Simulink Design Verifier Report

ae2e3/Chart

attit

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attit

Publication date 25-Nov-2022 21:18:50

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Chapter 1. Summary

Analysis Information.

Model:	ae2e3
Release:	R2022a Update 5
Analyzed Subsystem:	ae2e3/Chart
Checksum:	2555612038 2213538726 3978229151 3942368965
Mode:	Test generation
Model Representation:	Built on 25-Nov-2022 21:06:32
Test Generation Target:	Model
Status:	Stopped by user
PreProcessing Time:	7s
Analysis Time:	729s

Objectives Status.

Number of Objectives:	**156**	
Objectives Satisfied:	147	(94%)
Objectives Unsatisfiable:	2	(1%)
Objectives Undecided when the Analysis was Stopped:	7	(5%)

Chapter 2. Analysis Information

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Model Information

File:	ae2e3
Version:	1.3
Time Stamp:	Fri Nov 25 18:28:44 2022
Author:	attit

Analysis Options

Mode:	TestGeneration
Rebuild Model Representation:	IfChangeIsDetected
Test Generation Target:	Model
Test Suite Optimization:	Auto
Maximum Testcase Steps:	10000time steps
Test Conditions:	UseLocalSettings
Test Objectives:	UseLocalSettings
Model Coverage Objectives:	MCDC
Add tests for the missing coverage:	off
Include Relational Boundary Objectives:	off
Maximum Analysis Time:	4000s
Block Replacement:	off
Parameters Analysis:	off
Include expected output values:	off
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:	off

User Artifacts

Coverage Data:	n/a
Test Data:	n/a

Constraints

Design Min Max Constraints

Name	Design Min Max Constraint
Pos_input	[1..4]

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	Decision	Chart	trigger edge occurred **true**	4	1 [0]
2	Decision	Chart	trigger edge occurred **false**	4	1 [0]
3	Condition	Chart	SubSystem: trigger(1) edge occurred **true**	33	3 [0]
4	Condition	Chart	SubSystem: trigger(1) edge occurred **false**	4	1 [0]
5	Condition	Chart	SubSystem: trigger(2) edge occurred **true**	4	1 [0]
6	Condition	Chart	SubSystem: trigger(2) edge occurred **false**	4	1 [0]
7	Condition	Chart	SubSystem: trigger(3) edge occurred **true**	33	19 [0]
8	Condition	Chart	SubSystem: trigger(3) edge occurred **false**	4	1 [0]
9	Condition	Chart	SubSystem: trigger(4) edge occurred **true**	35	4 [0]
10	Condition	Chart	SubSystem: trigger(4) edge occurred **false**	4	1 [0]
11	Condition	Chart	SubSystem: trigger(5) edge occurred **true**	35	14 [0]
12	Condition	Chart	SubSystem: trigger(5) edge occurred **false**	4	1 [0]
13	Condition	Chart	SubSystem: trigger(6) edge occurred **true**	35	8 [0]
14	Condition	Chart	SubSystem: trigger(6) edge occurred **false**	4	1 [0]

#	Type	Model Item	Description	Analysis Time (sec)	Test Case
15	Condition	Chart	SubSystem: trigger(7) edge occurred **true**	35	5 [0]
16	Condition	Chart	SubSystem: trigger(7) edge occurred **false**	4	1 [0]
17	MCDC	Chart	trigger edge occurred with trigger(1) edge occurred **true**	33	3 [0]
18	MCDC	Chart	trigger edge occurred with trigger(1) edge occurred **false**	4	1 [0]
19	MCDC	Chart	trigger edge occurred with trigger(2) edge occurred **true**	32	2 [0]
20	MCDC	Chart	trigger edge occurred with trigger(2) edge occurred **false**	4	1 [0]
21	MCDC	Chart	trigger edge occurred with trigger(3) edge occurred **true**	33	19 [0]
22	MCDC	Chart	trigger edge occurred with trigger(3) edge occurred **false**	4	1 [0]
23	MCDC	Chart	trigger edge occurred with trigger(4) edge occurred **true**	35	4 [0]
24	MCDC	Chart	trigger edge occurred with trigger(4) edge occurred **false**	4	1 [0]
25	MCDC	Chart	trigger edge occurred with trigger(5) edge occurred **true**	35	14 [0]
26	MCDC	Chart	trigger edge occurred with trigger(5) edge occurred **false**	4	1 [0]
27	MCDC	Chart	trigger edge occurred with trigger(6) edge occurred **true**	35	8 [0]
28	MCDC	Chart	trigger edge occurred with trigger(6) edge occurred **false**	4	1 [0]
29	MCDC	Chart	trigger edge occurred with trigger(7) edge occurred **true**	35	5 [0]

#	Type	Model Item	Description	Analysis Time (sec)	Test Case
30	MCDC	Chart	trigger edge occurred with trigger(7) edge occurred **false**	4	1 [0]
31	Decision	Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait"	trigger expression **true**	37	5 [0]
32	Decision	Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait"	trigger expression **false**	4	1 [0]
33	Condition	Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait"	F1_evt **true**	37	5 [0]
34	Condition	Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait"	F1_evt **false**	4	1 [0]
35	Condition	Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait"	Floor_1~=1 **true**	37	5 [0]
36	Condition	Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait"	Floor_1~=1 **false**	45	15 [0]
37	MCDC	Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait"	F1_evt&&Floor_1~=1 with F1_evt **true**	37	5 [0]
38	MCDC	Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait"	F1_evt&&Floor_1~=1 with F1_evt **false**	4	1 [0]
39	MCDC	Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait"	F1_evt&&Floor_1~=1 with Floor_1~=1 **true**	37	5 [0]
40	MCDC	Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait"	F1_evt&&Floor_1~=1 with Floor_1~=1 **false**	45	15 [0]
41	Decision	Transition "[F2_evt&&Floor_2~=1]	trigger expression **true**	37	5 [0]

#	Type	Model Item	Description	Analysis Time (sec)	Test Case
		{Add(2)..." from "RequestWait" to "RequestWait"			
42	Decision	Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait"	trigger expression **false**	4	1 [0]
43	Condition	Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait"	F2_evt **true**	37	5 [0]
44	Condition	Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait"	F2_evt **false**	4	1 [0]
45	Condition	Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait"	Floor_2~=1 **true**	37	5 [0]
46	Condition	Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait"	Floor_2~=1 **false**	42	12 [0]
47	MCDC	Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait"	F2_evt&&Floor_2~=1 with F2_evt **true**	37	5 [0]
48	MCDC	Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait"	F2_evt&&Floor_2~=1 with F2_evt **false**	4	1 [0]
49	MCDC	Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait"	F2_evt&&Floor_2~=1 with Floor_2~=1 **true**	37	5 [0]
50	MCDC	Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait"	F2_evt&&Floor_2~=1 with Floor_2~=1 **false**	42	12 [0]
51	Decision	Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait"	trigger expression **true**	4	1 [0]
52	Decision	Transition "[F3_evt&&Floor_3~=1]	trigger expression **false**	37	5 [0]

#	Type	Model Item	Description	Analysis Time (sec)	Test Case
		{Add(3)..." from "RequestWait" to "RequestWait"			
53	Condition	Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait"	F3_evt **true**	4	1 [0]
54	Condition	Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait"	F3_evt **false**	37	5 [0]
55	Condition	Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait"	Floor_3~=1 **true**	4	1 [0]
56	Condition	Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait"	Floor_3~=1 **false**	48	18 [0]
57	MCDC	Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait"	F3_evt&&Floor_3~=1 with F3_evt **true**	4	1 [0]
58	MCDC	Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait"	F3_evt&&Floor_3~=1 with F3_evt **false**	37	5 [0]
59	MCDC	Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait"	F3_evt&&Floor_3~=1 with Floor_3~=1 **true**	4	1 [0]
60	MCDC	Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait"	F3_evt&&Floor_3~=1 with Floor_3~=1 **false**	48	18 [0]
61	Decision	Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait"	trigger expression **true**	37	5 [0]
62	Decision	Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait"	trigger expression **false**	37	5 [0]
63	Condition	Transition "[F4_evt&&Floor_4~=1]	F4_evt **true**	37	5 [0]

