Model Advisor Report - HilClimber_Integrated_V6.slx

Simulink version: 10.3
Model version: 1.128
System: HilClimber_Integrated_V6
Current run: 27-Aug-2021 00:19:17
Model Advisor configuration: model_cover.json

Treat as Referenced Model: off

Run Summary

Pass	Fail	Warning	Not Run	Total
104	1	20	0	125

Modeling Standards for JMAAB

1 Naming Conventions 14 0 0 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 subsystem names

Identify subsystem names with incorrect characters.

Passed
All the subsystem names use correct characters.

Check port block names

Identify Inport or Outport block names with incorrect characters.

Passed
All the Inport or Outport block names use correct characters.

Check character usage in block names

Identify block names with incorrect characters.

Passed
All the block names use correct characters.

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

Identify parameter names with invalid characters.

Passed
No invalid characters are used in parameter 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: HilClimber_Integrated_V6

Passed
Folder names are valid.

Check length of subsystem names

Check length of subsystem names

Passed
All subsystem names are valid.

Check length of Inport and Outport names

Check length of Inport and Outport names

Passed
All Inport and Outport names are valid.

Check length of signal and bus names

Check length of signal and bus names

Passed
All signal and bus names are valid.

Check length of parameter names

Check length of parameter names

Passed
All parameter names are valid.

Check length of block names

Check length of block names

Passed
All block names are valid.

2 Model Architecture 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).

Warning
The following level(s) in the model include basic blocks and subsystems:

System	Block path
HilClimber_Integrated_V6	HilClimber_Integrated_V6/Irlm_scope
..../main_ECU/HVAC_ECU	..../main_ECU/HVAC_ECU/Add
..../main_ECU/HVAC_ECU	..../main_ECU/HVAC_ECU/Add1
..../main_ECU/HVAC_ECU	..../main_ECU/HVAC_ECU/Air_conditioner_OFF
..../main_ECU/HVAC_ECU	..../main_ECU/HVAC_ECU/Air_conditioner_On
..../main_ECU/HVAC_ECU	..../main_ECU/HVAC_ECU/Condition_constant
..../main_ECU/HVAC_ECU	..../main_ECU/HVAC_ECU/Constant1
..../main_ECU/HVAC_ECU	..../main_ECU/HVAC_ECU/Divide
..../main_ECU/HVAC_ECU	..../main_ECU/HVAC_ECU/Efficiency_of_car
..../main_ECU/HVAC_ECU	..../main_ECU/HVAC_ECU/Logical Operator
..../main_ECU/HVAC_ECU	..../main_ECU/HVAC_ECU/Max_Flow_Rate
..../main_ECU/HVAC_ECU	..../main_ECU/HVAC_ECU/Product
..../main_ECU/HVAC_ECU	..../main_ECU/HVAC_ECU/Switch
..../main_ECU/HVAC_ECU	..../main_ECU/HVAC_ECU/Temperature_in_celivin
..../main_ECU/HVAC_ECU/haeter_status_system	..../HVAC_ECU/haeter_status_system/Heater_OFF
..../main_ECU/HVAC_ECU/haeter_status_system	..../HVAC_ECU/haeter_status_system/Heater_ON
..../systems_and_impact	..../systems_and_impact/Turn_Signal_Left
..../systems_and_impact	..../systems_and_impact/Turn_Signal_Right
..../systems_and_impact	..../systems_and_impact/brake_light
..../systems_and_impact	..../systems_and_impact/hazard_light
..../systems_and_impact	..../systems_and_impact/park_light
..../systems_and_impact	..../systems_and_impact/reverse_light
..../systems_and_impact/Subsystem Reference	..../Subsystem Reference/check_dw
..../systems_and_impact/Subsystem Reference	..../Subsystem Reference/check_fpw
..../systems_and_impact/Subsystem Reference	..../Subsystem Reference/check_prw
..../systems_and_impact/Subsystem Reference	..../Subsystem Reference/check_va
..../systems_and_impact/Subsystem Reference	..../Subsystem Reference/dw_g
..../systems_and_impact/Subsystem Reference	..../Subsystem Reference/fpw_g
..../systems_and_impact/Subsystem Reference	..../Subsystem Reference/int1
..../systems_and_impact/Subsystem Reference	..../Subsystem Reference/int2
..../systems_and_impact/Subsystem Reference	..../Subsystem Reference/int3
..../systems_and_impact/Subsystem Reference	..../Subsystem Reference/int4
..../systems_and_impact/Subsystem Reference	..../Subsystem Reference/plw_g
..../systems_and_impact/Subsystem Reference	..../Subsystem Reference/prw_g
..../systems_and_impact/Subsystem Reference	..../Subsystem Reference/va_dw
..../systems_and_impact/Subsystem Reference	..../Subsystem Reference/va_fpw
..../systems_and_impact/Subsystem Reference	..../Subsystem Reference/va_plw
..../systems_and_impact/Subsystem Reference	..../Subsystem Reference/va_prw

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

3 Model Configuration Options 2 0 0 0

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

Identify whether **Implement logic signals as Boolean data (vs. double)** is selected.

Passed
Implement logic signals as Boolean data (vs. double) is selected.

Check diagnostic settings for incorrect calculation results

Identify data validity diagnostic settings which detect incorrect calculation results.

Passed
All constraints on model configuration parameters have been met.

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

4 Simulink 35 1 18 0

Check for Simulink diagrams using nonstandard display attributes

Identify nonstandard display attributes in Simulink diagrams.

Check format settings
Identify incorrect model-level format options.

Passed
The format options are correct.

Check block colors
Identify blocks using nonstandard colors.

Passed
All blocks use standard colors.

Check canvas colors
Identify canvases that are not white.

Passed
All diagrams use a white canvas.

