Simulink Design Verifier Report

WDGBrakingLogic

mabualqu

Simulink Design Verifier Report: WDGBrakingLogic

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Chapter 1. Summary

Analysis Information.

Model:	WDGBrakingLogic
Release:	R2022a Prerelease
Checksum:	3577721506 719747852 3275326579 2347090401
Mode:	Test generation
Model Representation:	Built on 22-Sep-2021 19:14:10
Test Generation Target:	Model
Status:	Completed normally
PreProcessing Time:	13s
Analysis Time:	58s

Objectives Status.

Number of Objectives:	**95**	
Objectives Satisfied:	53	(56%)
Objectives Satisfied By Existing Tests/Coverage Data:	42	(44%)

Chapter 2. Analysis Information

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Model Information

File:	WDGBrakingLogic
Version:	4.0
Time Stamp:	Wed Sep 22 18:13:35 2021
Author:	mabualqu

Analysis Options

Mode:	TestGeneration
Rebuild Model Representation:	IfChangeIsDetected
Test Generation Target:	Model
Test Suite Optimization:	IndividualObjectives
Maximum Testcase Steps:	10000time steps
Test Conditions:	UseLocalSettings
Test Objectives:	UseLocalSettings
Model Coverage Objectives:	MCDC
Add tests for the missing coverage:	on
Include Relational Boundary Objectives:	on
Floating point absolute tolerance:	1.0000e-05
Floating point relative tolerance:	0.0100
Maximum Analysis Time:	300s
Block Replacement:	off
Parameters Analysis:	off
Include expected output values:	on
Randomize data that do not affect the outcome:	off
Additional analysis to reduce instances of rational approximation:	on
Save Data:	on

Save Harness:	off
Save Report:	on

User Artifacts

Coverage Data:	C:\Users\mabualqu\hlf2\ISO_06_09_SwU-Ver\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
Test Data:	n/a

Constraints

Design Min Max Constraints

Name	Design Min Max Constraint
FCWtime	[0..40]
PB1time	[0..40]
PB2time	[0..40]
FBtime	[0..40]

Chapter 3. Test Objectives Status

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Objectives Satisfied

Simulink Design Verifier generated test cases that exercise these test objectives.

#	Type	Model Item	Description	Analysis Time (sec)	Test Case
1	Condition	RelationalOperator	RelationalOperator: input1 <= input2 **true**	27	1 [0]
3	Relational-Boundary	RelationalOperator	RelationalOperator: input1 - input2 == **[-tol..0] true**	29	2 [0]
4	Relational-Boundary	RelationalOperator	RelationalOperator: input1 - input2 == **(0..tol] true**	29	3 [0]
15	Condition	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	"TTC<double(0)" **false**	31	5 [0]
19	MCDC	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	trigger expression with "TTC<double(0)" **false**	32	7 [0]
20	Relational-Boundary	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	Transition: abs(TTC) - FCWtime == **[-tol..0) true**	31	4 [0]
22	Relational-Boundary	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	Transition: TTC - double(0) == **[-tol..0) true**	33	9 [0]
23	Relational-Boundary	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	Transition: TTC - double(0) == **[0..tol] true**	32	8 [0]

#	Type	Model Item	Description	Analysis Time (sec)	Test Case
24	Decision	Transition "[relativeDistance < default..." from Junction #5 to "Full_Braking"	trigger expression **true**	31	6 [0]
26	Relational-Boundary	Transition "[relativeDistance < default..." from Junction #5 to "Full_Braking"	Transition: relativeDistance - default_spacing == **[-tol..0) true**	34	11 [0]
27	Relational-Boundary	Transition "[relativeDistance < default..." from Junction #5 to "Full_Braking"	Transition: relativeDistance - default_spacing == **[0..tol] true**	33	10 [0]
29	Decision	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	trigger expression **false**	35	14 [0]
31	Condition	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	"abs(TTC) < PB1time" **false**	35	13 [0]
33	Condition	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	"TTC<double(0)" **false**	38	19 [0]
35	MCDC	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	trigger expression with "abs(TTC) < PB1time" **false**	37	17 [0]
37	MCDC	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	trigger expression with "TTC<double(0)" **false**	39	20 [0]
38	Relational-Boundary	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	Transition: abs(TTC) - PB1time == **[-tol..0) true**	38	18 [0]
39	Relational-Boundary	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	Transition: abs(TTC) - PB1time == **[0..tol] true**	34	12 [0]
40	Relational-Boundary	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	Transition: TTC - double(0) == **[-tol..0) true**	40	22 [0]

#	Type	Model Item	Description	Analysis Time (sec)	Test Case
41	Relational-Boundary	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	Transition: TTC - double(0) == **[0..tol] true**	39	21 [0]
42	Decision	Transition "[abs(TTC)>=TimeFactor*FCWtime]" from "FCW" to "Default"	trigger expression **true**	36	16 [0]
43	Decision	Transition "[abs(TTC)>=TimeFactor*FCWtime]" from "FCW" to "Default"	trigger expression **false**	41	24 [0]
44	Relational-Boundary	Transition "[abs(TTC)>=TimeFactor*FCWtime]" from "FCW" to "Default"	Transition: abs(TTC) - TimeFactor*FCWtime == **[-tol..0) true**	40	23 [0]
45	Relational-Boundary	Transition "[abs(TTC)>=TimeFactor*FCWtime]" from "FCW" to "Default"	Transition: abs(TTC) - TimeFactor*FCWtime == **[0..tol] true**	36	15 [0]
46	Decision	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	trigger expression **true**	47	35 [0]
48	Condition	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	"stop" **true**	44	29 [0]
50	Condition	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	"TTC>double(0)" **true**	42	26 [0]
51	Condition	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	"TTC>double(0)" **false**	45	31 [0]
52	Condition	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	"relativeDistance > default_spacing" **true**	47	34 [0]
53	Condition	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	"relativeDistance > default_spacing" **false**	43	27 [0]

#	Type	Model Item	Description	Analysis Time (sec)	Test Case
54	MCDC	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	trigger expression with "stop" **true**	48	36 [0]
56	MCDC	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	trigger expression with "TTC>double(0)" **true**	48	37 [0]
57	MCDC	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	trigger expression with "TTC>double(0)" **false**	45	32 [0]
58	MCDC	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	trigger expression with "relativeDistance > default_spacing" **true**	49	38 [0]
59	MCDC	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	trigger expression with "relativeDistance > default_spacing" **false**	43	28 [0]
60	Relational-Boundary	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	Transition: TTC - double(0) == **[-tol..0] true**	44	30 [0]
61	Relational-Boundary	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	Transition: TTC - double(0) == **(0..tol] true**	42	25 [0]
62	Relational-Boundary	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	Transition: relativeDistance - default_spacing == **[-tol..0] true**	50	39 [0]
63	Relational-Boundary	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	Transition: relativeDistance - default_spacing == **(0..tol] true**	46	33 [0]
69	Condition	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	"TTC<double(0)" **false**	52	43 [0]
73	MCDC	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	trigger expression with "TTC<double(0)" **false**	52	44 [0]

