# Model Advisor Report –
# Wrong_Way_Driver_Warning.slx

**Simulink version:** 10.1

**System:**
Wrong_Way_Driver_Warning

**Treat as Referenced Model:** off

**Model version:** 1.138

**Current run:** 19-Oct-2020 20:45:19

628 items with a timestamp different than 19-Oct-2020 20:45:19

## Run Summary

| Pass | Fail | Warning | Not Run | Total |
|------|------|---------|---------|-------|
| ✅ 600 | ❌ 2 | ⚠️ 111 | 🗒 364 | 1077 |

📁 **By Task**

📁 **Modeling Physical Systems**  ✅0 ❌0 ⚠️0 🗒2
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🗒 Check consistency of block parameter units
  Not Run

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🗒 Check for dry hydraulic nodes
  Not Run

📁 **Simulink Code Inspector compatibility checks**  ✅0 ❌0 ⚠️0 🗒69
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🗒 Check code generation settings
  Not Run

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🗒 Check data import and export settings
  Not Run

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⊞ Check diagnostic settings

Not Run

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⊞ Check hardware implementation settings

Not Run

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⊞ Check math and data types settings

Not Run

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⊞ Check solver settings

Not Run

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⊞ Check for unconnected objects in the model

Not Run

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⊞ Check system target file setting

Not Run

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⊞ Check function specification setting

Not Run

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⊞ Check for usage of fixed-point instrumentation

Not Run

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⊞ Check for unsupported blocks

Not Run

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⊞ Check storage class for workspace variables

Not Run

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⊞ Check GetSet storage class for workspace variables

Not Run

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▤ Check for sample times in the model

    Not Run

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▤ Check usage of Sources blocks

    Not Run

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▤ Check usage of Signal Routing blocks

    Not Run

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▤ Check usage of Math Operations blocks

    Not Run

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▤ Check usage of Signal Attributes blocks

    Not Run

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▤ Check usage of Logical and Bit Operations blocks

    Not Run

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▤ Check usage of Lookup Tables blocks

    Not Run

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▤ Check usage of User-Defined Function blocks

    Not Run

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▤ Check usage of Ports and Subsystems blocks

    Not Run

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▤ Check usage of Discontinuities blocks

    Not Run

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Check usage of Sinks blocks

Not Run

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Check usage of Discrete blocks

Not Run

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Check usage of root Outport blocks

Not Run

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

Not Run

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Check usage of buses

Not Run

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Check for usage of synthesized local data stores

Not Run

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Check usage of global data stores

Not Run

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Check global data stores' name shadow

Not Run

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Check for root Outport blocks being conditionally assigned

Not Run

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Check conditional input branch execution setting

Not Run

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📄 Check usage of Stateflow blocks

Not Run

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📄 Check for Stateflow machine data

Not Run

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📄 Check for Stateflow machine events

Not Run

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📄 Check usage of Stateflow charts

Not Run

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📄 Check usage of Stateflow data

Not Run

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📄 Check usage of Stateflow events

Not Run

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📄 Check usage of Stateflow states

Not Run

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📄 Check usage of Stateflow junctions

Not Run

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📄 Check usage of Stateflow transitions

Not Run

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📄 Check usage of Stateflow graphical functions

Not Run

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📄 Check usage of Stateflow truth tables

Not Run

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🗒 Check Loop unrolling threshold setting

    Not Run

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🗒 Check destinations of If and Switchcase blocks

    Not Run

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

    Not Run

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🗒 Check for Terminator blocks connected to Model Reference block outports

    Not Run

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🗒 Check for unsupported propagation of initial condition values

    Not Run

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🗒 Check data type replacement names

    Not Run

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🗒 Check usage of MATLAB Function Blocks

    Not Run

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🗒 Check usage of Data in MATLAB Functions

    Not Run

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🗒 Check usage of Code in MATLAB Functions

    Not Run

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🗒 Check MATLAB Code Analyzer messages

    Not Run

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

Not Run

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⊞ Check Treat each discrete rate as a separate task setting

Not Run

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⊞ Check model for commented out blocks

Not Run

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⊞ Check model for instrumented signals

Not Run

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

Not Run

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

Not Run

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

Not Run

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⊞ Check for usage of shared synthesized local data stores

Not Run

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⊞ Check the code generation folder structure for the model

Not Run

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⊞ Check for unsupported Code Mapping settings

Not Run

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⊞ Check model for compiled and graphical block sorted order

Not Run

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🔲 Check usage of String blocks

    Not Run

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🔲 Check usage of shared utilities

    Not Run

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🔲 Check model arguments for storage classes

    Not Run

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🔲 Check usage of Stateflow MATLAB action language

    Not Run


📁 Modeling Standards for DO-178C/DO-331   ✅76 ❌0 ⚠️19 🗒️33

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✅ Display model version information (19-Oct-2020 20:30:59)

    Display model configuration and checksum information.


    Model configuration and checksum information

| Attribute | Value |
|---|---|
| Model Version | 1.138 |
| Author | Jayesh Patil |
| Date | Mon Oct 19 18:15:32 2020 |
| Model Checksum | 3934919800 188903040 3653151760 1357945227 |


📁 High-Integrity Systems   ✅52 ❌0 ⚠️4 🗒️33

📁 *Simulink*   ✅*25* ❌*0* ⚠️*3* 🗒️*0*

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✅ Check usage of Abs blocks (19-Oct-2020 20:30:59)

Identify Abs blocks that have unreachable code or produce overflows

**Passed**

No Abs blocks found causing unreachable code or produce overflows.

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✅ Check usage of Math Function blocks (rem and reciprocal functions) (19-Oct-2020 20:30:59)

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.

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✅ Check usage of Math Function blocks (log and log10 functions) (19-Oct-2020 20:30:59)

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.

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✅ Check usage of While Iterator blocks (19-Oct-2020 20:30:59)

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

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✅ Check usage of For and While Iterator subsystems (19-Oct-2020 20:30:59)

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

**Passed**

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

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✅ Check usage of For Iterator blocks (19-Oct-2020 20:30:59)

Identify For Iterator blocks that cause variable loops

**Passed**

No For Iterator blocks found that cause variable loops.

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✅ Check usage of If blocks and If Action Subsystem blocks (19-Oct-2020 20:30:59)
  Identify If and If Action Subsystem blocks without else conditions

  **Passed**

  No If blocks with questionable configurations or connections were found.

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✅ Check usage of Switch Case blocks and Switch Case Action Subsystem blocks (19-Oct-2020 20:30:59)
  Identify inappropriately used Switch Case blocks and Switch Case Action Subsystem blocks

  **Passed**

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

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✅ Check usage of conditionally executed subsystems (19-Oct-2020 20:30:59)
  Identify inappropriate blocks in conditionally executed subsystems.

  **Passed**

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

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✅ Check usage of Merge blocks (19-Oct-2020 20:30:59)
  Identify Merge blocks constructs which can lead to ambiguous behavior.

  **Passed**

  No merge blocks found which can lead to ambiguous behavior.

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✅ Check Relational Operator blocks equating floating-point types (19-Oct-2020 20:30:59)
  Identify Relational Operator blocks that equate floating-point types

  **Passed**

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

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✅ Check usage of Relational Operator blocks (19-Oct-2020 20:30:59)
  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 (19-Oct-2020 20:30:59)
   Identify Logical Operator blocks that operate on non-boolean data types

   **Passed**

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

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✅ Check usage of bit operation blocks (19-Oct-2020 20:30:59)
   Identify bit operation blocks with signed data types as inputs

   **Passed**

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

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✅ Check for blocks not recommended for C/C++ production code deployment (19-Oct-2020 20:30:59)
   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.

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✅ Check for inconsistent vector indexing methods (19-Oct-2020 20:30:59)
   Identify inconsistent usage of vector indexing methods across the model or subsystem

   **Passed**

   No blocks found using inconsistent indexing modes.

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✅ Check data types for blocks with index signals (19-Oct-2020 20:30:59)
   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 (19-Oct-2020 20:30:59)
   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.

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✅ Check usage of lookup table blocks (19-Oct-2020 20:30:59)

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.

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✅ Check usage of Signal Routing blocks (19-Oct-2020 20:30:59)

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.

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⚠ Check for root Inports with missing properties (19-Oct-2020 20:30:59)

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.

**Warning**

The following Inport blocks have undefined or inherited sample times, data types or port dimensions:

- Wrong_Way_Driver_Warning/ActiveState

- Wrong_Way_Driver_Warning/Current_DataOnOff

- Wrong_Way_Driver_Warning/Data_CountryCode

- Wrong_Way_Driver_Warning/Data_DrivingSide

- Wrong_Way_Driver_Warning/Data_NumberLaneDrivingDirection

- Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection

- Wrong_Way_Driver_Warning/Data_OffRoad

- Wrong_Way_Driver_Warning/Data_TurnAngle

- Wrong_Way_Driver_Warning/Diagnostics_MissingData

- Wrong_Way_Driver_Warning/DrivingReverse

- Wrong_Way_Driver_Warning/Sensor_SignAboveRoad

- Wrong_Way_Driver_Warning/Sensor_SignConfidence

- Wrong_Way_Driver_Warning/Sensor_SignID

- Wrong_Way_Driver_Warning/Sensor_SignPositionLateral

- Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional

- Wrong_Way_Driver_Warning/Sensor_SignRelevance

- Wrong_Way_Driver_Warning/Sensor_SignTrackingState

- Wrong_Way_Driver_Warning/Sensor_SignType

- Wrong_Way_Driver_Warning/Suppressed_Data

- Wrong_Way_Driver_Warning/VehicleSpeed

- Wrong_Way_Driver_Warning/YawRate

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**Recommended Action**

Specify port dimension for the listed Inport blocks or Simulink signal objects.

_____ 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.

**Warning**

The following Inport blocks have undefined or inherited sample times, data types or port dimensions:

- Wrong_Way_Driver_Warning/ActiveState

- Wrong_Way_Driver_Warning/Current_DataOnOff

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- Wrong_Way_Driver_Warning/Data_CountryCode

- Wrong_Way_Driver_Warning/Data_DrivingSide

- Wrong_Way_Driver_Warning/Data_NumberLaneDrivingDirection

- Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection

- Wrong_Way_Driver_Warning/Data_OffRoad

- Wrong_Way_Driver_Warning/Data_TurnAngle

- Wrong_Way_Driver_Warning/Diagnostics_MissingData

- Wrong_Way_Driver_Warning/DrivingReverse

- Wrong_Way_Driver_Warning/Sensor_SignAboveRoad

- Wrong_Way_Driver_Warning/Sensor_SignConfidence

- Wrong_Way_Driver_Warning/Sensor_SignID

- Wrong_Way_Driver_Warning/Sensor_SignPositionLateral

- Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional

- Wrong_Way_Driver_Warning/Sensor_SignRelevance

- Wrong_Way_Driver_Warning/Sensor_SignTrackingState

- Wrong_Way_Driver_Warning/Sensor_SignType

- Wrong_Way_Driver_Warning/Suppressed_Data

- Wrong_Way_Driver_Warning/VehicleSpeed

- Wrong_Way_Driver_Warning/YawRate

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 **Recommended Action**


Specify sample time information for the listed Inport blocks or Simulink signal objects. Note: The sample time of root Inports with bus type must match the sample times specified at the leaf elements of the bus object.

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✅ Check for root Inports with missing range definitions (19-Oct-2020 20:30:59)
 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.

**Passed**

There are no missing or erroneous Inport range properties at the model root level.

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✅ Check for root Outports with missing range definitions (19-Oct-2020 20:30:59)

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.

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✅ Check usage of Assignment blocks (19-Oct-2020 20:30:59)

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.

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✅ Check global variables in graphical functions (19-Oct-2020 20:30:59)

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.

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⚠️ Check usage of Gain blocks (19-Oct-2020 20:30:59)

Identify Gain blocks with value which resolves to 1

**Warning**

The following Gain blocks have value which resolves to 1.

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**Recommended Action**

Consider remodeling to remove the Gain blocks with values that resolve to 1

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⚠ Check for length of user-defined object names (19-Oct-2020 20:30:59)
   Identify user-defined object names with length greater than threshold

16

The following data objects have name length greater than threshold (31).

| Data Objects | Source |
|---|---|
| Data_NumberLaneOppositeDirection | WWDW_dd.sldd |
| Sensor_SignPositionLongitudional | WWDW_dd.sldd |

**Recommended Action**

Change the names of mentioned data objects to have length less than 31.

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✅ Check data type of loop control variables (19-Oct-2020 20:30:59)
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*   ✅14 ❌0 ⚠0 🗒0

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✅ Check state machine type of Stateflow charts (19-Oct-2020 20:30:59)
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.

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✅ Check Stateflow charts for ordering of states and transitions (19-Oct-2020 20:30:59)
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.

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✅ Check usage of bitwise operations in Stateflow charts (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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.

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✅ Check Stateflow debugging options (19-Oct-2020 20:30:59)
Identify whether Stateflow debugging options are set appropriately

**Passed**

All Stateflow debugging options are set appropriately.

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✅ Check Stateflow charts for transition paths that cross parallel state boundaries (19-Oct-2020 20:30:59)
Identify transition paths that cross parallel state boundaries in Stateflow charts.

**Passed**

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

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✅ Check for inappropriate use of transition paths (19-Oct-2020 20:30:59)
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.

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✅ Check Stateflow charts for strong data typing (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
Identify mismatches between names of Stateflow ports and associated signals

**Passed**

There are no name mismatches between Stateflow ports and associated signals

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✅ Check scoping of Stateflow data objects (19-Oct-2020 20:30:59)
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.

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✅ Check Stateflow charts for uniquely defined data objects (19-Oct-2020 20:30:59)
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.

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✅ Check usage of shift operations for Stateflow data (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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
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✅ Check usage of standardized MATLAB function headers (19-Oct-2020 20:30:59)
Identify usage of standardized function headers in MATLAB function.

**Passed**

No MATLAB function blocks found without standardized function headers.

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✅ Check for MATLAB Function interfaces with inherited properties (19-Oct-2020 20:30:59)
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.

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✅ Check MATLAB Function metrics (19-Oct-2020 20:30:59)
Identify MATLAB Functions that violate code and complexity metrics.

**Passed**

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

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✅ Check MATLAB Code Analyzer messages (19-Oct-2020 20:30:59)
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.

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✅ Check if/elseif/else patterns in MATLAB Function blocks (19-Oct-2020 20:30:59)
Identify if/elseif/else patterns without appropriate else conditions in embedded MATLAB code

**Passed**

No inappropriate if/elseif/else patterns found.

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✅ Check switch statements in MATLAB Function blocks (19-Oct-2020 20:30:59)
Identify inappropriately used switch statements in embedded MATLAB code

**Passed**

No inappropriately used switch statements found.

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✅ Check usage of relational operators in MATLAB Function blocks (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
Identify equality operators used with floating-point operands in MATLAB Function blocks.

**Passed**

No equality operators found operating on floating-point operands.

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✅ Check usage of logical operators and functions in MATLAB Function blocks (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
Identify condition expressions which are not logical scalars.

**Passed**

No condition expressions found which are not logical scalars.

📁 *Configuration*  ✅*0* ❌*0* ⚠️*0* 🗒️*32*

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🗒️ Check safety-related diagnostic settings for data store memory
    Not Run

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🗒️ Check safety-related diagnostic settings for saving
    Not Run

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🗒️ Check safety-related model referencing settings
    Not Run

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🗒️ Check safety-related code generation settings for comments
    Not Run

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🗒️ Check safety-related code generation interface settings
    Not Run

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🗒️ Check safety-related solver settings for simulation time
    Not Run

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🗒️ Check safety-related solver settings for solver options
    Not Run

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🗒️ 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

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🗒️ Check safety-related diagnostic settings for sample time
    Not Run

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⊞ Check safety-related optimization settings for logic signals
    Not Run

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⊞ Check safety-related block reduction optimization settings
    Not Run

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

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⊞ Check safety-related optimization settings for application lifespan
    Not Run

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⊞ Check safety-related code generation identifier settings
    Not Run

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

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⊞ Check safety-related optimization settings for data initialization
    Not Run

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

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

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⊞ Check safety-related optimization settings for specified minimum and maximum values
    Not Run

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⊞ Check safety-related diagnostic settings for compatibility
    Not Run

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🖾 Check safety-related diagnostic settings for parameters

Not Run

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🖾 Check safety-related diagnostic settings for Merge blocks

Not Run

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🖾 Check safety-related diagnostic settings for model initialization

Not Run

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

Not Run

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🖾 Check safety-related diagnostic settings for signal connectivity

Not Run

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🖾 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

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🖾 Check safety-related diagnostic settings for type conversions

Not Run

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🖾 Check safety-related diagnostic settings for model referencing

Not Run

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🖾 Check safety-related diagnostic settings for Stateflow

Not Run

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

📁 *Naming*  ✅1 ⛔0 ⚠️1 📋0

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✅ Check model file name (19-Oct-2020 20:43:45)
    Identify inappropriate characters and length issues in model file name

    **Passed**
    No issues found with model file name.

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⚠️ Check model object names (19-Oct-2020 20:43:45)
    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 |
|---|---|
| Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection" title="Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection | |
| Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional" title="Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Data_NumberLaneOppositeDirection" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Data_NumberLaneOppositeDirection | |

| | |
|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Sensor_SignPositionLongitudional"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Sensor_SignPositionLongitudional | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Sensor_SignPositionLongitudional"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Sensor_SignPositionLongitudional | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain | SliderGain |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain1 | SliderGain1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain2 | SliderGain2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain3 | SliderGain3 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain5"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain5 | SliderGain5 |

| | SliderGain6 |
|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co nditioning/Slider<br>Gain6"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Da ta_Conditioning/Slider Gain6 | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co nditioning/Slider<br>Gain7"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Da ta_Conditioning/Slider Gain7 | SliderGain7 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co nditioning/Slider<br>Gain8"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Da ta_Conditioning/Slider Gain8 | SliderGain8 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Rela tional<br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledDat a/Relational Operator | RelationalOpera tor |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Ran ge_Change/Compare<br>To Constant"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signa l_Range_Change/Compare To Constant | CompareToCons tant |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Ran ge_Change/Compare<br>To Constant1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signa l_Range_Change/Compare To Constant1 | CompareToCons tant1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Ran ge_Change/Logical<br>Operator" | LogicalOperator |

| | |
|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical Operator | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical Operator1 | LogicalOperator 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical Operator2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical Operator2 | LogicalOperator 2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator | RelationalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator1 | RelationalOperator1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator2 | RelationalOperator2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Data_NumberLaneOppositeDirection"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Data_NumberLaneOppositeDirection | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider | SliderGain |

| | |
|---|---|
| Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_<br>Conditioning/Slider Gain | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning/Slider<br>Gain1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_<br>Conditioning/Slider Gain1 | SliderGain1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_<br>Conditioning/Slider Gain2 | SliderGain2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_<br>Conditioning/Slider Gain3 | SliderGain3 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning/Slider<br>Gain4"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_<br>Conditioning/Slider Gain4 | SliderGain4 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning/Slider<br>Gain5"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_<br>Conditioning/Slider Gain5 | SliderGain5 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning/Slider<br>Gain6"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_<br>Conditioning/Slider Gain6 | SliderGain6 |

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|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Relational Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Relational Operator | RelationalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Lateral_Sign_Value_in_ISO_Coordinates"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Lateral_Sign_Value_in_ISO_Coordinates | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logical Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logical Operator | LogicalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logical Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logical Operator1 | LogicalOperator1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator | RelationalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator1 | RelationalOperator1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator2" | RelationalOperator2 |

| | |
|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator2 | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational<br>Operator3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator3 | RelationalOperator3 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional/Slider<br>Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional/Slider Gain | SliderGain |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain | SliderGain |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain1 | SliderGain1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain2 | SliderGain2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain3 | SliderGain3 |

| | |
|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Speed_Conversion " title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Speed_Conversion | Vehicle_Speed_Conversion |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_Conversion " title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_Conversion | Yaw_Rate_Conversion |

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| Signal | Name |
|---|---|
| Wrong_Way_Driver_Warning | |
| Wrong_Way_Driver_Warning | |

| Parameter used in | Name | Defined in |
|---|---|---|
| Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection | | data dictionary |
| Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional | | data dictionary |

**Recommended Action**
Change flagged names of model objects

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

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⊞ Check for model elements that do not link to requirements

Not Run

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📁 *Code*  ✅*2* ❌*0* ⚠*0* ⊞*0*

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✅ Check for blocks not recommended for MISRA C:2012 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values | Prerequisites |
|---|---|---|---|---|
| Pass | Model Verification block enabling (AssertControl) | DisableAll | DisableAll | |
| D - Pass | Shared code placement (UtilityFuncGeneration) | Shared location | Shared location | |
| Pass | Generate shared constants (GenerateSharedConstants) | off | off | UtilityFuncGeneration |

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| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | |
|---|---|---|---|---|
| Pass | continuous time (SupportContinuousTime) | off | off | SystemTargetFile |
| Pass | non-inlined S-functions (SupportNonInlinedSFcns) | off | off | SystemTargetFile |
| Pass | MAT-file logging (MatFileLogging) | off | off | |
| Pass | Code replacement library (CodeReplacementLibrary) | None | None, AUTOSAR 4.0 | |
| Pass | Parentheses level (ParenthesesLevel) | Maximum | Maximum | SystemTargetFile |
| Pass | Casting modes (CastingMode) | Standards | Standards | SystemTargetFile |
| Pass | System-generated identifiers (InternalIdentifier) | Shortened | Shortened | SystemTargetFile |
| Pass | Signed integer division rounds to (ProdIntDivRoundTo) | Zero | Zero, Floor | |
| Pass | Use division for fixed-point net slope computation (UseDivisionForNetSlopeComputation) | UseDivisionForReciprocalsOfIntegersOnly | on, UseDivisionForReciprocalsOfIntegersOnly | |
| Pass | Replace multiplications by powers of two with signed bitwise shifts (EnableSignedLeftShifts) | off | off | SystemTargetFile |

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|---|---|---|---|---|
| Pas s | Allow right shifts on signed integers (EnableSignedRightShif ts) | off | off | SystemTarge tFile |
| Pas s | Wrap on overflow (IntegerOverflowMsg) | error | warning, error | |
| Pas s | Inf or NaN block output (SignalInfNanChecking) | error | warning, error | |
| Pas s | Dynamic memory allocation in MATLAB functions (MATLABDynamicMem Alloc) | off | off | |
| Pas s | External mode (ExtMode) | off | off | |
| Pas s | Undirected event broadcasts (SFUndirectedBroadcas tEventsDiag) | error | error | |
| Pas s | Compile-time recursion limit for MATLAB functions (CompileTimeRecursion Limit) | 0 | 0 | |
| Pas s | Enable run-time recursion for MATLAB functions (EnableRuntimeRecursi on) | off | off | |
| D - Pas s | Include comments (GenerateComments) | on | on | |
| Pas s | MATLAB user comments (MATLABFcnDesc) | on | on | GenerateCo mments, |

| | | | SystemTarge tFile |
|---|---|---|---|
| | | | |

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📁 Simulink  ✅8 ❌0 ⚠️1 🗒️0

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✅ *Check for Discrete-Time Integrator blocks with initial condition uncertainty (19-Oct-2020 20:30:59)*
Passed

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⚠️ *Check root model Inport block specifications (19-Oct-2020 20:30:59)*

Your model contains root-level Inport blocks with undefined attributes, such as dimensions, sample time, or data type. If you do not explicitly define these attributes, Simulink will use back-propagation from downstream blocks to assign values to the attributes when updating the model. This can lead to undesired simulation results. To avoid this, fully define the attributes of all of your model's root-level Inport blocks.

The following root-level Inport blocks have undefined attributes:

Wrong_Way_Driver_Warning/VehicleSpeed

Wrong_Way_Driver_Warning/DrivingReverse

Wrong_Way_Driver_Warning/YawRate

Wrong_Way_Driver_Warning/ActiveState

Wrong_Way_Driver_Warning/Data_DrivingSide

Wrong_Way_Driver_Warning/Data_CountryCode

Wrong_Way_Driver_Warning/Diagnostics_MissingData

Wrong_Way_Driver_Warning/Data_OffRoad

Wrong_Way_Driver_Warning/Data_NumberLaneDrivingDirection

Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection

Wrong_Way_Driver_Warning/Data_TurnAngle

Wrong_Way_Driver_Warning/Sensor_SignID

Wrong_Way_Driver_Warning/Sensor_SignType

Wrong_Way_Driver_Warning/Sensor_SignTrackingState

Wrong_Way_Driver_Warning/Sensor_SignConfidence

Wrong_Way_Driver_Warning/Sensor_SignPositionLateral

Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional

Wrong_Way_Driver_Warning/Sensor_SignRelevance

Wrong_Way_Driver_Warning/Sensor_SignAboveRoad

Wrong_Way_Driver_Warning/Suppressed_Data

Wrong_Way_Driver_Warning/Current_DataOnOff

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✅ *Identify unconnected lines, input ports, and output ports (19-Oct-2020 20:30:59)*
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.

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✅ *Check usage of tunable parameters in blocks (19-Oct-2020 20:30:59)*
Identify tunable parameters used to specify expressions, data type conversions, or indexing operations.

**Passed**

Tunable parameters are not used in the model.

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✅ *Check for blocks that have constraints on tunable parameters (19-Oct-2020 20:30:59)*
Identify Lookup Table blocks that have constraints on tunable parameters.

**Check usage of Lookup Table blocks**

**Passed**
No Lookup Table blocks with tunable parameters found.

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**Check usage of Lookup Table (2-D) blocks**

**Passed**
No Lookup Table (2-D) blocks with tunable parameters found.

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**Check usage of n-D Lookup Table blocks**

**Passed**
No n-D Lookup Table blocks with tunable parameters found.

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✅ *Identify questionable subsystem settings (19-Oct-2020 20:30:59)*
**Passed**
Subsystem blocks do not specify their **Function packaging** option as `Nonreusable function`.

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**Passed**

Subsystems that specify the **Function packaging** option as `Reusable function` are not checked since the Model Configuration Parameter **Shared code placement** is set to `Shared location`.

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✅ *Check bus signals treated as vectors (19-Oct-2020 20:30:59)*

**Bus signal treated as vector**

Identify bus signals in the model that are treated as vectors by the Simulink software.

**Passed**

The model uses bus signals properly. Model is configured to detect future changes that might result in improper bus signal usage.

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✅ *Check for potentially delayed function-call block return values (19-Oct-2020 20:30:59)*
Passed

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✅ *Check usage of Merge blocks (19-Oct-2020 20:30:59)*

**Check usage of Merge blocks**

This check finds and reports issues related to merge blocks for migrating to simplified initialization mode.

**See Also**

- Check usage of Merge blocks

- Underspecified initialization detection

**Passed**
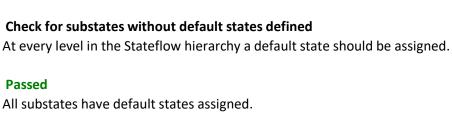
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📁 Stateflow  ✅3 ❌0 ⚠0 🗒0

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✅ *Check for Strong Data Typing with Simulink I/O (19-Oct-2020 20:30:59)*
Check whether labeled input and output signals are strongly typed.

**Passed**

No Stateflow charts have **Use Strong Data Typing with Simulink I/O** cleared.

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✅ *Check definition of Stateflow data (19-Oct-2020 20:30:59)*
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.

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✅ *Check usage of exclusive and default states in state machines (19-Oct-2020 20:30:59)*
Identify Stateflow charts and substates that incorrectly use or define exclusive and default states.

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**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.

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**Check Stateflow charts for undefined default states**
Identify Stateflow charts that do not define default states.

**Passed**

Each Stateflow chart defines a default state.

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**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.

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**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.

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**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.
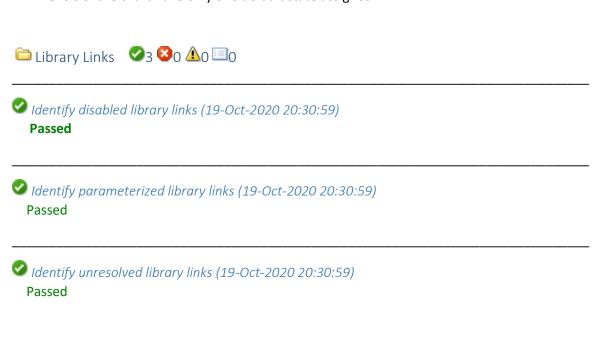
_____

**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.

📁 Library Links ✅3 ❌0 ⚠0 📋0

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✅ *Identify disabled library links (19-Oct-2020 20:30:59)*
   **Passed**

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✅ *Identify parameterized library links (19-Oct-2020 20:30:59)*
   Passed

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✅ *Identify unresolved library links (19-Oct-2020 20:30:59)*
   Passed

📁 Model Referencing ✅2 ❌0 ⚠0 📋0

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✅ *Check for model reference configuration mismatch (19-Oct-2020 20:30:59)*
   Passed

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✅ *Check for parameter tunability information ignored for referenced models (19-Oct-2020 20:30:59)*


   Passed

📁 Requirements Consistency ✅4 ❌0 ⚠0 📋0

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✅ *Identify requirement links that specify invalid locations within documents (19-Oct-2020 20:30:59)*

Passed

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✅ *Identify requirement links with missing documents (19-Oct-2020 20:30:59)*

Passed

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✅ *Identify requirement links with path type inconsistent with preferences (19-Oct-2020 20:30:59)*

Passed

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✅ *Identify selection-based links having description fields that do not match their requirements document text (19-Oct-2020 20:30:59)*

Passed


📁 Simulink Coder   ✅3 ❌0 ⚠0 📋0

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✅ *Check sample times and tasking mode (19-Oct-2020 20:30:59)*


Passed

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✅ *Check solver for code generation (19-Oct-2020 20:30:59)*


Passed

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✅ *Check the hardware implementation (19-Oct-2020 20:30:59)*

**Check 'Byte ordering' and 'Signed integer division rounds to' parameters**
Identify inconsistencies or underspecification of hardware attributes that can lead to incorrect and inefficient generated code.


**Passed**
Target specification is consistent.

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**Check whether 'Production hardware' and 'Test hardware' match**
Search for 'Test hardware is the same as production hardware' in the Configuration Parameters dialog box and check if it is selected. If it is cleared, identify whether target specifications match.

**Passed**

'Test hardware is the same as production hardware' is selected or is cleared and the target specifications match.

📁 Bug Reports   ✅0 ❌0 ⚠️14 🗒0

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⚠️ *Display bug reports for DO Qualification Kit (19-Oct-2020 20:30:59)*

Display bug reports for DO Qualification 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 4 DO Qualification Kit bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2324478 | DO Qualification Kit - Simulink Check Tool Operational Requirements contains incorrect hyperlink to the high-integrity guidelines | 29 Sep 2020 |
| 2248344 | DO Qualification Kit - Data unnecessary for a TQL-5 tool qualification included in the Simulink Code Inspector Tool Qualification Plan artifact | 16 Sep 2020 |
| 2238079 | DO Qualification Kit - Simulation plots in the Simulink Test expected results are incorrect | 16 Sep 2020 |
| 2250083 | DO Qualification Kit - Discrepancy in model version between the Simulink Coverage test case and expected report | 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 Embedded Coder (19-Oct-2020 20:30:59)*

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 75 Embedded Coder bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2284457 | Embedded Coder - **Incorrect Code Generation**: err output port of NR Polar Decoder gives wrong answer | 19 Oct 2020 |
| 2309735 | Embedded Coder - Code generation may error with a 'Unrecognized method, property, or field 'Identifier' for class 'RTW.DataImplementation' message | 19 Oct 2020 |
| 2309212 | Embedded Coder - Code generation report creation fails when using rtwreport function | 19 Oct 2020 |
| 2308491 | Embedded Coder - Getter function for bus arrays, which return by value, used as a pointer return in the algorithm code | 19 Oct 2020 |
| 2292131 | Embedded Coder - Names of logged signals are not propagated during SIL and PIL simulations | 19 Oct 2020 |

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|---|---|---|
| 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 | 19 Oct 2020 |
| 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 | 19 Oct 2020 |
| 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 | 08 Oct 2020 |
| 2321014 | Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Model block | 07 Oct 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 |
| 2297280 | Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a referenced model | 23 Sep 2020 |
| 2029502 | Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing multiple Reusable custom storage class with a branched root Inport | 16 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 |
| 2133942 | Embedded Coder - Code generator places code for asynchronously triggered atomic subsystem in wrong location | 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 |

| | | |
|---|---|---|
| 2181053 | Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing a series of directly connected Bus Creator blocks | 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 |
| 2209352 | Embedded Coder - Code generation error with global Data Store Memory and Export-Function model | 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 |
| 2213080 | Embedded Coder - MATLAB might crash when generating code for a model that contains subsystems | 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 |
| 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 |
| 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 |
| 2199240 | Embedded Coder - Code generation error when subsystem contains Stateflow chart and execution time profiling is enabled | 16 Sep 2020 |
| 2215349 | Embedded Coder - MATLAB may crash when using the getDataInterfaces function of Code Descriptor API | 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 |
| 2207911 | Embedded Coder - **Incorrect Code Generation**: Incorrect generated code for model with DQ Limiter block and Inverse Park Transform block | 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 |

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| 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 |
| 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 |
| 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 |
| 2192341 | Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with Stateflow chart | 16 Sep 2020 |
| 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 | 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 |
| 2249030 | Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with Reset Function block | 16 Sep 2020 |
| 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 | 16 Sep 2020 |
| 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 | 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 |

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|---|---|---|
| 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 | 16 Sep 2020 |
| 2184447 | Embedded Coder - MATLAB crashes when generating code for a model that receives a message with an Enumeration or bus data type | 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 |
| 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 | 16 Sep 2020 |
| 2286124 | Embedded Coder - **Incorrect Code Generation**: SIMD code generation results in incorrect answers for min/max operations operating on NaN inputs | 16 Sep 2020 |
| 2282444 | Embedded Coder - Code View hangs after post-processing generated code | 16 Sep 2020 |
| 2211416 | Embedded Coder - Accelerator mode model block simulation fails if referenced model uses storage classes on root-level ports | 16 Sep 2020 |
| 2225876 | Embedded Coder - Error in Code view after running SIL/PIL simulation | 16 Sep 2020 |
| 2306101 | Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Unit Delay block connected to Stateflow chart output | 11 Sep 2020 |
| 2313905 | Embedded Coder - Code generation assertion when using matrix multiply operation in MATLAB Function Block with variable sized matrices | 04 Sep 2020 |
| 2306102 | Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Simulink Function block | 01 Sep 2020 |
| 2294390 | Embedded Coder - Code View fails to display generated code | 25 Aug 2020 |
| 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 | 14 Aug 2020 |
| 2284700 | Embedded Coder - **Incorrect Code Generation**: Top model may not initialize global variable associated with signal originating in referenced model | 11 Aug 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 |
|---|---|---|
| 2238014 | Embedded Coder - Error when calling TLC library function LibBlockInputSignalAllowScalarExpandedExpr | 11 Jun 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 |
| 2194951 | Embedded Coder - Performance regression caused during code generation for models with large data set | 06 Apr 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 |
| 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 |
| 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.