Check diagram zoom
Identify diagrams that do not have zoom factor set to 100 %.
Note: Zoom factors can differ for each instance of a model diagram opened in Simulink Editor

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

- HilClimber_Integrated_V6/main_ECU
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/If_Action_Subsystem
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/If_Action_Subsystem1
- ..../main_ECU/HVAC_ECU/haeter_status_system/If Action Subsystem
- ..../main_ECU/HVAC_ECU/haeter_status_system/If Action Subsystem1
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/brake_system
- ..../main_ECU/LRLM_ECU/brake_system/brake_light_output_decider
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/hazard_light_system
- ..../main_ECU/LRLM_ECU/hazard_light_system/hazard_light_output_decider

- ..../indicator_system/left_indicator_system/left_indictator_light_output_decider
- ..../right_indicator_system/right_indictator_light_output_decider
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/park_light_system
- ..../main_ECU/LRLM_ECU/park_light_system/park_gear_lights_output_decider
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/reverse_light_system
- ..../main_ECU/LRLM_ECU/reverse_light_system/reverse_lights_output_decider
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority
- HilClimber_Integrated_V6/systems_and_impact
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_dw
- ..../systems_and_impact/Subsystem Reference/DC_motor_fpw
- ..../systems_and_impact/Subsystem Reference/DC_motor_plw
- ..../systems_and_impact/Subsystem Reference/DC_motor_prw
- HilClimber_Integrated_V6/variant_input_system
- HilClimber_Integrated_V6/variant_input_system/automated_inputs
- HilClimber_Integrated_V6/variant_input_system/manual_inputs
- HilClimber_Integrated_V6/variant_input_system/manual_inputs/INPUT
- ..../variant_input_system/manual_inputs/manual_input_subsystem
- HilClimber_Integrated_V6/variant_input_system/manual_inputs/manual_testiing

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

Check Model font settings

Identify blocks and charts with different font settings from input parameters.

Passed
Font settings of the blocks and charts and input parameters are same.

Check position of Inport and Outport blocks

Check positions of Inport blocks

Warning
The following Inport blocks are not placed to the extreme left side of the diagram:

- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/Internal_temperature
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/Engine_speed
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/Engine_torque
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/plw_sig
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/fpw_sig
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/dw_sig

Recommended Action
Move the Inport blocks identified to the left of all other blocks in the diagram.
It is acceptable to move the Inport block to the right only to prevent signal crossings.

Check positions of Outport blocks

Warning
The following Outport blocks are not placed to the extreme right side of the diagram:

- ..../main_ECU/HVAC_ECU/haeter_status_system/Heater_OFF_status
- HilClimber_Integrated_V6/main_ECU/reverse_light_signal

Recommended Action
Move the Outport blocks identified to the right of all other blocks in the diagram.
It is acceptable to move the Outport block to the left only to prevent signal crossings.

Check whether block names appear below blocks

Identify blocks where the name is not displayed below the block.

Passed
All blocks have names displayed below the block.

Check the display attributes of block names

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

Identify Switch blocks that do not use Boolean inputs for the switch condition (input 2), and do not use u2 ~= 0 for the **Criteria for passing first input** block parameter.

Check Switch block parameters
Identify Switch blocks with the parameter **Criteria for passing first input** not set to u2 ~= 0.

Passed
The block parameter **Criteria for passing first input** is correctly configured.

Check for Boolean switch condition
Identify blocks that do not use Boolean signal switch conditions (input 2).

Warning
The following Switch blocks use non-Boolean signals for the switch condition:

- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/Switch
- ..../main_ECU/Subsystem Reference/Checking priority/check_lock

- ..../main_ECU/Subsystem Reference/Checking priority/check_lock1
- ..../main_ECU/Subsystem Reference/Checking priority/check_lock2
- ..../main_ECU/Subsystem Reference/Checking priority/check_priority1
- ..../main_ECU/Subsystem Reference/Checking priority/check_priority2
- ..../main_ECU/Subsystem Reference/Checking priority/check_priority3
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/check_dw
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/check_fpw
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/check_prw
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/check_va

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Recommended Action
Convert the input condition to a Boolean signal.

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

Check for Zero-Based Indexing Mode.

Warning
The following blocks or charts have One-Based Indexing mode:

- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/MATLAB Function3
- ..../systems_and_impact/Subsystem Reference/MATLAB Function

Recommended Action
Consider remodeling by using Zero-Based Indexing.

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.

Check source block labels

Warning
The following signals have no label:

- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/haeter_status_system/car_temperature/
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/haeter_status_system/If Action_Subsystem/In1/
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/haeter_status_system/If Action_Subsystem1/In1/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/gear_input/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/brake_system/brake_input/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/hazard_light_system/hazard_switch_input/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/steering_angle/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/hazard_status/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/left_indicator_system/steering_angle/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/left_indicator_system/hazard_status/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/right_indicator_system/In1/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/right_indicator_system/hazard_status/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/park_light_system/key_input/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/park_light_system/gear_status/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/reverse_light_system/key_input/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/reverse_light_system/gear_input/

- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/fpd/
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/bprd/
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/bpl/
- HilClimber_Integrated_V6/systems_and_impact/brake_light_output/
- HilClimber_Integrated_V6/systems_and_impact/right_indicator_light_output/
- HilClimber_Integrated_V6/systems_and_impact/left_indicator_light_output/
- HilClimber_Integrated_V6/systems_and_impact/hazard_light_output/
- HilClimber_Integrated_V6/systems_and_impact/park_light_output/
- HilClimber_Integrated_V6/systems_and_impact/reverse_light_output/
- HilClimber_Integrated_V6/systems_and_impact/heater_on_status/
- HilClimber_Integrated_V6/systems_and_impact/heater_off_status/
- HilClimber_Integrated_V6/systems_and_impact/blower_status/
- HilClimber_Integrated_V6/systems_and_impact/ac_on_status/
- HilClimber_Integrated_V6/systems_and_impact/ac_off_status/
- HilClimber_Integrated_V6/systems_and_impact/value_of_temperature_from_car/
- HilClimber_Integrated_V6/systems_and_impact/d/
- HilClimber_Integrated_V6/systems_and_impact/fp/
- HilClimber_Integrated_V6/systems_and_impact/pr/
- HilClimber_Integrated_V6/systems_and_impact/pl/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/plw_sig/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/fpw_sig/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/prw_sig/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/dw_sig/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_plw/plw/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_prw/prw/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/From/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/From1/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/From/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/From1/
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/From/
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/From10/
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/From11/
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/From12/
- HilClimber_Integrated_V6/main_ECU/
- HilClimber_Integrated_V6/main_ECU/
- HilClimber_Integrated_V6/main_ECU/
- HilClimber_Integrated_V6/main_ECU/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/park_light_system/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/reverse_light_system/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_dw/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_fpw/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_plw/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_prw/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/MATLAB Function/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/MATLAB Function/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/MATLAB Function/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/MATLAB Function/
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/Air_conditioner_OFF/
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/Air_conditioner_On/
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/Condition_constant/
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/Constant1/
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/Temperature_in_celivin/
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/haeter_status_system/Heater_OFF/
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/haeter_status_system/Heater_ON/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_dw/T_load/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_fpw/T_load/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_plw/T_load/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_prw/T_load/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/va_dw/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/va_fpw/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/va_plw/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/va_prw/