#	Type	Model Item	Description	Analysis Time (sec)	Test Case
		{Add(4)..." from "RequestWait" to "RequestWait"			
64	Condition	Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait"	F4_evt **false**	37	5 [0]
65	Condition	Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait"	Floor_4~=1 **true**	37	5 [0]
66	Condition	Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait"	Floor_4~=1 **false**	44	13 [0]
67	MCDC	Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait"	F4_evt&&Floor_4~=1 with F4_evt **true**	37	5 [0]
68	MCDC	Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait"	F4_evt&&Floor_4~=1 with F4_evt **false**	37	5 [0]
69	MCDC	Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait"	F4_evt&&Floor_4~=1 with Floor_4~=1 **true**	37	5 [0]
70	MCDC	Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait"	F4_evt&&Floor_4~=1 with Floor_4~=1 **false**	44	13 [0]
72	Decision	State "LiftAlgorithm"	Substate executed **"DOOR_WAIT"**	39	7 [0]
73	Decision	State "LiftAlgorithm"	Substate executed **"MOTOR_ON"**	37	5 [0]
74	Decision	State "LiftAlgorithm"	Substate executed **"REQUESTED_FLOOR_FOUND"**	42	11 [0]
75	Decision	State "LiftAlgorithm"	Substate executed **"REQUEST_ACCEPTED"**	37	5 [0]
76	Decision	State "LiftAlgorithm"	Substate executed **"WAIT"**	4	1 [0]
82	Decision	Transition "[after(5,sec)]" from "DOOR_WAIT" to "DOOR_DONE"	expression "after(5,sec)" **false**	39	7 [0]

#	Type	Model Item	Description	Analysis Time (sec)	Test Case
83	Decision	Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND"	trigger expression **true**	41	9 [0]
84	Decision	Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND"	trigger expression **false**	37	5 [0]
85	Condition	Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND"	1==ValidFloor(Pos_input) **true**	41	9 [0]
86	Condition	Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND"	1==ValidFloor(Pos_input) **false**	37	5 [0]
87	Condition	Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND"	1==any(Queue(:)==round(Pos_input)) **true**	41	9 [0]
88	Condition	Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND"	1==any(Queue(:)==round(Pos_input)) **false**	42	10 [0]
89	MCDC	Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND"	1==ValidFloor(Pos_input)&&1==any(Queue(:)==round(Pos_input)) with 1==ValidFloor(Pos_input) **true**	41	9 [0]
90	MCDC	Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND"	1==ValidFloor(Pos_input)&&1==any(Queue(:)==round(Pos_input)) with 1==ValidFloor(Pos_input) **false**	37	5 [0]
91	MCDC	Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND"	1==ValidFloor(Pos_input)&&1==any(Queue(:)==round(Pos_input)) with 1==any(Queue(:)==round(Pos_input)) **true**	41	9 [0]
92	MCDC	Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND"	1==ValidFloor(Pos_input)&&1==any(Queue(:)==round(Pos_input)) with 1==any(Queue(:)==round(Pos_input)) **false**	42	10 [0]

#	Type	Model Item	Description	Analysis Time (sec)	Test Case
93	Decision	Transition "[abs(Direction-Pos_input)<0..." from "REQUESTED_FLOOR_FOUND" to "DOOR_WAIT"	expression "abs(Direction-Pos_input)<0.1" **true**	44	13 [0]
94	Decision	Transition "[abs(Direction-Pos_input)<0..." from "REQUESTED_FLOOR_FOUND" to "DOOR_WAIT"	expression "abs(Direction-Pos_input)<0.1" **false**	42	11 [0]
95	Decision	Transition "[Direction~=Pos_input]" from "REQUEST_ACCEPTED" to "MOTOR_ON"	expression "Direction~=Pos_input" **true**	37	5 [0]
96	Decision	Transition "[Direction~=Pos_input]" from "REQUEST_ACCEPTED" to "MOTOR_ON"	expression "Direction~=Pos_input" **false**	39	7 [0]
97	Decision	Transition "[Direction==Pos_input]{Dire..." from "REQUEST_ACCEPTED" to "DOOR_WAIT"	expression "Direction==Pos_input" **true**	39	7 [0]
99	Decision	Transition "[PressCount>0]{Direction=Qu..." from "WAIT" to "REQUEST_ACCEPTED"	expression "PressCount>0" **true**	4	1 [0]
100	Decision	Transition "[PressCount>0]{Direction=Qu..." from "WAIT" to "REQUEST_ACCEPTED"	expression "PressCount>0" **false**	37	5 [0]
101	Decision	State "ElevatorUnitControl"	Substate executed **"GO_DOWN"**	37	5 [0]
102	Decision	State "ElevatorUnitControl"	Substate executed **"GO_UP"**	48	19 [0]
103	Decision	State "ElevatorUnitControl"	Substate executed **"HALT"**	40	8 [0]
104	Decision	State "ElevatorUnitControl"	Substate executed **"OFF"**	4	1 [0]
105	Decision	Transition "[Emergency]" from "GO_DOWN" to Junction #32	expression "Emergency" **true**	40	8 [0]
106	Decision	Transition "[Emergency]" from "GO_DOWN" to Junction #32	expression "Emergency" **false**	37	5 [0]

#	Type	Model Item	Description	Analysis Time (sec)	Test Case
107	Decision	Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_DOWN" to "OFF"	expression "~in(LiftAlgorithm.MOTOR_ON)" **true**	44	14 [0]
108	Decision	Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_DOWN" to "OFF"	expression "~in(LiftAlgorithm.MOTOR_ON)" **false**	37	5 [0]
109	Condition	Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_DOWN" to "OFF"	in(LiftAlgorithm.MOTOR_ON) **true**	37	5 [0]
110	Condition	Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_DOWN" to "OFF"	in(LiftAlgorithm.MOTOR_ON) **false**	44	14 [0]
111	MCDC	Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_DOWN" to "OFF"	~in(LiftAlgorithm.MOTOR_ON) with in(LiftAlgorithm.MOTOR_ON) **true**	44	14 [0]
112	MCDC	Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_DOWN" to "OFF"	~in(LiftAlgorithm.MOTOR_ON) with in(LiftAlgorithm.MOTOR_ON) **false**	37	5 [0]
113	Decision	Transition "[Emergency]" from "GO_UP" to Junction #33	expression "Emergency" **true**	254	20 [0]
114	Decision	Transition "[Emergency]" from "GO_UP" to Junction #33	expression "Emergency" **false**	48	19 [0]
115	Decision	Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_UP" to "OFF"	expression "~in(LiftAlgorithm.MOTOR_ON)" **true**	283	21 [0]
116	Decision	Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_UP" to "OFF"	expression "~in(LiftAlgorithm.MOTOR_ON)" **false**	48	19 [0]
117	Condition	Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_UP" to "OFF"	in(LiftAlgorithm.MOTOR_ON) **true**	48	19 [0]
118	Condition	Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_UP" to "OFF"	in(LiftAlgorithm.MOTOR_ON) **false**	283	21 [0]
119	MCDC	Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_UP" to "OFF"	~in(LiftAlgorithm.MOTOR_ON) with in(LiftAlgorithm.MOTOR_ON) **true**	283	21 [0]
120	MCDC	Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_UP" to "OFF"	~in(LiftAlgorithm.MOTOR_ON) with in(LiftAlgorithm.MOTOR_ON) **false**	48	19 [0]
121	Decision	Transition "[Start]" from "HALT" to "OFF"	expression "Start" **true**	42	10 [0]

#	Type	Model Item	Description	Analysis Time (sec)	Test Case
122	Decision	Transition "[Start]" from "HALT" to "OFF"	expression "Start" **false**	40	8 [0]
123	Decision	Transition "[in(LiftAlgorithm.MOTOR_ON)]" from "OFF" to Junction #30	expression "in(LiftAlgorithm.MOTOR_ON)" **true**	37	5 [0]
124	Decision	Transition "[in(LiftAlgorithm.MOTOR_ON)]" from "OFF" to Junction #30	expression "in(LiftAlgorithm.MOTOR_ON)" **false**	4	1 [0]
125	Decision	Transition "[Direction<Pos_input]" from Junction #30 to "GO_DOWN"	expression "Direction<Pos_input" **true**	37	5 [0]
126	Decision	Transition "[Direction<Pos_input]" from Junction #30 to "GO_DOWN"	expression "Direction<Pos_input" **false**	39	6 [0]
127	Decision	Transition "[Emergency]" from "OFF" to "HALT"	expression "Emergency" **true**	47	17 [0]
128	Decision	Transition "[Emergency]" from "OFF" to "HALT"	expression "Emergency" **false**	4	1 [0]
129	Decision	Transition "[Direction>Pos_input]" from Junction #30 to Junction #31	expression "Direction>Pos_input" **true**	39	6 [0]
131	Decision	Transition "[pos == 1]" from Junction #19 to Junction #14	expression "pos == 1" **true**	45	16 [0]
132	Decision	Transition "[pos == 1]" from Junction #19 to Junction #14	expression "pos == 1" **false**	39	7 [0]
133	Decision	Transition "[pos == 2]" from Junction #26 to Junction #11	expression "pos == 2" **true**	39	7 [0]
134	Decision	Transition "[pos == 2]" from Junction #26 to Junction #11	expression "pos == 2" **false**	42	11 [0]
135	Decision	Transition "[pos == 3]" from Junction #21 to Junction #28	expression "pos == 3" **true**	42	11 [0]
136	Decision	Transition "[pos == 3]" from Junction #21 to Junction #28	expression "pos == 3" **false**	42	12 [0]

