run

_____

📋 Check safety-related diagnostic settings for model initialization

Not Run

_____

▤ Check safety-related diagnostic settings for data used for debugging

Not Run

_____

▤ Check safety-related diagnostic settings for signal connectivity

Not Run

_____

▤ Check safety-related diagnostic settings for bus connectivity

Not Run

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▤ Check safety-related diagnostic settings that apply to function-call connectivity

Not Run

_____

▤ Check safety-related diagnostic settings for type conversions

Not Run

_____

▤ Check safety-related diagnostic settings for model referencing

Not Run

_____

▤ Check safety-related diagnostic settings for Stateflow

Not Run

_____

▤ Check safety-related diagnostic settings for signal data

Not Run

📁 *Naming* ✅0 ❌0 ⚠0 ▤2

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▤ Check model file name

Not Run

_____

▤ Check model object names

Not Run

📁 *Requirements* ✅0 ❌0 ⚠️0 📄1

_____

📄 Check for model elements that do not link to requirements
    Not Run

📁 *Code* ✅0 ❌0 ⚠️0 📄2

_____

📄 Check for blocks not recommended for MISRA C:2012
    Not Run

_____

📄 Check configuration parameters for MISRA C:2012
    Not Run

📁 Bug Reports ✅0 ❌0 ⚠️0 📄14

_____

📄 *Display bug reports for Embedded Coder*
    Not Run

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📄 *Display bug reports for IEC Certification Kit*
    Not Run

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📄 *Display bug reports for Polyspace Code Prover*
    Not Run

_____

📄 *Display bug reports for Polyspace Bug Finder*
    Not Run

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📄 *Display bug reports for Polyspace Code Prover Server*
    Not Run

_____

📄 *Display bug reports for Polyspace Bug Finder Server*
    Not Run

_____

🗒 *Display bug reports for Simulink Design Verifier*

    Not Run

_____

🗒 *Display bug reports for Simulink PLC Coder*

    Not Run

_____

🗒 *Display bug reports for Simulink Check*

    Not Run

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🗒 *Display bug reports for Simulink Coverage*

    Not Run

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🗒 *Display bug reports for Simulink Test*

    Not Run

_____

🗒 *Display bug reports for Simulink Requirements*

    Not Run

_____

🗒 *Display bug reports for AUTOSAR Blockset*

    Not Run

_____

🗒 *Display bug reports for HDL Coder*

    Not Run

📁 Model Metrics   ✅0 ❌0 ⚠0 🗒10

📁 Count Metrics   ✅0 ❌0 ⚠0 🗒7

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🗒 *Simulink block metric*

    Not Run

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📄 *Subsystem metric*

Not Run

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📄 *Library link metric*

Not Run

_____

📄 *Effective lines of MATLAB code metric*

Not Run

_____

📄 *Stateflow chart objects metric*

Not Run

_____

📄 *Lines of code for Stateflow blocks metric*

Not Run

_____

📄 *Subsystem depth metric*

Not Run

📁 Complexity Metrics ✅0 ❌0 ⚠0 📄1

_____

📄 *Cyclomatic complexity metric*

Not Run

📁 Readability Metrics ✅0 ❌0 ⚠0 📄2

_____

📄 *Nondescriptive block name metric*

Not Run

_____

📄 *Data and structure layer separation metric*

Not Run

📁 Modeling Signals and Parameters using Buses   ✅0 ❌0 ⚠️0 📋3

_____

📋 Check for optimal bus virtuality
   Not Run

_____

📋 Check structure parameter usage with bus signals
   Not Run

_____

📋 Check bus signals treated as vectors
   Not Run

📁 Code Generation Efficiency   ✅0 ❌0 ⚠️0 📋11

_____

📋 Check optimization settings
   Not Run

_____

📋 Identify blocks using one-based indexing
   Not Run

_____

📋 Identify questionable software environment specifications
   Not Run

_____

📋 Identify lookup table blocks that generate expensive out-of-range checking code
   Not Run

_____

📋 Identify questionable code instrumentation (data I/O)
   Not Run

_____

📋 Check output types of logic blocks
   Not Run

_____
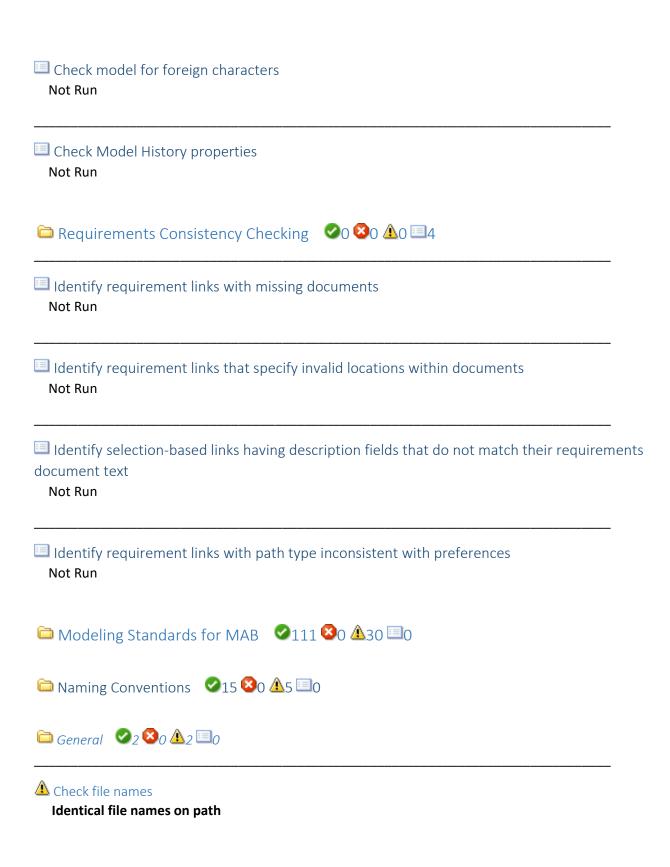
▤ Check configuration parameters for generation of inefficient saturation code
  Not Run

▤ Identify blocks that generate expensive rounding code
  Not Run

▤ Identify questionable fixed-point operations
  Not Run

▤ Identify blocks that generate expensive fixed-point and saturation code
  Not Run

▤ Identify blocks generating inefficient algorithms
  Not Run

📁 Modeling Single-Precision Systems   ✅0 ❌0 ⚠0 ▤1

▤ Identify questionable operations for strict single-precision design
  Not Run

📁 Migrating to Simplified Initialization mode   ✅0 ❌0 ⚠0 ▤4

▤ Check usage of Merge blocks
  Not Run

▤ Check usage of Outport blocks
  Not Run

▤ Check usage of Discrete-Time Integrator blocks
  Not Run

▦ Check model settings for migration to simplified initialization mode
Not Run

📁 Row-major code generation   ✅0 ❌0 ⚠0 ▦3
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▦ Identify blocks generating inefficient algorithms
Not Run

_____

▦ Check for blocks not supported for row-major code generation
Not Run

_____

▦ Identify TLC S-Functions with unset array layout
Not Run

📁 Model Referencing   ✅0 ❌0 ⚠0 ▦8
_____

▦ Check for model reference configuration mismatch
Not Run

_____

▦ Check diagnostic settings ignored during accelerated model reference simulation
Not Run

_____

▦ Check code generation identifier formats used for model reference
Not Run

_____

▦ Check for parameter tunability information ignored for referenced models
Not Run

_____

▦ Check for implicit signal resolution
Not Run

_____

📑 Check bus signals treated as vectors
   Not Run

_____

📑 Check root model Inport block specifications
   Not Run

_____

📑 Check for large number of function arguments from virtual bus across model reference boundary
   Not Run

📁 Managing Library Links And Variants   ✅0 ❌0 ⚠0 📑4

_____

📑 Identify disabled library links
   Not Run

_____

📑 Identify parameterized library links
   Not Run

_____

📑 Identify unresolved library links
   Not Run

_____

📑 Identify configurable subsystem template blocks having the instances in the model for converting to variant subsystem blocks.
   Not Run

📁 Data Transfer Efficiency   ✅0 ❌0 ⚠0 📑1

_____

📑 Check Delay, Unit Delay and Zero-Order Hold blocks for rate transition
   Not Run

📁 S-function Checks   ✅0 ❌0 ⚠0 📑1

_____

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📋 Check S-functions in the model
   Not Run

_____

📁 Simulink Design Verifier Compatibility Check   ✅0 ❌0 ⚠0 📋1
_____

📋 Check compatibility with Simulink Design Verifier
   Not Run

_____

📁 Simulink Design Verifier Design Error Checks   ✅0 ❌0 ⚠0 📋9
_____

📋 Detect Dead Logic
   Not Run

_____

📋 Detect Out Of Bound Array Access
   Not Run

_____

📋 Detect Division By Zero
   Not Run

_____

📋 Detect Integer Overflow
   Not Run

_____

📋 Detect Non-finite and NaN Floating-point Values
   Not Run

_____

📋 Detect Subnormal Floating-point Values
   Not Run

_____

📋 Detect Specified Minimum and Maximum Value Violations
   Not Run

_____

▤ Detect Data Store Access Violations

Not Run

_____

▤ Detect Block Input Range Violations

Not Run

📁 Simulation Accuracy ✅0 ❌0 ⚠0 ▤1

_____

▤ Check for non-continuous signals driving derivative ports

Not Run

📁 Simulation Runtime Accuracy Diagnostics ✅0 ❌0 ⚠0 ▤2

_____

▤ Runtime diagnostics for S-functions

Not Run

_____

▤ Check if Read/Write diagnostics are enabled for Data Store blocks

Not Run

📁 Managing Data Store Memory Blocks ✅0 ❌0 ⚠0 ▤3

_____

▤ Check Data Store Memory blocks for multitasking, strong typing, and shadowing issues

Not Run

_____

▤ Check data store block sample times for modeling errors

Not Run

_____

▤ Check for potential ordering issues involving data store access

Not Run

📁 Simulink Model File Integrity ✅0 ❌0 ⚠0 ▤2

_____

🗒 Check model for foreign characters
   Not Run

_____

🗒 Check Model History properties
   Not Run

📁 Requirements Consistency Checking   ✅0 ❌0 ⚠0 🗒4

_____

🗒 Identify requirement links with missing documents
   Not Run

_____

🗒 Identify requirement links that specify invalid locations within documents
   Not Run

_____

🗒 Identify selection-based links having description fields that do not match their requirements document text
   Not Run

_____

🗒 Identify requirement links with path type inconsistent with preferences
   Not Run

📁 Modeling Standards for MAB   ✅111 ❌0 ⚠30 🗒0

📁 Naming Conventions   ✅15 ❌0 ⚠5 🗒0

📁 *General*   ✅2 ❌0 ⚠2 🗒0

_____

⚠ Check file names
   Identical file names on path

   Warning

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The following files have names which are identical to files present in MATLAB path:

- E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\Ert_Type_Def.m

- E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\SWC_STM.slx

- E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\SWC_STM.slxc

Recommended Action

Consider having unique file names.