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Recommended Action

Add a new or propagated label to the signal line.

Identify blocks that require labeled signals. A subset of source and destination blocks require labeled signals.

Check destination block labels

Warning

The following signals have no label:

- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/haeter_status_system/If Action_Subsystem/Out1/
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/haeter_status_system/If Action_Subsystem1/Out1/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/left_indicator_system/Out1/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/right_indicator_system/Out1/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/park_lights_output/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/reverse_lights_output/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_dw/dw_dc_out/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_fpw/fpw_dc_out/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_plw/plw_dc_out/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_prw/prw_dc_out/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/prw_op/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/dw_op/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/plw_op/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/fpw_op/
- HilClimber_Integrated_V6/systems_and_impact/brake_light_scope/
- HilClimber_Integrated_V6/systems_and_impact/right_indicator_light_scope/
- HilClimber_Integrated_V6/systems_and_impact/left_indicator_light_scope/
- HilClimber_Integrated_V6/systems_and_impact/hazard_light_scope/
- HilClimber_Integrated_V6/systems_and_impact/parks_light_scope/
- HilClimber_Integrated_V6/systems_and_impact/reversing_light_scope/
- HilClimber_Integrated_V6/systems_and_impact/heater_on_status_scope/
- HilClimber_Integrated_V6/systems_and_impact/heater_off_status_scope/
- HilClimber_Integrated_V6/systems_and_impact/blower_status_scope/
- HilClimber_Integrated_V6/systems_and_impact/ac_on_status_scope/
- HilClimber_Integrated_V6/systems_and_impact/ac_off_status_scope/
- HilClimber_Integrated_V6/systems_and_impact/value_of_temperature_from_car_scope/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/Goto1/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/Goto/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/Goto1/
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/Goto/
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/Goto1/
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/If_Action_Subsystem/
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/If_Action_Subsystem1/
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/haeter_status_system/If Action_Subsystem/
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/haeter_status_system/If Action_Subsystem1/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/left_indicator_system/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/left_indicator_system/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/right_indicator_system/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/right_indicator_system/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/park_light_system/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/reverse_light_system/
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/reverse_light_system/
- HilClimber_Integrated_V6/systems_and_impact/
- HilClimber_Integrated_V6/systems_and_impact/
- HilClimber_Integrated_V6/systems_and_impact/
- HilClimber_Integrated_V6/systems_and_impact/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_dw/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_fpw/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_plw/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_prw/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/MATLAB Function/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/MATLAB Function/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/MATLAB Function/
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/MATLAB Function/

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Recommended Action

Add a new or propagated label to the signal line.

⚠ Check Signal name propagation

Check Signal name propagation for subsystems

Warning

The following subsystems do not display propagated signals but have signal names:

- HilClimber_Integrated_V6/main_ECU/Heater_ON_status
- HilClimber_Integrated_V6/main_ECU/Heater_OFF_status
- HilClimber_Integrated_V6/main_ECU/Blower_Status
- HilClimber_Integrated_V6/main_ECU/AC_ON_Status
- HilClimber_Integrated_V6/main_ECU/AC_OFF_Status
- HilClimber_Integrated_V6/main_ECU/temperature_from_car
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/AC_OFF_Status
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/AC_ON_Status
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/Heater_ON_status
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/Heater_OFF_status
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/haeter_status_system/Heater_ON_status
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/haeter_status_system/Heater_OFF_status
- HilClimber_Integrated_V6/main_ECU/brake_light_signal
- HilClimber_Integrated_V6/main_ECU/right_indicator_signal
- HilClimber_Integrated_V6/main_ECU/left_indicator_signal
- HilClimber_Integrated_V6/main_ECU/hazard_light_signal
- HilClimber_Integrated_V6/main_ECU/park_light_signal
- HilClimber_Integrated_V6/main_ECU/reverse_light_signal
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/brake_light_output
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/brake_system/brake_light_output
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/hazard_light_output
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/hazard_light_system/hazard_light_output
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/right_indicator_signal
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/left_indicator_signal
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/left_indicator_signal
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system/right_indicator_signal
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/park_light_system/park_lights_output
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/reverse_light_system/reverse_light_output
- HilClimber_Integrated_V6/main_ECU/Va_d
- HilClimber_Integrated_V6/main_ECU/Va_fpd
- HilClimber_Integrated_V6/main_ECU/Va_bpr
- HilClimber_Integrated_V6/main_ECU/Va_bpl
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/front_passenger
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/back_passenger_right
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/back_passenger_left
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Va_d
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Va_fpd
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Va_bpr
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Va_bpl
- HilClimber_Integrated_V6/systems_and_impact/back_right_window
- HilClimber_Integrated_V6/systems_and_impact/driver_window
- HilClimber_Integrated_V6/systems_and_impact/passenger_left_window
- HilClimber_Integrated_V6/systems_and_impact/front_passenger_window
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/brake_input
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/steering_angle
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/hazard_switch_input
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/key_input
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/gear_input
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/dw
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/front_passenger_d
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/back_window_right_d
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/back_window_left_d
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/front_window_left
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/back_window_right
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/back_window_left
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/lock
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/internal_temperature
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/engine_speed
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/machine_torque
- HilClimber_Integrated_V6/variant_input_system/automated_inputs/blower_speed_proportional

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Recommended Action

Remove labels and enable signal propagation by selecting 'Show propagated signal' parameter for signals.