#	Type	Model Item	Description	Analysis Time (sec)	Test Case
137	Decision	Transition "[pos == 4]" from Junction #20 to Junction #17	expression "pos == 4" **true**	42	12 [0]
139	Decision	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	trigger expression **true**	41	9 [0]
140	Decision	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	trigger expression **false**	37	5 [0]
141	Condition	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	abs(indx-1.0)<0.1 **true**	45	15 [0]
142	Condition	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	abs(indx-1.0)<0.1 **false**	37	5 [0]
143	Condition	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	abs(indx-2.0)<0.1 **true**	42	11 [0]
144	Condition	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	abs(indx-2.0)<0.1 **false**	37	5 [0]
145	Condition	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	abs(indx-3.0)<0.1 **true**	42	10 [0]
146	Condition	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	abs(indx-3.0)<0.1 **false**	37	5 [0]
147	Condition	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	abs(indx-4.0)<0.1 **true**	41	9 [0]
148	Condition	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	abs(indx-4.0)<0.1 **false**	37	5 [0]
149	MCDC	Transition "[abs(indx-1.0)<0.1||	abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1||	45	15 [0]

#	Type	Model Item	Description	Analysis Time (sec)	Test Case
		abs(ind..." from Junction #8 to Junction #10	abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-1.0)<0.1 **true**		
150	MCDC	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1|| abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-1.0)<0.1 **false**	37	5 [0]
151	MCDC	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1|| abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-2.0)<0.1 **true**	42	11 [0]
152	MCDC	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1|| abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-2.0)<0.1 **false**	37	5 [0]
153	MCDC	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1|| abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-3.0)<0.1 **true**	42	10 [0]
154	MCDC	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1|| abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-3.0)<0.1 **false**	37	5 [0]
155	MCDC	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1|| abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-4.0)<0.1 **true**	41	9 [0]
156	MCDC	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1|| abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-4.0)<0.1 **false**	37	5 [0]

Objectives Unsatisfiable

Simulink Design Verifier proved these test objectives to be unreachable by any test case. This often indicates the presence of dead logic in the model. This can be a side effect of parameter configurations or minimum and maximum constraints specified on inputs. In Test Generation, this can also be a result of constraints resulting from Test Condition blocks.

#	Type	Model Item	Description	Analysis Time (sec)
80	Decision	Transition "[Direction==0]" from "DOOR_DONE" to Junction #6	expression "Direction==0" **false**	10
98	Decision	Transition "[Direction==Pos_input]{Dire..." from "REQUEST_ACCEPTED" to "DOOR_WAIT"	expression "Direction==Pos_input" **false**	10

Objectives Undecided when the Analysis was Stopped

Simulink Design Verifier was not able to process these objectives with the current options.

#	Type	Model Item	Description	Analysis Time (sec)
71	Decision	State "LiftAlgorithm"	Substate executed **"DOOR_DONE"**	-1
77	Decision	Transition "[Direction~=0]" from "DOOR_DONE" to Junction #4	expression "Direction~=0" **true**	-1
78	Decision	Transition "[Direction~=0]" from "DOOR_DONE" to Junction #4	expression "Direction~=0" **false**	-1
79	Decision	Transition "[Direction==0]" from "DOOR_DONE" to Junction #6	expression "Direction==0" **true**	-1
81	Decision	Transition "[after(5,sec)]" from "DOOR_WAIT" to "DOOR_DONE"	expression "after(5,sec)" **true**	-1
130	Decision	Transition "[Direction>Pos_input]" from Junction #30 to Junction #31	expression "Direction>Pos_input" **false**	-1
138	Decision	Transition "[pos == 4]" from Junction #20 to Junction #17	expression "pos == 4" **false**	-1

Chapter 4. Model Items

Table of Contents

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.

Chart

#:	Type	Description	Status	Test Case
1	Decision	trigger edge occurred true	Satisfied	1 [0]

#:	Type	Description	Status	Test Case
2	Decision	trigger edge occurred false	Satisfied	1 [0]
3	Condition	SubSystem: trigger(1) edge occurred true	Satisfied	3 [0]
4	Condition	SubSystem: trigger(1) edge occurred false	Satisfied	1 [0]
5	Condition	SubSystem: trigger(2) edge occurred true	Satisfied	1 [0]
6	Condition	SubSystem: trigger(2) edge occurred false	Satisfied	1 [0]
7	Condition	SubSystem: trigger(3) edge occurred true	Satisfied	19 [0]
8	Condition	SubSystem: trigger(3) edge occurred false	Satisfied	1 [0]
9	Condition	SubSystem: trigger(4) edge occurred true	Satisfied	4 [0]
10	Condition	SubSystem: trigger(4) edge occurred false	Satisfied	1 [0]
11	Condition	SubSystem: trigger(5) edge occurred true	Satisfied	14 [0]
12	Condition	SubSystem: trigger(5) edge occurred false	Satisfied	1 [0]
13	Condition	SubSystem: trigger(6) edge occurred true	Satisfied	8 [0]
14	Condition	SubSystem: trigger(6) edge occurred false	Satisfied	1 [0]
15	Condition	SubSystem: trigger(7) edge occurred true	Satisfied	5 [0]
16	Condition	SubSystem: trigger(7) edge occurred false	Satisfied	1 [0]
17	MCDC	trigger edge occurred with trigger(1) edge occurred true	Satisfied	3 [0]
18	MCDC	trigger edge occurred with trigger(1) edge occurred false	Satisfied	1 [0]
19	MCDC	trigger edge occurred with trigger(2) edge occurred true	Satisfied	2 [0]
20	MCDC	trigger edge occurred with trigger(2) edge occurred false	Satisfied	1 [0]

#:	Type	Description	Status	Test Case
21	MCDC	trigger edge occurred with trigger(3) edge occurred true	Satisfied	19 [0]
22	MCDC	trigger edge occurred with trigger(3) edge occurred false	Satisfied	1 [0]
23	MCDC	trigger edge occurred with trigger(4) edge occurred true	Satisfied	4 [0]
24	MCDC	trigger edge occurred with trigger(4) edge occurred false	Satisfied	1 [0]
25	MCDC	trigger edge occurred with trigger(5) edge occurred true	Satisfied	14 [0]
26	MCDC	trigger edge occurred with trigger(5) edge occurred false	Satisfied	1 [0]
27	MCDC	trigger edge occurred with trigger(6) edge occurred true	Satisfied	8 [0]
28	MCDC	trigger edge occurred with trigger(6) edge occurred false	Satisfied	1 [0]
29	MCDC	trigger edge occurred with trigger(7) edge occurred true	Satisfied	5 [0]
30	MCDC	trigger edge occurred with trigger(7) edge occurred false	Satisfied	1 [0]

Transition "[F1_evt&&Floor_1~=1]{Add(1)..." from "RequestWait" to "RequestWait"

#:	Type	Description	Status	Test Case
31	Decision	trigger expression true	Satisfied	5 [0]
32	Decision	trigger expression false	Satisfied	1 [0]
33	Condition	F1_evt true	Satisfied	5 [0]
34	Condition	F1_evt false	Satisfied	1 [0]

#:	Type	Description	Status	Test Case
35	Condition	Floor_1~=1 true	Satisfied	5 [0]
36	Condition	Floor_1~=1 false	Satisfied	15 [0]
37	MCDC	F1_evt&&Floor_1~=1 with F1_evt true	Satisfied	5 [0]
38	MCDC	F1_evt&&Floor_1~=1 with F1_evt false	Satisfied	1 [0]
39	MCDC	F1_evt&&Floor_1~=1 with Floor_1~=1 true	Satisfied	5 [0]
40	MCDC	F1_evt&&Floor_1~=1 with Floor_1~=1 false	Satisfied	15 [0]

