

Test Specification Report

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12-Jun-2024 18:25:38

Table of Contents

1. SimuPro/Subsystem/speed conditions	2
1.1. TC01 SpeedConditions	2
1.2. TC02 ExternalWeightConditions	7
1.3. TC03 RoadTypeConditions	11
1.4. TC04 ACConditions	16
1.5. TC05 AlertSystem	20

1. SimuPro/Subsystem/speed conditions

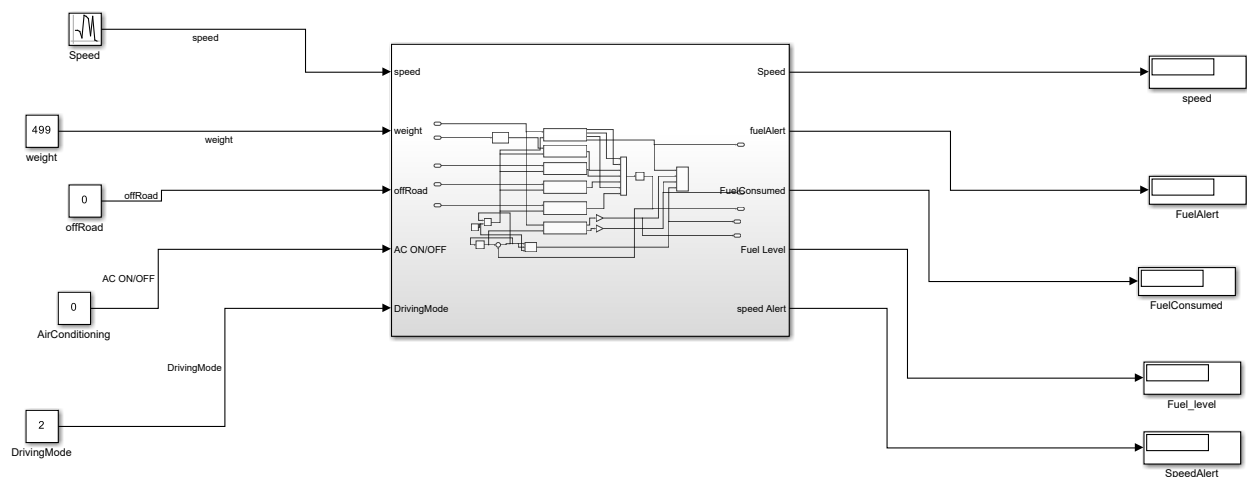
Coverage Settings

Coverage to collect	<ul style="list-style-type: none">Record coverage for system under test
Coverage metrics	<ul style="list-style-type: none">Decision

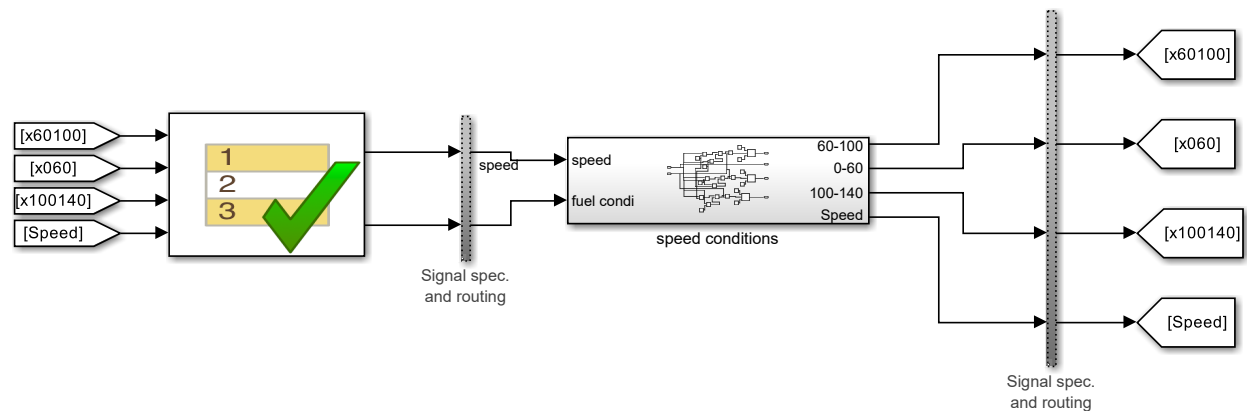
1.1. TC01_SpeedConditions

System Under Test

Model Name: SimuPro



Harness Name: SimuPro_Harness2



Test Sequence Data: SimuPro_Harness2/Test Sequence

Symbols*Table 1.1. Input*

Port	Name	Class	Data Type*	Size*
1	x60100	Data	double	[1]
2	x060	Data	double	[1]
3	x100140	Data	double	[1]
4	Speed	Data	double	[1]