_____

Characters allowed for file names

Warning

The following files have invalid names:

- E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\STM Model Advisor Report.pdf

- E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\STM 组件 MIL 测试规范.xlsx

Recommended Action

Consider having only alphanumeric characters and underscores in file name.

_____

⚠ Check folder names

Characters allowed for folder names

The following folders have invalid names:

- E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\MIL Test Report

- E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\MIL Test Report\STM_Debounce MIL Test Report

- E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\MIL Test Report\STM_TrqMonEnable MIL Test Report

- E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\MIL Test Report\STM_UintndTrqMon MIL Test Report

Recommended Action

Consider having only alphanumeric characters and underscores in folder name.

_____

Underscore at the beginning

The following folders have underscores at the beginning of the folder name:

-
  E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\slprj_jitprj

-
  E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\slprj_sfprj

- E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\slprj_sfprj\SWC_HSPF_self

- E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\slprj_sfprj\SWC_STM_Harness_UintndTrqMon_self

- E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\slprj_sfprj\SWC_TCF_self

- E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\slprj\autosar_sharedutils

- E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\slprj\ert_sharedutils

Recommended Action

Consider having alphabetic character at the beginning of the folder name.

_____

Number at the beginning

Warning

The following folders have numbers at the beginning of the folder name:

- E:\EI09_Project\ei09\03_Controller_Models\02_Platform_Models\01_Platformmodels\FS\STM\slprj\modeladvisor\SWC_STM\4

Recommended Action

Consider having alphabetic character at the beginning of the folder name.

_____

✅ Check length of model file name

Check length of model file name

Passed

Model name is valid.

_____

✅ Check length of folder name at every level of model path

The model file name is: SWC_STM

Passed

Folder names are valid.

📁 *Content* ✅13 ❌0 ⚠️3 🗒0

_____

✅ Check subsystem names

Identify subsystem names with incorrect characters.

Passed

All the subsystem names use correct characters.

_____

✅ Check port block names

Identify Inport or Outport block names with incorrect characters.

Passed

All the Inport or Outport block names use correct characters.

_____

⚠️ Check character usage in block names

Single reserved MATLAB word

Warning

The following blocks have reserved MATLAB words as the block name:

- SWC_STM/SWC_STM_1ms_sys/function

Recommended Action

Consider not having reserved MATLAB word as the block name.

_____

Characters allowed for block names

The following blocks have invalid names:

- SWC_STM/SWC_STM_Init/Event Listener

Recommended Action

Consider having only alphanumeric characters and underscores in block name.

_____

✅ Check length of subsystem names
  Check length of subsystem names

  Passed
  All subsystem names are valid.

_____

✅ Check length of block names
  Check length of block names

  Passed
  All block names are valid.

_____

✅ Check length of Inport and Outport names

Check length of Inport and Outport names

Passed

All Inport and Outport names are valid.

_____

✅ Check usable characters for signal names and bus names

Identify invalid characters in signal and bus names

Passed

No invalid characters are used in signal and bus names.

_____

✅ Check usable characters for parameter names

Identify invalid characters in parameter names

Passed

No invalid characters are used in parameter names.

_____

✅ Check length of signal and bus names

Check length of signal and bus names

Passed

All signal and bus names are valid.

_____

✅ Check length of parameter names

Check length of parameter names

Passed

All parameter names are valid.

_____

✅ Check usable characters for Stateflow data names

Identify invalid characters in Stateflow data names.

Passed

No invalid characters are used in Stateflow data names.

_____

✅ Check length of Stateflow data name

Check if the length of Stateflow data names are within limit.

Passed

All Stateflow data names are valid.

_____

⚠️ Check duplication of Simulink Data names

Simulink Data names should be unique across base workspace, model workspace and data dictionary.

jc_0791_b: Check for repeated data names across base workspace and data dictionary

Warning

The following Simulink data names are not unique across base workspace and data dictionary:

Variable Name	Workspace
CAL_STM_SpeedCtlMode_u8	base workspace SWC_STM_DataDictionary.sldd
CAL_STM_UxptTrqLim_f32	base workspace SWC_STM_DataDictionary.sldd

CAL_STM_UxptTrqMonCountTrh_s16	base workspace SWC_STM_DataDictionary.sldd
CAL_STM_UxptTrqMonDebTrh_s16	base workspace SWC_STM_DataDictionary.sldd
CAL_STM_UxptTrqMonErrRst_b	base workspace SWC_STM_DataDictionary.sldd
GLB_STM_MotorFw_u8	base workspace SWC_STM_DataDictionary.sldd
GLB_STM_MotorStop_u8	base workspace SWC_STM_DataDictionary.sldd
GLB_STM_PosvTrq_u8	base workspace SWC_STM_DataDictionary.sldd

GLB_STM_ZeroTrq_u8	base workspace SWC_STM_DataDictionary.sldd
VAR_STM_UintndTrqErr_b	base workspace SWC_STM_DataDictionary.sldd
VAR_STM_UintndTrqMonRslt_b	base workspace SWC_STM_DataDictionary.sldd
boolean	base workspace SWC_STM_DataDictionary.sldd
float32	base workspace SWC_STM_DataDictionary.sldd
float64	base workspace

	SWC_STM_DataDictionary.sldd
sint16	base workspace
	SWC_STM_DataDictionary.sldd
sint32	base workspace
	SWC_STM_DataDictionary.sldd
sint64	base workspace
	SWC_STM_DataDictionary.sldd
sint8	base workspace
	SWC_STM_DataDictionary.sldd
uint16	base workspace
	SWC_STM_DataDictionary.sldd

uint32	base workspace SWC_STM_DataDictionary.sldd
uint64	base workspace SWC_STM_DataDictionary.sldd
uint8	base workspace SWC_STM_DataDictionary.sldd

∧ Less

Recommended Action

Consider renaming repeated data either in the base workspace or the data dictionary.

_____

⚠ Check unused data in Simulink Model
Check for unused data in Data Dictionary

Warning

The following data variables in the data dictionary are unused:

Data Objects	Source
GLB_STM_MotorFw_u8	SWC_STM_DataDictionary.sldd
GLB_STM_MotorStop_u8	SWC_STM_DataDictionary.sldd
boolean	SWC_STM_DataDictionary.sldd
float32	SWC_STM_DataDictionary.sldd
float64	SWC_STM_DataDictionary.sldd
sint16	SWC_STM_DataDictionary.sldd
sint32	SWC_STM_DataDictionary.sldd
sint64	SWC_STM_DataDictionary.sldd
sint8	SWC_STM_DataDictionary.sldd
uint16	SWC_STM_DataDictionary.sldd
uint32	SWC_STM_DataDictionary.sldd
uint64	SWC_STM_DataDictionary.sldd
uint8	SWC_STM_DataDictionary.sldd

∧ Less

Recommended Action

Consider removing the unused data variables.

_____

✅ Check for unused data in Stateflow Charts

Checks if the model parameter 'Unused data, events, messages and functions' is not set to 'none'.

Passed

All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values
Pass	Unused data, events, messages and functions (SFUnusedDataAndEventsDiag)	warning	error, warning

_____

✅ Check usage of restricted variable names

Checks whether variable names used in MATLAB Function blocks are reserved for C/C++/MATLAB keywords

Passed

No variable names conflict with reserved keywords

📁 Simulink   ✅37 ❌0 ⚠️25 📄0

📁 *Configuration Parameters*   ✅2 ❌0 ⚠️2 📄0

_____

✅ Check Implement logic signals as Boolean data (vs. double)

Identify whether **Implement logic signals as Boolean data (vs. double)** is selected.

Passed

Implement logic signals as Boolean data (vs. double) is selected.

_____

✅ Check Signed Integer Division Rounding mode

jc_0642: Integer rounding mode setting

Identifies blocks with block parameter 'Integer Rounding Mode' set to 'Simplest' when the configuration parameter 'Signed integer division rounds to' is set to 'Undefined'.

Passed

Configuration parameter 'Signed integer division rounds to' is not set to 'Undefined'.

_____

⚠️ Check diagnostic settings for incorrect calculation results

Identify data validity diagnostic settings which detect incorrect calculation results.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values
Warning	Division by singular matrix (CheckMatrixSingularityMsg)	none	error
Warning	Inf or NaN block output (SignalInfNanChecking)	warning	error
Warning	Wrap on overflow (IntegerOverflowMsg)	warning	error
Warning	Saturate on overflow (IntegerSaturationMsg)	warning	error

Recommended Action

Follow the links in the result table to modify the model configuration parameters.

_____

⚠️ Check model diagnostic parameters

Identify diagnostic parameters that are set to `none`.

The following diagnostics parameters are set to `none`:

- Duplicate data store names

Recommended Action

In the Configuration Parameters dialog box, set the above diagnostic parameters to `warning` or `error`.

📁 *Diagram Appearance* ✅6 ❌0 ⚠️11 🗒0
_____

⚠️ Check for Simulink diagrams using nonstandard display attributes
Identify nonstandard display attributes in Simulink diagrams.

_____

Check format settings

Identify incorrect model-level format options.

Warning

The following format display options are incorrect.

Display Attribute	Recommended Value	Actual Value
Debug > Information Overlays > Nonscalar Signals	on	off
Debug > Information Overlays > Port Data Type	off	on

Debug > Information Overlays > Execution Context	off	on
Debug > Information Overlays > Colors	none	disabled

Recommended Action

Set the format options to the recommended value.