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

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⚠️ *Display bug reports for Polyspace Code Prover (19-Oct-2020 20:30:59)*

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 8 Polyspace Code Prover bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|------|-------------------|----------|
| 2053304 | Polyspace Code Prover - Polyspace analysis stops with error: declaration is incompatible with "void OSEK_polyspace_ActivateTask(OSEK_polyspace_task_type)" | 19 Oct 2020 |
| 2142882 | Polyspace Code Prover - External constraints are not recognized on arguments passed by reference to stubbed functions | 16 Sep 2020 |
| 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 |
| 2234024 | Polyspace Code Prover - Error with behavior specification options in Polyspace analysis in client-server mode | 16 Sep 2020 |

| 2283507 | Polyspace Code Prover - Polyspace on Windows crashes in the C to intermediate language translation phase | 16 Sep 2020 |
|---|---|---|
| 2291238 | Polyspace Code Prover - In unit-by-unit mode Polyspace annotations are ignored on header files | 18 Aug 2020 |
| 2190091 | Polyspace Code Prover - Error during compilation of C++ file: stl_tree.h, line 2142: error: no instance of constructor | 22 Apr 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 Code Prover Server (19-Oct-2020 20:30:59)*

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 5 Polyspace Code Prover Server bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|

| 2053304 | Polyspace Code Prover - Polyspace analysis stops with error: declaration is incompatible with "void OSEK_polyspace_ActivateTask(OSEK_polyspace_task_type)" | 19 Oct 2020 |
|---------|---------|---------|
| 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 |
| 2283507 | Polyspace Code Prover - Polyspace on Windows crashes in the C to intermediate language translation phase | 16 Sep 2020 |
| 2291238 | Polyspace Code Prover - In unit-by-unit mode Polyspace annotations are ignored on header files | 18 Aug 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 (19-Oct-2020 20:30:59)*

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 11 Polyspace Bug Finder bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2301358 | Polyspace Bug Finder - False positive violations of AUTOSAR C++14 rule M8-4-4 on function calls to static methods from objects | 22 Sep 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 |
| 2196298 | Polyspace Bug Finder - polyspace-configure could not open options file | 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 |
| 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 |
| 2260058 | Polyspace Bug Finder - Incorrect MISRA-C:2012 5.4 violation for undefined macro | 31 Jul 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 Polyspace Bug Finder Server (19-Oct-2020 20:30:59)*

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 7 Polyspace Bug Finder Server bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 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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|---|---|---|
| 2260058 | Polyspace Bug Finder - Incorrect MISRA-C:2012 5.4 violation for undefined macro | 31 Jul 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 Simulink Code Inspector (19-Oct-2020 20:30:59)*

Display bug reports for Simulink Code Inspector (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 5 Simulink Code Inspector bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2310529 | Simulink Code Inspector - Code inspection fails for a model containing a MATLAB Function block that accesses a nested bus | 19 Oct 2020 |
| 2319094 | Simulink Code Inspector - Simulink Code Inspector might fail to verify the initial value of outports of an enabled subsystem in a referenced model | 18 Sep 2020 |

| 2194591 | Simulink Code Inspector - Simulink Code Inspector fails code inspection when a lookup table object is passed as an argument to a referenced model | 16 Sep 2020 |
|---|---|---|
| 2195404 | Simulink Code Inspector - Simulink Code Inspector fails to inspect compatible shared utilities | 30 Mar 2020 |
| 815642 | Simulink Code Inspector - Simulink Code Inspector might fail to verify code generated from a model with redundant modeling constructs | 27 Sep 2012 |

**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 Report Generator (19-Oct-2020 20:30:59)*

Display bug reports for Simulink Report Generator (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 Simulink Report Generator bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|

| 2198852 | Simulink Report Generator - Simulink Diagram and ElementDiagram reporters error for models with custom background color | 16 Sep 2020 |
|---|---|---|
| 2247728 | Simulink Report Generator - Annotations not reported in Report Explorer form-based reports | 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 Simulink Check (19-Oct-2020 20:30:59)*

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 24 Simulink Check bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2319269 | Simulink Requirements - Requirements Traceability Report for MATLAB code file mentions obsolete file type | 19 Oct 2020 |

| 2256035 | Simulink Check - Model Metrics Dashboard crashes MATLAB when collecting metric data for a demo model | 12 Oct 2020 |
|---|---|---|
| 2282734 | Simulink Check - MAAB check Stateflow transition appearance incorrectly flags transitions crossing junctions | 18 Sep 2020 |
| 2266293 | Simulink Check - Check trigger signal names flags Simulink functions nested in stateflow charts | 18 Sep 2020 |
| 2172579 | Simulink Check - Incorrect warning with Check use of default variants(mathworks.maab.na_0036) for Label variant control mode | 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 |
| 2179943 | Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent | 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 |
| 2231694 | Simulink Check - Model Advisor check Data type selection for index signals produces an error | 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 |

| 2302437 | Simulink Check - JMAAB check Prohibition of logical value comparison in Stateflow incorrectly flags transitions where no logical constants are used | 26 Aug 2020 |
|---|---|---|
| 2299587 | Simulink Check - JMAAB check Condition actions and transition actions in Stateflow incorrectly flags condition actions with C-style comments | 26 Aug 2020 |
| 2299606 | Simulink Check - JMAAB check Use of named Stateflow parameters and constants incorrectly flags numeric literal 1 used in increment or decrement statement | 26 Aug 2020 |
| 2305505 | Simulink Check - JMAAB check Prohibited use of implicit type casting in Stateflow reports issue when comparing same enumeration type | 24 Aug 2020 |
| 2303251 | Simulink Check - JMAAB check Comment position in transition label reports issue for correctly positioned comment | 24 Aug 2020 |
| 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++ | 17 Aug 2020 |
| 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 | 14 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 Coverage (19-Oct-2020 20:30:59)*

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 8 Simulink Coverage bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2304122 | Simulink Coverage - Aggregated coverage data description missing from coverage report | 13 Oct 2020 |
| 2179943 | Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent | 16 Sep 2020 |
| 2183237 | Simulink Coverage - Generating a model coverage report using an exported object can cause an error | 16 Sep 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 |
| 2276842 | Simulink Coverage - Generating a coverage report in the Test Manager for subsystem harnesses at different levels in a library causes an assertion failure | 16 Sep 2020 |
| 2267735 | Simulink Coverage - Scoping coverage to requirements-based tests causes 0% coverage for subsystem test harnesses | 29 Jun 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 Simulink Test (19-Oct-2020 20:30:59)*

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 30 Simulink Test bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2249151 | Simulink Test - ModelCoveragePlugin used with Project errors or returns incorrect coverage metrics when running tests using the MATLAB Unit TestRunner | 19 Oct 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 |
| 2286940 | Simulink Test - Project does not automatically rename usages of data dictionaries inside internal test harnesses | 18 Sep 2020 |

| 2194996 | Simulink Test - Results export or import fails when custom criteria diagnostic contains a null character | 16 Sep 2020 |
|---|---|---|
| 2212150 | Simulink Test - Incorrect override of parameters in Simulink Test | 16 Sep 2020 |
| 2160783 | Simulink Test - Observer port moved to new signal shows link to original signal | 16 Sep 2020 |
| 2210475 | Simulink Test - Test suite and test file cleanup callbacks are executed before all test cases are complete | 16 Sep 2020 |
| 2204045 | Simulink Test - MATLAB might crash when capturing a baseline to a spreadsheet | 16 Sep 2020 |
| 2224093 | Simulink Test - Cannot override logging for data store defined in data dictionary using Test Manager. | 16 Sep 2020 |
| 2236833 | Simulink Test - Recovered Stateflow Charts block inserted in Subsystem Reference test harness | 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 |
| 2257194 | Simulink Test - MATLAB stalls during test execution | 16 Sep 2020 |
| 2201774 | Simulink Test - Running steps in Test Sequence are not highlighted in the animation during simulation | 16 Sep 2020 |
| 2248616 | Simulink Test - Test For Model Component wizard errors when generating tests for models with configuration set references | 16 Sep 2020 |
| 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 | 25 Aug 2020 |
| 2255433 | Simulink Test - Loading externally saved test harness using load_system might cause MATLAB to crash. | 01 Jul 2020 |
| 2241749 | Simulink Test - Running R2015a test cases with mapped inputs in R2020a might fail in Test Manager | 15 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 |
|---|---|---|
| 2248003 | Simulink Test - Testing a component in a library when simulation mode is overridden to not use model settings might fail | 11 Jun 2020 |
| 2239108 | Simulink Test - Test execution compiles model multiple times | 11 Jun 2020 |
| 2237793 | Simulink Test - Changed ports in an observer model do not highlight correctly in Manager Observer dialog box | 11 Jun 2020 |
| 2237774 | Simulink Test - Dragging ports of a subsystem interface might cause lost connections in associated test harnesses | 11 Jun 2020 |
| 2236006 | Simulink Test - Test using sltest.testmanager.run on models with fast restart fail, but pass when using Test Manager | 11 Jun 2020 |
| 2120213 | Simulink Test - Comparison results for complex signals produce "Signals not aligned" warning | 13 Dec 2019 |
| 2114999 | Simulink Test - Running test harnesses using Run with Stepper button on toolstrip is not supported | 13 Dec 2019 |
| 2112483 | Simulink Test - Test that overrides Signal Editor scenario and includes inputs in the results produces an error | 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 Design Verifier (19-Oct-2020 20:30:59)*

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 28 Simulink Design Verifier bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2321185 | Simulink Design Verifier - Simulink Design Verifier ignores certain justification rules in filter files | 13 Oct 2020 |
| 2245496 | Simulink Design Verifier - Error with exporting the test cases generated by Simulink Design Verifier to Simulink Test to a Signal Builder harness | 13 Oct 2020 |
| 2316213 | Simulink Design Verifier - Simulation of a SLDV generated harness containing a Stateflow chart does not use JIT | 23 Sep 2020 |
| 2308596 | Simulink Design Verifier - MATLAB crashes when extending manually generated test cases using Simulink Design Verifier | 18 Sep 2020 |
| 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 | 18 Sep 2020 |
| 2187119 | Simulink Design Verifier - sldvisactive may incorrectly return false when translating a model with model blocks | 18 Sep 2020 |
| 2181612 | Simulink Design Verifier - MATLAB crashes in Test Extension workflow when the configured parameters result in dead logic | 18 Sep 2020 |
| 2069355 | Simulink Design Verifier - Range Collection Mode as Derived ranges in Fixed-point Tool fails for export function models | 18 Sep 2020 |
| 2298193 | Simulink Design Verifier - slvnvmakeharness and sldvmakeharness error out and pauses the simulation when the Bus element port is of inherit:auto data type | 17 Sep 2020 |

| 2179943 | Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent | 16 Sep 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 |
| 2221035 | Simulink Design Verifier - Simulink Design Verifier throws a nonintuitive error message on certain models containing MATLAB Function blocks | 16 Sep 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 | 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 |
|---|---|---|
| 2294121 | Simulink Design Verifier - Block replacement fails for models containing Saturation Dynamic block | 16 Sep 2020 |
| 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 | 27 Jul 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 Requirements (19-Oct-2020 20:30:59)*

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 30 Simulink Requirements bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2326401 | Simulink Requirements - Import from IBM DOORS Next not working when configuration management is enabled for project | 19 Oct 2020 |
| 2319269 | Simulink Requirements - Requirements Traceability Report for MATLAB code file mentions obsolete file type | 19 Oct 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 |
| 2179943 | Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent | 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 |
| 2182761 | Simulink Requirements - Requirements Editor might become frozen after deleting multiple objects | 16 Sep 2020 |
| 2161457 | Simulink Requirements - Import or Update from Microsoft Word fails with an error popup | 16 Sep 2020 |
| 2173909 | Simulink Requirements - Bullet points not imported correctly from DOORS 9 | 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 |
| 2192264 | Simulink Requirements - Simulink Requirements exported ReqIF file has wrong attribute definition references | 16 Sep 2020 |
| 2210569 | Simulink Requirements - Unrecognized date-time format error when importing DOORS module | 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 |
| 2292859 | Simulink Requirements - Error when trying to enter a numeric DNG ID into the Location field of Outgoing Links dialog | 25 Aug 2020 |
| 2253967 | Simulink Requirements - MATLAB stops responding after updating previously imported requirements in Requirements Editor | 30 Jul 2020 |
| 2251452 | Simulink Requirements - ReqIF ID values might change between revisions when exporting to ReqIF | 30 Jul 2020 |
| 2247892 | Simulink Requirements - Traceability Matrix does not render link icons correctly | 11 Jun 2020 |
| 2247724 | Simulink Requirements - Failure to connect with IBM DOORS Next (DNG) when importing requirements | 11 Jun 2020 |
| 2210749 | Simulink Requirements - 3rd-Party requirements tool does not accept ReqIF exported by Simulink Requirements | 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 Simulink (19-Oct-2020 20:30:59)*

Display bug reports for Simulink (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 138 Simulink bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|------|--------------------|----------|
| 2191445 | Simulink - Subsystem Reference block's port properties are lost on reloading the model or if the contents of the Subsystem Reference block are refreshed | 19 Oct 2020 |
| 2331693 | Simulink - Simulink message blocks display an error when signal range checking is enabled | 19 Oct 2020 |
| 2321058 | Simulink - MATLAB might crash when linked library blocks are opened and closed repeatedly without clearing global data objects | 19 Oct 2020 |
| 2336629 | Simulink - Signal Editor fails to import more than one signal from a CSV file | 19 Oct 2020 |

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|---|---|---|
| 2288774 | Simulink - Connections inside a Subsystem Reference block appears broken when a model is loaded | 19 Oct 2020 |
| 2250114 | Simulink - MATLAB might crash when using Simulink buses in a MATLAB Function block | 19 Oct 2020 |
| 2315337 | Simulink - Closed data dictionary might cause unnecessary rebuild of model reference simulation or code generation target | 19 Oct 2020 |
| 2298515 | Simulink - Variant Subsystem may generate unconditional global data corresponding to the global data store memory | 08 Oct 2020 |
| 2244485 | Simulink - Discrete-Time Integrator block logs incorrect minimum and maximum values for fixed-point data types with slope and bias scaling | 06 Oct 2020 |
| 2327253 | Simulink - Variant Subsystem block '<block name>' contains no active variant controls error with Allow zero active variant controls | 30 Sep 2020 |
| 2220171 | Simulink - Failure to display differences in configuration objects stored in Simulink data dictionaries | 25 Sep 2020 |
| 2294354 | Simulink - Delays while editing Simulink model with Simscape blocks | 18 Sep 2020 |
| 2284137 | Simulink - Autorename fails for a Simulink bus object containing multiple bus elements. | 18 Sep 2020 |
| 2237803 | Simulink - Shared utility code folder error for modified Vehicle Dynamics Blockset and Powertrain Blockset example | 18 Sep 2020 |
| 2138826 | Simulink - Incorrect Code Generation: Incorrect overflow in Simulink.LookupTable and Simulink.Breakpoint objects when number of breakpoints exceed the limit for derived Tunable Size data type | 18 Sep 2020 |
| 2199445 | Simulink - Simulating a model hierarchy with model arguments that span multiple levels might produce incorrect results | 18 Sep 2020 |
| 2199426 | Simulink - Incorrect Code Generation: Simulink might not rebuild rapid accelerator target when accelerator target is up to date | 18 Sep 2020 |
| 2184507 | Simulink - Incorrect Code Generation: Incorrect simulation results for some simulation modes for models containing model reference hierarchy with particular LUT object struct order settings using Simulink.LookupTableObject as model argument | 18 Sep 2020 |
| 2183524 | Simulink - MATLAB crashes during model update when adding in previously missing custom source code | 18 Sep 2020 |
| 2301599 | Simulink - MATLAB might crash when querying the input elements of a Bus Selector block with get_param | 18 Sep 2020 |

| 2051822 | Simulink - Rapid Accelerator mode does not work on systems running CentOS 6.1 | 16 Sep 2020 |
|---|---|---|
| 2102580 | Simulink - Signal hierarchy for buses cannot be accessed from within the InitFcn callback | 16 Sep 2020 |
| 2102941 | Simulink - Simulink blocks with non-ASCII white space in their name may cause errors when running scripts or editing Simulink models | 16 Sep 2020 |
| 2149061 | Simulink - Inconsistent return type for bus port properties CompiledPortDesignMin and CompiledPortDesignMax | 16 Sep 2020 |
| 1716548 | Simulink - Incorrect Code Generation: A disabled mask parameter on a linked block with mask-on-mask evaluates to model workspace value if it references to model argument | 16 Sep 2020 |
| 2173514 | Simulink - A model with string data with non-Auto custom storage class can generate code that does not compile | 16 Sep 2020 |
| 2174691 | Simulink - Model workspace variables cannot be tuned using SimulationInput with Fast Restart | 16 Sep 2020 |
| 2178009 | Simulink - Saving a model with Subsystem Reference having Simulink Function block fails | 16 Sep 2020 |
| 2166363 | Simulink - Model simulation is slow or hangs if certain UI components are open during simulation | 16 Sep 2020 |
| 2185362 | Simulink - Cannot set Number of Newton's iterations or Extrapolation order parameters with odeN solver and implicit integration method | 16 Sep 2020 |
| 2161202 | Simulink - Simulation error when C Caller block calls a function which has a struct containing single element array field | 16 Sep 2020 |
| 2175593 | Simulink - Incorrect Code Generation: Changing value of global variable used in non-tunable block parameter does not trigger rebuild of model reference code | 16 Sep 2020 |
| 2177472 | Simulink - Dataflow execution domains might produce incorrect results when AdvancedOptControl parameter is set to -SLCI | 16 Sep 2020 |
| 2194030 | Simulink - MATLAB might crash when opening MATLAB System block | 16 Sep 2020 |
| 2142188 | Simulink - Incorrect Code Generation: In a model containing blocks from the SoC Blockset and asynchronous sample time, the sorted order might be incorrect | 16 Sep 2020 |
| 2204299 | Simulink - Incorrect Code Generation: Runtime error not reported when switch expression is non-finite valued in MATLAB function | 16 Sep 2020 |

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|---|---|---|
| 2188608 | Simulink - Model update hangs at "Configuring subsystem output ports" | 16 Sep 2020 |
| 2183028 | Simulink - Incorrect Code Generation: Blocks that use elapsed sample time (such as Discrete Time Integrator or Weighted Sample Time Math) might produce wrong answers if placed inside an aperiodic partition | 16 Sep 2020 |
| 2181168 | Simulink - Incorrect Code Generation: Block reduction might result in incorrect simulation results for a model containing a Signal Conversion block | 16 Sep 2020 |
| 2204425 | Simulink - MATLAB might crash during rtwbuild for a model with reference arguments and mask parameter callbacks | 16 Sep 2020 |
| 2146419 | Simulink - packNGo fails to package files extracted from protected model | 16 Sep 2020 |
| 2197825 | Simulink - Incorrect Code Generation: Unit Conversion block returns incorrect generated code for conversions with offsets and fixed-point data types with bias | 16 Sep 2020 |
| 2190732 | Simulink - Incorrect Code Generation: Incorrect simulation results for models containing model reference hierarchy using Simulink.LookupTableObject as model argument with inconsistent LUT object struct order settings between parent and child models | 16 Sep 2020 |
| 2190649 | Simulink - Incorrect Code Generation: Simulation results may be incorrect in the Accelerator and Rapid Accelerator mode for models with Assignment blocks inside a For Iterator subsystem | 16 Sep 2020 |
| 2182575 | Simulink - MATLAB renders the project root incorrectly and throws NullPointerException when creating a project from a Simulink Model Manifest | 16 Sep 2020 |
| 2190539 | Simulink - Variable change of IC block parameter ignored for referenced model running in accelerator mode with fast restart | 16 Sep 2020 |
| 2195177 | Simulink - Error using rapid accelerator for referenced model using parameter with Identifier specified | 16 Sep 2020 |
| 2180415 | Simulink - In batch mode, MATLAB incorrectly opens a dialog box. | 16 Sep 2020 |
| 2207651 | Simulink - MATLAB might crash when the Property Inspector updates | 16 Sep 2020 |
| 2210165 | Simulink - Simulink Toolstrip is blank when username contains non-ASCII characters | 16 Sep 2020 |
| 2181581 | Simulink - Update diagram might crash for model reference hierarchy in accelerator mode with enumerated types in data dictionary | 16 Sep 2020 |

| 2194990 | Simulink - Error occurs when AliasType used in a C Function block with no external typedef is provided | 16 Sep 2020 |
|---|---|---|
| 2199363 | Simulink - Simulink.io.SignalBuilderSpreadsheet export method on signal or dataset containing signal with duplicate points might error | 16 Sep 2020 |
| 2140354 | Simulink - Incorrect code generation for models configured for concurrent execution when the subsystems mapped to tasks contain inline variant blocks | 16 Sep 2020 |
| 2145541 | Simulink - Incorrect Code Generation: Incorrect results with Variant Source blocks connected to duplicate inports referenced from top model | 16 Sep 2020 |
| 2226484 | Simulink - Simulink crashes while saving a model containing a Subsystem Reference block | 16 Sep 2020 |
| 2207599 | Simulink - Using keyboard shortcuts while editing a signal name might result in unexpected behavior | 16 Sep 2020 |
| 2217654 | Simulink - Subsystem Reference changes cannot be saved from the top model, if it is inside a Model Reference | 16 Sep 2020 |
| 2122052 | Simulink - Error when Bus Creator block specifies one input and the signal name | 16 Sep 2020 |
| 2228853 | Simulink - Signal Editor prematurely indicates that a save operation is complete | 16 Sep 2020 |
| 1963239 | Simulink - Sample time colors overwrite the block foreground colors | 16 Sep 2020 |
| 2230896 | Simulink - Simulink fails to simulate tool-coupling FMU in slave MATLAB session if model contains one-dimensional vector signal as a root input or output | 16 Sep 2020 |
| 2214176 | Simulink - C Function block local variables defined as extern are visible in generated code | 16 Sep 2020 |
| 2200332 | Simulink - Incorrect Code Generation: Simulink.Parameter object with 64-bit integer value not checked against Min and Max properties | 16 Sep 2020 |
| 2196562 | Simulink - Incorrect error message with variants and mask workspace variables during Fast Restart mode | 16 Sep 2020 |
| 2188555 | Simulink - Rapid accelerator simulation fails on Windows with generic error | 16 Sep 2020 |
| 2138382 | Simulink - Generating multicore code from a model configured for concurrent execution might produce a TLC error | 16 Sep 2020 |

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| 2137825 | Simulink - Update diagram fails for referenced model when anonymous structure type matches multiple bus types | 16 Sep 2020 |
|---|---|---|
| 2201427 | Simulink - C Function block may use code specified in the section were MATLAB_MEX_FILE was supposed to be defined when simulated in model reference accelerated mode | 16 Sep 2020 |
| 2233543 | Simulink - MATLAB might crash when simulating or generating code for dataflow domains that contain virtual subsystems | 16 Sep 2020 |
| 2231832 | Simulink - Merge block is incorrectly linearized to zero when in a specific configset setting and directly driven by concatenate block | 16 Sep 2020 |
| 2117950 | Simulink - Delays while editing Simulink model with variant and Simscape blocks | 16 Sep 2020 |
| 1961332 | Simulink - Incorrect Code Generation: Simulink ignores the runtime value of a model argument when used as a Model Workspace data object's value | 16 Sep 2020 |
| 2196385 | Simulink - Ignored values for model diagnostic parameters NonCurrentReleaseOperatingPointMsg and OperatingPointInterfaceChecksumMismatchMsg | 16 Sep 2020 |
| 2116338 | Simulink - Configuration Parameters dialog shows empty search results | 16 Sep 2020 |
| 2197396 | Simulink - Check for root Inports with missing properties incorrectly flags inherited sample time | 16 Sep 2020 |
| 2240185 | Simulink - MATLAB might crash while opening Simulink Library Browser with incorrectly configured custom libraries | 16 Sep 2020 |
| 2249569 | Simulink - Blockset Designer project takes a long time to load | 16 Sep 2020 |
| 2257593 | Simulink - MATLAB might crash while opening/closing model in Simulink Onramp | 16 Sep 2020 |
| 2263307 | Simulink - Incorrect Code Generation: Discrepancy between results for normal vs. SIL/PIL simulation for export-function Model block with Initialize port | 16 Sep 2020 |
| 2266916 | Simulink - Simulink toolstrip appears blank when proxy information set in MATLAB preferences | 16 Sep 2020 |
| 2189094 | Simulink - Slow comparison and merge for Simulink models with a large number of signal line changes. | 16 Sep 2020 |
| 2265093 | Simulink - When using Signal Editor interface, duplicating or using copy and paste on signal plotted inside dataset might cause non-stop spinner | 16 Sep 2020 |

| 2257216 | Simulink - Performance degradation when simulating nesting export-function models with run time check | 16 Sep 2020 |
|---|---|---|
| 2253512 | Simulink - Edits in Signal Editor interface might not be saved when editing a signal value in table with duplicate time points | 16 Sep 2020 |
| 2252279 | Simulink - Project Upgrade fails for Simulink libraries with nested library blocks | 16 Sep 2020 |
| 2220717 | Simulink - Slow comparison and merge for Simulink models that contain a large number of Stateflow charts and states. | 16 Sep 2020 |
| 2210169 | Simulink - MATLAB might crash when printing in System Composer or AUTOSAR | 16 Sep 2020 |
| 2200254 | Simulink - Incorrect Code Generation: Improper sample time propagation to nonvirtual blocks outside of Initialize, Reset and Terminate subsystems | 16 Sep 2020 |
| 2282394 | Simulink - Simulink models with calls to functions utilizing sparse matrices may produce an unexpected error during simulation and C++ code generation | 16 Sep 2020 |
| 2166629 | Simulink - Creating a model from a template using new_system does not execute PreLoadFcn | 16 Sep 2020 |
| 2270797 | Simulink - Incorrect Code Generation: Direct Lookup Table block might produce incorrect results in simulation and generated code when table is provided as block input with underspecified data type | 16 Sep 2020 |
| 2282944 | Simulink - Simulink might crash when multiple models simulate simultaneously, but the models finishing last contain string signals | 16 Sep 2020 |
| 2264575 | Simulink - Incorrect Code Generation: Complex to Magnitude-Angle block returns incorrect value at angle output port when input is NaN | 16 Sep 2020 |
| 2260188 | Simulink - Incorrect Code Generation: HDL Reciprocal block produces wrong answer for zero-valued fixed-point inputs | 16 Sep 2020 |
| 2215680 | Simulink - Incorrect Code Generation: Logging Queue block's output might cause issues when simulating using rapid accelerator mode, simulating referenced models in accelerator mode, or running generated code | 16 Sep 2020 |
| 2275719 | Simulink - Branched lines might be disconnected while automatically arranging system | 16 Sep 2020 |
| 2276174 | Simulink - Simulation Data Inspector archive run limit does not limit the size of data logged in temp directory | 16 Sep 2020 |
| 2269322 | Simulink - Lookup Table blocks unable to perform numerical perturbation when using Cubic spline or Akima spline interpolation method | 16 Sep 2020 |

| 2226392 | Simulink - S-Function Builder may fail to build when specifying non-ASCII include paths | 16 Sep 2020 |
|---|---|---|
| 2288311 | Simulink - Renaming the root node in the Blockset Tree panel in Simulink Blockset Designer causes an error | 16 Sep 2020 |
| 2263719 | Simulink - Incorrect Code Generation: Incorrect output from IC block when using Parameter Writer block to set IC block's initial value parameter | 16 Sep 2020 |
| 2116344 | Simulink - Warning for S-Function Builder version when the number of inputs or outputs is 0 | 16 Sep 2020 |
| 2276193 | Simulink - Simulating a model with ToFile block inside a subsystem reference with parsim throws an error | 16 Sep 2020 |
| 2324683 | Simulink - Masked block with Custom Table errors out during simulation with open mask dialog | 15 Sep 2020 |
| 2318628 | Simulink - Incorrect Code Generation: Mask popup parameter values may not apply correctly on refreshing the linked blocks | 08 Sep 2020 |
| 2269636 | Simulink - MATLAB crash during Simulink simulation if you launch Simulation Data Inspector or Logic Analyzer for the first time. | 02 Sep 2020 |
| 2283497 | Simulink - A large number of global data shows up for some Schedule Editor models in the Model Comparison Tool | 27 Aug 2020 |
| 2254912 | Simulink - Simulink may crash when fixed-point logging is enabled and dataflow execution domains contain LMS blocks | 18 Aug 2020 |
| 2291040 | Simulink - Simulink may crash when calling a scoped Simulink function inside a referenced model from a MATLAB System block using the model name instead of the block name | 17 Aug 2020 |
| 2306699 | Simulink - Web-based UI controls (Simulink Toolstrip, Stateflow Symbols pane, Interface Editor, etc.) might appear blank | 10 Aug 2020 |
| 2175826 | Simulink - Some model hierarchies might throw an incorrect error when simulated | 30 Jul 2020 |
| 2288727 | Simulink - Calculate Best-Precision Scaling button in Sqrt block dialog does not work | 20 Jul 2020 |
| 2257263 | Simulink - Error when launching the Bus Editor from a data dictionary in the Model Explorer | 02 Jul 2020 |
| 2249105 | Simulink - Comparing Simulink models that contain one or more Subsystem Reference blocks might cause MATLAB to crash | 22 Jun 2020 |

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|---|---|---|
| 2249246 | Simulink - Deletion/corruption of the boost_interprocess shared subdirectory created by C++ Boost interprocess when opening a Simulink model | 22 Jun 2020 |
| 2223907 | Simulink - Export-function error when creating a protected model from some models with a scoped Simulink function | 15 Jun 2020 |
| 2248321 | Simulink - MATLAB occasionally crashes when opening a library block attached to a Bus Selector block that contains out-of-date bus information | 12 Jun 2020 |
| 2236991 | Simulink - MATLAB might crash on Mac OSX Mojave | 09 Jun 2020 |
| 2244012 | Simulink - Incorrect Code Generation: Specify output when source is unconnected may be ignored for value mapped to name "ground" | 04 Jun 2020 |
| 2244372 | Simulink - Incorrect Code Generation: Incorrect variant condition propagation with referenced protected model | 04 Jun 2020 |
| 2183254 | Simulink - MATLAB crashes when linearizing Interpolation Using Prelookup block with lookup table object | 29 May 2020 |
| 2206122 | Simulink - Incorrect Code Generation: Lookup table might produce incorrect answers for fixed-point Breakpoints with non-trivial slope and Table Data of single data type | 12 May 2020 |
| 2092463 | Simulink - Favorited buttons in Simulink Toolstrip might not be saved immediately between MATLAB and Simulink sessions | 13 Dec 2019 |
| 2076821 | Simulink - MATLAB might crash after running a model with Simulink Editor side panes open | 11 Oct 2019 |
| 2068223 | Simulink - Unable to open variant using Simulink Toolstrip | 11 Oct 2019 |
| 2093701 | Simulink - Incorrect Code Generation: Incorrect simulation results for coding pattern involving While loop with empty body | 11 Oct 2019 |
| 2048807 | Simulink - Schedule Editor comparison in Model Comparison tool is missing. | 11 Oct 2019 |
| 1879774 | Simulink - MATLAB might hang when a Simulink modal dialog box and .NET form or WPF app are open | 02 Oct 2019 |
| 2036507 | Simulink - Incorrect Code Generation: External initial condition applied instead of Initial state configuration parameter for block in referenced model | 20 Sep 2019 |
| 2006881 | Simulink - Accessing property of signal object in model workspace can crash MATLAB | 16 Aug 2019 |

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|---|---|---|
| 2017043 | Simulink - n-D Lookup table block run-time object reports incorrect number of DWorks for certain block configurations | 15 Jul 2019 |
| 2034803 | Simulink -      MATLAB   might crash during model update when sample time colors are enabled | 12 Jul 2019 |
| 1865227 | Simulink - Mapping Simulink port with bus object data type to AUTOSAR port might crash MATLAB | 26 Mar 2019 |
| 1919278 | Simulink - Uncompilable code in model reference hierarchy when Block Parameter is a MATLAB Structure | 13 Mar 2019 |
| 1887969 | Simulink - Figure shown in parsim example is incorrect | 14 Jan 2019 |
| 1735332 | Simulink - Integrator with reset behaves differently when adding limit output with the limits set to -inf and inf | 17 Dec 2018 |
| 1646194 | Simulink - MATLAB may crash when updating or simulating a model on a Rational ClearCase MultiVersion File System (MVFS) | 16 Oct 2017 |

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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 DO-254   ✅0 ❌0 ⚠️0 📋91

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📋 Display model version information
  Not Run
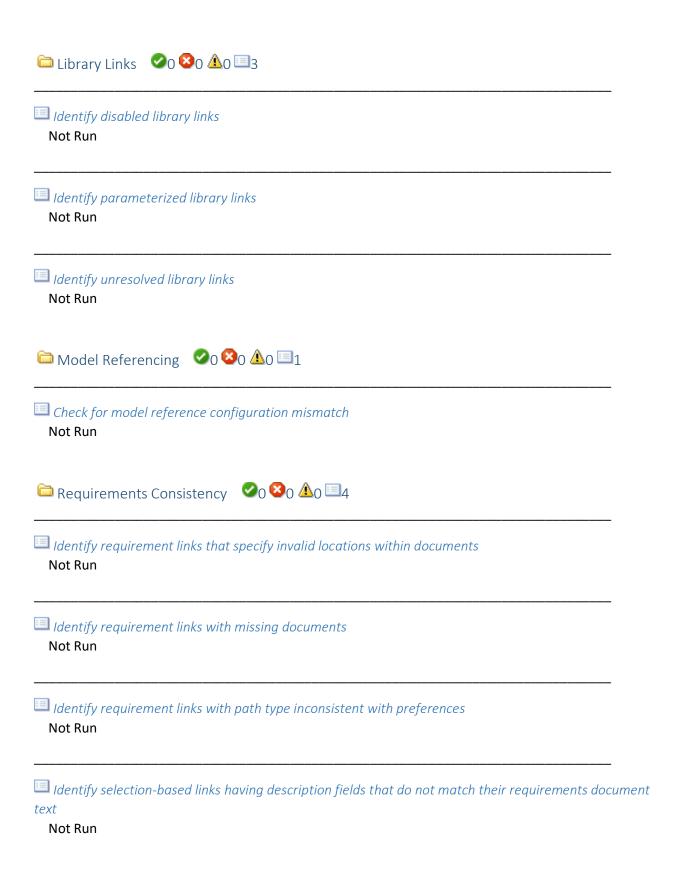
📁 High-Integrity Systems ✅0 ❌0 ⚠️0 🗒️48