Table 1.2. Output

Port	Name	Class	Data Type*	Size*
1	speed	Data	double	[1]
2	fuelCondi	Data	boolean	[1]

***Note:** The model was not compiled during report generation. As a result, the preceding Symbols section does not include information requiring model compilation. See the help for the TestSequence reporter for more information.

Step Hierarchy

- [Run](#)
- [step 1](#)
- [step 2](#)
- [step 3](#)
- [step 4](#)
- [step 5](#)
- [step 6](#)
- [step 7](#)

[Run](#)*Description*

Initial conditions

Action

```
%% Initialize data outputs.  
speed = 0;  
fuelCondi = false;
```

Table 1.3. Transition Table

Condition	Next Step
true	step_1

[step 1](#)

Description

Verify Initial conditions

Action

```
verify(speed==0 && x060==0);
```

Table 1.4. Transition Table

Condition	Next Step
true	step_2

[step 2](#)

Description

Low speed

Action

```
speed = -1;  
fuelCondi = true;
```

Table 1.5. Transition Table

Condition	Next Step
true	step_3

[step 3](#)

Description

Verify low speed constant

Action

```
verify(speed== -1 && x060==0 && x60100==0 && x100140==0);
```

Table 1.6. Transition Table

Condition	Next Step
true	step_4

[step 4](#)

Description

Medium speed

Action

```
speed = 80;  
fuelCondi = true;
```

Table 1.7. Transition Table

Condition	Next Step
true	step_5

[step 5](#)

Description

Verify medium speed constant

Action

```
verify(speed==80 && x060==0 && x60100==2);
```

Table 1.8. Transition Table

Condition	Next Step
true	step_6

[step 6](#)

Description

Speed out of range

Action

```
speed = 180;  
fuelCondi = true;
```

Table 1.9. Transition Table

Condition	Next Step
true	step_7

[step 7](#)

Description

Out of range constant =0

Action

```
verify(speed==180 && x060==0 && x60100==0 && x100140==0);
```

Simulation Settings Overrides

Simulation Mode	[Model Settings]
Releases	Current

Configuration Settings Overrides

Configuration settings	Do not override model settings
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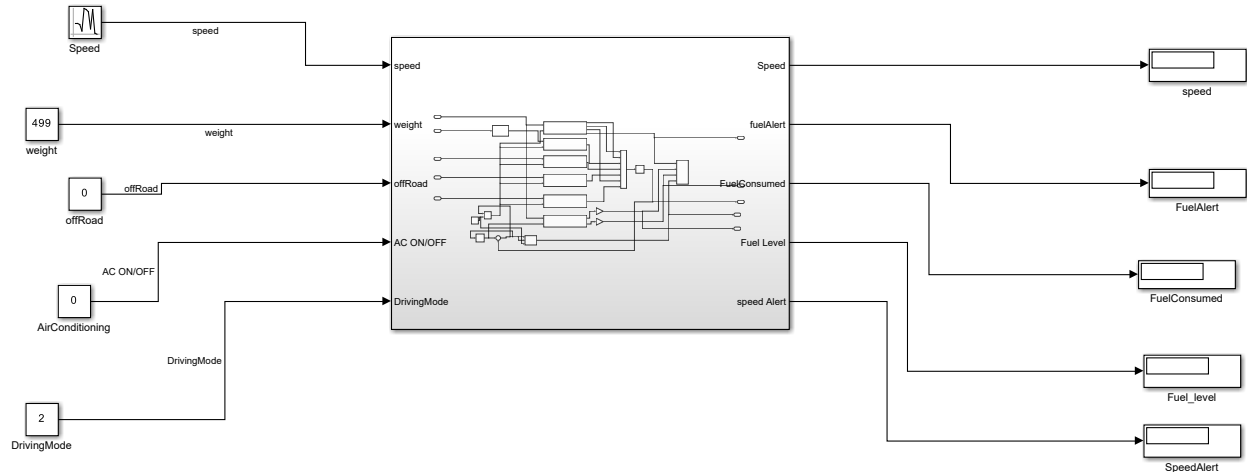
Coverage Settings

