Model Advisor Report - untitled1

Simulink version: 10.5
Model version: 1.0
System (Library): untitled1
Current run: 26-Mar-2022 21:51:34
Treat as Referenced Model: off

Run Summary

Incomplete	Failed	Warning	Justified	Passed	Not Run	Total
0	1	3	0	437	1422	1863

Supported compiler not detected. You can install the freely available MinGW-w64 C/C++ compiler; see Install MinGW-w64 Compiler. For more options, visit https://www.mathworks.com/support/compilers.

Model Advisor

1 By Product 0 0 0 0 0 689

1.1 Embedded Coder 0 0 0 0 0 28

Identify lookup table blocks that generate expensive out-of-range checking code

Not Run

Check configuration parameters for generation of inefficient saturation code

Not Run. Check does not support library and subsystem models.

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

Not Run

Check output types of logic blocks

Not Run

Check the hardware implementation

Not Run. Check does not support library and subsystem models.

Identify questionable software environment specifications

Not Run. Check does not support library and subsystem models.

Identify questionable code instrumentation (data I/O)

Not Run. Check does not support library and subsystem models.

Identify blocks generating inefficient algorithms

Not Run

Check configuration parameters for MISRA C:2012

Not Run. Check does not support library and subsystem models.

Check for blocks not recommended for MISRA C:2012

Not Run

Check for unsupported block names

Not Run

Check usage of Assignment blocks

Not Run

Check for switch case expressions without a default case

Not Run

Check for missing error ports in AUTOSAR receiver interfaces

Not Run. Check does not support library and subsystem models.

Check configuration parameters for secure coding standards

Not Run. Check does not support library and subsystem models.

Check for blocks not recommended for secure coding standards

Not Run

Identify questionable subsystem settings

Not Run. Check does not support library and subsystem models.

Check for blocks not supported for row-major code generation

Not Run. Check does not support library and subsystem models.

Identify TLC S-Functions with unset array layout

Not Run. Check does not support library and subsystem models.

Identify blocks that generate expensive fixed-point and saturation code

Not Run. Check does not support library and subsystem models.

Check for missing const qualifiers in model functions

Not Run. Check does not support library and subsystem models.

Check bus object names that are used as bus element names

Not Run. Check does not support library and subsystem models.

Identify questionable fixed-point operations

Not Run. Check does not support library and subsystem models.

Identify blocks that generate expensive rounding code

Not Run. Check does not support library and subsystem models.

Check for bitwise operations on signed integers

Not Run. Check does not support library and subsystem models.

Check for recursive function calls

Not Run. Check does not support library and subsystem models.

Check for equality and inequality operations on floating-point values

Not Run. Check does not support library and subsystem models.

Check integer word lengths

Not Run. Check does not support library and subsystem models.

1.2 Simulink 0 0 0 0 0 42

Check optimization settings

Not Run. Check does not support library and subsystem models.

Identify unconnected lines, input ports, and output ports

Not Run

Check root model Inport block specifications

Not Run. Check does not support library and subsystem models.

Check diagnostic settings ignored during accelerated model reference simulation

Not Run. Check does not support library and subsystem models.

Check for parameter tunability information ignored for referenced models

Not Run. Check does not support library and subsystem models.

Check for implicit signal resolution

Not Run. Check does not support library and subsystem models.

Check for optimal bus virtuality

Not Run

Check for calls to slDataTypeAndScale()

Not Run. Check does not support library and subsystem models.

Check for Discrete-Time Integrator blocks with initial condition uncertainty

Not Run

Identify disabled library links

Not Run

Identify parameterized library links

Not Run

Identify unresolved library links

Not Run

Identify configurable subsystem blocks in the model for converting to variant subsystem blocks.

Not Run

Check usage of function-call connections

Not Run. Check does not support library and subsystem models.

Check and update mask image display commands with unnecessary imread() function calls

Not Run

Check and update mask to affirm icon drawing commands dependency on mask workspace

Not Run

Identify Environment Controller blocks to be replaced with Variant Source blocks

Not Run

Runtime diagnostics for S-functions

Not Run. Check does not support library and subsystem models.

Check if Read/Write diagnostics are enabled for Data Store blocks

Not Run. Check does not support library and subsystem models.

Check Data Store Memory blocks for multitasking, strong typing, and shadowing issues

Not Run. Check does not support library and subsystem models.

Check Model History properties

Not Run

Check S-functions in the model

Not Run. Check does not support library and subsystem models.

Open the Upgrade Advisor

Not Run

Check structure parameter usage with bus signals

Not Run. Check does not support library and subsystem models.

Check for large number of function arguments from virtual bus across model reference boundary

Not Run. Check does not support library and subsystem models.

Check Delay, Unit Delay and Zero-Order Hold blocks for rate transition

Not Run. Check does not support library and subsystem models.

Check bus signals treated as vectors

Not Run. Check does not support library and subsystem models.

Check for potentially delayed function-call block return values

Not Run. Check does not support library and subsystem models.

Identify block output signals with continuous sample time and non-floating point data type

Not Run. Check does not support library and subsystem models.

Check usage of Merge blocks

Not Run. Check does not support library and subsystem models.

Check usage of Outport blocks

Not Run. Check does not support library and subsystem models.

Check usage of Discrete-Time Integrator blocks

Not Run. Check does not support library and subsystem models.

Check model settings for migration to simplified initialization mode

Not Run. Check does not support library and subsystem models.

Check for non-continuous signals driving derivative ports

Not Run. Check does not support library and subsystem models.

Check data store block sample times for modeling errors

Not Run. Check does not support library and subsystem models.

Check for potential ordering issues involving data store access

Not Run. Check does not support library and subsystem models.

Identify unit mismatches in the model

Not Run. Check does not support library and subsystem models.

Identify automatic unit conversions in the model

Not Run. Check does not support library and subsystem models.

Identify disallowed unit systems in the model

Not Run. Check does not support library and subsystem models.

Identify undefined units in the model

Not Run. Check does not support library and subsystem models.

Identify ambiguous units in the model

Not Run. Check does not support library and subsystem models.

Identify questionable operations for strict single-precision design

Not Run. Check does not support library and subsystem models.

1.3 Simulink Coder

0 0 0 0 0 9

Identify blocks using one-based indexing

Not Run

Check solver for code generation

Not Run. Check does not support library and subsystem models.

Check for blocks not supported by code generation

Not Run

Check for model reference configuration mismatch

Not Run. Check does not support library and subsystem models.

Check code generation identifier formats used for model reference

Not Run. Check does not support library and subsystem models.

Check for relative execution order change for Data Store Read and Data Store Write blocks

Not Run. Check does not support library and subsystem models.

Check reuse of subsystem code

Not Run. Check does not support library and subsystem models.

Check sample times and tasking mode

Not Run. Check does not support library and subsystem models.

Check for blocks that have constraints on tunable parameters

Not Run. Check does not support library and subsystem models.

1.4 AUTOSAR Blockset 0 0 0 0 0 2

Check compatibility of AUTOSAR Interpolation Routines

Not Run. Check does not support library and subsystem models.

Check model configuration parameters for AUTOSAR compliance

Not Run. Check does not support library and subsystem models.

1.5 HDL Coder 0 0 0 0 0 36

1.5.1 Checks for blocks and block settings 0 0 0 0 0 10

Check for unsupported blocks

Not Run. Check does not support library and subsystem models.

Check for HDL Reciprocal block usage

Not Run. Check does not support library and subsystem models.

Check for MATLAB Function block settings

Not Run. Check does not support library and subsystem models.

Check for obsolete Unit Delay Enabled/Resettable blocks

Not Run. Check does not support library and subsystem models.

Check for infinite and continuous sample time sources

Not Run. Check does not support library and subsystem models.

Check for unsupported storage class for signal objects

Not Run. Check does not support library and subsystem models.

Check for Stateflow chart settings

Not Run. Check does not support library and subsystem models.

Check for Trigonometric Function block for LUT-based approximation method

Not Run. Check does not support library and subsystem models.

Check for large matrix operations

Not Run. Check does not support library and subsystem models.

Check for blocks that have nonzero output latency

Not Run. Check does not support library and subsystem models.

1.5.2 Industry standard checks 0 0 0 0 0 11

Check architecture name

Not Run. Check does not support library and subsystem models.

Check clock settings

Not Run. Check does not support library and subsystem models.

Check clock, reset, and enable signals

Not Run. Check does not support library and subsystem models.

Check file extension

Not Run. Check does not support library and subsystem models.

Check generics

Not Run. Check does not support library and subsystem models.

Check naming conventions

Not Run. Check does not support library and subsystem models.

Check package file names

Not Run. Check does not support library and subsystem models.

Check signal and port names

Not Run. Check does not support library and subsystem models.

Check entity and architecture

Not Run. Check does not support library and subsystem models.

Check module/entity names

Not Run. Check does not support library and subsystem models.

Check top-level subsystem/port names

Not Run. Check does not support library and subsystem models.

1.5.3 Model configuration checks 0 0 0 0 0 6

Check delay balancing setting

Not Run. Check does not support library and subsystem models.

Check for global reset setting for Xilinx and Altera devices

Not Run. Check does not support library and subsystem models.

Check inline configurations setting

Not Run. Check does not support library and subsystem models.

Check for model parameters suited for the HDL code generation

Not Run. Check does not support library and subsystem models.

Check for visualization settings

Not Run. Check does not support library and subsystem models.

Check algebraic loops

Not Run. Check does not support library and subsystem models.

1.5.4 Checks for ports and subsystems 0 0 0 0 0 2

Check initial conditions of enabled and triggered subsystems

Not Run. Check does not support library and subsystem models.

Check for invalid top level subsystem

Not Run. Check does not support library and subsystem models.

1.5.5 Native Floating Point checks 0 0 0 0 0 7

Check for double datatypes in the model with Native Floating Point

Not Run. Check does not support library and subsystem models.

Check for Data Type Conversion blocks with incompatible settings

Not Run. Check does not support library and subsystem models.

Check for HDL Reciprocal block usage

Not Run. Check does not support library and subsystem models.

Check for Relational Operator block usage

Not Run. Check does not support library and subsystem models.

Check for single datatypes in the model

Not Run. Check does not support library and subsystem models.

Check for unsupported blocks with Native Floating Point

Not Run. Check does not support library and subsystem models.

Check blocks with nonzero ulp error

Not Run. Check does not support library and subsystem models.

1.6 Simscape 0 0 0 0 0 3

Check consistency of block parameter units

Not Run. Check does not support library and subsystem models.

Check for outdated AC source blocks

Not Run. Check does not support library and subsystem models.

Check for dry hydraulic nodes

Not Run. Check does not support library and subsystem models.

1.7 Simulink PLC Coder 0 0 0 0 0 24

1.7.1 Industry standard checks 0 0 0 0 0 7

Define the names to avoid

Not Run. Check does not support library and subsystem models.

Define the use of case (capitals)

Not Run. Check does not support library and subsystem models.

Define the maximum variable name length

Not Run. Check does not support library and subsystem models.

Comments must describe the intention of the code

Not Run. Check does not support library and subsystem models.

Avoid nested comments

Not Run. Check does not support library and subsystem models.

Define maximum number of input/output/in-out variables of a POU

Not Run. Check does not support library and subsystem models.

Define type prefixes for variables (if used)

Not Run. Check does not support library and subsystem models.

1.7.2 Checks for blocks and block settings

0 0 0 0 0 8

Check if model uses event based blocks

Not Run. Check does not support library and subsystem models.

Check if model uses probe blocks

Not Run. Check does not support library and subsystem models.

Check if model uses environment controller blocks

Not Run. Check does not support library and subsystem models.

Check Stateflow chart update

Not Run. Check does not support library and subsystem models.

Check issues with integrator blocks

Not Run. Check does not support library and subsystem models.

Check if model can generate testbench

Not Run. Check does not support library and subsystem models.

Check function packaging configuration

Not Run. Check does not support library and subsystem models.

Check trigonometric blocks

Not Run. Check does not support library and subsystem models.

1.7.3 Model configuration checks

0 0 0 0 0 9

Check if model uses unsupported blocks

Not Run. Check does not support library and subsystem models.

Check Data Store Memory blocks

Not Run. Check does not support library and subsystem models.

Check model for Stateflow messages

Not Run. Check does not support library and subsystem models.

Check if signal lines are configured properly

Not Run. Check does not support library and subsystem models.

Check if model uses row major algorithms

Not Run. Check does not support library and subsystem models.

Check model mask parameters

Not Run. Check does not support library and subsystem models.

Check if model uses machine parented data

Not Run. Check does not support library and subsystem models.

Check if model uses custom code

Not Run. Check does not support library and subsystem models.

Check model tunable parameters

Not Run. Check does not support library and subsystem models.

1.8 Simulink Check 0 0 0 0 0 459

1.8.1 Modeling Standards 0 0 0 0 0 449

1.8.1.1 DO-178C/DO-331 Checks 0 0 0 0 0 95

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 MATLAB functions not supported for code generation

Not Run

Check state machine type of Stateflow charts

Not Run

Check Stateflow charts for ordering of states and transitions

Not Run

Check Stateflow debugging options

Not Run. Check does not support library and subsystem models.

Check Stateflow charts for transition paths that cross parallel state boundaries

Not Run

Check for inappropriate use of transition paths

Not Run

Check naming of ports in Stateflow charts

Not Run

Check scoping of Stateflow data objects

Not Run

Check usage of While Iterator blocks

Not Run

Check usage of For and While Iterator subsystems

Not Run

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

Not Run

Check for inconsistent vector indexing methods

Not Run

Check usage of variant blocks

Not Run

Check for root Inports with missing properties

Not Run

Check model file name

Not Run

Check usage of lookup table blocks

Not Run

Check safety-related solver settings for simulation time

Not Run

Check Stateflow charts for uniquely defined data objects

Not Run

Check global variables in graphical functions

Not Run

Check usage of Gain blocks

Not Run

Check for model elements that do not link to requirements

Not Run

Check safety-related settings for hardware implementation

Not Run. Check does not support library and subsystem models.

Check for parameter tunability ignored for referenced models

Not Run. Check does not support library and subsystem models.

Check for disabled and parameterized library links

Not Run

Check safety-related diagnostic settings for data store memory

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for saving

Not Run. Check does not support library and subsystem models.

Check safety-related model referencing settings

Not Run. Check does not support library and subsystem models.

Check safety-related solver settings for solver options

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for solvers

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for sample time

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for logic signals

Not Run. Check does not support library and subsystem models.

Check safety-related block reduction optimization settings

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for application lifespan

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for data initialization

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for data type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for division arithmetic exceptions

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related code generation settings for comments

Not Run. Check does not support library and subsystem models.

Check safety-related code generation interface settings

Not Run. Check does not support library and subsystem models.

Check safety-related code generation settings for code style

Not Run. Check does not support library and subsystem models.

Check safety-related code generation identifier settings

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for compatibility

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for parameters

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Merge blocks

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model initialization

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for data used for debugging

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal connectivity

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for bus connectivity

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model referencing

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Stateflow

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal data

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for variants

Not Run. Check does not support library and subsystem models.

Display model version information

Not Run. Check does not support library and subsystem models.

Check usage of relational operators in MATLAB Function blocks

Not Run. Check does not support library and subsystem models.

Check usage of logical operators and functions in MATLAB Function blocks

Not Run. Check does not support library and subsystem models.

Check type and size of condition expressions

Not Run. Check does not support library and subsystem models.

Metrics for generated code complexity

Not Run. Check does not support library and subsystem models.

Check Stateflow charts for strong data typing

Not Run. Check does not support library and subsystem models.

Check assignment operations in Stateflow charts

Not Run. Check does not support library and subsystem models.

Check Stateflow charts for unary operators

Not Run. Check does not support library and subsystem models.

Check usage of Abs blocks

Not Run. Check does not support library and subsystem models.

Check usage of For Iterator blocks

Not Run. Check does not support library and subsystem models.

Check usage of If blocks and If Action Subsystem blocks

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of conditionally executed subsystems

Not Run. Check does not support library and subsystem models.

Check relational comparisons on floating-point signals

Not Run. Check does not support library and subsystem models.

Check usage of Relational Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of Logical Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of bitwise operations

Not Run. Check does not support library and subsystem models.

Check usage of Merge blocks

Not Run. Check does not support library and subsystem models.

Check data types for blocks with index signals

Not Run. Check does not support library and subsystem models.

Check for root Inports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check for root Outports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check usage of Assignment blocks

Not Run. Check does not support library and subsystem models.