#	Type	Model Item	Description	Analysis Time (sec)	Test Case
74	Relational-Boundary	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	Transition: abs(TTC) - PB2time == **[-tol..0) true**	51	42 [0]
75	Relational-Boundary	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	Transition: abs(TTC) - PB2time == **[0..tol] true**	50	40 [0]
76	Relational-Boundary	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	Transition: TTC - double(0) == **[-tol..0) true**	53	46 [0]
77	Relational-Boundary	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	Transition: TTC - double(0) == **[0..tol] true**	53	45 [0]
78	Decision	Transition "[stop]" from Junction #2 to Junction #1	trigger expression **true**	51	41 [0]
85	Condition	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	"TTC<double(0)" **false**	56	50 [0]
89	MCDC	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	trigger expression with "TTC<double(0)" **false**	56	51 [0]
90	Relational-Boundary	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	Transition: abs(TTC) - FBtime == **[-tol..0) true**	55	49 [0]
91	Relational-Boundary	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	Transition: abs(TTC) - FBtime == **[0..tol] true**	54	47 [0]
92	Relational-Boundary	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	Transition: TTC - double(0) == **[-tol..0) true**	57	53 [0]
93	Relational-Boundary	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	Transition: TTC - double(0) == **[0..tol] true**	57	52 [0]
94	Decision	Transition "[stop]" from Junction #4 to Junction #3	trigger expression **true**	54	48 [0]

Objectives Satisfied By Existing Tests/Coverage Data

Simulink Design Verifier determined that these objectives were satisfied by existing tests/coverage data.

#	Type	Model Item	Description	Test/ Coverage Data
2	Condition	RelationalOperator	RelationalOperator: input1 <= input2 **false**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
5	Decision	Chart "BrakingLogic"	Substate executed **State "Default"**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
6	Decision	Chart "BrakingLogic"	Substate executed **State "FCW"**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\W

#	Type	Model Item	Description	Test/ Coverage Data
				DGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
7	Decision	Chart "BrakingLogic"	Substate executed **State "Full_Braking"**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
8	Decision	Chart "BrakingLogic"	Substate executed **State "Partial_Braking1"**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
9	Decision	Chart "BrakingLogic"	Substate executed **State "Partial_Braking2"**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBra-

#	Type	Model Item	Description	Test/ Cover-age Data
				kingLog-ic\mCovs \WDGBra kingLog-ic_HLR_ MCov.cvt
10	Decision	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	trigger expression **true**	C:\Users\ mabual-qu\hlf2\I SO_06_09 _SwU-Ver\WPs\ ISO_6_9_ 5_2_SwV erRprt\W DGBra-kingLog-ic\mCovs \WDGBra kingLog-ic_HLR_ MCov.cvt
11	Decision	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	trigger expression **false**	C:\Users\ mabual-qu\hlf2\I SO_06_09 _SwU-Ver\WPs\ ISO_6_9_ 5_2_SwV erRprt\W DGBra-kingLog-ic\mCovs \WDGBra kingLog-ic_HLR_ MCov.cvt
12	Condi-tion	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	"abs(TTC)<FCWtime" **true**	C:\Users\ mabual-qu\hlf2\I SO_06_09 _SwU-Ver\WPs\ ISO_6_9_ 5_2_SwV erRprt\W DGBra-kingLog-

#	Type	Model Item	Description	Test/ Coverage Data
				ic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
13	Condition	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	"abs(TTC)<FCWtime" **false**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
14	Condition	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	"TTC<double(0)" **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
16	MCDC	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	trigger expression with "abs(TTC)<FCWtime" **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs

#	Type	Model Item	Description	Test/ Coverage Data
				\WDGBrakingLogic_HLR_MCov.cvt
17	MCDC	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	trigger expression with "abs(TTC)<FCWtime" **false**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
18	MCDC	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	trigger expression with "TTC<double(0)" **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
21	RelationalBoundary	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	Transition: abs(TTC) - FCWtime == **[0..tol] true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBra

#	Type	Model Item	Description	Test/ Coverage Data
				kingLogic_HLR_MCov.cvt
25	Decision	Transition "[relativeDistance < default..." from Junction #5 to "Full_Braking"	trigger expression **false**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
28	Decision	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	trigger expression **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
30	Condition	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	"abs(TTC) < PB1time" **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLog-

#	Type	Model Item	Description	Test/ Coverage Data
				ic_HLR_MCov.cvt
32	Condition	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	"TTC<double(0)" **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
34	MCDC	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	trigger expression with "abs(TTC) < PB1time" **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
36	MCDC	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	trigger expression with "TTC<double(0)" **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLog-

#	Type	Model Item	Description	Test/ Coverage Data
				ic_HLR_MCov.cvt
47	Decision	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	trigger expression **false**	C:\Users\mabual-qu\hlf2\ISO_06_09_SwU-Ver\WPs\ISO_6_9_5_2_SwVerRprt\WDGBra-kingLog-ic\mCovs\WDGBrakingLog-ic_HLR_MCov.cvt
49	Condi-tion	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	"stop" **false**	C:\Users\mabual-qu\hlf2\ISO_06_09_SwU-Ver\WPs\ISO_6_9_5_2_SwVerRprt\WDGBra-kingLog-ic\mCovs\WDGBrakingLog-ic_HLR_MCov.cvt
55	MCDC	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	trigger expression with "stop" **false**	C:\Users\mabual-qu\hlf2\ISO_06_09_SwU-Ver\WPs\ISO_6_9_5_2_SwVerRprt\WDGBra-kingLog-ic\mCovs\WDGBrakingLog-

#	Type	Model Item	Description	Test/ Coverage Data
				ic_HLR_MCov.cvt
64	Decision	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	trigger expression **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
65	Decision	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	trigger expression **false**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
66	Condition	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	"abs(TTC) < PB2time" **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLog-

#	Type	Model Item	Description	Test/ Coverage Data
				ic_HLR_MCov.cvt
67	Condition	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	"abs(TTC) < PB2time" **false**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
68	Condition	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	"TTC<double(0)" **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
70	MCDC	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	trigger expression with "abs(TTC) < PB2time" **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLog-

#	Type	Model Item	Description	Test/ Coverage Data
				ic_HLR_MCov.cvt
71	MCDC	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	trigger expression with "abs(TTC) < PB2time" **false**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
72	MCDC	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	trigger expression with "TTC<double(0)" **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
79	Decision	Transition "[stop]" from Junction #2 to Junction #1	trigger expression **false**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLog-