Coverage to collect	<ul style="list-style-type: none">Record coverage for system under test
Coverage metrics	<ul style="list-style-type: none">Decision

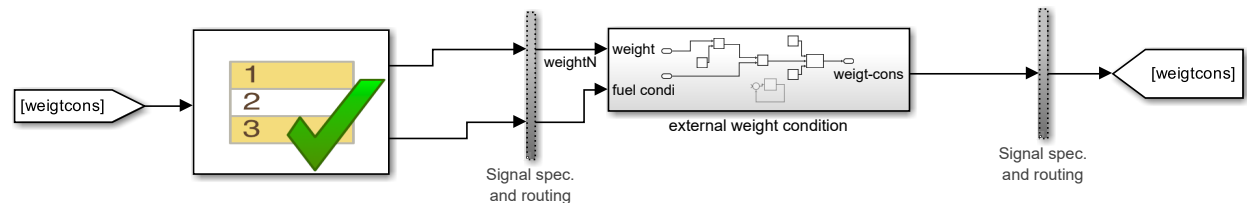
1.2. TC02_ExternalWeightConditions

System Under Test

Model Name: SimuPro



Harness Name: SimuPro_Harness3



Test Sequence Data: SimuPro_Harness3/Test Sequence

Symbols

Table 1.10. Input

Port	Name	Class	Data Type*	Size*
1	weightcons	Data	double	[1]

Table 1.11. Output

Port	Name	Class	Data Type*	Size*
1	weight	Data	double	[1]
2	fuelCondi	Data	boolean	[1]

***Note:** The model was not compiled during report generation. As a result, the preceding Symbols section does not include information requiring model compilation. See the help for the TestSequence reporter for more information.

Step Hierarchy

- [Run](#)
- [step_1](#)
- [step_2](#)
- [step_3](#)
- [step_4](#)
- [step_5](#)
- [step_6](#)
- [step_7](#)

[Run](#)

Description

Initial conditions

Action

```
%% Initialize data outputs.  
weight = 0;  
fuelCondi = false;
```

Table 1.12. Transition Table

Condition	Next Step
true	step_1

[step_1](#)

Description

verify initial condtions

Action

```
verify(weightcons==0);
```

Table 1.13. Transition Table

Condition	Next Step
true	step_2

step 2

Description

No weight

Action

```
weight = 0;  
fuelCondi = true;
```

Table 1.14. Transition Table

Condition	Next Step
true	step_3

step 3

Description

Verify no weight conditions

Action

```
verify(weightcons==0);
```

Table 1.15. Transition Table

Condition	Next Step
true	step_4

step 4

Description

Light weight

Action

```
weight = 110;  
fuelCondi = true;
```

Table 1.16. Transition Table

Condition	Next Step
true	step_5

[step 5](#)

Description

Verify light weight condntions

Action

```
verify(weightcons==0);
```

Table 1.17. Transition Table

Condition	Next Step
true	step_6

[step 6](#)

Description

Heavy weight

Action

```
weight = 410;  
fuelCondi = true;
```

Table 1.18. Transition Table

Condition	Next Step
true	step_7

[step 7](#)

Description

verify heavy weight conditions

Action

```
verify((weightcons-2<1e-5));
```

Simulation Settings Overrides

Simulation Mode	[Model Settings]
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Releases	Current
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Configuration Settings Overrides