_____ **Check block colors**

Identify blocks using nonstandard colors.

The following blocks use nonstandard colors:

- SWC_STM/L2Com_ModeReq

- SWC_STM/L2Com_NSetP

- SWC_STM/L2Com_TrqSetP

- SWC_STM/STM_UintndSpdErr

- SWC_STM/STM_UintndTrqErr

- SWC_STM/SWC_STM_1ms

- SWC_STM/SWC_STM_1ms_sys

- SWC_STM/SWC_STM_1ms_sys/Debouncer

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Add

- SWC_STM/SWC_STM_1ms_sys/Debouncer/BooleanIN

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Boolean_ZERO

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Compare To Zero

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Constant

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Constant1

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Count

- SWC_STM/SWC_STM_1ms_sys/Debouncer/CountTrh

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Deb

- SWC_STM/SWC_STM_1ms_sys/Debouncer/DebTrh

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Delay1

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Delay2

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Logical Operator

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Logical Operator1

- SWC_STM/SWC_STM_1ms_sys/Debouncer/OutLock

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Relational Operator

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Rst

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Add

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Constant

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Constant1

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Count

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/CountTrh

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Delay

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Enable

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Relational Operator

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Switch

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Switch

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Switch1

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Switch2

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Unit Delay1

- SWC_STM/SWC_STM_1ms_sys/From

- SWC_STM/SWC_STM_1ms_sys/From1
- SWC_STM/SWC_STM_1ms_sys/Goto1
- SWC_STM/SWC_STM_1ms_sys/Ground
- SWC_STM/SWC_STM_1ms_sys/Ground1
- SWC_STM/SWC_STM_1ms_sys/Ground2
- SWC_STM/SWC_STM_1ms_sys/Ground3
- SWC_STM/SWC_STM_1ms_sys/L2Com_ModeReq
- SWC_STM/SWC_STM_1ms_sys/L2Com_NSetP
- SWC_STM/SWC_STM_1ms_sys/L2Com_TrqSetP
- SWC_STM/SWC_STM_1ms_sys/STM_UintndSpdErr
- SWC_STM/SWC_STM_1ms_sys/STM_UintndTrqErr
- SWC_STM/SWC_STM_1ms_sys/SWD_Spd
- SWC_STM/SWC_STM_1ms_sys/Signal Conversion
- SWC_STM/SWC_STM_1ms_sys/Signal Conversion1
- SWC_STM/SWC_STM_1ms_sys/TCF_BlendTrq
- SWC_STM/SWC_STM_1ms_sys/TCF_TrqDir
- SWC_STM/SWC_STM_1ms_sys/TCF_nDir
- SWC_STM/SWC_STM_1ms_sys/Terminator
- SWC_STM/SWC_STM_1ms_sys/Terminator1
- SWC_STM/SWC_STM_1ms_sys/Terminator2
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/L2Com_ModeReq
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/L2Com_TrqSetP
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/STM_UintndTrqErr
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TCF_BlendTrq
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TCF_TrqDir
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/CAL_TOM_HiTrqMonDebTrh_s1

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/CAL_TOM_HiTrqMonDebTrh_s16

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/CAL_TOM_TrqMonMaulErrRst_b

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Add

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/BooleanIN

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Boolean_ZERO

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Compare To Zero

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Constant

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Constant1

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/CountTrh

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/DebTrh

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Delay1

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Delay2

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator1

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/OutLock

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Relational Operator

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Rst

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Add

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Constant

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Constant1

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Count

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/CountTrh

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Delay

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Enable

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Relational Operator"

title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Relational Operator

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Switch

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Switch

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Switch1

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Switch2

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Unit Delay1

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Enable

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/L2Com_TrqSetP

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/STM_UintndTrqErr

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/TCF_BlendTrq

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/TCF_TrqDir

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Abs

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Add3

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Compare To Zero3

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Constant3

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Constant4

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Constant5

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From10

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From11

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From12

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From13

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From14

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From15

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From16

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From17

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From9

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/GLB_TOM_PosvTrq_u1

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/GLB_TpcCod_ZeroTrq_u1
  "
  title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/GLB_TpcCod_ZeroTrq_u1

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Gain2

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Goto

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Goto1

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Goto2

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Goto3

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/L2Com_TrqSetP

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator1

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator10

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator5

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator6

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator7

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator8

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator9

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational
  Operator10"
  title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational
  Operator10

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational
  Operator11"
  title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational
  Operator11

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational
  Operator12"
  title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational
  Operator12

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational
  Operator13"

title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational
Operator13

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational
  Operator14"
  title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational
  Operator14

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational
  Operator15"
  title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Relational
  Operator15

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/STM_UxptTrqMonRslt

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/TCF_BlendTrq

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/TCF_TrqDir

- SWC_STM/SWC_STM_1ms_sys/function

- SWC_STM/SWC_STM_Init

- SWC_STM/SWC_STM_Init/Event Listener

- SWC_STM/SWD_nWoFlt

- SWC_STM/TCF_BlendTrq

- SWC_STM/TCF_TrqDir

- SWC_STM/TCF_nDir

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Recommended Action

Set the block foreground color to black and the background color to white.

_____

Check canvas colors
Identify canvases that are not white.

Passed
All diagrams use a white canvas.

_____

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Check diagram zoom

Identify diagrams that do not have zoom factor set to 100 %.

Note: Zoom factors can differ for each instance of a model diagram opened in Simulink Editor

The following diagrams do not have zoom factor set to 100 percent:

- SWC_STM
- SWC_STM/SWC_STM_1ms_sys
- SWC_STM/SWC_STM_1ms_sys/Debouncer
- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable

Recommended Action

For each listed diagram, select **Modeling > Environment > Zoom > Normal View (100%)**.

_____

✅ Check Model font settings

Identify blocks and charts with different font settings from input parameters.

Passed

Font settings of the blocks and charts and input parameters are same.

_____

⚠ Check whether block names appear below blocks

Identify blocks where the name is not displayed below the block.

The following blocks have names that do not display below the blocks:

- SWC_STM/SWC_STM_1ms_sys/L2Com_NSetP

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Delay2

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Unit Delay1

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Delay2

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Unit Delay1

Recommended Action

Change the location such that the block name is below the block.

_____

⚠ Check the display attributes of block names

Identify whether to display block names.

Check for blocks with hidden names and obvious function

Identify block names that are displayed but can be hidden due to obvious behavior.

Passed

All blocks with obvious behavior have hidden names.

Check for non-descriptive displayed block names

Identify block names that are displayed but should be hidden due to a lack of a descriptive name.

Warning

The following blocks have a name displayed, however, the name is not descriptive:

- SWC_STM/SWC_STM_Init/Event Listener

Recommended Action

Modify the block name to provide descriptive information, or hide the block name by selecting (**Format > Auto Name > Hide Automatic Block Name**).

_____ **Check for missing block names**

Identify block names that are hidden but should be displayed to show a descriptive name.

The following blocks have descriptive names, however, the names are hidden:

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/GLB_TOM_PosvTrq_u1

-

Recommended Action

Modify the blocks to show the block name by deselecting (**Format > Auto Name > Hide Automatic Block Name**).

_____

⚠️ Check for nondefault block attributes

Identify blocks that use and fail to display nondefault values.

Warning

The following blocks use and fail to display nondefault values:

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Block	Parameter	Expected Value	Actual Value
SWC_STM/SWC_STM_1ms_sys/function	SampleTimeType	triggered	periodic
SWC_STM/SWC_STM_1ms_sys/function	SampleTime	1	-1

Recommended Action

For the above blocks, display the nondefault value using the Block Annotation pane of the Block Properties dialog box.

_____

⚠️ Check Model Description

Identify layers in the model having inconsistent description format.

Following layers do not have model descriptions:

- SWC_STM

- SWC_STM/SWC_STM_1ms_sys

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable

- SWC_STM/SWC_STM_Init

Recommended Action

Consider adding model description for all the layers.

_____ Identify
layers in the model having inconsistent description format.

Following layers do not have consistent model description format:

- SWC_STM/SWC_STM_1ms_sys/Debouncer

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon

Recommended Action

Consider having a consistent format for the model description

Example: If description tags are 'Input:, Description:, and Output:' then format should be as following:

Input: add input information here

Description: add model description here

Output: add output information here

_____

✅ Check if blocks are shaded in the model
Check if blocks are shaded in the model

Passed
Blocks in the model are not shaded.

✅ Check for unconnected ports and signal lines

Identify unconnected block input ports, output ports, and signal lines.

Passed

All lines and ports in the model are connected.

_____

⚠️ Check signal line connections

Check signal intersections

Warning

The following signals intersect with other signals in the diagram:

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon

Recommended Action

Reposition the above listed signals to avoid intersections.

_____

⚠️ Check signal flow in model

Identify subsystems which do not have a signal flow from left to right.

Warning

The signal flow of diagrams in the following subsystems can be improved:

- SWC_STM

- SWC_STM/SWC_STM_1ms_sys/Debouncer

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon

Recommended Action

Ensure that the signal flow in the mentioned subsystems is from left to right.

- All sequential blocks, except the blocks on feedback path,must be placed from left to right.

- All parallel blocks, except the blocks on feedback path, must be placed from top to bottom.

- All blocks should be oriented to the right.

_____

✅ Check usage of tunable parameters in blocks

Identify tunable parameters used to specify expressions, data type conversions, or indexing operations.

Passed

Tunable parameters are not used in the model.

_____

⚠️ Check connections between structural subsystems

Identify connections between structural subsystems.

Check for unused inputs inside structural subsystems

Warning

The following structural subsystems have unused inputs:

- SWC_STM/SWC_STM_1ms_sys

Recommended Action

Consider removing the unused inputs inside the structural subsystems as reducing the number of unnecessary connections makes connection relationships clearer.

_____

⚠ Check for consistency in model element names

Check if model elements connected to a signal are following consistent naming

Warning

The following model elements are not consistent with the connected signal name:

Block Path	Expression
	Naming mismatch with signal name "VAR_STM_UintndTrqErr_b"
	Naming mismatch with signal name "VAR_STM_UintndTrqMonRslt_b"
SWC_STM/SWD_nWoFlt	Naming mismatch with signal name "SWD_Spd"

Recommended Action

Consider renaming the deviating model elements to match the signal name or to be consistent with Inport/Outport blocks.

