Coverage Report for Eas_Integrated_harness

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Analysis Information

Coverage Data Information

Collected in version (R2021a)

Model Information

Model version 1.48

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Simulation Optimization Options

Default parameter behavior inlined

Block reduction off

Conditional branch optimization on

Coverage Options

Analyzed model Eas_Integrated_harness

Logic block short circuiting off

Aggregated Tests

| Run | Test Name | Date | |
|---------------------------------|--------------|----------------------|--|
| Model: "Eas_Integrated_harness" | | grated_harness'' | |
| T1 | <u>Run 4</u> | 25-Jul-2022 12:56:19 | |
| T2 | Run 7 | 25-Jul-2022 13:13:07 | |

Summary

Model Hierarchy/Complexity

| | | Execution |
|--|----|-----------|
| 1. Eas Integrated harness | 19 | 100% |
| 2 <u>Size-Type</u> | | 100% |
| 3 Test Unit (copied from Eas Integrated) | 18 | 100% |
| 4 <u>Eas</u> <u>Subsystem</u> | 18 | 100% |
| 5 <u>DPF</u> <u>Subsystem</u> | 6 | 100% |
| 6 <u>Auto_Regeneration</u> | 1 | 100% |
| 7 | 2 | 100% |
| 8 <u>Post_Regn_Subsystem</u> | 2 | 100% |
| 9 <u>Regn_Display_Subsystem</u> | | 100% |
| 10 <u>Service_Regeneration</u> | | 100% |
| 11 <u>SCR_Regeneration_Subsystem</u> | 11 | 100% |
| 12 <u>Adblue Injection System</u> | 2 | 100% |
| 13 <u>Adblue_Level2</u> | 2 | 100% |
| 14 <u>Scr_Regeneration_Parameter</u> | 6 | 100% |
| 15 <u>Adblue Level indication</u> | 2 | 100% |
| 16 <u>Adblue Quality indication</u> | 1 | 100% |
| 17 <u>Scr_temp_indication</u> | 2 | 100% |

Details

1. Model "Eas_Integrated_harness"

Child Systems: <u>Size-Type</u>, <u>Test_Unit (copied from Eas_Integrated)</u>

Metric Coverage (this object) Coverage (inc. descendants)

Execution NA 100% (111/111) objective outcomes

2. SubSystem block "Size-Type"

Justify or Exclude

Parent: /Eas Integrated harness

Metric Coverage (this object) Coverage (inc. descendants)

Execution NA 100% (32/32) objective outcomes

| Model Object | Metric |
|-----------------------------------|-----------|
| DataTypeConversion block "Cast1" | Execution |
| DataTypeConversion block "Cast10" | Execution |
| DataTypeConversion block "Cast11" | Execution |
| DataTypeConversion block "Cast12" | Execution |
| DataTypeConversion block "Cast13" | Execution |
| DataTypeConversion block "Cast14" | Execution |
| DataTypeConversion block "Cast15" | Execution |
| DataTypeConversion block "Cast16" | Execution |
| DataTypeConversion block "Cast2" | Execution |
| DataTypeConversion block "Cast3" | Execution |
| DataTypeConversion block "Cast4" | Execution |
| DataTypeConversion block "Cast5" | Execution |
| DataTypeConversion block "Cast6" | Execution |
| DataTypeConversion block "Cast7" | Execution |
| DataTypeConversion block "Cast8" | Execution |
| DataTypeConversion block "Cast9" | Execution |
| RateTransition block "Sync1" | Execution |
| RateTransition block "Sync10" | Execution |
| RateTransition block "Sync11" | Execution |
| RateTransition block "Sync12" | Execution |
| RateTransition block "Sync13" | Execution |
| RateTransition block "Sync14" | Execution |
| RateTransition block "Sync15" | Execution |
| RateTransition block "Sync16" | Execution |
| RateTransition block "Sync2" | Execution |
| RateTransition block "Sync3" | Execution |
| RateTransition block "Sync4" | Execution |
| RateTransition block "Sync5" | Execution |
| RateTransition block "Sync6" | Execution |
| RateTransition block "Sync7" | Execution |
| RateTransition block "Sync8" | Execution |

3. SubSystem block "Test_Unit (copied from Eas_Integrated)"

<u>Justify or Exclude</u>

Parent: /Eas Integrated harness

Child Systems: Eas Subsystem

Metric **Coverage (this object) Coverage (inc. descendants)** Execution NA 100% (79/79) objective outcomes