Check Signal name propagation for subsystems

Warning
The following subsystems do not have propagated signal labels:

- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference

Recommended Action
Add labels and enable signal propagation by selecting 'Show propagated signal' parameter for signals.

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

Identify Multiport Switch blocks that violate data port settings.

Passed
No Multiport Switch blocks found with inappropriate data port settings.

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

jc_0643: Fixed-point setting

Identify blocks with a fixed-point data type whose bias is not zero.

Passed
No blocks found with the Data Type Assistant mode set to "Fixed point" and a bias value other than zero

---

Check input and output datatype for Switch blocks

Identify Switch blocks with mismatched input and output data types.

Passed
No Switch blocks found with mismatched input and output data types

---

Check signs of input signals in product blocks

jc_0611: Input sign for multiplication and division blocks

Identify blocks that perform division whose inputs have different sign bit.

Passed
No product block with division of different sign bits found.

Check Signed Integer Division Rounding mode

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

jc_0644: Type setting

Identify blocks that violate signal data type setting if signal objects are used.

Passed
No blocks found that violate signal data type setting if signal objects are used.

Check usage of the Saturation blocks

jc_0628: Usage of Saturation blocks

Identify the Saturation and Saturation Dynamic blocks that perform type casting.

Passed
No Saturation and/or Saturation Dynamic blocks perform type casting

---

Check usage of Merge block

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

Identify Memory blocks not using a continuous sample time

Passed
No Memory blocks found with inappropriate sample time

Identify Unit Delay blocks with non-discrete sample time

Passed
No Unit Delay blocks found with non-discrete sample time

Check block orientation

Check block orientation

Warning
The following blocks have rotated or reversed orientation:

- ..../systems_and_impact/Subsystem Reference/DC_motor_dw/dw_gain5
- ..../systems_and_impact/Subsystem Reference/DC_motor_fpw/Gain4
- ..../systems_and_impact/Subsystem Reference/DC_motor_plw/Gain4
- ..../systems_and_impact/Subsystem Reference/DC_motor_prw/prw_gain5

Recommended Action
Flip/rotate the blocks to be oriented towards the right.

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

Operator order for Product blocks.

Passed
All Product blocks have valid operator order.

Check icon shape of Logical Operator blocks

Icon shape of Logical Operator blocks.

Passed
All Logical Operator blocks have consistent icon shape.

Check if tunable block parameters are defined as named constants

Check if tunable block parameters are defined as named constants

Warning
The following tunable block parameters are not defined as named constants.

Block	Violations
..../main_ECU/HVAC_ECU/Air_conditioner_On	Value : 5
..../main_ECU/HVAC_ECU/Constant1	Value : 0.0001
..../main_ECU/HVAC_ECU/Efficiency_of_car	Gain : 0.9
..../main_ECU/HVAC_ECU/Temperature_in_celivin	Value : 273
..../HVAC_ECU/haeter_status_system/Heater_ON	Value : 5
..../Subsystem Reference/DC_motor_dw/T_load	Value : 20
..../Subsystem Reference/DC_motor_dw/dw_gain1	Gain : 1.6
..../Subsystem Reference/DC_motor_dw/dw_gain2	Gain : 1.6
..../Subsystem Reference/DC_motor_dw/dw_gain3	Gain : 0.2
..../Subsystem Reference/DC_motor_dw/dw_gain5	Gain : 1.6
..../Subsystem Reference/DC_motor_fpw/Gain4	Gain : 1.6
..../Subsystem Reference/DC_motor_fpw/T_load	Value : 20
..../DC_motor_fpw/fpw_gain	Gain : 1.6
..../DC_motor_fpw/fpw_gain2	Gain : 0.2
..../DC_motor_fpw/mt_fpw_gain	Gain : 1.6
..../Subsystem Reference/DC_motor_plw/Gain	Gain : 1.6
..../Subsystem Reference/DC_motor_plw/Gain1	Gain : 1.6
..../Subsystem Reference/DC_motor_plw/Gain3	Gain : 0.2
..../Subsystem Reference/DC_motor_plw/Gain4	Gain : 1.6
..../Subsystem Reference/DC_motor_plw/T_load	Value : 20
..../Subsystem Reference/DC_motor_prw/T_load	Value : 20
..../DC_motor_prw/prw_gain1	Gain : 1.6
..../DC_motor_prw/prw_gain2	Gain : 1.6
..../DC_motor_prw/prw_gain3	Gain : 0.2
..../DC_motor_prw/prw_gain5	Gain : 1.6
..../Subsystem Reference/dw_g	Gain : 0.05
..../Subsystem Reference/fpw_g	Gain : 0.05
..../Subsystem Reference/int1	InitialCondition : 0.0001
..../Subsystem Reference/int2	InitialCondition : 0.0001
..../Subsystem Reference/int3	InitialCondition : 0.0001
..../Subsystem Reference/int4	InitialCondition : 0.0001
..../Subsystem Reference/plw_g	Gain : 0.05
..../Subsystem Reference/prw_g	Gain : 0.05

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Recommended Action
Consider changing tunable block parameter literal values to 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'

Warning

The following If blocks have 'else' option tuned off.

- ..../main_ECU/LRLM_ECU/indicator_system/left_indicator_system/If2
- ..../main_ECU/LRLM_ECU/indicator_system/right_indicator_system/If1

Recommended Action
Consider setting 'else' case option in If block to 'on'.

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

Identify undefined initial output for Outports/Merge blocks in conditional subsystems

Passed
The initial output setting for all Conditional Subsystems are valid.

Check for avoiding algebraic loops between subsystems

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

jc_0800: Comparing floating-point types in Simulink

Equivalence comparison should not be used for floating point numbers.

Passed
No Equivalence comparison done on floating point numbers.

Check duplication of Simulink Data names

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

Identify unused data in model workspace and data dictionary.

Passed
No unused data found in model workspace and/or data dictionary.