Configuration settings	Do not override model settings
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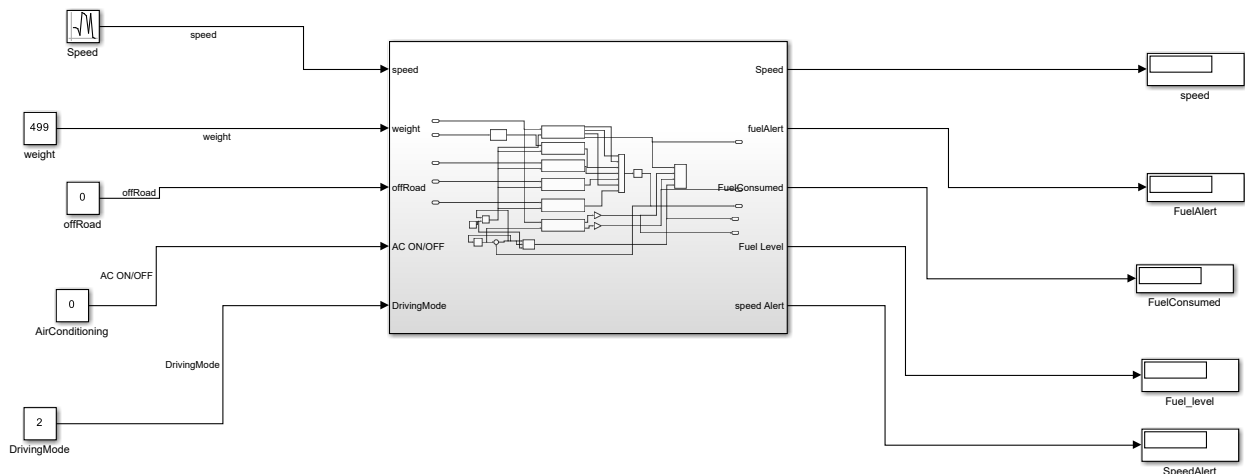
Coverage Settings

Coverage to collect	<ul style="list-style-type: none"> Record coverage for system under test
Coverage metrics	<ul style="list-style-type: none"> Decision

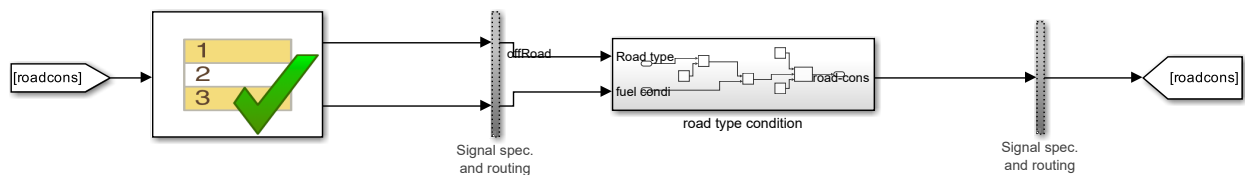
1.3. TC03_RoadTypeConditions

System Under Test

Model Name: SimuPro



Harness Name: SimuPro_Harness4



Test Sequence Data: SimuPro_Harness4/Test Sequence

Symbols*Table 1.19. Input*

Port	Name	Class	Data Type*	Size*
1	roadcons	Data	double	[1]

Table 1.20. Output

Port	Name	Class	Data Type*	Size*
1	RoadType	Data	double	[1]
2	fuelCondi	Data	boolean	[1]

***Note:** The model was not compiled during report generation. As a result, the preceding Symbols section does not include information requiring model compilation. See the help for the TestSequence reporter for more information.

Step Hierarchy

- [Run](#)
- [step 1](#)
- [step 2](#)
- [step 3](#)
- [step 4](#)
- [step 5](#)
- [step 6](#)
- [step 7](#)

[Run](#)*Description*

Initial conditions

Action

```
%% Initialize data outputs.  
RoadType = 0;  
fuelCondi = false;
```

Table 1.21. Transition Table

Condition	Next Step
true	step_1

[step 1](#)

Description

Verify Initial conditions

Action

```
verify(roadcons==0) ;
```

Table 1.22. Transition Table

Condition	Next Step
true	step_2

[step 2](#)

Description

smooth road

Action

```
RoadType = 0;  
fuelCondi = true;
```

Table 1.23. Transition Table

Condition	Next Step
true	step_3

[step 3](#)

Description

verify conditions for smooth road

Action

```
verify(roadcons==0) ;
```

Table 1.24. Transition Table

Condition	Next Step
true	step_4

[step 4](#)