4. SubSystem block "Eas Subsystem"

Justify or Exclude

Parent: Eas Integrated harness/Test Unit (copied from Eas Integrated)

DPF Subsystem, SCR Regeneration Subsystem **Child Systems:**

Coverage (inc. descendants) Metric **Coverage (this object)** Execution NA 100% (79/79) objective outcomes

5. SubSystem block "DPF Subsystem"

Justify or Exclude

Eas Integrated harness/Test Unit (copied from Eas Integrated)/Eas Subsystem Parent:

Auto Regeneration, Manual Regn Subsystem, Post Regn Subsystem, **Child Systems:**

Regn Display Subsystem, Service Regeneration

Coverage (this object) Metric **Coverage (inc. descendants)** 100% (48/48) objective outcomes Execution NA

6. SubSystem block "Auto Regeneration"

Justify or Exclude

Eas Integrated harness/Test Unit (copied from **Parent:**

Eas Integrated)/Eas Subsystem/DPF Subsystem

Metric **Coverage (this object) Coverage (inc. descendants)** Execution NA 100% (14/14) objective outcomes

| Model Object | Metric |
|---|-----------|
| Logic block "AND" | Execution |
| Logic block "AND1" | Execution |
| Logic block "AND2" | Execution |
| Logic block "AND3" | Execution |
| RelationalOperator block "Relational_Operator" | Execution |
| RelationalOperator block "Relational_Operator1" | Execution |
| RelationalOperator block "Relational_Operator2" | Execution |
| RelationalOperator block "Relational_Operator3" | Execution |
| RelationalOperator block "Relational_Operator4" | Execution |
| Constant block "Constant" | Execution |
| Constant block "Constant1" | Execution |
| Constant block "Constant2" | Execution |
| Constant block "Constant3" | Execution |
| Constant block "Constant4" | Execution |

7. SubSystem block "Manual_Regn_Subsystem"

Justify or Exclude

Parent: Eas Integrated harness/Test Unit (copied from Eas Integrated)/Eas Subsystem/DPF Subsystem

MetricCoverage (this object)Coverage (inc. descendants)ExecutionNA100% (7/7) objective outcomes

Full Coverage

| Model Object | Metric |
|---|-----------|
| Logic block "AND" | Execution |
| RelationalOperator block "Relational_Operator" | Execution |
| RelationalOperator block "Relational_Operator1" | Execution |
| RelationalOperator block "Relational_Operator2" | Execution |
| Constant block "Constant" | Execution |
| Constant block "Constant1" | Execution |

8. SubSystem block "Post_Regn_Subsystem"

Justify or Exclude

Parent: Eas_Integrated_harness/Test_Unit (copied from Eas_Integrated)/Eas_Subsystem/DPF_Subsystem

MetricCoverage (this object)Coverage (inc. descendants)ExecutionNA100% (20/20) objective outcomes

Full Coverage

| Model Object | Metric |
|---|-----------|
| Logic block "AND" | Execution |
| Logic block "AND1" | Execution |
| Logic block "AND2" | Execution |
| Logic block "AND3" | Execution |
| RelationalOperator block "Relational_Operator" | Execution |
| RelationalOperator block "Relational_Operator1" | Execution |
| RelationalOperator block "Relational_Operator2" | Execution |
| RelationalOperator block "Relational_Operator3" | Execution |
| RelationalOperator block "Relational_Operator4" | Execution |
| RelationalOperator block "Relational_Operator5" | Execution |
| RelationalOperator block "Relational_Operator6" | Execution |
| RelationalOperator block "Relational_Operator7" | Execution |
| Constant block "Constant" | Execution |
| Constant block "Constant1" | Execution |
| Constant block "Constant2" | Execution |
| Constant block "Constant3" | Execution |
| Constant block "Constant4" | Execution |
| Constant block "Constant5" | Execution |
| Constant block "Constant6" | Execution |
| Constant block "Constant7" | Execution |
| | |

9. SubSystem block "Regn Display Subsystem"

Justify or Exclude

Parent: <u>Eas_Integrated_harness/Test_Unit (copied from</u>

Eas Integrated)/Eas Subsystem/DPF Subsystem

Metric Coverage (this object) Coverage (inc. descendants)

Execution NA 100% (5/5) objective outcomes

Full Coverage

Model Object Metric

Logic block "AND" Execution

Relational Operator block "Relational Operator" Execution

Relational Operator block "Relational Operator1" Execution

Constant block "Constant" Execution

Constant block "Constant1" Execution

10. SubSystem block "Service Regeneration"

Justify or Exclude

Parent: Eas Integrated harness/Test Unit (copied from

Eas Integrated)/Eas Subsystem/DPF Subsystem

Metric Coverage (this object) Coverage (inc. descendants)