📁 *Simulink* ✅*0* ❌*0* ⚠️*0* 🗒️*16*

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🗒️ Check usage of Abs blocks

Not Run

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🗒️ Check usage of conditionally executed subsystems

Not Run

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🗒️ 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

_____

🗒️ 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

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🗒️ Check for root Inports with missing properties

Not Run

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🖹 Check for root Inports with missing range definitions
   Not Run

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🖹 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 🖹11

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🖹 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

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

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⊞ Check Stateflow debugging options
    Not Run

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

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⊞ Check for inappropriate use of transition paths
    Not Run

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⊞ Check naming of ports in Stateflow charts
    Not Run

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⊞ Check scoping of Stateflow data objects
    Not Run

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⊞ Check Stateflow charts for uniquely defined data objects
    Not Run

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⊞ Check usage of shift operations for Stateflow data
    Not Run

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⊞ Check Stateflow charts for unary operators
    Not Run


📁 *MATLAB*  ✅0 ❌0 ⚠0 ⊞7

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⊞ Check usage of standardized MATLAB function headers
    Not Run

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⊞ Check MATLAB Code Analyzer messages
    Not Run

_____

81

⊞ 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

---

📋 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  ✅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


88

📁 *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

_____

📋 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

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📁 *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

_____

📋 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


📁 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

_____

*Display bug reports for Polyspace Code Prover*
Not Run

_____

*Display bug reports for Polyspace Bug Finder*
Not Run

_____

*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

_____

*Display bug reports for Simulink Coverage*
Not Run

_____

*Display bug reports for Simulink Test*
Not Run

_____

*Display bug reports for Simulink Requirements*
Not Run

Not Run

_____

📋 *Display bug reports for HDL Coder*
Not Run


📁 Modeling Standards for IEC 62304   ✅86 ❌0 ⚠️16 📋4

_____

✅ Display configuration management data (19-Oct-2020 20:30:59)
  Display model configuration and checksum information

  Model configuration and checksum information

| Attribute | Value |
|---|---|
| Model Version | 1.138 |
| Author | Jayesh Patil |
| Date | Mon Oct 19 18:15:32 2020 |
| Model Checksum | 3934919800 188903040 3653151760 1357945227 |

_____

✅ Display model metrics and complexity report (19-Oct-2020 20:30:59)
  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 | 72 |
| Outport | 66 |
| SubSystem | 34 |

Simulink

| Block Type | Count |
| --- | --- |
| Inport | 72 |
| Outport | 66 |
| SubSystem | 34 |
| Constant | 17 |
| RelationalOperator | 9 |
| Logic | 6 |
| Switch | 5 |
| Gain | 3 |

**Model complexity information**

Display name, level, and depth of subsystems

Maximum Subsystem Depth: 5

Subsystem Depth

| Subsystem Name | Lev el | Dep th |
|---|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner | 1 | 4 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning | 2 | 2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain1" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain1 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain2" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain2 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain3" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain3 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain5" | 3 | 1 |

| | | |
|---|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co nditioning/Slider Gain5 | | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditio ning/Slider<br>Gain6"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co nditioning/Slider Gain6 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditio ning/Slider<br>Gain7"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co nditioning/Slider Gain7 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditio ning/Slider<br>Gain8"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co nditioning/Slider Gain8 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData | 2 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Ch ange"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Ran ge_Change | 2 | 2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Ch ange/Compare<br>To Constant"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Ran ge_Change/Compare To Constant | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Ch ange/Compare<br>To Constant1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Ran ge_Change/Compare To Constant1 | 3 | 1 |

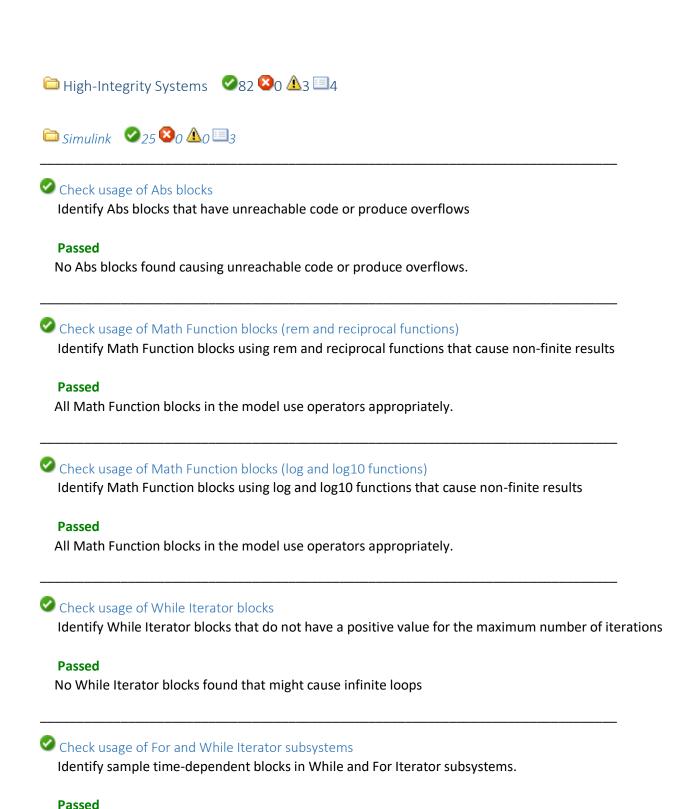| | | | |
|---|---|---|---|
| | | | 2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning<br>"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning | 2 | | |
| | | | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning<br>/Slider<br>Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning/Slider Gain | 3 | | |
| | | | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning<br>/Slider<br>Gain1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning/Slider Gain1 | 3 | | |
| | | | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning<br>/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning/Slider Gain2 | 3 | | |
| | | | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning<br>/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning/Slider Gain3 | 3 | | |
| | | | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning<br>/Slider<br>Gain4"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning/Slider Gain4 | 3 | | |
| | | | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning<br>/Slider<br>Gain5" | 3 | | |

| | | |
|---|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain5 | | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning /Slider<br>Gain6"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain6 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput | 2 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | 2 | 3 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Lateral_Sign_Value_in_ISO_Coordinates"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Lateral_Sign_Value_in_ISO_Coordinates | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional | 3 | 2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional/Slider<br>Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional/Slider Gain | 4 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning | 2 | 2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain" | 3 | 1 |

| | | |
|---|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain | | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain1 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain2 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain3 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Speed_Conversion "<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Speed_Conversion | 2 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_Conversion "<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_Conversion | 2 | 1 |

∧ Less

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✅ Check for unconnected objects (19-Oct-2020 20:30:59)
  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  ✅82 ❌0 ⚠️3 📄4

📁 *Simulink*  ✅*25* ❌*0* ⚠️*0* 📄*3*

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✅ 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.

_____

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✅ 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
Not Run

_____

### ✅ 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.

**Passed**

There are no missing or erroneous Inport range properties at the model root level.

_____

### ✅ 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

Not Run

_____

📋 Check for length of user-defined object names

Not Run

_____

✅ 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_   ✅ _14_  ❌ _0_  ⚠️ _0_  📋 _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.

_____

✅ 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

**Passed**

All Stateflow debugging options are set appropriately.

_____

✅ 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.

_____

✅ 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*

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✅ 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*   ✅ *30* ❌ *0* ⚠️ *2* 🗒️ *0*

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✅ 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.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Detect read before write (ReadBeforeWriteMsg) | EnableAllAsError | EnableAllAsError |
| Pass | Detect write after read (WriteAfterReadMsg) | EnableAllAsError | EnableAllAsError |
| Pass | Detect write after write (WriteAfterWriteMsg) | EnableAllAsError | EnableAllAsError |
| Pass | Multitask data store (MultiTaskDSMMsg) | error | error |
| Pass | Duplicate data store names (UniqueDataStoreMsg) | error | error |

_____

✅ Check safety-related diagnostic settings for saving

Check diagnostic settings in the model configuration that apply to saving model files.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Block diagram contains disabled library links (SaveWithDisabledLinksMsg) | error | error |
| Pass | Block diagram contains parameterized library links (SaveWithParameterizedLinksMsg) | error | error |

_____

✅ 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.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values | Prerequisites |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Pass | Include comments (GenerateComments) | on | on | |
| Pass | Simulink block comments (SimulinkBlockComments) | on | on | GenerateComments |
| Pass | Show eliminated blocks (ShowEliminatedStatement) | on | on | GenerateComments |
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | |
| Pass | Verbose comments for 'Model default' storage class (ForceParamTrailComments) | on | on | GenerateComments |
| D - Pass | Include comments (GenerateComments) | on | on | |
| Pass | Requirements in block comments (ReqsInCode) | on | on | SystemTargetFile, GenerateComments |

_____

✅ Check safety-related code generation interface settings

Check code generation interface 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 | Prerequisites |
|---|---|---|---|---|
| Pass | non-finite numbers (SupportNonFinite) | off | off | |
| Pass | absolute time (SupportAbsoluteTime) | off | off | SystemTargetFile |

| Pass | continuous time (SupportContinuousTime) | off | off | SystemTargetFile |
|---|---|---|---|---|
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | |
| Pass | non-inlined S-functions (SupportNonInlinedSFcns) | off | off | SystemTargetFile |
| Pass | Classic call interface (GRTInterface) | off | off | |
| Pass | Single output/update function (CombineOutputUpdateFcns) | on | on | |
| Pass | Terminate function required (IncludeMdlTerminateFcn) | off | off | SystemTargetFile |
| Pass | Remove error status field in real-time model data structure (SuppressErrorStatus) | on | on | SystemTargetFile |
| Pass | MAT-file logging (MatFileLogging) | off | off | |

_____

✅ 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.

**Warning**

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

| Status | Parameter | Current Value | Not Recommended Values |
|--------|-----------|---------------|------------------------|
| Warning | Automatically handle rate transition for data transfer (AutoInsertRateTranBlk) | on | on |

**Recommended Action**

Clear **Automatically handle rate transition for data transfer** checkbox.

_____

✅ Check safety-related diagnostic settings for solvers

Check diagnostic 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 | Algebraic loop (AlgebraicLoopMsg) | error | error |
| Pass | Minimize algebraic loop (ArtificialAlgebraicLoopMsg) | error | error |
| Pass | Block priority violation (BlockPriorityViolationMsg) | error | error |
| Pass | Automatic solver parameter selection (SolverPrmCheckMsg) | error | error |
| Pass | State name clash (StateNameClashWarn) | warning | warning |

_____

✅ Check safety-related diagnostic settings for sample time

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Source block specifies -1 sample time (InheritedTsInSrcMsg) | error | error |
| Pass | Multitask rate transition (MultiTaskRateTransMsg) | error | error |

| | | | |
|---|---|---|---|
| Pass | Multitask conditionally executed subsystem (MultiTaskCondExecSysMsg) | error | error |
| Pass | Enforce sample times specified by Signal Specification blocks (SigSpecEnsureSampleTimeMsg) | error | error |
| Pass | Single task rate transition (SingleTaskRateTransMsg) | error | error |
| Pass | Tasks with equal priority (TasksWithSamePriorityMsg) | error | error |
| Pass | Unspecified inheritability of sample time (UnknownTsInhSupMsg) | error | error |

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✅ 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.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Block reduction (BlockReduction) | off | off |

_____

✅ 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.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values | Prerequisites |
|--------|-----------|---------------|--------------------|---------------|
| Pass | Parentheses level (ParenthesesLevel) | Maximum | Maximum | SystemTargetFile |
| Pass | Preserve operand order in expression (PreserveExpressionOrder) | on | on | SystemTargetFile |
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | |

_____

✅ Check safety-related optimization settings for application lifespan

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

123

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Application lifespan (days) (LifeSpan) | inf | Inf |

_____

✅ Check safety-related code generation identifier settings

Check code generation identifier 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 | Not Recommended Values | Prerequisites |
|--------|-----------|---------------|--------------------|------------------------|---------------|
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | | |
| Pass | Minimum mangle length (MangleLength) | 4 | | 1, 2, 3 | SystemTargetFile |

_____

✅ 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 |

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**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.

**Passed**

All constraints on model configuration parameters have been met.

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

_____

✅ 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.

126

**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 |

| Status | Parameter | Current Value | Recommended Value | |
|---|---|---|---|---|
| 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.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | S-function upgrades needed (SFcnCompatibilityMsg) | error | error |

_____

✅ Check safety-related diagnostic settings for parameters

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Detect downcast (ParameterDowncastMsg) | error | error |
| Pass | Detect underflow (ParameterUnderflowMsg) | error | error |
| Pass | Detect overflow (ParameterOverflowMsg) | error | error |
| Pass | Detect precision loss (ParameterPrecisionLossMsg) | error | error |
| Pass | Detect loss of tunability (ParameterTunabilityLossMsg) | error | error |

_____

✅ 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.

129

**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.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Model Verification block enabling (AssertControl) | DisableAll | DisableAll |

_____

✅ Check safety-related diagnostic settings for signal connectivity

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

130

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Signal label mismatch (SignalLabelMismatchMsg) | error | error |
| Pass | Unconnected block input ports (UnconnectedInputMsg) | error | error |
| Pass | Unconnected block output ports (UnconnectedOutputMsg) | error | error |
| Pass | Unconnected line (UnconnectedLineMsg) | error | error |

_____

✅ Check safety-related diagnostic settings for bus connectivity

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Unspecified bus object at root Outport block | error | error |

| | | | |
|---|---|---|---|
| | (RootOutportRequireBusObject) | | |
| Pass | Element name mismatch (BusObjectLabelMismatch) | error | error |
| Pass | Bus signal treated as vector (StrictBusMsg) | ErrorOnBusTreatedAsVector | ErrorOnBusTreatedAsVector |
| Pass | Non-bus signals treated as bus signals (NonBusSignalsTreatedAsBus) | error | error |

_____

✅ 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.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Unnecessary type conversions (UnnecessaryDatatypeConvMsg) | warning | warning |
| Pass | Vector/matrix block input conversion (VectorMatrixConversionMsg) | error | error |
| Pass | 32-bit integer to single precision float conversion (Int32ToFloatConvMsg) | warning | warning |

_____

✅ Check safety-related diagnostic settings for model referencing

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Port and parameter mismatch (ModelReferenceIOMismatchMessage) | error | error |

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Invalid root Inport/Outport block connection (ModelReferenceIOMsg) | error | error |
| Pass | Unsupported data logging (ModelReferenceDataLoggingMessage) | error | error |

_____

✅ Check safety-related diagnostic settings for Stateflow

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Unexpected backtracking (SFUnexpectedBacktrackingDiag) | error | error |
| Pass | Invalid input data access in chart initialization (SFInvalidInputDataAccessInChartInitDiag) | error | error |
| Pass | No unconditional default transitions (SFNoUnconditionalDefaultTransitionDiag) | error | error |
| Pass | Transition outside natural parent (SFTransitionOutsideNaturalParentDiag) | error | error |
| Pass | Unreachable execution path (SFUnreachableExecutionPathDiag) | error | error |
| Pass | Undirected event broadcasts (SFUndirectedBroadcastEventsDiag) | error | error |
| Pass | Transition action specified before condition action (SFTransitionActionBeforeConditionDiag) | error | error |

_____

✅ Check safety-related diagnostic settings for signal data

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Signal resolution (SignalResolutionControl) | UseLocalSettings | None, UseLocalSettings |
| Pass | Division by singular matrix (CheckMatrixSingularityMsg) | error | error |
| Pass | Underspecified data types (UnderSpecifiedDataTypeMsg) | error | error |
| Pass | Wrap on overflow (IntegerOverflowMsg) | error | error |
| Pass | Saturate on overflow (IntegerSaturationMsg) | error | error |
| Pass | Inf or NaN block output (SignalInfNanChecking) | error | error |
| Pass | "rt" prefix for identifiers (RTPrefix) | error | error |
| Pass | Simulation range checking (SignalRangeChecking) | error | error |

📁 *Naming*   ✅1 ❌0 ⚠️1 📄0

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✅ Check model file name

Identify inappropriate characters and length issues in model file name

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

The following model objects have invalid names:

| Block | Name |
|---|---|
| Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection" title="Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection | |
| Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional" title="Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Data_NumberLaneOppositeDirection" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Data_NumberLaneOppositeDirection | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Sensor_SignPositionLongitudional" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Sensor_SignPositionLongitudional | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Sensor_SignPositionLongitudional" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Sensor_SignPositionLongitudional | |

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| | SliderGain |
|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain1 | SliderGain1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain2 | SliderGain2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain3 | SliderGain3 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain5"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain5 | SliderGain5 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain6"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain6 | SliderGain6 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain7" | SliderGain7 |

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|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain7 | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br><br>Gain8"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain8 | SliderGain8 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Relational<br><br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Relational Operator | RelationalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare<br><br>To Constant"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare To Constant | CompareToConstant |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare<br><br>To Constant1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare To Constant1 | CompareToConstant1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical<br><br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical Operator | LogicalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical<br><br>Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical Operator1 | LogicalOperator 1 |

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|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical<br>Operator2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical Operator2 | LogicalOperator2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational<br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator | RelationalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational<br>Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator1 | RelationalOperator1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational<br>Operator2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator2 | RelationalOperator2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Data_NumberLaneOppositeDirection"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Data_NumberLaneOppositeDirection | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider<br>Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain | SliderGain |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider<br>Gain1" | SliderGain1 |

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|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_ Conditioning/Slider Gain1 | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit ioning/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_ Conditioning/Slider Gain2 | SliderGain2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit ioning/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_ Conditioning/Slider Gain3 | SliderGain3 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit ioning/Slider<br>Gain4"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_ Conditioning/Slider Gain4 | SliderGain4 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit ioning/Slider<br>Gain5"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_ Conditioning/Slider Gain5 | SliderGain5 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit ioning/Slider<br>Gain6"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_ Conditioning/Slider Gain6 | SliderGain6 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutpu t/Relational<br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Suppressed Output/Relational Operator | RelationalOpera tor |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Later | |

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|---|---|
| al_Sign_Value_in_ISO_Coordinates"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Lateral_Sign_Value_in_ISO_Coordinates | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logic<br>al<br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Logical Operator | LogicalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logic<br>al<br>Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Logical Operator1 | LogicalOperator<br>1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relat<br>ional<br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Relational Operator | RelationalOpera<br>tor |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relat<br>ional<br>Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Relational Operator1 | RelationalOpera<br>tor1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relat<br>ional<br>Operator2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Relational Operator2 | RelationalOpera<br>tor2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relat<br>ional<br>Operator3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Relational Operator3 | RelationalOpera<br>tor3 |

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|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional/Slider<br>Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional/Slider Gain | SliderGain |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain | SliderGain |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain1 | SliderGain1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain2 | SliderGain2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain3 | SliderGain3 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Speed_Conversion "<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Speed_Conversion | Vehicle_Speed_Conversion |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_Conversion "<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_Conversion | Yaw_Rate_Conversion |

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| Signal | Name |
|---|---|
| Wrong_Way_Driver_Warning | |
| Wrong_Way_Driver_Warning | |

| Parameter used in | Name | Defined in |
|---|---|---|
| Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection | | data dictionary |
| Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional | | data dictionary |

**Recommended Action**
Change flagged names of model objects

📁 *Requirements*  ✅0 ❌0 ⚠0 📄1
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📄 Check for model elements that do not link to requirements
Not Run

📁 *Code*  ✅2 ❌0 ⚠0 📄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.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values | Prerequisites |
|---|---|---|---|---|
| Pass | Model Verification block enabling (AssertControl) | DisableAll | DisableAll | |
| D - Pass | Shared code placement (UtilityFuncGeneration) | Shared location | Shared location | |
| Pass | Generate shared constants (GenerateSharedConstants) | off | off | UtilityFuncGeneration |
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | |
| Pass | continuous time (SupportContinuousTime) | off | off | SystemTargetFile |
| Pass | non-inlined S-functions (SupportNonInlinedSFcns) | off | off | SystemTargetFile |

| | | | | |
|---|---|---|---|---|
| Pass | MAT-file logging (MatFileLogging) | off | off | |
| Pass | Code replacement library (CodeReplacementLibrary) | None | None, AUTOSAR 4.0 | |
| Pass | Parentheses level (ParenthesesLevel) | Maximum | Maximum | SystemTargetFile |
| Pass | Casting modes (CastingMode) | Standards | Standards | SystemTargetFile |
| Pass | System-generated identifiers (InternalIdentifier) | Shortened | Shortened | SystemTargetFile |
| Pass | Signed integer division rounds to (ProdIntDivRoundTo) | Zero | Zero, Floor | |
| Pass | Use division for fixed-point net slope computation (UseDivisionForNetSlopeComputation) | UseDivisionForReciprocalsOfIntegersOnly | on, UseDivisionForReciprocalsOfIntegersOnly | |
| Pass | Replace multiplications by powers of two with signed bitwise shifts (EnableSignedLeftShifts) | off | off | SystemTargetFile |
| Pass | Allow right shifts on signed integers (EnableSignedRightShifts) | off | off | SystemTargetFile |
| Pass | Wrap on overflow (IntegerOverflowMsg) | error | warning, error | |

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| | | | | |
|---|---|---|---|---|
| Pass | Inf or NaN block output (SignalInfNanChecking) | error | warning, error | |
| Pass | Dynamic memory allocation in MATLAB functions (MATLABDynamicMemAlloc) | off | off | |
| Pass | External mode (ExtMode) | off | off | |
| Pass | Undirected event broadcasts (SFUndirectedBroadcastEventsDiag) | error | error | |
| Pass | Compile-time recursion limit for MATLAB functions (CompileTimeRecursionLimit) | 0 | 0 | |
| Pass | Enable run-time recursion for MATLAB functions (EnableRuntimeRecursion) | off | off | |
| D - Pass | Include comments (GenerateComments) | on | on | |
| Pass | MATLAB user comments (MATLABFcnDesc) | on | on | GenerateComments, SystemTargetFile |

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📁 Bug Reports  ✅1 ❌0 ⚠️13 🗒️0

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⚠️ *Display bug reports for Embedded Coder (19-Oct-2020 20:30:59)*

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 75 Embedded Coder bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2284457 | Embedded Coder - **Incorrect Code Generation**: err output port of NR Polar Decoder gives wrong answer | 19 Oct 2020 |
| 2309735 | Embedded Coder - Code generation may error with a 'Unrecognized method, property, or field 'Identifier' for class 'RTW.DataImplementation' message | 19 Oct 2020 |
| 2309212 | Embedded Coder - Code generation report creation fails when using rtwreport function | 19 Oct 2020 |
| 2308491 | Embedded Coder - Getter function for bus arrays, which return by value, used as a pointer return in the algorithm code | 19 Oct 2020 |
| 2292131 | Embedded Coder - Names of logged signals are not propagated during SIL and PIL simulations | 19 Oct 2020 |
| 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 | 19 Oct 2020 |
| 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 | 19 Oct 2020 |

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|---|---|---|
| 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 | 08 Oct 2020 |
| 2321014 | Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Model block | 07 Oct 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 |
| 2297280 | Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a referenced model | 23 Sep 2020 |
| 2029502 | Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing multiple Reusable custom storage class with a branched root Inport | 16 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 |
| 2133942 | Embedded Coder - Code generator places code for asynchronously triggered atomic subsystem in wrong location | 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 |
| 2181053 | Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing a series of directly connected Bus Creator blocks | 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 |
| 2209352 | Embedded Coder - Code generation error with global Data Store Memory and Export-Function model | 16 Sep 2020 |

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| 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 |
|---|---|---|
| 2213080 | Embedded Coder - MATLAB might crash when generating code for a model that contains subsystems | 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 |
| 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 |
| 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 |
| 2199240 | Embedded Coder - Code generation error when subsystem contains Stateflow chart and execution time profiling is enabled | 16 Sep 2020 |
| 2215349 | Embedded Coder - MATLAB may crash when using the getDataInterfaces function of Code Descriptor API | 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 |
| 2207911 | Embedded Coder - **Incorrect Code Generation**: Incorrect generated code for model with DQ Limiter block and Inverse Park Transform block | 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 |
| 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 |

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|---|---|---|
| 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 |
| 2192341 | Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with Stateflow chart | 16 Sep 2020 |
| 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 | 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 |
| 2249030 | Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with Reset Function block | 16 Sep 2020 |
| 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 | 16 Sep 2020 |
| 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 | 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 |
| 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 | 16 Sep 2020 |
| 2184447 | Embedded Coder - MATLAB crashes when generating code for a model that receives a message with an Enumeration or bus data type | 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 |
|---|---|---|
| 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 | 16 Sep 2020 |
| 2286124 | Embedded Coder - **Incorrect Code Generation**: SIMD code generation results in incorrect answers for min/max operations operating on NaN inputs | 16 Sep 2020 |
| 2282444 | Embedded Coder - Code View hangs after post-processing generated code | 16 Sep 2020 |
| 2211416 | Embedded Coder - Accelerator mode model block simulation fails if referenced model uses storage classes on root-level ports | 16 Sep 2020 |
| 2225876 | Embedded Coder - Error in Code view after running SIL/PIL simulation | 16 Sep 2020 |
| 2306101 | Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Unit Delay block connected to Stateflow chart output | 11 Sep 2020 |
| 2313905 | Embedded Coder - Code generation assertion when using matrix multiply operation in MATLAB Function Block with variable sized matrices | 04 Sep 2020 |
| 2306102 | Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Simulink Function block | 01 Sep 2020 |
| 2294390 | Embedded Coder - Code View fails to display generated code | 25 Aug 2020 |
| 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 | 14 Aug 2020 |
| 2284700 | Embedded Coder - **Incorrect Code Generation**: Top model may not initialize global variable associated with signal originating in referenced model | 11 Aug 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 |
| 2238014 | Embedded Coder - Error when calling TLC library function LibBlockInputSignalAllowScalarExpandedExpr | 11 Jun 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 |

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|---|---|---|
| 2194951 | Embedded Coder - Performance regression caused during code generation for models with large data set | 06 Apr 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 |
| 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 |
| 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 (19-Oct-2020 20:30:59)*

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.

### Passed
There are no IEC Certification Kit bug reports for release R2020a.

#### 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 (19-Oct-2020 20:30:59)*

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 8 Polyspace Code Prover bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2053304 | Polyspace Code Prover - Polyspace analysis stops with error: declaration is incompatible with "void OSEK_polyspace_ActivateTask(OSEK_polyspace_task_type)" | 19 Oct 2020 |
| 2142882 | Polyspace Code Prover - External constraints are not recognized on arguments passed by reference to stubbed functions | 16 Sep 2020 |
| 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 |
|---|---|---|
| 2234024 | Polyspace Code Prover - Error with behavior specification options in Polyspace analysis in client-server mode | 16 Sep 2020 |
| 2283507 | Polyspace Code Prover - Polyspace on Windows crashes in the C to intermediate language translation phase | 16 Sep 2020 |
| 2291238 | Polyspace Code Prover - In unit-by-unit mode Polyspace annotations are ignored on header files | 18 Aug 2020 |
| 2190091 | Polyspace Code Prover - Error during compilation of C++ file: stl_tree.h, line 2142: error: no instance of constructor | 22 Apr 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 (19-Oct-2020 20:30:59)*

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 11 Polyspace Bug Finder bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2301358 | Polyspace Bug Finder - False positive violations of AUTOSAR C++14 rule M8-4-4 on function calls to static methods from objects | 22 Sep 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 |
| 2196298 | Polyspace Bug Finder - polyspace-configure could not open options file | 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 |
| 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 |
| 2260058 | Polyspace Bug Finder - Incorrect MISRA-C:2012 5.4 violation for undefined macro | 31 Jul 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 Polyspace Code Prover Server (19-Oct-2020 20:30:59)*

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 5 Polyspace Code Prover Server bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2053304 | Polyspace Code Prover - Polyspace analysis stops with error: declaration is incompatible with "void OSEK_polyspace_ActivateTask(OSEK_polyspace_task_type)" | 19 Oct 2020 |
| 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 |
| 2283507 | Polyspace Code Prover - Polyspace on Windows crashes in the C to intermediate language translation phase | 16 Sep 2020 |
| 2291238 | Polyspace Code Prover - In unit-by-unit mode Polyspace annotations are ignored on header files | 18 Aug 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 (19-Oct-2020 20:30:59)*

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 7 Polyspace Bug Finder Server bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 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 |
|---|---|---|
| 2260058 | Polyspace Bug Finder - Incorrect MISRA-C:2012 5.4 violation for undefined macro | 31 Jul 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 Simulink Design Verifier (19-Oct-2020 20:30:59)*

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 28 Simulink Design Verifier bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2321185 | Simulink Design Verifier - Simulink Design Verifier ignores certain justification rules in filter files | 13 Oct 2020 |

| 2245496 | Simulink Design Verifier - Error with exporting the test cases generated by Simulink Design Verifier to Simulink Test to a Signal Builder harness | 13 Oct 2020 |
|---|---|---|
| 2316213 | Simulink Design Verifier - Simulation of a SLDV generated harness containing a Stateflow chart does not use JIT | 23 Sep 2020 |
| 2308596 | Simulink Design Verifier - MATLAB crashes when extending manually generated test cases using Simulink Design Verifier | 18 Sep 2020 |
| 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 | 18 Sep 2020 |
| 2187119 | Simulink Design Verifier - sldvisactive may incorrectly return false when translating a model with model blocks | 18 Sep 2020 |
| 2181612 | Simulink Design Verifier - MATLAB crashes in Test Extension workflow when the configured parameters result in dead logic | 18 Sep 2020 |
| 2069355 | Simulink Design Verifier - Range Collection Mode as Derived ranges in Fixed-point Tool fails for export function models | 18 Sep 2020 |
| 2298193 | Simulink Design Verifier - slvnvmakeharness and sldvmakeharness error out and pauses the simulation when the Bus element port is of inherit:auto data type | 17 Sep 2020 |
| 2179943 | Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent | 16 Sep 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 |
| 2221035 | Simulink Design Verifier - Simulink Design Verifier throws a nonintuitive error message on certain models containing MATLAB Function blocks | 16 Sep 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 | 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 |
| 2294121 | Simulink Design Verifier - Block replacement fails for models containing Saturation Dynamic block | 16 Sep 2020 |
| 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 | 27 Jul 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 PLC Coder (19-Oct-2020 20:30:59)*

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 14 Simulink PLC Coder bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2147418 | Simulink PLC Coder - Incorrect Code Generation: Incorrect code generation for CODESYS target when using models with Shift Arithmetic blocks | 18 Sep 2020 |
| 2220730 | Simulink PLC Coder - Incorrect Code Generation: Incorrect code generation for PC Worx 6.0 target when using models with Shift Arithmetic blocks | 18 Sep 2020 |
| 2182040 | Simulink PLC Coder - Simulink PLC coder throws a typecast assertion during code generation | 16 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 |
| 2176576 | Simulink PLC Coder - Incorrect Code Generation: Output variables not updated for sub-function block calls related to initialization | 16 Sep 2020 |
| 2180371 | Simulink PLC Coder - Simulink PLC Coder does not support the Simulink.LookupTable, Simulink.Breakpoint, and Simulink.DualScaledParameter objects for code generation | 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 (19-Oct-2020 20:30:59)*

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 24 Simulink Check bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2319269 | Simulink Requirements - Requirements Traceability Report for MATLAB code file mentions obsolete file type | 19 Oct 2020 |
| 2256035 | Simulink Check - Model Metrics Dashboard crashes MATLAB when collecting metric data for a demo model | 12 Oct 2020 |
| 2282734 | Simulink Check - MAAB check Stateflow transition appearance incorrectly flags transitions crossing junctions | 18 Sep 2020 |
| 2266293 | Simulink Check - Check trigger signal names flags Simulink functions nested in stateflow charts | 18 Sep 2020 |
| 2172579 | Simulink Check - Incorrect warning with Check use of default variants(mathworks.maab.na_0036) for Label variant control mode | 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 |
| 2179943 | Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent | 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 |
| 2231694 | Simulink Check - Model Advisor check Data type selection for index signals produces an error | 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 |
| 2302437 | Simulink Check - JMAAB check Prohibition of logical value comparison in Stateflow incorrectly flags transitions where no logical constants are used | 26 Aug 2020 |
| 2299587 | Simulink Check - JMAAB check Condition actions and transition actions in Stateflow incorrectly flags condition actions with C-style comments | 26 Aug 2020 |
| 2299606 | Simulink Check - JMAAB check Use of named Stateflow parameters and constants incorrectly flags numeric literal 1 used in increment or decrement statement | 26 Aug 2020 |
| 2305505 | Simulink Check - JMAAB check Prohibited use of implicit type casting in Stateflow reports issue when comparing same enumeration type | 24 Aug 2020 |
| 2303251 | Simulink Check - JMAAB check Comment position in transition label reports issue for correctly positioned comment | 24 Aug 2020 |
| 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++ | 17 Aug 2020 |
| 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 | 14 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 Coverage (19-Oct-2020 20:30:59)*

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 8 Simulink Coverage bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2304122 | Simulink Coverage - Aggregated coverage data description missing from coverage report | 13 Oct 2020 |
| 2179943 | Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent | 16 Sep 2020 |
| 2183237 | Simulink Coverage - Generating a model coverage report using an exported object can cause an error | 16 Sep 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 |
| 2276842 | Simulink Coverage - Generating a coverage report in the Test Manager for subsystem harnesses at different levels in a library causes an assertion failure | 16 Sep 2020 |
| 2267735 | Simulink Coverage - Scoping coverage to requirements-based tests causes 0% coverage for subsystem test harnesses | 29 Jun 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 Simulink Test (19-Oct-2020 20:30:59)*