Check model object names

Not Run. Check does not support library and subsystem models.

Check usage of Signal Routing blocks

Not Run. Check does not support library and subsystem models.

Check for length of user-defined object names

Not Run. Check does not support library and subsystem models.

Check data type of loop control variables

Not Run. Check does not support library and subsystem models.

Check usage of bit-shift operations

Not Run. Check does not support library and subsystem models.

Check usage of recursions

Not Run. Check does not support library and subsystem models.

Check usage of remainder and reciprocal operations

Not Run. Check does not support library and subsystem models.

Check usage of square root operations

Not Run. Check does not support library and subsystem models.

Check usage of log and log10 operations

Not Run. Check does not support library and subsystem models.

Check usage of Reciprocal Sqrt blocks

Not Run. Check does not support library and subsystem models.

Check for divide-by-zero calculations

Not Run. Check does not support library and subsystem models.

Check for unreachable and dead code

Not Run. Check does not support library and subsystem models.

1.8.1.2 IEC 61508, IEC 62304, ISO 26262, ISO 25119, EN 50128 and EN 50657 Checks

0 0 0 0 0 97

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 MATLAB functions not supported for code generation

Not Run

Check state machine type of Stateflow charts

Not Run

Check Stateflow charts for ordering of states and transitions

Not Run

Check Stateflow debugging options

Not Run. Check does not support library and subsystem models.

Check Stateflow charts for transition paths that cross parallel state boundaries

Not Run

Check for inappropriate use of transition paths

Not Run

Check naming of ports in Stateflow charts

Not Run

Check scoping of Stateflow data objects

Not Run

Check usage of While Iterator blocks

Not Run

Check usage of For and While Iterator subsystems

Not Run

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

Not Run

Check for inconsistent vector indexing methods

Not Run

Check usage of variant blocks

Not Run

Check for root Inports with missing properties

Not Run

Check model file name

Not Run

Check usage of lookup table blocks

Not Run

Check safety-related solver settings for simulation time

Not Run

Check Stateflow charts for uniquely defined data objects

Not Run

Check global variables in graphical functions

Not Run

Check usage of Gain blocks

Not Run

Check for model elements that do not link to requirements

Not Run

Check safety-related settings for hardware implementation

Not Run. Check does not support library and subsystem models.

Check for parameter tunability ignored for referenced models

Not Run. Check does not support library and subsystem models.

Check for disabled and parameterized library links

Not Run

Check safety-related diagnostic settings for data store memory

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for saving

Not Run. Check does not support library and subsystem models.

Check safety-related model referencing settings

Not Run. Check does not support library and subsystem models.

Check safety-related solver settings for solver options

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for solvers

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for sample time

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for logic signals

Not Run. Check does not support library and subsystem models.

Check safety-related block reduction optimization settings

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for application lifespan

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for data initialization

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for data type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for division arithmetic exceptions

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related code generation settings for comments

Not Run. Check does not support library and subsystem models.

Check safety-related code generation interface settings

Not Run. Check does not support library and subsystem models.

Check safety-related code generation settings for code style

Not Run. Check does not support library and subsystem models.

Check safety-related code generation identifier settings

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for compatibility

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for parameters

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Merge blocks

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model initialization

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for data used for debugging

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal connectivity

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for bus connectivity

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model referencing

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Stateflow

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal data

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for variants

Not Run. Check does not support library and subsystem models.

Display model metrics and complexity report

Not Run

Check for unconnected objects

Not Run

Check usage of relational operators in MATLAB Function blocks

Not Run. Check does not support library and subsystem models.

Check usage of logical operators and functions in MATLAB Function blocks

Not Run. Check does not support library and subsystem models.

Check type and size of condition expressions

Not Run. Check does not support library and subsystem models.

Metrics for generated code complexity

Not Run. Check does not support library and subsystem models.

Check Stateflow charts for strong data typing

Not Run. Check does not support library and subsystem models.

Check assignment operations in Stateflow charts

Not Run. Check does not support library and subsystem models.

Check Stateflow charts for unary operators

Not Run. Check does not support library and subsystem models.

Check usage of Abs blocks

Not Run. Check does not support library and subsystem models.

Check usage of For Iterator blocks

Not Run. Check does not support library and subsystem models.

Check usage of If blocks and If Action Subsystem blocks

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of conditionally executed subsystems

Not Run. Check does not support library and subsystem models.

Check relational comparisons on floating-point signals

Not Run. Check does not support library and subsystem models.

Check usage of Relational Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of Logical Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of bitwise operations

Not Run. Check does not support library and subsystem models.

Check usage of Merge blocks

Not Run. Check does not support library and subsystem models.

Check data types for blocks with index signals

Not Run. Check does not support library and subsystem models.

Check for root Inports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check for root Outports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check usage of Assignment blocks

Not Run. Check does not support library and subsystem models.

Check model object names

Not Run. Check does not support library and subsystem models.

Check usage of Signal Routing blocks

Not Run. Check does not support library and subsystem models.

Check for length of user-defined object names

Not Run. Check does not support library and subsystem models.

Check data type of loop control variables

Not Run. Check does not support library and subsystem models.

Check usage of bit-shift operations

Not Run. Check does not support library and subsystem models.

Display configuration management data

Not Run. Check does not support library and subsystem models.

Check usage of recursions

Not Run. Check does not support library and subsystem models.

Check usage of remainder and reciprocal operations

Not Run. Check does not support library and subsystem models.

Check usage of square root operations

Not Run. Check does not support library and subsystem models.

Check usage of log and log10 operations

Not Run. Check does not support library and subsystem models.

Check usage of Reciprocal Sqrt blocks

Not Run. Check does not support library and subsystem models.

Check for divide-by-zero calculations

Not Run. Check does not support library and subsystem models.

Check for unreachable and dead code

Not Run. Check does not support library and subsystem models.

1.8.1.3 MAB Checks 0 0 0 0 0 142

Check for prohibited sink blocks

Not Run

Check whether block names appear below blocks

Not Run

Check for mixing basic blocks and subsystems

Not Run

Check usage of tunable parameters in blocks

Not Run

Check model diagnostic parameters

Not Run. Check does not support library and subsystem models.

Check the display attributes of block names

Not Run

Check display for port blocks

Not Run

Check usage of Relational Operator blocks

Not Run

Check for nondefault block attributes

Not Run

Check signal line labels

Not Run

Check for propagated signal labels

Not Run. Check does not support library and subsystem models.

Check return value assignments in Stateflow graphical functions

Not Run

Check for pointers in Stateflow charts

Not Run

Check logical expressions in If blocks

Not Run

Check for Simulink diagrams using nonstandard display attributes

Not Run. Check does not support library and subsystem models.

Check input and output settings of MATLAB Functions

Not Run

Check MATLAB code for global variables

Not Run

Check use of Simulink in Stateflow charts

Not Run

Check use of default variants

Not Run

Check use of single variable variant conditionals

Not Run

Check usage of restricted variable names

Not Run

Check usage of character vector inside MATLAB Function block

Not Run

Check usage of recommended patterns for Switch/Case statements

Not Run

Check the number of function calls in MATLAB Function blocks

Not Run

Check lines of code in MATLAB Functions

Not Run

Check nested conditions in MATLAB Functions

Not Run

Check Implement logic signals as Boolean data (vs. double)

Not Run. Check does not support library and subsystem models.

Check usage of Discrete-Time Integrator block

Not Run

Check default transition placement in Stateflow charts

Not Run

Check for avoiding algebraic loops between subsystems

Not Run

Check for missing ports in Variant Subsystems

Not Run

Check for cascaded Unit Delay blocks

Not Run

Check file names

Not Run

Check folder names

Not Run

Check port block names

Not Run

Check subsystem names

Not Run

Check character usage in block names

Not Run

Check definition of signal labels

Not Run

Check Signal name propagation

Not Run. Check does not support library and subsystem models.

Check Signed Integer Division Rounding mode

Not Run

Check usage of State names

Not Run

Check usage of Stateflow comments

Not Run

Check execution timing for default transition path

Not Run

Check usage of Merge block

Not Run

Check usage of internal transitions in Stateflow states

Not Run

Check usage of transition conditions in Stateflow transitions

Not Run

Check block orientation

Not Run

Check usage of parentheses in Stateflow transitions

Not Run

Check usable number for first index

Not Run

Check character usage in signal names and bus names

Not Run

Check uniqueness of Stateflow State and Data names

Not Run

Check length of model file name

Not Run

Check length of folder name at every level of model path

Not Run

Check length of subsystem names

Not Run

Check length of Inport and Outport names

Not Run

Check length of signal and bus names

Not Run

Check length of block names

Not Run

Check entry formatting in State blocks in Stateflow charts

Not Run

Check prohibited combination of state action and flow chart

Not Run

Check repetition of Action types

Not Run

Check for unused data in Stateflow Charts

Not Run. Check does not support library and subsystem models.

Check updates to variables used in state transition conditions

Not Run

Check condition actions and transition actions in Stateflow

Not Run

Check uniqueness of State names

Not Run

Check if blocks are shaded in the model

Not Run

Check operator order of Product blocks

Not Run

Check icon shape of Logical Operator blocks

Not Run

Check if tunable block parameters are defined as named constants

Not Run

Check default/else case in Switch Case blocks and If blocks

Not Run

Check usage of internal transition

Not Run

Check usage of parallel states

Not Run

Check scope of data in parallel states

Not Run

Check indentation of code in Stateflow states

Not Run

Check for unexpected backtracking in state transitions

Not Run. Check does not support library and subsystem models.

Check usage of Lookup Tables

Not Run

Check for parentheses in Fcn block expressions

Not Run

Check for usage of text inside states

Not Run

Check for unconnected objects in Stateflow Charts

Not Run

Check position of label string in Stateflow transition

Not Run

Check duplication of Simulink Data names

Not Run

Check Model Description

Not Run

Check Stateflow chart action language

Not Run

Check character usage in Stateflow data names

Not Run

Check length of Stateflow data name

Not Run

Check diagnostic settings for incorrect calculation results

Not Run. Check does not support library and subsystem models.

Check usage of transitions to external states

Not Run

Check order of state action types

Not Run

Check usage of numeric literals in Stateflow

Not Run

Check position of comments in transition labels

Not Run

Check trigger signal names

Not Run

Check usage of unconditional transitions in flow charts

Not Run

Check for comments in unconditional transitions

Not Run

Check output data type of operation blocks

Not Run

Check terminal junctions in Stateflow

Not Run

Check if state action type 'exit' is used in the model

Not Run

Check for consistency in model element names

Not Run

Check usage of graphical functions in Stateflow

Not Run

Check for sample time setting

Not Run

Check usage of Sum blocks

Not Run

Check Indexing Mode

Not Run

Check position of signal labels

Not Run

Check position of Inport and Outport blocks

Not Run

Check definition of Stateflow events

Not Run

Check for usage of Data Store Memory blocks

Not Run

Check for MATLAB expressions in Stateflow blocks

Not Run

Check definition of Stateflow data

Not Run

Check signal flow in model

Not Run

Check Stateflow transition appearance

Not Run

Check position of conditional blocks and iterator blocks

Not Run

Check signal line connections

Not Run

Check usage of events in Stateflow charts

Not Run

Check Model font settings

Not Run

Check usage of Simulink functions in Stateflow

Not Run

Check for exclusive states in state machines

Not Run

Check for unconnected signal lines and blocks

Not Run

Check transitions in Stateflow flow charts

Not Run

Check scope of From and Goto blocks

Not Run. Check does not support library and subsystem models.

Check usage of Switch blocks

Not Run. Check does not support library and subsystem models.

Check usage of unary minus operations in Stateflow charts

Not Run. Check does not support library and subsystem models.

Check usage of floating-point expressions in Stateflow charts

Not Run. Check does not support library and subsystem models.

Check usage of enumerated values

Not Run. Check does not support library and subsystem models.

Check for names of Stateflow ports and associated signals

Not Run. Check does not support library and subsystem models.

Check settings for data ports in Multiport Switch blocks

Not Run. Check does not support library and subsystem models.

Check input and output datatype for Switch blocks

Not Run. Check does not support library and subsystem models.

Check usage of fixed-point data type with non-zero bias

Not Run. Check does not support library and subsystem models.

Check signs of input signals in product blocks

Not Run. Check does not support library and subsystem models.

Check type setting by data objects

Not Run. Check does not support library and subsystem models.

Check usage of the Saturation blocks

Not Run. Check does not support library and subsystem models.

Check prohibited comparison operation of logical type signals

Not Run. Check does not support library and subsystem models.

Check usage of Memory and Unit Delay blocks

Not Run. Check does not support library and subsystem models.

Check character usage in parameter names

Not Run. Check does not support library and subsystem models.

Check length of parameter names

Not Run. Check does not support library and subsystem models.

Check undefined initial output for conditional subsystems

Not Run. Check does not support library and subsystem models.

Check comparison of floating point types in Simulink

Not Run. Check does not support library and subsystem models.

Check unused data in Simulink Model

Not Run. Check does not support library and subsystem models.

Check for implicit type casting in Stateflow

Not Run. Check does not support library and subsystem models.

Check for use of C-style comment symbols

Not Run. Check does not support library and subsystem models.

Check Stateflow operators

Not Run. Check does not support library and subsystem models.

Check fundamental logical and numerical operations

Not Run. Check does not support library and subsystem models.

Check usage of vector and bus signals

Not Run. Check does not support library and subsystem models.

Check connections between structural subsystems

Not Run. Check does not support library and subsystem models.

Check for division by zero in Simulink

Not Run. Check does not support library and subsystem models.

1.8.1.4 JMAAB Checks

0 0 0 0 0 115

Check usage of tunable parameters in blocks

Not Run

Check use of single variable variant conditionals

Not Run

Check usage of character vector inside MATLAB Function block

Not Run

Check usage of Discrete-Time Integrator block

Not Run

Check default transition placement in Stateflow charts

Not Run

Check for avoiding algebraic loops between subsystems

Not Run

Check for missing ports in Variant Subsystems

Not Run

Check for cascaded Unit Delay blocks

Not Run

Check file names

Not Run

Check folder names

Not Run

Check port block names

Not Run

Check subsystem names

Not Run

Check character usage in block names

Not Run

Check definition of signal labels

Not Run

Check Signal name propagation

Not Run. Check does not support library and subsystem models.

Check Signed Integer Division Rounding mode

Not Run

Check usage of State names

Not Run

Check usage of Stateflow comments

Not Run

Check execution timing for default transition path

Not Run

Check usage of Merge block

Not Run

Check usage of internal transitions in Stateflow states

Not Run

Check usage of transition conditions in Stateflow transitions

Not Run

Check block orientation

Not Run

Check usage of parentheses in Stateflow transitions

Not Run

Check usable number for first index

Not Run

Check character usage in signal names and bus names

Not Run

Check uniqueness of Stateflow State and Data names

Not Run

Check length of model file name

Not Run

Check length of folder name at every level of model path

Not Run

Check length of subsystem names

Not Run

Check length of Inport and Outport names

Not Run

Check length of signal and bus names

Not Run

Check length of block names

Not Run

Check entry formatting in State blocks in Stateflow charts

Not Run

Check prohibited combination of state action and flow chart

Not Run

Check repetition of Action types

Not Run

Check for unused data in Stateflow Charts

Not Run. Check does not support library and subsystem models.

Check updates to variables used in state transition conditions

Not Run

Check condition actions and transition actions in Stateflow

Not Run

Check uniqueness of State names

Not Run

Check if blocks are shaded in the model

Not Run

Check operator order of Product blocks

Not Run

Check icon shape of Logical Operator blocks

Not Run

Check if tunable block parameters are defined as named constants

Not Run

Check default/else case in Switch Case blocks and If blocks

Not Run

Check usage of internal transition

Not Run

Check usage of parallel states

Not Run

Check scope of data in parallel states

Not Run

Check indentation of code in Stateflow states

Not Run

Check for unexpected backtracking in state transitions

Not Run. Check does not support library and subsystem models.

Check usage of Lookup Tables

Not Run

Check for parentheses in Fcn block expressions

Not Run

Check for usage of text inside states

Not Run

Check for unconnected objects in Stateflow Charts

Not Run

Check position of label string in Stateflow transition

Not Run

Check duplication of Simulink Data names

Not Run

Check Model Description

Not Run

Check Stateflow chart action language

Not Run

Check character usage in Stateflow data names

Not Run

Check length of Stateflow data name

Not Run

Check diagnostic settings for incorrect calculation results

Not Run. Check does not support library and subsystem models.