Description

rough road

Action

```
RoadType = 1;  
fuelCondi = true;
```

Table 1.25. Transition Table

Condition	Next Step
true	step_5

[step 5](#)

Description

verify conditions for rough road

Action

```
verify(roadcons==1);
```

Table 1.26. Transition Table

Condition	Next Step
true	step_6

[step 6](#)

Description

Out of range condition

Action

```
RoadType = 2;  
fuelCondi = true;
```

Table 1.27. Transition Table

Condition	Next Step
true	step_7

[step 7](#)

Description

Verify Out of range condition

Action

```
verify(roadcons==0) ;
```

Simulation Settings Overrides

Simulation Mode	[Model Settings]
Releases	Current

Configuration Settings Overrides

Configuration settings	Do not override model settings
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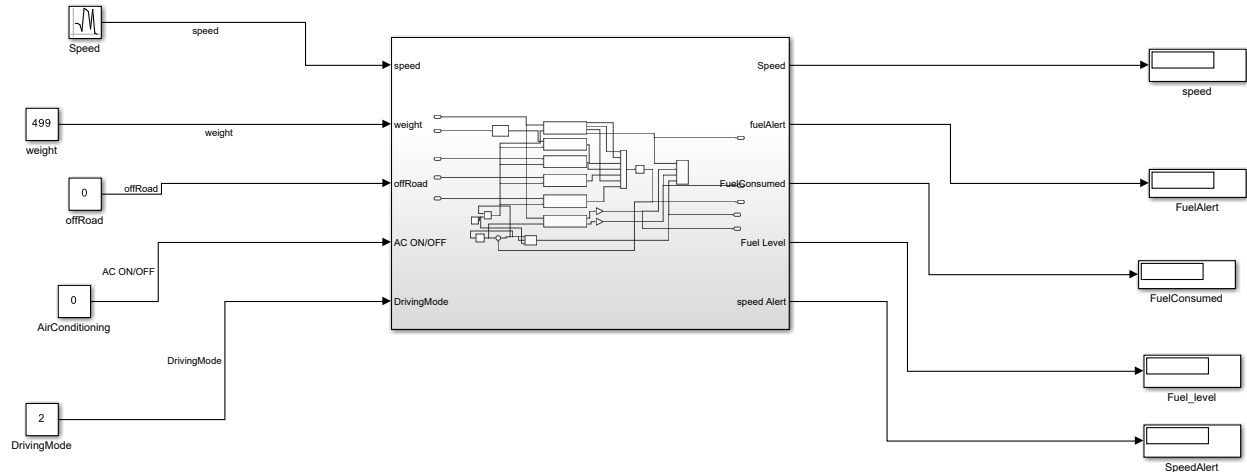
Coverage Settings

Coverage to collect	<ul style="list-style-type: none">Record coverage for system under test
Coverage metrics	<ul style="list-style-type: none">Decision

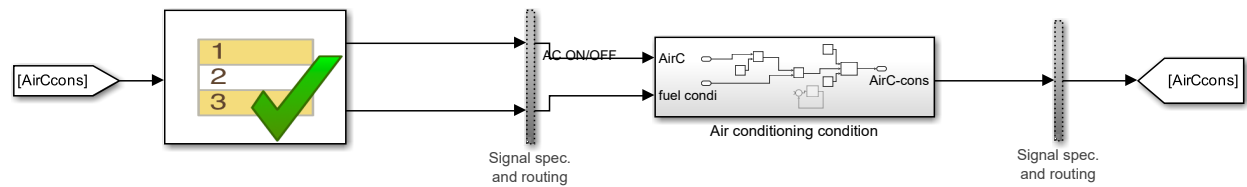
1.4. TC04_ACConditions

System Under Test

Model Name: SimuPro



Harness Name: SimuPro_Harness1



Test Sequence Data: SimuPro_Harness1/Test Sequence

Symbols

Table 1.28. Input

Port	Name	Class	Data Type*	Size*
1	AirCcons	Data	double	[1]

Table 1.29. Output

Port	Name	Class	Data Type*	Size*
1	AirC	Data	double	[1]
2	fuelCondi	Data	boolean	[1]

***Note:** The model was not compiled during report generation. As a result, the preceding Symbols section does not include information requiring model compilation. See the help for the TestSequence reporter for more information.