⚠ Check output data type of operation blocks

jc_0651: Implementing a type conversion

Identify operation blocks that specify output data type.

Warning
Following operation blocks explicitly specify output data type:

- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/Logical Operator

Recommended Action
Instead of explicitly specifying output data type on operation blocks, use 'Data Type Conversion' block when changing the data type of the block output signal.

⚠ Check Model Description

Identify layers in the model having inconsistent description format.

Warning
Following layers do not have model descriptions:

- HilClimber_Integrated_V6/main_ECU
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/If_Action_Subsystem
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/If_Action_Subsystem1
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/haeter_status_system
- ..../main_ECU/HVAC_ECU/haeter_status_system/If Action Subsystem
- ..../main_ECU/HVAC_ECU/haeter_status_system/If Action Subsystem1
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/brake_system
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/hazard_light_system
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/indicator_system
- ..../main_ECU/LRLM_ECU/indicator_system/left_indicator_system
- ..../main_ECU/LRLM_ECU/indicator_system/right_indicator_system
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/park_light_system
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/reverse_light_system
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority
- HilClimber_Integrated_V6/systems_and_impact
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_dw
- ..../systems_and_impact/Subsystem Reference/DC_motor_fpw
- ..../systems_and_impact/Subsystem Reference/DC_motor_plw
- ..../systems_and_impact/Subsystem Reference/DC_motor_prw
- HilClimber_Integrated_V6/variant_input_system/automated_inputs

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Recommended Action
Consider adding model description for all the layers.

Identify layers in the model having inconsistent description format.

Warning
Following layers do not have consistent model description format:

- HilClimber_Integrated_V6
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU
- HilClimber_Integrated_V6/variant_input_system

Recommended Action
Consider having a consistent format for the model description

Example: If description tags are 'Input:, Description:, and Output:' then format should be as following:
Input: add input information here

Description: add model description here
Output: add output information here

⚠ Check for consistency in model element names

Check if model elements connected to a signal are following consistent naming

Warning
The following model elements are not consistent with the connected signal name:

Block Path	Expression
..../HVAC_ECU/If_Action_Subsystem/In1	Naming mismatch with signal name "d1"
..../HVAC_ECU/If_Action_Subsystem/Out1	Inconsistent naming format for Inport/Outport block
..../HVAC_ECU/If_Action_Subsystem1/In1	Naming mismatch with signal name "D1"
..../HVAC_ECU/If_Action_Subsystem1/Out1	Inconsistent naming format for Inport/Outport block
..../HVAC_ECU/Blower_speed_proportion	Naming mismatch with signal name "blp"
..../main_ECU/HVAC_ECU/Internal_temperature	Naming mismatch with signal name "internal_temperarure"
..../main_ECU/HVAC_ECU/Engine_torque	Naming mismatch with signal name "machine_speed"
..../main_ECU/HVAC_ECU/Engine_speed	Naming mismatch with signal name "engine_speed"
..../main_ECU/HVAC_ECU/From	Naming mismatch with signal name "temperature_from_car"
..../main_ECU/HVAC_ECU/Temperature_of_car	Naming mismatch with signal name "temperature_from_car"
..../main_ECU/HVAC_ECU/temperature_from_Car	Naming mismatch with signal name "temperature_from_car"
..../hazard_light_system/hazrard_light_output	Naming mismatch with signal name "hazard_light_output"
..../right_indicator_system/Out1	Naming mismatch with signal name "right_indicator_signal"
..../left_indicator_system/Out1	Naming mismatch with signal name "left_indicator_signal"
..../LRLM_ECU/right_indicator_light_output	Naming mismatch with signal name "right_indicator_signal"
..../LRLM_ECU/left_indicator_light_output	Naming mismatch with signal name "left_indicator_signal"
..../main_ECU/LRLM_ECU/hazard_switch_input	Naming mismatch with signal name "hazard_status"
..../hazard_light_system/hazard_switch_input	Naming mismatch with signal name "hazard_status"
..../main_ECU/LRLM_ECU/Goto	Naming mismatch with signal name "key_input"
..../hazard_light_system/hazrard_light_output	Naming mismatch with signal name "hazard_light_output"
..../Checking priority/fp_out	Naming mismatch with signal name "front_passenger"
..../Checking priority/bpr_out	Naming mismatch with signal name "back_passenger_right"
..../Checking priority/bpl_out	Naming mismatch with signal name "back_passenger_left"
..../Checking priority/lock_status	Naming mismatch with signal name "lock_sta"
..../Checking priority/Goto2	Naming mismatch with signal name "bp_ld"
..../main_ECU/Subsystem Reference/fp	Naming mismatch with signal name "front_window_left"
..../Subsystem Reference/Checking priority/fp	Naming mismatch with signal name "front_window_left"
..../main_ECU/Subsystem Reference/d_out	Naming mismatch with signal name "dw"
..../MATLAB Function3/d_out	Naming mismatch with signal name "dw"
..../main_ECU/Subsystem Reference/fpd	Naming mismatch with signal name "front_passenger_d"
..../Checking priority/fpd	Naming mismatch with signal name "front_passenger_d"
..../Checking priority/lock_status	Naming mismatch with signal name "lock"
..../main_ECU/Subsystem Reference/bpr	Naming mismatch with signal name "back_window_right"
..../Checking priority/bpr	Naming mismatch with signal name "back_window_right"
..../main_ECU/Subsystem Reference/bpld	Naming mismatch with signal name "back_window_left_d"
..../Checking priority/bp_ld	Naming mismatch with signal name "back_window_left_d"