Check usage of transitions to external states

Not Run

Check order of state action types

Not Run

Check usage of numeric literals in Stateflow

Not Run

Check position of comments in transition labels

Not Run

Check trigger signal names

Not Run

Check usage of unconditional transitions in flow charts

Not Run

Check for comments in unconditional transitions

Not Run

Check output data type of operation blocks

Not Run

Check terminal junctions in Stateflow

Not Run

Check if state action type 'exit' is used in the model

Not Run

Check for consistency in model element names

Not Run

Check usage of graphical functions in Stateflow

Not Run

Check for sample time setting

Not Run

Check usage of Sum blocks

Not Run

Check Indexing Mode

Not Run

Check position of signal labels

Not Run

Check position of Inport and Outport blocks

Not Run

Check definition of Stateflow events

Not Run

Check for usage of Data Store Memory blocks

Not Run

Check for MATLAB expressions in Stateflow blocks

Not Run

Check definition of Stateflow data

Not Run

Check signal flow in model

Not Run

Check Stateflow transition appearance

Not Run

Check position of conditional blocks and iterator blocks

Not Run

Check signal line connections

Not Run

Check usage of events in Stateflow charts

Not Run

Check Model font settings

Not Run

Check usage of Simulink functions in Stateflow

Not Run

Check for exclusive states in state machines

Not Run

Check for unconnected signal lines and blocks

Not Run

Check transitions in Stateflow flow charts

Not Run

Check scope of From and Goto blocks

Not Run. Check does not support library and subsystem models.

Check usage of floating-point expressions in Stateflow charts

Not Run. Check does not support library and subsystem models.

Check usage of enumerated values

Not Run. Check does not support library and subsystem models.

Check settings for data ports in Multiport Switch blocks

Not Run. Check does not support library and subsystem models.

Check input and output datatype for Switch blocks

Not Run. Check does not support library and subsystem models.

Check usage of fixed-point data type with non-zero bias

Not Run. Check does not support library and subsystem models.

Check signs of input signals in product blocks

Not Run. Check does not support library and subsystem models.

Check type setting by data objects

Not Run. Check does not support library and subsystem models.

Check usage of the Saturation blocks

Not Run. Check does not support library and subsystem models.

Check prohibited comparison operation of logical type signals

Not Run. Check does not support library and subsystem models.

Check usage of Memory and Unit Delay blocks

Not Run. Check does not support library and subsystem models.

Check character usage in parameter names

Not Run. Check does not support library and subsystem models.

Check length of parameter names

Not Run. Check does not support library and subsystem models.

Check undefined initial output for conditional subsystems

Not Run. Check does not support library and subsystem models.

Check comparison of floating point types in Simulink

Not Run. Check does not support library and subsystem models.

Check unused data in Simulink Model

Not Run. Check does not support library and subsystem models.

Check for implicit type casting in Stateflow

Not Run. Check does not support library and subsystem models.

Check for use of C-style comment symbols

Not Run. Check does not support library and subsystem models.

Check Stateflow operators

Not Run. Check does not support library and subsystem models.

Check fundamental logical and numerical operations

Not Run. Check does not support library and subsystem models.

Check usage of vector and bus signals

Not Run. Check does not support library and subsystem models.

Check connections between structural subsystems

Not Run. Check does not support library and subsystem models.

Check for division by zero in Simulink

Not Run. Check does not support library and subsystem models.

1.8.2 Model Metrics 0 0 0 0 0 10

Simulink block metric

Not Run

Subsystem metric

Not Run

Library link metric

Not Run

Effective lines of MATLAB code metric

Not Run

Stateflow chart objects metric

Not Run

Lines of code for Stateflow blocks metric

Not Run

Nondescriptive block name metric

Not Run

Data and structure layer separation metric

Not Run

Subsystem depth metric

Not Run

Cyclomatic complexity metric

Not Run. Check does not support library and subsystem models.

1.9 Simulink Code Inspector

0 0 0 0 0 67

Check code generation settings

Not Run. Check does not support library and subsystem models.

Check data import and export settings

Not Run. Check does not support library and subsystem models.

Check diagnostic settings

Not Run. Check does not support library and subsystem models.

Check hardware implementation settings

Not Run. Check does not support library and subsystem models.

Check math and data types settings

Not Run. Check does not support library and subsystem models.

Check solver settings

Not Run. Check does not support library and subsystem models.

Check for unsupported blocks

Not Run

Check for unconnected objects in the model

Not Run. Check does not support library and subsystem models.

Check system target file setting

Not Run. Check does not support library and subsystem models.

Check function specification setting

Not Run. Check does not support library and subsystem models.

Check for Stateflow machine data

Not Run. Check does not support library and subsystem models.

Check for Stateflow machine events

Not Run. Check does not support library and subsystem models.

Check the code generation folder structure for the model

Not Run. Check does not support library and subsystem models.

Check for unsupported Code Mapping settings

Not Run. Check does not support library and subsystem models.

Check model arguments for storage classes

Not Run. Check does not support library and subsystem models.

Check usage of Code in MATLAB Functions

Not Run. Check does not support library and subsystem models.

Check MATLAB Code Analyzer messages

Not Run. Check does not support library and subsystem models.

Check storage class for workspace variables

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check for usage of fixed-point instrumentation

Not Run. Check does not support library and subsystem models.

Check for usage of synthesized local data stores

Not Run. Check does not support library and subsystem models.

Check Loop unrolling threshold setting

Not Run. Check does not support library and subsystem models.

Check usage of global data stores

Not Run. Check does not support library and subsystem models.

Check global data stores' name shadow

Not Run. Check does not support library and subsystem models.

Check destinations of If and Switchcase blocks

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check for Terminator blocks that connect to Model block outports

Not Run. Check does not support library and subsystem models.

Check for unsupported propagation of initial condition values

Not Run. Check does not support library and subsystem models.

Check data type replacement names

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check GetSet storage class for workspace variables

Not Run. Check does not support library and subsystem models.

Check Treat each discrete rate as a separate task setting

Not Run. Check does not support library and subsystem models.

Check model for commented out blocks

Not Run. Check does not support library and subsystem models.

Check model for void_void subsystems that use the same function name

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check model for reusable subsystems that use the same function interfaces

Not Run. Check does not support library and subsystem models.

Check for usage of shared synthesized local data stores

Not Run. Check does not support library and subsystem models.

Check model for compiled and graphical block sorted order

Not Run. Check does not support library and subsystem models.

Check usage of Sources blocks

Not Run. Check does not support library and subsystem models.

Check usage of Signal Routing blocks

Not Run. Check does not support library and subsystem models.

Check usage of Math Operations blocks

Not Run. Check does not support library and subsystem models.

Check usage of Signal Attributes blocks

Not Run. Check does not support library and subsystem models.

Check usage of Logical and Bit Operations blocks

Not Run. Check does not support library and subsystem models.

Check usage of Lookup Tables blocks

Not Run. Check does not support library and subsystem models.

Check usage of User-Defined Function blocks

Not Run. Check does not support library and subsystem models.

Check usage of Ports and Subsystems blocks

Not Run. Check does not support library and subsystem models.

Check usage of Discontinuities blocks

Not Run. Check does not support library and subsystem models.

Check usage of Sinks blocks

Not Run. Check does not support library and subsystem models.

Check usage of Discrete blocks

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow blocks

Not Run. Check does not support library and subsystem models.

Check usage of String blocks

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow charts

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow MATLAB action language

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow transitions

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow junctions

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow data

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow events

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow states

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow graphical functions

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow truth tables

Not Run. Check does not support library and subsystem models.

Check usage of MATLAB Function Blocks

Not Run. Check does not support library and subsystem models.

Check usage of Data in MATLAB Functions

Not Run. Check does not support library and subsystem models.

Check usage of root Outport blocks

Not Run. Check does not support library and subsystem models.

Check usage of buses

Not Run. Check does not support library and subsystem models.

Check usage of shared utilities

Not Run. Check does not support library and subsystem models.

Check for sample times in the model

Not Run. Check does not support library and subsystem models.

Check conditional input branch execution setting

Not Run. Check does not support library and subsystem models.

1.10 Requirements Toolbox 0 0 0 0 0 4

1.10.1 Requirements Consistency 0 0 0 0 0 4

Identify requirement links with missing documents

Not Run. Check does not support library and subsystem models.

Identify requirement links that specify invalid locations within documents

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Identify requirement links with path type inconsistent with preferences

Not Run. Check does not support library and subsystem models.

1.11 Simulink Design Verifier 0 0 0 0 0 14

1.11.1 Design Error Detection 0 0 0 0 0 13

Detect Dead Logic

Not Run. Check does not support library and subsystem models.

Detect Out Of Bound Array Access

Not Run. Check does not support library and subsystem models.

Detect Division By Zero

Not Run. Check does not support library and subsystem models.

Detect Integer Overflow

Not Run. Check does not support library and subsystem models.

Detect Non-finite and NaN Floating-point Values

Not Run. Check does not support library and subsystem models.

Detect Subnormal Floating-point Values

Not Run. Check does not support library and subsystem models.

Detect Specified Minimum and Maximum Value Violations

Not Run. Check does not support library and subsystem models.

Detect Data Store Access Violations

Not Run. Check does not support library and subsystem models.

Detect Block Input Range Violations

Not Run. Check does not support library and subsystem models.

Detect Usage of remainder and reciprocal operations - hisl_0002

Not Run. Check does not support library and subsystem models.

Detect Usage of square root operations - hisl_0003

Not Run. Check does not support library and subsystem models.

Detect Usage of log and log10 operations - hisl_0004

Not Run. Check does not support library and subsystem models.

Detect Usage of Reciprocal Square Root Blocks - hisl_0028

Not Run. Check does not support library and subsystem models.

Check compatibility with Simulink Design Verifier

Not Run. Check does not support library and subsystem models.

1.12 Simulink Control Design 0 0 0 0 0 1

Identify time-varying source blocks interfering with frequency response estimation

Not Run. Check does not support library and subsystem models.

2 By Task 0 1 3 0 437 733

2.1 Modeling Physical Systems 0 0 0 0 0 2

Check consistency of block parameter units

Not Run. Check does not support library and subsystem models.

Check for dry hydraulic nodes

Not Run. Check does not support library and subsystem models.

2.2 Replacing Blocks That Will Be Removed 0 0 0 0 1 0

Identify Environment Controller blocks to be replaced with Variant Source blocks

Passed
The model does not contain any Environment Controller blocks.

2.3 Simulink PLC Coder 0 0 0 0 0 24

2.3.1 Model configuration checks 0 0 0 0 0 8

Check Data Store Memory blocks

Not Run. Check does not support library and subsystem models.

Check model for Stateflow messages

Not Run. Check does not support library and subsystem models.

Check if signal lines are configured properly

Not Run. Check does not support library and subsystem models.

Check if model uses row major algorithms

Not Run. Check does not support library and subsystem models.

Check model mask parameters

Not Run. Check does not support library and subsystem models.

Check if model uses machine parented data

Not Run. Check does not support library and subsystem models.

Check if model uses custom code

Not Run. Check does not support library and subsystem models.

Check model tunable parameters

Not Run. Check does not support library and subsystem models.

2.3.2 Checks for blocks and block settings

0 0 0 0 0 9

Check if model uses event based blocks

Not Run. Check does not support library and subsystem models.

Check if model uses probe blocks

Not Run. Check does not support library and subsystem models.

Check if model uses environment controller blocks

Not Run. Check does not support library and subsystem models.

Check Stateflow chart update

Not Run. Check does not support library and subsystem models.

Check issues with integrator blocks

Not Run. Check does not support library and subsystem models.

Check if model uses unsupported blocks

Not Run. Check does not support library and subsystem models.

Check if model can generate testbench

Not Run. Check does not support library and subsystem models.

Check function packaging configuration

Not Run. Check does not support library and subsystem models.

Check trigonometric blocks

Not Run. Check does not support library and subsystem models.

2.3.3 Industry standard checks 0 0 0 0 0 7

Define the names to avoid

Not Run. Check does not support library and subsystem models.

Define the use of case (capitals)

Not Run. Check does not support library and subsystem models.

Define the maximum variable name length

Not Run. Check does not support library and subsystem models.

Comments must describe the intention of the code

Not Run. Check does not support library and subsystem models.

Avoid nested comments

Not Run. Check does not support library and subsystem models.

Define maximum number of input/output/in-out variables of a POU

Not Run. Check does not support library and subsystem models.

Define type prefixes for variables (if used)

Not Run. Check does not support library and subsystem models.

2.4 Simulation Accuracy 0 0 0 0 0 1

Check for non-continuous signals driving derivative ports

Not Run. Check does not support library and subsystem models.

2.5 Simulation Runtime Accuracy Diagnostics 0 0 0 0 0 2

Runtime diagnostics for S-functions

Not Run. Check does not support library and subsystem models.

Check if Read/Write diagnostics are enabled for Data Store blocks

Not Run. Check does not support library and subsystem models.

2.6 Managing Data Store Memory Blocks

0 0 0 0 0 4

Check Data Store Memory blocks for multitasking, strong typing, and shadowing issues

Not Run. Check does not support library and subsystem models.

Check data store block sample times for modeling errors

Not Run. Check does not support library and subsystem models.

Check for potential ordering issues involving data store access

Not Run. Check does not support library and subsystem models.

Check for relative execution order change for Data Store Read and Data Store Write blocks

Not Run. Check does not support library and subsystem models.

2.7 Simulink Model File Integrity

0 0 0 0 1 0

Check Model History properties

Check models for edited Model History property values
Check that parameters in the Model Properties dialog History pane use the default tags. In the MDL file format you can configure some model properties to make use of source control tool keyword substitution. If you save your model in SLX format, source control tools cannot perform keyword substitution. Any information in the model file from such keyword substitution is cached when you first save the MDL file as SLX, and is never updated again. The Model Properties History pane and any Model Info blocks in your model show stale information from then on.

Passed
This model uses the default value for property ModifiedByFormat.

Passed
This model uses the default value for property ModifiedDateFormat.

Passed
This model uses the default value for property ModelVersionFormat.

2.8 S-function Checks

0 0 0 0 0 1

Check S-functions in the model

Not Run. Check does not support library and subsystem models.

2.9 Units Inconsistencies

0 0 0 0 0 5

Identify unit mismatches in the model

Not Run. Check does not support library and subsystem models.

Identify automatic unit conversions in the model

Not Run. Check does not support library and subsystem models.

Identify disallowed unit systems in the model

Not Run. Check does not support library and subsystem models.

Identify undefined units in the model

Not Run. Check does not support library and subsystem models.

Identify ambiguous units in the model

Not Run. Check does not support library and subsystem models.

2.10 Modeling Signals and Parameters using Buses

0 0 0 0 1 2

Check for optimal bus virtuality

Passed

Check structure parameter usage with bus signals

Not Run. Check does not support library and subsystem models.

Check bus signals treated as vectors

Not Run. Check does not support library and subsystem models.

2.11 Code Generation Efficiency

0 0 0 0 4 7

Check optimization settings

Not Run. Check does not support library and subsystem models.

Identify blocks using one-based indexing

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

Not Run. Check does not support library and subsystem models.

Identify lookup table blocks that generate expensive out-of-range checking code

Passed

Identify questionable code instrumentation (data I/O)

Not Run. Check does not support library and subsystem models.

Check output types of logic blocks

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

Passed
There are no logic blocks in the model or subsystem.

Check configuration parameters for generation of inefficient saturation code

Not Run. Check does not support library and subsystem models.

Identify blocks that generate expensive rounding code

Not Run. Check does not support library and subsystem models.

Identify questionable fixed-point operations

Not Run. Check does not support library and subsystem models.

Identify blocks that generate expensive fixed-point and saturation code

Not Run. Check does not support library and subsystem models.

Identify blocks generating inefficient algorithms

Passed
No inefficient algorithms found in the model.

2.12 Modeling Single-Precision Systems 0 0 0 0 0 1

Identify questionable operations for strict single-precision design

Not Run. Check does not support library and subsystem models.

2.13 Migrating to Simplified Initialization mode 0 0 0 0 0 4

Check usage of Merge blocks

Not Run. Check does not support library and subsystem models.

Check usage of Outport blocks

Not Run. Check does not support library and subsystem models.

Check usage of Discrete-Time Integrator blocks

Not Run. Check does not support library and subsystem models.