_____

⚠ Check trigger signal names

Check names of the origin of the trigger signal and the conditional input block

Warning

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The name of the block at the origin of the trigger signal and the conditional input block name at the destination are dissimilar:

- SWC_STM/SWC_STM_1ms_sys/function

Recommended Action

The name of the block at the origin of the trigger signal and the conditional input block name at the destination must include the same name.

_____

⚠ Check for mixing basic blocks and subsystems

Identify levels in the model that include basic blocks and subsystems. Each level of a model must be designed with blocks of the same level (for example, only subsystems or only basic blocks).

Warning

The following level(s) in the model include basic blocks and subsystems:

System	Block path
SWC_STM/SWC_STM_1ms_sys	SWC_STM/SWC_STM_1ms_sys/Signal Conversion" title="SWC_STM/SWC_STM_1ms_sys/Signal Conversion
SWC_STM/SWC_STM_1ms_sys	SWC_STM/SWC_STM_1ms_sys/Signal Conversion1" title="SWC_STM/SWC_STM_1ms_sys/Signal Conversion1
SWC_STM/SWC_STM_1ms_sys/Debouncer	SWC_STM/SWC_STM_1ms_sys/Debouncer/Add
SWC_STM/SWC_STM_1ms_sys/Debouncer	SWC_STM/SWC_STM_1ms_sys/Debouncer/Boolean_ZERO"

	title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Boolean_ZERO
SWC_STM/SWC_STM_1ms_sys/Debouncer	SWC_STM/SWC_STM_1ms_sys/Debouncer/Compare To Zero" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Compare To Zero
SWC_STM/SWC_STM_1ms_sys/Debouncer	SWC_STM/SWC_STM_1ms_sys/Debouncer/Constant" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Constant
SWC_STM/SWC_STM_1ms_sys/Debouncer	SWC_STM/SWC_STM_1ms_sys/Debouncer/Constant1" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Constant1
SWC_STM/SWC_STM_1ms_sys/Debouncer	SWC_STM/SWC_STM_1ms_sys/Debouncer/Delay1
SWC_STM/SWC_STM_1ms_sys/Debouncer	SWC_STM/SWC_STM_1ms_sys/Debouncer/Delay2
SWC_STM/SWC_STM_1ms_sys/Debouncer	SWC_STM/SWC_STM_1ms_sys/Debouncer/Logical Operator" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Logical Operator
SWC_STM/SWC_STM_1ms_sys/Debouncer	SWC_STM/SWC_STM_1ms_sys/Debouncer/Logical Operator1" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Logical Operator1
SWC_STM/SWC_STM_1ms_sys/Debouncer	SWC_STM/SWC_STM_1ms_sys/Debouncer/Relational Operator" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Relational Operator
SWC_STM/SWC_STM_1ms_sys/Debouncer	SWC_STM/SWC_STM_1ms_sys/Debouncer/Switch
SWC_STM/SWC_STM_1ms_sys/Debouncer	SWC_STM/SWC_STM_1ms_sys/Debouncer/Switch1" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Switch1

SWC_STM/SWC_STM_1ms_sys/Debouncer	SWC_STM/SWC_STM_1ms_sys/Debouncer/Switch2" title="SWC_STM/SWC_STM_1ms_sys/Debouncer/Switch2
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon	SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/CAL_TOM_HiTrqMonDebTrh_s1" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/CAL_TOM_HiTrqMonDebTrh_s1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon	SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/CAL_TOM_HiTrqMonDebTrh_s16" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/CAL_TOM_HiTrqMonDebTrh_s16
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon	SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/CAL_TOM_TrqMonMaulErrRst_b" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/CAL_TOM_TrqMonMaulErrRst_b
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer	SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Add" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Add
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer	SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Boolean_ZERO" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Boolean_ZERO
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer	SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Compare To Zero" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Compare To Zero
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer	SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Constant" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Constant

SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer	SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Constant1" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Constant1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer	SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Delay1" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Delay1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer	SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Delay2" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Delay2
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer	SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer	SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator1" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator1
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer	SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Relational Operator" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Relational Operator
SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer	SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Switch" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Switch
SWC_STM/SWC_STM_1ms_sys/TrqMonPr	SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/D

oc/TrqMon/Debouncer" title="SWC_STM/SWC_STM_1ms_sys/Trq MonProc/TrqMon/Debouncer	ebouncer/Switch1" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/Trq Mon/Debouncer/Switch1
SWC_STM/SWC_STM_1ms_sys/TrqMonPr oc/TrqMon/Debouncer" title="SWC_STM/SWC_STM_1ms_sys/Trq MonProc/TrqMon/Debouncer	SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/D ebouncer/Switch2" title="SWC_STM/SWC_STM_1ms_sys/TrqMonProc/Trq Mon/Debouncer/Switch2

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Recommended Action

If possible, replace blocks at the identified level of the model hierarchy with basic blocks. Move nonvirtual blocks into the identified subsystem.

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✅ Check for avoiding algebraic loops between subsystems
  jc_0653: Guidelines for avoiding algebraic loops between subsystems.

  Passed
  No delay blocks in feedback loops violate the guidelines for avoiding algebraic loops between subsystems.

_____

✅ Check for prohibited sink blocks
  Identify sink blocks that must be removed prior to code generation.

  Passed
  There are no prohibited blocks in the subsystem.

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⚠️ Check usage of vector and bus signals
  Check bus signals treated as vectors

The following configuration parameters are set inappropriately:

Parameter	Current Value	Recommended Values
Bus signal treated as vector (StrictBusMsg)	WarnOnBusTreatedAsVector	ErrorOnBusTreatedAsVector

Recommended Action

Consider setting the configuration parameters to the recommended value.

_____

⚠ Check signal line labels

Identify blocks that require labeled signals. A subset of source and destination blocks require labeled signals.

Check source block labels

The following signals have no label:

- SWC_STM/SWC_STM_1ms/

- SWC_STM/SWC_STM_1ms_sys/L2Com_ModeReq/

- SWC_STM/SWC_STM_1ms_sys/SWD_Spd/

- SWC_STM/SWC_STM_1ms_sys/L2Com_NSetP/

- SWC_STM/SWC_STM_1ms_sys/TCF_nDir/

- SWC_STM/SWC_STM_1ms_sys/TCF_BlendTrq/

- SWC_STM/SWC_STM_1ms_sys/L2Com_TrqSetP/

- SWC_STM/SWC_STM_1ms_sys/TCF_TrqDir/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/BooleanIN/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Rst/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/CountTrh/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/DebTrh/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/CountTrh/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/L2Com_ModeReq/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TCF_BlendTrq/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/L2Com_TrqSetP/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TCF_TrqDir/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/TCF_BlendTrq/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/L2Com_TrqSetP/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/TCF_TrqDir/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/BooleanIN/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Rst/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/CountTrh/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/DebTrh/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/CountTrh/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/TCF_BlendTrq/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/L2Com_TrqSetP/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/TCF_TrqDir/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/L2Com_ModeReq/

- SWC_STM/SWC_STM_1ms_sys/From/

- SWC_STM/SWC_STM_1ms_sys/From1/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From10/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From11/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From12/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From13/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From14/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From15/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From16/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From17/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From9/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/Boolean_ZERO/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/Constant/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/Constant1/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Constant/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Constant1/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/CAL_TOM_HiTrqMonDebTrh_s1/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/CAL_TOM_HiTrqMonDebTrh_s16/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/CAL_TOM_TrqMonMaulErrRst_b/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Boolean_ZERO/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Constant/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Constant1/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Constant/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Constant1/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Constant3/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Constant4/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Constant5/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/GLB_TOM_PosvTrq_u1/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/GLB_TpcCod_ZeroTrq_u1/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/CAL_TOM_SpeedCtlMode_u1/

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Recommended Action

Add a new or propagated label to the signal line.

_____ Identify blocks that require labeled signals. A subset of source and destination blocks require labeled signals.

Check destination block labels

Warning

The following signals have no label:

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Count/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/OutLock/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Count/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Deb/

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- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Count/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/OutLock/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/STM_UxptTrqMonRslt/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/Enable/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/STM_UintndTrqErr/
- SWC_STM/SWC_STM_1ms_sys/STM_UintndSpdErr/
- SWC_STM/SWC_STM_1ms_sys/STM_UintndTrqErr/
- SWC_STM/SWC_STM_1ms_sys/Goto1/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Goto/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Goto1/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Goto2/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Goto3/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/

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Recommended Action

Add a new or propagated label to the signal line.

_____

⚠ Check for propagated signal labels

Identify propagated labels on signal lines.

Warning

The following signal labels are not propagated. Propagate signals coming from Subsystem blocks.

- SWC_STM

- SWC_STM

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon

Recommended Action

Add labels to the output signals.

_____

⚠ Check position of signal labels
Check location of signal labels

337

The following signals do not have labels located at the origin of the signal line:

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon

- SWC_STM

- SWC_STM

- SWC_STM

- SWC_STM

- SWC_STM

- SWC_STM

- SWC_STM

- SWC_STM

- SWC_STM

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Recommended Action

Consider placing the labels at the origin of the signal line.

_____

⚠ Check signal line labels

Identify blocks that require labeled signals. A subset of source and destination blocks require labeled signals.