Step Hierarchy

- [Run](#)
- [step_1](#)
- [AC_OFF](#)
- [step_2](#)
- [AC1_ON](#)
- [step_3](#)
- [AC2_ON](#)
- [step_4](#)

[Run](#)

Action

```
%% Initialize data outputs.  
AirC = 0;  
fuelCondi = false;
```

Table 1.30. Transition Table

Condition	Next Step
true	step_1

[step_1](#)

Action

```
verify(AirCcons==0);
```

Table 1.31. Transition Table

Condition	Next Step
true	AC_OFF

[AC_OFF](#)

Action

```
AirC = 0;  
fuelCondi = true;
```

Table 1.32. Transition Table

Condition	Next Step
true	step_2

[step 2](#)

Action

```
verify(AirCcons==0);
```

Table 1.33. Transition Table

Condition	Next Step
true	AC1_ON

[AC1 ON](#)

Action

```
AirC = 1;  
fuelCondi = false;
```

Table 1.34. Transition Table

Condition	Next Step
true	step_3

[step 3](#)

Action

```
verify(AirCcons==0);
```

Table 1.35. Transition Table

Condition	Next Step
true	AC2_ON

[AC2 ON](#)

Action

```
AirC = 1;  
fuelCondi = true;
```

Table 1.36. Transition Table

Condition	Next Step
true	step_4

[step 4](#)

Action

```
verify(AirCcons==1) ;
```

Simulation Settings Overrides

Simulation Mode	[Model Settings]
Releases	Current

Configuration Settings Overrides

Configuration settings	Do not override model settings
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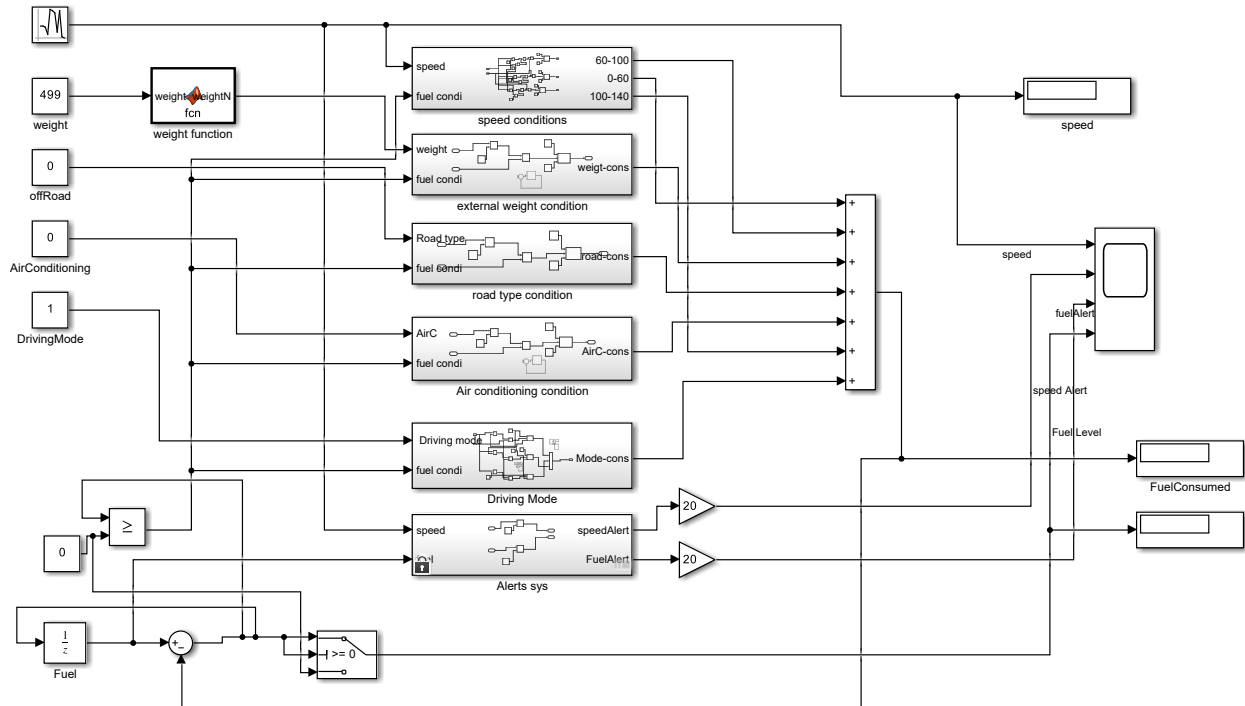
Coverage Settings