#	Type	Model Item	Description	Test/ Coverage Data
				ic_HLR_MCov.cvt
80	Decision	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	trigger expression **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
81	Decision	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	trigger expression **false**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
82	Condition	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	"abs(TTC) < FBtime" **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLog-

#	Type	Model Item	Description	Test/ Coverage Data
				ic_HLR_MCov.cvt
83	Condition	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	"abs(TTC) < FBtime" **false**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
84	Condition	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	"TTC<double(0)" **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
86	MCDC	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	trigger expression with "abs(TTC) < FBtime" **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLog-

#	Type	Model Item	Description	Test/ Coverage Data
				ic_HLR_MCov.cvt
87	MCDC	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	trigger expression with "abs(TTC) < FBtime" **false**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
88	MCDC	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	trigger expression with "TTC<double(0)" **true**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLogic_HLR_MCov.cvt
95	Decision	Transition "[stop]" from Junction #4 to Junction #3	trigger expression **false**	C:\Users\mabualqu\hlf2\ISO_06_09_SwUVer\WPs\ISO_6_9_5_2_SwVerRprt\WDGBrakingLogic\mCovs\WDGBrakingLog-

#	Type	Model Item	Description	Test/ Coverage Data
				ic_HLR_MCov.cvt

Chapter 4. Model Items

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This section presents, for each object in the model defining coverage objectives, the list of objectives and their individual status at the end of the analysis. It should match the coverage report obtained from running the generated test suite on the model, either from the harness model or by using the sldvruntest command.

RelationalOperator

#:	Type	Description	Status	Test Case
1	Condition	RelationalOperator: input1 <= input2 true	Satisfied	1 [0]
2	Condition	RelationalOperator: input1 <= input2 false	Satisfied by coverage data	n/a
3	RelationalBoundary	RelationalOperator: input1 - input2 == [-tol..0] true	Satisfied	2 [0]
4	RelationalBoundary	RelationalOperator: input1 - input2 == (0..tol] true	Satisfied	3 [0]

Chart "BrakingLogic"

#:	Type	Description	Status	Test Case
5	Decision	Substate executed State "Default"	Satisfied by coverage data	n/a
6	Decision	Substate executed State "FCW"	Satisfied by coverage data	n/a
7	Decision	Substate executed State "Full_Braking"	Satisfied by coverage data	n/a
8	Decision	Substate executed State "Partial_Braking1"	Satisfied by coverage data	n/a
9	Decision	Substate executed State "Partial_Braking2"	Satisfied by coverage data	n/a

Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"

#:	Type	Description	Status	Test Case
10	Decision	trigger expression true	Satisfied by coverage data	n/a
11	Decision	trigger expression false	Satisfied by coverage data	n/a
12	Condition	"abs(TTC)<FCWtime" true	Satisfied by	n/a

#:	Type	Description	Status	Test Case
			coverage data	
13	Condition	"abs(TTC)<FCWtime" false	Satisfied by coverage data	n/a
14	Condition	"TTC<double(0)" true	Satisfied by coverage data	n/a
15	Condition	"TTC<double(0)" false	Satisfied	5 [0]
16	MCDC	trigger expression with "abs(TTC)<FCWtime" true	Satisfied by coverage data	n/a
17	MCDC	trigger expression with "abs(TTC)<FCWtime" false	Satisfied by coverage data	n/a
18	MCDC	trigger expression with "TTC<double(0)" true	Satisfied by coverage data	n/a
19	MCDC	trigger expression with "TTC<double(0)" false	Satisfied	7 [0]
20	RelationalBoundary	Transition: abs(TTC) - FCWtime == [-tol..0) true	Satisfied	4 [0]
21	RelationalBoundary	Transition: abs(TTC) - FCWtime == [0..tol] true	Satisfied by coverage data	n/a
22	RelationalBoundary	Transition: TTC - double(0) == [-tol..0) true	Satisfied	9 [0]
23	RelationalBoundary	Transition: TTC - double(0) == [0..tol] true	Satisfied	8 [0]

Transition "[relativeDistance < default..." from Junction #5 to "Full_Braking"

#:	Type	Description	Status	Test Case
24	Decision	trigger expression true	Satisfied	6 [0]
25	Decision	trigger expression false	Satisfied by coverage data	n/a
26	RelationalBoundary	Transition: relativeDistance - default_spacing == [-tol..0) true	Satisfied	11 [0]
27	RelationalBoundary	Transition: relativeDistance - default_spacing == [0..tol] true	Satisfied	10 [0]

Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"

#:	Type	Description	Status	Test Case
28	Decision	trigger expression true	Satisfied by coverage data	n/a
29	Decision	trigger expression false	Satisfied	14 [0]
30	Condition	"abs(TTC) < PB1time" true	Satisfied by coverage data	n/a
31	Condition	"abs(TTC) < PB1time" false	Satisfied	13 [0]
32	Condition	"TTC<double(0)" true	Satisfied by coverage data	n/a
33	Condition	"TTC<double(0)" false	Satisfied	19 [0]

#:	Type	Description	Status	Test Case
34	MCDC	trigger expression with "abs(TTC) < PB1time" true	Satisfied by coverage data	n/a
35	MCDC	trigger expression with "abs(TTC) < PB1time" false	Satisfied	17 [0]
36	MCDC	trigger expression with "TTC<double(0)" true	Satisfied by coverage data	n/a
37	MCDC	trigger expression with "TTC<double(0)" false	Satisfied	20 [0]
38	RelationalBoundary	Transition: abs(TTC) - PB1time == [-tol..0) true	Satisfied	18 [0]
39	RelationalBoundary	Transition: abs(TTC) - PB1time == [0..tol] true	Satisfied	12 [0]
40	RelationalBoundary	Transition: TTC - double(0) == [-tol..0) true	Satisfied	22 [0]
41	RelationalBoundary	Transition: TTC - double(0) == [0..tol] true	Satisfied	21 [0]

Transition "[abs(TTC)>=TimeFactor*FCWtime]" from "FCW" to "Default"

#:	Type	Description	Status	Test Case
42	Decision	trigger expression true	Satisfied	16 [0]
43	Decision	trigger expression false	Satisfied	24 [0]
44	RelationalBoundary	Transition: abs(TTC) - TimeFactor*FCWtime == [-tol..0) true	Satisfied	23 [0]
45	RelationalBoundary	Transition: abs(TTC) - TimeFactor*FCWtime == [0..tol] true	Satisfied	15 [0]

Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0

#:	Type	Description	Status	Test Case
46	Decision	trigger expression true	Satisfied	35 [0]
47	Decision	trigger expression false	Satisfied by coverage data	n/a
48	Condition	"stop" true	Satisfied	29 [0]
49	Condition	"stop" false	Satisfied by coverage data	n/a
50	Condition	"TTC>double(0)" true	Satisfied	26 [0]
51	Condition	"TTC>double(0)" false	Satisfied	31 [0]
52	Condition	"relativeDistance > default_spacing" true	Satisfied	34 [0]
53	Condition	"relativeDistance > default_spacing" false	Satisfied	27 [0]
54	MCDC	trigger expression with "stop" true	Satisfied	36 [0]
55	MCDC	trigger expression with "stop" false	Satisfied by coverage data	n/a
56	MCDC	trigger expression with "TTC>double(0)" true	Satisfied	37 [0]
57	MCDC	trigger expression with "TTC>double(0)" false	Satisfied	32 [0]
58	MCDC	trigger expression with "relativeDistance > default_spacing" true	Satisfied	38 [0]
59	MCDC	trigger expression with "relativeDistance	Satisfied	28 [0]

#:	Type	Description	Status	Test Case
		> default_spacing" false		
60	RelationalBoundary	Transition: TTC - double(0) == [-tol..0] true	Satisfied	30 [0]
61	RelationalBoundary	Transition: TTC - double(0) == (0..tol] true	Satisfied	25 [0]
62	RelationalBoundary	Transition: relativeDistance - default_spacing == [-tol..0] true	Satisfied	39 [0]
63	RelationalBoundary	Transition: relativeDistance - default_spacing == (0..tol] true	Satisfied	33 [0]

Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"

#:	Type	Description	Status	Test Case
64	Decision	trigger expression true	Satisfied by coverage data	n/a
65	Decision	trigger expression false	Satisfied by coverage data	n/a
66	Condition	"abs(TTC) < PB2time" true	Satisfied by coverage data	n/a
67	Condition	"abs(TTC) < PB2time" false	Satisfied by coverage data	n/a
68	Condition	"TTC<double(0)" true	Satisfied by coverage data	n/a

#:	Type	Description	Status	Test Case
69	Condition	"TTC<double(0)" false	Satisfied	43 [0]
70	MCDC	trigger expression with "abs(TTC) < PB2time" true	Satisfied by coverage data	n/a
71	MCDC	trigger expression with "abs(TTC) < PB2time" false	Satisfied by coverage data	n/a
72	MCDC	trigger expression with "TTC<double(0)" true	Satisfied by coverage data	n/a
73	MCDC	trigger expression with "TTC<double(0)" false	Satisfied	44 [0]
74	RelationalBoundary	Transition: abs(TTC) - PB2time == [-tol..0) true	Satisfied	42 [0]
75	RelationalBoundary	Transition: abs(TTC) - PB2time == [0..tol] true	Satisfied	40 [0]
76	RelationalBoundary	Transition: TTC - double(0) == [-tol..0) true	Satisfied	46 [0]
77	RelationalBoundary	Transition: TTC - double(0) == [0..tol] true	Satisfied	45 [0]

Transition "[stop]" from Junction #2 to Junction #1

#:	Type	Description	Status	Test Case
78	Decision	trigger expression true	Satisfied	41 [0]
79	Decision	trigger expression false	Satisfied by coverage data	n/a

Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"

#:	Type	Description	Status	Test Case
80	Decision	trigger expression true	Satisfied by coverage data	n/a
81	Decision	trigger expression false	Satisfied by coverage data	n/a
82	Condition	"abs(TTC) < FBtime" true	Satisfied by coverage data	n/a
83	Condition	"abs(TTC) < FBtime" false	Satisfied by coverage data	n/a
84	Condition	"TTC<double(0)" true	Satisfied by coverage data	n/a
85	Condition	"TTC<double(0)" false	Satisfied	50 [0]
86	MCDC	trigger expression with "abs(TTC) < FBtime" true	Satisfied by coverage data	n/a
87	MCDC	trigger expression with "abs(TTC) < FBtime" false	Satisfied by coverage data	n/a
88	MCDC	trigger expression with "TTC<double(0)" true	Satisfied by coverage data	n/a

#:	Type	Description	Status	Test Case
89	MCDC	trigger expression with "TTC<double(0)" false	Satisfied	51 [0]
90	RelationalBoundary	Transition: abs(TTC) - FBtime == [-tol..0) true	Satisfied	49 [0]
91	RelationalBoundary	Transition: abs(TTC) - FBtime == [0..tol] true	Satisfied	47 [0]
92	RelationalBoundary	Transition: TTC - double(0) == [-tol..0) true	Satisfied	53 [0]
93	RelationalBoundary	Transition: TTC - double(0) == [0..tol] true	Satisfied	52 [0]

Transition "[stop]" from Junction #4 to Junction #3

#:	Type	Description	Status	Test Case
94	Decision	trigger expression true	Satisfied	48 [0]
95	Decision	trigger expression false	Satisfied by coverage data	n/a

Chapter 5. Test Cases

Table of Contents

This section contains detailed information about each generated test case.

Test Case 1

Summary.

Length:	0 second (1 sample period)
Objectives Satisfied:	1

Objectives.

Step	Time	Model Item	Objectives
1	0	RelationalOperator	1. RelationalOperator: input1 <= input2 true [0]

Generated Input Data.

Time	**0**
Step	**1**
relativeDistance	-
TTC	-
FCWtime	0
PB1time	0
PB2time	0
FBtime	0
longVelocity	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**
Step	**1**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 2

Summary.

Length: 0 second (1 sample period)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
1	0	RelationalOperator	3. RelationalOperator: input1 - input2 == [-tol..0] true [0]

Generated Input Data.

Time	**0**
Step	**1**
relativeDistance	-
TTC	-
FCWtime	0
PB1time	0
PB2time	0
FBtime	0
longVelocity	0.1

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**
Step	**1**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 3

Summary.

Length: 0 second (1 sample period)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
1	0	RelationalOperator	4. RelationalOperator: input1 - input2 == (0..tol] true [0]

Generated Input Data.

Time	**0**
Step	**1**
relativeDistance	-
TTC	-
FCWtime	0
PB1time	0
PB2time	0
FBtime	0
longVelocity	0.101

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**
Step	**1**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 4

Summary.

Length:	0.1 second (2 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
2	0.1	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	20. Transition: abs(TTC) - FCWtime == [-tol..0) true [0]

Generated Input Data.

Time	**0**	**0.1**
Step	**1**	**2**
relativeDistance	0	0
TTC	0	0.000995
FCWtime	5e-06	0.001
PB1time	0	0
PB2time	0	0

Time	**0**	**0.1**
Step	**1**	**2**
FBtime	0	0
longVelocity	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1**
Step	**1**	**2**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake
decel	0	9.8

Test Case 5

Summary.

Length:	0.1 second (2 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
2	0.1	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	15. "TTC<double(0)" false [0]

Generated Input Data.