Check source block labels

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The following signals have no label:

- SWC_STM/SWC_STM_1ms/
- SWC_STM/SWC_STM_1ms_sys/L2Com_ModeReq/
- SWC_STM/SWC_STM_1ms_sys/SWD_Spd/
- SWC_STM/SWC_STM_1ms_sys/L2Com_NSetP/
- SWC_STM/SWC_STM_1ms_sys/TCF_nDir/
- SWC_STM/SWC_STM_1ms_sys/TCF_BlendTrq/
- SWC_STM/SWC_STM_1ms_sys/L2Com_TrqSetP/
- SWC_STM/SWC_STM_1ms_sys/TCF_TrqDir/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/BooleanIN/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/Rst/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/CountTrh/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/DebTrh/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/CountTrh/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/L2Com_ModeReq/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TCF_BlendTrq/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/L2Com_TrqSetP/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TCF_TrqDir/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/TCF_BlendTrq/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/L2Com_TrqSetP/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/TCF_TrqDir/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/BooleanIN/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Rst/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/CountTrh/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/DebTrh/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/CountTrh/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/TCF_BlendTrq/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/L2Com_TrqSetP/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/TCF_TrqDir/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/L2Com_ModeReq/

- SWC_STM/SWC_STM_1ms_sys/From/

- SWC_STM/SWC_STM_1ms_sys/From1/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From10/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From11/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From12/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From13/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From14/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From15/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From16/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From17/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/From9/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Boolean_ZERO/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Constant/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Constant1/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Constant/

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Constant1/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/CAL_TOM_HiTrqMonDebTrh_s1/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/CAL_TOM_HiTrqMonDebTrh_s16/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/CAL_TOM_TrqMonMaulErrRst_b/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Boolean_ZERO/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Constant/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Constant1/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Constant/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Constant1/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Constant3/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Constant4/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Constant5/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/GLB_TOM_PosvTrq_u1/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/GLB_TpcCod_ZeroTrq_u1 /

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/CAL_TOM_SpeedCtlMode_u1/

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Recommended Action

Add a new or propagated label to the signal line.

_____ Identify blocks that require labeled signals. A subset of source and destination blocks require labeled signals.

Check destination block labels

Warning

The following signals have no label:

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Count/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/OutLock/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/Count/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/Deb/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Count/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/OutLock/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/STM_UxptTrqMonRslt/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/Enable/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/STM_UintndTrqErr/
- SWC_STM/SWC_STM_1ms_sys/STM_UintndSpdErr/
- SWC_STM/SWC_STM_1ms_sys/STM_UintndTrqErr/
- SWC_STM/SWC_STM_1ms_sys/Goto1/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Goto/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Goto1/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Goto2/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Goto3/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/
- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/
- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/

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Recommended Action

Add a new or propagated label to the signal line.

_____

⚠ Check for propagated signal labels
   Identify propagated labels on signal lines.

 Warning

The following signal labels are not propagated. Propagate signals coming from Subsystem blocks.

- SWC_STM

- SWC_STM

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon

Recommended Action

343

Add labels to the output signals.

📁 *Block Consistency* ✅5 ❌0 ⚠️1 📋0

_____

✅ Check Indexing Mode

Identify blocks and charts with inconsistent Indexing mode.

Passed

No inconsistent Indexing mode used in the model.

_____

✅ Check block orientation

Identify blocks which are rotated or reversed

Passed

No blocks found with rotated or reversed orientation

_____

⚠️ Check if tunable block parameters are defined as named constants

Check if tunable block parameters are defined as named constants

Warning

The following tunable block parameters are not defined as named constants.

Block	Violations
	Gain : -1

Recommended Action

Consider changing tunable block parameter literal values to named constants.

344

✅ Check for sample time setting

Check if sample time property of a block is set to -1 (inherited).

Passed

All permitted blocks have sample time set to -1 (inherited).

_____

✅ Check usage of fixed-point data type with non-zero bias

jc_0643: Fixed-point setting
Identify blocks with a fixed-point data type whose bias is not zero.

Passed

No blocks found with the Data Type Assistant mode set to "Fixed point" and a bias value other than zero

_____

✅ Check type setting by data objects

jc_0644: Identify blocks that violate signal data type setting if signal objects are used.

Passed

No blocks found that violate signal data type setting if signal objects are used.

📁 *Conditional Subsystem relations* ✅4 ❌0 ⚠️1 🗒0

_____

⚠️ Check position of conditional blocks and iterator blocks
Block layout in conditional subsystem

Warning

The following conditional blocks are not located at the top of the subsystem diagram:

- SWC_STM/SWC_STM_1ms_sys/function

Recommended Action

Reposition the conditional blocks listed above to the top of the subsystem diagram.

345

✅ Check undefined initial output for conditional subsystems

Check undefined initial output for Outports/Merge blocks in conditional subsystems

Passed

The initial output setting for all Conditional Subsystems are valid.

✅ Check usage of Merge block

jc_0659: Usage restrictions of signal lines inputted to Merge block
There must not be any block between a Conditional Subsystem block and a Merge block.

Passed

No Merge block found.

✅ Check logical expressions in If blocks

Checks If blocks for complex usage of primary expressions within a logical expression

Passed

Logical expressions inside If blocks are simple

✅ Check default/else case in Switch Case blocks and If blocks

Check if default/else case in Switch Case blocks and If blocks are set to 'on'

Passed

Conditional Control blocks are valid.

📁 *Operation Blocks*   ✅ *12* ❌ *0* ⚠️ *2* 🗎 *0*

⚠️ Check fundamental logical and numerical operations

Check input data types of blocks meant for numerical operations

Warning

The following numerical operation blocks have boolean data type as input:

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- SWC_STM/SWC_STM_1ms_sys/Debouncer/Add

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Add

-

Recommended Action

Consider having non-boolean inputs for the numerical operation blocks.

_____

✅ Check usage of Sum blocks

Identify inappropriate usages of Sum block.

Passed

No violations of the guideline found with the usage of the Sum block.

_____

✅ Check operator order of Product blocks

Operator order for Product blocks.

Passed

All Product blocks have valid operator order.

_____

✅ Check signs of input signals in product blocks

jc_0611: Input signal sign during product block division
Identify blocks that perform division whose inputs have different sign bit.

Passed

No product block with division of different sign bits found.

_____

✅ Check for parentheses in Fcn block expressions

jc_0622: Guideline for using the Fcn block

Passed

All Fcn blocks use parentheses to mark operator precedence.

_____

✅ Check icon shape of Logical Operator blocks

Icon shape of Logical Operator blocks

Passed

All Logical Operator blocks have consistent icon shape.

_____

✅ Check usage of Relational Operator blocks

Identify Relational Operator blocks that connect to constants with the first (upper) input value.

Passed

All Relational Operator blocks with constant input values are configured correct.

_____

✅ Comparing floating point types in Simulink

jc_0800: Comparing floating point types in Simulink
Equivalence comparison should not be used for floating point numbers.

Passed

No Equivalence comparison done on floating point numbers.

_____

✅ Check usage of Lookup Tables

jc_0626: Guideline for using the Lookup Table system block
Checks for the recommended parameter settings in Lookup Tables to prevent unexpected results.

Passed

All the Lookup Tables pass the check.

_____

✅ Check usage of Memory and Unit Delay blocks
Identify Memory blocks not using a continuous sample time

Passed

No Memory blocks found with inappropriate sample time

_____

Identify Unit Delay blocks with non-discrete sample time

Passed

No Unit Delay blocks found with non-discrete sample time

_____

✅ Check for cascaded Unit Delay blocks
Identify cascaded and tapped pattern of Unit Delay blocks.

348

Passed

No cascaded Unit Delay blocks found that can be changed to Tapped Delay/Delay block.

_____

✅ Check usage of Discrete-Time Integrator block

jc_0627: Identify Discrete-Time Integrator blocks that violate saturation limit settings

Passed

No Discrete-Time Integrator blocks found that violate JMAAB guideline jc_0627

_____

✅ Check usage of the Saturation blocks

jc_0628: Identify the Saturation and Saturation Dynamic blocks that perform type casting.

Passed

No Saturation and/or Saturation Dynamic blocks perform type casting

_____

⚠️ Check output data type of operation blocks

jc_0651: Guideline for implementing a type conversion.

Warning

Following operation blocks explicitly specify output data type:

- SWC_STM/SWC_STM_1ms_sys/Debouncer/BooleanIN

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Compare To Zero

- SWC_STM/SWC_STM_1ms_sys/Debouncer/CountTrh

- SWC_STM/SWC_STM_1ms_sys/Debouncer/DebTrh

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Logical Operator

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Logical Operator1

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Relational Operator

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Rst

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Enable

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Relational Operator

- SWC_STM/SWC_STM_1ms_sys/L2Com_ModeReq

- SWC_STM/SWC_STM_1ms_sys/TCF_TrqDir

- SWC_STM/SWC_STM_1ms_sys/TCF_nDir

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/L2Com_ModeReq

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Compare To Zero

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Logical Operator1

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Relational Operator

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Enable

-

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Enable

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Compare To Zero3

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator1

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator10

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator5

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator6

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator7

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator8

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/Logical Operator9

-

-

-

-

-

-

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/L2Com_ModeReq

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/Relational Operator1

^ Less

Recommended Action

Instead of explicitly specifying output data type on operation blocks, use 'Data Type Conversion' block when changing the data type of the block output signal.

📁 *Other blocks*   ✅8 ❌0 ⚠2 🗒0

_____

⚠ Check position of Inport and Outport blocks

Check positions of Inport blocks

The following Inport blocks are not placed to left side of the diagram:

- SWC_STM/SWC_STM_1ms

- SWC_STM/SWC_STM_1ms_sys/TCF_BlendTrq

- SWC_STM/SWC_STM_1ms_sys/L2Com_TrqSetP

- SWC_STM/SWC_STM_1ms_sys/TCF_TrqDir

- SWC_STM/SWC_STM_1ms_sys/Debouncer/CountTrh

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/L2Com_ModeReq

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/CountTrh

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/UintndTrqMon/TCF_TrqDir

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMonEnable/L2Com_ModeReq

Recommended Action

Move the Inport blocks identified to the left of all other blocks in the diagram.

It is acceptable to move the Inport block to the right only to prevent signal crossings.

_____

✅ Check display for port blocks

Identify Inport and Outport blocks that do not specify `Port number` for the **Icon display** block parameter.

Passed

All port blocks display the port number.

_____

✅ Check scope of From and Goto blocks

Identify incorrect scoping of From and Goto blocks. For signal flows, From and Goto blocks must use local scope. Control flow can use global scope.

Passed

All From and Goto blocks are used correctly.

_____

✅ Check for usage of Data Store Memory blocks

Identify the usage of Data Store Memory blocks.

Passed

Usage of Data Store Memory blocks is correct.

_____

⚠️ Check usage of Switch blocks

Identify Switch blocks that do not use Boolean inputs for the switch condition (input 2), and do not use `u2 ~= 0` for the **Criteria for passing first input** block parameter.

_____

Check Switch block parameters

Identify Switch blocks with the parameter **Criteria for passing first input** not set to `u2 ~= 0`.