Execution NA 100% (2/2) objective outcomes

Full Coverage

Model Object Metric

Relational Operator block "Relational Operator3" Execution

Constant block "Constant3" Execution

11. SubSystem block "SCR_Regeneration_Subsystem"

Justify or Exclude

Parent: Eas Integrated harness/Test Unit (copied from Eas Integrated)/Eas Subsystem

Child Systems: Adblue Injection System, Adblue Level2, Scr Regeneration Parameter

MetricCoverage (this object)Coverage (inc. descendants)ExecutionNA100% (31/31) objective outcomes

12. SubSystem block "Adblue Injection System"

Justify or Exclude

Parent: Eas Integrated harness/Test Unit (copied from

Eas Integrated)/Eas Subsystem/SCR Regeneration Subsystem

MetricCoverage (this object)Coverage (inc. descendants)ExecutionNA100% (11/11) objective outcomes

Full Coverage

| Model Object | Metric |
|---------------------------------|-----------|
| Gain block "Gain" | Execution |
| Gain block "Gain1" | Execution |
| Product block " <u>Divide</u> " | Execution |
| Product block "Product" | Execution |
| Product block "Product1" | Execution |
| Product block "Product2" | Execution |
| Sqrt block "Square_Root" | Execution |
| Constant block "Constant" | Execution |
| Constant block "Constant1" | Execution |
| Constant block "Constant2" | Execution |
| Constant block "Constant3" | Execution |

13. SubSystem block "Adblue Level2"

Justify or Exclude

Parent: Eas Integrated harness/Test Unit (copied from

Eas Integrated)/Eas Subsystem/SCR Regeneration Subsystem

MetricCoverage (this object)Coverage (inc. descendants)ExecutionNA100% (3/3) objective outcomes

Full Coverage

Model Object Metric

Switch block "Switch2" Execution

Relational Operator block "Relational Operator 1" Execution

Constant block "<u>Tank Condition</u>" Execution

14. SubSystem block "Scr_Regeneration_Parameter"

Justify or Exclude

Parent: Eas Integrated harness/Test Unit (copied from

Eas Integrated)/Eas Subsystem/SCR Regeneration Subsystem

Child Systems: Adblue Level indication, Adblue Quality indication, Scr temp indication

MetricCoverage (this object)Coverage (inc. descendants)ExecutionNA100% (17/17) objective outcomes

Full Coverage

Model Object Metric

Logic block "AND" Execution

Logic block "AND2" Execution

15. SubSystem block "Adblue Level indication"

Justify or Exclude

Parent: Eas Integrated harness/Test Unit (copied from

Eas Integrated)/Eas Subsystem/SCR Regeneration Subsystem/Scr Regeneration Parameter

MetricCoverage (this object)Coverage (inc. descendants)ExecutionNA100% (5/5) objective outcomes

Full Coverage

Model Object Metric

Switch block "Switch" Execution

Relational Operator block "Relational Operator1" Execution

Constant block "Constant" Execution

Constant block "Constant1" Execution

Constant block "Constant2" Execution

16. SubSystem block "Adblue Quality indication"

Justify or Exclude

Parent: Eas Integrated harness/Test Unit (copied from

Eas Integrated)/Eas Subsystem/SCR Regeneration Subsystem/Scr Regeneration Parameter

MetricCoverage (this object)Coverage (inc. descendants)ExecutionNA100% (5/5) objective outcomes

Full Coverage

| Model Object | Metric |
|---|-----------|
| Logic block "AND" | Execution |
| RelationalOperator block "Relational_Operator" | Execution |
| RelationalOperator block "Relational_Operator1" | Execution |
| Constant block "Constant" | Execution |
| Constant block "Constant1" | Execution |

17. SubSystem block "Scr_temp_indication"

Justify or Exclude

Parent: Eas Integrated harness/Test Unit (copied from

Eas Integrated)/Eas Subsystem/SCR Regeneration Subsystem/Scr Regeneration Parameter

MetricCoverage (this object)Coverage (inc. descendants)ExecutionNA100% (5/5) objective outcomes

Full Coverage

| Model Object | Metric |
|--|-----------|
| Switch block "Switch" | Execution |
| RelationalOperator block "Relational_Operator" | Execution |
| Constant block "Constant1" | Execution |

Constant block "Constant2" Execution

Constant block "scr_temp" Execution