Check model settings for migration to simplified initialization mode

Not Run. Check does not support library and subsystem models.

2.14 Row-Major Code Generation

0 0 0 0 1 2

Identify blocks generating inefficient algorithms

Passed
No inefficient algorithms found in the model.

Check for blocks not supported for row-major code generation

Not Run. Check does not support library and subsystem models.

Identify TLC S-Functions with unset array layout

Not Run. Check does not support library and subsystem models.

2.15 Model Referencing

0 0 0 0 0 8

Check for model reference configuration mismatch

Not Run. Check does not support library and subsystem models.

Check diagnostic settings ignored during accelerated model reference simulation

Not Run. Check does not support library and subsystem models.

Check code generation identifier formats used for model reference

Not Run. Check does not support library and subsystem models.

Check for parameter tunability information ignored for referenced models

Not Run. Check does not support library and subsystem models.

Check for implicit signal resolution

Not Run. Check does not support library and subsystem models.

Check bus signals treated as vectors

Not Run. Check does not support library and subsystem models.

Check root model Inport block specifications

Not Run. Check does not support library and subsystem models.

Check for large number of function arguments from virtual bus across model reference boundary

Not Run. Check does not support library and subsystem models.

2.16 Managing Library Links And Variants

0 0 0 0 4 0

Identify disabled library links

Passed

Identify parameterized library links

Passed

Identify unresolved library links

Passed

Identify configurable subsystem blocks in the model for converting to variant subsystem blocks.

Identify and upgrade Configurable Subsystem blocks in the model or subsystem level.

Passed
No configurable subsystem blocks found.

2.17 Data Transfer Efficiency

0 0 0 0 0 1

Check Delay, Unit Delay and Zero-Order Hold blocks for rate transition

Not Run. Check does not support library and subsystem models.

2.18 Modeling Standards for MISRA C:2012

0 0 0 0 5 8

Check configuration parameters for MISRA C:2012

Not Run. Check does not support library and subsystem models.

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

Passed

Check for blocks not recommended for MISRA C:2012

Passed

Check for unsupported block names

Passed

Check usage of Assignment blocks

Passed

Check for switch case expressions without a default case

Identify switch case expressions that do not have a default case.

Passed
All switch case expressions have default cases.

Check for missing error ports in AUTOSAR receiver interfaces

Not Run. Check does not support library and subsystem models.

Check for bitwise operations on signed integers

Not Run. Check does not support library and subsystem models.

Check for recursive function calls

Not Run. Check does not support library and subsystem models.

Check for equality and inequality operations on floating-point values

Not Run. Check does not support library and subsystem models.

Check for missing const qualifiers in model functions

Not Run. Check does not support library and subsystem models.

Check integer word lengths

Not Run. Check does not support library and subsystem models.

Check bus object names that are used as bus element names

Not Run. Check does not support library and subsystem models.

2.19 Modeling Standards for Secure Coding (CERT C, CWE, ISO/IEC TS 17961)

0 0 0 0 8

19

Check configuration parameters for secure coding standards

Not Run. Check does not support library and subsystem models.

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

Passed

Check for blocks not recommended for secure coding standards

Passed

Check usage of Assignment blocks

Passed

Check for switch case expressions without a default case

Identify switch case expressions that do not have a default case.

Passed
All switch case expressions have default cases.

Check for bitwise operations on signed integers

Not Run. Check does not support library and subsystem models.

Check for equality and inequality operations on floating-point values

Not Run. Check does not support library and subsystem models.

Check integer word lengths

Not Run. Check does not support library and subsystem models.

Detect Dead Logic

Not Run. Check does not support library and subsystem models.

Detect Integer Overflow

Not Run. Check does not support library and subsystem models.

Detect Division By Zero

Not Run. Check does not support library and subsystem models.

Detect Out Of Bound Array Access

Not Run. Check does not support library and subsystem models.

Detect Specified Minimum and Maximum Value Violations

Not Run. Check does not support library and subsystem models.

2.19.1 High-Integrity Systems 0 0 0 0 4 10

2.19.1.1 Simulink 0 0 0 0 3 6

Check usage of Abs blocks

Not Run. Check does not support library and subsystem models.

Check usage of remainder and reciprocal operations

Not Run. Check does not support library and subsystem models.

Check usage of log and log10 operations

Not Run. Check does not support library and subsystem models.

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 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 data types for blocks with index signals

Not Run. Check does not support library and subsystem models.

Check usage of Reciprocal Sqrt blocks

Not Run. Check does not support library and subsystem models.

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 bit-shift operations

Not Run. Check does not support library and subsystem models.

2.19.1.2 Configuration 0 0 0 0 0 2

Check safety-related optimization settings for data type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for division arithmetic exceptions

Not Run. Check does not support library and subsystem models.

2.19.1.3 Naming 0 0 0 0 1 1

Check model file name

Identify inappropriate characters and length issues in model file name.

Passed
No issues found with model file name.

Check model object names

Not Run. Check does not support library and subsystem models.

2.19.1.4 Code 0 0 0 0 0 1

Check configuration parameters for MISRA C:2012

Not Run. Check does not support library and subsystem models.

2.20 Upgrading to the Current Simulink Version 0 0 1 0 0 0

Open the Upgrade Advisor

Warning
To check for upgrade issues, open the Upgrade Advisor.

Recommended Action
Click the link below to close the Model Advisor and open the Upgrade Advisor for untitled1.
Open the Upgrade Advisor

2.21 Modeling Standards for DO-178C/DO-331 0 0 0 0 30 73

Display model version information

Not Run. Check does not support library and subsystem models.

2.21.1 High-Integrity Systems 0 0 0 0 28 68

2.21.1.1 Simulink 0 0 0 0 10 26

Check usage of Abs blocks

Not Run. Check does not support library and subsystem models.

Check usage of remainder and reciprocal operations

Not Run. Check does not support library and subsystem models.

Check usage of square root operations

Not Run. Check does not support library and subsystem models.

Check usage of log and log10 operations

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of If blocks and If Action Subsystem blocks

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of conditionally executed subsystems

Not Run. Check does not support library and subsystem models.

Check usage of Merge blocks

Not Run. Check does not support library and subsystem models.

Check relational comparisons on floating-point signals

Not Run. Check does not support library and subsystem models.

Check usage of Relational Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of Logical Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of bitwise operations

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of variant blocks

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

Passed
No variant blocks have "VariantActivationTime" set to 'code compile'.

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

Not Run. Check does not support library and subsystem models.

Check for root Inports with missing properties

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

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

---

Check for root Inports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check for root Outports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check usage of Reciprocal Sqrt blocks

Not Run. Check does not support library and subsystem models.

Check usage of Assignment blocks

Not Run. Check does not support library and subsystem models.

Check global variables in graphical functions

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

Passed

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

Check usage of Gain blocks

Identify Gain blocks with value which resolves to 1.

Passed
No Gain blocks found with value which resolves to 1.

Check for length of user-defined object names

Not Run. Check does not support library and subsystem models.

Check data type of loop control variables

Not Run. Check does not support library and subsystem models.

Check for divide-by-zero calculations

Not Run. Check does not support library and subsystem models.

Check for parameter tunability ignored for referenced models

Not Run. Check does not support library and subsystem models.

Check usage of bit-shift operations

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for variants

Not Run. Check does not support library and subsystem models.

Check for disabled and parameterized library links

Identify disabled and parameterized library links in the model.

Passed
No blocks found that have disabled or parameterized library links.

Check for unreachable and dead code

Not Run. Check does not support library and subsystem models.

2.21.1.2 Stateflow 0 0 0 0 7 5

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 recursions

Not Run. Check does not support library and subsystem models.

Check Stateflow debugging options

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

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 assignment operations in Stateflow charts

Not Run. Check does not support library and subsystem models.

Check Stateflow charts for unary operators

Not Run. Check does not support library and subsystem models.

2.21.1.3 MATLAB 0 0 0 0 7 4

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

Not Run. Check does not support library and subsystem models.

Check usage of logical operators and functions in MATLAB Function blocks

Not Run. Check does not support library and subsystem models.

Check type and size of condition expressions

Not Run. Check does not support library and subsystem models.

Check MATLAB functions not supported for code generation

Identify MATLAB functions that are not supported for code generation.

Passed
All identified MATLAB functions are supported for code generation.

Metrics for generated code complexity

Not Run. Check does not support library and subsystem models.

2.21.1.4 Configuration 0 0 0 0 1 31

Check safety-related diagnostic settings for data store memory

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for saving

Not Run. Check does not support library and subsystem models.

Check safety-related model referencing settings

Not Run. Check does not support library and subsystem models.

Check safety-related code generation settings for comments

Not Run. Check does not support library and subsystem models.

Check safety-related code generation interface settings

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for solvers

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for sample time

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for logic signals

Not Run. Check does not support library and subsystem models.

Check safety-related block reduction optimization settings

Not Run. Check does not support library and subsystem models.

Check safety-related code generation settings for code style

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for application lifespan

Not Run. Check does not support library and subsystem models.

Check safety-related code generation identifier settings

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for data initialization

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for data type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for division arithmetic exceptions

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related settings for hardware implementation

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for compatibility

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for parameters

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Merge blocks

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model initialization

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for data used for debugging

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal connectivity

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for bus connectivity

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model referencing

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Stateflow

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal data

Not Run. Check does not support library and subsystem models.

2.21.1.5 Naming

0 0 0 0 1 1

Check model file name

Identify inappropriate characters and length issues in model file name.

Passed
No issues found with model file name.

Check model object names

Not Run. Check does not support library and subsystem models.

2.21.1.6 Requirements 0 0 0 0 1 0

Check for model elements that do not link to requirements

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

Passed
No model elements found without links to requirements.

2.21.1.7 Code 0 0 0 0 1 1

Check for blocks not recommended for MISRA C:2012

Passed

Check configuration parameters for MISRA C:2012

Not Run. Check does not support library and subsystem models.

2.21.2 Simulink 0 0 0 0 1 0

Identify unconnected lines, input ports, and output ports

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.

2.21.3 Library Links 0 0 0 0 1 0

Identify unresolved library links

Passed

2.21.4 Requirements Consistency 0 0 0 0 0 4

Identify requirement links that specify invalid locations within documents

Not Run. Check does not support library and subsystem models.

Identify requirement links with missing documents

Not Run. Check does not support library and subsystem models.

Identify requirement links with path type inconsistent with preferences

Not Run. Check does not support library and subsystem models.

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

document text

Not Run. Check does not support library and subsystem models.

2.22 Modeling Standards for DO-254

0 0 0 0 19 73

Display model version information

Not Run. Check does not support library and subsystem models.

2.22.1 High-Integrity Systems

0 0 0 0 18 32

2.22.1.1 Simulink

0 0 0 0 5 15

Check usage of Abs blocks

Not Run. Check does not support library and subsystem models.

Check usage of conditionally executed subsystems

Not Run. Check does not support library and subsystem models.

Check relational comparisons on floating-point signals

Not Run. Check does not support library and subsystem models.

Check usage of Relational Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of Logical Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of bitwise operations

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check for root Inports with missing properties

Identify Inport blocks in the top-level of the model with missing or inherited sample times, data types, or port

dimensions. Inport block properties are specified with block parameters or Simulink signal data objects that explicitly resolve to the connected signal lines.

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

---

Check for root Inports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check for root Outports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check usage of Assignment blocks

Not Run. Check does not support library and subsystem models.

Check global variables in graphical functions

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

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

Check usage of Gain blocks

Identify Gain blocks with value which resolves to 1.

Passed
No Gain blocks found with value which resolves to 1.

Check for length of user-defined object names

Not Run. Check does not support library and subsystem models.

Check data type of loop control variables

Not Run. Check does not support library and subsystem models.

Check for parameter tunability ignored for referenced models

Not Run. Check does not support library and subsystem models.

Check usage of bit-shift operations

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for variants

Not Run. Check does not support library and subsystem models.

Check for disabled and parameterized library links

Identify disabled and parameterized library links in the model.

Passed
No blocks found that have disabled or parameterized library links.

2.22.1.2 Stateflow 0 0 0 0 6 3

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 recursions

Not Run. Check does not support library and subsystem models.

Check Stateflow debugging options

Not Run. Check does not support library and subsystem models.

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 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 Stateflow charts for unary operators

Not Run. Check does not support library and subsystem models.

2.22.1.3 MATLAB 0 0 0 0 5 2

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 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

Not Run. Check does not support library and subsystem models.

Check usage of logical operators and functions in MATLAB Function blocks

Not Run. Check does not support library and subsystem models.

Check MATLAB functions not supported for code generation

Identify MATLAB functions that are not supported for code generation.

Passed
All identified MATLAB functions are supported for code generation.

2.22.1.4 Configuration 0 0 0 0 0 11

Check safety-related diagnostic settings for saving

Not Run. Check does not support library and subsystem models.

Check safety-related model referencing settings

Not Run. Check does not support library and subsystem models.

Check safety-related block reduction optimization settings

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for parameters

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model initialization

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal connectivity

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for bus connectivity

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model referencing

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Stateflow

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal data

Not Run. Check does not support library and subsystem models.

2.22.1.5 Naming 0 0 0 0 1 1

Check model file name

Identify inappropriate characters and length issues in model file name.

Passed
No issues found with model file name.

Check model object names

Not Run. Check does not support library and subsystem models.

2.22.1.6 Requirements 0 0 0 0 1 0

Check for model elements that do not link to requirements

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

Passed
No model elements found without links to requirements.

2.22.2 Library Links 0 0 0 0 1 0

Identify unresolved library links

Passed

2.22.3 Requirements Consistency 0 0 0 0 0 4

Identify requirement links that specify invalid locations within documents

Not Run. Check does not support library and subsystem models.

Identify requirement links with missing documents

Not Run. Check does not support library and subsystem models.

Identify requirement links with path type inconsistent with preferences

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

2.22.4 HDL Coder 0 0 0 0 0 36

2.22.4.1 Checks for blocks and block settings 0 0 0 0 0 9

Check for HDL Reciprocal block usage

Not Run. Check does not support library and subsystem models.

Check for infinite and continuous sample time sources

Not Run. Check does not support library and subsystem models.

Check for unsupported blocks

Not Run. Check does not support library and subsystem models.

Check for MATLAB Function block settings

Not Run. Check does not support library and subsystem models.

Check for Stateflow chart settings

Not Run. Check does not support library and subsystem models.

Check for Trigonometric Function block for LUT-based approximation method

Not Run. Check does not support library and subsystem models.

Check for obsolete Unit Delay Enabled/Resettable blocks

Not Run. Check does not support library and subsystem models.

Check for unsupported storage class for signal objects

Not Run. Check does not support library and subsystem models.

Check for large matrix operations

Not Run. Check does not support library and subsystem models.

2.22.4.2 Industry standard checks 0 0 0 0 0 11

Check file extension

Not Run. Check does not support library and subsystem models.

Check naming conventions

Not Run. Check does not support library and subsystem models.

Check top-level subsystem/port names

Not Run. Check does not support library and subsystem models.

Check module/entity names

Not Run. Check does not support library and subsystem models.

Check package file names

Not Run. Check does not support library and subsystem models.

Check signal and port names

Not Run. Check does not support library and subsystem models.

Check generics

Not Run. Check does not support library and subsystem models.

Check clock, reset, and enable signals

Not Run. Check does not support library and subsystem models.

Check architecture name

Not Run. Check does not support library and subsystem models.

Check entity and architecture

Not Run. Check does not support library and subsystem models.

Check clock settings

Not Run. Check does not support library and subsystem models.

2.22.4.3 Model configuration checks 0 0 0 0 0 6

Check for model parameters suited for the HDL code generation

Not Run. Check does not support library and subsystem models.

Check for global reset setting for Xilinx and Altera devices

Not Run. Check does not support library and subsystem models.

Check inline configurations setting

Not Run. Check does not support library and subsystem models.

Check for visualization settings

Not Run. Check does not support library and subsystem models.

Check delay balancing setting

Not Run. Check does not support library and subsystem models.

Check algebraic loops

Not Run. Check does not support library and subsystem models.

2.22.4.4 Native Floating Point checks 0 0 0 0 0 8

Check for blocks that have nonzero output latency

Not Run. Check does not support library and subsystem models.

Check blocks with nonzero ulp error

Not Run. Check does not support library and subsystem models.

Check for single datatypes in the model

Not Run. Check does not support library and subsystem models.

Check for double datatypes in the model with Native Floating Point

Not Run. Check does not support library and subsystem models.