Warning

The block parameter **Criteria for passing first input** is not set to `u2 ~= 0` for the following blocks:

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Subsystem/Switch

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Switch

- SWC_STM/SWC_STM_1ms_sys/Debouncer/Switch2

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Subsystem/Switch

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Switch

- SWC_STM/SWC_STM_1ms_sys/TrqMonProc/TrqMon/Debouncer/Switch2

Recommended Action

Set the block parameter **Criteria for passing first input** to `u2 ~= 0`. This might require reworking the logic associated with the Switch block.

_____

Check for Boolean switch condition
Identify blocks that do not use Boolean signal switch conditions (input 2).

Passed
The switch condition is a Boolean signal.

_____

✅ Check input and output datatype for Switch blocks
jc_0650: Identify Switch blocks with mismatched input and output data types

Passed
No Switch blocks found with mismatched input and output data types

_____

✅ Check settings for data ports in Multiport Switch blocks
Identify Multiport Switch blocks that violate data port settings.

Passed
No Multiport Switch blocks found with inappropriate data port settings.

_____

✅ Check for missing ports in Variant Subsystems
Check for number of inputs/outputs to a Variant Subsystem.

Passed
No Variant Subsystems found having different number of inputs/outputs in the Variant Subsystem choices.

✅ Check use of default variants

 na_0036: Default variant

Identify variant subsystems that do not use default variants.

 Passed

All variant subsystems in the model use default variants

✅ Check use of single variable variant conditionals

 Identify variant subsystems which use multi-variable compound conditions

 Passed

No variant subsystems with multiple variable compound conditions found

📁 Stateflow   ✅51 ❌0 ⚠0 📄0

📁 *Block/Data/Events*   ✅7 ❌0 ⚠0 📄0

✅ Check for Strong Data Typing with Simulink I/O

 Check whether labeled input and output signals are strongly typed.

 Passed

No Stateflow charts have **Use Strong Data Typing with Simulink I/O** cleared.

✅ Check for names of Stateflow ports and associated signals

 Identify mismatches between names of Stateflow ports and the associated signals.

 Passed

No Stateflow charts were found.

✅ Check execution timing for default transition path

 'Execute (enter) Chart At Initialization' should be set to OFF.

 Passed

All Stateflow Charts pass the check.

✅ Check definition of Stateflow data

Identify the Scope value set on Stateflow data defined at machine level.

Passed

All Stateflow data at machine level has been defined as per guideline.

_____

✅ Check usable number for first index

Identify usage of first index of Stateflow data.

Passed

All Stateflow data first index values are uniform.

_____

✅ Check scope of data in parallel states

jc_0722: Guidelines for setting local variables in parallel states
The scope of local variables should be restricted to one parallel state unless it is being used by other parallel states.

Passed

No Stateflow States were found.

_____

✅ Check definition of Stateflow events

Stateflow events should be defined at the smallest possible scope of usage.

Passed

All Stateflow events are defined at their smallest scope.

📁 *Diagram* ✅14 ❌0 ⚠0 📋0

_____

✅ Check for unconnected objects in Stateflow Charts

Identify dangling transitions and unconnected Stateflow States and Junctions in Stateflow Charts.

Passed

No unconnected transitions, states or junctions found in Stateflow Charts.

_____

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✓ Check usage of exclusive and default states in state machines

Identify Stateflow charts and substates that incorrectly use or define exclusive and default states.

_____

Check Stateflow charts for exclusive states

Identify Stateflow charts that have singular exclusive (OR) states.

Passed

The Stateflow charts do not have singular exclusive (OR) states.

_____

Check Stateflow charts for undefined default states

Identify Stateflow charts that do not define default states.

Passed

Each Stateflow chart defines a default state.

_____

Check for multiple states assigned as the default state

At the root level in the Stateflow hierarchy only one state should be assigned as the default.

Passed

The root level of the chart has only one default state assigned.

_____

Check for substates with singular OR states

States configured as OR should always be part of a group of states.

Passed

No singular OR states were detected.

_____

Check for substates without default states defined

At every level in the Stateflow hierarchy a default state should be assigned.

Passed

All substates have default states assigned.

_____

Check for substates with multiple default states defined

At every level in the Stateflow hierarchy only one state should be assigned as the default.

Passed

All levels of the chart have only one default state assigned.

_____

✅ Check for parallel Stateflow state used for grouping

jc_0721: Guidelines for using parallel states

Identify parallel Stateflow States used for grouping.

Passed

No Stateflow charts were found.

_____

✅ Check Stateflow transition appearance

Identify Stateflow transitions visually overlapping other Stateflow objects.

Passed

No transition violates the guidelines for Stateflow transition appearance.

_____

✅ Check default transition placement in Stateflow charts

jc_0531: Placement of default transition.

Passed

No Stateflow transitions and states found that violate the guidelines for default transition placement in Stateflow charts.

_____

✅ Check usage of transitions to external states

Identify transitions ending on external child states.

Passed

No direct transitions found from external state to child state.

_____

✅ Check for unexpected backtracking in state transitions

Identify configuration parameter settings which identify unexpected backtracking in state transitions.

Passed

All constraints on model configuration parameters have been met.

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Status	Parameter	Current Value	Recommended Values
Pass	Unexpected backtracking (SFUnexpectedBacktrackingDiag)	error	error

---

✅ Check starting point of internal transition in Stateflow

 jc_0760: In all state charts and flow charts, internal transitions from state boundaries must start from the left edge of the state.

Passed

No Stateflow transitions found that violate the guidelines for starting point of internal transition in Stateflow.

✅ Check usage of internal transitions in Stateflow states

 Identify Stateflow states using multiple internal transitions.

Passed

No Stateflow states found with multiple internal transitions

✅ Check prohibited combination of state action and flow chart

 jc_0762: State actions within states and flow chart statements should not be used in combination.

Passed

No Stateflow states found that combine state action and flow chart.

✅ Check transition orientations in flow charts

 Identify transitions in Stateflow flow charts that are drawn incorrectly.

Check for conditions drawn horizontally

Condition expressions should be drawn on the horizontal segments of flow charts.

Passed

All condition expressions were drawn horizontally.

Check for action transitions drawn vertically

Transitions with condition actions should be drawn on the vertical segments of flow charts.

Passed

All transitions with condition actions were drawn vertically.

_____

Check for transition actions in flow chart

Transition actions should not be used in flow charts.

Passed

No transition actions are used in flow charts.

_____

Check for junctions for default transitions

All Junctions in a flow chart should have a default exit transition.

Passed

All Junctions have a default exit transition.

_____

Check for transitions that combine condition and action

Flow charts should not combine condition evaluations and action expressions in a single transition.

Passed

No combined expressions were found in the chart.

_____

✅ Check usage of unconditional transitions in flow charts

Identify unconditional transitions in flow charts.

Passed

All unconditional transitions adhere to the guideline.

_____

✅ Check terminal junctions in Stateflow

Identify usage of terminal junctions in flow charts.

Passed

Multiple terminal junctions were not found.

_____

✅ Check usage of Stateflow comments

Identify comments that are nested or contain newline(s) in the middle in Stateflow for action language 'C'.

359

Passed

No comments found that are either nested or contain newline(s) in the middle.

📁 *Condition Transition/Action* ✅*16* ❌*0* ⚠️*0* 📋*0*

_____

✅ Check Stateflow chart action language

Check if the action language of Stateflow charts is set to 'C'.

Passed

All Stateflow Charts have action language set to 'C'.

_____

✅ Check usage of numeric literals in Stateflow

Identify use of numeric literals in Stateflow states and transitions.

Passed

No numeric literals found in Stateflow charts.

_____

✅ Check for pointers in Stateflow charts

Identify pointer operations on custom code variables.
Note: This check applies only to Stateflow charts that use C as the action language.

Passed

No pointer operations were found.

_____

✅ Check for usage of events and broadcasting events in Stateflow charts
Identify undirected event broadcasts in Stateflow

Passed

No instances of undirected event broadcast were found.

_____

✅ Check order of state action types

Identify out of order state action types in Stateflow states.

Passed

No Stateflow states found with out of order state action types

_____

✅ Check repetition of Action types

jc_0734: Number of state action types

Identifies repeated action types in a Stateflow State.

Passed

No Stateflow States were found.

_____

✅ Check if state action type 'exit' is used in the model

Check if state action type 'exit' is used in the model.

Passed

State action type 'exit' is not used in the model.

_____

✅ Check updates to variables used in state transition conditions

jc_0741: Variables used in state transition conditions must not perform an update by "during" state action type.

Passed

No Stateflow states found that violate the guidelines for updating the variables used in state transition conditions.

_____

✅ Check usage of transition conditions in Stateflow transitions

jc_0772: Identify unconditional Stateflow transitions with higher priority than conditional transitions

Passed

No unconditional Stateflow transitions found with higher priority than conditional transitions

_____

✅ Check condition actions and transition actions in Stateflow

Identify usage of transition actions in Stateflow.

Passed

No Stateflow charts have transition actions.

_____

✅ Check for MATLAB expressions in Stateflow blocks

Identify MATLAB expressions that are not suitable for code generation in Stateflow blocks.

Passed

No Stateflow objects found using MATLAB expressions unsuitable for code generation.

_____

✅ Check usage of floating-point expressions in Stateflow charts

  Identify equal to operations (==) in expressions where at least one side of the expression is a floating-point variable or constant.

  Passed

No equal to operations in expressions where at least one side of the expression is a floating-point variable or constant were found.

_____

✅ Check Stateflow operators

  Identify the usage of operators in Stateflow.

  Passed

No Stateflow blocks found with incorrect operator usage.

_____

✅ Check prohibited comparison operation of logical type signals

  Identify boolean variables in Stateflow charts using comparison operations.

  Passed

No boolean variables use comparison operations of logical type in the model.

_____

✅ Check usage of unary minus operations in Stateflow charts

  Identify unary minus operations applied to unsigned integers in Stateflow objects.

  Passed

No unary minus operations applied to unsigned integers in Stateflow objects were found.

_____

✅ Check for implicit type casting in Stateflow

  Identify implicit type casting in Stateflow.

  Passed

No instances of implicit type casting found.