Time	**0**	**0.1**
Step	**1**	**2**
relativeDistance	0	0
TTC	0	0.000995
FCWtime	5e-06	0.001
PB1time	0	0
PB2time	0	0
FBtime	0	0
longVelocity	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1**
Step	**1**	**2**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake
decel	0	9.8

Test Case 6

Summary.

Length:	0.1 second (2 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
2	0.1	Transition "[relativeDistance < default..." from Junction #5 to "Full_Braking"	24. trigger expression true [0]

Generated Input Data.

Time	**0**	**0.1**
Step	**1**	**2**
relativeDistance	0	0
TTC	0	0.000995
FCWtime	5e-06	0.001
PB1time	0	0
PB2time	0	0
FBtime	0	0
longVelocity	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1**
Step	**1**	**2**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake
decel	0	9.8

Test Case 7

Summary.

Length: 0.1 second (2 sample periods)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
2	0.1	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	19. trigger expression with "TTC<double(0)" false [0]

Generated Input Data.

Time	**0**	**0.1**
Step	**1**	**2**
relativeDistance	0	0
TTC	0	0.000995
FCWtime	5e-06	0.001
PB1time	0	0
PB2time	0	0
FBtime	0	0
longVelocity	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1**
Step	**1**	**2**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake
decel	0	9.8

Test Case 8

Summary.

Length: 0.1 second (2 sample periods)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
2	0.1	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	23. Transition: TTC - double(0) == [0..tol] true [0]

Generated Input Data.

Time	**0**	**0.1**
Step	**1**	**2**
relativeDistance	-	-
TTC	-1	0
FCWtime	0	40
PB1time	0	0
PB2time	0	0
FBtime	0	0
longVelocity	-	-

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1**
Step	**1**	**2**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake
decel	0	9.8

Test Case 9

Summary.

Length:	0.1 second (2 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
2	0.1	Transition "[(abs(TTC)<FCWtime) && TTC<..." from "Default" to "FCW"	22. Transition: TTC - double(0) == [-tol..0) true [0]

Generated Input Data.

Time	**0**	**0.1**
Step	**1**	**2**
relativeDistance	-	-
TTC	-1	-5e-06
FCWtime	0	40
PB1time	0	0
PB2time	0	0

Time	**0**	**0.1**
Step	**1**	**2**
FBtime	0	0
longVelocity	-	-

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.1**
Step	**1-2**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 10

Summary.

Length:	0.1 second (2 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
2	0.1	Transition "[relativeDistance < default..." from Junction #5 to "Full_Braking"	27. Transition: relativeDistance - default_spacing == [0..tol] true [0]

Generated Input Data.

Time	**0-0.1**
Step	**1-2**
relativeDistance	10
TTC	-
FCWtime	0
PB1time	0
PB2time	0
FBtime	0
longVelocity	-

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.1**
Step	**1-2**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 11

Summary.

Length:	0.1 second (2 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
2	0.1	Transition "[relativeDistance < default..." from Junction #5 to "Full_Braking"	26. Transition: relativeDistance - default_spacing == [-tol..0) true [0]

Generated Input Data.

Time	**0**	**0.1**
Step	**1**	**2**
relativeDistance	0	9.95
TTC	-	0
FCWtime	0	0
PB1time	0	0
PB2time	0	0
FBtime	0	0
longVelocity	-	-

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1**
Step	**1**	**2**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake
decel	0	9.8

Test Case 12

Summary.

Length: 0.2 second (3 sample periods)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
3	0.2	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	39. Transition: abs(TTC) - PB1time == [0..tol] true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	0	-1e-05	0
FCWtime	0	40	0
PB1time	0	1e-05	0
PB2time	0	0	0
FBtime	0	0	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.2**
Step	**1-3**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 13

Summary.

Length: 0.2 second (3 sample periods)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
3	0.2	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	31. "abs(TTC) < PB1time" false [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	0	-1e-05	0
FCWtime	0	40	0
PB1time	0	1e-05	0
PB2time	0	0	0
FBtime	0	0	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.2**
Step	**1-3**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 14

Summary.

Length:	0.2 second (3 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
3	0.2	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	29. trigger expression false [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	0	-1e-05	0
FCWtime	0	40	0
PB1time	0	1e-05	0
PB2time	0	0	0

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
FBtime	0	0	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.2**
Step	**1-3**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 15

Summary.

Length:	0.2 second (3 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
3	0.2	Transition "[abs(TTC)>=TimeFactor*FCWtime]" from "FCW" to "Default"	45. Transition: abs(TTC) - TimeFactor*FCWtime == [0..tol] true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	0	-1e-05	0
FCWtime	0	40	0
PB1time	0	1e-05	0
PB2time	0	0	0
FBtime	0	0	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.2**
Step	**1-3**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 16

Summary.

Length:	0.2 second (3 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
3	0.2	Transition "[abs(TTC)>=TimeFactor*FCWtime]" from "FCW" to "Default"	42. trigger expression true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	0	-1e-05	0
FCWtime	0	40	0
PB1time	0	1e-05	0
PB2time	0	0	0
FBtime	0	0	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.2**
Step	**1-3**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 17

Summary.

Length: 0.2 second (3 sample periods)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
3	0.2	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	35. trigger expression with "abs(TTC) < PB1time" false [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	0	-1e-05	0
FCWtime	0	40	0
PB1time	0	1e-05	0
PB2time	0	0	0
FBtime	0	0	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.2**
Step	**1-3**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 18

Summary.

Length: 0.2 second (3 sample periods)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
3	0.2	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	38. Transition: abs(TTC) - PB1time == [-tol..0) true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	0	-5e-06	0.000995
FCWtime	0	40	0
PB1time	5e-06	1e-05	0.001
PB2time	0	0	0
FBtime	0	0	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.2**
Step	**1-3**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 19

Summary.

Length:	0.2 second (3 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
3	0.2	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	33. "TTC<double(0)" false [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	0	-5e-06	0.000995
FCWtime	0	40	0
PB1time	5e-06	1e-05	0.001
PB2time	0	0	0

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
FBtime	0	0	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.2**
Step	**1-3**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 20

Summary.

Length:	0.2 second (3 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
3	0.2	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	37. trigger expression with "TTC<double(0)" false [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	0	-5e-06	0.000995
FCWtime	0	40	0
PB1time	5e-06	1e-05	0.001
PB2time	0	0	0
FBtime	0	0	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.2**
Step	**1-3**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 21

Summary.

Length:	0.2 second (3 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
3	0.2	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	41. Transition: TTC - double(0) == [0..tol] true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	-	0	-
TTC	-1	-1e-05	0
FCWtime	0	40	0
PB1time	0	0	40
PB2time	0	0	0
FBtime	0	0	0
longVelocity	-	0	-

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.2**
Step	**1-3**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 22

Summary.