Check for Data Type Conversion blocks with incompatible settings

Not Run. Check does not support library and subsystem models.

Check for HDL Reciprocal block usage

Not Run. Check does not support library and subsystem models.

Check for Relational Operator block usage

Not Run. Check does not support library and subsystem models.

Check for unsupported blocks with Native Floating Point

Not Run. Check does not support library and subsystem models.

2.22.4.5 Checks for ports and subsystems 0 0 0 0 0 2

Check for invalid top level subsystem

Not Run. Check does not support library and subsystem models.

Check initial conditions of enabled and triggered subsystems

Not Run. Check does not support library and subsystem models.

2.23 Modeling Standards for IEC 61508 0 0 0 0 30 69

Display configuration management data

Not Run. Check does not support library and subsystem models.

Display model metrics and complexity report

Model complexity information
Display name, level, and depth of subsystems

No subsystems found.

Check for unconnected objects

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

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

2.23.1 High-Integrity Systems 0 0 0 0 28 68

2.23.1.1 Simulink 0 0 0 0 10 26

Check usage of Abs blocks

Not Run. Check does not support library and subsystem models.

Check usage of remainder and reciprocal operations

Not Run. Check does not support library and subsystem models.

Check usage of square root operations

Not Run. Check does not support library and subsystem models.

Check usage of log and log10 operations

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of If blocks and If Action Subsystem blocks

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of conditionally executed subsystems

Not Run. Check does not support library and subsystem models.

Check usage of Merge blocks

Not Run. Check does not support library and subsystem models.

Check relational comparisons on floating-point signals

Not Run. Check does not support library and subsystem models.

Check usage of Relational Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of Logical Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of bitwise operations

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of variant blocks

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

Passed
No variant blocks have "VariantActivationTime" set to 'code compile'.

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

Not Run. Check does not support library and subsystem models.

Check for root Inports with missing properties

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

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

---

Check for root Inports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check for root Outports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check usage of Reciprocal Sqrt blocks

Not Run. Check does not support library and subsystem models.

Check usage of Assignment blocks

Not Run. Check does not support library and subsystem models.

Check global variables in graphical functions

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

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

Check usage of Gain blocks

Identify Gain blocks with value which resolves to 1.

Passed
No Gain blocks found with value which resolves to 1.

Check for length of user-defined object names

Not Run. Check does not support library and subsystem models.

Check data type of loop control variables

Not Run. Check does not support library and subsystem models.

Check for divide-by-zero calculations

Not Run. Check does not support library and subsystem models.

Check for parameter tunability ignored for referenced models

Not Run. Check does not support library and subsystem models.

Check usage of bit-shift operations

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for variants

Not Run. Check does not support library and subsystem models.

Check for disabled and parameterized library links

Identify disabled and parameterized library links in the model.

Passed
No blocks found that have disabled or parameterized library links.

Check for unreachable and dead code

Not Run. Check does not support library and subsystem models.

2.23.1.2 Stateflow 0 0 0 0 7 5

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 recursions

Not Run. Check does not support library and subsystem models.

Check Stateflow debugging options

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

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 assignment operations in Stateflow charts

Not Run. Check does not support library and subsystem models.

Check Stateflow charts for unary operators

Not Run. Check does not support library and subsystem models.

2.23.1.3 MATLAB 0 0 0 0 7 4

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

Not Run. Check does not support library and subsystem models.

Check usage of logical operators and functions in MATLAB Function blocks

Not Run. Check does not support library and subsystem models.

Check type and size of condition expressions

Not Run. Check does not support library and subsystem models.

Check MATLAB functions not supported for code generation

Identify MATLAB functions that are not supported for code generation.

Passed
All identified MATLAB functions are supported for code generation.

Metrics for generated code complexity

Not Run. Check does not support library and subsystem models.

2.23.1.4 Configuration 0 0 0 0 1 31

Check safety-related diagnostic settings for data store memory

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for saving

Not Run. Check does not support library and subsystem models.

Check safety-related model referencing settings

Not Run. Check does not support library and subsystem models.

Check safety-related code generation settings for comments

Not Run. Check does not support library and subsystem models.

Check safety-related code generation interface settings

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for solvers

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for sample time

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for logic signals

Not Run. Check does not support library and subsystem models.

Check safety-related block reduction optimization settings

Not Run. Check does not support library and subsystem models.

Check safety-related code generation settings for code style

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for application lifespan

Not Run. Check does not support library and subsystem models.

Check safety-related code generation identifier settings

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for data initialization

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for data type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for division arithmetic exceptions

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related settings for hardware implementation

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for compatibility

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for parameters

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Merge blocks

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model initialization

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for data used for debugging

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal connectivity

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for bus connectivity

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model referencing

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Stateflow

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal data

Not Run. Check does not support library and subsystem models.

2.23.1.5 Naming 0 0 0 0 1 1

Check model file name

Identify inappropriate characters and length issues in model file name.

Passed
No issues found with model file name.

Check model object names

Not Run. Check does not support library and subsystem models.

2.23.1.6 Requirements 0 0 0 0 1 0

Check for model elements that do not link to requirements

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

Passed
No model elements found without links to requirements.

2.23.1.7 Code 0 0 0 0 1 1

Check for blocks not recommended for MISRA C:2012

Passed

Check configuration parameters for MISRA C:2012

Not Run. Check does not support library and subsystem models.

2.24 Modeling Standards for IEC 62304 0 0 0 0 30 69

Display configuration management data

Not Run. Check does not support library and subsystem models.

Display model metrics and complexity report

Model complexity information
Display name, level, and depth of subsystems

No subsystems found.

Check for unconnected objects

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

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

2.24.1 High-Integrity Systems 0 0 0 0 28 68

2.24.1.1 Simulink 0 0 0 0 10 26

Check usage of Abs blocks

Not Run. Check does not support library and subsystem models.

Check usage of remainder and reciprocal operations

Not Run. Check does not support library and subsystem models.

Check usage of square root operations

Not Run. Check does not support library and subsystem models.

Check usage of log and log10 operations

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of If blocks and If Action Subsystem blocks

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of conditionally executed subsystems

Not Run. Check does not support library and subsystem models.

Check usage of Merge blocks

Not Run. Check does not support library and subsystem models.

Check relational comparisons on floating-point signals

Not Run. Check does not support library and subsystem models.

Check usage of Relational Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of Logical Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of bitwise operations

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of variant blocks

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

Passed

No variant blocks have "VariantActivationTime" set to 'code compile'.

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

Not Run. Check does not support library and subsystem models.

Check for root Inports with missing properties

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

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

---

Check for root Inports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check for root Outports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check usage of Reciprocal Sqrt blocks

Not Run. Check does not support library and subsystem models.

Check usage of Assignment blocks

Not Run. Check does not support library and subsystem models.

Check global variables in graphical functions

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

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

Check usage of Gain blocks

Identify Gain blocks with value which resolves to 1.

Passed
No Gain blocks found with value which resolves to 1.

Check for length of user-defined object names

Not Run. Check does not support library and subsystem models.

Check data type of loop control variables

Not Run. Check does not support library and subsystem models.

Check for divide-by-zero calculations

Not Run. Check does not support library and subsystem models.

Check for parameter tunability ignored for referenced models

Not Run. Check does not support library and subsystem models.

Check usage of bit-shift operations

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for variants

Not Run. Check does not support library and subsystem models.

Check for disabled and parameterized library links

Identify disabled and parameterized library links in the model.

Passed
No blocks found that have disabled or parameterized library links.

Check for unreachable and dead code

Not Run. Check does not support library and subsystem models.

2.24.1.2 Stateflow 0 0 0 0 7 5

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 recursions

Not Run. Check does not support library and subsystem models.

Check Stateflow debugging options

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

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 assignment operations in Stateflow charts

Not Run. Check does not support library and subsystem models.

Check Stateflow charts for unary operators

Not Run. Check does not support library and subsystem models.

2.24.1.3 MATLAB 0 0 0 0 7 4

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

Not Run. Check does not support library and subsystem models.

Check usage of logical operators and functions in MATLAB Function blocks

Not Run. Check does not support library and subsystem models.

Check type and size of condition expressions

Not Run. Check does not support library and subsystem models.

Check MATLAB functions not supported for code generation

Identify MATLAB functions that are not supported for code generation.

Passed
All identified MATLAB functions are supported for code generation.

Metrics for generated code complexity

Not Run. Check does not support library and subsystem models.

2.24.1.4 Configuration 0 0 0 0 1 31

Check safety-related diagnostic settings for data store memory

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for saving

Not Run. Check does not support library and subsystem models.

Check safety-related model referencing settings

Not Run. Check does not support library and subsystem models.

Check safety-related code generation settings for comments

Not Run. Check does not support library and subsystem models.

Check safety-related code generation interface settings

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for solvers

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for sample time

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for logic signals

Not Run. Check does not support library and subsystem models.

Check safety-related block reduction optimization settings

Not Run. Check does not support library and subsystem models.

Check safety-related code generation settings for code style

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for application lifespan

Not Run. Check does not support library and subsystem models.

Check safety-related code generation identifier settings

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for data initialization

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for data type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for division arithmetic exceptions

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related settings for hardware implementation

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for compatibility

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for parameters

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Merge blocks

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model initialization

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for data used for debugging

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal connectivity

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for bus connectivity

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model referencing

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Stateflow

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal data

Not Run. Check does not support library and subsystem models.

2.24.1.5 Naming 0 0 0 0 1 1

Check model file name

Identify inappropriate characters and length issues in model file name.

Passed
No issues found with model file name.

Check model object names

Not Run. Check does not support library and subsystem models.

2.24.1.6 Requirements 0 0 0 0 1 0

Check for model elements that do not link to requirements

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

Passed
No model elements found without links to requirements.

2.24.1.7 Code 0 0 0 0 1 1

Check for blocks not recommended for MISRA C:2012

Passed

Check configuration parameters for MISRA C:2012

Not Run. Check does not support library and subsystem models.

2.25 Modeling Standards for ISO 26262 0 0 0 0 30 69

Display configuration management data

Not Run. Check does not support library and subsystem models.

Display model metrics and complexity report

Model complexity information
Display name, level, and depth of subsystems

No subsystems found.

Check for unconnected objects

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

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

2.25.1 High-Integrity Systems 0 0 0 0 28 68

2.25.1.1 Simulink 0 0 0 0 10 26

Check usage of Abs blocks

Not Run. Check does not support library and subsystem models.

Check usage of remainder and reciprocal operations

Not Run. Check does not support library and subsystem models.

Check usage of square root operations

Not Run. Check does not support library and subsystem models.

Check usage of log and log10 operations

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of If blocks and If Action Subsystem blocks

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of conditionally executed subsystems

Not Run. Check does not support library and subsystem models.

Check usage of Merge blocks

Not Run. Check does not support library and subsystem models.

Check relational comparisons on floating-point signals

Not Run. Check does not support library and subsystem models.

Check usage of Relational Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of Logical Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of bitwise operations

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of variant blocks

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

Passed
No variant blocks have "VariantActivationTime" set to 'code compile'.

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

Not Run. Check does not support library and subsystem models.

Check for root Inports with missing properties

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

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

---

Check for root Inports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check for root Outports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check usage of Reciprocal Sqrt blocks

Not Run. Check does not support library and subsystem models.

Check usage of Assignment blocks

Not Run. Check does not support library and subsystem models.

Check global variables in graphical functions

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

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

Check usage of Gain blocks

Identify Gain blocks with value which resolves to 1.

Passed
No Gain blocks found with value which resolves to 1.

Check for length of user-defined object names

Not Run. Check does not support library and subsystem models.

Check data type of loop control variables

Not Run. Check does not support library and subsystem models.

Check for divide-by-zero calculations

Not Run. Check does not support library and subsystem models.

Check for parameter tunability ignored for referenced models

Not Run. Check does not support library and subsystem models.

Check usage of bit-shift operations

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for variants

Not Run. Check does not support library and subsystem models.

Check for disabled and parameterized library links

Identify disabled and parameterized library links in the model.

Passed
No blocks found that have disabled or parameterized library links.

Check for unreachable and dead code

Not Run. Check does not support library and subsystem models.

2.25.1.2 Stateflow 0 0 0 0 7 5

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 recursions

Not Run. Check does not support library and subsystem models.

Check Stateflow debugging options

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

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 assignment operations in Stateflow charts

Not Run. Check does not support library and subsystem models.

Check Stateflow charts for unary operators

Not Run. Check does not support library and subsystem models.

2.25.1.3 MATLAB 0 0 0 0 7 4

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

Not Run. Check does not support library and subsystem models.

Check usage of logical operators and functions in MATLAB Function blocks

Not Run. Check does not support library and subsystem models.

Check type and size of condition expressions

Not Run. Check does not support library and subsystem models.

Check MATLAB functions not supported for code generation

Identify MATLAB functions that are not supported for code generation.

Passed
All identified MATLAB functions are supported for code generation.

Metrics for generated code complexity

Not Run. Check does not support library and subsystem models.

2.25.1.4 Configuration 0 0 0 0 1 31

Check safety-related diagnostic settings for data store memory

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for saving

Not Run. Check does not support library and subsystem models.

Check safety-related model referencing settings

Not Run. Check does not support library and subsystem models.

Check safety-related code generation settings for comments

Not Run. Check does not support library and subsystem models.

Check safety-related code generation interface settings

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for solvers

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for sample time

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for logic signals

Not Run. Check does not support library and subsystem models.

Check safety-related block reduction optimization settings

Not Run. Check does not support library and subsystem models.

Check safety-related code generation settings for code style

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for application lifespan

Not Run. Check does not support library and subsystem models.

Check safety-related code generation identifier settings

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for data initialization

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for data type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for division arithmetic exceptions

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related settings for hardware implementation

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for compatibility

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for parameters

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Merge blocks

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model initialization

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for data used for debugging

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal connectivity

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for bus connectivity

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model referencing

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Stateflow

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal data

Not Run. Check does not support library and subsystem models.

2.25.1.5 Naming

0 0 0 0 1 1

Check model file name

Identify inappropriate characters and length issues in model file name.

Passed
No issues found with model file name.

Check model object names

Not Run. Check does not support library and subsystem models.

2.25.1.6 Requirements 0 0 0 0 1 0

Check for model elements that do not link to requirements

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

Passed
No model elements found without links to requirements.

2.25.1.7 Code 0 0 0 0 1 1

Check for blocks not recommended for MISRA C:2012

Passed

Check configuration parameters for MISRA C:2012

Not Run. Check does not support library and subsystem models.

2.26 Modeling Standards for ISO 25119 0 0 0 0 30 69

Display configuration management data

Not Run. Check does not support library and subsystem models.

Display model metrics and complexity report

Model complexity information
Display name, level, and depth of subsystems

No subsystems found.

Check for unconnected objects

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

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

2.26.1 High-Integrity Systems 0 0 0 0 28 68

2.26.1.1 Simulink 0 0 0 0 10 26

Check usage of Abs blocks

Not Run. Check does not support library and subsystem models.

Check usage of remainder and reciprocal operations

Not Run. Check does not support library and subsystem models.

Check usage of square root operations

Not Run. Check does not support library and subsystem models.

Check usage of log and log10 operations

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of If blocks and If Action Subsystem blocks

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of conditionally executed subsystems

Not Run. Check does not support library and subsystem models.

Check usage of Merge blocks

Not Run. Check does not support library and subsystem models.

Check relational comparisons on floating-point signals

Not Run. Check does not support library and subsystem models.

Check usage of Relational Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of Logical Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of bitwise operations

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of variant blocks

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

Passed
No variant blocks have "VariantActivationTime" set to 'code compile'.

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

Not Run. Check does not support library and subsystem models.

Check for root Inports with missing properties

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

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

---

Check for root Inports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check for root Outports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check usage of Reciprocal Sqrt blocks

Not Run. Check does not support library and subsystem models.

Check usage of Assignment blocks

Not Run. Check does not support library and subsystem models.

Check global variables in graphical functions

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

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

Check usage of Gain blocks

Identify Gain blocks with value which resolves to 1.

Passed
No Gain blocks found with value which resolves to 1.

Check for length of user-defined object names

Not Run. Check does not support library and subsystem models.

Check data type of loop control variables

Not Run. Check does not support library and subsystem models.

Check for divide-by-zero calculations

Not Run. Check does not support library and subsystem models.

Check for parameter tunability ignored for referenced models

Not Run. Check does not support library and subsystem models.

Check usage of bit-shift operations

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for variants

Not Run. Check does not support library and subsystem models.