Transition "[F2_evt&&Floor_2~=1]{Add(2)..." from "RequestWait" to "RequestWait"

#:	Type	Description	Status	Test Case
41	Decision	trigger expression true	Satisfied	5 [0]
42	Decision	trigger expression false	Satisfied	1 [0]
43	Condition	F2_evt true	Satisfied	5 [0]
44	Condition	F2_evt false	Satisfied	1 [0]
45	Condition	Floor_2~=1 true	Satisfied	5 [0]
46	Condition	Floor_2~=1 false	Satisfied	12 [0]
47	MCDC	F2_evt&&Floor_2~=1 with F2_evt true	Satisfied	5 [0]
48	MCDC	F2_evt&&Floor_2~=1 with F2_evt false	Satisfied	1 [0]
49	MCDC	F2_evt&&Floor_2~=1 with Floor_2~=1 true	Satisfied	5 [0]
50	MCDC	F2_evt&&Floor_2~=1 with Floor_2~=1 false	Satisfied	12 [0]

Transition "[F3_evt&&Floor_3~=1]{Add(3)..." from "RequestWait" to "RequestWait"

#:	Type	Description	Status	Test Case
51	Decision	trigger expression true	Satisfied	1 [0]
52	Decision	trigger expression false	Satisfied	5 [0]
53	Condition	F3_evt true	Satisfied	1 [0]
54	Condition	F3_evt false	Satisfied	5 [0]
55	Condition	Floor_3~=1 true	Satisfied	1 [0]
56	Condition	Floor_3~=1 false	Satisfied	18 [0]
57	MCDC	F3_evt&&Floor_3~=1 with F3_evt true	Satisfied	1 [0]
58	MCDC	F3_evt&&Floor_3~=1 with F3_evt false	Satisfied	5 [0]
59	MCDC	F3_evt&&Floor_3~=1 with Floor_3~=1 true	Satisfied	1 [0]
60	MCDC	F3_evt&&Floor_3~=1 with Floor_3~=1 false	Satisfied	18 [0]

Transition "[F4_evt&&Floor_4~=1]{Add(4)..." from "RequestWait" to "RequestWait"

#:	Type	Description	Status	Test Case
61	Decision	trigger expression true	Satisfied	5 [0]
62	Decision	trigger expression false	Satisfied	5 [0]
63	Condition	F4_evt true	Satisfied	5 [0]
64	Condition	F4_evt false	Satisfied	5 [0]
65	Condition	Floor_4~=1 true	Satisfied	5 [0]
66	Condition	Floor_4~=1 false	Satisfied	13 [0]

#:	Type	Description	Status	Test Case
67	MCDC	F4_evt&&Floor_4~=1 with F4_evt true	Satisfied	5 [0]
68	MCDC	F4_evt&&Floor_4~=1 with F4_evt false	Satisfied	5 [0]
69	MCDC	F4_evt&&Floor_4~=1 with Floor_4~=1 true	Satisfied	5 [0]
70	MCDC	F4_evt&&Floor_4~=1 with Floor_4~=1 false	Satisfied	13 [0]

State "LiftAlgorithm"

#:	Type	Description	Status	Test Case
71	Decision	Substate executed "DOOR_DONE"	Undecided	n/a
72	Decision	Substate executed "DOOR_WAIT"	Satisfied	7 [0]
73	Decision	Substate executed "MOTOR_ON"	Satisfied	5 [0]
74	Decision	Substate executed "REQUESTED_FLOOR_FOUND"	Satisfied	11 [0]
75	Decision	Substate executed "REQUEST_ACCEPTED"	Satisfied	5 [0]
76	Decision	Substate executed "WAIT"	Satisfied	1 [0]

Transition "[Direction~=0]" from "DOOR_DONE" to Junction #4

#:	Type	Description	Status	Test Case
77	Decision	expression "Direction~=0" true	Undecided	n/a
78	Decision	expression "Direction~=0" false	Undecided	n/a

Transition "[Direction==0]" from "DOOR_DONE" to Junction #6

#:	Type	Description	Status	Test Case
79	Decision	expression "Direction==0" true	Undecided	n/a
80	Decision	expression "Direction==0" false	Unsatisfiable	n/a

Transition "[after(5,sec)]" from "DOOR_WAIT" to "DOOR_DONE"

#:	Type	Description	Status	Test Case
81	Decision	expression "after(5,sec)" true	Undecided	n/a
82	Decision	expression "after(5,sec)" false	Satisfied	7 [0]

Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND"

#:	Type	Description	Status	Test Case
83	Decision	trigger expression true	Satisfied	9 [0]
84	Decision	trigger expression false	Satisfied	5 [0]
85	Condition	1==ValidFloor(Pos_input) true	Satisfied	9 [0]
86	Condition	1==ValidFloor(Pos_input) false	Satisfied	5 [0]
87	Condition	1==any(Queue(:)==round(Pos_input)) true	Satisfied	9 [0]
88	Condition	1==any(Queue(:)==round(Pos_input)) false	Satisfied	10 [0]
89	MCDC	1==ValidFloor(Pos_input)&&1==any(Queue(:)==round(Pos_input))	Satisfied	9 [0]

#:	Type	Description	Status	Test Case
		with 1==Valid-Floor(Pos_input) true		
90	MCDC	1==ValidFloor(Pos_input)&&1==any(Queue(:)==round(Pos_input)) with 1==Valid-Floor(Pos_input) false	Satisfied	5 [0]
91	MCDC	1==ValidFloor(Pos_input)&&1==any(Queue(:)==round(Pos_input)) with 1==any(Queue(:)==round(Pos_input)) true	Satisfied	9 [0]
92	MCDC	1==ValidFloor(Pos_input)&&1==any(Queue(:)==round(Pos_input)) with 1==any(Queue(:)==round(Pos_input)) false	Satisfied	10 [0]

Transition "[abs(Direction-Pos_input)<0..." from "REQUESTED_FLOOR_FOUND" to "DOOR_WAIT"

#:	Type	Description	Status	Test Case
93	Decision	expression "abs(Direction-Pos_input)<0.1" true	Satisfied	13 [0]
94	Decision	expression "abs(Direction-Pos_input)<0.1" false	Satisfied	11 [0]

Transition "[Direction~=Pos_input]" from "REQUEST_ACCEPTED" to "MOTOR_ON"

#:	Type	Description	Status	Test Case
95	Decision	expression "Direction~=Pos_input" true	Satisfied	5 [0]
96	Decision	expression "Direction~=Pos_input" false	Satisfied	7 [0]

Transition "[Direction==Pos_input]{Dire..." from "REQUEST_ACCEPTED" to "DOOR_WAIT"

#:	Type	Description	Status	Test Case
97	Decision	expression "Direction==Pos_input" true	Satisfied	7 [0]
98	Decision	expression "Direction==Pos_input" false	Unsatisfiable	n/a

Transition "[PressCount>0]{Direction=Qu..." from "WAIT" to "REQUEST_ACCEPTED"

#:	Type	Description	Status	Test Case
99	Decision	expression "PressCount>0" true	Satisfied	1 [0]
100	Decision	expression "PressCount>0" false	Satisfied	5 [0]

State "ElevatorUnitControl"

#:	Type	Description	Status	Test Case
101	Decision	Substate executed "GO_DOWN"	Satisfied	5 [0]
102	Decision	Substate executed "GO_UP"	Satisfied	19 [0]
103	Decision	Substate executed "HALT"	Satisfied	8 [0]
104	Decision	Substate executed "OFF"	Satisfied	1 [0]

Transition "[Emergency]" from "GO_DOWN" to Junction #32

#:	Type	Description	Status	Test Case
105	Decision	expression "Emergency" true	Satisfied	8 [0]

#:	Type	Description	Status	Test Case
106	Decision	expression "Emergency" false	Satisfied	5 [0]

Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_DOWN" to "OFF"