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 30 Simulink Test bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2249151 | Simulink Test - ModelCoveragePlugin used with Project errors or returns incorrect coverage metrics when running tests using the MATLAB Unit TestRunner | 19 Oct 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 |
| 2286940 | Simulink Test - Project does not automatically rename usages of data dictionaries inside internal test harnesses | 18 Sep 2020 |
| 2194996 | Simulink Test - Results export or import fails when custom criteria diagnostic contains a null character | 16 Sep 2020 |
| 2212150 | Simulink Test - Incorrect override of parameters in Simulink Test | 16 Sep 2020 |
| 2160783 | Simulink Test - Observer port moved to new signal shows link to original signal | 16 Sep 2020 |
| 2210475 | Simulink Test - Test suite and test file cleanup callbacks are executed before all test cases are complete | 16 Sep 2020 |
| 2204045 | Simulink Test - MATLAB might crash when capturing a baseline to a spreadsheet | 16 Sep 2020 |
| 2224093 | Simulink Test - Cannot override logging for data store defined in data dictionary using Test Manager. | 16 Sep 2020 |
| 2236833 | Simulink Test - Recovered Stateflow Charts block inserted in Subsystem Reference test harness | 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 |
| 2257194 | Simulink Test - MATLAB stalls during test execution | 16 Sep 2020 |

| 2201774 | Simulink Test - Running steps in Test Sequence are not highlighted in the animation during simulation | 16 Sep 2020 |
|---|---|---|
| 2248616 | Simulink Test - Test For Model Component wizard errors when generating tests for models with configuration set references | 16 Sep 2020 |
| 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 | 25 Aug 2020 |
| 2255433 | Simulink Test - Loading externally saved test harness using load_system might cause MATLAB to crash. | 01 Jul 2020 |
| 2241749 | Simulink Test - Running R2015a test cases with mapped inputs in R2020a might fail in Test Manager | 15 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 |
| 2248003 | Simulink Test - Testing a component in a library when simulation mode is overridden to not use model settings might fail | 11 Jun 2020 |
| 2239108 | Simulink Test - Test execution compiles model multiple times | 11 Jun 2020 |
| 2237793 | Simulink Test - Changed ports in an observer model do not highlight correctly in Manager Observer dialog box | 11 Jun 2020 |
| 2237774 | Simulink Test - Dragging ports of a subsystem interface might cause lost connections in associated test harnesses | 11 Jun 2020 |
| 2236006 | Simulink Test - Test using sltest.testmanager.run on models with fast restart fail, but pass when using Test Manager | 11 Jun 2020 |
| 2120213 | Simulink Test - Comparison results for complex signals produce "Signals not aligned" warning | 13 Dec 2019 |
| 2114999 | Simulink Test - Running test harnesses using Run with Stepper button on toolstrip is not supported | 13 Dec 2019 |
| 2112483 | Simulink Test - Test that overrides Signal Editor scenario and includes inputs in the results produces an error | 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 (19-Oct-2020 20:30:59)*

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 30 Simulink Requirements bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2326401 | Simulink Requirements - Import from IBM DOORS Next not working when configuration management is enabled for project | 19 Oct 2020 |
| 2319269 | Simulink Requirements - Requirements Traceability Report for MATLAB code file mentions obsolete file type | 19 Oct 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 |
|---|---|---|
| 2179943 | Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent | 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 |
| 2182761 | Simulink Requirements - Requirements Editor might become frozen after deleting multiple objects | 16 Sep 2020 |
| 2161457 | Simulink Requirements - Import or Update from Microsoft Word fails with an error popup | 16 Sep 2020 |
| 2173909 | Simulink Requirements - Bullet points not imported correctly from DOORS 9 | 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 |
| 2192264 | Simulink Requirements - Simulink Requirements exported ReqIF file has wrong attribute definition references | 16 Sep 2020 |
| 2210569 | Simulink Requirements - Unrecognized date-time format error when importing DOORS module | 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 |
| 2292859 | Simulink Requirements - Error when trying to enter a numeric DNG ID into the Location field of Outgoing Links dialog | 25 Aug 2020 |
| 2253967 | Simulink Requirements - MATLAB stops responding after updating previously imported requirements in Requirements Editor | 30 Jul 2020 |

| 2251452 | Simulink Requirements - ReqIF ID values might change between revisions when exporting to ReqIF | 30 Jul 2020 |
|---|---|---|
| 2247892 | Simulink Requirements - Traceability Matrix does not render link icons correctly | 11 Jun 2020 |
| 2247724 | Simulink Requirements - Failure to connect with IBM DOORS Next (DNG) when importing requirements | 11 Jun 2020 |
| 2210749 | Simulink Requirements - 3rd-Party requirements tool does not accept ReqIF exported by Simulink Requirements | 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 (19-Oct-2020 20:30:59)*

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 27 AUTOSAR Blockset bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 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 |
| 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 |
| 2186526 | AUTOSAR Blockset - AUTOSAR adaptive model fails to generate code when root inport message data type is an enumeration | 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 |
| 2140480 | AUTOSAR Blockset - Build error for AUTOSAR model with bus inports and Concatenate block | 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 |
| 2169925 | AUTOSAR Blockset - AUTOSAR Component Quick Start for adaptive models does not honor specified component package | 16 Sep 2020 |
| 2190882 | AUTOSAR Blockset - Code generation error for AUTOSAR model that uses AUTOSAR.Parameter in Simulink.Variant object | 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 |

| 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 |
|---|---|---|
| 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 |
| 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 |
| 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 |
| 2266489 | AUTOSAR Blockset - Incorrect Code Generation: Code generation might ignore AUTOSAR per-instance properties of mapped signal, state, or data store | 16 Sep 2020 |
| 2198048 | AUTOSAR Blockset - Model Advisor check for an AUTOSAR adaptive model with message root I/O crashes MATLAB | 16 Sep 2020 |
| 2275260 | AUTOSAR Blockset - MATLAB might crash when opening AUTOSAR model in which blocks are linked to a library | 30 Jul 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 |

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| 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 (19-Oct-2020 20:30:59)*

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 84 HDL Coder bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2309546 | HDL Coder - NCO HDL Optimized HDL simulation doesn't match Simulink simulation when reset is applied at reset input port | 19 Oct 2020 |
| 2312936 | HDL Coder - Stateflow charts that perform floating point operations might assert during HDL code generation in Native Floating Point mode | 19 Oct 2020 |
| 2334589 | HDL Coder - Gain block whose gain constant is a boolean vector generates internal assertion during HDL code generation | 14 Oct 2020 |
| 2330221 | HDL Coder - NCO HDL Optimized block errors out when phase increment is zero and you are using frame-based output | 02 Oct 2020 |
| 2312398 | HDL Coder - Configuring Subsystem configured with Treat as atomic unit containing bus element ports generates internal assertion during HDL code generation | 30 Sep 2020 |
| 2205228 | HDL Coder - Generated Verilog code for Moore charts due to mix of blocking (=) and non-blocking (<=) assignments in the same process | 23 Sep 2020 |
| 2218200 | HDL Coder - Potential HDL test bench simulation error for models containing Selector blocks with one-based indexing and index ports | 22 Sep 2020 |
| 2186960 | HDL Coder - Xilinx System Generator and HDL Coder integration broken due to Vivado incompatible upgrades | 22 Sep 2020 |
| 2307924 | HDL Coder - Multiply-Accumulate block in Serial architecture generates internal assertion during HDL code generation when input bit width exceeds 63 bits | 21 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 |
| 2302723 | HDL Coder - Assertion thrown during HDL code generation from a Simulink model containing Gain blocks that are operating in "u*K" mode | 18 Sep 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 |
| 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 | 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 |
| 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 |
| 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 |
| 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 |
| 2169597 | HDL Coder - HDL code generation error for Matrix Multiply block using DotProductStrategy other than fully parallel with floating-point types | 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 |
| 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 |
| 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 |
| 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 |
| 2205741 | HDL Coder - Divide block with ShiftAdd architecture generates internal error for vector dividend and scalar divisor | 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 |
| 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 |
| 2244823 | HDL Coder - Index exceeds array dimensions error thrown while running HDL implementation model generated from Simscape HDL Workflow Advisor | 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |

| 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 |
| 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 |
| 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 |
| 2195553 | HDL Coder - Generating code for Bus Creator with bus inputs can lead to assertion indicating Empty records are present | 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 |
| 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 | 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 |
| 2281688 | HDL Coder - Streaming modes of Multiply-Accumulate block might fail to generate HDL test bench | 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 |
| 2272652 | HDL Coder - VHDLLibraryName customization is ignored during HDL test bench generation | 16 Sep 2020 |
| 2257170 | HDL Coder - Sharing report is incorrect when clock-rate pipelining is enabled on blocks inside a feedback loop with specified oversampling factor | 16 Sep 2020 |
| 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 | 16 Sep 2020 |
| 2250162 | HDL Coder - Sine HDL Optimized block shows incorrect port label for exp function. | 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 |
| 2258428 | HDL Coder - HDL code generation error when Generated Model check box is disabled and optimizations such as Hierarchical Distributed Pipelining is enabled | 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 |
| 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 | 16 Sep 2020 |
| 2256046 | HDL Coder - HDL code generation fails for Simulink model that has bus element ports at the interface level of model reference blocks | 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 |
| 2228896 | HDL Coder - Sqrt block with SqrtNewton architecture reports incorrect message when generating HDL code for multirate model | 14 Sep 2020 |
| 2301208 | HDL Coder - Assertion generated during HDL code generation for model using complex matrices with MATLAB Function block | 25 Aug 2020 |
| 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 | 25 Aug 2020 |
| 2221487 | HDL Coder - Assertion generated during HDL code generation with Optimization Report turned on | 24 Aug 2020 |
| 2300111 | HDL Coder - Incorrect Code Generation: Stateflow charts with nonzero initial values for outputs can generate incorrect HDL code when the chart contains input events | 20 Aug 2020 |
| 2305463 | HDL Coder - Error during model generation when generating HDL code for a model with large number of test points | 10 Aug 2020 |
| 2152847 | HDL Coder - Code generation time increases significantly for complex designs with reporting features | 06 Aug 2020 |

| 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. | 03 Aug 2020 |
|---|---|---|
| 2181877 | HDL Coder - Incorrect Code Generation: Data mismatch between Simulink and HDL simulation for partly serial architecture of Discrete FIR Filter HDL Optimized block | 30 Jul 2020 |
| 2275090 | HDL Coder - Physical signals at the same level as the DUT subsystem might generate errors when creating HDL test bench | 28 Jul 2020 |
| 2264840 | HDL Coder - Unhelpful error message when delay balancing is unsuccesful for a multirate model with resource sharing | 23 Jul 2020 |
| 2237349 | HDL Coder - Incorrect Code Generation: Delay introduced in locally upsampled regions leads to mismatch in validation model | 20 Jul 2020 |
| 2212077 | HDL Coder - Matrix multiplication in Simulink causes long code generation times for large matrices | 01 Jul 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 |
| 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 | 19 May 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 ISO 26262   ✅86 ❌1 ⚠19 🗒0

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✅ Display configuration management data (19-Oct-2020 20:30:59)
 Display model configuration and checksum information

Model configuration and checksum information

| Attribute | Value |
|---|---|
| Model Version | 1.138 |
| Author | Jayesh Patil |
| Date | Mon Oct 19 18:15:32 2020 |
| Model Checksum | 3934919800 188903040 3653151760 1357945227 |

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✅ Display model metrics and complexity report (19-Oct-2020 20:30:59)
 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 | 72 |
| Outport | 66 |
| SubSystem | 34 |

Simulink

| Block Type | Count |
|---|---|
| Inport | 72 |
| Outport | 66 |
| SubSystem | 34 |
| Constant | 17 |
| RelationalOperator | 9 |
| Logic | 6 |
| Switch | 5 |
| Gain | 3 |

**Model complexity information**

Display name, level, and depth of subsystems

Maximum Subsystem Depth: 5

Subsystem Depth

| Subsystem Name | Lev el | Dep th |
|---|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner | 1 | 4 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditio<br>ning"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co<br>nditioning | 2 | 2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditio<br>ning/Slider<br>Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co<br>nditioning/Slider Gain | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditio<br>ning/Slider<br>Gain1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co<br>nditioning/Slider Gain1 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditio<br>ning/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co<br>nditioning/Slider Gain2 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditio<br>ning/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co<br>nditioning/Slider Gain3 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditio<br>ning/Slider<br>Gain5" | 3 | 1 |

| | | |
|---|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain5 | | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain6"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain6 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain7"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain7 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain8"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain8 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData | 2 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change | 2 | 2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare<br>To Constant"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare To Constant | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare<br>To Constant1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare To Constant1 | 3 | 1 |

| | | 2 |
|---|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning " title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning | 2 | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning /Slider Gain" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning /Slider Gain1" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain1 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning /Slider Gain2" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain2 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning /Slider Gain3" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain3 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning /Slider Gain4" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain4 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning /Slider Gain5" | 3 | 1 |

| | | |
|---|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain5 | | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain6" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain6 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput | 2 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | 2 | 3 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Lateral_Sign_Value_in_ISO_Coordinates" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Lateral_Sign_Value_in_ISO_Coordinates | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional | 3 | 2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional/Slider Gain" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional/Slider Gain | 4 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning | 2 | 2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain" | 3 | 1 |

| | | |
|---|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain | | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain1 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain2 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain3 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Speed_Conversion "<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Speed_Conversion | 2 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_Conversion "<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_Conversion | 2 | 1 |

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## ✅ Check for unconnected objects (19-Oct-2020 20:30:59)

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   ✅82 ❌1 ⚠️6 📋0

📁 *Simulink*   ✅*25* ❌*0* ⚠️*3* 📋*0*

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✅ Check usage of Abs blocks (19-Oct-2020 20:30:59)
　　Identify Abs blocks that have unreachable code or produce overflows

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

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✅ Check usage of Math Function blocks (rem and reciprocal functions) (19-Oct-2020 20:30:59)
　　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.

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✅ Check usage of Math Function blocks (log and log10 functions) (19-Oct-2020 20:30:59)
　　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.

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✅ Check usage of While Iterator blocks (19-Oct-2020 20:30:59)
　　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

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✅ Check usage of For and While Iterator subsystems (19-Oct-2020 20:30:59)
　　Identify sample time-dependent blocks in While and For Iterator subsystems.

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

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✅ Check usage of For Iterator blocks (19-Oct-2020 20:30:59)

Identify For Iterator blocks that cause variable loops

**Passed**

No For Iterator blocks found that cause variable loops.

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✅ Check usage of If blocks and If Action Subsystem blocks (19-Oct-2020 20:30:59)

Identify If and If Action Subsystem blocks without else conditions

**Passed**

No If blocks with questionable configurations or connections were found.

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✅ Check usage of Switch Case blocks and Switch Case Action Subsystem blocks (19-Oct-2020 20:30:59)

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

**Passed**

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

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✅ Check usage of conditionally executed subsystems (19-Oct-2020 20:30:59)

Identify inappropriate blocks in conditionally executed subsystems.

**Passed**

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

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✅ Check usage of Merge blocks (19-Oct-2020 20:30:59)

Identify Merge blocks constructs which can lead to ambiguous behavior.

**Passed**

No merge blocks found which can lead to ambiguous behavior.

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✅ Check Relational Operator blocks equating floating-point types (19-Oct-2020 20:30:59)

Identify Relational Operator blocks that equate floating-point types

**Passed**

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

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✅ Check usage of Relational Operator blocks (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
Identify Logical Operator blocks that operate on non-boolean data types

**Passed**

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

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✅ Check usage of bit operation blocks (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
 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 (19-Oct-2020 20:30:59)
 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 (19-Oct-2020 20:30:59)
 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 (19-Oct-2020 20:30:59)
    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.

**Warning**

The following Inport blocks have undefined or inherited sample times, data types or port dimensions:

- Wrong_Way_Driver_Warning/ActiveState

- Wrong_Way_Driver_Warning/Current_DataOnOff

- Wrong_Way_Driver_Warning/Data_CountryCode

- Wrong_Way_Driver_Warning/Data_DrivingSide

- Wrong_Way_Driver_Warning/Data_NumberLaneDrivingDirection

- Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection

- Wrong_Way_Driver_Warning/Data_OffRoad

- Wrong_Way_Driver_Warning/Data_TurnAngle

- Wrong_Way_Driver_Warning/Diagnostics_MissingData

- Wrong_Way_Driver_Warning/DrivingReverse

- Wrong_Way_Driver_Warning/Sensor_SignAboveRoad

- Wrong_Way_Driver_Warning/Sensor_SignConfidence

- Wrong_Way_Driver_Warning/Sensor_SignID

- Wrong_Way_Driver_Warning/Sensor_SignPositionLateral

- Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional

- Wrong_Way_Driver_Warning/Sensor_SignRelevance

- Wrong_Way_Driver_Warning/Sensor_SignTrackingState

- Wrong_Way_Driver_Warning/Sensor_SignType

- Wrong_Way_Driver_Warning/Suppressed_Data

- Wrong_Way_Driver_Warning/VehicleSpeed

- Wrong_Way_Driver_Warning/YawRate

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**Recommended Action**


Specify port dimension for the listed Inport blocks or Simulink signal objects.


_____ 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.

**Warning**

The following Inport blocks have undefined or inherited sample times, data types or port dimensions:

- Wrong_Way_Driver_Warning/ActiveState
- Wrong_Way_Driver_Warning/Current_DataOnOff
- Wrong_Way_Driver_Warning/Data_CountryCode
- Wrong_Way_Driver_Warning/Data_DrivingSide
- Wrong_Way_Driver_Warning/Data_NumberLaneDrivingDirection
- Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection
- Wrong_Way_Driver_Warning/Data_OffRoad
- Wrong_Way_Driver_Warning/Data_TurnAngle
- Wrong_Way_Driver_Warning/Diagnostics_MissingData
- Wrong_Way_Driver_Warning/DrivingReverse
- Wrong_Way_Driver_Warning/Sensor_SignAboveRoad
- Wrong_Way_Driver_Warning/Sensor_SignConfidence
- Wrong_Way_Driver_Warning/Sensor_SignID
- Wrong_Way_Driver_Warning/Sensor_SignPositionLateral
- Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional
- Wrong_Way_Driver_Warning/Sensor_SignRelevance
- Wrong_Way_Driver_Warning/Sensor_SignTrackingState
- Wrong_Way_Driver_Warning/Sensor_SignType
- Wrong_Way_Driver_Warning/Suppressed_Data
- Wrong_Way_Driver_Warning/VehicleSpeed
- Wrong_Way_Driver_Warning/YawRate

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**Recommended Action**

Specify sample time information for the listed Inport blocks or Simulink signal objects. Note: The sample time of root Inports with bus type must match the sample times specified at the leaf elements of the bus object.

_____

✅ Check for root Inports with missing range definitions (19-Oct-2020 20:30:59)
 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.

 **Passed**

There are no missing or erroneous Inport range properties at the model root level.

_____

✅ Check for root Outports with missing range definitions (19-Oct-2020 20:30:59)
 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 (19-Oct-2020 20:30:59)
 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 (19-Oct-2020 20:30:59)
 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 (19-Oct-2020 20:30:59)
  Identify Gain blocks with value which resolves to 1

The following Gain blocks have value which resolves to 1.

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**Recommended Action**

Consider remodeling to remove the Gain blocks with values that resolve to 1

_____

⚠️ Check for length of user-defined object names (19-Oct-2020 20:30:59)
Identify user-defined object names with length greater than threshold

**Warning**

The following data objects have name length greater than threshold (31).

| Data Objects | Source |
|---|---|
| Data_NumberLaneOppositeDirection | WWDW_dd.sldd |
| Sensor_SignPositionLongitudional | WWDW_dd.sldd |

**Recommended Action**

Change the names of mentioned data objects to have length less than 31.

_____

✅ Check data type of loop control variables (19-Oct-2020 20:30:59)
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.

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_____

✅ Check state machine type of Stateflow charts (19-Oct-2020 20:30:59)

 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 (19-Oct-2020 20:30:59)

 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 (19-Oct-2020 20:30:59)

 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 (19-Oct-2020 20:30:59)

 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 (19-Oct-2020 20:30:59)

 Identify whether Stateflow debugging options are set appropriately

**Passed**

All Stateflow debugging options are set appropriately.

_____

✅ Check Stateflow charts for transition paths that cross parallel state boundaries (19-Oct-2020 20:30:59)

 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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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.


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✅ Check usage of standardized MATLAB function headers (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)
Identify condition expressions which are not logical scalars.

**Passed**

No condition expressions found which are not logical scalars.

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_____

✅ Check safety-related diagnostic settings for data store memory (19-Oct-2020 20:30:59)
Check diagnostic settings in the model configuration that apply to data store memory and might impact safety.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Detect read before write (ReadBeforeWriteMsg) | EnableAllAsError | EnableAllAsError |
| Pass | Detect write after read (WriteAfterReadMsg) | EnableAllAsError | EnableAllAsError |
| Pass | Detect write after write (WriteAfterWriteMsg) | EnableAllAsError | EnableAllAsError |
| Pass | Multitask data store (MultiTaskDSMMsg) | error | error |
| Pass | Duplicate data store names (UniqueDataStoreMsg) | error | error |

_____

✅ Check safety-related diagnostic settings for saving (19-Oct-2020 20:30:59)

Check diagnostic settings in the model configuration that apply to saving model files.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Block diagram contains disabled library links (SaveWithDisabledLinksMsg) | error | error |
| Pass | Block diagram contains parameterized library links (SaveWithParameterizedLinksMsg) | error | error |

_____

✅ Check safety-related model referencing settings (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values | Prerequisites |
|--------|-----------|---------------|--------------------|---------------|

| | | | | |
|---|---|---|---|---|
| Pass | Include comments (GenerateComments) | on | on | |
| Pass | Simulink block comments (SimulinkBlockComments) | on | on | GenerateComments |
| Pass | Show eliminated blocks (ShowEliminatedStatement) | on | on | GenerateComments |
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | |
| Pass | Verbose comments for 'Model default' storage class (ForceParamTrailComments) | on | on | GenerateComments |
| D - Pass | Include comments (GenerateComments) | on | on | |
| Pass | Requirements in block comments (ReqsInCode) | on | on | SystemTargetFile, GenerateComments |

_____

✅ Check safety-related code generation interface settings (19-Oct-2020 20:30:59)

Check code generation interface 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 | Prerequisites |
|---|---|---|---|---|
| Pass | non-finite numbers (SupportNonFinite) | off | off | |
| Pass | absolute time (SupportAbsoluteTime) | off | off | SystemTargetFile |

| | | | | |
|---|---|---|---|---|
| Pass | continuous time (SupportContinuousTime) | off | off | SystemTargetFile |
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | |
| Pass | non-inlined S-functions (SupportNonInlinedSFcns) | off | off | SystemTargetFile |
| Pass | Classic call interface (GRTInterface) | off | off | |
| Pass | Single output/update function (CombineOutputUpdateFcns) | on | on | |
| Pass | Terminate function required (IncludeMdlTerminateFcn) | off | off | SystemTargetFile |
| Pass | Remove error status field in real-time model data structure (SuppressErrorStatus) | on | on | SystemTargetFile |
| Pass | MAT-file logging (MatFileLogging) | off | off | |

_____

✅ Check safety-related solver settings for simulation time (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)

Check solver settings in the model configuration that apply to tasking and sample-time constraints 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 | Not Recommended Values |
|--------|-----------|---------------|------------------------|
| Warning | Automatically handle rate transition for data transfer (AutoInsertRateTranBlk) | on | on |

**Recommended Action**

Clear **Automatically handle rate transition for data transfer** checkbox.

_____

✅ Check safety-related diagnostic settings for solvers (19-Oct-2020 20:30:59)

Check diagnostic 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 | Algebraic loop (AlgebraicLoopMsg) | error | error |
| Pass | Minimize algebraic loop (ArtificialAlgebraicLoopMsg) | error | error |
| Pass | Block priority violation (BlockPriorityViolationMsg) | error | error |
| Pass | Automatic solver parameter selection (SolverPrmCheckMsg) | error | error |
| Pass | State name clash (StateNameClashWarn) | warning | warning |

_____

✅ Check safety-related diagnostic settings for sample time (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Source block specifies -1 sample time (InheritedTsInSrcMsg) | error | error |
| Pass | Multitask rate transition (MultiTaskRateTransMsg) | error | error |

| Pass | Multitask conditionally executed subsystem (MultiTaskCondExecSysMsg) | error | error |
|------|---------------------------------------------------------------------|-------|-------|
| Pass | Enforce sample times specified by Signal Specification blocks (SigSpecEnsureSampleTimeMsg) | error | error |
| Pass | Single task rate transition (SingleTaskRateTransMsg) | error | error |
| Pass | Tasks with equal priority (TasksWithSamePriorityMsg) | error | error |
| Pass | Unspecified inheritability of sample time (UnknownTsInhSupMsg) | error | error |

_____

✅ Check safety-related optimization settings for logic signals (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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

**Passed**

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All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Block reduction (BlockReduction) | off | off |

_____

✅ Check safety-related code generation settings for code style (19-Oct-2020 20:30:59)
    Check code generation settings in the model configuration that apply to code style and might impact safety.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values | Prerequisites |
|--------|-----------|---------------|--------------------|----------------|
| Pass | Parentheses level (ParenthesesLevel) | Maximum | Maximum | SystemTargetFile |
| Pass | Preserve operand order in expression (PreserveExpressionOrder) | on | on | SystemTargetFile |
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | |

_____

✅ Check safety-related optimization settings for application lifespan (19-Oct-2020 20:30:59)
    Check optimization settings in the model configuration that apply to application lifespan and might impact safety.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Application lifespan (days) (LifeSpan) | inf | Inf |

_____

✅ Check safety-related code generation identifier settings (19-Oct-2020 20:30:59)

Check code generation identifier 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 | Not Recommended Values | Prerequisites |
|--------|-----------|---------------|--------------------|-----------------------|---------------|
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | | |
| Pass | Minimum mangle length (MangleLength) | 4 | | 1, 2, 3 | SystemTargetFile |

_____

✅ Check safety-related optimization settings for loop unrolling threshold (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 |

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**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 (19-Oct-2020 20:30:59)
   Check optimization settings in the model configuration that apply to data type conversions and might impact safety.

**Passed**

All constraints on model configuration parameters have been met.

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

_____

✅ Check safety-related optimization settings for division arithmetic exceptions (19-Oct-2020 20:30:59)
   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 (19-Oct-2020 20:30:59)

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 |

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | |

_____

✅ Check safety-related diagnostic settings for compatibility (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | S-function upgrades needed (SFcnCompatibilityMsg) | error | error |

_____

✅ Check safety-related diagnostic settings for parameters (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Detect downcast (ParameterDowncastMsg) | error | error |
| Pass | Detect underflow (ParameterUnderflowMsg) | error | error |
| Pass | Detect overflow (ParameterOverflowMsg) | error | error |
| Pass | Detect precision loss (ParameterPrecisionLossMsg) | error | error |
| Pass | Detect loss of tunability (ParameterTunabilityLossMsg) | error | error |

_____

✅ Check safety-related diagnostic settings for Merge blocks (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)
Check diagnostic settings in the model configuration that apply to data used for debugging and might impact safety.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Model Verification block enabling (AssertControl) | DisableAll | DisableAll |

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✅ Check safety-related diagnostic settings for signal connectivity (19-Oct-2020 20:30:59)
Check diagnostic settings in the model configuration that apply to signal connectivity and might impact safety.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Signal label mismatch (SignalLabelMismatchMsg) | error | error |
| Pass | Unconnected block input ports (UnconnectedInputMsg) | error | error |
| Pass | Unconnected block output ports (UnconnectedOutputMsg) | error | error |
| Pass | Unconnected line (UnconnectedLineMsg) | error | error |

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✅ Check safety-related diagnostic settings for bus connectivity (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Unspecified bus object at root Outport block | error | error |

| | | | |
|---|---|---|---|
| | (RootOutportRequireBusObject ) | | |
| Pass | Element name mismatch (BusObjectLabelMismatch) | error | error |
| Pass | Bus signal treated as vector (StrictBusMsg) | ErrorOnBusTreatedAsVector | ErrorOnBusTreatedAsVector |
| Pass | Non-bus signals treated as bus signals (NonBusSignalsTreatedAsBus) | error | error |

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✅ Check safety-related diagnostic settings that apply to function-call connectivity (19-Oct-2020 20:30:59)

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 |

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✅ Check safety-related diagnostic settings for type conversions (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Unnecessary type conversions (UnnecessaryDatatypeConvMsg) | warning | warning |
| Pass | Vector/matrix block input conversion (VectorMatrixConversionMsg) | error | error |
| Pass | 32-bit integer to single precision float conversion (Int32ToFloatConvMsg) | warning | warning |

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✅ Check safety-related diagnostic settings for model referencing (19-Oct-2020 20:30:59)
Check diagnostic settings in the model configuration that apply to model referencing and might impact safety.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Port and parameter mismatch (ModelReferenceIOMismatchMessage) | error | error |

| Pass | Invalid root Inport/Outport block connection (ModelReferenceIOMsg) | error | error |
|------|------|------|------|
| Pass | Unsupported data logging (ModelReferenceDataLoggingMessage) | error | error |

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✅ Check safety-related diagnostic settings for Stateflow (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|------|------|------|------|
| Pass | Unexpected backtracking (SFUnexpectedBacktrackingDiag) | error | error |
| Pass | Invalid input data access in chart initialization (SFInvalidInputDataAccessInChartInitDiag) | error | error |
| Pass | No unconditional default transitions (SFNoUnconditionalDefaultTransitionDiag) | error | error |
| Pass | Transition outside natural parent (SFTransitionOutsideNaturalParentDiag) | error | error |
| Pass | Unreachable execution path (SFUnreachableExecutionPathDiag) | error | error |
| Pass | Undirected event broadcasts (SFUndirectedBroadcastEventsDiag) | error | error |
| Pass | Transition action specified before condition action (SFTransitionActionBeforeConditionDiag) | error | error |

✅ Check safety-related diagnostic settings for signal data (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Signal resolution (SignalResolutionControl) | UseLocalSettings | None, UseLocalSettings |
| Pass | Division by singular matrix (CheckMatrixSingularityMsg) | error | error |
| Pass | Underspecified data types (UnderSpecifiedDataTypeMsg) | error | error |
| Pass | Wrap on overflow (IntegerOverflowMsg) | error | error |
| Pass | Saturate on overflow (IntegerSaturationMsg) | error | error |
| Pass | Inf or NaN block output (SignalInfNanChecking) | error | error |
| Pass | "rt" prefix for identifiers (RTPrefix) | error | error |
| Pass | Simulation range checking (SignalRangeChecking) | error | error |

📁 *Naming*  ✅1 ❌0 ⚠️1 📄0

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✅ Check model file name (19-Oct-2020 20:30:59)

Identify inappropriate characters and length issues in model file name

**Passed**

No issues found with model file name.

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⚠ Check model object names (19-Oct-2020 20:30:59)

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 |
|---|---|
| Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection" title="Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection | |
| Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional" title="Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Data_NumberLaneOppositeDirection" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Data_NumberLaneOppositeDirection | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Sensor_SignPositionLongitudional" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Sensor_SignPositionLongitudional | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Sensor_SignPositionLongitudional" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Sensor_SignPositionLongitudional | |

| | SliderGain |
|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain1 | SliderGain1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain2 | SliderGain2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain3 | SliderGain3 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain5"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain5 | SliderGain5 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain6"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain6 | SliderGain6 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain7" | SliderGain7 |

| | |
|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain7 | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain8"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain8 | SliderGain8 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Relational<br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Relational Operator | RelationalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare<br>To Constant"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare To Constant | CompareToConstant |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare<br>To Constant1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare To Constant1 | CompareToConstant1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical<br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical Operator | LogicalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical<br>Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical Operator1 | LogicalOperator1 |

| | |
|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical<br>Operator2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical Operator2 | LogicalOperator2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational<br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator | RelationalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational<br>Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator1 | RelationalOperator1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational<br>Operator2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator2 | RelationalOperator2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Data_NumberLaneOppositeDirection"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Data_NumberLaneOppositeDirection | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider<br>Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain | SliderGain |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider<br>Gain1" | SliderGain1 |

| | |
|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain1 | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain2 | SliderGain2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain3 | SliderGain3 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider<br>Gain4"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain4 | SliderGain4 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider<br>Gain5"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain5 | SliderGain5 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider<br>Gain6"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain6 | SliderGain6 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Relational<br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Suppressed Output/Relational Operator | RelationalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Later | |

| | |
|---|---|
| al_Sign_Value_in_ISO_Coordinates"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Lateral_Sign_Value_in_ISO_Coordinates | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logic<br>al<br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Logical Operator | LogicalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logic<br>al<br>Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Logical Operator1 | LogicalOperator<br>1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relat<br>ional<br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Relational Operator | RelationalOpera<br>tor |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relat<br>ional<br>Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Relational Operator1 | RelationalOpera<br>tor1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relat<br>ional<br>Operator2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Relational Operator2 | RelationalOpera<br>tor2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relat<br>ional<br>Operator3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Relational Operator3 | RelationalOpera<br>tor3 |

| | SliderGain |
|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign _Positional_Longitudional/Slider Gain" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal /Sign_Positional_Longitudional/Slider Gain | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Con ditioning/Slider Gain" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Dat a_Conditioning/Slider Gain | SliderGain |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Con ditioning/Slider Gain1" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Dat a_Conditioning/Slider Gain1 | SliderGain1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Con ditioning/Slider Gain2" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Dat a_Conditioning/Slider Gain2 | SliderGain2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Con ditioning/Slider Gain3" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Dat a_Conditioning/Slider Gain3 | SliderGain3 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Speed_C onversion " title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Sp eed_Conversion | Vehicle_Speed_ Conversion |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_Conver sion " title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_ Conversion | Yaw_Rate_Conv ersion |

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| Signal | Name |
|---|---|
| Wrong_Way_Driver_Warning | |
| Wrong_Way_Driver_Warning | |

| Parameter used in | Name | Defined in |
|---|---|---|
| Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection | | data dictionary |
| Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional | | data dictionary |

**Recommended Action**
Change flagged names of model objects

📁 *Requirements*  ✅0 ❌1 ⚠0 🗒0
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❌ Check for model elements that do not link to requirements (19-Oct-2020 20:30:59)

Abnormal exit: Invalid Simulink object name: simulink/Math Operations/Slider Gain

📁 *Code*  ✅2 ❌0 ⚠0 🗒0
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✅ Check for blocks not recommended for MISRA C:2012 (19-Oct-2020 20:30:59)
Identify blocks that are not recommended for MISRA C:2012 compliant code generation.