Coverage to collect	<ul style="list-style-type: none"> Record coverage for system under test
Coverage metrics	<ul style="list-style-type: none"> Decision

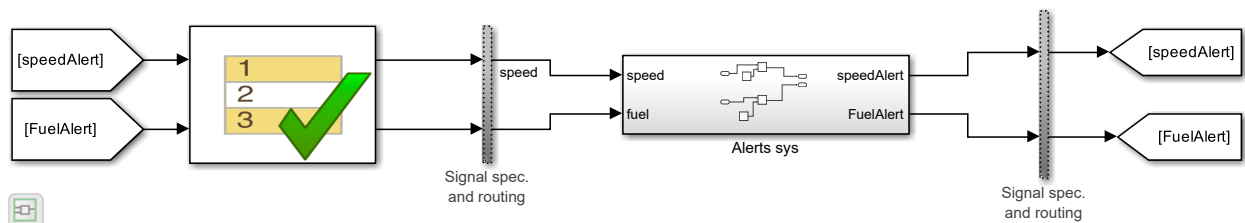
1.5. TC05_AlertSystem

System Under Test

Model Name: SimuPro1



Harness Name: ALERTharness



Test Sequence Data: ALERTharness/Test Sequence

Symbols

Table 1.37. Input

Port	Name	Class	Data Type*	Size*
1	speedAlert	Data	boolean	[1]
2	FuelAlert	Data	boolean	[1]

Table 1.38. Output

Port	Name	Class	Data Type*	Size*
1	speed	Data	double	[1]
2	fuel	Data	double	[1]

***Note:** The model was not compiled during report generation. As a result, the preceding Symbols section does not include information requiring model compilation. See the help for the TestSequence reporter for more information.

Step Hierarchy

- [Run](#)
- [step_1](#)
- [step_2](#)
- [step_3](#)
- [step_4](#)
- [step_5](#)
- [step_6](#)
- [step_7](#)

[Run](#)

Description

Initial conditions

Action

```
%% Initialize data outputs.  
speed = 0;  
fuel = 0;
```

Table 1.39. Transition Table

Condition	Next Step
true	step_1

[step_1](#)

Description

verify Initial conditions

Action

```
verify(speedAlert==0 && FuelAlert==1);
```

Table 1.40. Transition Table

Condition	Next Step
true	step_2

[step 2](#)

Description

Low fuel

Action

```
speed = 0;  
fuel = 10;
```

Table 1.41. Transition Table

Condition	Next Step
true	step_3

[step 3](#)

Description

Alert for Low fuel

Action

```
verify(speedAlert==0 && FuelAlert==1);
```

Table 1.42. Transition Table

Condition	Next Step
true	step_4

[step 4](#)

Description

High speed and low fuel

Action

```
speed = 150;  
fuel = 10;
```

Table 1.43. Transition Table

Condition	Next Step
true	step_5

[step 5](#)

Description

Alerts for High speed and low fuel

Action

```
verify(speedAlert==1 && FuelAlert==1);
```

Table 1.44. Transition Table

Condition	Next Step
true	step_6

[step 6](#)

Description

High speed and High fuel

Action

```
speed = 150;  
fuel = 20;
```

Table 1.45. Transition Table

Condition	Next Step
true	step_7

[step 7](#)

Description

Alert for High speed

Action

```
verify(speedAlert==1 && FuelAlert==0);
```

Simulation Settings Overrides

Simulation Mode	[Model Settings]
Releases	Current

Configuration Settings Overrides

Configuration settings	Do not override model settings
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Coverage Settings

Coverage to collect	<ul style="list-style-type: none">Record coverage for system under test
Coverage metrics	<ul style="list-style-type: none">Decision