#:	Type	Description	Status	Test Case
107	Decision	expression "~in(LiftAlgorithm.MOTOR_ON)" true	Satisfied	14 [0]
108	Decision	expression "~in(LiftAlgorithm.MOTOR_ON)" false	Satisfied	5 [0]
109	Condition	in(LiftAlgorithm.MOTOR_ON) true	Satisfied	5 [0]
110	Condition	in(LiftAlgorithm.MOTOR_ON) false	Satisfied	14 [0]
111	MCDC	~in(LiftAlgorithm.MOTOR_ON) with in(LiftAlgorithm.MOTOR_ON) true	Satisfied	14 [0]
112	MCDC	~in(LiftAlgorithm.MOTOR_ON) with in(LiftAlgorithm.MOTOR_ON) false	Satisfied	5 [0]

Transition "[Emergency]" from "GO_UP" to Junction #33

#:	Type	Description	Status	Test Case
113	Decision	expression "Emergency" true	Satisfied	20 [0]
114	Decision	expression "Emergency" false	Satisfied	19 [0]

Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_UP" to "OFF"

#:	Type	Description	Status	Test Case
115	Decision	expression "~in(LiftAlgorithm.MOTOR_ON)" true	Satisfied	21 [0]
116	Decision	expression "~in(LiftAlgorithm.MOTOR_ON)" false	Satisfied	19 [0]
117	Condition	in(LiftAlgorithm.MOTOR_ON) true	Satisfied	19 [0]
118	Condition	in(LiftAlgorithm.MOTOR_ON) false	Satisfied	21 [0]
119	MCDC	~in(LiftAlgorithm.MOTOR_ON) with in(LiftAlgorithm.MOTOR_ON) true	Satisfied	21 [0]
120	MCDC	~in(LiftAlgorithm.MOTOR_ON) with in(LiftAlgorithm.MOTOR_ON) false	Satisfied	19 [0]

Transition "[Start]" from "HALT" to "OFF"

#:	Type	Description	Status	Test Case
121	Decision	expression "Start" true	Satisfied	10 [0]
122	Decision	expression "Start" false	Satisfied	8 [0]

Transition "[in(LiftAlgorithm.MOTOR_ON)]" from "OFF" to Junction #30

#:	Type	Description	Status	Test Case
123	Decision	expression "in(LiftAlgorithm.MOTOR_ON)" true	Satisfied	5 [0]
124	Decision	expression "in(LiftAlgorithm.MOTOR_ON)" false	Satisfied	1 [0]

Transition "[Direction<Pos_input]" from Junction #30 to "GO_DOWN"

#:	Type	Description	Status	Test Case
125	Decision	expression "Direction<Pos_input" true	Satisfied	5 [0]
126	Decision	expression "Direction<Pos_input" false	Satisfied	6 [0]

Transition "[Emergency]" from "OFF" to "HALT"

#:	Type	Description	Status	Test Case
127	Decision	expression "Emergency" true	Satisfied	17 [0]
128	Decision	expression "Emergency" false	Satisfied	1 [0]

Transition "[Direction>Pos_input]" from Junction #30 to Junction #31

#:	Type	Description	Status	Test Case
129	Decision	expression "Direction>Pos_input" true	Satisfied	6 [0]
130	Decision	expression "Direction>Pos_input" false	Undecided	n/a

Transition "[pos == 1]" from Junction #19 to Junction #14

#:	Type	Description	Status	Test Case
131	Decision	expression "pos == 1" true	Satisfied	16 [0]
132	Decision	expression "pos == 1" false	Satisfied	7 [0]

Transition "[pos == 2]" from Junction #26 to Junction #11

#:	Type	Description	Status	Test Case
133	Decision	expression "pos == 2" true	Satisfied	7 [0]
134	Decision	expression "pos == 2" false	Satisfied	11 [0]

Transition "[pos == 3]" from Junction #21 to Junction #28

#:	Type	Description	Status	Test Case
135	Decision	expression "pos == 3" true	Satisfied	11 [0]
136	Decision	expression "pos == 3" false	Satisfied	12 [0]

Transition "[pos == 4]" from Junction #20 to Junction #17

#:	Type	Description	Status	Test Case
137	Decision	expression "pos == 4" true	Satisfied	12 [0]
138	Decision	expression "pos == 4" false	Undecided	n/a

Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10

#:	Type	Description	Status	Test Case
139	Decision	trigger expression true	Satisfied	9 [0]
140	Decision	trigger expression false	Satisfied	5 [0]
141	Condition	abs(indx-1.0)<0.1 true	Satisfied	15 [0]

#:	Type	Description	Status	Test Case
142	Condition	abs(indx-1.0)<0.1 false	Satis-fied	5 [0]
143	Condition	abs(indx-2.0)<0.1 true	Satis-fied	11 [0]
144	Condition	abs(indx-2.0)<0.1 false	Satis-fied	5 [0]
145	Condition	abs(indx-3.0)<0.1 true	Satis-fied	10 [0]
146	Condition	abs(indx-3.0)<0.1 false	Satis-fied	5 [0]
147	Condition	abs(indx-4.0)<0.1 true	Satis-fied	9 [0]
148	Condition	abs(indx-4.0)<0.1 false	Satis-fied	5 [0]
149	MCDC	abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1|| abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-1.0)<0.1 true	Satis-fied	15 [0]
150	MCDC	abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1|| abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-1.0)<0.1 false	Satis-fied	5 [0]
151	MCDC	abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1|| abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-2.0)<0.1 true	Satis-fied	11 [0]
152	MCDC	abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1|| abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-2.0)<0.1 false	Satis-fied	5 [0]
153	MCDC	abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1|| abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-3.0)<0.1 true	Satis-fied	10 [0]
154	MCDC	abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1|| abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-3.0)<0.1 false	Satis-fied	5 [0]
155	MCDC	abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1||	Satis-fied	9 [0]

#:	Type	Description	Status	Test Case
		abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-4.0)<0.1 true		
156	MCDC	abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1|| abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-4.0)<0.1 false	Satis-fied	5 [0]

Chapter 5. Test Cases

Table of Contents

This section contains detailed information about each generated test case.

Test Case 1

Summary.

Length:	0.4 second (3 sample periods)
Objectives Satisfied:	33

Objectives.

Step	Time	Model Item	Objectives
1	0	Chart Chart Chart Chart Chart Chart Chart Chart Chart	2. trigger edge occurred false [0] 4. SubSystem: trigger(1) edge occurred false [0] 6. SubSystem: trigger(2) edge occurred false [0] 8. SubSystem: trigger(3) edge occurred false [0] 10. SubSystem: trigger(4) edge occurred false [0]

Step	Time	Model Item	Objectives
		Chart Chart Chart Chart Chart Chart	12. SubSystem: trigger(5) edge occurred false [0] 14. SubSystem: trigger(6) edge occurred false [0] 16. SubSystem: trigger(7) edge occurred false [0] 18. trigger edge occurred with trigger(1) edge occurred false [0] 20. trigger edge occurred with trigger(2) edge occurred false [0] 22. trigger edge occurred with trigger(3) edge occurred false [0] 24. trigger edge occurred with trigger(4) edge occurred false [0] 26. trigger edge occurred with trigger(5) edge occurred false [0] 28. trigger edge occurred with trigger(6) edge occurred false [0] 30. trigger edge occurred with trigger(7) edge occurred false [0]
3	0.4	Chart Chart Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait" Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait" Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait" Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait" Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait" Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait" Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait" Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait" Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait"	1. trigger edge occurred true [0] 5. SubSystem: trigger(2) edge occurred true [0] 32. trigger expression false [0] 34. F1_evt false [0] 38. F1_evt&&Floor_1~=1 with F1_evt false [0] 42. trigger expression false [0] 44. F2_evt false [0] 48. F2_evt&&Floor_2~=1 with F2_evt false [0] 51. trigger expression true [0] 53. F3_evt true [0] 55. Floor_3~=1 true [0] 57. F3_evt&&Floor_3~=1 with F3_evt true [0] 59. F3_evt&&Floor_3~=1 with Floor_3~=1 true [0] 76. Substate executed "WAIT" [0] 99. expression "PressCount>0" true [0] 104. Substate executed "OFF" [0] 124. expression "in(LiftAlgorithm.MOTOR_ON)" false [0] 128. expression "Emergency" false [0]

Step	Time	Model Item	Objectives
		Transition "[F3_evt&&Floor_3~=1]{Add(3)..." from "RequestWait" to "RequestWait" Transition "[F3_evt&&Floor_3~=1]{Add(3)..." from "RequestWait" to "RequestWait" State "LiftAlgorithm" Transition "[PressCount>0]{Direction=Qu..." from "WAIT" to "REQUEST_ACCEPTED" State "ElevatorUnitControl" Transition "[in(LiftAlgorithm.MOTOR_ON)]" from "OFF" to Junction #30 Transition "[Emergency]" from "OFF" to "HALT"	

Generated Input Data.