Check for disabled and parameterized library links

Identify disabled and parameterized library links in the model.

Passed
No blocks found that have disabled or parameterized library links.

Check for unreachable and dead code

Not Run. Check does not support library and subsystem models.

2.26.1.2 Stateflow 0 0 0 0 7 5

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 recursions

Not Run. Check does not support library and subsystem models.

Check Stateflow debugging options

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

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 assignment operations in Stateflow charts

Not Run. Check does not support library and subsystem models.

Check Stateflow charts for unary operators

Not Run. Check does not support library and subsystem models.

2.26.1.3 MATLAB 0 0 0 0 7 4

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

Not Run. Check does not support library and subsystem models.

Check usage of logical operators and functions in MATLAB Function blocks

Not Run. Check does not support library and subsystem models.

Check type and size of condition expressions

Not Run. Check does not support library and subsystem models.

Check MATLAB functions not supported for code generation

Identify MATLAB functions that are not supported for code generation.

Passed
All identified MATLAB functions are supported for code generation.

Metrics for generated code complexity

Not Run. Check does not support library and subsystem models.

2.26.1.4 Configuration 0 0 0 0 1 31

Check safety-related diagnostic settings for data store memory

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for saving

Not Run. Check does not support library and subsystem models.

Check safety-related model referencing settings

Not Run. Check does not support library and subsystem models.

Check safety-related code generation settings for comments

Not Run. Check does not support library and subsystem models.

Check safety-related code generation interface settings

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for solvers

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for sample time

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for logic signals

Not Run. Check does not support library and subsystem models.

Check safety-related block reduction optimization settings

Not Run. Check does not support library and subsystem models.

Check safety-related code generation settings for code style

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for application lifespan

Not Run. Check does not support library and subsystem models.

Check safety-related code generation identifier settings

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for data initialization

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for data type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for division arithmetic exceptions

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related settings for hardware implementation

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for compatibility

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for parameters

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Merge blocks

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model initialization

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for data used for debugging

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal connectivity

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for bus connectivity

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model referencing

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Stateflow

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal data

Not Run. Check does not support library and subsystem models.

2.26.1.5 Naming 0 0 0 0 1 1

Check model file name

Identify inappropriate characters and length issues in model file name.

Passed
No issues found with model file name.

Check model object names

Not Run. Check does not support library and subsystem models.

2.26.1.6 Requirements 0 0 0 0 1 0

Check for model elements that do not link to requirements

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

Passed
No model elements found without links to requirements.

2.26.1.7 Code 0 0 0 0 1 1

Check for blocks not recommended for MISRA C:2012

Passed

Check configuration parameters for MISRA C:2012

Not Run. Check does not support library and subsystem models.

2.27 Modeling Standards for EN 50128/EN 50657 0 0 0 0 30 69

Display configuration management data

Not Run. Check does not support library and subsystem models.

Display model metrics and complexity report

Model complexity information
Display name, level, and depth of subsystems

No subsystems found.

Check for unconnected objects

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

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

2.27.1 High-Integrity Systems 0 0 0 0 28 68

2.27.1.1 Simulink 0 0 0 0 10 26

Check usage of Abs blocks

Not Run. Check does not support library and subsystem models.

Check usage of remainder and reciprocal operations

Not Run. Check does not support library and subsystem models.

Check usage of square root operations

Not Run. Check does not support library and subsystem models.

Check usage of log and log10 operations

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of If blocks and If Action Subsystem blocks

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of conditionally executed subsystems

Not Run. Check does not support library and subsystem models.

Check usage of Merge blocks

Not Run. Check does not support library and subsystem models.

Check relational comparisons on floating-point signals

Not Run. Check does not support library and subsystem models.

Check usage of Relational Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of Logical Operator blocks

Not Run. Check does not support library and subsystem models.

Check usage of bitwise operations

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of variant blocks

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

Passed
No variant blocks have "VariantActivationTime" set to 'code compile'.

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

Not Run. Check does not support library and subsystem models.

Check for root Inports with missing properties

Identify Inport blocks in the top-level of the model with missing or inherited sample times, data types, or port

dimensions. Inport block properties are specified with block parameters or Simulink signal data objects that explicitly resolve to the connected signal lines.

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

---

Check for root Inports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check for root Outports with missing range definitions

Not Run. Check does not support library and subsystem models.

Check usage of Reciprocal Sqrt blocks

Not Run. Check does not support library and subsystem models.

Check usage of Assignment blocks

Not Run. Check does not support library and subsystem models.

Check global variables in graphical functions

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

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

Check usage of Gain blocks

Identify Gain blocks with value which resolves to 1.

Passed
No Gain blocks found with value which resolves to 1.

Check for length of user-defined object names

Not Run. Check does not support library and subsystem models.

Check data type of loop control variables

Not Run. Check does not support library and subsystem models.

Check for divide-by-zero calculations

Not Run. Check does not support library and subsystem models.

Check for parameter tunability ignored for referenced models

Not Run. Check does not support library and subsystem models.

Check usage of bit-shift operations

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for variants

Not Run. Check does not support library and subsystem models.

Check for disabled and parameterized library links

Identify disabled and parameterized library links in the model.

Passed
No blocks found that have disabled or parameterized library links.

Check for unreachable and dead code

Not Run. Check does not support library and subsystem models.

2.27.1.2 Stateflow 0 0 0 0 7 5

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 recursions

Not Run. Check does not support library and subsystem models.

Check Stateflow debugging options

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

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 assignment operations in Stateflow charts

Not Run. Check does not support library and subsystem models.

Check Stateflow charts for unary operators

Not Run. Check does not support library and subsystem models.

2.27.1.3 MATLAB 0 0 0 0 7 4

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

Not Run. Check does not support library and subsystem models.

Check usage of logical operators and functions in MATLAB Function blocks

Not Run. Check does not support library and subsystem models.

Check type and size of condition expressions

Not Run. Check does not support library and subsystem models.

Check MATLAB functions not supported for code generation

Identify MATLAB functions that are not supported for code generation.

Passed
All identified MATLAB functions are supported for code generation.

Metrics for generated code complexity

Not Run. Check does not support library and subsystem models.

2.27.1.4 Configuration 0 0 0 0 1 31

Check safety-related diagnostic settings for data store memory

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for saving

Not Run. Check does not support library and subsystem models.

Check safety-related model referencing settings

Not Run. Check does not support library and subsystem models.

Check safety-related code generation settings for comments

Not Run. Check does not support library and subsystem models.

Check safety-related code generation interface settings

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for solvers

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for sample time

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for logic signals

Not Run. Check does not support library and subsystem models.

Check safety-related block reduction optimization settings

Not Run. Check does not support library and subsystem models.

Check safety-related code generation settings for code style

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for application lifespan

Not Run. Check does not support library and subsystem models.

Check safety-related code generation identifier settings

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for data initialization

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for data type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related optimization settings for division arithmetic exceptions

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related settings for hardware implementation

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for compatibility

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for parameters

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Merge blocks

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model initialization

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for data used for debugging

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal connectivity

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for bus connectivity

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for type conversions

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for model referencing

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for Stateflow

Not Run. Check does not support library and subsystem models.

Check safety-related diagnostic settings for signal data

Not Run. Check does not support library and subsystem models.

2.27.1.5 Naming 0 0 0 0 1 1

Check model file name

Identify inappropriate characters and length issues in model file name.

Passed
No issues found with model file name.

Check model object names

Not Run. Check does not support library and subsystem models.

2.27.1.6 Requirements 0 0 0 0 1 0

Check for model elements that do not link to requirements

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

Passed
No model elements found without links to requirements.

2.27.1.7 Code 0 0 0 0 1 1

Check for blocks not recommended for MISRA C:2012

Passed

Check configuration parameters for MISRA C:2012

Not Run. Check does not support library and subsystem models.

2.28 Model Metrics 0 0 0 0 9 1

2.28.1 Count Metrics 0 0 0 0 7 0

Simulink block metric

Display number of blocks in the model or subsystem.
Passed

Component	Blocks
untitled1	0

Subsystem metric

Display number of Subsystems in the model or subsystem.
Passed

Component	Subsystems
untitled1	0

Library link metric

Display number of library links in the model or subsystem.
Passed

Component	Library Links
untitled1	0

Effective lines of MATLAB code metric

Display number of effective lines of MATLAB code.
No metric data available. Nothing to report for this metric.

Passed

Stateflow chart objects metric

Display number of Stateflow objects in each chart.
No metric data available. Nothing to report for this metric.

Passed

Lines of code for Stateflow blocks metric

Display number of code lines for Stateflow blocks.
No metric data available. Nothing to report for this metric.

Passed

Subsystem depth metric

Display depth of subsystems in the model or subsystem.
Passed

Component	Subsystem Depth
untitled1	0

2.28.2 Complexity Metrics 0 0 0 0 0 1

Cyclomatic complexity metric

Not Run. Check does not support library and subsystem models.

2.28.3 Readability Metrics 0 0 0 0 2 0

Nondescriptive block name metric

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

Component	Nondescriptive Names
untitled1	0

Data and structure layer separation metric

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

Component	Non-conforming Blocks
untitled1	0

2.29 Modeling Standards for MAB 0 0 1 0 108 34

2.29.1 Naming Conventions 0 0 0 0 16 4

2.29.1.1 General 0 0 0 0 4 0

Check file names

Check the model file name to ensure that the name complies with the recommended guidelines.

Passed
All files have correct names.

Check folder names

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

Check length of model file name

Passed
Model name is valid.

Check length of folder name at every level of model path

The model file name is: untitled1

Passed
Folder names are valid.

2.29.1.2 Content 0 0 0 0 12 4

Check subsystem names

Passed

Check port block names

Passed

Check character usage in block names

Passed

Check length of subsystem names

Passed

Check length of block names

Passed

Check length of Inport and Outport names

Passed

Check character usage in signal names and bus names

Identify signal and bus names with invalid characters.

Passed
No invalid characters are used in signal and bus names.

Check character usage in parameter names

Not Run. Check does not support library and subsystem models.

Check length of signal and bus names

Check length of signal and bus names

Passed

All signal and bus names are valid.

Check length of parameter names

Not Run. Check does not support library and subsystem models.

Check character usage in Stateflow data names

Identify Stateflow data names with invalid characters.

Passed
No invalid characters are used in Stateflow data names.

Check length of Stateflow data name

Check if the length of Stateflow data names are within limit.

Passed
All Stateflow data names are valid.

Check duplication of Simulink Data names

Simulink Data names should be unique across base workspace, model workspace and data dictionary.

Passed
All Simulink Data names are unique.

Check unused data in Simulink Model

Not Run. Check does not support library and subsystem models.

Check for unused data in Stateflow Charts

Not Run. Check does not support library and subsystem models.

Check usage of restricted variable names

Identify usage of reserved keywords in MATLAB Function blocks.

Passed
No variable names conflict with reserved keywords

2.29.2 Simulink 0 0 1 0 41 21

2.29.2.1 Configuration Parameters 0 0 0 0 1 3

Check Implement logic signals as Boolean data (vs. double)

Not Run. Check does not support library and subsystem models.

Check Signed Integer Division Rounding mode

jc_0642: Integer rounding mode setting

Identifies blocks with block parameter 'Integer Rounding Mode' set to 'Simplest' when the configuration

parameter 'Signed integer division rounds to' is set to 'Undefined'.

Passed
Configuration parameter 'Signed integer division rounds to' is not set to 'Undefined'.

Check diagnostic settings for incorrect calculation results

Not Run. Check does not support library and subsystem models.

Check model diagnostic parameters

Not Run. Check does not support library and subsystem models.

2.29.2.2 Diagram Appearance 0 0 1 0 14 2

Check for Simulink diagrams using nonstandard display attributes

Not Run. Check does not support library and subsystem models.

Check Model font settings

Identify blocks and charts with different font settings from input parameters.

Passed
Font settings of the blocks and charts and input parameters are same.

Check whether block names appear below blocks

Passed

Check the display attributes of block names

Identify whether to display block names.

Check for blocks with hidden names and obvious function
Identify block names that are displayed but can be hidden due to obvious behavior.

Passed
All blocks with obvious behavior have hidden names.

Check for non-descriptive displayed block names
Identify block names that are displayed but should be hidden due to a lack of a descriptive name.

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

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

Identify layers in the model having inconsistent description format.

Warning
Following layers do not have model descriptions:

- untitled1

Recommended Action
Consider adding model description for all the layers.

Check if blocks are shaded in the model

Check if blocks are shaded in the model

Passed
Blocks in the model are not shaded.

Check for unconnected signal lines and blocks

Identify unconnected signal lines, subsystems and basic blocks.

Passed
All signal lines and blocks in the model are connected.

Check signal line connections

Identify intersections and overlaps of signals in a model.

Passed
No signal intersections or overlaps found.

Check signal flow in model

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

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

Not Run. Check does not support library and subsystem models.

Check for consistency in model element names

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

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 mixing basic blocks and subsystems

Identify levels in the model that include basic blocks and subsystems. Each level of a model must be designed with blocks of the same level (for example, only subsystems or only basic blocks).

Passed
The model does not mix basic blocks and subsystems at the same level.

Check for avoiding algebraic loops between subsystems

jc_0653: Delay block layout in feedback loops

Identify delay blocks usage in feedback loops.

Passed
No delay blocks in feedback loops violate the guidelines for avoiding algebraic loops between subsystems.

Check for prohibited sink blocks

Passed

2.29.2.3 Signal 0 0 0 0 3 3

Check usage of vector and bus signals

Not Run. Check does not support library and subsystem models.

Check definition of signal labels

Identify blocks that require labeled signals. A subset of source and destination blocks require labeled signals.

Passed
All blocks that require labeled sources have labeled signals.

Check Signal name propagation

Not Run. Check does not support library and subsystem models.

Check position of signal labels

Identify inappropriately placed signal labels.

Passed
No signals found with inappropriately placed labels.

Check signal line labels

Identify blocks that require labeled signals. A subset of source and destination blocks require labeled signals.

Passed

All blocks that require labeled sources have labeled signals.

Check for propagated signal labels

Not Run. Check does not support library and subsystem models.

2.29.2.4 Block Consistency 0 0 0 0 4 2

Check Indexing Mode

Identify blocks and charts with inconsistent Indexing mode.

Passed
No inconsistent Indexing mode used in the model.

Check block orientation

Identify blocks which are rotated or reversed.

Passed
No blocks found with rotated or reversed orientation

Check if tunable block parameters are defined as named constants

Check if tunable block parameters are defined as named constants

Passed
All tunable block parameters are defined as named constants

Check for sample time setting

Check if sample time property of a block is set to -1 (inherited).

Passed
All permitted blocks have sample time set to -1 (inherited).

Check usage of fixed-point data type with non-zero bias

Not Run. Check does not support library and subsystem models.

Check type setting by data objects

Not Run. Check does not support library and subsystem models.

2.29.2.5 Conditional Subsystem relations 0 0 0 0 4 1

Check position of conditional blocks and iterator blocks

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

Not Run. Check does not support library and subsystem models.

Check usage of Merge block

jc_0659: Usage restrictions of signal lines input to Merge blocks
There must not be any block between a Conditional Subsystem block and a Merge block.

Passed
No Merge block found.

Check logical expressions in If blocks

Checks If blocks for complex usage of primary expressions within a logical expression

Passed
Logical expressions inside If blocks are simple

Check default/else case in Switch Case blocks and If blocks

Check if default/else case in Switch Case blocks and If blocks are set to 'on'

Passed
Conditional Control blocks are valid.

2.29.2.6 Operation Blocks 0 0 0 0 9 6

Check fundamental logical and numerical operations

Not Run. Check does not support library and subsystem models.

Check usage of Sum blocks

Identify Sum block usage that can affect readability.

Passed
No violations of the guideline found with the usage of the Sum block.

Check operator order of Product blocks

Passed

Check signs of input signals in product blocks

Not Run. Check does not support library and subsystem models.

Check for parentheses in Fcn block expressions

Identify order of parentheses in Fcn block expressions.

Passed
All Fcn blocks use parentheses to mark operator precedence.

Check icon shape of Logical Operator blocks

Passed

Check usage of Relational Operator blocks

Identify Relational Operator blocks that connect to constants with the first (upper) input value.

Passed
This model does not contain Relational Operator blocks.

Check comparison of floating point types in Simulink

Not Run. Check does not support library and subsystem models.

Check usage of Lookup Tables

Check usage of recommended settings for Lookup Table blocks to prevent unexpected results.