..../Checking priority/bpr_out	Naming mismatch with signal name "back_passenger_right"
..../MATLAB Function3/bpr_out	Naming mismatch with signal name "back_passenger_right"
..../main_ECU/Subsystem Reference/bprd	Naming mismatch with signal name "back_window_right_d"
..../Checking priority/bprd	Naming mismatch with signal name "back_window_right_d"
..../Checking priority/bpl_out	Naming mismatch with signal name "front_passenger"
..../MATLAB Function3/fpd_out	Naming mismatch with signal name "front_passenger"
..../Checking priority/fp_out	Naming mismatch with signal name "back_passenger_left"
..../MATLAB Function3/bpl_out	Naming mismatch with signal name "back_passenger_left"
..../main_ECU/Subsystem Reference/bpl	Naming mismatch with signal name "back_window_left"
..../Checking priority/bpl	Naming mismatch with signal name "back_window_left"
HilClimber_Integrated_V6/main_ECU/fpd	Naming mismatch with signal name "front_passenger_d"
..../main_ECU/Va_bpl_o	Naming mismatch with signal name "Va_bpl"
HilClimber_Integrated_V6/main_ECU/bpr	Naming mismatch with signal name "back_window_right"
..../main_ECU/Va_fpd_o	Naming mismatch with signal name "Va_fpd"
HilClimber_Integrated_V6/main_ECU/fp	Naming mismatch with signal name "front_window_left"
HilClimber_Integrated_V6/main_ECU/bprd	Naming mismatch with signal name "back_window_right_d"
HilClimber_Integrated_V6/main_ECU/bpld	Naming mismatch with signal name "back_window_left_d"
..../main_ECU/Va_bpr_o	Naming mismatch with signal name "Va_bpr"
HilClimber_Integrated_V6/main_ECU/bpl	Naming mismatch with signal name "back_window_left"
HilClimber_Integrated_V6/main_ECU/Va_d_o	Naming mismatch with signal name "Va_d"
..../main_ECU/temperature_from_Car	Naming mismatch with signal name "temperature_from_car"
..../main_ECU/blower_speed_proprotion	Naming mismatch with signal name "blower_speed_proportional"
..../Subsystem Reference/DC_motor_dw/dw	Naming mismatch with signal name "Va_d"
..../Subsystem Reference/DC_motor_fpw/fpw	Naming mismatch with signal name "Va_fpd"
..../systems_and_impact/back_left_window	Naming mismatch with signal name "passenger_left_window"
..../Signal Builder3/Engine Speed	Naming mismatch with signal name "engine_speed"
..../automated_inputs/Signal Builder3/bld	Naming mismatch with signal name "back_window_left_d"
..../automated_inputs/Signal Builder3/fpd	Naming mismatch with signal name "front_passenger_d"
..../automated_inputs/driver_window	Naming mismatch with signal name "dw"
..../Signal Builder3/Internal Temp	Naming mismatch with signal name "internal_temperature"
..../automated_inputs/Signal Builder3/brd	Naming mismatch with signal name "back_window_right_d"
..../Blower Speed Proportional	Naming mismatch with signal name "blower_speed_proportional"
..../automated_inputs/blower_speed_proportion	Naming mismatch with signal name "blower_speed_proportional"
..../automated_inputs/Signal Builder3/bl	Naming mismatch with signal name "back_window_left"
..../automated_inputs/Signal Builder3/fp	Naming mismatch with signal name "front_window_left"
..../Signal Builder3/Comp Torque	Naming mismatch with signal name "machine_torque"
..../automated_inputs/Signal Builder3/l	Naming mismatch with signal name "lock"
..../automated_inputs/Signal Builder3/br	Naming mismatch with signal name "back_window_right"
..../systems_and_impact/ac_on_status_scope	Naming mismatch with signal name "AC_ON_Status"
..../right_indicator_light_scope	Naming mismatch with signal name "right_indicator_signal"
..../systems_and_impact/brake_light_scope	Naming mismatch with signal name "brake_light_signal"
HilClimber_Integrated_V6/main_ECU/bprd	Naming mismatch with signal name "back_window_right_d"
HilClimber_Integrated_V6/main_ECU/fp	Naming mismatch with signal name "front_window_left"
..../main_ECU/temperature_from_Car	Naming mismatch with signal name

	"temperature_from_car"
..../value_of_temperature_from_car	Naming mismatch with signal name "temperature_from_car"
..../systems_and_impact/brake_light_output	Naming mismatch with signal name "brake_light_signal"
..../systems_and_impact/blower_status_scope	Naming mismatch with signal name "Blower_Status"
..../systems_and_impact/heater_on_status	Naming mismatch with signal name "Heater_ON_status"
..../right_indicator_light_output	Naming mismatch with signal name "right_indicator_signal"
..../systems_and_impact/reversing_light_scope	Naming mismatch with signal name "reverse_light_signal"
..../blower_speed_proportion	Naming mismatch with signal name "blower_speed_proportional"
..../main_ECU/blower_speed_proprotion	Naming mismatch with signal name "blower_speed_proportional"
HilClimber_Integrated_V6/main_ECU/fpd	Naming mismatch with signal name "front_passenger_d"
..../systems_and_impact/parks_light_scope	Naming mismatch with signal name "park_light_signal"
..../left_indicator_light_scope	Naming mismatch with signal name "left_indicator_signal"
HilClimber_Integrated_V6/main_ECU/bpl	Naming mismatch with signal name "back_window_left"
..../systems_and_impact/hazard_light_output	Naming mismatch with signal name "hazard_light_signal"
..../systems_and_impact/blower_status	Naming mismatch with signal name "Blower_Status"
..../systems_and_impact/ac_off_status	Naming mismatch with signal name "AC_OFF_Status"
..../systems_and_impact/reverse_light_output	Naming mismatch with signal name "reverse_light_signal"
..../left_indicator_light_output	Naming mismatch with signal name "left_indicator_signal"
..../variant_input_system/driver_window	Naming mismatch with signal name "dw"
..../heater_off_status_scope	Naming mismatch with signal name "Heater_OFF_status"
..../systems_and_impact/hazard_light_scope	Naming mismatch with signal name "hazard_light_signal"
..../heater_on_status_scope	Naming mismatch with signal name "Heater_ON_status"
..../systems_and_impact/heater_off_status	Naming mismatch with signal name "Heater_OFF_status"
..../systems_and_impact/back_left_window	Naming mismatch with signal name "passenger_left_window"
HilClimber_Integrated_V6/main_ECU/bpr	Naming mismatch with signal name "back_window_right"
..../systems_and_impact/park_light_output	Naming mismatch with signal name "park_light_signal"
HilClimber_Integrated_V6/main_ECU/bpld	Naming mismatch with signal name "back_window_left_d"
..../value_of_temperature_from_car_scope	Naming mismatch with signal name "temperature_from_car"
..../systems_and_impact/ac_off_status_scope	Naming mismatch with signal name "AC_OFF_Status"
..../systems_and_impact/ac_on_status	Naming mismatch with signal name "AC_ON_Status"

∧ **Less**

Recommended Action
Consider renaming the deviating model elements to match the signal name or to be consistent with Inport/Outport blocks.