Time	**0-0.2**	**0.4**
Step	**1-2**	**3**
Pos_input	3.5648	1.5154
input events	[1.9184 -5.4067 9.8142 -3.321 5.9365 -6.4012 2.414]	[2.6094 1.6229 -4.7853 1.162 -6.7752 -5.4024 -4.0808]

Test Case 2

Summary.

Length:	0.2 second (2 sample periods)
Objectives Satisfied:	1

Objectives.

Step	Time	Model Item	Objectives
2	0.2	Chart	19. trigger edge occurred with trigger(2) edge occurred true [0]

Generated Input Data.

Time	**0**	**0.2**
Step	**1**	**2**
Pos_input	1	1
input events	[1 0 1 1 1 1 1]	[0 1 -1 -1 -1 -1 -1]

Test Case 3

Summary.

Length:	0.2 second (2 sample periods)
Objectives Satisfied:	2

Objectives.

Step	Time	Model Item	Objectives
2	0.2	Chart Chart	3. SubSystem: trigger(1) edge occurred true [0] 17. trigger edge occurred with trigger(1) edge occurred true [0]

Generated Input Data.

Time	0	0.2
Step	**1**	**2**
Pos_input	1	1
input events	[0 -1 0 0 0 0 -1]	[1 -1 -1 -1 -1 -1 -1]

Test Case 4

Summary.

Length:	0.2 second (2 sample periods)
Objectives Satisfied:	2

Objectives.

Step	Time	Model Item	Objectives
2	0.2	Chart Chart	9. SubSystem: trigger(4) edge occurred true [0] 23. trigger edge occurred with trigger(4) edge occurred true [0]

Generated Input Data.

Time	0	0.2
Step	**1**	**2**
Pos_input	1	1
input events	[1 1 1 0 -1 -1 -1]	[0 -1 -1 1 -1 -1 -1]

Test Case 5

Summary.

Length:	0.8 second (5 sample periods)
Objectives Satisfied:	46

Objectives.

Step	Time	Model Item	Objectives
2	0.2	Chart Chart	15. SubSystem: trigger(7) edge occurred true [0] 29. trigger edge occurred with trigger(7) edge occurred true [0]
3	0.4	Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait" Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait" Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait" Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait" Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait" Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait" Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait" Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait" Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait" Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait" Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait"	41. trigger expression true [0] 43. F2_evt true [0] 45. Floor_2~=1 true [0] 47. F2_evt&&Floor_2~=1 with F2_evt true [0] 49. F2_evt&&Floor_2~=1 with Floor_2~=1 true [0] 52. trigger expression false [0] 54. F3_evt false [0] 58. F3_evt&&Floor_3~=1 with F3_evt false [0] 61. trigger expression true [0] 62. trigger expression false [0] 63. F4_evt true [0] 64. F4_evt false [0] 65. Floor_4~=1 true [0] 67. F4_evt&&Floor_4~=1 with F4_evt true [0] 68. F4_evt&&Floor_4~=1 with F4_evt false [0] 69. F4_evt&&Floor_4~=1 with Floor_4~=1 true [0] 75. Substate executed "REQUEST_ACCEPTED" [0] 95. expression "Direction~=Pos_input" true [0] 100. expression "PressCount>0" false [0] 123. expression "in(LiftAlgorithm.MOTOR_ON)" true [0] 125. expression "Direction<Pos_input" true [0]

Step	Time	Model Item	Objectives
		Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait" Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait" Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait" Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait" Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait" State "LiftAlgorithm" Transition "[Direction~=Pos_input]" from "REQUEST_ACCEPTED" to "MOTOR_ON" Transition "[PressCount>0]{Direction=Qu..." from "WAIT" to "REQUEST_ACCEPTED" Transition "[in(LiftAlgorithm.MOTOR_ON)]" from "OFF" to Junction #30 Transition "[Direction<Pos_input]" from Junction #30 to "GO_DOWN"	
5	0.8	Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait" Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait" Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait" Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait" Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait" State "LiftAlgorithm" Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND" Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND"	31. trigger expression true [0] 33. F1_evt true [0] 35. Floor_1~=1 true [0] 37. F1_evt&&Floor_1~=1 with F1_evt true [0] 39. F1_evt&&Floor_1~=1 with Floor_1~=1 true [0] 73. Substate executed "MOTOR_ON" [0] 84. trigger expression false [0] 86. 1==ValidFloor(Pos_input) false [0] 90. 1==ValidFloor(Pos_input)&&1==any(Queue(:)==round(Pos_input)) with 1==ValidFloor(Pos_input) false [0] 101. Substate executed "GO_DOWN" [0] 106. expression "Emergency" false [0] 108. expression "~in(LiftAlgorithm.MOTOR_ON)" false [0] 109. in(LiftAlgorithm.MOTOR_ON) true [0]

<table>
<tr><th>Step</th><th>Time</th><th>Model Item</th><th>Objectives</th></tr>
<tr><td></td><td></td><td>Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND"
State "ElevatorUnitControl"
Transition "[Emergency]" from "GO_DOWN" to Junction #32
Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_DOWN" to "OFF"
Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_DOWN" to "OFF"
Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_DOWN" to "OFF"
Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10
Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10
Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10
Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10
Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10
Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10
Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10
Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10
Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10</td><td>112. ~in(LiftAlgorithm.MOTOR_ON) with in(LiftAlgorithm.MOTOR_ON) false [0]
140. trigger expression false [0]
142. abs(indx-1.0)<0.1 false [0]
144. abs(indx-2.0)<0.1 false [0]
146. abs(indx-3.0)<0.1 false [0]
148. abs(indx-4.0)<0.1 false [0]
150. abs(indx-1.0)<0.1||abs(indx-2.0)<0.1||abs(indx-3.0)<0.1||abs(indx-4.0)<0.1 with abs(indx-1.0)<0.1 false [0]
152. abs(indx-1.0)<0.1||abs(indx-2.0)<0.1||abs(indx-3.0)<0.1||abs(indx-4.0)<0.1 with abs(indx-2.0)<0.1 false [0]
154. abs(indx-1.0)<0.1||abs(indx-2.0)<0.1||abs(indx-3.0)<0.1||abs(indx-4.0)<0.1 with abs(indx-3.0)<0.1 false [0]
156. abs(indx-1.0)<0.1||abs(indx-2.0)<0.1||abs(indx-3.0)<0.1||abs(indx-4.0)<0.1 with abs(indx-4.0)<0.1 false [0]</td></tr>
</table>

Generated Input Data.

Time	**0**	**0.2**	**0.4-0.6**	**0.8**
Step	**1**	**2**	**3-4**	**5**
Pos_input	1	1	3.5648	1.5154
input events	[1 1 1 1 1 1 -1]	[-1 -1 -1 -1 -1 -1 0]	[1.9184 -5.4067 9.8142 -3.321 5.9365 -6.4012 2.414]	[2.6094 1.6229 -4.7853 1.162 -6.7752 -5.4024 -4.0808]

Test Case 6

Summary.

Length:	0.4 second (3 sample periods)
Objectives Satisfied:	2

Objectives.

Step	Time	Model Item	Objectives
3	0.4	Transition "[Direction<Pos_input]" from Junction #30 to "GO_DOWN" Transition "[Direction>Pos_input]" from Junction #30 to Junction #31	126. expression "Direction<Pos_input" false [0] 129. expression "Direction>Pos_input" true [0]

Generated Input Data.

Time	**0**	**0.2**	**0.4**
Step	**1**	**2**	**3**
Pos_input	1	1	1
input events	[1 1 1 1 1 1 -1]	[-1 -1 -1 -1 -1 -1 0]	[1 -1 1 -1 1 -1 1]

Test Case 7

Summary.

Length:	0.8 second (5 sample periods)
Objectives Satisfied:	6

Objectives.