Length: 0.2 second (3 sample periods)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
3	0.2	Transition "[(abs(TTC) < PB1time) && TT..." from "FCW" to "Partial_Braking1"	40. Transition: TTC - double(0) == [-tol..0) true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	-	0	-
TTC	-1	-5e-06	-5e-06
FCWtime	0	40	0
PB1time	0	0	40
PB2time	0	0	0
FBtime	0	0	0
longVelocity	-	0	-

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.1**	**0.2**
Step	**1-2**	**3**
BrakeStatus	BrStatus.NoBrake	BrStatus.PB1Brake
decel	0	3.8

Test Case 23

Summary.

Length: 0.2 second (3 sample periods)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
3	0.2	Transition "[abs(TTC)>=TimeFactor*FCWtime]" from "FCW" to "Default"	44. Transition: abs(TTC) - TimeFactor*FCWtime == [-tol..0) true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	0	-4.5455e-06	0
FCWtime	0	40	4.5455e-06
PB1time	0	0	0
PB2time	0	0	0
FBtime	0	0	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.2**
Step	**1-3**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 24

Summary.

Length:	0.2 second (3 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
3	0.2	Transition "[abs(TTC)>=TimeFactor*FCWtime]" from "FCW" to "Default"	43. trigger expression false [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	0	-4.5455e-06	0
FCWtime	0	40	4.5455e-06
PB1time	0	0	0

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
PB2time	0	0	0
FBtime	0	0	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.2**
Step	**1-3**
BrakeStatus	BrStatus.NoBrake
decel	0

Test Case 25

Summary.

Length:	0.2 second (3 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
3	0.2	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	61. Transition: TTC - double(0) == (0..tol] true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	0	0	5e-06
FCWtime	0	0	0
PB1time	0	5e-06	0
PB2time	0	5e-06	0
FBtime	0	5e-06	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1-0.2**
Step	**1**	**2-3**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake
decel	0	9.8

Test Case 26

Summary.

Length:	0.2 second (3 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
3	0.2	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	50. "TTC>double(0)" true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	0	0	5e-06
FCWtime	0	0	0
PB1time	0	5e-06	0
PB2time	0	5e-06	0
FBtime	0	5e-06	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1-0.2**
Step	**1**	**2-3**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake
decel	0	9.8

Test Case 27

Summary.

Length: 0.2 second (3 sample periods)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
3	0.2	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	53. "relativeDistance > default_spacing" false [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	0	0	5e-06
FCWtime	0	0	0
PB1time	0	5e-06	0
PB2time	0	5e-06	0
FBtime	0	5e-06	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1-0.2**
Step	**1**	**2-3**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake
decel	0	9.8

Test Case 28

Summary.

Length: 0.2 second (3 sample periods)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
3	0.2	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	59. trigger expression with "relativeDistance > default_spacing" false [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	0	0	5e-06
FCWtime	0	0	0
PB1time	0	5e-06	0
PB2time	0	5e-06	0
FBtime	0	5e-06	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1-0.2**
Step	**1**	**2-3**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake
decel	0	9.8

Test Case 29

Summary.

Length:	0.2 second (3 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
3	0.2	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	48. "stop" true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	0	0	5e-06
FCWtime	0	0	0
PB1time	0	5e-06	0
PB2time	0	5e-06	0

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
FBtime	0	5e-06	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1-0.2**
Step	**1**	**2-3**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake
decel	0	9.8

Test Case 30

Summary.

Length:	0.2 second (3 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
3	0.2	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	60. Transition: TTC - double(0) == [-tol..0] true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	1	0	0
FCWtime	0	0	0
PB1time	0	1e-05	0
PB2time	0	1e-05	0
FBtime	0	1e-05	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1-0.2**
Step	**1**	**2-3**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake
decel	0	9.8

Test Case 31

Summary.

Length:	0.2 second (3 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
3	0.2	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	51. "TTC>double(0)" false [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	1	0	0
FCWtime	0	0	0
PB1time	0	1e-05	0
PB2time	0	1e-05	0
FBtime	0	1e-05	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1-0.2**
Step	**1**	**2-3**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake
decel	0	9.8

Test Case 32

Summary.

Length: 0.2 second (3 sample periods)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
3	0.2	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	57. trigger expression with "TTC>double(0)" false [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	0
TTC	1	0	0
FCWtime	0	0	0
PB1time	0	1e-05	0
PB2time	0	1e-05	0
FBtime	0	1e-05	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1-0.2**
Step	**1**	**2-3**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake
decel	0	9.8

Test Case 33

Summary.

Length: 0.2 second (3 sample periods)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
3	0.2	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	63. Transition: relativeDistance - default_spacing == (0..tol] true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	10.1
TTC	0	0	1
FCWtime	0	0	0
PB1time	0	0.001	0
PB2time	0	0.001	0
FBtime	0	0.001	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake	BrStatus.NoBrake
decel	0	9.8	0

Test Case 34

Summary.

Length:	0.2 second (3 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
3	0.2	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	52. "relativeDistance > default_spacing" true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	10.1
TTC	0	0	1
FCWtime	0	0	0
PB1time	0	0.001	0
PB2time	0	0.001	0

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
FBtime	0	0.001	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake	BrStatus.NoBrake
decel	0	9.8	0

Test Case 35

Summary.

Length:	0.2 second (3 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
3	0.2	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	46. trigger expression true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	10.1
TTC	0	0	1
FCWtime	0	0	0
PB1time	0	0.001	0
PB2time	0	0.001	0
FBtime	0	0.001	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake	BrStatus.NoBrake
decel	0	9.8	0

Test Case 36

Summary.

Length:	0.2 second (3 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
3	0.2	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	54. trigger expression with "stop" true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	10.1
TTC	0	0	1
FCWtime	0	0	0
PB1time	0	0.001	0
PB2time	0	0.001	0
FBtime	0	0.001	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake	BrStatus.NoBrake
decel	0	9.8	0

Test Case 37

Summary.

Length: 0.2 second (3 sample periods)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
3	0.2	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	56. trigger expression with "TTC>double(0)" true [0]

Generated Input Data.

Time	0	0.1	0.2
Step	**1**	**2**	**3**
relativeDistance	0	0	10.1
TTC	0	0	1
FCWtime	0	0	0
PB1time	0	0.001	0
PB2time	0	0.001	0
FBtime	0	0.001	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	0	0.1	0.2
Step	**1**	**2**	**3**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake	BrStatus.NoBrake
decel	0	9.8	0

Test Case 38

Summary.

Length: 0.2 second (3 sample periods)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
3	0.2	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	58. trigger expression with "relativeDistance > default_spacing" true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	0	0	10.1
TTC	0	0	1
FCWtime	0	0	0
PB1time	0	0.001	0
PB2time	0	0.001	0
FBtime	0	0.001	0
longVelocity	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake	BrStatus.NoBrake
decel	0	9.8	0

Test Case 39

Summary.