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

Check overlap of signal labels

Warning
The following signals have labels which overlap other objects:

- HilClimber_Integrated_V6/main_ECU/HVAC_ECU
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/fp
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/bpr
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/lock_sta
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/bp_ld
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_dw/Va_d
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_fpw/Va_fpd
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_plw
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_plw
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_prw
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference

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Recommended Action
Consider placing the signal label so that it is readable.

Check location of signal labels

Warning
The following signals do not have labels located at the origin of the signal line:

- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/blp
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/Heater_OFF_status
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/Heater_ON_status
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/Blower_Status
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/internal_temperarure
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/machine_speed
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/engine_speed
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/brake_light_output
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/steering_angle
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/key_input
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/brake_input
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/front_passenger
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/back_passenger_right
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/back_passenger_left
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/fp
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/bpr
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/lock_sta
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Checking priority/bp_ld
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/front_window_left
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/dw
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/front_passenger_d
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/lock
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Va_fpd
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/back_window_right
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/back_window_left_d
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/back_passenger_right
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Va_bpr
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Va_d
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/back_window_right_d
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/front_passenger

- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/back_passenger_left
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/back_window_left
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Va_bpl
- HilClimber_Integrated_V6/main_ECU/front_passenger_d
- HilClimber_Integrated_V6/main_ECU/lock
- HilClimber_Integrated_V6/main_ECU/Va_bpl
- HilClimber_Integrated_V6/main_ECU/dw
- HilClimber_Integrated_V6/main_ECU/back_window_right
- HilClimber_Integrated_V6/main_ECU/Va_fpd
- HilClimber_Integrated_V6/main_ECU/front_window_left
- HilClimber_Integrated_V6/main_ECU/back_window_right_d
- HilClimber_Integrated_V6/main_ECU/back_window_left_d
- HilClimber_Integrated_V6/main_ECU/Va_bpr
- HilClimber_Integrated_V6/main_ECU/back_window_left
- HilClimber_Integrated_V6/main_ECU/Va_d
- HilClimber_Integrated_V6/main_ECU/Blower_Status
- HilClimber_Integrated_V6/main_ECU/machine_torque
- HilClimber_Integrated_V6/main_ECU/AC_ON_Status
- HilClimber_Integrated_V6/main_ECU/temperature_from_car
- HilClimber_Integrated_V6/main_ECU/blower_speed_proportional
- HilClimber_Integrated_V6/main_ECU/key_input
- HilClimber_Integrated_V6/main_ECU/Heater_OFF_status
- HilClimber_Integrated_V6/main_ECU/gear_input
- HilClimber_Integrated_V6/main_ECU/reverse_light_signal
- HilClimber_Integrated_V6/main_ECU/internal_temperature
- HilClimber_Integrated_V6/main_ECU/hazard_light_signal
- HilClimber_Integrated_V6/main_ECU/left_indicator_signal
- HilClimber_Integrated_V6/main_ECU/engine_speed
- HilClimber_Integrated_V6/main_ECU/brake_input
- HilClimber_Integrated_V6/main_ECU/park_light_signal
- HilClimber_Integrated_V6/main_ECU/right_indicator_signal
- HilClimber_Integrated_V6/main_ECU/steering_angle
- HilClimber_Integrated_V6/main_ECU/AC_OFF_Status
- HilClimber_Integrated_V6/main_ECU/brake_light_signal
- HilClimber_Integrated_V6/main_ECU/hazard_switch_input
- HilClimber_Integrated_V6/main_ECU/Heater_ON_status
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_dw/Va_d
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_fpw/Va_fpd
- HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/DC_motor_plw/motor_torque
- HilClimber_Integrated_V6/systems_and_impact/driver_window
- HilClimber_Integrated_V6/systems_and_impact/back_right_window
- HilClimber_Integrated_V6/systems_and_impact/passenger_left_window
- HilClimber_Integrated_V6/systems_and_impact/front_passenger_window

∧ Less

Recommended Action
Consider placing the labels at the origin of the signal line.

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

Check input data types of blocks meant for logical operations

Warning
The following logical operation blocks have non-boolean data type as input:

- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/park_light_system
- HilClimber_Integrated_V6/main_ECU/LRLM_ECU/reverse_light_system

Recommended Action
Consider having boolean inputs for the logical operation blocks.

⚠ Check signal flow in model

Identify subsystems which do not have a signal flow from left to right.

Warning
The signal flow of diagrams in the following subsystems can be improved:

- HilClimber_Integrated_V6/main_ECU/HVAC_ECU

Recommended Action
Ensure that the signal flow in the mentioned subsystems is from left to right.

- All sequential blocks, except the blocks on feedback path, must be placed from left to right.
- All parallel blocks, except the blocks on feedback path, must be placed from top to bottom.
- All blocks should be oriented to the right.

✔ Check usage of vector and bus signals

Identify mixed usages of vector and bus signals.

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

⚠ Check connections between structural subsystems

Identify connections between structural subsystems.

Check for unused inputs inside structural subsystems

Warning
The following structural subsystems have unused inputs:

- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/If_Action_Subsystem
- HilClimber_Integrated_V6/main_ECU/HVAC_ECU/If_Action_Subsystem1
- ..../main_ECU/HVAC_ECU/haeter_status_system/If Action Subsystem
- ..../main_ECU/HVAC_ECU/haeter_status_system/If Action Subsystem1
- HilClimber_Integrated_V6/systems_and_impact

Recommended Action
Consider removing the unused inputs inside the structural subsystems as reducing the number of unnecessary connections makes connection relationships clearer.