Step	Time	Model Item	Objectives
3	0.4	Transition "[Direction~=Pos_input]" from "REQUEST_ACCEPTED" to "MOTOR_ON" Transition "[Direction==Pos_input]{Dire..." from "REQUEST_ACCEPTED" to "DOOR_WAIT" Transition "[pos == 1]" from Junction #19 to Junction #14 Transition "[pos == 2]" from Junction #26 to Junction #11	96. expression "Direction~=Pos_input" false [0] 97. expression "Direction==Pos_input" true [0] 132. expression "pos == 1" false [0] 133. expression "pos == 2" true [0]
5	0.8	State "LiftAlgorithm"	72. Substate executed "DOOR_WAIT" [0] 82. expression "after(5,sec)" false [0]

Step	Time	Model Item	Objectives
		Transition "[after(5,sec)]" from "DOOR_WAIT" to "DOOR_DONE"	

Generated Input Data.

Time	0	0.2	0.4-0.6	0.8
Step	**1**	**2**	**3-4**	**5**
Pos_input	1	1	2	1.3485
input events	[1 1 1 1 1 1 -1]	[-1 -1 -1 -1 -1 -1 0]	[1 -1 1 -1 1 -1 1]	[7.0316 -9.4252 -2.8942 6.3506 7.7598 6.546 -9.3335]

Test Case 8

Summary.

Length:	0.8 second (5 sample periods)
Objectives Satisfied:	5

Objectives.

Step	Time	Model Item	Objectives
2	0.2	Chart Chart	13. SubSystem: trigger(6) edge occurred true [0] 27. trigger edge occurred with trigger(6) edge occurred true [0]
3	0.4	Transition "[Emergency]" from "GO_DOWN" to Junction #32	105. expression "Emergency" true [0]
5	0.8	State "ElevatorUnitControl" Transition "[Start]" from "HALT" to "OFF"	103. Substate executed "HALT" [0] 122. expression "Start" false [0]

Generated Input Data.

Time	0	0.2	0.4-0.6	0.8
Step	**1**	**2**	**3-4**	**5**
Pos_input	1	1	3.5648	1.5154
input events	[1 1 1 1 1 0 1]	[-1 -1 -1 -1 -1 1 0]	[1.9184 -5.4067 9.8142 -3.321 5.9365 -6.4012 2.414]	[2.6094 1.6229 -4.7853 1.162 -6.7752 -5.4024 -4.0808]

Test Case 9

Summary.

Length:	0.4 second (3 sample periods)
Objectives Satisfied:	8

Objectives.

Step	Time	Model Item	Objectives
3	0.4	Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND" Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND" Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND" Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND" Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND" Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10 Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10 Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10	83. trigger expression true [0] 85. 1==ValidFloor(Pos_input) true [0] 87. 1==any(Queue(:)==round(Pos_input)) true [0] 89. 1==ValidFloor(Pos_input)&&1==any(Queue(:)==round(Pos_input)) with 1==ValidFloor(Pos_input) true [0] 91. 1==ValidFloor(Pos_input)&&1==any(Queue(:)==round(Pos_input)) with 1==any(Queue(:)==round(Pos_input)) true [0] 139. trigger expression true [0] 147. abs(indx-4.0)<0.1 true [0] 155. abs(indx-1.0)<0.1||abs(indx-2.0)<0.1||abs(indx-3.0)<0.1||abs(indx-4.0)<0.1 with abs(indx-4.0)<0.1 true [0]

Generated Input Data.

Time	**0**	**0.2**	**0.4**
Step	**1**	**2**	**3**
Pos_input	1	1	3.95
input events	[1 1 1 1 1 0 1]	[-1 -1 -1 -1 -1 1 0]	[1 -1 1 -1 1 -1 1]

Test Case 10

Summary.

Length:	0.8 second (5 sample periods)

Objectives Satisfied: 5

Objectives.

Step	Time	Model Item	Objectives
3	0.4	Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND" Transition "[1==ValidFloor(Pos_input)&&..." from "MOTOR_ON" to "REQUESTED_FLOOR_FOUND" Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10 Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10	88. 1==any(Queue(:)==round(Pos_input)) false [0] 92. 1==ValidFloor(Pos_input)&&1==any(Queue(:)==round(Pos_input)) with 1==any(Queue(:)==round(Pos_input)) false [0] 145. abs(indx-3.0)<0.1 true [0] 153. abs(indx-1.0)<0.1||abs(indx-2.0)<0.1||abs(indx-3.0)<0.1||abs(indx-4.0)<0.1 with abs(indx-3.0)<0.1 true [0]
5	0.8	Transition "[Start]" from "HALT" to "OFF"	121. expression "Start" true [0]

Generated Input Data.

Time	0	0.2	0.4-0.6	0.8
Step	**1**	**2**	**3-4**	**5**
Pos_input	1	1	3	1.3485
input events	[1 1 1 1 1 0 1]	[-1 -1 -1 -1 -1 1 0]	[1 -1 1 -1 1 -1 1]	[7.0316 -9.4252 -2.8942 6.3506 7.7598 6.546 -9.3335]

Test Case 11

Summary.

Length: 0.8 second (5 sample periods)
Objectives Satisfied: 6

Objectives.

Step	Time	Model Item	Objectives
3	0.4	Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10 Transition "[abs(indx-1.0)<0.1||abs(ind..." from Junction #8 to Junction #10	143. abs(indx-2.0)<0.1 true [0] 151. abs(indx-1.0)<0.1||abs(indx-2.0)<0.1||abs(indx-3.0)<0.1||abs(indx-4.0)<0.1 with abs(indx-2.0)<0.1 true [0]

Step	Time	Model Item	Objectives
5	0.8	State "LiftAlgorithm" Transition "[abs(Direction-Pos_input)<0..." from "REQUESTED_FLOOR_FOUND" to "DOOR_WAIT" Transition "[pos == 2]" from Junction #26 to Junction #11 Transition "[pos == 3]" from Junction #21 to Junction #28	74. Substate executed "REQUESTED_FLOOR_FOUND" [0] 94. expression "abs(Direction-Pos_input)<0.1" false [0] 134. expression "pos == 2" false [0] 135. expression "pos == 3" true [0]

Generated Input Data.

Time	0	0.2	0.4-0.6	0.8
Step	**1**	**2**	**3-4**	**5**
Pos_input	1	1	2.05	2.8355
input events	[1 1 1 1 1 0 1]	[-1 -1 -1 -1 -1 1 0]	[1 -1 1 -1 1 -1 1]	[9.1863 -3.7454 -8.8499 3.7371 -5.2662 -4.2185 -7.5324]

Test Case 12

Summary.

Length:	1.2 seconds (7 sample periods)
Objectives Satisfied:	4

Objectives.

Step	Time	Model Item	Objectives
5	0.8	Transition "[pos == 3]" from Junction #21 to Junction #28 Transition "[pos == 4]" from Junction #20 to Junction #17	136. expression "pos == 3" false [0] 137. expression "pos == 4" true [0]
7	1.2	Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait" Transition "[F2_evt&&Floor_2~=1] {Add(2)..." from "RequestWait" to "RequestWait"	46. Floor_2~=1 false [0] 50. F2_evt&&Floor_2~=1 with Floor_2~=1 false [0]

Generated Input Data.

Time	**0**	**0.2**	**0.4-0.6**	**0.8-1**	**1.2**
Step	**1**	**2**	**3-4**	**5-6**	7
Pos_input	1	1	2.05	3.5	1.2294
input events	[1 1 1 1 1 0 1]	[-1 -1 -1 -1 -1 1 0]	[1 -1 1 -1 1 -1 1]	[1 -1 -1 1 -1 -1 -1]	[6.614 -0.33404 2.967 -4.1488 -1.8915 -6.792 7.1612]

Test Case 13

Summary.

Length:	1.2 seconds (7 sample periods)
Objectives Satisfied:	3

Objectives.

Step	**Time**	**Model Item**	**Objectives**
5	0.8	Transition "[abs(Direction-Pos_input)<0..." from "REQUESTED_FLOOR_FOUND" to "DOOR_WAIT"	93. expression "abs(Direction-Pos_input)<0.1" true [0]
7	1.2	Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait" Transition "[F4_evt&&Floor_4~=1] {Add(4)..." from "RequestWait" to "RequestWait"	66. Floor_4~=1 false [0] 70. F4_evt&&Floor_4~=1 with Floor_4~=1 false [0]

Generated Input Data.

Time	**0**	**0.2**	**0.4-0.6**	**0.8-1**	**1.2**
Step	**1**	**2**	**3-4**	**5-6**	7
Pos_input	1	1	2.05	2.05	3.7719
input events	[1 1 1 1 1 0 1]	[-1 -1 -1 -1 -1 1 0]	[1 -1 1 -1 1 -1 1]	[1 -1 -1 1 -1 -1 -1]	[4.7554 -5.4894 2.7378 4.0146 8.7463 -1.9468 1.5922]

Test Case 14

Summary.