Length:	0.2 second (3 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
3	0.2	Transition "[stop && TTC>double(0) && r..." from "Full_Braking" to Junction #0	62. Transition: relativeDistance - default_spacing == [-tol..0] true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
relativeDistance	11	0	10
TTC	-	0	1
FCWtime	0	0	0
PB1time	0	0.09999	0
PB2time	0	0.09999	0

Time	**0**	**0.1**	**0.2**
Step	**1**	**2**	**3**
FBtime	0	0.09999	0
longVelocity	-	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0**	**0.1-0.2**
Step	**1**	**2-3**
BrakeStatus	BrStatus.NoBrake	BrStatus.FBrake
decel	0	9.8

Test Case 40

Summary.

Length:	0.3 second (4 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
4	0.3	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	75. Transition: abs(TTC) - PB2time == [0..tol] true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**	**0.3**
Step	**1**	**2**	**3**	**4**
relativeDistance	0	0	0	0
TTC	0	-1e-05	-1e-05	0
FCWtime	0	40	2e-05	0
PB1time	0	0	40	0
PB2time	0	2e-05	1e-05	0
FBtime	0	0	1e-05	0
longVelocity	0	0	0.2	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.1**	**0.2**	**0.3**
Step	**1-2**	**3**	**4**
BrakeStatus	BrStatus.NoBrake	BrStatus.PB1Brake	BrStatus.NoBrake
decel	0	3.8	0

Test Case 41

Summary.

Length:	0.3 second (4 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
4	0.3	Transition "[stop]" from Junction #2 to Junction #1	78. trigger expression true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**	**0.3**
Step	**1**	**2**	**3**	**4**
relativeDistance	0	0	0	0
TTC	0	-1e-05	-1e-05	0
FCWtime	0	40	2e-05	0
PB1time	0	0	40	0
PB2time	0	2e-05	1e-05	0
FBtime	0	0	1e-05	0
longVelocity	0	0	0.2	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.1**	**0.2**	**0.3**
Step	**1-2**	**3**	**4**
BrakeStatus	BrStatus.NoBrake	BrStatus.PB1Brake	BrStatus.NoBrake
decel	0	3.8	0

Test Case 42

Summary.

Length: 0.3 second (4 sample periods)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
4	0.3	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	74. Transition: abs(TTC) - PB2time == [-tol..0) true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**	**0.3**
Step	**1**	**2**	**3**	**4**
relativeDistance	0	0	0	0
TTC	0	-5e-06	-5e-06	0.000995
FCWtime	0	40	1e-05	0
PB1time	0	0	40	0
PB2time	5e-06	1e-05	5e-06	0.001
FBtime	0	0	5e-06	0
longVelocity	0	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.1**	**0.2**	**0.3**
Step	**1-2**	**3**	**4**
BrakeStatus	BrStatus.NoBrake	BrStatus.PB1Brake	BrStatus.NoBrake
decel	0	3.8	0

Test Case 43

Summary.

Length: 0.3 second (4 sample periods)
Objectives Satisfied: 1

Objectives.

Step	Time	Model Item	Objectives
4	0.3	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	69. "TTC<double(0)" false [0]

Generated Input Data.

Time	0	0.1	0.2	0.3
Step	**1**	**2**	**3**	**4**
relativeDistance	0	0	0	0
TTC	0	-5e-06	-5e-06	0.000995
FCWtime	0	40	1e-05	0
PB1time	0	0	40	0
PB2time	5e-06	1e-05	5e-06	0.001
FBtime	0	0	5e-06	0
longVelocity	0	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	0-0.1	0.2	0.3
Step	**1-2**	**3**	**4**
BrakeStatus	BrStatus.NoBrake	BrStatus.PB1Brake	BrStatus.NoBrake
decel	0	3.8	0

Test Case 44

Summary.

Length:	0.3 second (4 sample periods)
Objectives Satisfied:	1

Objectives.

Step	Time	Model Item	Objectives
4	0.3	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	73. trigger expression with "TTC<double(0)" false [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**	**0.3**
Step	**1**	**2**	**3**	**4**
relativeDistance	0	0	0	0
TTC	0	-5e-06	-5e-06	0.000995
FCWtime	0	40	1e-05	0
PB1time	0	0	40	0
PB2time	5e-06	1e-05	5e-06	0.001
FBtime	0	0	5e-06	0
longVelocity	0	0	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.1**	**0.2**	**0.3**
Step	**1-2**	**3**	**4**
BrakeStatus	BrStatus.NoBrake	BrStatus.PB1Brake	BrStatus.NoBrake
decel	0	3.8	0

Test Case 45

Summary.

Length:	0.3 second (4 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
4	0.3	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	77. Transition: TTC - double(0) == [0..tol] true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**	**0.3**
Step	**1**	**2**	**3**	**4**
relativeDistance	-	0	0	-
TTC	-1	-1e-05	-1e-05	0
FCWtime	0	40	2e-05	0
PB1time	0	0	40	0
PB2time	0	0	1e-05	40
FBtime	0	0	1e-05	0

Time	**0**	**0.1**	**0.2**	**0.3**
Step	**1**	**2**	**3**	**4**
longVelocity	-	0	0.2	-

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.1**	**0.2**	**0.3**
Step	**1-2**	**3**	**4**
BrakeStatus	BrStatus.NoBrake	BrStatus.PB1Brake	BrStatus.NoBrake
decel	0	3.8	0

Test Case 46

Summary.

Length:	0.3 second (4 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
4	0.3	Transition "[(abs(TTC) < PB2time) && TT..." from "Partial_Braking1" to "Partial_Braking2"	76. Transition: TTC - double(0) == [-tol..0) true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**	**0.3**
Step	**1**	**2**	**3**	**4**
relativeDistance	-	0	0	-
TTC	-1	-5e-06	-5e-06	-5e-06
FCWtime	0	40	1e-05	0
PB1time	0	0	40	0
PB2time	0	0	5e-06	40
FBtime	0	0	5e-06	0
longVelocity	-	0	0	-

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.1**	**0.2**	**0.3**
Step	**1-2**	**3**	**4**
BrakeStatus	BrStatus.NoBrake	BrStatus.PB1Brake	BrStatus.PB2Brake
decel	0	3.8	5.3

Test Case 47

Summary.

Length:	0.4 second (5 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
5	0.4	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	91. Transition: abs(TTC) - FBtime == [0..tol] true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**	**0.3**	**0.4**
Step	**1**	**2**	**3**	**4**	**5**
relativeDistance	0	0	0	10	0
TTC	0	-1e-05	-1e-05	-5e-05	0
FCWtime	0	40	2e-05	5e-05	0
PB1time	0	0	40	5e-05	0
PB2time	0	0	1e-05	40	0
FBtime	0	2e-05	1e-05	5e-05	0
longVelocity	0	0	0.2	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.1**	**0.2**	**0.3**	**0.4**
Step	**1-2**	**3**	**4**	**5**
BrakeStatus	BrStatus.NoBrake	BrStatus.PB1Brake	BrStatus.PB2Brake	BrStatus.NoBrake
decel	0	3.8	5.3	0

Test Case 48

Summary.

