

# Coverage Report for MiL\_HarnessModel

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## Analysis Information

### Coverage Data Information

Collected in version (R2022a)

### Model Information

Model version 1.29  
Author jamesbond  
Last saved Sun Mar 19 02:10:59 2023

### Harness information

Harness model(s) MiL\_HarnessModel  
Harness model owner MiLTesting\_HarnessModel

### Simulation Optimization Options

Default parameter behavior inlined  
Block reduction forced off  
Conditional branch optimization on

### Coverage Options

Analyzed model MiL\_HarnessModel/Speedometer\_Module  
Logic block short circuiting off

### Blocks Eliminated from Coverage Analysis

#### # Model Object

#### Rationale

[MiL\\_HarnessModel/Speedometer\\_Module/Display\\_Speed\\_Output/Abs](#)

Simulink optimization for unsigned value

# Tests

| Test                  | Started execution    | Ended execution      |
|-----------------------|----------------------|----------------------|
| <a href="#">Run 1</a> | 19-Mar-2023 02:11:25 | 19-Mar-2023 02:11:26 |

## Summary

| Model Hierarchy/Complexity                         | <a href="#">Run 1</a> |                  |                  |  |
|--|-----------------------|------------------|------------------|--|
|  | Decision              |                  | Execution        |  |
| 1. <a href="#">Speedometer Module</a>              | 8                     | 100% <div></div> | 100% <div></div> |  |
| 2. . . . <a href="#">Auxilliary Data Filtering</a> | 2                     | 100% <div></div> | 100% <div></div> |  |
| 3. . . . <a href="#">Compare To Zero</a>           | NA                    |                  | 100% <div></div> |  |
| 4. . . . <a href="#">Display Speed Output</a>      | 1                     | 100% <div></div> | 100% <div></div> |  |
| 5. . . . <a href="#">Input Processing</a>          | 2                     | 100% <div></div> | 100% <div></div> |  |
| 6. . . . <a href="#">Main Data Filtering</a>       | 2                     | 100% <div></div> | 100% <div></div> |  |

## Details

### 1. SubSystem block "[Speedometer Module](#)"

**Child Systems:** [Auxilliary Data Filtering](#), [Compare To Zero](#), [Display Speed Output](#), [Input Processing](#), [Main Data Filtering](#)

| Metric                | Coverage (this object) | Coverage (inc. descendants)     |
|-----------------------|------------------------|---------------------------------|
| Cyclomatic Complexity | 1                      | 8                               |
| Decision              | NA                     | 100% (10/10) decision outcomes  |
| Execution             | NA                     | 100% (16/16) objective outcomes |

#### Full Coverage

| Model Object                                | Metric    |
|---|-----------|
| Math block " <a href="#">Rem</a> "          | Execution |
| Constant block " <a href="#">Constant</a> " | Execution |

### 2. SubSystem block "[Auxilliary Data Filtering](#)"

[Justify or Exclude](#)

**Parent:** [MiL HarnessModel/Speedometer Module](#)

| Metric                | Coverage (this object) | Coverage (inc. descendants) |
|-----------------------|------------------------|-----------------------------|
| Cyclomatic Complexity | 2                      | 2                           |

|           |                              |                               |
|-----------|------------------------------|-------------------------------|
| Decision  | 100% (2/2) decision outcomes | 100% (2/2) decision outcomes  |
| Execution | NA                           | 100% (4/4) objective outcomes |

#### Decisions analyzed

|                          |        |
|--------------------------|--------|
| Enable control activated | 100%   |
| false                    | 94/105 |
| true                     | 11/105 |

### Full Coverage

| Model Object                                | Metric    |
|---|-----------|
| Gain block " <a href="#">Gain</a> "         | Execution |
| Product block " <a href="#">Divide</a> "    | Execution |
| Sum block " <a href="#">Add</a> "           | Execution |
| Constant block " <a href="#">Constant</a> " | Execution |

### 3. SubSystem block "[Compare To Zero](#)"

#### [Justify or Exclude](#)

Parent: [MiL HarnessModel/Speedometer Module](#)

| Metric                | Coverage (this object) | Coverage (inc. descendants)   |
|-----------------------|------------------------|-------------------------------|
| Cyclomatic Complexity | 0                      | 0                             |
| Execution             | NA                     | 100% (1/1) objective outcomes |

### Full Coverage

| Model Object   | Metric    |
|--|-----------|
| RelationalOperator block " <a href="#">Compare</a> " | Execution |

### 4. SubSystem block "[Display Speed Output](#)"

#### [Justify or Exclude](#)

Parent: [MiL HarnessModel/Speedometer Module](#)

| Metric                | Coverage (this object) | Coverage (inc. descendants)   |
|-----------------------|------------------------|-------------------------------|
| Cyclomatic Complexity | 0                      | 1                             |
| Decision              | NA                     | 100% (2/2) decision outcomes  |
| Execution             | NA                     | 100% (4/4) objective outcomes |

## Full Coverage

| Model Object   | Metric              |
|--|---------------------|
| Switch block " <a href="#">Switch</a> "                          | Decision, Execution |
| Sum block " <a href="#">Add</a> "                                | Execution           |
| RelationalOperator block " <a href="#">Relational Operator</a> " | Execution           |
| Constant block " <a href="#">Constant</a> "                      | Execution           |

## 5. SubSystem block "[Input Processing](#)"

### [Justify or Exclude](#)

Parent: [MiL HarnessModel/Speedometer Module](#)

| Metric                | Coverage (this object) | Coverage (inc. descendants)   |
|-----------------------|------------------------|-------------------------------|
| Cyclomatic Complexity | 0                      | 2                             |
| Decision              | NA                     | 100% (4/4) decision outcomes  |
| Execution             | NA                     | 100% (1/1) objective outcomes |

## Full Coverage

| Model Object                                  | Metric              |
|---|---------------------|
| Saturate block " <a href="#">Saturation</a> " | Decision, Execution |

## 6. SubSystem block "[Main Data Filtering](#)"

### [Justify or Exclude](#)

Parent: [MiL HarnessModel/Speedometer Module](#)

| Metric                | Coverage (this object)       | Coverage (inc. descendants)   |
|-----------------------|------------------------------|-------------------------------|
| Cyclomatic Complexity | 2                            | 2                             |
| Decision              | 100% (2/2) decision outcomes | 100% (2/2) decision outcomes  |
| Execution             | NA                           | 100% (4/4) objective outcomes |

### Decisions analyzed

|                          |        |
|--------------------------|--------|
| Enable control activated | 100%   |
| false                    | 94/105 |
| true                     | 11/105 |

## Full Coverage

**Model Object****Metric**Gain block "[Gain](#)"

Execution

Product block "[Divide](#)"

Execution

Sum block "[Add](#)"

Execution

Constant block "[Constant](#)"

Execution