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**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 (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values | Prerequisites |
|---|---|---|---|---|
| Pass | Model Verification block enabling (AssertControl) | DisableAll | DisableAll | |
| D - Pass | Shared code placement (UtilityFuncGeneration) | Shared location | Shared location | |
| Pass | Generate shared constants (GenerateSharedConstants) | off | off | UtilityFuncGeneration |
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | |
| Pass | continuous time (SupportContinuousTime) | off | off | SystemTargetFile |
| Pass | non-inlined S-functions (SupportNonInlinedSFcns) | off | off | SystemTargetFile |

| | | | | |
|---|---|---|---|---|
| Pass | MAT-file logging (MatFileLogging) | off | off | |
| Pass | Code replacement library (CodeReplacementLibrary) | None | None, AUTOSAR 4.0 | |
| Pass | Parentheses level (ParenthesesLevel) | Maximum | Maximum | SystemTargetFile |
| Pass | Casting modes (CastingMode) | Standards | Standards | SystemTargetFile |
| Pass | System-generated identifiers (InternalIdentifier) | Shortened | Shortened | SystemTargetFile |
| Pass | Signed integer division rounds to (ProdIntDivRoundTo) | Zero | Zero, Floor | |
| Pass | Use division for fixed-point net slope computation (UseDivisionForNetSlopeComputation) | UseDivisionForReciprocalsOfIntegersOnly | on, UseDivisionForReciprocalsOfIntegersOnly | |
| Pass | Replace multiplications by powers of two with signed bitwise shifts (EnableSignedLeftShifts) | off | off | SystemTargetFile |
| Pass | Allow right shifts on signed integers (EnableSignedRightShifts) | off | off | SystemTargetFile |
| Pass | Wrap on overflow (IntegerOverflowMsg) | error | warning, error | |

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| | | | | |
|---|---|---|---|---|
| Pass | Inf or NaN block output (SignalInfNanChecking) | error | warning, error | |
| Pass | Dynamic memory allocation in MATLAB functions (MATLABDynamicMemAlloc) | off | off | |
| Pass | External mode (ExtMode) | off | off | |
| Pass | Undirected event broadcasts (SFUndirectedBroadcastEventsDiag) | error | error | |
| Pass | Compile-time recursion limit for MATLAB functions (CompileTimeRecursionLimit) | 0 | 0 | |
| Pass | Enable run-time recursion for MATLAB functions (EnableRuntimeRecursion) | off | off | |
| D - Pass | Include comments (GenerateComments) | on | on | |
| Pass | MATLAB user comments (MATLABFcnDesc) | on | on | GenerateComments, SystemTargetFile |

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📁 Bug Reports  ✅1 ❌0 ⚠️13 🗎0

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⚠️ *Display bug reports for Embedded Coder (19-Oct-2020 20:30:59)*

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 75 Embedded Coder bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2284457 | Embedded Coder - **Incorrect Code Generation**: err output port of NR Polar Decoder gives wrong answer | 19 Oct 2020 |
| 2309735 | Embedded Coder - Code generation may error with a 'Unrecognized method, property, or field 'Identifier' for class 'RTW.DataImplementation' message | 19 Oct 2020 |
| 2309212 | Embedded Coder - Code generation report creation fails when using rtwreport function | 19 Oct 2020 |
| 2308491 | Embedded Coder - Getter function for bus arrays, which return by value, used as a pointer return in the algorithm code | 19 Oct 2020 |
| 2292131 | Embedded Coder - Names of logged signals are not propagated during SIL and PIL simulations | 19 Oct 2020 |
| 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 | 19 Oct 2020 |
| 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 | 19 Oct 2020 |

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| 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 | 08 Oct 2020 |
|---|---|---|
| 2321014 | Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Model block | 07 Oct 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 |
| 2297280 | Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a referenced model | 23 Sep 2020 |
| 2029502 | Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing multiple Reusable custom storage class with a branched root Inport | 16 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 |
| 2133942 | Embedded Coder - Code generator places code for asynchronously triggered atomic subsystem in wrong location | 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 |
| 2181053 | Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing a series of directly connected Bus Creator blocks | 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 |
| 2209352 | Embedded Coder - Code generation error with global Data Store Memory and Export-Function model | 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 |
| 2213080 | Embedded Coder - MATLAB might crash when generating code for a model that contains subsystems | 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 |
| 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 |
| 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 |
| 2199240 | Embedded Coder - Code generation error when subsystem contains Stateflow chart and execution time profiling is enabled | 16 Sep 2020 |
| 2215349 | Embedded Coder - MATLAB may crash when using the getDataInterfaces function of Code Descriptor API | 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 |
| 2207911 | Embedded Coder - **Incorrect Code Generation**: Incorrect generated code for model with DQ Limiter block and Inverse Park Transform block | 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 |
| 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 |

| | | |
|---|---|---|
| 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 |
| 2192341 | Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with Stateflow chart | 16 Sep 2020 |
| 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 | 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 |
| 2249030 | Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with Reset Function block | 16 Sep 2020 |
| 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 | 16 Sep 2020 |
| 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 | 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 |
| 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 | 16 Sep 2020 |
| 2184447 | Embedded Coder - MATLAB crashes when generating code for a model that receives a message with an Enumeration or bus data type | 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 |
|---|---|---|
| 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 | 16 Sep 2020 |
| 2286124 | Embedded Coder - **Incorrect Code Generation**: SIMD code generation results in incorrect answers for min/max operations operating on NaN inputs | 16 Sep 2020 |
| 2282444 | Embedded Coder - Code View hangs after post-processing generated code | 16 Sep 2020 |
| 2211416 | Embedded Coder - Accelerator mode model block simulation fails if referenced model uses storage classes on root-level ports | 16 Sep 2020 |
| 2225876 | Embedded Coder - Error in Code view after running SIL/PIL simulation | 16 Sep 2020 |
| 2306101 | Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Unit Delay block connected to Stateflow chart output | 11 Sep 2020 |
| 2313905 | Embedded Coder - Code generation assertion when using matrix multiply operation in MATLAB Function Block with variable sized matrices | 04 Sep 2020 |
| 2306102 | Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Simulink Function block | 01 Sep 2020 |
| 2294390 | Embedded Coder - Code View fails to display generated code | 25 Aug 2020 |
| 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 | 14 Aug 2020 |
| 2284700 | Embedded Coder - **Incorrect Code Generation**: Top model may not initialize global variable associated with signal originating in referenced model | 11 Aug 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 |
| 2238014 | Embedded Coder - Error when calling TLC library function LibBlockInputSignalAllowScalarExpandedExpr | 11 Jun 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 |

| | | |
|---|---|---|
| 2194951 | Embedded Coder - Performance regression caused during code generation for models with large data set | 06 Apr 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 |
| 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 |
| 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 (19-Oct-2020 20:30:59)*

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.

### Passed
There are no IEC Certification Kit bug reports for release R2020a.

### 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 (19-Oct-2020 20:30:59)*

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 8 Polyspace Code Prover bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|----|--------------------|----------|
| 2053304 | Polyspace Code Prover - Polyspace analysis stops with error: declaration is incompatible with "void OSEK_polyspace_ActivateTask(OSEK_polyspace_task_type)" | 19 Oct 2020 |
| 2142882 | Polyspace Code Prover - External constraints are not recognized on arguments passed by reference to stubbed functions | 16 Sep 2020 |
| 2184422 | Polyspace Code Prover - Incorrect Function not called check when using compiler pragma inline=never | 16 Sep 2020 |

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| 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 |
| 2283507 | Polyspace Code Prover - Polyspace on Windows crashes in the C to intermediate language translation phase | 16 Sep 2020 |
| 2291238 | Polyspace Code Prover - In unit-by-unit mode Polyspace annotations are ignored on header files | 18 Aug 2020 |
| 2190091 | Polyspace Code Prover - Error during compilation of C++ file: stl_tree.h, line 2142: error: no instance of constructor | 22 Apr 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 (19-Oct-2020 20:30:59)*

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 11 Polyspace Bug Finder bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2301358 | Polyspace Bug Finder - False positive violations of AUTOSAR C++14 rule M8-4-4 on function calls to static methods from objects | 22 Sep 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 |
| 2196298 | Polyspace Bug Finder - polyspace-configure could not open options file | 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 |
| 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 |
| 2260058 | Polyspace Bug Finder - Incorrect MISRA-C:2012 5.4 violation for undefined macro | 31 Jul 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 Polyspace Code Prover Server (19-Oct-2020 20:30:59)*

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 5 Polyspace Code Prover Server bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|------|------|------|
| 2053304 | Polyspace Code Prover - Polyspace analysis stops with error: declaration is incompatible with "void OSEK_polyspace_ActivateTask(OSEK_polyspace_task_type)" | 19 Oct 2020 |
| 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 |
| 2283507 | Polyspace Code Prover - Polyspace on Windows crashes in the C to intermediate language translation phase | 16 Sep 2020 |
| 2291238 | Polyspace Code Prover - In unit-by-unit mode Polyspace annotations are ignored on header files | 18 Aug 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 (19-Oct-2020 20:30:59)*

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 7 Polyspace Bug Finder Server bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 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 |

| | Polyspace Bug Finder - polyspace-configure could not open temporary options file when using Renesas SH | 25 Aug 2020 |
|---|---|---|
| 2132811 | | |
| 2260058 | Polyspace Bug Finder - Incorrect MISRA-C:2012 5.4 violation for undefined macro | 31 Jul 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 Simulink Design Verifier (19-Oct-2020 20:30:59)*

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 28 Simulink Design Verifier bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2321185 | Simulink Design Verifier - Simulink Design Verifier ignores certain justification rules in filter files | 13 Oct 2020 |

| 2245496 | Simulink Design Verifier - Error with exporting the test cases generated by Simulink Design Verifier to Simulink Test to a Signal Builder harness | 13 Oct 2020 |
|---|---|---|
| 2316213 | Simulink Design Verifier - Simulation of a SLDV generated harness containing a Stateflow chart does not use JIT | 23 Sep 2020 |
| 2308596 | Simulink Design Verifier - MATLAB crashes when extending manually generated test cases using Simulink Design Verifier | 18 Sep 2020 |
| 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 | 18 Sep 2020 |
| 2187119 | Simulink Design Verifier - sldvisactive may incorrectly return false when translating a model with model blocks | 18 Sep 2020 |
| 2181612 | Simulink Design Verifier - MATLAB crashes in Test Extension workflow when the configured parameters result in dead logic | 18 Sep 2020 |
| 2069355 | Simulink Design Verifier - Range Collection Mode as Derived ranges in Fixed-point Tool fails for export function models | 18 Sep 2020 |
| 2298193 | Simulink Design Verifier - slvnvmakeharness and sldvmakeharness error out and pauses the simulation when the Bus element port is of inherit:auto data type | 17 Sep 2020 |
| 2179943 | Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent | 16 Sep 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 |
| 2221035 | Simulink Design Verifier - Simulink Design Verifier throws a nonintuitive error message on certain models containing MATLAB Function blocks | 16 Sep 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 | 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 |
| 2294121 | Simulink Design Verifier - Block replacement fails for models containing Saturation Dynamic block | 16 Sep 2020 |
| 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 | 27 Jul 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 PLC Coder (19-Oct-2020 20:30:59)*

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 14 Simulink PLC Coder bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|------|--------------------|----------|
| 2147418 | Simulink PLC Coder - Incorrect Code Generation: Incorrect code generation for CODESYS target when using models with Shift Arithmetic blocks | 18 Sep 2020 |
| 2220730 | Simulink PLC Coder - Incorrect Code Generation: Incorrect code generation for PC Worx 6.0 target when using models with Shift Arithmetic blocks | 18 Sep 2020 |
| 2182040 | Simulink PLC Coder - Simulink PLC coder throws a typecast assertion during code generation | 16 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 |
| 2176576 | Simulink PLC Coder - Incorrect Code Generation: Output variables not updated for sub-function block calls related to initialization | 16 Sep 2020 |
| 2180371 | Simulink PLC Coder - Simulink PLC Coder does not support the Simulink.LookupTable, Simulink.Breakpoint, and Simulink.DualScaledParameter objects for code generation | 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 (19-Oct-2020 20:30:59)*

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 24 Simulink Check bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2319269 | Simulink Requirements - Requirements Traceability Report for MATLAB code file mentions obsolete file type | 19 Oct 2020 |
| 2256035 | Simulink Check - Model Metrics Dashboard crashes MATLAB when collecting metric data for a demo model | 12 Oct 2020 |
| 2282734 | Simulink Check - MAAB check Stateflow transition appearance incorrectly flags transitions crossing junctions | 18 Sep 2020 |
| 2266293 | Simulink Check - Check trigger signal names flags Simulink functions nested in stateflow charts | 18 Sep 2020 |
| 2172579 | Simulink Check - Incorrect warning with Check use of default variants(mathworks.maab.na_0036) for Label variant control mode | 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 |
| 2179943 | Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent | 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 |

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|---|---|---|
| 2227557 | Simulink Check - Model Advisor check Check usage of Merge block flags Initialize Function block | 16 Sep 2020 |
| 2231694 | Simulink Check - Model Advisor check Data type selection for index signals produces an error | 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 |
| 2302437 | Simulink Check - JMAAB check Prohibition of logical value comparison in Stateflow incorrectly flags transitions where no logical constants are used | 26 Aug 2020 |
| 2299587 | Simulink Check - JMAAB check Condition actions and transition actions in Stateflow incorrectly flags condition actions with C-style comments | 26 Aug 2020 |
| 2299606 | Simulink Check - JMAAB check Use of named Stateflow parameters and constants incorrectly flags numeric literal 1 used in increment or decrement statement | 26 Aug 2020 |
| 2305505 | Simulink Check - JMAAB check Prohibited use of implicit type casting in Stateflow reports issue when comparing same enumeration type | 24 Aug 2020 |
| 2303251 | Simulink Check - JMAAB check Comment position in transition label reports issue for correctly positioned comment | 24 Aug 2020 |
| 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++ | 17 Aug 2020 |
| 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 | 14 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.

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

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⚠️ *Display bug reports for Simulink Coverage (19-Oct-2020 20:30:59)*

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 8 Simulink Coverage bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|----|--------------------|----------|
| 2304122 | Simulink Coverage - Aggregated coverage data description missing from coverage report | 13 Oct 2020 |
| 2179943 | Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent | 16 Sep 2020 |
| 2183237 | Simulink Coverage - Generating a model coverage report using an exported object can cause an error | 16 Sep 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 |
| 2276842 | Simulink Coverage - Generating a coverage report in the Test Manager for subsystem harnesses at different levels in a library causes an assertion failure | 16 Sep 2020 |
| 2267735 | Simulink Coverage - Scoping coverage to requirements-based tests causes 0% coverage for subsystem test harnesses | 29 Jun 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 Simulink Test (19-Oct-2020 20:30:59)*

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 30 Simulink Test bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2249151 | Simulink Test - ModelCoveragePlugin used with Project errors or returns incorrect coverage metrics when running tests using the MATLAB Unit TestRunner | 19 Oct 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 |
| 2286940 | Simulink Test - Project does not automatically rename usages of data dictionaries inside internal test harnesses | 18 Sep 2020 |
| 2194996 | Simulink Test - Results export or import fails when custom criteria diagnostic contains a null character | 16 Sep 2020 |
| 2212150 | Simulink Test - Incorrect override of parameters in Simulink Test | 16 Sep 2020 |
| 2160783 | Simulink Test - Observer port moved to new signal shows link to original signal | 16 Sep 2020 |
| 2210475 | Simulink Test - Test suite and test file cleanup callbacks are executed before all test cases are complete | 16 Sep 2020 |
| 2204045 | Simulink Test - MATLAB might crash when capturing a baseline to a spreadsheet | 16 Sep 2020 |
| 2224093 | Simulink Test - Cannot override logging for data store defined in data dictionary using Test Manager. | 16 Sep 2020 |
| 2236833 | Simulink Test - Recovered Stateflow Charts block inserted in Subsystem Reference test harness | 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 |
| 2257194 | Simulink Test - MATLAB stalls during test execution | 16 Sep 2020 |

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|---|---|---|
| 2201774 | Simulink Test - Running steps in Test Sequence are not highlighted in the animation during simulation | 16 Sep 2020 |
| 2248616 | Simulink Test - Test For Model Component wizard errors when generating tests for models with configuration set references | 16 Sep 2020 |
| 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 | 25 Aug 2020 |
| 2255433 | Simulink Test - Loading externally saved test harness using load_system might cause MATLAB to crash. | 01 Jul 2020 |
| 2241749 | Simulink Test - Running R2015a test cases with mapped inputs in R2020a might fail in Test Manager | 15 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 |
| 2248003 | Simulink Test - Testing a component in a library when simulation mode is overridden to not use model settings might fail | 11 Jun 2020 |
| 2239108 | Simulink Test - Test execution compiles model multiple times | 11 Jun 2020 |
| 2237793 | Simulink Test - Changed ports in an observer model do not highlight correctly in Manager Observer dialog box | 11 Jun 2020 |
| 2237774 | Simulink Test - Dragging ports of a subsystem interface might cause lost connections in associated test harnesses | 11 Jun 2020 |
| 2236006 | Simulink Test - Test using sltest.testmanager.run on models with fast restart fail, but pass when using Test Manager | 11 Jun 2020 |
| 2120213 | Simulink Test - Comparison results for complex signals produce "Signals not aligned" warning | 13 Dec 2019 |
| 2114999 | Simulink Test - Running test harnesses using Run with Stepper button on toolstrip is not supported | 13 Dec 2019 |
| 2112483 | Simulink Test - Test that overrides Signal Editor scenario and includes inputs in the results produces an error | 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 (19-Oct-2020 20:30:59)*

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 30 Simulink Requirements bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2326401 | Simulink Requirements - Import from IBM DOORS Next not working when configuration management is enabled for project | 19 Oct 2020 |
| 2319269 | Simulink Requirements - Requirements Traceability Report for MATLAB code file mentions obsolete file type | 19 Oct 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 |
|---|---|---|
| 2179943 | Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent | 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 |
| 2182761 | Simulink Requirements - Requirements Editor might become frozen after deleting multiple objects | 16 Sep 2020 |
| 2161457 | Simulink Requirements - Import or Update from Microsoft Word fails with an error popup | 16 Sep 2020 |
| 2173909 | Simulink Requirements - Bullet points not imported correctly from DOORS 9 | 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 |
| 2192264 | Simulink Requirements - Simulink Requirements exported ReqIF file has wrong attribute definition references | 16 Sep 2020 |
| 2210569 | Simulink Requirements - Unrecognized date-time format error when importing DOORS module | 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 |
| 2292859 | Simulink Requirements - Error when trying to enter a numeric DNG ID into the Location field of Outgoing Links dialog | 25 Aug 2020 |
| 2253967 | Simulink Requirements - MATLAB stops responding after updating previously imported requirements in Requirements Editor | 30 Jul 2020 |

| 2251452 | Simulink Requirements - ReqIF ID values might change between revisions when exporting to ReqIF | 30 Jul 2020 |
|---|---|---|
| 2247892 | Simulink Requirements - Traceability Matrix does not render link icons correctly | 11 Jun 2020 |
| 2247724 | Simulink Requirements - Failure to connect with IBM DOORS Next (DNG) when importing requirements | 11 Jun 2020 |
| 2210749 | Simulink Requirements - 3rd-Party requirements tool does not accept ReqIF exported by Simulink Requirements | 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 (19-Oct-2020 20:30:59)*

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.

There are 27 AUTOSAR Blockset bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 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 |
| 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 |
| 2186526 | AUTOSAR Blockset - AUTOSAR adaptive model fails to generate code when root inport message data type is an enumeration | 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 |
| 2140480 | AUTOSAR Blockset - Build error for AUTOSAR model with bus inports and Concatenate block | 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 |
| 2169925 | AUTOSAR Blockset - AUTOSAR Component Quick Start for adaptive models does not honor specified component package | 16 Sep 2020 |
| 2190882 | AUTOSAR Blockset - Code generation error for AUTOSAR model that uses AUTOSAR.Parameter in Simulink.Variant object | 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 |

| 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 |
|---|---|---|
| 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 |
| 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 |
| 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 |
| 2266489 | AUTOSAR Blockset - Incorrect Code Generation: Code generation might ignore AUTOSAR per-instance properties of mapped signal, state, or data store | 16 Sep 2020 |
| 2198048 | AUTOSAR Blockset - Model Advisor check for an AUTOSAR adaptive model with message root I/O crashes MATLAB | 16 Sep 2020 |
| 2275260 | AUTOSAR Blockset - MATLAB might crash when opening AUTOSAR model in which blocks are linked to a library | 30 Jul 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 (19-Oct-2020 20:30:59)*

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 84 HDL Coder bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2309546 | HDL Coder - NCO HDL Optimized HDL simulation doesn't match Simulink simulation when reset is applied at reset input port | 19 Oct 2020 |
| 2312936 | HDL Coder - Stateflow charts that perform floating point operations might assert during HDL code generation in Native Floating Point mode | 19 Oct 2020 |
| 2334589 | HDL Coder - Gain block whose gain constant is a boolean vector generates internal assertion during HDL code generation | 14 Oct 2020 |
| 2330221 | HDL Coder - NCO HDL Optimized block errors out when phase increment is zero and you are using frame-based output | 02 Oct 2020 |
| 2312398 | HDL Coder - Configuring Subsystem configured with Treat as atomic unit containing bus element ports generates internal assertion during HDL code generation | 30 Sep 2020 |
| 2205228 | HDL Coder - Generated Verilog code for Moore charts due to mix of blocking (=) and non-blocking (<=) assignments in the same process | 23 Sep 2020 |
| 2218200 | HDL Coder - Potential HDL test bench simulation error for models containing Selector blocks with one-based indexing and index ports | 22 Sep 2020 |
| 2186960 | HDL Coder - Xilinx System Generator and HDL Coder integration broken due to Vivado incompatible upgrades | 22 Sep 2020 |
| 2307924 | HDL Coder - Multiply-Accumulate block in Serial architecture generates internal assertion during HDL code generation when input bit width exceeds 63 bits | 21 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 |
| 2302723 | HDL Coder - Assertion thrown during HDL code generation from a Simulink model containing Gain blocks that are operating in "u*K" mode | 18 Sep 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 |
| 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 | 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 |
| 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 |
| 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 |
| 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 |
| 2169597 | HDL Coder - HDL code generation error for Matrix Multiply block using DotProductStrategy other than fully parallel with floating-point types | 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 |
| 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 |
| 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 |
| 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 |
|---|---|---|
| 2205741 | HDL Coder - Divide block with ShiftAdd architecture generates internal error for vector dividend and scalar divisor | 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 |
| 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 |
| 2244823 | HDL Coder - Index exceeds array dimensions error thrown while running HDL implementation model generated from Simscape HDL Workflow Advisor | 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |

| 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 |
| 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 |
| 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 |
| 2195553 | HDL Coder - Generating code for Bus Creator with bus inputs can lead to assertion indicating Empty records are present | 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 |
| 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 | 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 |
| 2281688 | HDL Coder - Streaming modes of Multiply-Accumulate block might fail to generate HDL test bench | 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 |
| 2272652 | HDL Coder - VHDLLibraryName customization is ignored during HDL test bench generation | 16 Sep 2020 |
| 2257170 | HDL Coder - Sharing report is incorrect when clock-rate pipelining is enabled on blocks inside a feedback loop with specified oversampling factor | 16 Sep 2020 |
| 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 | 16 Sep 2020 |
| 2250162 | HDL Coder - Sine HDL Optimized block shows incorrect port label for exp function. | 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 |
| 2258428 | HDL Coder - HDL code generation error when Generated Model check box is disabled and optimizations such as Hierarchical Distributed Pipelining is enabled | 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 |
| 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 | 16 Sep 2020 |
| 2256046 | HDL Coder - HDL code generation fails for Simulink model that has bus element ports at the interface level of model reference blocks | 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 |
| 2228896 | HDL Coder - Sqrt block with SqrtNewton architecture reports incorrect message when generating HDL code for multirate model | 14 Sep 2020 |
| 2301208 | HDL Coder - Assertion generated during HDL code generation for model using complex matrices with MATLAB Function block | 25 Aug 2020 |
| 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 | 25 Aug 2020 |
| 2221487 | HDL Coder - Assertion generated during HDL code generation with Optimization Report turned on | 24 Aug 2020 |
| 2300111 | HDL Coder - Incorrect Code Generation: Stateflow charts with nonzero initial values for outputs can generate incorrect HDL code when the chart contains input events | 20 Aug 2020 |
| 2305463 | HDL Coder - Error during model generation when generating HDL code for a model with large number of test points | 10 Aug 2020 |
| 2152847 | HDL Coder - Code generation time increases significantly for complex designs with reporting features | 06 Aug 2020 |

| 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. | 03 Aug 2020 |
|---------|---------|---------|
| 2181877 | HDL Coder - Incorrect Code Generation: Data mismatch between Simulink and HDL simulation for partly serial architecture of Discrete FIR Filter HDL Optimized block | 30 Jul 2020 |
| 2275090 | HDL Coder - Physical signals at the same level as the DUT subsystem might generate errors when creating HDL test bench | 28 Jul 2020 |
| 2264840 | HDL Coder - Unhelpful error message when delay balancing is unsuccesful for a multirate model with resource sharing | 23 Jul 2020 |
| 2237349 | HDL Coder - Incorrect Code Generation: Delay introduced in locally upsampled regions leads to mismatch in validation model | 20 Jul 2020 |
| 2212077 | HDL Coder - Matrix multiplication in Simulink causes long code generation times for large matrices | 01 Jul 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 |
| 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 | 19 May 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 EN 50128   ✅86 ❌1 ⚠19 🗎0

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✅ Display configuration management data (19-Oct-2020 20:30:59)
Display model configuration and checksum information

Model configuration and checksum information

| Attribute | Value |
|---|---|
| Model Version | 1.138 |
| Author | Jayesh Patil |
| Date | Mon Oct 19 18:15:32 2020 |
| Model Checksum | 3934919800 188903040 3653151760 1357945227 |

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✅ Display model metrics and complexity report (19-Oct-2020 20:30:59)
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

267

Summary

| Element Type | Count |
|---|---|
| Inport | 72 |
| Outport | 66 |
| SubSystem | 34 |

Simulink

| Block Type | Count |
|---|---|
| Inport | 72 |
| Outport | 66 |
| SubSystem | 34 |
| Constant | 17 |
| RelationalOperator | 9 |
| Logic | 6 |
| Switch | 5 |
| Gain | 3 |

**Model complexity information**

Display name, level, and depth of subsystems

Maximum Subsystem Depth: 5

Subsystem Depth

268

| Subsystem Name | Level | Depth |
|---|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner | 1 | 4 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning | 2 | 2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain1" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain1 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain2" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain2 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain3" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain3 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain5" | 3 | 1 |

| | | |
|---|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain5 | | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain6"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain6 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain7"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain7 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain8"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain8 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData | 2 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change | 2 | 2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare<br>To Constant"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare To Constant | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare<br>To Constant1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare To Constant1 | 3 | 1 |

| | | |
|---|---|---|
| | | 2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning<br>"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning | 2 | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning<br>/Slider<br>Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning/Slider Gain | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning<br>/Slider<br>Gain1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning/Slider Gain1 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning<br>/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning/Slider Gain2 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning<br>/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning/Slider Gain3 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning<br>/Slider<br>Gain4"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Condit<br>ioning/Slider Gain4 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning<br>/Slider<br>Gain5" | 3 | 1 |

| | | |
|---|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain5 | | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning /Slider Gain6" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain6 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput | 2 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | 2 | 3 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Lateral_Sign_Value_in_ISO_Coordinates" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Lateral_Sign_Value_in_ISO_Coordinates | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional | 3 | 2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional/Slider Gain" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional/Slider Gain | 4 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning | 2 | 2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain" | 3 | 1 |

| | | |
|---|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain | | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain1 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain2 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning/Slider Gain3 | 3 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Speed_Conversion "<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Speed_Conversion | 2 | 1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_Conversion "<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_Conversion | 2 | 1 |

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### ✅ Check for unconnected objects (19-Oct-2020 20:30:59)

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   ✅82 ❌1 ⚠️6 🗋0

📁 *Simulink*   ✅*25* ❌*0* ⚠️*3* 🗋*0*

_____

✅ Check usage of Abs blocks (19-Oct-2020 20:30:59)
   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) (19-Oct-2020 20:30:59)
   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) (19-Oct-2020 20:30:59)
   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 (19-Oct-2020 20:30:59)
   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 (19-Oct-2020 20:30:59)
   Identify sample time-dependent blocks in While and For Iterator subsystems.

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

_____

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✅ Check usage of For Iterator blocks (19-Oct-2020 20:30:59)
  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 (19-Oct-2020 20:30:59)
  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 (19-Oct-2020 20:30:59)
  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 (19-Oct-2020 20:30:59)
  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 (19-Oct-2020 20:30:59)
  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 (19-Oct-2020 20:30:59)
  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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
 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 (19-Oct-2020 20:30:59)
 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 (19-Oct-2020 20:30:59)
 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 (19-Oct-2020 20:30:59)
   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.

**Warning**

The following Inport blocks have undefined or inherited sample times, data types or port dimensions:

- Wrong_Way_Driver_Warning/ActiveState

- Wrong_Way_Driver_Warning/Current_DataOnOff

- Wrong_Way_Driver_Warning/Data_CountryCode

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- Wrong_Way_Driver_Warning/Data_DrivingSide

- Wrong_Way_Driver_Warning/Data_NumberLaneDrivingDirection

- Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection

- Wrong_Way_Driver_Warning/Data_OffRoad

- Wrong_Way_Driver_Warning/Data_TurnAngle

- Wrong_Way_Driver_Warning/Diagnostics_MissingData

- Wrong_Way_Driver_Warning/DrivingReverse

- Wrong_Way_Driver_Warning/Sensor_SignAboveRoad

- Wrong_Way_Driver_Warning/Sensor_SignConfidence

- Wrong_Way_Driver_Warning/Sensor_SignID

- Wrong_Way_Driver_Warning/Sensor_SignPositionLateral

- Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional

- Wrong_Way_Driver_Warning/Sensor_SignRelevance

- Wrong_Way_Driver_Warning/Sensor_SignTrackingState

- Wrong_Way_Driver_Warning/Sensor_SignType

- Wrong_Way_Driver_Warning/Suppressed_Data

- Wrong_Way_Driver_Warning/VehicleSpeed

- Wrong_Way_Driver_Warning/YawRate

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**Recommended Action**


Specify port dimension for the listed Inport blocks or Simulink signal objects.


_____ 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.


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**Warning**

The following Inport blocks have undefined or inherited sample times, data types or port dimensions:

- Wrong_Way_Driver_Warning/ActiveState
- Wrong_Way_Driver_Warning/Current_DataOnOff
- Wrong_Way_Driver_Warning/Data_CountryCode
- Wrong_Way_Driver_Warning/Data_DrivingSide
- Wrong_Way_Driver_Warning/Data_NumberLaneDrivingDirection
- Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection
- Wrong_Way_Driver_Warning/Data_OffRoad
- Wrong_Way_Driver_Warning/Data_TurnAngle
- Wrong_Way_Driver_Warning/Diagnostics_MissingData
- Wrong_Way_Driver_Warning/DrivingReverse
- Wrong_Way_Driver_Warning/Sensor_SignAboveRoad
- Wrong_Way_Driver_Warning/Sensor_SignConfidence
- Wrong_Way_Driver_Warning/Sensor_SignID
- Wrong_Way_Driver_Warning/Sensor_SignPositionLateral
- Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional
- Wrong_Way_Driver_Warning/Sensor_SignRelevance
- Wrong_Way_Driver_Warning/Sensor_SignTrackingState
- Wrong_Way_Driver_Warning/Sensor_SignType
- Wrong_Way_Driver_Warning/Suppressed_Data
- Wrong_Way_Driver_Warning/VehicleSpeed
- Wrong_Way_Driver_Warning/YawRate

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**Recommended Action**

Specify sample time information for the listed Inport blocks or Simulink signal objects. Note: The sample time of root Inports with bus type must match the sample times specified at the leaf elements of the bus object.

_____

✅ Check for root Inports with missing range definitions (19-Oct-2020 20:30:59)
 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.

   **Passed**

There are no missing or erroneous Inport range properties at the model root level.

_____

✅ Check for root Outports with missing range definitions (19-Oct-2020 20:30:59)
 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 (19-Oct-2020 20:30:59)
 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 (19-Oct-2020 20:30:59)
 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 (19-Oct-2020 20:30:59)
    Identify Gain blocks with value which resolves to 1

The following Gain blocks have value which resolves to 1.

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**Recommended Action**

Consider remodeling to remove the Gain blocks with values that resolve to 1

_____

⚠ Check for length of user-defined object names (19-Oct-2020 20:30:59)
  Identify user-defined object names with length greater than threshold

**Warning**

The following data objects have name length greater than threshold (31).

| Data Objects | Source |
|---|---|
| Data_NumberLaneOppositeDirection | WWDW_dd.sldd |
| Sensor_SignPositionLongitudional | WWDW_dd.sldd |

**Recommended Action**

Change the names of mentioned data objects to have length less than 31.

_____

✅ Check data type of loop control variables (19-Oct-2020 20:30:59)
  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*  ✅*14* ❌*0* ⚠*0* 🗒*0*

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✅ Check state machine type of Stateflow charts (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

Identify whether Stateflow debugging options are set appropriately

**Passed**

All Stateflow debugging options are set appropriately.

_____

✅ Check Stateflow charts for transition paths that cross parallel state boundaries (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

Identify mismatches between names of Stateflow ports and associated signals

**Passed**

There are no name mismatches between Stateflow ports and associated signals

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✅ Check scoping of Stateflow data objects (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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*

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✅ Check usage of standardized MATLAB function headers (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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

**Passed**

No inappropriate if/elseif/else patterns found.

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✅ Check switch statements in MATLAB Function blocks (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

Identify condition expressions which are not logical scalars.

**Passed**

No condition expressions found which are not logical scalars.