Length:	0.4 second (5 sample periods)
Objectives Satisfied:	1

Objectives.

Step	Time	Model Item	Objectives
5	0.4	Transition "[stop]" from Junction #4 to Junction #3	94. trigger expression true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**	**0.3**	**0.4**
Step	**1**	**2**	**3**	**4**	**5**
relativeDistance	0	0	0	10	0
TTC	0	-1e-05	-1e-05	-5e-05	0
FCWtime	0	40	2e-05	5e-05	0
PB1time	0	0	40	5e-05	0
PB2time	0	0	1e-05	40	0
FBtime	0	2e-05	1e-05	5e-05	0
longVelocity	0	0	0.2	0	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.1**	**0.2**	**0.3**	**0.4**
Step	**1-2**	**3**	**4**	**5**
BrakeStatus	BrStatus.NoBrake	BrStatus.PB1Brake	BrStatus.PB2Brake	BrStatus.NoBrake
decel	0	3.8	5.3	0

Test Case 49

Summary.

Length:	0.4 second (5 sample periods)
Objectives Satisfied:	1

Objectives.

Step	Time	Model Item	Objectives
5	0.4	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	90. Transition: abs(TTC) - FBtime == [-tol..0) true [0]

Generated Input Data.

Time	0	0.1	0.2	0.3	0.4
Step	**1**	**2**	**3**	**4**	**5**
relativeDistance	0	0	0	10	0
TTC	0	-5e-06	-5e-06	-2.5e-05	0.000995
FCWtime	0	40	1e-05	2.5e-05	0
PB1time	0	0	40	2.5e-05	0
PB2time	0	0	5e-06	40	0
FBtime	5e-06	1e-05	0	2.5e-05	0.001
longVelocity	0	0	0.2	0.2	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	0-0.1	0.2	0.3	0.4
Step	**1-2**	**3**	**4**	**5**
BrakeStatus	BrStatus.NoBrake	BrStatus.PB1Brake	BrStatus.PB2Brake	BrStatus.NoBrake
decel	0	3.8	5.3	0

Test Case 50

Summary.

Length:	0.4 second (5 sample periods)
Objectives Satisfied:	1

Objectives.

Step	Time	Model Item	Objectives
5	0.4	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	85. "TTC<double(0)" false [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**	**0.3**	**0.4**
Step	**1**	**2**	**3**	**4**	**5**
relativeDistance	0	0	0	10	0
TTC	0	-5e-06	-5e-06	-2.5e-05	0.000995
FCWtime	0	40	1e-05	2.5e-05	0
PB1time	0	0	40	2.5e-05	0
PB2time	0	0	5e-06	40	0
FBtime	5e-06	1e-05	0	2.5e-05	0.001
longVelocity	0	0	0.2	0.2	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.1**	**0.2**	**0.3**	**0.4**
Step	**1-2**	**3**	**4**	**5**
BrakeStatus	BrStatus.NoBrake	BrStatus.PB1Brake	BrStatus.PB2Brake	BrStatus.NoBrake
decel	0	3.8	5.3	0

Test Case 51

Summary.

Length:	0.4 second (5 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
5	0.4	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	89. trigger expression with "TTC<double(0)" false [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**	**0.3**	**0.4**
Step	**1**	**2**	**3**	**4**	**5**
relativeDistance	0	0	0	10	0
TTC	0	-5e-06	-5e-06	-2.5e-05	0.000995
FCWtime	0	40	1e-05	2.5e-05	0

Time	**0**	**0.1**	**0.2**	**0.3**	**0.4**
Step	**1**	**2**	**3**	**4**	**5**
PB1time	0	0	40	2.5e-05	0
PB2time	0	0	5e-06	40	0
FBtime	5e-06	1e-05	0	2.5e-05	0.001
longVelocity	0	0	0.2	0.2	0

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.1**	**0.2**	**0.3**	**0.4**
Step	**1-2**	**3**	**4**	**5**
BrakeStatus	BrStatus.No-Brake	BrSta-tus.PB1Brake	BrSta-tus.PB2Brake	BrStatus.No-Brake
decel	0	3.8	5.3	0

Test Case 52

Summary.

Length:	0.4 second (5 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
5	0.4	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	93. Transition: TTC - double(0) == [0..tol] true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**	**0.3**	**0.4**
Step	**1**	**2**	**3**	**4**	**5**
relativeDis-tance	-	0	0	10	-
TTC	-1	-1e-05	-1e-05	-5e-05	0
FCWtime	0	40	2e-05	5e-05	0
PB1time	0	0	40	5e-05	0
PB2time	0	0	1e-05	40	0
FBtime	0	0	0	5e-05	40
longVelocity	-	0	0.2	0	-

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.1**	**0.2**	**0.3**	**0.4**
Step	**1-2**	**3**	**4**	**5**
BrakeStatus	BrStatus.No-Brake	BrSta-tus.PB1Brake	BrSta-tus.PB2Brake	BrStatus.No-Brake
decel	0	3.8	5.3	0

Test Case 53

Summary.

Length:	0.4 second (5 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
5	0.4	Transition "[(abs(TTC) < FBtime) && TTC..." from "Partial_Braking2" to "Full_Braking"	92. Transition: TTC - double(0) == [-tol..0) true [0]

Generated Input Data.

Time	**0**	**0.1**	**0.2**	**0.3**	**0.4**
Step	**1**	**2**	**3**	**4**	**5**
relativeDis-tance	-	0	0	10	-
TTC	-1	-5e-06	-5e-06	-2.5e-05	-5e-06
FCWtime	0	40	1e-05	2.5e-05	0
PB1time	0	0	40	2.5e-05	0
PB2time	0	0	5e-06	40	0
FBtime	0	0	5e-06	2.5e-05	40
longVelocity	-	0	0.2	0.2	-

Expected Output. These output values are expected assuming that inputs that do not affect the test objectives (- in the table above) are given a default value - 0 for numeric types, and default value for enumerated types.

Time	**0-0.1**	**0.2**	**0.3**	**0.4**
Step	**1-2**	**3**	**4**	**5**
BrakeStatus	BrStatus.No-Brake	BrSta-tus.PB1Brake	BrSta-tus.PB2Brake	BrStatus.FBrake

Time	**0-0.1**	**0.2**	**0.3**	**0.4**
Step	**1-2**	**3**	**4**	**5**
decel	0	3.8	5.3	9.8