Length:	0.8 second (5 sample periods)

Objectives Satisfied: 5

Objectives.

Step	Time	Model Item	Objectives
2	0.2	Chart Chart	11. SubSystem: trigger(5) edge occurred true [0] 25. trigger edge occurred with trigger(5) edge occurred true [0]
5	0.8	Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_DOWN" to "OFF" Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_DOWN" to "OFF" Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_DOWN" to "OFF"	107. expression "~in(LiftAlgorithm.MOTOR_ON)" true [0] 110. in(LiftAlgorithm.MOTOR_ON) false [0] 111. ~in(LiftAlgorithm.MOTOR_ON) with in(LiftAlgorithm.MOTOR_ON) true [0]

Generated Input Data.

Time	**0**	**0.2**	**0.4-0.6**	**0.8**
Step	**1**	**2**	**3-4**	**5**
Pos_input	1	1	2.5019	2.0349
input events	[1 1 1 1 0 -1 -1]	[-1 -1 -1 -1 1 -1 -1]	[-5.7287 4.4479 -2.1928 0.77476 -1.1315 -7.3162 -9.3507]	[-2.5158 -9.2854 9.3544 -1.5533 -1.814 -8.802 -9.5158]

Test Case 15

Summary.

Length: 1.2 seconds (7 sample periods)
Objectives Satisfied: 4

Objectives.

Step	Time	Model Item	Objectives
5	0.8	Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10 Transition "[abs(indx-1.0)<0.1|| abs(ind..." from Junction #8 to Junction #10	141. abs(indx-1.0)<0.1 true [0] 149. abs(indx-1.0)<0.1|| abs(indx-2.0)<0.1||abs(indx-3.0)<0.1|| abs(indx-4.0)<0.1 with abs(indx-1.0)<0.1 true [0]

Step	Time	Model Item	Objectives
7	1.2	Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait" Transition "[F1_evt&&Floor_1~=1] {Add(1)..." from "RequestWait" to "RequestWait"	36. Floor_1~=1 false [0] 40. F1_evt&&Floor_1~=1 with Floor_1~=1 false [0]

Generated Input Data.

Time	0	0.2	0.4-0.6	0.8-1	1.2
Step	**1**	**2**	**3-4**	**5-6**	**7**
Pos_input	1	1	2.5019	1	2.6044
input events	[1 1 1 1 0 -1 -1]	[-1 -1 -1 -1 1 -1 -1]	[-5.7287 4.4479 -2.1928 0.77476 -1.1315 -7.3162 -9.3507]	[-1 -1 1 -1 -1 -1 -1]	[3.2427 2.4605 2.786 -0.21814 -3.0676 -5.0211 -3.0358]

Test Case 16

Summary.

Length:	1.2 seconds (7 sample periods)
Objectives Satisfied:	1

Objectives.

Step	Time	Model Item	Objectives
7	1.2	Transition "[pos == 1]" from Junction #19 to Junction #14	131. expression "pos == 1" true [0]

Generated Input Data.

Time	0	0.2	0.4-0.6	0.8-1	1.2
Step	**1**	**2**	**3-4**	**5-6**	**7**
Pos_input	1	1	2.5019	1	1.1
input events	[1 1 1 1 0 -1 -1]	[-1 -1 -1 -1 1 -1 -1]	[-5.7287 4.4479 -2.1928 0.77476 -1.1315	[-1 -1 1 -1 -1 -1 -1]	[1 1 1 -1 -1 -1 -1]

Time	0	0.2	0.4-0.6	0.8-1	1.2
Step	1	2	3-4	5-6	7
			-7.3162 -9.3507]		

Test Case 17

Summary.

Length:	1.4 seconds (8 sample periods)
Objectives Satisfied:	1

Objectives.

Step	Time	Model Item	Objectives
8	1.4	Transition "[Emergency]" from "OFF" to "HALT"	127. expression "Emergency" true [0]

Generated Input Data.

Time	0	0.2	0.4-0.6	0.8-1.2	1.4
Step	1	2	3-4	5-7	8
Pos_input	1	1	2.5019	1	2.9741
input events	[1 1 1 1 0 -1 -1]	[-1 -1 -1 -1 1 -1 -1]	[-5.7287 4.4479 -2.1928 0.77476 -1.1315 -7.3162 -9.3507]	[-1 -1 1 -1 -1 -1 -1]	[7.6185 8.8469 -0.85255 -8.8897 -1.6046 -9.7155 3.7277]

Test Case 18

Summary.

Length:	1.4 seconds (8 sample periods)
Objectives Satisfied:	2

Objectives.

Step	Time	Model Item	Objectives
8	1.4	Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait"	56. Floor_3~=1 false [0] 60. F3_evt&&Floor_3~=1 with Floor_3~=1 false [0]

Step	Time	Model Item	Objectives
		Transition "[F3_evt&&Floor_3~=1] {Add(3)..." from "RequestWait" to "RequestWait"	

Generated Input Data.

Time	0	0.2	0.4-0.6	0.8-1.2	1.4
Step	**1**	**2**	**3-4**	**5-7**	**8**
Pos_input	1	1	2.5019	1	1.4046
input events	[1 1 1 1 0 -1 -1]	[-1 -1 -1 -1 1 -1 -1]	[-5.7287 4.4479 -2.1928 0.77476 -1.1315 -7.3162 -9.3507]	[-1 -1 1 -1 -1 -1 -1]	[7.7193 -8.1239 -9.8275 2.56 4.6685 8.909 -9.2178]

Test Case 19

Summary.

Length:	0.8 second (5 sample periods)
Objectives Satisfied:	7

Objectives.

Step	Time	Model Item	Objectives
2	0.2	Chart Chart	7. SubSystem: trigger(3) edge occurred true [0] 21. trigger edge occurred with trigger(3) edge occurred true [0]
5	0.8	State "ElevatorUnitControl" Transition "[Emergency]" from "GO_UP" to Junction #33 Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_UP" to "OFF" Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_UP" to "OFF" Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_UP" to "OFF"	102. Substate executed "GO_UP" [0] 114. expression "Emergency" false [0] 116. expression "~in(LiftAlgorithm.MOTOR_ON)" false [0] 117. in(LiftAlgorithm.MOTOR_ON) true [0] 120. ~in(LiftAlgorithm.MOTOR_ON) with in(LiftAlgorithm.MOTOR_ON) false [0]

Generated Input Data.

Time	**0**	**0.2**	**0.4-0.6**	**0.8**
Step	**1**	**2**	**3-4**	**5**
Pos_input	1	1	3.5648	1.5154
input events	[1 1 0 -1 -1 -1 -1]	[0 -1 1 -1 -1 -1 -1]	[1.9184 -5.4067 9.8142 -3.321 5.9365 -6.4012 2.414]	[2.6094 1.6229 -4.7853 1.162 -6.7752 -5.4024 -4.0808]

Test Case 20

Summary.

Length:	0.2 second (2 sample periods)
Objectives Satisfied:	1

Objectives.

Step	**Time**	**Model Item**	**Objectives**
2	0.2	Transition "[Emergency]" from "GO_UP" to Junction #33	113. expression "Emergency" true [0]

Generated Input Data.

Time	**0**	**0.2**
Step	**1**	**2**
Pos_input	2.95	1.5
input events	[0 -1 0 -1 0 0 -1]	[-1 -1 -0.05 1 0.05 0.05 1]

Test Case 21

Summary.

Length:	0.2 second (2 sample periods)
Objectives Satisfied:	3

Objectives.

Step	**Time**	**Model Item**	**Objectives**
2	0.2	Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_UP" to "OFF" Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_UP" to "OFF" Transition "[~in(LiftAlgorithm.MOTOR_ON)]" from "GO_UP" to "OFF"	115. expression "~in(LiftAlgorithm.MOTOR_ON)" true [0] 118. in(LiftAlgorithm.MOTOR_ON) false [0]

Step	Time	Model Item	Objectives
			119. ~in(LiftAlgorithm.MOTOR_ON) with in(LiftAlgorithm.MOTOR_ON) true [0]

Generated Input Data.

Time	**0**	**0.2**
Step	**1**	**2**
Pos_input	1.55	2.95
input events	[1 0 0 -1 -1 -1 -1]	[0.05 -1 0.05 0 0 0 0]