📁 *Label Description* ✅*10* ❌*0* ⚠️*0* 🗒*0*

_____

✅ Check uniqueness of Stateflow State and Data names

jc_0732: Distinction between state name and data item name
Identify Stateflow State and Stateflow Data that have identical names in a given chart.

Passed

No Stateflow charts were found.

_____

✅ Check uniqueness of State names

jc_0730: Independence of state name in charts
Identifies identical State names within a Stateflow Chart.

Passed

No Stateflow charts were found.

_____

✅ Check usage of State names

jc_0731: Slash (/) in the state name
Identify state names with '/' at its end.

Passed

No Stateflow states were found.

_____

✅ Check entry formatting in State blocks in Stateflow charts

Identify missing line breaks between entry action (en), during action (du), and exit action (ex) entries in states. Identify missing line breaks after semicolons (;) in statements.

Passed

No Stateflow charts were found.

_____

✅ Check indentation of code in Stateflow states

Identify non-uniform indentation in Stateflow blocks.

Passed

All Stateflow blocks have uniform indentation.

_____

✅ Check for usage of text inside states

Identify Stateflow states with text exceeding the boundary of the state

Passed

No Stateflow states found with text exceeding the boundary of the state.

_____

✅ Check position of label string in Stateflow transition

Identify placement of label string in Stateflow transition.

Passed

All Stateflow transitions are placed uniformly.

_____

✅ Check position of comments in transition labels

Identify comments in transition labels that are not positioned uniformly.

Passed

Comments in transition labels are positioned uniformly.

_____

✅ Check usage of parentheses in Stateflow transitions

jc_0752: Start new line before and after parentheses for condition actions in Stateflow transitions.

Passed

No Stateflow Transitions found that violate the requirement for new line for condition actions.

_____

✅ Check for comments in unconditional transitions

Identify comments in unconditional transitions without action statements.

Passed

All unconditional transitions without action statements have comments.

📁 *Miscellaneous* ✅4 ❌0 ⚠️0 📝0

_____

✅ Check return value assignments in Stateflow graphical functions

Identify graphical functions with multiple assignments of return values in Stateflow charts.

Passed

No Stateflow charts were found.

_____

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✅ Check uniqueness of Stateflow State and Data names

jc_0732: Distinction between state name and data item name
Identify Stateflow State and Stateflow Data that have identical names in a given chart.

Passed

No Stateflow charts were found.

_____

✅ Check usage of Simulink functions in Stateflow

Usage of Simulink Functions in Stateflow.

Passed

All Simulink Functions in Stateflow are defined according to the guideline.

_____

✅ Check use of Simulink in Stateflow charts

na_0039: Limitation on Simulink functions in Chart blocks

Check use of Stateflow charts nested inside Simulink functions used in Stateflow.

Passed

No Stateflow charts found nested inside Simulink functions used in Stateflow.

📁 MATLAB   ✅8 ❌0 ⚠0 🗒0

📁 *Data and Operations*   ✅3 ❌0 ⚠0 🗒0

_____

✅ Check MATLAB code for global variables

Check for global variables in MATLAB code

_____

Check for global variables in MATLAB code used in MATLAB Function blocks

Passed

No MATLAB Function blocks found

_____

Check for global variables in MATLAB functions defined in Stateflow charts

Passed

No MATLAB functions defined in Stateflow charts found

_____

Check for global variables in called MATLAB functions

Passed

No external MATLAB functions found

_____

_____

✅ Check usage of enumerated values

Identify enumeration classes used in the model with no default value specification.

Passed

No enumeration classes found without default value specifications.

_____

✅ Check input and output settings of MATLAB Functions

Identify MATLAB Functions that have inputs, outputs, or parameters with inherited complexity, data type, or size properties.

Passed

No MATLAB Functions found in the model or subsystem.

📁 *Usage* ✅5 ❌0 ⚠️0 🗒0

_____

✅ Check MATLAB Function metrics

Identify MATLAB Functions that violate complexity limits.

Passed

No MATLAB Function with metrics violations were found.

The following metrics were determined for the model or subsystem.

Legend:

- LoC : Total lines of code

- ELoC : Effective lines of code

- CLoC : Comment lines of code

- DC : Density of comments

- CYC : Cyclomatic complexity

>

Input Parameters Selection

Name	Value
Maximum effective lines of code per function	60
Minimum density of comments	0.2
Maximum cyclomatic complexity per function	15

_____

✅ Check the number of function calls in MATLAB Function blocks
Checks whether number of function calls in MATLAB Function blocks is less than 3.

Passed
Number of function calls in MATLAB Function blocks is less than 3.

_____

✅ Check usage of character vector inside MATLAB Function block
Checks whether character vectors are being used inside MATLAB Function blocks

Passed
No character vectors found in MATLAB Function block

✅ Check usage of recommended patterns for Switch/Case statements

  Checks whether non-constant variables are used in Switch/Case arguments.

  Passed

  Non-constant variables are not used as Switch/Case arguments

---

✅ Check for use of C-style comment symbols

  Identify usage of C-style comments in CGT Files and MPT Objects.

  Passed

  C-style comments are not used in CGT Files and MPT Objects.

📁 Modeling Standards for JMAAB   ✅0 ❌0 ⚠️0 🗒️121

📁 Naming Conventions   ✅0 ❌0 ⚠️0 🗒️14

🗒️ *Check file names*

  Not Run

🗒️ *Check folder names*

  Not Run

🗒️ *Check subsystem names*

  Not Run

🗒️ *Check port block names*

  Not Run

🗒️ *Check character usage in block names*

  Not Run

🗒️ *Check usable characters for signal names and bus names*

  Not Run

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_____

📄 *Check usable characters for parameter names*

    Not Run

_____

📄 *Check length of model file name*

    Not Run

_____

📄 *Check length of folder name at every level of model path*

    Not Run

_____

📄 *Check length of subsystem names*

    Not Run

_____

📄 *Check length of Inport and Outport names*

    Not Run

_____

📄 *Check length of signal and bus names*

    Not Run

_____

📄 *Check length of parameter names*

    Not Run

_____

📄 *Check length of block names*

    Not Run

📁 Model Architecture   ✅0 ❌0 ⚠0 📄1

_____

📄 *Check for mixing basic blocks and subsystems*

    Not Run

📁 Model Configuration Options   ✅0 ❌0 ⚠0 📄2

_____

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Check Implement logic signals as Boolean data (vs. double)

Not Run

_____

Check diagnostic settings for incorrect calculation results

Not Run

Simulink ✅0 ❌0 ⚠0 ▤53

_____

Check for Simulink diagrams using nonstandard display attributes

Not Run

_____

Check Model font settings

Not Run

_____

Check position of Inport and Outport blocks

Not Run

_____

Check whether block names appear below blocks

Not Run

_____

Check the display attributes of block names

Not Run

_____

Check for nondefault block attributes

Not Run

_____

Check trigger signal names

Not Run

_____

Check for unconnected ports and signal lines

Not Run

_____

Check usage of Switch blocks

Not Run

_____

Check usage of Relational Operator blocks

Not Run

_____

Check Indexing Mode

Not Run

_____

Check usage of tunable parameters in blocks

Not Run

_____

Check signal line labels

Not Run

_____

Check for propagated signal labels

Not Run

_____

Check usage of Discrete-Time Integrator block

Not Run

_____

Check settings for data ports in Multiport Switch blocks

Not Run

_____

Check usage of fixed-point data type with non-zero bias

Not Run

_____

Check input and output datatype for Switch blocks

Not Run

_____

Check signs of input signals in product blocks

Not Run

▦ *Check Signed Integer Division Rounding mode*

Not Run

▦ *Check type setting by data objects*

Not Run

▦ *Check usage of the Saturation blocks*

Not Run

▦ *Check usage of Merge block*

Not Run

▦ *Check usage of Memory and Unit Delay blocks*

Not Run

▦ *Check block orientation*

Not Run

▦ *Check if blocks are shaded in the model*

Not Run

▦ *Check operator order of Product blocks*

Not Run

▦ *Check icon shape of Logical Operator blocks*

Not Run

▦ *Check if tunable block parameters are defined as named constants*

Not Run

📄 *Check default/else case in Switch Case blocks and If blocks*

Not Run

_____

📄 *Check usage of Lookup Tables*

Not Run

_____

📄 *Check for parentheses in Fcn block expressions*

Not Run

_____

📄 *Check undefined initial output for conditional subsystems*

Not Run

_____

📄 *Check for avoiding algebraic loops between subsystems*

Not Run

_____

📄 *Comparing floating point types in Simulink*

Not Run

_____

📄 *Check duplication of Simulink Data names*

Not Run

_____

📄 *Check unused data in Simulink Model*

Not Run

_____

📄 *Check output data type of operation blocks*

Not Run

_____

📄 *Check Model Description*

Not Run

_____

📄 *Check for consistency in model element names*

Not Run

📋 *Check for sample time setting*

Not Run

📋 *Check usage of Sum blocks*

Not Run

📋 *Check position of signal labels*

Not Run

📋 *Check for missing ports in Variant Subsystems*

Not Run

📋 *Check for cascaded Unit Delay blocks*

Not Run

📋 *Check for usage of Data Store Memory blocks*

Not Run

📋 *Check fundamental logical and numerical operations*

Not Run

📋 *Check signal flow in model*

Not Run

📋 *Check usage of vector and bus signals*

Not Run

📋 *Check connections between structural subsystems*

Not Run
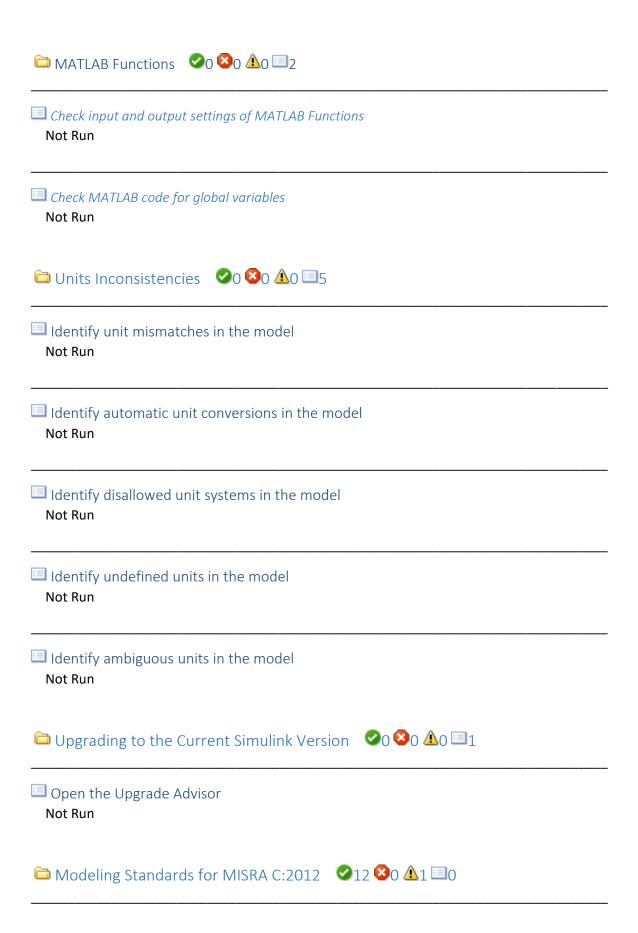
📋 *Check position of conditional blocks and iterator blocks*