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📁 *Configuration* ✅30 ❌0 ⚠️2 🗒0

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✅ Check safety-related diagnostic settings for data store memory (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Detect read before write (ReadBeforeWriteMsg) | EnableAllAsError | EnableAllAsError |
| Pass | Detect write after read (WriteAfterReadMsg) | EnableAllAsError | EnableAllAsError |
| Pass | Detect write after write (WriteAfterWriteMsg) | EnableAllAsError | EnableAllAsError |
| Pass | Multitask data store (MultiTaskDSMMsg) | error | error |
| Pass | Duplicate data store names (UniqueDataStoreMsg) | error | error |

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✅ Check safety-related diagnostic settings for saving (19-Oct-2020 20:30:59)

Check diagnostic settings in the model configuration that apply to saving model files.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Block diagram contains disabled library links (SaveWithDisabledLinksMsg) | error | error |
| Pass | Block diagram contains parameterized library links (SaveWithParameterizedLinksMsg) | error | error |

_____

✅ Check safety-related model referencing settings (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values | Prerequisites |
|--------|-----------|---------------|--------------------|---------------|

| Status | Parameter | Current Value | Recommended Values | Prerequisites |
|---|---|---|---|---|
| Pass | Include comments (GenerateComments) | on | on | |
| Pass | Simulink block comments (SimulinkBlockComments) | on | on | GenerateComments |
| Pass | Show eliminated blocks (ShowEliminatedStatement) | on | on | GenerateComments |
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | |
| Pass | Verbose comments for 'Model default' storage class (ForceParamTrailComments) | on | on | GenerateComments |
| D - Pass | Include comments (GenerateComments) | on | on | |
| Pass | Requirements in block comments (ReqsInCode) | on | on | SystemTargetFile, GenerateComments |

_____

✅ Check safety-related code generation interface settings (19-Oct-2020 20:30:59)

Check code generation interface 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 | Prerequisites |
|---|---|---|---|---|
| Pass | non-finite numbers (SupportNonFinite) | off | off | |
| Pass | absolute time (SupportAbsoluteTime) | off | off | SystemTargetFile |

| Pass | continuous time (SupportContinuousTime) | off | off | SystemTargetFile |
|---|---|---|---|---|
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | |
| Pass | non-inlined S-functions (SupportNonInlinedSFcns) | off | off | SystemTargetFile |
| Pass | Classic call interface (GRTInterface) | off | off | |
| Pass | Single output/update function (CombineOutputUpdateFcns) | on | on | |
| Pass | Terminate function required (IncludeMdlTerminateFcn) | off | off | SystemTargetFile |
| Pass | Remove error status field in real-time model data structure (SuppressErrorStatus) | on | on | SystemTargetFile |
| Pass | MAT-file logging (MatFileLogging) | off | off | |

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✅ Check safety-related solver settings for simulation time (19-Oct-2020 20:30:59)
  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 (19-Oct-2020 20:30:59)
  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 (19-Oct-2020 20:30:59)

Check solver settings in the model configuration that apply to tasking and sample-time constraints 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 | Not Recommended Values |
|--------|-----------|---------------|----------------------|
| Warning | Automatically handle rate transition for data transfer (AutoInsertRateTranBlk) | on | on |

**Recommended Action**

Clear **Automatically handle rate transition for data transfer** checkbox.

_____

✅ Check safety-related diagnostic settings for solvers (19-Oct-2020 20:30:59)

Check diagnostic 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 | Algebraic loop (AlgebraicLoopMsg) | error | error |
| Pass | Minimize algebraic loop (ArtificialAlgebraicLoopMsg) | error | error |
| Pass | Block priority violation (BlockPriorityViolationMsg) | error | error |
| Pass | Automatic solver parameter selection (SolverPrmCheckMsg) | error | error |
| Pass | State name clash (StateNameClashWarn) | warning | warning |

_____

✅ Check safety-related diagnostic settings for sample time (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Source block specifies -1 sample time (InheritedTsInSrcMsg) | error | error |
| Pass | Multitask rate transition (MultiTaskRateTransMsg) | error | error |

| | | | |
|---|---|---|---|
| Pass | Multitask conditionally executed subsystem (MultiTaskCondExecSysMsg) | error | error |
| Pass | Enforce sample times specified by Signal Specification blocks (SigSpecEnsureSampleTimeMsg) | error | error |
| Pass | Single task rate transition (SingleTaskRateTransMsg) | error | error |
| Pass | Tasks with equal priority (TasksWithSamePriorityMsg) | error | error |
| Pass | Unspecified inheritability of sample time (UnknownTsInhSupMsg) | error | error |

_____

✅ Check safety-related optimization settings for logic signals (19-Oct-2020 20:30:59)

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 |

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✅ Check safety-related block reduction optimization settings (19-Oct-2020 20:30:59)

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

**Passed**

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All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Block reduction (BlockReduction) | off | off |

_____

✅ Check safety-related code generation settings for code style (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values | Prerequisites |
|--------|-----------|---------------|--------------------|---------------|
| Pass | Parentheses level (ParenthesesLevel) | Maximum | Maximum | SystemTargetFile |
| Pass | Preserve operand order in expression (PreserveExpressionOrder) | on | on | SystemTargetFile |
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | |

_____

✅ Check safety-related optimization settings for application lifespan (19-Oct-2020 20:30:59)

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

295

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Application lifespan (days) (LifeSpan) | inf | Inf |

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✅ Check safety-related code generation identifier settings (19-Oct-2020 20:30:59)
Check code generation identifier 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 | Not Recommended Values | Prerequisites |
|--------|-----------|---------------|---------------------|------------------------|---------------|
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | | |
| Pass | Minimum mangle length (MangleLength) | 4 | | 1, 2, 3 | SystemTargetFile |

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✅ Check safety-related optimization settings for loop unrolling threshold (19-Oct-2020 20:30:59)

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 |

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⚠️ Check safety-related optimization settings for data initialization (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)
Check optimization settings in the model configuration that apply to data type conversions and might impact safety.

**Passed**

All constraints on model configuration parameters have been met.

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

_____

✅ Check safety-related optimization settings for division arithmetic exceptions (19-Oct-2020 20:30:59)
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 |

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✅ Check safety-related optimization settings for specified minimum and maximum values (19-Oct-2020 20:30:59)

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 -<br>Pass | System target file (SystemTargetFile) | ERT<br>based<br>target | ERT based target | |

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✅ Check safety-related diagnostic settings for compatibility (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current<br>Value | Recommended<br>Values |
|---|---|---|---|
| Pass | S-function upgrades needed<br>(SFcnCompatibilityMsg) | error | error |

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✅ Check safety-related diagnostic settings for parameters (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

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| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Detect downcast (ParameterDowncastMsg) | error | error |
| Pass | Detect underflow (ParameterUnderflowMsg) | error | error |
| Pass | Detect overflow (ParameterOverflowMsg) | error | error |
| Pass | Detect precision loss (ParameterPrecisionLossMsg) | error | error |
| Pass | Detect loss of tunability (ParameterTunabilityLossMsg) | error | error |

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✅ Check safety-related diagnostic settings for Merge blocks (19-Oct-2020 20:30:59)

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 |

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✅ Check safety-related diagnostic settings for model initialization (19-Oct-2020 20:30:59)

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 |

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✅ Check safety-related diagnostic settings for data used for debugging (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Model Verification block enabling (AssertControl) | DisableAll | DisableAll |

_____

✅ Check safety-related diagnostic settings for signal connectivity (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Signal label mismatch (SignalLabelMismatchMsg) | error | error |
| Pass | Unconnected block input ports (UnconnectedInputMsg) | error | error |
| Pass | Unconnected block output ports (UnconnectedOutputMsg) | error | error |
| Pass | Unconnected line (UnconnectedLineMsg) | error | error |

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✅ Check safety-related diagnostic settings for bus connectivity (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Unspecified bus object at root Outport block | error | error |

| | | | |
|---|---|---|---|
| | (RootOutportRequireBusObject) | | |
| Pass | Element name mismatch (BusObjectLabelMismatch) | error | error |
| Pass | Bus signal treated as vector (StrictBusMsg) | ErrorOnBusTreatedAsVector | ErrorOnBusTreatedAsVector |
| Pass | Non-bus signals treated as bus signals (NonBusSignalsTreatedAsBus) | error | error |

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✅ Check safety-related diagnostic settings that apply to function-call connectivity (19-Oct-2020 20:30:59)

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 |

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✅ Check safety-related diagnostic settings for type conversions (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Unnecessary type conversions (UnnecessaryDatatypeConvMsg) | warning | warning |
| Pass | Vector/matrix block input conversion (VectorMatrixConversionMsg) | error | error |
| Pass | 32-bit integer to single precision float conversion (Int32ToFloatConvMsg) | warning | warning |

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✅ Check safety-related diagnostic settings for model referencing (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Port and parameter mismatch (ModelReferenceIOMismatchMessage) | error | error |

| Pass | Invalid root Inport/Outport block connection (ModelReferenceIOMsg) | error | error |
|---|---|---|---|
| Pass | Unsupported data logging (ModelReferenceDataLoggingMessage) | error | error |

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✅ Check safety-related diagnostic settings for Stateflow (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Unexpected backtracking (SFUnexpectedBacktrackingDiag) | error | error |
| Pass | Invalid input data access in chart initialization (SFInvalidInputDataAccessInChartInitDiag) | error | error |
| Pass | No unconditional default transitions (SFNoUnconditionalDefaultTransitionDiag) | error | error |
| Pass | Transition outside natural parent (SFTransitionOutsideNaturalParentDiag) | error | error |
| Pass | Unreachable execution path (SFUnreachableExecutionPathDiag) | error | error |
| Pass | Undirected event broadcasts (SFUndirectedBroadcastEventsDiag) | error | error |
| Pass | Transition action specified before condition action (SFTransitionActionBeforeConditionDiag) | error | error |

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✅ Check safety-related diagnostic settings for signal data (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Signal resolution (SignalResolutionControl) | UseLocalSettings | None, UseLocalSettings |
| Pass | Division by singular matrix (CheckMatrixSingularityMsg) | error | error |
| Pass | Underspecified data types (UnderSpecifiedDataTypeMsg) | error | error |
| Pass | Wrap on overflow (IntegerOverflowMsg) | error | error |
| Pass | Saturate on overflow (IntegerSaturationMsg) | error | error |
| Pass | Inf or NaN block output (SignalInfNanChecking) | error | error |
| Pass | "rt" prefix for identifiers (RTPrefix) | error | error |
| Pass | Simulation range checking (SignalRangeChecking) | error | error |

📁 *Naming*  ✅1 ❌0 ⚠️1 🗒0

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✅ Check model file name (19-Oct-2020 20:30:59)

Identify inappropriate characters and length issues in model file name

**Passed**

No issues found with model file name.

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⚠️ Check model object names (19-Oct-2020 20:30:59)

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 |
|-------|------|
| Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection" title="Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection | |
| Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional" title="Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Data_NumberLaneOppositeDirection" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Data_NumberLaneOppositeDirection | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Sensor_SignPositionLongitudional" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Sensor_SignPositionLongitudional | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Sensor_SignPositionLongitudional" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Sensor_SignPositionLongitudional | |

| | SliderGain |
|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co nditioning/Slider<br>Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Da ta_Conditioning/Slider Gain | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co nditioning/Slider<br>Gain1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Da ta_Conditioning/Slider Gain1 | SliderGain1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co nditioning/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Da ta_Conditioning/Slider Gain2 | SliderGain2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co nditioning/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Da ta_Conditioning/Slider Gain3 | SliderGain3 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co nditioning/Slider<br>Gain5"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Da ta_Conditioning/Slider Gain5 | SliderGain5 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co nditioning/Slider<br>Gain6"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Da ta_Conditioning/Slider Gain6 | SliderGain6 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Co nditioning/Slider<br>Gain7" | SliderGain7 |

| | |
|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain7 | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider<br>Gain8"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning/Slider Gain8 | SliderGain8 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Relational<br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Relational Operator | RelationalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare<br>To Constant"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare To Constant | CompareToConstant |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare<br>To Constant1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Compare To Constant1 | CompareToConstant1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical<br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical Operator | LogicalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical<br>Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical Operator1 | LogicalOperator1 |

| | |
|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical Operator2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Logical Operator2 | LogicalOperator2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator | RelationalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator1 | RelationalOperator1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Relational Operator2 | RelationalOperator2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Data_NumberLaneOppositeDirection"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Data_NumberLaneOppositeDirection | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain | SliderGain |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain1" | SliderGain1 |

| | |
|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain1 | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain2 | SliderGain2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain3 | SliderGain3 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider<br>Gain4"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain4 | SliderGain4 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider<br>Gain5"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain5 | SliderGain5 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider<br>Gain6"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning/Slider Gain6 | SliderGain6 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Relational<br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Suppressed Output/Relational Operator | RelationalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Later | |

| | |
|---|---|
| al_Sign_Value_in_ISO_Coordinates"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Lateral_Sign_Value_in_ISO_Coordinates | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logic<br>al<br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Logical Operator | LogicalOperator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logic<br>al<br>Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Logical Operator1 | LogicalOperator<br>1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relat<br>ional<br>Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Relational Operator | RelationalOpera<br>tor |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relat<br>ional<br>Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Relational Operator1 | RelationalOpera<br>tor1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relat<br>ional<br>Operator2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Relational Operator2 | RelationalOpera<br>tor2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relat<br>ional<br>Operator3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal<br>/Relational Operator3 | RelationalOpera<br>tor3 |

| | |
|---|---|
| | SliderGain |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign _Positional_Longitudional/Slider<br>Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal /Sign_Positional_Longitudional/Slider Gain | |
| | SliderGain |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Con ditioning/Slider<br>Gain"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Dat a_Conditioning/Slider Gain | |
| | SliderGain1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Con ditioning/Slider<br>Gain1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Dat a_Conditioning/Slider Gain1 | |
| | SliderGain2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Con ditioning/Slider<br>Gain2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Dat a_Conditioning/Slider Gain2 | |
| | SliderGain3 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Con ditioning/Slider<br>Gain3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Dat a_Conditioning/Slider Gain3 | |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Speed_C onversion "<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Sp eed_Conversion | Vehicle_Speed_ Conversion |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_Conver sion "<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_ Conversion | Yaw_Rate_Conv ersion |

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| Signal | Name |
|---|---|
| Wrong_Way_Driver_Warning | |
| Wrong_Way_Driver_Warning | |

| Parameter used in | Name | Defined in |
|---|---|---|
| Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection | | data dictionary |
| Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional | | data dictionary |

**Recommended Action**
Change flagged names of model objects

📁 *Requirements*  ✅0 ❌1 ⚠0 📄0
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❌ Check for model elements that do not link to requirements (19-Oct-2020 20:30:59)

Abnormal exit: Invalid Simulink object name: simulink/Math Operations/Slider Gain

📁 *Code*  ✅2 ❌0 ⚠0 📄0
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✅ Check for blocks not recommended for MISRA C:2012 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)

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

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values | Prerequisites |
|---|---|---|---|---|
| Pass | Model Verification block enabling (AssertControl) | DisableAll | DisableAll | |
| D - Pass | Shared code placement (UtilityFuncGeneration) | Shared location | Shared location | |
| Pass | Generate shared constants (GenerateSharedConstants) | off | off | UtilityFuncGeneration |
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | |
| Pass | continuous time (SupportContinuousTime) | off | off | SystemTargetFile |
| Pass | non-inlined S-functions (SupportNonInlinedSFcns) | off | off | SystemTargetFile |

| | | | | |
|---|---|---|---|---|
| Pass | MAT-file logging (MatFileLogging) | off | off | |
| Pass | Code replacement library (CodeReplacementLibrary) | None | None, AUTOSAR 4.0 | |
| Pass | Parentheses level (ParenthesesLevel) | Maximum | Maximum | SystemTargetFile |
| Pass | Casting modes (CastingMode) | Standards | Standards | SystemTargetFile |
| Pass | System-generated identifiers (InternalIdentifier) | Shortened | Shortened | SystemTargetFile |
| Pass | Signed integer division rounds to (ProdIntDivRoundTo) | Zero | Zero, Floor | |
| Pass | Use division for fixed-point net slope computation (UseDivisionForNetSlopeComputation) | UseDivisionForReciprocalsOfIntegersOnly | on, UseDivisionForReciprocalsOfIntegersOnly | |
| Pass | Replace multiplications by powers of two with signed bitwise shifts (EnableSignedLeftShifts ) | off | off | SystemTargetFile |
| Pass | Allow right shifts on signed integers (EnableSignedRightShifts) | off | off | SystemTargetFile |
| Pass | Wrap on overflow (IntegerOverflowMsg) | error | warning, error | |

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| | | | | |
|---|---|---|---|---|
| Pass | Inf or NaN block output (SignalInfNanChecking) | error | warning, error | |
| Pass | Dynamic memory allocation in MATLAB functions (MATLABDynamicMemAlloc) | off | off | |
| Pass | External mode (ExtMode) | off | off | |
| Pass | Undirected event broadcasts (SFUndirectedBroadcastEventsDiag) | error | error | |
| Pass | Compile-time recursion limit for MATLAB functions (CompileTimeRecursionLimit) | 0 | 0 | |
| Pass | Enable run-time recursion for MATLAB functions (EnableRuntimeRecursion) | off | off | |
| D - Pass | Include comments (GenerateComments) | on | on | |
| Pass | MATLAB user comments (MATLABFcnDesc) | on | on | GenerateComments, SystemTargetFile |

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📁 Bug Reports ✅1 ❌0 ⚠13 🗅0

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⚠ *Display bug reports for Embedded Coder (19-Oct-2020 20:30:59)*

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 75 Embedded Coder bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2284457 | Embedded Coder - **Incorrect Code Generation**: err output port of NR Polar Decoder gives wrong answer | 19 Oct 2020 |
| 2309735 | Embedded Coder - Code generation may error with a 'Unrecognized method, property, or field 'Identifier' for class 'RTW.DataImplementation' message | 19 Oct 2020 |
| 2309212 | Embedded Coder - Code generation report creation fails when using rtwreport function | 19 Oct 2020 |
| 2308491 | Embedded Coder - Getter function for bus arrays, which return by value, used as a pointer return in the algorithm code | 19 Oct 2020 |
| 2292131 | Embedded Coder - Names of logged signals are not propagated during SIL and PIL simulations | 19 Oct 2020 |
| 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 | 19 Oct 2020 |
| 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 | 19 Oct 2020 |

| 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 | 08 Oct 2020 |
|---|---|---|
| 2321014 | Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Model block | 07 Oct 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 |
| 2297280 | Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a referenced model | 23 Sep 2020 |
| 2029502 | Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing multiple Reusable custom storage class with a branched root Inport | 16 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 |
| 2133942 | Embedded Coder - Code generator places code for asynchronously triggered atomic subsystem in wrong location | 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 |
| 2181053 | Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model containing a series of directly connected Bus Creator blocks | 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 |
| 2209352 | Embedded Coder - Code generation error with global Data Store Memory and Export-Function model | 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 |
|---|---|---|
| 2213080 | Embedded Coder - MATLAB might crash when generating code for a model that contains subsystems | 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 |
| 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 |
| 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 |
| 2199240 | Embedded Coder - Code generation error when subsystem contains Stateflow chart and execution time profiling is enabled | 16 Sep 2020 |
| 2215349 | Embedded Coder - MATLAB may crash when using the getDataInterfaces function of Code Descriptor API | 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 |
| 2207911 | Embedded Coder - **Incorrect Code Generation**: Incorrect generated code for model with DQ Limiter block and Inverse Park Transform block | 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 |
| 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 |

| 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 |
|---|---|---|
| 2192341 | Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with Stateflow chart | 16 Sep 2020 |
| 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 | 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 |
| 2249030 | Embedded Coder - **Incorrect Code Generation**: Incorrect results are possible for a model with Reset Function block | 16 Sep 2020 |
| 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 | 16 Sep 2020 |
| 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 | 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 |
| 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 | 16 Sep 2020 |
| 2184447 | Embedded Coder - MATLAB crashes when generating code for a model that receives a message with an Enumeration or bus data type | 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 |
|---|---|---|
| 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 | 16 Sep 2020 |
| 2286124 | Embedded Coder - **Incorrect Code Generation**: SIMD code generation results in incorrect answers for min/max operations operating on NaN inputs | 16 Sep 2020 |
| 2282444 | Embedded Coder - Code View hangs after post-processing generated code | 16 Sep 2020 |
| 2211416 | Embedded Coder - Accelerator mode model block simulation fails if referenced model uses storage classes on root-level ports | 16 Sep 2020 |
| 2225876 | Embedded Coder - Error in Code view after running SIL/PIL simulation | 16 Sep 2020 |
| 2306101 | Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Unit Delay block connected to Stateflow chart output | 11 Sep 2020 |
| 2313905 | Embedded Coder - Code generation assertion when using matrix multiply operation in MATLAB Function Block with variable sized matrices | 04 Sep 2020 |
| 2306102 | Embedded Coder - **Incorrect Code Generation**: Incorrect results might occur for a model that contains a Simulink Function block | 01 Sep 2020 |
| 2294390 | Embedded Coder - Code View fails to display generated code | 25 Aug 2020 |
| 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 | 14 Aug 2020 |
| 2284700 | Embedded Coder - **Incorrect Code Generation**: Top model may not initialize global variable associated with signal originating in referenced model | 11 Aug 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 |
| 2238014 | Embedded Coder - Error when calling TLC library function LibBlockInputSignalAllowScalarExpandedExpr | 11 Jun 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 |

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|---|---|---|
| 2194951 | Embedded Coder - Performance regression caused during code generation for models with large data set | 06 Apr 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 |
| 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 |
| 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 (19-Oct-2020 20:30:59)*

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.

### Passed
There are no IEC Certification Kit bug reports for release R2020a.

#### 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 (19-Oct-2020 20:30:59)*

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 8 Polyspace Code Prover bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2053304 | Polyspace Code Prover - Polyspace analysis stops with error: declaration is incompatible with "void OSEK_polyspace_ActivateTask(OSEK_polyspace_task_type)" | 19 Oct 2020 |
| 2142882 | Polyspace Code Prover - External constraints are not recognized on arguments passed by reference to stubbed functions | 16 Sep 2020 |
| 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 |
|---|---|---|
| 2234024 | Polyspace Code Prover - Error with behavior specification options in Polyspace analysis in client-server mode | 16 Sep 2020 |
| 2283507 | Polyspace Code Prover - Polyspace on Windows crashes in the C to intermediate language translation phase | 16 Sep 2020 |
| 2291238 | Polyspace Code Prover - In unit-by-unit mode Polyspace annotations are ignored on header files | 18 Aug 2020 |
| 2190091 | Polyspace Code Prover - Error during compilation of C++ file: stl_tree.h, line 2142: error: no instance of constructor | 22 Apr 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 (19-Oct-2020 20:30:59)*

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 11 Polyspace Bug Finder bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2301358 | Polyspace Bug Finder - False positive violations of AUTOSAR C++14 rule M8-4-4 on function calls to static methods from objects | 22 Sep 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 |
| 2196298 | Polyspace Bug Finder - polyspace-configure could not open options file | 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 |
| 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 |
| 2260058 | Polyspace Bug Finder - Incorrect MISRA-C:2012 5.4 violation for undefined macro | 31 Jul 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 Polyspace Code Prover Server (19-Oct-2020 20:30:59)*

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 5 Polyspace Code Prover Server bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|----|-------------------|----------|
| 2053304 | Polyspace Code Prover - Polyspace analysis stops with error: declaration is incompatible with "void OSEK_polyspace_ActivateTask(OSEK_polyspace_task_type)" | 19 Oct 2020 |
| 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 |
| 2283507 | Polyspace Code Prover - Polyspace on Windows crashes in the C to intermediate language translation phase | 16 Sep 2020 |
| 2291238 | Polyspace Code Prover - In unit-by-unit mode Polyspace annotations are ignored on header files | 18 Aug 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 (19-Oct-2020 20:30:59)*

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 7 Polyspace Bug Finder Server bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 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 |
|---|---|---|
| 2260058 | Polyspace Bug Finder - Incorrect MISRA-C:2012 5.4 violation for undefined macro | 31 Jul 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 Simulink Design Verifier (19-Oct-2020 20:30:59)*

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 28 Simulink Design Verifier bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2321185 | Simulink Design Verifier - Simulink Design Verifier ignores certain justification rules in filter files | 13 Oct 2020 |

| 2245496 | Simulink Design Verifier - Error with exporting the test cases generated by Simulink Design Verifier to Simulink Test to a Signal Builder harness | 13 Oct 2020 |
|---|---|---|
| 2316213 | Simulink Design Verifier - Simulation of a SLDV generated harness containing a Stateflow chart does not use JIT | 23 Sep 2020 |
| 2308596 | Simulink Design Verifier - MATLAB crashes when extending manually generated test cases using Simulink Design Verifier | 18 Sep 2020 |
| 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 | 18 Sep 2020 |
| 2187119 | Simulink Design Verifier - sldvisactive may incorrectly return false when translating a model with model blocks | 18 Sep 2020 |
| 2181612 | Simulink Design Verifier - MATLAB crashes in Test Extension workflow when the configured parameters result in dead logic | 18 Sep 2020 |
| 2069355 | Simulink Design Verifier - Range Collection Mode as Derived ranges in Fixed-point Tool fails for export function models | 18 Sep 2020 |
| 2298193 | Simulink Design Verifier - slvnvmakeharness and sldvmakeharness error out and pauses the simulation when the Bus element port is of inherit:auto data type | 17 Sep 2020 |
| 2179943 | Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent | 16 Sep 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 |
| 2221035 | Simulink Design Verifier - Simulink Design Verifier throws a nonintuitive error message on certain models containing MATLAB Function blocks | 16 Sep 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 | 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 |
| 2294121 | Simulink Design Verifier - Block replacement fails for models containing Saturation Dynamic block | 16 Sep 2020 |
| 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 | 27 Jul 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 PLC Coder (19-Oct-2020 20:30:59)*

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 14 Simulink PLC Coder bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2147418 | Simulink PLC Coder - Incorrect Code Generation: Incorrect code generation for CODESYS target when using models with Shift Arithmetic blocks | 18 Sep 2020 |
| 2220730 | Simulink PLC Coder - Incorrect Code Generation: Incorrect code generation for PC Worx 6.0 target when using models with Shift Arithmetic blocks | 18 Sep 2020 |
| 2182040 | Simulink PLC Coder - Simulink PLC coder throws a typecast assertion during code generation | 16 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 |
| 2176576 | Simulink PLC Coder - Incorrect Code Generation: Output variables not updated for sub-function block calls related to initialization | 16 Sep 2020 |
| 2180371 | Simulink PLC Coder - Simulink PLC Coder does not support the Simulink.LookupTable, Simulink.Breakpoint, and Simulink.DualScaledParameter objects for code generation | 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 (19-Oct-2020 20:30:59)*

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.

There are 24 Simulink Check bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2319269 | Simulink Requirements - Requirements Traceability Report for MATLAB code file mentions obsolete file type | 19 Oct 2020 |
| 2256035 | Simulink Check - Model Metrics Dashboard crashes MATLAB when collecting metric data for a demo model | 12 Oct 2020 |
| 2282734 | Simulink Check - MAAB check Stateflow transition appearance incorrectly flags transitions crossing junctions | 18 Sep 2020 |
| 2266293 | Simulink Check - Check trigger signal names flags Simulink functions nested in stateflow charts | 18 Sep 2020 |
| 2172579 | Simulink Check - Incorrect warning with Check use of default variants(mathworks.maab.na_0036) for Label variant control mode | 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 |
| 2179943 | Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent | 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 |
|---|---|---|
| 2231694 | Simulink Check - Model Advisor check Data type selection for index signals produces an error | 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 |
| 2302437 | Simulink Check - JMAAB check Prohibition of logical value comparison in Stateflow incorrectly flags transitions where no logical constants are used | 26 Aug 2020 |
| 2299587 | Simulink Check - JMAAB check Condition actions and transition actions in Stateflow incorrectly flags condition actions with C-style comments | 26 Aug 2020 |
| 2299606 | Simulink Check - JMAAB check Use of named Stateflow parameters and constants incorrectly flags numeric literal 1 used in increment or decrement statement | 26 Aug 2020 |
| 2305505 | Simulink Check - JMAAB check Prohibited use of implicit type casting in Stateflow reports issue when comparing same enumeration type | 24 Aug 2020 |
| 2303251 | Simulink Check - JMAAB check Comment position in transition label reports issue for correctly positioned comment | 24 Aug 2020 |
| 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++ | 17 Aug 2020 |
| 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 | 14 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 Coverage (19-Oct-2020 20:30:59)*

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 8 Simulink Coverage bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2304122 | Simulink Coverage - Aggregated coverage data description missing from coverage report | 13 Oct 2020 |
| 2179943 | Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent | 16 Sep 2020 |
| 2183237 | Simulink Coverage - Generating a model coverage report using an exported object can cause an error | 16 Sep 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 |
| 2276842 | Simulink Coverage - Generating a coverage report in the Test Manager for subsystem harnesses at different levels in a library causes an assertion failure | 16 Sep 2020 |
| 2267735 | Simulink Coverage - Scoping coverage to requirements-based tests causes 0% coverage for subsystem test harnesses | 29 Jun 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 Simulink Test (19-Oct-2020 20:30:59)*

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 30 Simulink Test bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2249151 | Simulink Test - ModelCoveragePlugin used with Project errors or returns incorrect coverage metrics when running tests using the MATLAB Unit TestRunner | 19 Oct 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 |
| 2286940 | Simulink Test - Project does not automatically rename usages of data dictionaries inside internal test harnesses | 18 Sep 2020 |
| 2194996 | Simulink Test - Results export or import fails when custom criteria diagnostic contains a null character | 16 Sep 2020 |
| 2212150 | Simulink Test - Incorrect override of parameters in Simulink Test | 16 Sep 2020 |
| 2160783 | Simulink Test - Observer port moved to new signal shows link to original signal | 16 Sep 2020 |
| 2210475 | Simulink Test - Test suite and test file cleanup callbacks are executed before all test cases are complete | 16 Sep 2020 |
| 2204045 | Simulink Test - MATLAB might crash when capturing a baseline to a spreadsheet | 16 Sep 2020 |
| 2224093 | Simulink Test - Cannot override logging for data store defined in data dictionary using Test Manager. | 16 Sep 2020 |
| 2236833 | Simulink Test - Recovered Stateflow Charts block inserted in Subsystem Reference test harness | 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 |
| 2257194 | Simulink Test - MATLAB stalls during test execution | 16 Sep 2020 |

| 2201774 | Simulink Test - Running steps in Test Sequence are not highlighted in the animation during simulation | 16 Sep 2020 |
|---|---|---|
| 2248616 | Simulink Test - Test For Model Component wizard errors when generating tests for models with configuration set references | 16 Sep 2020 |
| 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 | 25 Aug 2020 |
| 2255433 | Simulink Test - Loading externally saved test harness using load_system might cause MATLAB to crash. | 01 Jul 2020 |
| 2241749 | Simulink Test - Running R2015a test cases with mapped inputs in R2020a might fail in Test Manager | 15 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 |
| 2248003 | Simulink Test - Testing a component in a library when simulation mode is overridden to not use model settings might fail | 11 Jun 2020 |
| 2239108 | Simulink Test - Test execution compiles model multiple times | 11 Jun 2020 |
| 2237793 | Simulink Test - Changed ports in an observer model do not highlight correctly in Manager Observer dialog box | 11 Jun 2020 |
| 2237774 | Simulink Test - Dragging ports of a subsystem interface might cause lost connections in associated test harnesses | 11 Jun 2020 |
| 2236006 | Simulink Test - Test using sltest.testmanager.run on models with fast restart fail, but pass when using Test Manager | 11 Jun 2020 |
| 2120213 | Simulink Test - Comparison results for complex signals produce "Signals not aligned" warning | 13 Dec 2019 |
| 2114999 | Simulink Test - Running test harnesses using Run with Stepper button on toolstrip is not supported | 13 Dec 2019 |
| 2112483 | Simulink Test - Test that overrides Signal Editor scenario and includes inputs in the results produces an error | 13 Dec 2019 |

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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.