Passed
All Lookup Table blocks have recommended settings.

Check usage of Memory and Unit Delay blocks

Not Run. Check does not support library and subsystem models.

Check for cascaded Unit Delay blocks

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

Check usage of recommended settings for Discrete-Time Integrator blocks to prevent unexpected results.

Passed
All Discrete-Time Integrator blocks have recommended settings.

Check usage of the Saturation blocks

Not Run. Check does not support library and subsystem models.

Check output data type of operation blocks

jc_0651: Implementing a type conversion

Identify operation blocks that specify output data type.

Passed
No operation blocks found that explicitly specify output data type.

Check for division by zero in Simulink

Not Run. Check does not support library and subsystem models.

2.29.2.7 Other blocks 0 0 0 0 6 4

Check position of Inport and Outport blocks

Identify inappropriately placed Inport and Outport blocks.

Passed
No Inport or Outport blocks found which are inappropriately placed.

Check display for port blocks

Passed

Check scope of From and Goto blocks

Not Run. Check does not support library and subsystem models.

Check for usage of Data Store Memory blocks

Identify the usage of Data Store Memory blocks.

Passed
Usage of Data Store Memory blocks is correct.

Check usage of Switch blocks

Not Run. Check does not support library and subsystem models.

Check input and output datatype for Switch blocks

Not Run. Check does not support library and subsystem models.

Check settings for data ports in Multiport Switch blocks

Not Run. Check does not support library and subsystem models.

Check for missing ports in Variant Subsystems

Check for number of inputs/outputs to a Variant Subsystem.

Passed
No Variant Subsystems found having different number of inputs/outputs in the Variant Subsystem choices.

Check use of default variants

na_0036: Default variant

Identify variant subsystems that do not use default variants.

Passed
All variant subsystems in the model use default variants

Check use of single variable variant conditionals

Identify variant subsystems which use multi-variable compound conditions.

Passed
No variant subsystems with multiple variable compound conditions found

2.29.3 Stateflow 0 0 0 0 44 7

2.29.3.1 Block/Data/Events 0 0 0 0 5 1

Check for names of Stateflow ports and associated signals

Not Run. Check does not support library and subsystem models.

Check execution timing for default transition path

'Execute (enter) Chart At Initialization' should be set to OFF.

Passed
All Stateflow Charts pass the check.

Check definition of Stateflow data

Identify the Scope value set on Stateflow data defined at machine level.

Passed
All Stateflow data at machine level has been defined as per guideline.

Check usable number for first index

Identify usage of first index of Stateflow data.

Passed
All Stateflow data first index values are uniform.

Check scope of data in parallel states

jc_0722: Local data definition in parallel states
The scope of local variables should be restricted to one parallel state unless it is being used by other parallel states.

Passed
No Stateflow States were found.

Check definition of Stateflow events

Stateflow events should be defined at the smallest possible scope of usage.

Passed
All Stateflow events are defined at their smallest scope.

2.29.3.2 Diagram 0 0 0 0 13 1

Check for unconnected objects in Stateflow Charts

Identify dangling transitions and unconnected Stateflow States and Junctions in Stateflow Charts.

Passed
No unconnected transitions, states or junctions found in Stateflow Charts.

Check for exclusive states in state machines

Identify states which are the only substate within a state with OR(exclusive) type decomposition.

Passed
All states with OR(exclusive) type decomposition have more than one substate.

Check usage of parallel states

Substates of parallel states should not be parallel states.

Passed
All Stateflow Charts pass the check.

Check Stateflow transition appearance

Identify Stateflow transitions visually overlapping other Stateflow objects.

Passed
No transition violates the guidelines for Stateflow transition appearance.

Check default transition placement in Stateflow charts

Identify all groupings of states that do not have a default transition or do not have the default state as the top-most state.

Passed
No Stateflow charts and states found that violate the guidelines for default transition placement in Stateflow charts.

Check usage of transitions to external states

Identify transitions ending on external child states.

Passed
No direct transitions found from external state to child state.

Check for unexpected backtracking in state transitions

Not Run. Check does not support library and subsystem models.

Check usage of internal transition

Internal transition lines should start from the left edge of the state.

Passed
No Stateflow transitions found that violate the guidelines for starting point of internal transition in Stateflow.

Check usage of internal transitions in Stateflow states

Identify Stateflow states using multiple internal transitions.

Passed
No Stateflow states found with multiple internal transitions

Check prohibited combination of state action and flow chart

State actions and flow charts should not be combined in states.

Passed

No Stateflow states were found that combine state action and flow chart.

Check transitions in Stateflow flow charts

Identify transitions in Stateflow flow charts that are drawn incorrectly.

Passed
All Stateflow transitions in flow charts are drawn correctly.

Check usage of unconditional transitions in flow charts

Identify unconditional transitions in flow charts.

Passed
All unconditional transitions adhere to the guideline.

Check terminal junctions in Stateflow

Identify usage of terminal junctions in flow charts.

Passed
Multiple terminal junctions were not found.

Check usage of Stateflow comments

Identify comments that are nested or contain newline(s) in the middle in Stateflow for action language 'C'.

Passed
No comments found that are either nested or contain newline(s) in the middle.

2.29.3.3 Condition Transition/Action 0 0 0 0 12 5

Check Stateflow chart action language

Check if the action language of Stateflow charts is set to 'C'.

Passed
All Stateflow Charts have action language set to 'C'.

Check usage of numeric literals in Stateflow

Identify use of numeric literals in Stateflow states and transitions.

Passed
No numeric literals found in Stateflow charts.

Check for pointers in Stateflow charts

Identify pointer operations on custom code variables.
Note: This check applies only to Stateflow charts that use C as the action language.

Passed
No pointer operations were found.

Check usage of events in Stateflow charts

Identify undirected event broadcasts in Stateflow.

Passed
No instances of undirected event broadcast were found.

Check order of state action types

Identify out of order state action types in Stateflow states.

Passed
No Stateflow states found with out of order state action types

---

Check repetition of Action types

jc_0734: Number of state action types
Identifies repeated action types in a Stateflow State.

Passed
No Stateflow States were found.

Check if state action type 'exit' is used in the model

Check if state action type 'exit' is used in the model.

Passed
State action type 'exit' is not used in the model.

Check updates to variables used in state transition conditions

jc_0741: Timing to update data used in state chart transition conditions

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

Identify unconditional Stateflow transitions with higher priority than conditional transitions.

Passed
No unconditional Stateflow transitions found with higher priority than conditional transitions

---

Check condition actions and transition actions in Stateflow

Identify usage of transition actions in Stateflow.

Passed
No Stateflow charts have transition actions.

Check for MATLAB expressions in Stateflow blocks

Identify MATLAB expressions that are not suitable for code generation in Stateflow blocks.

Passed
No Stateflow objects found using MATLAB expressions unsuitable for code generation.

Check usage of floating-point expressions in Stateflow charts

Not Run. Check does not support library and subsystem models.

Check Stateflow operators

Not Run. Check does not support library and subsystem models.

Check prohibited comparison operation of logical type signals

Not Run. Check does not support library and subsystem models.

Check usage of unary minus operations in Stateflow charts

Not Run. Check does not support library and subsystem models.

Check for implicit type casting in Stateflow

Not Run. Check does not support library and subsystem models.

Check usage of graphical functions in Stateflow

Check for calls between graphical functions.

Passed
No calls between graphical functions were found.

2.29.3.4 Label Description 0 0 0 0 10 0

Check uniqueness of Stateflow State and Data names

jc_0732: Distinction between state names, data names, and event names
Identify Stateflow State and Stateflow Data that have identical names in a given chart.

Passed
No Stateflow charts were found.

Check uniqueness of State names

jc_0730: Unique state name in Stateflow blocks
Identifies identical State names within a Stateflow Chart.

Passed
No Stateflow charts were found.

Check usage of State names

jc_0731: State name format

Identify state names with '/' at its end.

Passed
No Stateflow states were found.

Check entry formatting in State blocks in Stateflow charts

Identify missing line breaks between entry action (en), during action (du), and exit action (ex) entries in states.
Identify missing line breaks after semicolons (;) in statements.

Passed
All state entries found are correctly formatted.

Check indentation of code in Stateflow states

Identify non-uniform indentation in Stateflow blocks.

Passed
All Stateflow blocks have uniform indentation.

Check for usage of text inside states

Identify Stateflow states with text exceeding the boundary of the state.

Passed
No Stateflow states found with text exceeding the boundary of the state.

Check position of label string in Stateflow transition

Identify placement of label string in Stateflow transition.

Passed
All Stateflow transitions are placed uniformly.

Check position of comments in transition labels

Identify comments in transition labels that are not positioned uniformly.

Passed
Comments in transition labels are positioned uniformly.

Check usage of parentheses in Stateflow transitions

jc_0752: Condition action in transition label

Start new line before and after parentheses for condition actions in Stateflow transitions.

Passed
No Stateflow Transitions found that violate the requirement for new line for condition actions.

Check for comments in unconditional transitions

Identify comments in unconditional transitions without action statements.

Passed
All unconditional transitions without action statements have comments.

2.29.3.5 Miscellaneous 0 0 0 0 4 0

Check return value assignments in Stateflow graphical functions

Identify graphical functions with multiple assignments of return values in Stateflow charts.

Passed

No Stateflow charts were found.

Check uniqueness of Stateflow State and Data names

jc_0732: Distinction between state names, data names, and event names
Identify Stateflow State and Stateflow Data that have identical names in a given chart.

Passed
No Stateflow charts were found.

Check usage of Simulink functions in Stateflow

Usage of Simulink Functions in Stateflow.

Passed
All Simulink Functions in Stateflow are defined according to the guideline.

Check use of Simulink in Stateflow charts

na_0039: Limitation on Simulink functions in Chart blocks

Check use of Stateflow charts nested inside Simulink functions used in Stateflow.

Passed
No Stateflow charts found nested inside Simulink functions used in Stateflow.

2.29.4 MATLAB 0 0 0 0 7 2

2.29.4.1 Data and Operations 0 0 0 0 2 1

Check MATLAB code for global variables

Check for global variables in MATLAB code

Check for global variables in MATLAB code used in MATLAB Function blocks

Passed
No MATLAB Function blocks found

Check for global variables in MATLAB functions defined in Stateflow charts

Passed
No MATLAB functions defined in Stateflow charts found

Check for global variables in called MATLAB functions

Passed
No external MATLAB functions found

Check usage of enumerated values

Not Run. Check does not support library and subsystem models.

Check input and output settings of MATLAB Functions

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

Passed
No MATLAB Functions found in the model or subsystem.

2.29.4.2 Usage 0 0 0 0 5 1

Check lines of code in MATLAB Functions

Identify MATLAB Functions with high number of effective lines of code.

Passed
No MATLAB Function found with high number of effective lines of code.

Check the number of function calls in MATLAB Function blocks

Checks whether number of function calls in MATLAB Function blocks is less than 3.

Passed
Number of function calls in MATLAB Function blocks is less than 3.

Check nested conditions in MATLAB Functions

Identify nested if/else and case statements in MATLAB Functions.

Passed
No MATLAB Function found with deeply nested if/else and case statements.

Check usage of character vector inside MATLAB Function block

Identify usage of strings in MATLAB Function blocks.

Passed
No character vectors found in MATLAB Function block

Check usage of recommended patterns for Switch/Case statements

Identify usage of non-constant variables in Switch/Case statements.

Passed
Non-constant variables are not used as Switch/Case arguments

Check for use of C-style comment symbols

Not Run. Check does not support library and subsystem models.

2.30 Modeling Standards for JMAAB 0 0 1 0 96 31

2.30.1 Naming Conventions 0 0 0 0 12 2

Check file names

Check the model file name to ensure that the name complies with the recommended guidelines.

Passed
All files have correct names.

Check folder names

Check the folder name to ensure that the name complies with the recommended guidelines.

Passed
All folders have correct names.

Check subsystem names

Passed

Check port block names

Passed

Check character usage in block names

Passed

Check character usage in signal names and bus names

Identify signal and bus names with invalid characters.

Passed
No invalid characters are used in signal and bus names.

Check character usage in parameter names

Not Run. Check does not support library and subsystem models.

Check length of model file name

Check length of model file name

Passed
Model name is valid.

Check length of folder name at every level of model path

The model file name is: untitled1

Passed
Folder names are valid.

Check length of subsystem names

Passed

Check length of Inport and Outport names

Passed

Check length of signal and bus names

Check length of signal and bus names

Passed
All signal and bus names are valid.

Check length of parameter names

Not Run. Check does not support library and subsystem models.

Check length of block names

Passed

2.30.2 Model Architecture 0 0 0 0 1 0

Check for mixing basic blocks and subsystems

Identify levels in the model that include basic blocks and subsystems. Each level of a model must be designed with blocks of the same level (for example, only subsystems or only basic blocks).

Passed
The model does not mix basic blocks and subsystems at the same level.

2.30.3 Model Configuration Options 0 0 0 0 0 2

Check Implement logic signals as Boolean data (vs. double)

Not Run. Check does not support library and subsystem models.

Check diagnostic settings for incorrect calculation results

Not Run. Check does not support library and subsystem models.

2.30.4 Simulink 0 0 1 0 36 18

Check for Simulink diagrams using nonstandard display attributes

Not Run. Check does not support library and subsystem models.

Check Model font settings

Identify blocks and charts with different font settings from input parameters.

Passed
Font settings of the blocks and charts and input parameters are same.

Check position of Inport and Outport blocks

Identify inappropriately placed Inport and Outport blocks.

Passed
No Inport or Outport blocks found which are inappropriately placed.

Check whether block names appear below blocks

Passed

Check the display attributes of block names

Identify whether to display block names.

Check for blocks with hidden names and obvious function
Identify block names that are displayed but can be hidden due to obvious behavior.

Passed
All blocks with obvious behavior have hidden names.

Check for non-descriptive displayed block names
Identify block names that are displayed but should be hidden due to a lack of a descriptive name.

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

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

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 signal lines and blocks

Identify unconnected signal lines, subsystems and basic blocks.

Passed
All signal lines and blocks in the model are connected.

Check usage of Switch blocks

Not Run. Check does not support library and subsystem models.

Check usage of Relational Operator blocks

Identify Relational Operator blocks that connect to constants with the first (upper) input value.

Passed
This model does not contain Relational Operator blocks.

Check Indexing Mode

Identify blocks and charts with inconsistent Indexing mode.

Passed
No inconsistent Indexing mode used in the model.

Check usage of tunable parameters in blocks

Identify tunable parameters used to specify expressions, data type conversions, or indexing operations.

Passed
Tunable parameters are not used in the model.

Check definition of signal labels

Identify blocks that require labeled signals. A subset of source and destination blocks require labeled signals.

Passed
All blocks that require labeled sources have labeled signals.

Check Signal name propagation

Not Run. Check does not support library and subsystem models.

Check usage of Discrete-Time Integrator block

Check usage of recommended settings for Discrete-Time Integrator blocks to prevent unexpected results.

Passed
All Discrete-Time Integrator blocks have recommended settings.

Check settings for data ports in Multiport Switch blocks

Not Run. Check does not support library and subsystem models.

Check usage of fixed-point data type with non-zero bias

Not Run. Check does not support library and subsystem models.

Check input and output datatype for Switch blocks

Not Run. Check does not support library and subsystem models.

Check signs of input signals in product blocks

Not Run. Check does not support library and subsystem models.

Check Signed Integer Division Rounding mode

jc_0642: Integer rounding mode setting

Identifies blocks with block parameter 'Integer Rounding Mode' set to 'Simplest' when the configuration parameter 'Signed integer division rounds to' is set to 'Undefined'.

Passed
Configuration parameter 'Signed integer division rounds to' is not set to 'Undefined'.

Check type setting by data objects

Not Run. Check does not support library and subsystem models.

Check usage of the Saturation blocks

Not Run. Check does not support library and subsystem models.

Check usage of Merge block

jc_0659: Usage restrictions of signal lines input to Merge blocks
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

Not Run. Check does not support library and subsystem models.

Check block orientation

Identify blocks which are rotated or reversed.

Passed
No blocks found with rotated or reversed orientation

Check if blocks are shaded in the model

Check if blocks are shaded in the model

Passed
Blocks in the model are not shaded.

Check operator order of Product blocks

Passed

Check icon shape of Logical Operator blocks

Passed

Check if tunable block parameters are defined as named constants

Check if tunable block parameters are defined as named constants

Passed
All tunable block parameters are defined as named constants

Check default/else case in Switch Case blocks and If blocks

Check if default/else case in Switch Case blocks and If blocks are set to 'on'

Passed
Conditional Control blocks are valid.