Not Run

_____

📋 *Check signal line connections*

Not Run

_____

📋 *Check scope of From and Goto blocks*

Not Run

📁 Stateflow　✅0 ❌0 ⚠0 📋49

_____

📋 *Check transition orientations in flow charts*

Not Run

_____

📋 *Check return value assignments in Stateflow graphical functions*

Not Run

_____

📋 *Check default transition placement in Stateflow charts*

Not Run

_____

📋 *Check for Strong Data Typing with Simulink I/O*

Not Run

_____

📋 *Check definition of Stateflow data*

Not Run

_____

📋 *Check for MATLAB expressions in Stateflow blocks*

Not Run

_____

📋 *Check for pointers in Stateflow charts*

Not Run

_____

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Check Stateflow operators

Not Run

_____

Check usage of unary minus operations in Stateflow charts

Not Run

_____

Check usage of Stateflow comments

Not Run

_____

Check prohibited comparison operation of logical type signals

Not Run

_____

Check usage of internal transitions in Stateflow states

Not Run

_____

Check usage of transition conditions in Stateflow transitions

Not Run

_____

Check uniqueness of Stateflow State and Data names

Not Run

_____

Check uniqueness of State names

Not Run

_____

Check usage of parentheses in Stateflow transitions

Not Run

_____

Check prohibited combination of state action and flow chart

Not Run

_____

Check condition actions and transition actions in Stateflow

Not Run

_____

Check usable number for first index

Not Run

_____

Check usage of State names

Not Run

_____

Check execution timing for default transition path

Not Run

_____

Check repetition of Action types

Not Run

_____

Check for unused data in Stateflow Charts

Not Run

_____

Check updates to variables used in state transition conditions

Not Run

_____

Check starting point of internal transition in Stateflow

Not Run

_____

Check for parallel Stateflow state used for grouping

Not Run

_____

Check scope of data in parallel states

Not Run

_____

Check indentation of code in Stateflow states

Not Run

_____

Check for usage of text inside states

Not Run

_____

Check for unexpected backtracking in state transitions

Not Run

_____

Check for unconnected objects in Stateflow Charts

Not Run

_____

Check position of label string in Stateflow transition

Not Run

_____

Check Stateflow chart action language

Not Run

_____

Check usable characters for Stateflow data names

Not Run

_____

Check length of Stateflow data name

Not Run

_____

Check usage of transitions to external states

Not Run

_____

Check order of state action types

Not Run

_____

Check usage of numeric literals in Stateflow

Not Run

_____

Check position of comments in transition labels

Not Run

_____

⊞ *Check terminal junctions in Stateflow*

Not Run

_____

⊞ *Check for implicit type casting in Stateflow*

Not Run

_____

⊞ *Check if state action type 'exit' is used in the model*

Not Run

_____

⊞ *Check for use of C-style comment symbols*

Not Run

_____

⊞ *Check usage of unconditional transitions in flow charts*

Not Run

_____

⊞ *Check for comments in unconditional transitions*

Not Run

_____

⊞ *Check definition of Stateflow events*

Not Run

_____

⊞ *Check Stateflow transition appearance*

Not Run

_____

⊞ *Check for usage of events and broadcasting events in Stateflow charts*

Not Run

_____

⊞ *Check usage of Simulink functions in Stateflow*

Not Run

📁 MATLAB Functions ✅0 ❌0 ⚠️0 🗒️2

_____

📋 _Check input and output settings of MATLAB Functions_
   Not Run

_____

📋 _Check MATLAB code for global variables_
   Not Run

📁 Units Inconsistencies ✅0 ❌0 ⚠️0 🗒️5

_____

📋 Identify unit mismatches in the model
   Not Run

_____

📋 Identify automatic unit conversions in the model
   Not Run

_____

📋 Identify disallowed unit systems in the model
   Not Run

_____

📋 Identify undefined units in the model
   Not Run

_____

📋 Identify ambiguous units in the model
   Not Run

📁 Upgrading to the Current Simulink Version ✅0 ❌0 ⚠️0 🗒️1

_____

📋 Open the Upgrade Advisor
   Not Run

📁 Modeling Standards for MISRA C:2012 ✅12 ❌0 ⚠️1 🗒️0

_____

⚠️ Check configuration parameters for MISRA C:2012

Identify configuration parameters that might impact MISRA C:2012 compliant code generation.

Warning

The model configuration parameters are not set to the recommended values specified in the data file.

Status	Parameter	Current Value	Recommended Values	Prerequisites
Warning	Model Verification block enabling (AssertControl)	UseLocalSettings	DisableAll	
Warning	Generate shared constants (GenerateSharedConstants)	on	off	UtilityFuncGeneration
Warning	Parentheses level (ParenthesesLevel)	Nominal	Maximum	SystemTargetFile
Warning	Casting modes (CastingMode)	Nominal	Standards	SystemTargetFile
Warning	Use division for fixed-point net slope computation (UseDivisionForNetSlopeComputation)	off	on, UseDivisionForReciprocalsOfIntegersOnly	
Warning	Replace multiplications by powers of two with signed bitwise shifts (EnableSignedLeftShifts)	on	off	SystemTargetFile
Warning	Allow right shifts on signed integers (EnableSignedRightShifts)	on	off	SystemTargetFile

	Undirected event broadcasts (SFUndirectedBroadcastEventsDiag)	warning	error	
Warning	Undirected event broadcasts (SFUndirectedBroadcastEventsDiag)	warning	error	
Warning	Compile-time recursion limit for MATLAB functions (CompileTimeRecursionLimit)	50	0	
Warning	Enable run-time recursion for MATLAB functions (EnableRuntimeRecursion)	on	off	
Warning	MATLAB user comments (MATLABFcnDesc)	off	on	GenerateComments, SystemTargetFile

∧ Less

Recommended Action

Modify the configuration parameters listed above to the recommended values.

_____

✓ Check for blocks not recommended for C/C++ production code deployment

 Identify blocks not supported by code generation or not recommended for C/C++ production code deployment.

Passed
Blocks not recommended for C/C++ production code deployment were not found in the model or subsystem.

_____

✅ Check for blocks not recommended for MISRA C:2012

Identify blocks that are not recommended for MISRA C:2012 compliant code generation.

Passed

None of the blocks are defined as "not recommended" for MISRA C:2012 compliant code generation.

_____

✅ Check for unsupported block names

Identify block names containing "/".

Passed

No unsupported block names found.

_____

✅ Check usage of Assignment blocks

Identify Assignment blocks with possibly incomplete array initialization that do not have the simulation run-time diagnostic **Action if any output element is not assigned** set to:

- Warning, if Assignment block is in an iterator subsystem

- Error, if Assignment block is not in an iterator subsystem

Passed

All Assignment blocks are configured with block parameter **Action if any output element is not assigned** set to Warning or Error.

_____

✅ Check for switch case expressions without a default case

Identify switch case expressions that do not have a default case.

Passed

All switch case expressions have default cases.

_____

✅ Check for missing error ports in AUTOSAR receiver interfaces

Identify AUTOSAR receiver interface ports that do not have a matching error port.

Passed

Model is not configured as an AUTOSAR target.

_____

✅ Check for bitwise operations on signed integers

Identify bitwise operations on signed integers.

Passed

No bitwise operations on signed integers found.

_____

✅ Check for recursive function calls

Identify function calls that are recursive.

Passed

No recursive function calls found.

_____

✅ Check for equality and inequality operations on floating-point values

Identify equality and inequality operations on floating-point values.

Passed

No equality or inequality operations on floating-point values found.

_____

✅ Check for missing const qualifiers in model functions

Identify missing const qualifiers in model functions.

Passed

Model does not use customized model functions.

_____

✅ Check integer word lengths

Identify integer word length that are not compliant with hardware implementation settings.

Passed

All used integer word length are compliant with hardware implementation settings.

_____

✅ Check bus object names that are used as bus element names

Identify bus object names that are used as bus element names.

Passed

No bus object names are used as bus element names.

📁 Modeling Standards for Secure Coding (CERT C, CWE, ISO/IEC TS 17961) ✅0 ❌0 ⚠0
📄13

_____

📄 Check configuration parameters for secure coding standards

Not Run

_____

📄 Check for blocks not recommended for C/C++ production code deployment

Not Run

_____

📄 Check for blocks not recommended for secure coding standards

Not Run

_____

📄 Check usage of Assignment blocks

Not Run

_____

📄 Check for switch case expressions without a default case

Not Run

_____

📄 Check for bitwise operations on signed integers

Not Run

_____

📄 Check for equality and inequality operations on floating-point values

Not Run

_____

📄 Check integer word lengths

Not Run

_____

📄 Detect Dead Logic

Not Run

_____

📋 Detect Integer Overflow

Not Run

_____

📋 Detect Division By Zero

Not Run

_____

📋 Detect Out Of Bound Array Access

Not Run

_____

📋 Detect Specified Minimum and Maximum Value Violations

Not Run

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📁 Frequency Response Estimation ✅0 ❌0 ⚠️0 📋1

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📋 Identify time-varying source blocks interfering with frequency response estimation

Not Run