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 (19-Oct-2020 20:30:59)*

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 30 Simulink Requirements bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|----|--------------------|----------|
| 2326401 | Simulink Requirements - Import from IBM DOORS Next not working when configuration management is enabled for project | 19 Oct 2020 |
| 2319269 | Simulink Requirements - Requirements Traceability Report for MATLAB code file mentions obsolete file type | 19 Oct 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 |
|---|---|---|
| 2179943 | Simulink Check - Error message with Function-Call Subsystem added as slice component using addSliceComponent | 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 |
| 2182761 | Simulink Requirements - Requirements Editor might become frozen after deleting multiple objects | 16 Sep 2020 |
| 2161457 | Simulink Requirements - Import or Update from Microsoft Word fails with an error popup | 16 Sep 2020 |
| 2173909 | Simulink Requirements - Bullet points not imported correctly from DOORS 9 | 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 |
| 2192264 | Simulink Requirements - Simulink Requirements exported ReqIF file has wrong attribute definition references | 16 Sep 2020 |
| 2210569 | Simulink Requirements - Unrecgonized date-time format error when importing DOORS module | 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 |
| 2292859 | Simulink Requirements - Error when trying to enter a numeric DNG ID into the Location field of Outgoing Links dialog | 25 Aug 2020 |
| 2253967 | Simulink Requirements - MATLAB stops responding after updating previously imported requirements in Requirements Editor | 30 Jul 2020 |

| 2251452 | Simulink Requirements - ReqIF ID values might change between revisions when exporting to ReqIF | 30 Jul 2020 |
|---|---|---|
| 2247892 | Simulink Requirements - Traceability Matrix does not render link icons correctly | 11 Jun 2020 |
| 2247724 | Simulink Requirements - Failure to connect with IBM DOORS Next (DNG) when importing requirements | 11 Jun 2020 |
| 2210749 | Simulink Requirements - 3rd-Party requirements tool does not accept ReqIF exported by Simulink Requirements | 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 (19-Oct-2020 20:30:59)*

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

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

There are 27 AUTOSAR Blockset bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 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 |
| 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 |
| 2186526 | AUTOSAR Blockset - AUTOSAR adaptive model fails to generate code when root inport message data type is an enumeration | 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 |
| 2140480 | AUTOSAR Blockset - Build error for AUTOSAR model with bus inports and Concatenate block | 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 |
| 2169925 | AUTOSAR Blockset - AUTOSAR Component Quick Start for adaptive models does not honor specified component package | 16 Sep 2020 |
| 2190882 | AUTOSAR Blockset - Code generation error for AUTOSAR model that uses AUTOSAR.Parameter in Simulink.Variant object | 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 |

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|---|---|---|
| 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 |
| 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 |
| 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 |
| 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 |
| 2266489 | AUTOSAR Blockset - Incorrect Code Generation: Code generation might ignore AUTOSAR per-instance properties of mapped signal, state, or data store | 16 Sep 2020 |
| 2198048 | AUTOSAR Blockset - Model Advisor check for an AUTOSAR adaptive model with message root I/O crashes MATLAB | 16 Sep 2020 |
| 2275260 | AUTOSAR Blockset - MATLAB might crash when opening AUTOSAR model in which blocks are linked to a library | 30 Jul 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 (19-Oct-2020 20:30:59)*

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 84 HDL Coder bug reports for release R2020a

| ID | Bug Report Summary | Modified |
|---|---|---|
| 2309546 | HDL Coder - NCO HDL Optimized HDL simulation doesn't match Simulink simulation when reset is applied at reset input port | 19 Oct 2020 |
| 2312936 | HDL Coder - Stateflow charts that perform floating point operations might assert during HDL code generation in Native Floating Point mode | 19 Oct 2020 |
| 2334589 | HDL Coder - Gain block whose gain constant is a boolean vector generates internal assertion during HDL code generation | 14 Oct 2020 |
| 2330221 | HDL Coder - NCO HDL Optimized block errors out when phase increment is zero and you are using frame-based output | 02 Oct 2020 |
| 2312398 | HDL Coder - Configuring Subsystem configured with Treat as atomic unit containing bus element ports generates internal assertion during HDL code generation | 30 Sep 2020 |
| 2205228 | HDL Coder - Generated Verilog code for Moore charts due to mix of blocking (=) and non-blocking (<=) assignments in the same process | 23 Sep 2020 |
| 2218200 | HDL Coder - Potential HDL test bench simulation error for models containing Selector blocks with one-based indexing and index ports | 22 Sep 2020 |
| 2186960 | HDL Coder - Xilinx System Generator and HDL Coder integration broken due to Vivado incompatible upgrades | 22 Sep 2020 |
| 2307924 | HDL Coder - Multiply-Accumulate block in Serial architecture generates internal assertion during HDL code generation when input bit width exceeds 63 bits | 21 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 |
| 2302723 | HDL Coder - Assertion thrown during HDL code generation from a Simulink model containing Gain blocks that are operating in "u*K" mode | 18 Sep 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 |
| 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 | 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 |
| 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 |
| 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 |
| 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 |
| 2169597 | HDL Coder - HDL code generation error for Matrix Multiply block using DotProductStrategy other than fully parallel with floating-point types | 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 |
| 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 |
| 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 |
| 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 |
| 2205741 | HDL Coder - Divide block with ShiftAdd architecture generates internal error for vector dividend and scalar divisor | 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 |
| 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 |
| 2244823 | HDL Coder - Index exceeds array dimensions error thrown while running HDL implementation model generated from Simscape HDL Workflow Advisor | 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |

| 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 |
| 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 |
| 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 |
| 2195553 | HDL Coder - Generating code for Bus Creator with bus inputs can lead to assertion indicating Empty records are present | 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 |
| 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 | 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 |
| 2281688 | HDL Coder - Streaming modes of Multiply-Accumulate block might fail to generate HDL test bench | 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 |
| 2272652 | HDL Coder - VHDLLibraryName customization is ignored during HDL test bench generation | 16 Sep 2020 |
| 2257170 | HDL Coder - Sharing report is incorrect when clock-rate pipelining is enabled on blocks inside a feedback loop with specified oversampling factor | 16 Sep 2020 |
| 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 | 16 Sep 2020 |
| 2250162 | HDL Coder - Sine HDL Optimized block shows incorrect port label for exp function. | 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 |
| 2258428 | HDL Coder - HDL code generation error when Generated Model check box is disabled and optimizations such as Hierarchical Distributed Pipelining is enabled | 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 |
| 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 | 16 Sep 2020 |
| 2256046 | HDL Coder - HDL code generation fails for Simulink model that has bus element ports at the interface level of model reference blocks | 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 |
| 2228896 | HDL Coder - Sqrt block with SqrtNewton architecture reports incorrect message when generating HDL code for multirate model | 14 Sep 2020 |
| 2301208 | HDL Coder - Assertion generated during HDL code generation for model using complex matrices with MATLAB Function block | 25 Aug 2020 |
| 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 | 25 Aug 2020 |
| 2221487 | HDL Coder - Assertion generated during HDL code generation with Optimization Report turned on | 24 Aug 2020 |
| 2300111 | HDL Coder - Incorrect Code Generation: Stateflow charts with nonzero initial values for outputs can generate incorrect HDL code when the chart contains input events | 20 Aug 2020 |
| 2305463 | HDL Coder - Error during model generation when generating HDL code for a model with large number of test points | 10 Aug 2020 |
| 2152847 | HDL Coder - Code generation time increases significantly for complex designs with reporting features | 06 Aug 2020 |

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| 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. | 03 Aug 2020 |
|---|---|---|
| 2181877 | HDL Coder - Incorrect Code Generation: Data mismatch between Simulink and HDL simulation for partly serial architecture of Discrete FIR Filter HDL Optimized block | 30 Jul 2020 |
| 2275090 | HDL Coder - Physical signals at the same level as the DUT subsystem might generate errors when creating HDL test bench | 28 Jul 2020 |
| 2264840 | HDL Coder - Unhelpful error message when delay balancing is unsuccesful for a multirate model with resource sharing | 23 Jul 2020 |
| 2237349 | HDL Coder - Incorrect Code Generation: Delay introduced in locally upsampled regions leads to mismatch in validation model | 20 Jul 2020 |
| 2212077 | HDL Coder - Matrix multiplication in Simulink causes long code generation times for large matrices | 01 Jul 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 |
| 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 | 19 May 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) | |

📁 Model Metrics   ✅10 ❌0 ⚠️0 📃0

📁 Count Metrics   ✅7 ❌0 ⚠️0 📃0

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✅ *Simulink block metric (19-Oct-2020 20:30:59)*

Display number of blocks in the model or subsystem.

**Passed**

| Component | Blocks |
|-----------|--------|
| ..../Input_Signal_Range_Conditioner | 49 |
| Wrong_Way_Driver_Warning | 41 |
| ..../Camera_Data_Conditioning | 24 |
| ..../Input_Signal_Range_Change | 23 |
| ..../Map_Data_Conditioning | 21 |
| ..../Valid_Signal | 16 |
| ..../Vehicle_Data_Conditioning | 12 |
| ..../SuppressedOutput | 7 |
| ..../EnabledData | 7 |
| ..../Yaw_Rate_Conversion | 3 |

| | |
|---|---|
| ..../Lateral_Sign_Value_in_ISO_Coordinates | **3** |
| ..../Sign_Positional_Longitudional | **3** |
| ..../Vehicle_Speed_Conversion | **3** |

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✅ *Subsystem metric (19-Oct-2020 20:30:59)*

Display number of Subsystems in the model or subsystem.

**Passed**

| Component | Subsystems |
|---|---|
| ..../Input_Signal_Range_Conditioner | **9** |
| ..../Valid_Signal | **2** |
| Wrong_Way_Driver_Warning | **1** |
| ..../Yaw_Rate_Conversion | **0** |
| ..../Vehicle_Data_Conditioning | **0** |
| ..../Map_Data_Conditioning | **0** |
| ..../Camera_Data_Conditioning | **0** |
| ..../Lateral_Sign_Value_in_ISO_Coordinates | **0** |
| ..../Sign_Positional_Longitudional | **0** |
| ..../Input_Signal_Range_Change | **0** |
| ..../SuppressedOutput | **0** |
| ..../EnabledData | **0** |

| | |
|---|---|
| ..../Vehicle_Speed_Conversion | **0** |

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✅ *Library link metric (19-Oct-2020 20:30:59)*

Display number of library links in the model or subsystem.

**Passed**

| Component | Library Links |
|---|---|
| Wrong_Way_Driver_Warning | **0** |
| ..../Input_Signal_Range_Conditioner | **0** |
| ..../Yaw_Rate_Conversion | **0** |
| ..../Vehicle_Data_Conditioning | **0** |
| ..../Map_Data_Conditioning | **0** |
| ..../Camera_Data_Conditioning | **0** |
| ..../Valid_Signal | **0** |
| ..../Lateral_Sign_Value_in_ISO_Coordinates | **0** |
| ..../Sign_Positional_Longitudional | **0** |
| ..../Input_Signal_Range_Change | **0** |
| ..../SuppressedOutput | **0** |
| ..../EnabledData | **0** |
| ..../Vehicle_Speed_Conversion | **0** |

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✅ *Effective lines of MATLAB code metric (19-Oct-2020 20:30:59)*

Display number of effective lines of MATLAB code.

No metric data available. The component scope of the metric algorithm is not applicable.

**Passed**

---

✅ *Stateflow chart objects metric (19-Oct-2020 20:30:59)*

Display number of Stateflow objects in each chart.

No metric data available. The component scope of the metric algorithm is not applicable.

**Passed**

---

✅ *Lines of code for Stateflow blocks metric (19-Oct-2020 20:30:59)*

Display number of code lines for Stateflow blocks.

No metric data available. The component scope of the metric algorithm is not applicable.

**Passed**

---

✅ *Subsystem depth metric (19-Oct-2020 20:30:59)*

Display depth of subsystems in the model or subsystem.

Total Subsystem Depth: NaN

**Passed**

| Component | Subsystem Level | Subsystem Depth |
|---|---|---|
| Wrong_Way_Driver_Warning | 0 | 3 |

| | | |
|---|---|---|
| ..../Input_Signal_Range_Conditioner | 1 | 2 |
| ..../Valid_Signal | 2 | 1 |
| ..../Yaw_Rate_Conversion | 2 | 0 |
| ..../Vehicle_Data_Conditioning | 2 | 0 |
| ..../Map_Data_Conditioning | 2 | 0 |
| ..../Camera_Data_Conditioning | 2 | 0 |
| ..../Lateral_Sign_Value_in_ISO_Coordinates | 3 | 0 |
| ..../Sign_Positional_Longitudinal | 3 | 0 |
| ..../Input_Signal_Range_Change | 2 | 0 |
| ..../SuppressedOutput | 2 | 0 |
| ..../EnabledData | 2 | 0 |
| ..../Vehicle_Speed_Conversion | 2 | 0 |

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📁 Complexity Metrics  ✅1 ❌0 ⚠0 🗒0

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✅ *Cyclomatic complexity metric (19-Oct-2020 20:30:59)*

Display cyclomatic complexity for Simulink and Stateflow objects.

**Passed**

| Component | Local Complexity(Component level) | Aggregated Complexity(Component level and descendants) |
|---|---|---|
| | | |

| | | |
|---|---|---|
| ..../Input_Signal_Range_Change | **3** | 3 |
| Wrong_Way_Driver_Warning | **1** | 6 |
| ..../SuppressedOutput | **1** | 1 |
| ..../EnabledData | **1** | 1 |
| ..../Input_Signal_Range_Conditioner | **0** | 5 |
| ..../Yaw_Rate_Conversion | **0** | 0 |
| ..../Vehicle_Data_Conditioning | **0** | 0 |
| ..../Map_Data_Conditioning | **0** | 0 |
| ..../Camera_Data_Conditioning | **0** | 0 |
| ..../Valid_Signal | **0** | 0 |
| ..../Lateral_Sign_Value_in_ISO_Coordinates | **0** | 0 |
| ..../Sign_Positional_Longitudional | **0** | 0 |
| ..../Vehicle_Speed_Conversion | **0** | 0 |

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📁 Readability Metrics  ✅2 ❌0 ⚠0 📋0

_____

✅ *Nondescriptive block name metric (19-Oct-2020 20:30:59)*

Display non-descriptive names of Inport, Outport and Subsystem blocks.

**Passed**

| Component | Nondescriptive Names |
|---|---|

| | |
|---|---|
| Wrong_Way_Driver_Warning | **0** |
| ..../Input_Signal_Range_Conditioner | **0** |
| ..../Yaw_Rate_Conversion | **0** |
| ..../Vehicle_Data_Conditioning | **0** |
| ..../Map_Data_Conditioning | **0** |
| ..../Camera_Data_Conditioning | **0** |
| ..../Valid_Signal | **0** |
| ..../Lateral_Sign_Value_in_ISO_Coordinates | **0** |
| ..../Sign_Positional_Longitudional | **0** |
| ..../Input_Signal_Range_Change | **0** |
| ..../SuppressedOutput | **0** |
| ..../EnabledData | **0** |
| ..../Vehicle_Speed_Conversion | **0** |

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✅ *Data and structure layer separation metric (19-Oct-2020 20:30:59)*

Display data and structure layer separation, defined by MAAB modeling guideline db_0143.

**Passed**

| Component | Non-conforming Blocks |
|---|---|
| ..../Valid_Signal | **10** |
| Wrong_Way_Driver_Warning | **0** |

| | |
|---|---|
| ..../Input_Signal_Range_Conditioner | **0** |
| ..../Yaw_Rate_Conversion | **0** |
| ..../Vehicle_Data_Conditioning | **0** |
| ..../Map_Data_Conditioning | **0** |
| ..../Camera_Data_Conditioning | **0** |
| ..../Lateral_Sign_Value_in_ISO_Coordinates | **0** |
| ..../Sign_Positional_Longitudional | **0** |
| ..../Input_Signal_Range_Change | **0** |
| ..../SuppressedOutput | **0** |
| ..../EnabledData | **0** |
| ..../Vehicle_Speed_Conversion | **0** |

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## 📁 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  ✅9 ❌0 ⚠️2 🗒️0

_____

### ⚠️ Check optimization settings (19-Oct-2020 20:30:59)
Check optimization settings

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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) | off | on |
| Warning | Inline invariant signals (InlineInvariantSignals) | off | on |
| Warning | Simulation range checking (SignalRangeChecking) | error | none |
| Warning | Ignore test point signals (IgnoreTestpoints) | off | on |

**Recommended Action**

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

_____

✅ Identify blocks using one-based indexing (19-Oct-2020 20:30:59)
Check the model for blocks configured for one-based indexing

**Passed**
All blocks in the model use zero-based indexing.

_____

_____

✅ Identify questionable software environment specifications (19-Oct-2020 20:30:59)
Passed

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_____

✅ Identify lookup table blocks that generate expensive out-of-range checking code (19-Oct-2020 20:30:59)

These settings can lead to inefficient code generation when inputs always fall within the range of valid breakpoint values for lookup table blocks, including Lookup Table blocks, Prelookup blocks and Interpolation blocks.

**Passed**

The lookup table blocks have been configured to generate range-checking free code.

_____

✅ Identify questionable code instrumentation (data I/O) (19-Oct-2020 20:30:59)
Passed

_____

✅ Check output types of logic blocks (19-Oct-2020 20:30:59)

Identify logic blocks that are outputting non-Boolean data types.

**Passed**

All logic blocks are being used appropriately.

_____

✅ Check configuration parameters for generation of inefficient saturation code (19-Oct-2020 20:30:59)

Check setting for generation of saturation code which handles out of range values.  This code decreases the net efficiency of the application.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values | Prerequisites |
|---|---|---|---|---|

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| Pass | Remove code from tunable parameter expressions that saturates out-of-range values (EfficientTunableParamExpr) | on | on | IsERTTarget |
|---|---|---|---|---|
| D - Pass | Target derived from ERT (IsERTTarget) | on | on | |
| Pass | Remove code from floating-point to integer conversions with saturation that maps NaN to zero (EfficientMapNaN2IntZero) | on | on | IsERTTarget |

_____

✅ Identify blocks that generate expensive rounding code (19-Oct-2020 20:30:59)

**Check for expensive rounding operations in multiplication and division**

**Passed**

_____

**Check Optimization and Hardware Implementation settings (Lookup Blocks)**

**Passed**

_____

**Check for expensive rounding in a data type conversion**

**Passed**

_____

**Check for expensive rounding modes in the model**

**Passed**

_____

_____

✅ Identify questionable fixed-point operations (19-Oct-2020 20:30:59)

**Check for multiword operations**

**Passed**

_____

**Check for expensive multiplication code**

**Passed**

_____

**Check for expensive division code**

**Passed**

---

**Identify lookup blocks with uneven breakpoint spacing**

**Passed**

---

**Check for expensive pre-lookup division**

**Passed**

---

**Check for expensive data type conversions**

**Passed**

---

**Check for fixed-point comparisons with predetermined results**

**Passed**

---

**Check for expensive binary comparison operations**

**Passed**

---

**Check for expensive fixed-point types**

**Passed**

---

⚠ Identify blocks that generate expensive fixed-point and saturation code (19-Oct-2020 20:30:59)

**Identify Sum blocks for questionable fixed-point operations**

**Passed**

---

**Identify Relational Operation blocks for questionable fixed-point operations**

**Passed**

---

**Identify Data Type Conversion Inherited blocks for questionable fixed-point operations**

**Passed**

---

**Identify Switch blocks for questionable fixed-point operations**

**Passed**

---

**Identify Logic blocks for questionable fixed-point operations**

**Passed**

---

**Identify Saturate blocks for questionable fixed-point operations**

**Passed**

---

**Identify Min Max blocks for questionable fixed-point operations**

**Passed**

---

**Identify Discrete Integrator blocks for questionable fixed-point operations**

**Passed**

---

**Identify Compare To Constant blocks for questionable fixed-point operations**

**Passed**

---

**Identify Lookup Table blocks for questionable fixed-point operations**

**Passed**

_____

**Identify blocks that will invoke net slope computation**

**Passed**

_____

**Identify Product blocks that are less efficient**

**Passed**

_____

**Check for expensive saturation code**

**Warning**

**Check Optimization and Hardware Implementation settings**

Integer division generated code will contain protection against arithmetic exceptions like division by zero, INT_MIN/-1, and LONG_MIN/-1. Depending on the hardware, arithmetic exceptions can cause dramatic behavior, so protecting against these exceptions can be critical. Some designers construct their models in an extremely careful way that makes it impossible for exception triggering input combinations to reach a division operation. For these models, the protection code generated as part of the division operation is redundant. This redundant protection code can be removed using the fixed-point division setting in the Configuration Parameters dialog box. This should only be done when you have painstakingly verified that your model cannot cause exceptions in division operations.

Remove code that protects against division arithmetic exceptions

- Wrong_Way_Driver_Warning

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✅ Identify blocks generating inefficient algorithms (19-Oct-2020 20:30:59)
   **Passed**
   No inefficient algorithms found in the model.


📁 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

_____

📋 Identify blocks generating inefficient algorithms
   Not Run


_____

📋 Check for blocks not supported for row-major code generation
   Not Run


_____


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⊞ Identify TLC S-Functions with unset array layout

Not Run


📁 Model Referencing  ✅7 ⛔0 ⚠️1 ▤0

_____

✅ Check for model reference configuration mismatch (19-Oct-2020 20:30:59)

Passed

_____

✅ Check diagnostic settings ignored during accelerated model reference simulation (19-Oct-2020 20:30:59)

The configuration parameter settings passed the check.

_____

✅ Check code generation identifier formats used for model reference (19-Oct-2020 20:30:59)

The configuration parameter settings passed the check.

_____

✅ Check for parameter tunability information ignored for referenced models (19-Oct-2020 20:30:59)


Passed

_____

✅ Check for implicit signal resolution (19-Oct-2020 20:30:59)


Passed

_____

✅ Check bus signals treated as vectors (19-Oct-2020 20:30:59)

**Bus signal treated as vector**

Identify bus signals in the model that are treated as vectors by the Simulink software.

**Passed**

The model uses bus signals properly. Model is configured to detect future changes that might result in improper bus signal usage.

_____

## ⚠ Check root model Inport block specifications (19-Oct-2020 20:30:59)

Your model contains root-level Inport blocks with undefined attributes, such as dimensions, sample time, or data type. If you do not explicitly define these attributes, Simulink will use back-propagation from downstream blocks to assign values to the attributes when updating the model. This can lead to undesired simulation results. To avoid this, fully define the attributes of all of your model's root-level Inport blocks.

The following root-level Inport blocks have undefined attributes:

Wrong_Way_Driver_Warning/VehicleSpeed

Wrong_Way_Driver_Warning/DrivingReverse

Wrong_Way_Driver_Warning/YawRate

Wrong_Way_Driver_Warning/ActiveState

Wrong_Way_Driver_Warning/Data_DrivingSide

Wrong_Way_Driver_Warning/Data_CountryCode

Wrong_Way_Driver_Warning/Diagnostics_MissingData

Wrong_Way_Driver_Warning/Data_OffRoad

Wrong_Way_Driver_Warning/Data_NumberLaneDrivingDirection

Wrong_Way_Driver_Warning/Data_NumberLaneOppositeDirection

Wrong_Way_Driver_Warning/Data_TurnAngle

Wrong_Way_Driver_Warning/Sensor_SignID

Wrong_Way_Driver_Warning/Sensor_SignType

Wrong_Way_Driver_Warning/Sensor_SignTrackingState

Wrong_Way_Driver_Warning/Sensor_SignConfidence

Wrong_Way_Driver_Warning/Sensor_SignPositionLateral

Wrong_Way_Driver_Warning/Sensor_SignPositionLongitudional

Wrong_Way_Driver_Warning/Sensor_SignRelevance

Wrong_Way_Driver_Warning/Sensor_SignAboveRoad

Wrong_Way_Driver_Warning/Suppressed_Data

Wrong_Way_Driver_Warning/Current_DataOnOff

_____

✅ Check for large number of function arguments from virtual bus across model reference boundary (19-Oct-2020 20:30:59)

No referenced models found.


📁 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

---

📋 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

---

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▤ 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

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_____

📄 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　✅123 ❌0 ⚠️18 📄0


📁 Naming Conventions　✅17 ❌0 ⚠️3 📄0


📁 *General*　✅2 ❌0 ⚠️2 📄0

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⚠️ Check file names (19-Oct-2020 20:30:59)
　　**Characters allowed for file names**



　　**Warning**



　　The following files have invalid names:

- 　D:\Study\Study Material Videos\Courses\Skill lync\ADAS\Project 2 Wrong Way Driver Warning SystemProject 2 Wrong Way Driver Warning System\WWDW-20200725T070158Z-001\WWDW\Wrong_Way_Driver_Warning.slx.autosave

　　**Recommended Action**



　　Consider having only alphanumeric characters and underscores in file name.

_____

✅ Check folder names (19-Oct-2020 20:30:59)
　　Check the folder name to ensure that the name complies with the recommended guidelines.

　　**Passed**
　　All folders have correct names.

✅ Check length of model file name (19-Oct-2020 20:30:59)

Check length of model file name

**Passed**

Model name is valid.

---

⚠️ Check length of folder name at every level of model path (19-Oct-2020 20:30:59)

The model file name is: Wrong_Way_Driver_Warning

**Warning**     Invalid folder names.

- Project 2 Wrong Way Driver Warning SystemProject 2 Wrong Way Driver Warning System

**Recommended Action**

Consider changing the folder name to have minimum of "0" characters and maximum of "63" characters.

📁 *Content*   ✅15 ❌0 ⚠️1 🗒️0

---

✅ Check subsystem names (19-Oct-2020 20:30:59)

Identify subsystem names with incorrect characters.

**Passed**

All the subsystem names use correct characters.

---

✅ Check port block names (19-Oct-2020 20:30:59)

Identify Inport or Outport block names with incorrect characters.

**Passed**

All the Inport or Outport block names use correct characters.

---

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✅ Check character usage in block names (19-Oct-2020 20:30:59)
Identify block names with incorrect characters.

**Passed**
All the block names use correct characters.

_____

✅ Check length of subsystem names (19-Oct-2020 20:30:59)
Check length of subsystem names

**Passed**
All subsystem names are valid.

_____

✅ Check length of block names (19-Oct-2020 20:30:59)
Check length of block names

**Passed**
All block names are valid.

_____

✅ Check length of Inport and Outport names (19-Oct-2020 20:30:59)
Check length of Inport and Outport names

**Passed**
All Inport and Outport names are valid.

_____

✅ Check usable characters for signal names and bus names (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
Identify invalid characters in parameter names

**Passed**
No invalid characters are used in parameter names.

_____

✅ Check length of signal and bus names (19-Oct-2020 20:30:59)
  Check length of signal and bus names

  **Passed**
  All signal and bus names are valid.

_____

✅ Check length of parameter names (19-Oct-2020 20:30:59)
  Check length of parameter names

  **Passed**
  All parameter names are valid.

_____

✅ Check usable characters for Stateflow data names (19-Oct-2020 20:30:59)
  Identify invalid characters in Stateflow data names.

  **Passed**
  No invalid characters are used in Stateflow data names.

_____

✅ Check length of Stateflow data name (19-Oct-2020 20:30:59)
  Check if the length of Stateflow data names are within limit.

  **Passed**
  All Stateflow data names are valid.

_____

✅ Check duplication of Simulink Data names (19-Oct-2020 20:30:59)
  Simulink Data names should be unique across base workspace, model workspace and data dictionary.

  **Passed**
  All Simulink Data names are unique.

_____

⚠️ Check unused data in Simulink Model (19-Oct-2020 20:30:59)
  **Check for unused data in Data Dictionary**

  **Warning**

The following data variables in the data dictionary are unused:

| Data Objects | Source |
|---|---|
| F32 | WWDW_dd.sldd |
| F64 | WWDW_dd.sldd |
| FLAG | WWDW_dd.sldd |
| MODE | WWDW_dd.sldd |
| S16 | WWDW_dd.sldd |
| S32 | WWDW_dd.sldd |
| S8 | WWDW_dd.sldd |
| SMODE | WWDW_dd.sldd |
| SignPosLat | WWDW_dd.sldd |
| Sign_Status | WWDW_dd.sldd |
| U16 | WWDW_dd.sldd |
| U32 | WWDW_dd.sldd |
| U8 | WWDW_dd.sldd |
| ValidLateralPosition | WWDW_dd.sldd |
| ValidLongitudionalPosition | WWDW_dd.sldd |
| VehicleSpeed_kph | WWDW_dd.sldd |
| VehicleYawRate_Degree | WWDW_dd.sldd |

∧ Less

**Recommended Action**

Consider removing the unused data variables.

_____

✅ Check for unused data in Stateflow Charts (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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  ✅47 ❌0 ⚠️15 📄0

📁 *Configuration Parameters*  ✅4 ❌0 ⚠️0 📄0

_____

✅ Check Implement logic signals as Boolean data (vs. double) (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

Identify data validity diagnostic settings which detect incorrect calculation results.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Division by singular matrix (CheckMatrixSingularityMsg) | error | error |
| Pass | Inf or NaN block output (SignalInfNanChecking) | error | error |
| Pass | Wrap on overflow (IntegerOverflowMsg) | error | error |
| Pass | Saturate on overflow (IntegerSaturationMsg) | error | error |

_____

✅ Check model diagnostic parameters (19-Oct-2020 20:30:59)

Identify diagnostic parameters that are set to `none`.

**Passed**

All of the diagnostic parameters are set to `error` or `warning`.

📁 *Diagram Appearance*  ✅12 ❌0 ⚠️5 🗒️0

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⚠️ Check for Simulink diagrams using nonstandard display attributes (19-Oct-2020 20:30:59)
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 |
| Modeling > Environment > Model Browser | 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.

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**Passed**

All blocks use standard colors.

_____

**Check canvas colors**

Identify canvases that are not white.

**Passed**

All diagrams use a white canvas.

_____

**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

**Warning**

The following diagrams do not have zoom factor set to 100 percent:

- Wrong_Way_Driver_Warning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change"
  title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal

- 
  Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Lateral_Sign_Value_in_I
  SO_Coordinates"
  title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Lateral_Sign_Valu
  e_in_ISO_Coordinates

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning"
  title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning

**Recommended Action**

For each listed diagram, select **Modeling > Environment > Zoom > Normal View (100%)**.

_____

⚠ Check Model font settings (19-Oct-2020 20:30:59)
**Check font size in Simulink block and signal names**

 **Warning**

The font size of the following Simulink block or signal names are different from input parameters:

- 

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/

- 

- 

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/

- 

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/

- Wrong_Way_Driver_Warning/

∧ Less

 **Recommended Action**

Consider modifying font size of block and signal names as per input parameters.

_____

✅ Check whether block names appear below blocks (19-Oct-2020 20:30:59)
  Identify blocks where the name is not displayed below the block.

  **Passed**

  All blocks have names displayed below the block.

_____

✅ Check the display attributes of block names (19-Oct-2020 20:30:59)
  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.

  **Passed**

  All displayed names provide descriptive information.

  **Check for missing block names**
  Identify block names that are hidden but should be displayed to show a descriptive name.

  **Passed**

  All displayed names provide descriptive information.

_____

✅ Check for nondefault block attributes (19-Oct-2020 20:30:59)
  Identify blocks that use and fail to display nondefault values.

  **Passed**

  Model displays all block parameter values that are not default values.

_____

⚠️ Check Model Description (19-Oct-2020 20:30:59)
  Identify layers in the model having inconsistent description format.

  **Warning**

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Following layers do not have model descriptions:

- 

- 

- 

- 

**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:

- Wrong_Way_Driver_Warning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner

- 

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData

- 

- 

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal

- 

**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 (19-Oct-2020 20:30:59)
Check if blocks are shaded in the model

**Passed**
Blocks in the model are not shaded.

_____

✅ Check for unconnected ports and signal lines (19-Oct-2020 20:30:59)
Identify unconnected block input ports, output ports, and signal lines.

**Passed**
All lines and ports in the model are connected.

_____

⚠️ Check signal line connections (19-Oct-2020 20:30:59)
**Check signal intersections**


**Warning**


The following signals intersect with other signals in the diagram:

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

**Recommended Action**

Reposition the above listed signals to avoid intersections.

_____

✅ Check signal flow in model (19-Oct-2020 20:30:59)
Identify subsystems which do not have a signal flow from left to right.

**Passed**
No subsystems found with inappropriate signal flow.

_____

✅ Check usage of tunable parameters in blocks (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
Identify connections between structural subsystems.

**Passed**
All connections to structural subsystems adhere to the guideline.

_____

✅ Check for consistency in model element names (19-Oct-2020 20:30:59)
Check if model elements connected to a signal are following consistent naming.

**Passed**
Model elements connected to a signal are following consistent names.

_____

✅ Check trigger signal names (19-Oct-2020 20:30:59)
Identify trigger blocks where the origin of the trigger signal and the destination have dissimilar names.

No violation of the guideline for use of trigger signal names.

_____

⚠️ Check for mixing basic blocks and subsystems (19-Oct-2020 20:30:59)

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 |
|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant1" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant2" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant3" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant3 |

| | |
|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logical Operator" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logical Operator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logical Operator1" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logical Operator1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator1" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator2" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator3" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator3 |

**Recommended Action**

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If possible, replace blocks at the identified level of the model hierarchy with basic blocks. Move nonvirtual blocks into the identified subsystem.

_____

✅ Check for avoiding algebraic loops between subsystems (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
Identify sink blocks that must be removed prior to code generation.

**Passed**
There are no prohibited blocks in the subsystem.

📁 *Signal*  ✅3 ❌0 ⚠️3 🗒0

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✅ Check usage of vector and bus signals (19-Oct-2020 20:30:59)
Identify mixed usages of vector and bus signals.

**Passed**
No mixing of vector and bus signals found in the system.

_____

⚠️ Check signal line labels (19-Oct-2020 20:30:59)
Identify blocks that require labeled signals. A subset of source and destination blocks require labeled signals.

**Check source block labels**

**Warning**

The following signals have no label:

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Constant/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Constant1/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Constant2/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant1/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant2/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant3/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant4/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant5/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant6/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Constant/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Constant1/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Constant2/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant1/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant2/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant3/

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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:

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/

**Recommended Action**

Add a new or propagated label to the signal line.

_____

✅ Check for propagated signal labels (19-Oct-2020 20:30:59)
Identify propagated labels on signal lines.

**Passed**
All inputs and outputs to the subsystems and blocks have labels and display propagated signals.

_____

⚠ Check position of signal labels (19-Oct-2020 20:30:59)

**Check overlap of signal labels**

The following signals have labels which overlap other objects:

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

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- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning
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- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
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- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner
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- Wrong_Way_Driver_Warning
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**Recommended Action**

Consider placing the signal label so that it is readable.

_____ **Check location of signal labels**

**Warning**

The following signals do not have labels located at the origin of the signal line:

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning

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- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning

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- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning

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- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning

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- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning

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- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Lateral_Sign_Value
_in_ISO_Coordinates

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Lateral_Sign_Value_in_ISO_Coordinates

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal

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- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Speed_Conversion

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Speed_Conversion

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_Conversion

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_Conversion

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner

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**Recommended Action**

Consider placing the labels at the origin of the signal line.

_____

⚠ Check signal line labels (19-Oct-2020 20:30:59)
   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:

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Constant/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Constant1/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Constant2/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant1/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant2/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant3/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant4/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant5/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant6/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Constant/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Constant1/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Constant2/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant1/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant2/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant3/

∧ Less


**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**

The following signals have no label:

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/

**Recommended Action**

Add a new or propagated label to the signal line.

_____

✅ Check for propagated signal labels (19-Oct-2020 20:30:59)
Identify propagated labels on signal lines.

**Passed**
All inputs and outputs to the subsystems and blocks have labels and display propagated signals.

📁 *Block Consistency* ✅4 ❌0 ⚠️2 📄0

_____

✅ Check Indexing Mode (19-Oct-2020 20:30:59)
Identify blocks and charts with inconsistent Indexing mode.

**Passed**
No inconsistent Indexing mode used in the model.

_____

✅ Check block orientation (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
Check if tunable block parameters are defined as named constants

**Warning**

The following tunable block parameters are not defined as named constants.

406

| Block | Violations |
|-------|------------|
|       | Value : -60 |
|       | Value : 60 |
|       | Value : 255 |

**Recommended Action**

Consider changing tunable block parameter literal values to named constants.

_____

✅ Check for sample time setting (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
jc_0644: Identify blocks that violate signal data type setting if signal objects are used.

**Warning**

The following blocks violate signal data type setting if signal objects are used.

407

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Switch

-

-

**Recommended Action**

Set the output data type of the blocks either to "auto" or "Inherit via back propagation". This check excludes Data Type Conversion block, type setting by fixdt, double and boolean data types, and reusable internal part of function (treat as atomic unit).

📁 *Conditional Subsystem relations*  ✅5 ❌0 ⚠️0 🗒️0
_____

✅ Check position of conditional blocks and iterator blocks (19-Oct-2020 20:30:59)
Identify conditional and iterative blocks that are positioned inconsistently in the model.

**Passed**
The conditional and iterative blocks are correctly placed in the model.

_____

✅ Check undefined initial output for conditional subsystems (19-Oct-2020 20:30:59)
**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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
**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 (19-Oct-2020 20:30:59)
**Check if default/else case in Switch Case blocks and If blocks are set to 'on'**

**Passed**

Conditional Control blocks are valid.

📁 *Operation Blocks*  ✅*11* ❌*0* ⚠️*3* 📋*0*

_____

⚠️ Check fundamental logical and numerical operations (19-Oct-2020 20:30:59)
**Check input data types of blocks meant for numerical operations**

**Warning**

The following numerical operation blocks have boolean data type as input:

- 
- 
- 
- 
- 
- 
- 
- 
- 

**Recommended Action**

Consider having non-boolean inputs for the numerical operation blocks.

_____

409

✅ Check usage of Sum blocks (19-Oct-2020 20:30:59)
  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 (19-Oct-2020 20:30:59)
  Operator order for Product blocks.

  **Passed**
  All Product blocks have valid operator order.

_____

✅ Check signs of input signals in product blocks (19-Oct-2020 20:30:59)
  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 (19-Oct-2020 20:30:59)
  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 (19-Oct-2020 20:30:59)
  Icon shape of Logical Operator blocks

  **Passed**
  All Logical Operator blocks have consistent icon shape.

_____

⚠️ Check usage of Relational Operator blocks (19-Oct-2020 20:30:59)
    Identify Relational Operator blocks that connect to constants with the first (upper) input value.