⚠ Check position of conditional blocks and iterator blocks

Block layout in conditional subsystem

Warning
The following conditional blocks are not located at the top of the subsystem diagram:

- ..../HVAC_ECU/haeter_status_system/If Action Subsystem1/condition_display

Recommended Action
Reposition the conditional blocks listed above to the top of the subsystem diagram.

⚠ Check signal line connections

Check signal overlaps

Warning
The following signals overlap with other signals in the diagram:

- HilClimber_Integrated_V6/main_ECU/brake_light_signal
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/front_window_left
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/dw
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/front_passenger_d
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/lock
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Va_fpd
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/back_window_right
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/back_window_left_d
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Va_bpr
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Va_d
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/back_window_right_d
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/back_window_left
- HilClimber_Integrated_V6/main_ECU/Subsystem Reference/Va_bpl
- HilClimber_Integrated_V6/systems_and_impact

∧ Less

Recommended Action
Reposition the above listed signals to avoid signal overlaps.

✓ Check scope of From and Goto blocks

Identify incorrect scoping of From and Goto blocks. For signal flows, From and Goto blocks must use local scope. Control flow can use global scope.

Passed
All From and Goto blocks are used correctly.

✗ Check for division by zero in Simulink

Error occurred during Simulink Design Verifier analysis.

Simulink Design Verifier failed to initialize: 'HilClimber_Integrated_V6' is incompatible for design error detection with Simulink Design Verifier.

Block 'HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/int1' of type Integrator cannot be stubbed.

Block 'HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/int2' of type Integrator cannot be stubbed.

Block 'HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/int3' of type Integrator cannot be stubbed.

Block 'HilClimber_Integrated_V6/systems_and_impact/Subsystem Reference/int4' of type Integrator cannot be stubbed.

5 Stateflow ✓52 ✗0 ⚠0 ▭0

✓ 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

jc_0531: Default transition

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 transitions and states found that violate the guidelines for default transition placement in Stateflow charts.

Check for Strong Data Typing with Simulink I/O

Check whether labeled input and output signals are strongly typed.

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

Check 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

Identify the usage of operators in Stateflow.

Passed
No Stateflow blocks found with incorrect operator usage.

Check usage of unary minus operations in Stateflow charts

Identify unary minus operations applied to unsigned integers in Stateflow objects.

Passed
No unary minus operations applied to unsigned integers in Stateflow objects were found.

Check usage of Stateflow comments

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

Identify boolean variables in Stateflow charts using comparison operations.

Passed
No boolean variables use comparison operations of logical type in the model.

Check usage of 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

Checks if the model parameter 'Unused data, events, messages and functions' is not set to 'none'.

Passed
All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values
Pass	Unused data, events, messages and functions (SFUnusedDataAndEventsDiag)	warning	error, warning

---

Check 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

Identify configuration parameter settings which identify unexpected backtracking in state transitions.

Passed
All constraints on model configuration parameters have been met.

Status	Parameter	Current Value	Recommended Values
Pass	Unexpected backtracking (SFUnexpectedBacktrackingDiag)	error	error

---

Check for unconnected objects in Stateflow Charts

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

Identify implicit type casting in Stateflow.

Passed
No instances of implicit type casting found.

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

Identify usage of C-style comments in CGT Files and MPT Objects.

Passed
C-style comments are not used in CGT Files and MPT Objects.

Check usage of unconditional transitions in flow charts

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 sub-state within a state with OR(exclusive) type decomposition.

Passed
All states with OR(exclusive) type decomposition have more than one sub-state.

6 MATLAB Functions 1 0 1 0

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.

Warning
The following MATLAB Functions have interfaces with inherited complexity, data type, or size properties:

MATLAB Function	Inherited interfaces		
..../Subsystem Reference/MATLAB Function3	Interface element	Property	Specified value
	d_out (Input)	Size	-1
		Type	Inherit: Same as Simulink
		Complexity	Inherited
	Va_d (Output)	Size	-1
		Type	Inherit: Same as Simulink
		Complexity	Inherited
	fpd_out (Input)	Size	-1
		Type	Inherit: Same as Simulink
		Complexity	Inherited
	bpr_out (Input)	Size	-1
		Type	Inherit: Same as Simulink
		Complexity	Inherited
	bpl_out (Input)	Size	-1
		Type	Inherit: Same as Simulink
		Complexity	Inherited

	Va_fpd (Output)	Size	-1
		Type	Inherit: Same as Simulink
		Complexity	Inherited
	Va_bpr (Output)	Size	-1
		Type	Inherit: Same as Simulink
		Complexity	Inherited
	Va_bpl (Output)	Size	-1
		Type	Inherit: Same as Simulink
		Complexity	Inherited

.../Subsystem Reference/MATLAB Function	Interface element	Property	Specified value
	pr (Input)	Size	-1
		Type	Inherit: Same as Simulink
		Complexity	Inherited
	pr_o (Output)	Size	-1
		Type	Inherit: Same as Simulink
		Complexity	Inherited
	d (Input)	Size	-1
		Type	Inherit: Same as Simulink
		Complexity	Inherited
	pl (Input)	Size	-1
		Type	Inherit: Same as Simulink
		Complexity	Inherited
	fp (Input)	Size	-1
		Type	Inherit: Same as Simulink
		Complexity	Inherited
	d_o (Output)	Size	-1
		Type	Inherit: Same as Simulink
		Complexity	Inherited
	pl_o (Output)	Size	-1
		Type	Inherit: Same as Simulink
		Complexity	Inherited
	fp_o (Output)	Size	-1
		Type	Inherit: Same as Simulink
		Complexity	Inherited

Recommended Action
Explicitly define complexity, data type, and size properties for inports, outports, and parameters of MATLAB Functions identified in the results. If applicable, make the following modifications in the Ports and Data Manager of the MATLAB Function Editor:

- Change complexity from 'Inherited' to 'On' or 'Off'
- Change type from 'Inherit: Same as Simulink' or 'Inherit: From definition in chart' to an explicit type
- Change size from '-1' (inherited) to an explicit size

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 global variables 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