Check usage of Lookup Tables

Check usage of recommended settings for Lookup Table blocks to prevent unexpected results.

Passed
All Lookup Table blocks have recommended settings.

Check for parentheses in Fcn block expressions

Identify order of parentheses in Fcn block expressions.

Passed
All Fcn blocks use parentheses to mark operator precedence.

Check undefined initial output for conditional subsystems

Not Run. Check does not support library and subsystem models.

Check for avoiding algebraic loops between subsystems

jc_0653: Delay block layout in feedback loops

Identify delay blocks usage in feedback loops.

Passed
No delay blocks in feedback loops violate the guidelines for avoiding algebraic loops between subsystems.

Check comparison of floating point types in Simulink

Not Run. Check does not support library and subsystem models.

Check duplication of Simulink Data names

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

Not Run. Check does not support library and subsystem models.

Check output data type of operation blocks

jc_0651: Implementing a type conversion

Identify operation blocks that specify output data type.

Passed
No operation blocks found that explicitly specify output data type.

Check Model Description

Identify layers in the model having inconsistent description format.

Warning
Following layers do not have model descriptions:

- untitled1

Recommended Action
Consider adding model description for all the layers.

Check for consistency in model element names

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

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

Identify Sum block usage that can affect readability.

Passed
No violations of the guideline found with the usage of the Sum block.

Check position of signal labels

Identify inappropriately placed signal labels.

Passed
No signals found with inappropriately placed labels.

Check for missing ports in Variant Subsystems

Check for number of inputs/outputs to a Variant Subsystem.

Passed
No Variant Subsystems found having different number of inputs/outputs in the Variant Subsystem choices.

Check for cascaded Unit Delay blocks

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 for usage of Data Store Memory blocks

Identify the usage of Data Store Memory blocks.

Passed
Usage of Data Store Memory blocks is correct.

Check fundamental logical and numerical operations

Not Run. Check does not support library and subsystem models.

Check signal flow in model

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

Not Run. Check does not support library and subsystem models.

Check connections between structural subsystems

Not Run. Check does not support library and subsystem models.

Check position of conditional blocks and iterator blocks

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

Identify intersections and overlaps of signals in a model.

Passed
No signal intersections or overlaps found.

Check scope of From and Goto blocks

Not Run. Check does not support library and subsystem models.

Check for division by zero in Simulink

Not Run. Check does not support library and subsystem models.

Check use of single variable variant conditionals

Identify variant subsystems which use multi-variable compound conditions.

Passed
No variant subsystems with multiple variable compound conditions found

2.30.5 Stateflow 0 0 0 0 44 8

Check transitions in Stateflow flow charts

Identify transitions in Stateflow flow charts that are drawn incorrectly.

Passed
All Stateflow transitions in flow charts are drawn correctly.

Check return value assignments in Stateflow graphical functions

Identify graphical functions with multiple assignments of return values in Stateflow charts.

Passed
No Stateflow charts were found.

Check entry formatting in State blocks in Stateflow charts

Identify missing line breaks between entry action (en), during action (du), and exit action (ex) entries in states.
Identify missing line breaks after semicolons (;) in statements.

Passed
All state entries found are correctly formatted.

Check default transition placement in Stateflow charts

Identify all groupings of states that do not have a default transition or do not have the default state as the top-most state.

Passed
No Stateflow charts and states found that violate the guidelines for default transition placement in Stateflow charts.

Check definition of Stateflow data

Identify the Scope value set on Stateflow data defined at machine level.

Passed
All Stateflow data at machine level has been defined as per guideline.

Check for MATLAB expressions in Stateflow blocks

Identify MATLAB expressions that are not suitable for code generation in Stateflow blocks.

Passed
No Stateflow objects found using MATLAB expressions unsuitable for code generation.

Check for pointers in Stateflow charts

Identify pointer operations on custom code variables.
Note: This check applies only to Stateflow charts that use C as the action language.

Passed
No pointer operations were found.

Check Stateflow operators

Not Run. Check does not support library and subsystem models.

Check usage of unary minus operations in Stateflow charts

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow comments

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

Not Run. Check does not support library and subsystem models.

Check usage of internal transitions in Stateflow states

Identify Stateflow states using multiple internal transitions.

Passed
No Stateflow states found with multiple internal transitions

Check usage of transition conditions in Stateflow transitions

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

jc_0732: Distinction between state names, data names, and event names
Identify Stateflow State and Stateflow Data that have identical names in a given chart.

Passed
No Stateflow charts were found.

Check uniqueness of State names

jc_0730: Unique state name in Stateflow blocks
Identifies identical State names within a Stateflow Chart.

Passed
No Stateflow charts were found.

Check usage of parentheses in Stateflow transitions

jc_0752: Condition action in transition label

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

State actions and flow charts should not be combined in states.

Passed
No Stateflow states were found that combine state action and flow chart.

Check condition actions and transition actions in Stateflow

Identify usage of transition actions in Stateflow.

Passed

No Stateflow charts have transition actions.

Check usable number for first index

Identify usage of first index of Stateflow data.

Passed
All Stateflow data first index values are uniform.

Check usage of State names

jc_0731: State name format

Identify state names with '/' at its end.

Passed
No Stateflow states were found.

Check execution timing for default transition path

'Execute (enter) Chart At Initialization' should be set to OFF.

Passed
All Stateflow Charts pass the check.

Check repetition of Action types

jc_0734: Number of state action types
Identifies repeated action types in a Stateflow State.

Passed
No Stateflow States were found.

Check for unused data in Stateflow Charts

Not Run. Check does not support library and subsystem models.

Check updates to variables used in state transition conditions

jc_0741: Timing to update data used in state chart transition conditions

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 internal transition

Internal transition lines should 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 parallel states

Substates of parallel states should not be parallel states.

Passed

All Stateflow Charts pass the check.

Check scope of data in parallel states

jc_0722: Local data definition 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

Identify non-uniform indentation in Stateflow blocks.

Passed
All Stateflow blocks have uniform indentation.

Check for usage of text inside states

Identify Stateflow states with text exceeding the boundary of the state.

Passed
No Stateflow states found with text exceeding the boundary of the state.

Check for unexpected backtracking in state transitions

Not Run. Check does not support library and subsystem models.

Check for unconnected objects in Stateflow Charts

Identify dangling transitions and unconnected Stateflow States and Junctions in Stateflow Charts.

Passed
No unconnected transitions, states or junctions found in Stateflow Charts.

Check position of label string in Stateflow transition

Identify placement of label string in Stateflow transition.

Passed
All Stateflow transitions are placed uniformly.

Check Stateflow chart action language

Check if the action language of Stateflow charts is set to 'C'.

Passed
All Stateflow Charts have action language set to 'C'.

Check character usage in Stateflow data names

Identify Stateflow data names with invalid characters.

Passed
No invalid characters are used in Stateflow data names.

Check length of Stateflow data name

Check if the length of Stateflow data names are within limit.

Passed
All Stateflow data names are valid.

Check usage of transitions to external states

Identify transitions ending on external child states.

Passed
No direct transitions found from external state to child state.

Check order of state action types

Identify out of order state action types in Stateflow states.

Passed
No Stateflow states found with out of order state action types

---

Check usage of numeric literals in Stateflow

Identify use of numeric literals in Stateflow states and transitions.

Passed
No numeric literals found in Stateflow charts.

Check position of comments in transition labels

Identify comments in transition labels that are not positioned uniformly.

Passed
Comments in transition labels are positioned uniformly.

Check terminal junctions in Stateflow

Identify usage of terminal junctions in flow charts.

Passed
Multiple terminal junctions were not found.

Check for implicit type casting in Stateflow

Not Run. Check does not support library and subsystem models.

Check usage of graphical functions in Stateflow

Check for calls between graphical functions.

Passed
No calls between graphical functions were found.

Check if state action type 'exit' is used in the model

Check if state action type 'exit' is used in the model.

Passed
State action type 'exit' is not used in the model.

Check for use of C-style comment symbols

Not Run. Check does not support library and subsystem models.

Check usage of unconditional transitions in flow charts

Identify unconditional transitions in flow charts.

Passed
All unconditional transitions adhere to the guideline.

Check for comments in unconditional transitions

Identify comments in unconditional transitions without action statements.

Passed
All unconditional transitions without action statements have comments.

Check definition of Stateflow events

Stateflow events should be defined at the smallest possible scope of usage.

Passed
All Stateflow events are defined at their smallest scope.

Check Stateflow transition appearance

Identify Stateflow transitions visually overlapping other Stateflow objects.

Passed
No transition violates the guidelines for Stateflow transition appearance.

Check usage of events in Stateflow charts

Identify undirected event broadcasts in Stateflow.

Passed
No instances of undirected event broadcast were found.

Check usage of Simulink functions in Stateflow

Usage of Simulink Functions in Stateflow.

Passed
All Simulink Functions in Stateflow are defined according to the guideline.

Check for exclusive states in state machines

Identify states which are the only substate within a state with OR(exclusive) type decomposition.

Passed
All states with OR(exclusive) type decomposition have more than one substate.

Check usage of floating-point expressions in Stateflow charts

Not Run. Check does not support library and subsystem models.

2.30.6 MATLAB Functions 0 0 0 0 3 1

Check input and output settings of MATLAB Functions

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

Passed
No MATLAB Functions found in the model or subsystem.

Check MATLAB code for global variables

Check for global variables in MATLAB code

Check for global variables in MATLAB code used in MATLAB Function blocks

Passed
No MATLAB Function blocks found

Check for global variables in MATLAB functions defined in Stateflow charts

Passed
No MATLAB functions defined in Stateflow charts found

Check for global variables in called MATLAB functions

Passed
No external MATLAB functions found

Check usage of character vector inside MATLAB Function block

Identify usage of strings in MATLAB Function blocks.

Passed
No character vectors found in MATLAB Function block

Check usage of enumerated values

Not Run. Check does not support library and subsystem models.

2.31 Simulink Code Inspector compatibility checks 0 1 0 0 0 66

Check code generation settings

Not Run. Check does not support library and subsystem models.

Check data import and export settings

Not Run. Check does not support library and subsystem models.

Check diagnostic settings

Not Run. Check does not support library and subsystem models.

Check hardware implementation settings

Not Run. Check does not support library and subsystem models.

Check math and data types settings

Not Run. Check does not support library and subsystem models.

Check solver settings

Not Run. Check does not support library and subsystem models.

Check for unconnected objects in the model

Not Run. Check does not support library and subsystem models.

Check system target file setting

Not Run. Check does not support library and subsystem models.

Check function specification setting

Not Run. Check does not support library and subsystem models.

Check for usage of fixed-point instrumentation

Not Run. Check does not support library and subsystem models.

Check for unsupported blocks

Supported compiler not detected. You can install the freely available MinGW-w64 C/C++ compiler; see Install MinGW-w64 Compiler. For more options, visit https://www.mathworks.com/support/compilers.

Check storage class for workspace variables

Not Run. Check does not support library and subsystem models.

Check GetSet storage class for workspace variables

Not Run. Check does not support library and subsystem models.

Check for sample times in the model

Not Run. Check does not support library and subsystem models.

Check usage of Sources blocks

Not Run. Check does not support library and subsystem models.

Check usage of Signal Routing blocks

Not Run. Check does not support library and subsystem models.

Check usage of Math Operations blocks

Not Run. Check does not support library and subsystem models.

Check usage of Signal Attributes blocks

Not Run. Check does not support library and subsystem models.

Check usage of Logical and Bit Operations blocks

Not Run. Check does not support library and subsystem models.

Check usage of Lookup Tables blocks

Not Run. Check does not support library and subsystem models.

Check usage of User-Defined Function blocks

Not Run. Check does not support library and subsystem models.

Check usage of Ports and Subsystems blocks

Not Run. Check does not support library and subsystem models.

Check usage of Discontinuities blocks

Not Run. Check does not support library and subsystem models.

Check usage of Sinks blocks

Not Run. Check does not support library and subsystem models.

Check usage of Discrete blocks

Not Run. Check does not support library and subsystem models.

Check usage of root Outport blocks

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check usage of buses

Not Run. Check does not support library and subsystem models.

Check for usage of synthesized local data stores

Not Run. Check does not support library and subsystem models.

Check usage of global data stores

Not Run. Check does not support library and subsystem models.

Check global data stores' name shadow

Not Run. Check does not support library and subsystem models.

Check conditional input branch execution setting

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow blocks

Not Run. Check does not support library and subsystem models.

Check for Stateflow machine data

Not Run. Check does not support library and subsystem models.

Check for Stateflow machine events

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow charts

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow data

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow events

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow states

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow junctions

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow transitions

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow graphical functions

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow truth tables

Not Run. Check does not support library and subsystem models.

Check Loop unrolling threshold setting

Not Run. Check does not support library and subsystem models.

Check destinations of If and Switchcase blocks

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check for Terminator blocks that connect to Model block outports

Not Run. Check does not support library and subsystem models.

Check for unsupported propagation of initial condition values

Not Run. Check does not support library and subsystem models.

Check data type replacement names

Not Run. Check does not support library and subsystem models.

Check usage of MATLAB Function Blocks

Not Run. Check does not support library and subsystem models.

Check usage of Data in MATLAB Functions

Not Run. Check does not support library and subsystem models.

Check usage of Code in MATLAB Functions

Not Run. Check does not support library and subsystem models.

Check MATLAB Code Analyzer messages

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check Treat each discrete rate as a separate task setting

Not Run. Check does not support library and subsystem models.

Check model for commented out blocks

Not Run. Check does not support library and subsystem models.

Check model for void_void subsystems that use the same function name

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Check model for reusable subsystems that use the same function interfaces

Not Run. Check does not support library and subsystem models.

Check for usage of shared synthesized local data stores

Not Run. Check does not support library and subsystem models.

Check the code generation folder structure for the model

Not Run. Check does not support library and subsystem models.

Check for unsupported Code Mapping settings

Not Run. Check does not support library and subsystem models.

Check model for compiled and graphical block sorted order

Not Run. Check does not support library and subsystem models.

Check usage of String blocks

Not Run. Check does not support library and subsystem models.

Check usage of shared utilities

Not Run. Check does not support library and subsystem models.

Check model arguments for storage classes

Not Run. Check does not support library and subsystem models.

Check usage of Stateflow MATLAB action language

Not Run. Check does not support library and subsystem models.

2.32 Frequency Response Estimation 0 0 0 0 0 1

Identify time-varying source blocks interfering with frequency response estimation

Not Run. Check does not support library and subsystem models.

2.33 Simulink Design Verifier Compatibility Check 0 0 0 0 0 1

Check compatibility with Simulink Design Verifier

Not Run. Check does not support library and subsystem models.

2.34 Simulink Design Verifier Design Error Checks 0 0 0 0 0 13

Detect Dead Logic

Not Run. Check does not support library and subsystem models.

Detect Out Of Bound Array Access

Not Run. Check does not support library and subsystem models.

Detect Division By Zero

Not Run. Check does not support library and subsystem models.

Detect Integer Overflow

Not Run. Check does not support library and subsystem models.

Detect Non-finite and NaN Floating-point Values

Not Run. Check does not support library and subsystem models.

Detect Subnormal Floating-point Values

Not Run. Check does not support library and subsystem models.

Detect Specified Minimum and Maximum Value Violations

Not Run. Check does not support library and subsystem models.

Detect Data Store Access Violations

Not Run. Check does not support library and subsystem models.

Detect Block Input Range Violations

Not Run. Check does not support library and subsystem models.

Detect Usage of remainder and reciprocal operations - hisl_0002

Not Run. Check does not support library and subsystem models.

Detect Usage of square root operations - hisl_0003

Not Run. Check does not support library and subsystem models.

Detect Usage of log and log10 operations - hisl_0004

Not Run. Check does not support library and subsystem models.

Detect Usage of Reciprocal Square Root Blocks - hisl_0028

Not Run. Check does not support library and subsystem models.

2.35 Requirements Consistency Checking

0 0 0 0 0 4

Identify requirement links with missing documents

Not Run. Check does not support library and subsystem models.

Identify requirement links that specify invalid locations within documents

Not Run. Check does not support library and subsystem models.

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

Not Run. Check does not support library and subsystem models.

Identify requirement links with path type inconsistent with preferences

Not Run. Check does not support library and subsystem models.