  **Warning**

The following Relational Operator blocks connect to a constant value using the first (upper) input value:

- 
- 
- 
- 

**Recommended Action**

Make the constant value the second (lower) input to the Relation Operator block.

_____

✅ Comparing floating point types in Simulink (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
**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

411

---

✅ Check for cascaded Unit Delay blocks (19-Oct-2020 20:30:59)

**Identify cascaded and tapped pattern of Unit Delay blocks.**

**Passed**

No cascaded Unit Delay blocks found that can be changed to Tapped Delay/Delay block.

---

✅ Check usage of Discrete-Time Integrator block (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

jc_0651: Guideline for implementing a type conversion.

**Warning**

Following operation blocks explicitly specify output data type:

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- 
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412

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**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 (19-Oct-2020 20:30:59)
**Check positions of Inport blocks**


<span style="color:orange">**Warning**</span>


The following Inport blocks are not placed to left side of the diagram:


413

- 
- 

**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 positions of Outport blocks**

**Warning**

The following Outport blocks are not placed to right side of the diagram:

- 
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/WarningDisplayHMI
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SignID
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SignRelevance
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SignAboveRoad

**Recommended Action**

Move the Outport blocks identified to the right of all other blocks in the diagram.

It is acceptable to move the Outport block to the left only to prevent signal crossings.

_____

✅ Check display for port blocks (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

Identify the usage of Data Store Memory blocks.

**Passed**

Usage of Data Store Memory blocks is correct.

_____

⚠️ Check usage of Switch blocks (19-Oct-2020 20:30:59)

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:

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Switch

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Switch" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Switch

415

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Switch1
" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Switch1

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Switch2
" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Switch2

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Switch"
title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Switch

**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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
Identify Multiport Switch blocks that violate data port settings.

**Passed**
No Multiport Switch blocks found with inappropriate data port settings.

_____

416

✅ Check for missing ports in Variant Subsystems (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)

Identify mismatches between names of Stateflow ports and the associated signals.

**Passed**

No Stateflow charts were found.

---

417

✅ Check execution timing for default transition path (19-Oct-2020 20:30:59)
'Execute (enter) Chart At Initialization' should be set to OFF.

**Passed**

All Stateflow Charts pass the check.

_____

✅ Check definition of Stateflow data (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
Identify usage of first index of Stateflow data.

**Passed**

All Stateflow data first index values are uniform.

_____

✅ Check scope of data in parallel states (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
Identify dangling transitions and unconnected Stateflow States and Junctions in Stateflow Charts.

**Passed**

No unconnected transitions, states or junctions found in Stateflow Charts.

_____

✅ Check usage of exclusive and default states in state machines (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

jc_0721: Guidelines for using parallel states
Identify parallel Stateflow States used for grouping.

**Passed**

No Stateflow charts were found.

_____

✅ Check Stateflow transition appearance (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

Identify configuration parameter settings which identify unexpected backtracking in state
transitions.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Unexpected backtracking (SFUnexpectedBacktrackingDiag) | error | error |

_____

✅ Check starting point of internal transition in Stateflow (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

Identify unconditional transitions in flow charts.

**Passed**

All unconditional transitions adhere to the guideline.

_____

Check terminal junctions in Stateflow (19-Oct-2020 20:30:59)

Identify usage of terminal junctions in flow charts.

**Passed**

Multiple terminal junctions were not found.

_____

✅ Check usage of Stateflow comments (19-Oct-2020 20:30:59)
Identify comments that are nested or contain newline(s) in the middle in Stateflow for action language 'C'.

**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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
Identify use of numeric literals in Stateflow states and transitions.

**Passed**
No numeric literals found in Stateflow charts.

---

✅ Check for pointers in Stateflow charts (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
Identify undirected event broadcasts in Stateflow

**Passed**
No instances of undirected event broadcast were found.

---

✅ Check order of state action types (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

Identify usage of transition actions in Stateflow.

**Passed**

No Stateflow charts have transition actions.

---

✅ Check for MATLAB expressions in Stateflow blocks (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

Identify the usage of operators in Stateflow.

**Passed**

No Stateflow blocks found with incorrect operator usage.

_____

✅ Check prohibited comparison operation of logical type signals (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

Identify non-uniform indentation in Stateflow blocks.

**Passed**

All Stateflow blocks have uniform indentation.

___

✅ Check for usage of text inside states (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
Identify placement of label string in Stateflow transition.

**Passed**

All Stateflow transitions are placed uniformly.

_____

✅ Check position of comments in transition labels (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
Identify graphical functions with multiple assignments of return values in Stateflow charts.

**Passed**

No Stateflow charts were found.

427

✅ Check uniqueness of Stateflow State and Data names (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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

___

428

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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

Identify MATLAB Functions that violate complexity limits.

**Passed**
No MATLAB Functions were found.

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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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 (19-Oct-2020 20:30:59)
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  ✅104 ❌0 ⚠️17 📄0

📁 Naming Conventions  ✅12 ❌0 ⚠️2 📄0

---

⚠️ *Check file names (19-Oct-2020 20:30:59)*

**Characters allowed for file names**

**Warning**

The following files have invalid names:

- D:\Study\Study Material Videos\Courses\Skill lync\ADAS\Project 2 Wrong Way Driver Warning SystemProject 2 Wrong Way Driver Warning System\WWDW-20200725T070158Z-001\WWDW\Wrong_Way_Driver_Warning.slx.autosave

**Recommended Action**

Consider having only alphanumeric characters and underscores in file name.

_____

✅ *Check folder names (19-Oct-2020 20:30:59)*

Check the folder name to ensure that the name complies with the recommended guidelines.

**Passed**

All folders have correct names.

_____

✅ *Check subsystem names (19-Oct-2020 20:30:59)*

Identify subsystem names with incorrect characters.

**Passed**

All the subsystem names use correct characters.

_____

✅ *Check port block names (19-Oct-2020 20:30:59)*

Identify Inport or Outport block names with incorrect characters.

**Passed**

All the Inport or Outport block names use correct characters.

_____

431

✅ *Check character usage in block names (19-Oct-2020 20:30:59)*
Identify block names with incorrect characters.

**Passed**

All the block names use correct characters.

_____

✅ *Check usable characters for signal names and bus names (19-Oct-2020 20:30:59)*
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 (19-Oct-2020 20:30:59)*
Identify invalid characters in parameter names

**Passed**

No invalid characters are used in parameter names.

_____

✅ *Check length of model file name (19-Oct-2020 20:30:59)*
Check length of model file name

**Passed**

Model name is valid.

_____

⚠️ *Check length of folder name at every level of model path (19-Oct-2020 20:30:59)*
The model file name is: Wrong_Way_Driver_Warning

**Warning**        Invalid folder names.

- Project 2 Wrong Way Driver Warning SystemProject 2 Wrong Way Driver Warning System

**Recommended Action**

Consider changing the folder name to have minimum of "0" characters and maximum of "63" characters.

_____

✅ *Check length of subsystem names (19-Oct-2020 20:30:59)*
Check length of subsystem names

**Passed**
All subsystem names are valid.

_____

✅ *Check length of Inport and Outport names (19-Oct-2020 20:30:59)*
Check length of Inport and Outport names

**Passed**
All Inport and Outport names are valid.

_____

✅ *Check length of signal and bus names (19-Oct-2020 20:30:59)*
Check length of signal and bus names

**Passed**
All signal and bus names are valid.

_____

✅ *Check length of parameter names (19-Oct-2020 20:30:59)*
Check length of parameter names

**Passed**
All parameter names are valid.

_____

✅ *Check length of block names (19-Oct-2020 20:30:59)*
Check length of block names

**Passed**
All block names are valid.


📁 Model Architecture  ✅0 ❌0 ⚠️1 📋0

_____

⚠️ *Check for mixing basic blocks and subsystems (19-Oct-2020 20:30:59)*
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).

The following level(s) in the model include basic blocks and subsystems:

| System | Block path |
|---|---|
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant1" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant2" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant3" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant3 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logical Operator" title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logical Operator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal" | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logical Operator1" |

| | |
|---|---|
| title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Logical Operator1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator1"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator1 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator2"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator2 |
| Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal | Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator3"<br>title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Relational Operator3 |

**Recommended Action**

If possible, replace blocks at the identified level of the model hierarchy with basic blocks. Move nonvirtual blocks into the identified subsystem.

📁 Model Configuration Options   ✅2 ❌0 ⚠0 📄0

_____

✅ *Check Implement logic signals as Boolean data (vs. double) (19-Oct-2020 20:30:59)*
Identify whether **Implement logic signals as Boolean data (vs. double)** is selected.

**Passed**

**Implement logic signals as Boolean data (vs. double)** is selected.

_____

✅ *Check diagnostic settings for incorrect calculation results (19-Oct-2020 20:30:59)*
Identify data validity diagnostic settings which detect incorrect calculation results.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|---|---|---|---|
| Pass | Division by singular matrix (CheckMatrixSingularityMsg) | error | error |
| Pass | Inf or NaN block output (SignalInfNanChecking) | error | error |
| Pass | Wrap on overflow (IntegerOverflowMsg) | error | error |
| Pass | Saturate on overflow (IntegerSaturationMsg) | error | error |

📁 Simulink  ✅39  ❌0  ⚠️14  📄0

_____

⚠️ *Check for Simulink diagrams using nonstandard display attributes (19-Oct-2020 20:30:59)*
Identify nonstandard display attributes in Simulink diagrams.

_____

**Check format settings**

436

Identify incorrect model-level format options.

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 |
| Modeling > Environment > Model Browser | 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.

**Passed**
All blocks use standard colors.

_____

**Check canvas colors**
Identify canvases that are not white.

**Passed**

All diagrams use a white canvas.

_____

**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:

- Wrong_Way_Driver_Warning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change"
  title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal

- 
  Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Lateral_Sign_Value_in_I
  SO_Coordinates"
  title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Lateral_Sign_Valu
  e_in_ISO_Coordinates

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning"
  title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning

**Recommended Action**

For each listed diagram, select **Modeling > Environment > Zoom > Normal View (100%)**.

_____

⚠️ *Check Model font settings (19-Oct-2020 20:30:59)*
**Check font size in Simulink block and signal names**

The font size of the following Simulink block or signal names are different from input parameters:

- 
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/
- 
- 
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/
- 
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/
- Wrong_Way_Driver_Warning/

∧ Less

**Recommended Action**

Consider modifying font size of block and signal names as per input parameters.

_____

*Check position of Inport and Outport blocks (19-Oct-2020 20:30:59)*

**Check positions of Inport blocks**

439

The following Inport blocks are not placed to left side of the diagram:

- 

- 

**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 positions of Outport blocks**

The following Outport blocks are not placed to right side of the diagram:

- 

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/WarningDisplayHMI
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SignID
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SignRelevance
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SignAboveRoad

**Recommended Action**

Move the Outport blocks identified to the right of all other blocks in the diagram.

It is acceptable to move the Outport block to the left only to prevent signal crossings.

_____

✅ *Check whether block names appear below blocks (19-Oct-2020 20:30:59)*
Identify blocks where the name is not displayed below the block.

**Passed**

All blocks have names displayed below the block.

_____

✅ *Check the display attributes of block names (19-Oct-2020 20:30:59)*

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.

**Passed**

All displayed names provide descriptive information.

### Check for missing block names

Identify block names that are hidden but should be displayed to show a descriptive name.

**Passed**

All displayed names provide descriptive information.

_____

✅ *Check for nondefault block attributes (19-Oct-2020 20:30:59)*

Identify blocks that use and fail to display nondefault values.

**Passed**

Model displays all block parameter values that are not default values.

_____

✅ *Check trigger signal names (19-Oct-2020 20:30:59)*

Identify trigger blocks where the origin of the trigger signal and the destination have dissimilar names.

**Passed**

No violation of the guideline for use of trigger signal names.

_____

✅ *Check for unconnected ports and signal lines (19-Oct-2020 20:30:59)*

Identify unconnected block input ports, output ports, and signal lines.

**Passed**

All lines and ports in the model are connected.

_____

⚠ *Check usage of Switch blocks (19-Oct-2020 20:30:59)*

Identify Switch blocks that do not use Boolean inputs for the switch condition (input 2), and do not use $u2 \sim= 0$ 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 $u2 \sim= 0$.

**Warning**

The block parameter **Criteria for passing first input** is not set to $u2 \sim= 0$ for the following blocks:

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Switch

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Switch"
title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Switch

- 
Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Switch1
"
title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Switch1

- 
Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Switch2
"
title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Switch2

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Switch"
title="Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Switch

**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 usage of Relational Operator blocks (19-Oct-2020 20:30:59)*

Identify Relational Operator blocks that connect to constants with the first (upper) input value.

**Warning**

The following Relational Operator blocks connect to a constant value using the first (upper) input value:

- 
- 
- 
- 

### Recommended Action

Make the constant value the second (lower) input to the Relation Operator block.

_____

✅ *Check Indexing Mode (19-Oct-2020 20:30:59)*

Identify blocks and charts with inconsistent Indexing mode.

**Passed**

No inconsistent Indexing mode used in the model.

_____

✅ *Check usage of tunable parameters in blocks (19-Oct-2020 20:30:59)*

Identify tunable parameters used to specify expressions, data type conversions, or indexing operations.

**Passed**

Tunable parameters are not used in the model.

_____

⚠️ *Check signal line labels (19-Oct-2020 20:30:59)*

Identify blocks that require labeled signals. A subset of source and destination blocks require labeled signals.

**Check source block labels**

**Warning**

The following signals have no label:

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Constant/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Constant1/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Constant2/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant1/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant2/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant3/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant4/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant5/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/Constant6/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Constant/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Constant1/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput/Constant2/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant1/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant2/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Constant3/

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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**

The following signals have no label:

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change/

**Recommended Action**

Add a new or propagated label to the signal line.

_____

✅ *Check for propagated signal labels (19-Oct-2020 20:30:59)*
Identify propagated labels on signal lines.

**Passed**
All inputs and outputs to the subsystems and blocks have labels and display propagated signals.

_____

✅ *Check usage of Discrete-Time Integrator block (19-Oct-2020 20:30:59)*
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 settings for data ports in Multiport Switch blocks (19-Oct-2020 20:30:59)*
Identify Multiport Switch blocks that violate data port settings.

**Passed**
No Multiport Switch blocks found with inappropriate data port settings.

_____

✅ *Check usage of fixed-point data type with non-zero bias (19-Oct-2020 20:30:59)*
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 input and output datatype for Switch blocks (19-Oct-2020 20:30:59)*

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 signs of input signals in product blocks (19-Oct-2020 20:30:59)*

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 Signed Integer Division Rounding mode (19-Oct-2020 20:30:59)*

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 type setting by data objects (19-Oct-2020 20:30:59)*

jc_0644: Identify blocks that violate signal data type setting if signal objects are used.

**Warning**

The following blocks violate signal data type setting if signal objects are used.

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData/Switch

- 

- 

**Recommended Action**

447

Set the output data type of the blocks either to "auto" or "Inherit via back propagation". This check excludes Data Type Conversion block, type setting by fixdt, double and boolean data types, and reusable internal part of function (treat as atomic unit).

_____

✅ *Check usage of the Saturation blocks (19-Oct-2020 20:30:59)*

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 usage of Merge block (19-Oct-2020 20:30:59)*

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 usage of Memory and Unit Delay blocks (19-Oct-2020 20:30:59)*
**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 block orientation (19-Oct-2020 20:30:59)*
Identify blocks which are rotated or reversed

**Passed**

No blocks found with rotated or reversed orientation

_____

✅ *Check if blocks are shaded in the model (19-Oct-2020 20:30:59)*
Check if blocks are shaded in the model

**Passed**

Blocks in the model are not shaded.

_____

✅ *Check operator order of Product blocks (19-Oct-2020 20:30:59)*

Operator order for Product blocks.

**Passed**

All Product blocks have valid operator order.

_____

✅ *Check icon shape of Logical Operator blocks (19-Oct-2020 20:30:59)*

Icon shape of Logical Operator blocks

**Passed**

All Logical Operator blocks have consistent icon shape.

_____

⚠️ *Check if tunable block parameters are defined as named constants (19-Oct-2020 20:30:59)*

Check if tunable block parameters are defined as named constants

**Warning**

The following tunable block parameters are not defined as named constants.

| Block | Violations |
|-------|------------|
|       | Value : -60 |
|       | Value : 60 |
|       | Value : 255 |

**Recommended Action**

449

Consider changing tunable block parameter literal values to named constants.

_____

✅ *Check default/else case in Switch Case blocks and If blocks (19-Oct-2020 20:30:59)*
   **Check if default/else case in Switch Case blocks and If blocks are set to 'on'**

   **Passed**
   Conditional Control blocks are valid.

_____

✅ *Check usage of Lookup Tables (19-Oct-2020 20:30:59)*
   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 for parentheses in Fcn block expressions (19-Oct-2020 20:30:59)*
   jc_0622: Guideline for using the Fcn block

   **Passed**
   All Fcn blocks use parentheses to mark operator precedence.

_____

✅ *Check undefined initial output for conditional subsystems (19-Oct-2020 20:30:59)*
   **Check undefined initial output for Outports/Merge blocks in conditional subsystems**

   **Passed**
   The initial output setting for all Conditional Subsystems are valid.

_____

✅ *Check for avoiding algebraic loops between subsystems (19-Oct-2020 20:30:59)*
   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.

_____

✅ *Comparing floating point types in Simulink (19-Oct-2020 20:30:59)*
   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 duplication of Simulink Data names (19-Oct-2020 20:30:59)*

Simulink Data names should be unique across base workspace, model workspace and data dictionary.

**Passed**

All Simulink Data names are unique.

_____

*Check unused data in Simulink Model (19-Oct-2020 20:30:59)*

**Check for unused data in Data Dictionary**

**Warning**

The following data variables in the data dictionary are unused:

| Data Objects | Source |
|---|---|
| F32 | WWDW_dd.sldd |
| F64 | WWDW_dd.sldd |
| FLAG | WWDW_dd.sldd |
| MODE | WWDW_dd.sldd |
| S16 | WWDW_dd.sldd |
| S32 | WWDW_dd.sldd |
| S8 | WWDW_dd.sldd |
| SMODE | WWDW_dd.sldd |
| SignPosLat | WWDW_dd.sldd |
| Sign_Status | WWDW_dd.sldd |

| U16 | WWDW_dd.sldd |
|---|---|
| U32 | WWDW_dd.sldd |
| U8 | WWDW_dd.sldd |
| ValidLateralPosition | WWDW_dd.sldd |
| ValidLongitudionalPosition | WWDW_dd.sldd |
| VehicleSpeed_kph | WWDW_dd.sldd |
| VehicleYawRate_Degree | WWDW_dd.sldd |

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**Recommended Action**

Consider removing the unused data variables.

_____

⚠ *Check output data type of operation blocks (19-Oct-2020 20:30:59)*

jc_0651: Guideline for implementing a type conversion.

**Warning**

Following operation blocks explicitly specify output data type:

- 
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**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.

_____

⚠ *Check Model Description (19-Oct-2020 20:30:59)*
Identify layers in the model having inconsistent description format.

**Warning**

Following layers do not have model descriptions:

- 
- 

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- 
- 

**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:

- Wrong_Way_Driver_Warning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner

- 

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData

- 

- 

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal

- 

**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 for consistency in model element names (19-Oct-2020 20:30:59)*
Check if model elements connected to a signal are following consistent naming.

**Passed**

Model elements connected to a signal are following consistent names.

_____

✅ *Check for sample time setting (19-Oct-2020 20:30:59)*
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 Sum blocks (19-Oct-2020 20:30:59)*
Identify inappropriate usages of Sum block.

**Passed**

No violations of the guideline found with the usage of the Sum block.

_____

⚠️ *Check position of signal labels (19-Oct-2020 20:30:59)*
**Check overlap of signal labels**

**Warning**

The following signals have labels which overlap other objects:

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning
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- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner
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- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner
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**Recommended Action**


Consider placing the signal label so that it is readable.

_____ **Check location of signal labels**

The following signals do not have labels located at the origin of the signal line:

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning

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- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Camera_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/EnabledData

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning

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- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Map_Data_Conditioning

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/SuppressedOutput

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Lateral_Sign_Value_in_ISO_Coordinates

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Lateral_Sign_Value_in_ISO_Coordinates

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal/Sign_Positional_Longitudional

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Valid_Signal
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Data_Conditioning
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Speed_Conversion
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Vehicle_Speed_Conversion
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_Conversion
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Yaw_Rate_Conversion
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner
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- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner
- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner
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**Recommended Action**


Consider placing the labels at the origin of the signal line.

_____

✅ *Check for missing ports in Variant Subsystems (19-Oct-2020 20:30:59)*
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 for cascaded Unit Delay blocks (19-Oct-2020 20:30:59)*
**Identify cascaded and tapped pattern of Unit Delay blocks.**


466

**Passed**

No cascaded Unit Delay blocks found that can be changed to Tapped Delay/Delay block.

_____

 *Check for usage of Data Store Memory blocks (19-Oct-2020 20:30:59)*

Identify the usage of Data Store Memory blocks.

**Passed**

Usage of Data Store Memory blocks is correct.

_____

 *Check fundamental logical and numerical operations (19-Oct-2020 20:30:59)*

**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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**Recommended Action**

Consider having non-boolean inputs for the numerical operation blocks.

_____

467

✅ *Check signal flow in model (19-Oct-2020 20:30:59)*
Identify subsystems which do not have a signal flow from left to right.

**Passed**

No subsystems found with inappropriate signal flow.

_____

✅ *Check usage of vector and bus signals (19-Oct-2020 20:30:59)*
Identify mixed usages of vector and bus signals.

**Passed**

No mixing of vector and bus signals found in the system.

_____

✅ *Check connections between structural subsystems (19-Oct-2020 20:30:59)*
Identify connections between structural subsystems.

**Passed**

All connections to structural subsystems adhere to the guideline.

_____

✅ *Check position of conditional blocks and iterator blocks (19-Oct-2020 20:30:59)*
Identify conditional and iterative blocks that are positioned inconsistently in the model.

**Passed**

The conditional and iterative blocks are correctly placed in the model.

_____

⚠️ *Check signal line connections (19-Oct-2020 20:30:59)*
**Check signal intersections**

**Warning**

The following signals intersect with other signals in the diagram:

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

- Wrong_Way_Driver_Warning/Input_Signal_Range_Conditioner/Input_Signal_Range_Change

**Recommended Action**

Reposition the above listed signals to avoid intersections.

_____

*Check scope of From and Goto blocks (19-Oct-2020 20:30:59)*
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.

Stateflow  49  0  0  0

_____

*Check transition orientations in flow charts (19-Oct-2020 20:30:59)*
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 return value assignments in Stateflow graphical functions (19-Oct-2020 20:30:59)*

Identify graphical functions with multiple assignments of return values in Stateflow charts.

**Passed**

No Stateflow charts were found.

_____

*Check default transition placement in Stateflow charts (19-Oct-2020 20:30:59)*

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 for Strong Data Typing with Simulink I/O (19-Oct-2020 20:30:59)*

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 definition of Stateflow data (19-Oct-2020 20:30:59)*

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.

470

✅ *Check for MATLAB expressions in Stateflow blocks (19-Oct-2020 20:30:59)*

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 for pointers in Stateflow charts (19-Oct-2020 20:30:59)*

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 Stateflow operators (19-Oct-2020 20:30:59)*

Identify the usage of operators in Stateflow.

**Passed**

No Stateflow blocks found with incorrect operator usage.

---

✅ *Check usage of unary minus operations in Stateflow charts (19-Oct-2020 20:30:59)*

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 usage of Stateflow comments (19-Oct-2020 20:30:59)*

Identify comments that are nested or contain newline(s) in the middle in Stateflow for action language 'C'.

**Passed**

No comments found that are either nested or contain newline(s) in the middle.

---

✅ *Check prohibited comparison operation of logical type signals (19-Oct-2020 20:30:59)*

Identify boolean variables in Stateflow charts using comparison operations.

**Passed**

No boolean variables use comparison operations of logical type in the model.

471

✅ *Check usage of internal transitions in Stateflow states (19-Oct-2020 20:30:59)*

Identify Stateflow states using multiple internal transitions.

**Passed**

No Stateflow states found with multiple internal transitions

---

✅ *Check usage of transition conditions in Stateflow transitions (19-Oct-2020 20:30:59)*

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 uniqueness of Stateflow State and Data names (19-Oct-2020 20:30:59)*

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 (19-Oct-2020 20:30:59)*

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 parentheses in Stateflow transitions (19-Oct-2020 20:30:59)*

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 prohibited combination of state action and flow chart (19-Oct-2020 20:30:59)*

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 condition actions and transition actions in Stateflow (19-Oct-2020 20:30:59)*

Identify usage of transition actions in Stateflow.

**Passed**

No Stateflow charts have transition actions.

_____

✅ *Check usable number for first index (19-Oct-2020 20:30:59)*

Identify usage of first index of Stateflow data.

**Passed**

All Stateflow data first index values are uniform.

_____

✅ *Check usage of State names (19-Oct-2020 20:30:59)*

jc_0731: Slash (/) in the state name
Identify state names with '/' at its end.

**Passed**

No Stateflow states were found.

_____

✅ *Check execution timing for default transition path (19-Oct-2020 20:30:59)*

'Execute (enter) Chart At Initialization' should be set to OFF.

**Passed**

All Stateflow Charts pass the check.

_____

✅ *Check repetition of Action types (19-Oct-2020 20:30:59)*

jc_0734: Number of state action types
Identifies repeated action types in a Stateflow State.

**Passed**

No Stateflow States were found.

_____

✅ *Check for unused data in Stateflow Charts (19-Oct-2020 20:30:59)*

Checks if the model parameter 'Unused data, events, messages and functions' is not set to 'none'.

473

**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 updates to variables used in state transition conditions (19-Oct-2020 20:30:59)*
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 starting point of internal transition in Stateflow (19-Oct-2020 20:30:59)*
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 for parallel Stateflow state used for grouping (19-Oct-2020 20:30:59)*
jc_0721: Guidelines for using parallel states
Identify parallel Stateflow States used for grouping.

**Passed**
No Stateflow charts were found.

_____

✅ *Check scope of data in parallel states (19-Oct-2020 20:30:59)*

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 indentation of code in Stateflow states (19-Oct-2020 20:30:59)*

Identify non-uniform indentation in Stateflow blocks.

**Passed**

All Stateflow blocks have uniform indentation.

_____

✅ *Check for usage of text inside states (19-Oct-2020 20:30:59)*

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 for unexpected backtracking in state transitions (19-Oct-2020 20:30:59)*

Identify configuration parameter settings which identify unexpected backtracking in state transitions.

**Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values |
|--------|-----------|---------------|--------------------|
| Pass | Unexpected backtracking (SFUnexpectedBacktrackingDiag) | error | error |

---

✅ *Check for unconnected objects in Stateflow Charts (19-Oct-2020 20:30:59)*

Identify dangling transitions and unconnected Stateflow States and Junctions in Stateflow Charts.

**Passed**

No unconnected transitions, states or junctions found in Stateflow Charts.

---

✅ *Check position of label string in Stateflow transition (19-Oct-2020 20:30:59)*

Identify placement of label string in Stateflow transition.

**Passed**

All Stateflow transitions are placed uniformly.

---

✅ *Check Stateflow chart action language (19-Oct-2020 20:30:59)*

Check if the action language of Stateflow charts is set to 'C'.

**Passed**

All Stateflow Charts have action language set to 'C'.

---

✅ *Check usable characters for Stateflow data names (19-Oct-2020 20:30:59)*

Identify invalid characters in Stateflow data names.

**Passed**

No invalid characters are used in Stateflow data names.

---

✅ *Check length of Stateflow data name (19-Oct-2020 20:30:59)*

Check if the length of Stateflow data names are within limit.

**Passed**

All Stateflow data names are valid.

---

✅ *Check usage of transitions to external states (19-Oct-2020 20:30:59)*

Identify transitions ending on external child states.

**Passed**

No direct transitions found from external state to child state.

---

✅ *Check order of state action types (19-Oct-2020 20:30:59)*

Identify out of order state action types in Stateflow states.

**Passed**

No Stateflow states found with out of order state action types

_____

✅ *Check usage of numeric literals in Stateflow (19-Oct-2020 20:30:59)*

Identify use of numeric literals in Stateflow states and transitions.

**Passed**

No numeric literals found in Stateflow charts.

_____

✅ *Check position of comments in transition labels (19-Oct-2020 20:30:59)*

Identify comments in transition labels that are not positioned uniformly.

**Passed**

Comments in transition labels are positioned uniformly.

_____

✅ *Check terminal junctions in Stateflow (19-Oct-2020 20:30:59)*

Identify usage of terminal junctions in flow charts.

**Passed**

Multiple terminal junctions were not found.

_____

✅ *Check for implicit type casting in Stateflow (19-Oct-2020 20:30:59)*

Identify implicit type casting in Stateflow.

**Passed**

No instances of implicit type casting found.

_____

✅ *Check if state action type 'exit' is used in the model (19-Oct-2020 20:30:59)*

Check if state action type 'exit' is used in the model.

**Passed**

State action type 'exit' is not used in the model.

_____

✅ *Check for use of C-style comment symbols (19-Oct-2020 20:30:59)*
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.

_____

✅ *Check usage of unconditional transitions in flow charts (19-Oct-2020 20:30:59)*
Identify unconditional transitions in flow charts.

**Passed**

All unconditional transitions adhere to the guideline.

_____

✅ *Check for comments in unconditional transitions (19-Oct-2020 20:30:59)*
Identify comments in unconditional transitions without action statements.

**Passed**

All unconditional transitions without action statements have comments.

_____

✅ *Check definition of Stateflow events (19-Oct-2020 20:30:59)*
Stateflow events should be defined at the smallest possible scope of usage.

**Passed**

All Stateflow events are defined at their smallest scope.

_____

✅ *Check Stateflow transition appearance (19-Oct-2020 20:30:59)*
Identify Stateflow transitions visually overlapping other Stateflow objects.

**Passed**

No transition violates the guidelines for Stateflow transition appearance.

_____

✅ *Check for usage of events and broadcasting events in Stateflow charts (19-Oct-2020 20:30:59)*
Identify undirected event broadcasts in Stateflow

**Passed**

No instances of undirected event broadcast were found.

_____

✅ *Check usage of Simulink functions in Stateflow (19-Oct-2020 20:30:59)*

Usage of Simulink Functions in Stateflow.

**Passed**

All Simulink Functions in Stateflow are defined according to the guideline.

📁 MATLAB Functions ✅2 ❌0 ⚠0 🗏0

_____

✅ *Check input and output settings of MATLAB Functions (19-Oct-2020 20:30:59)*

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.

_____

✅ *Check MATLAB code for global variables (19-Oct-2020 20:30:59)*

Check for global variables in MATLAB code

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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

_____


📁 Units Inconsistencies  ✅0 ❌0 ⚠️0 📄5

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📄 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  ✅13 ❌0 ⚠️0 📄0

_____

✅ Check configuration parameters for MISRA C:2012 (19-Oct-2020 20:30:59)
   Identify configuration parameters that might impact MISRA C:2012 compliant code generation.


   **Passed**

All constraints on model configuration parameters have been met.

| Status | Parameter | Current Value | Recommended Values | Prerequisites |
|---|---|---|---|---|
| Pass | Model Verification block enabling (AssertControl) | DisableAll | DisableAll | |
| D - Pass | Shared code placement (UtilityFuncGeneration) | Shared location | Shared location | |
| Pass | Generate shared constants (GenerateSharedConstants) | off | off | UtilityFuncGeneration |
| D - Pass | System target file (SystemTargetFile) | ERT based target | ERT based target | |
| Pass | continuous time (SupportContinuousTime) | off | off | SystemTargetFile |
| Pass | non-inlined S-functions (SupportNonInlinedSFcns) | off | off | SystemTargetFile |
| Pass | MAT-file logging (MatFileLogging) | off | off | |
| Pass | Code replacement library (CodeReplacementLibrary) | None | None, AUTOSAR 4.0 | |
| Pass | Parentheses level (ParenthesesLevel) | Maximum | Maximum | SystemTargetFile |

| | | | | |
|---|---|---|---|---|
| Pass | Casting modes (CastingMode) | Standards | Standards | SystemTargetFile |
| Pass | System-generated identifiers (InternalIdentifier) | Shortened | Shortened | SystemTargetFile |
| Pass | Signed integer division rounds to (ProdIntDivRoundTo) | Zero | Zero, Floor | |
| Pass | Use division for fixed-point net slope computation (UseDivisionForNetSlopeComputation) | UseDivisionForReciprocalsOfIntegersOnly | on, UseDivisionForReciprocalsOfIntegersOnly | |
| Pass | Replace multiplications by powers of two with signed bitwise shifts (EnableSignedLeftShifts) | off | off | SystemTargetFile |
| Pass | Allow right shifts on signed integers (EnableSignedRightShifts) | off | off | SystemTargetFile |
| Pass | Wrap on overflow (IntegerOverflowMsg) | error | warning, error | |
| Pass | Inf or NaN block output (SignalInfNanChecking) | error | warning, error | |
| Pass | Dynamic memory allocation in MATLAB functions (MATLABDynamicMemAlloc) | off | off | |
| Pass | External mode (ExtMode) | off | off | |

| | | | | |
|---|---|---|---|---|
| Pass | Undirected event broadcasts (SFUndirectedBroadcastEventsDiag) | error | error | |
| Pass | Compile-time recursion limit for MATLAB functions (CompileTimeRecursionLimit) | 0 | 0 | |
| Pass | Enable run-time recursion for MATLAB functions (EnableRuntimeRecursion) | off | off | |
| D - Pass | Include comments (GenerateComments) | on | on | |
| Pass | MATLAB user comments (MATLABFcnDesc) | on | on | GenerateComments, SystemTargetFile |

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✅ Check for blocks not recommended for C/C++ production code deployment (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

Identify block names containing "/".

**Passed**

No unsupported block names found.

_____

✅ Check usage of Assignment blocks (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

Identify bitwise operations on signed integers.

**Passed**

No bitwise operations on signed integers found.

---

✅ Check for recursive function calls (19-Oct-2020 20:30:59)

Identify function calls that are recursive.

**Passed**

No recursive function calls found.

---

✅ Check for equality and inequality operations on floating-point values (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

Identify missing const qualifiers in model functions.

**Passed**

Model does not use customized model functions.

---

✅ Check integer word lengths (19-Oct-2020 20:30:59)

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 (19-Oct-2020 20:30:59)

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**


📁 Frequency Response Estimation   ✅0 ❌0 ⚠0 ⊟1
_____

⊟ Identify time-varying source blocks interfering with frequency response estimation
   **Not Run**