

# Report Generated by Test Manager

**Title:** SIL - Test Report  
**Author:** Gianvincenzo Daddabbo, Gaetano Gallo,  
Alberto Ruggeri, Martina Tedesco, Aless  
andro Toschi  
**Date:** 17-Jun-2021 16:30:10

## Test Environment

Platform: PCWIN64  
MATLAB: (R2021a)

## Summary

Name	Outcome	Duration (Seconds)
<a href="#">Results: 2021-Jun-17 14:23:59</a>	12  3 	2462.086
 <a href="#">SIL_Test</a>	12  3 	2462.087
 <a href="#">Avoidance in real scenario (Hyundai Azera)</a>	2  1 	474.023
 <a href="#">A14 Highway</a>		132.402
 <a href="#">Puglia</a>		285.308
 <a href="#">Indianapolis Motor Speedway</a>		54.692
 <a href="#">Avoidance in real scenario (BMW 325i)</a>	3 	494.063
 <a href="#">A14 Highway</a>		124.882
 <a href="#">Puglia</a>		307.263
 <a href="#">Indianapolis Motor Speedway</a>		60.567
 <a href="#">Avoidance in real scenario (Ford E150)</a>	2  1 	543.172
 <a href="#">A14 Highway</a>		113.857
 <a href="#">Puglia</a>		361.191
 <a href="#">Indianapolis Motor Speedway</a>		65.951
 <a href="#">Avoidance in real scenario (Suzuki Samurai)</a>	3 	508.518
 <a href="#">A14 Highway</a>		116.153
 <a href="#">Puglia</a>		331.407
 <a href="#">Indianapolis Motor Speedway</a>		59.57
 <a href="#">Avoidance in real scenario (Volkswagen Beetle)</a>	2  1 	439.01
 <a href="#">A14 Highway</a>		101.897
 <a href="#">Puglia</a>		285.83
 <a href="#">Indianapolis Motor Speedway</a>		50.12

## Results: 2021-Jun-17 14:23:59

Result Type: Result Set  
Parent: None  
Start Time: 17-Jun-2021 14:24:47  
End Time: 17-Jun-2021 15:05:49  
Outcome: Total: 15, Passed: 12, Failed: 3

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## SIL\_Test

### Test Result Information

Result Type: Test File Result  
Parent: [Results: 2021-Jun-17 14:23:59](#)  
Start Time: 17-Jun-2021 14:24:47  
End Time: 17-Jun-2021 15:05:49  
Outcome: Total: 15, Passed: 12, Failed: 3  
Description:

This report describes the tests performed for the Obstacle Avoidance regarding two dynamic obstacles moving at a lower speed respect to the ego-vehicle and a set of static obstacles considering three real scenarios.

### Test Suite Information

Name: SIL\_Test

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## Avoidance in real scenario (Hyundai Azera)

### Test Result Information

Result Type: Test Suite Result  
Parent: [SIL\\_Test](#)  
Start Time: 17-Jun-2021 14:24:47  
End Time: 17-Jun-2021 14:32:41  
Outcome: Total: 3, Passed: 2, Failed: 1

## Test Suite Information

Name: Avoidance in real scenario (Hyundai Azera)

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## A14 Highway

### Test Result Information

Result Type: Test Case Result

Parent: [Avoidance in real scenario \(Hyundai Azera\)](#)

Start Time: 17-Jun-2021 14:24:46

End Time: 17-Jun-2021 14:26:59

Outcome: **Passed**

### Test Case Information

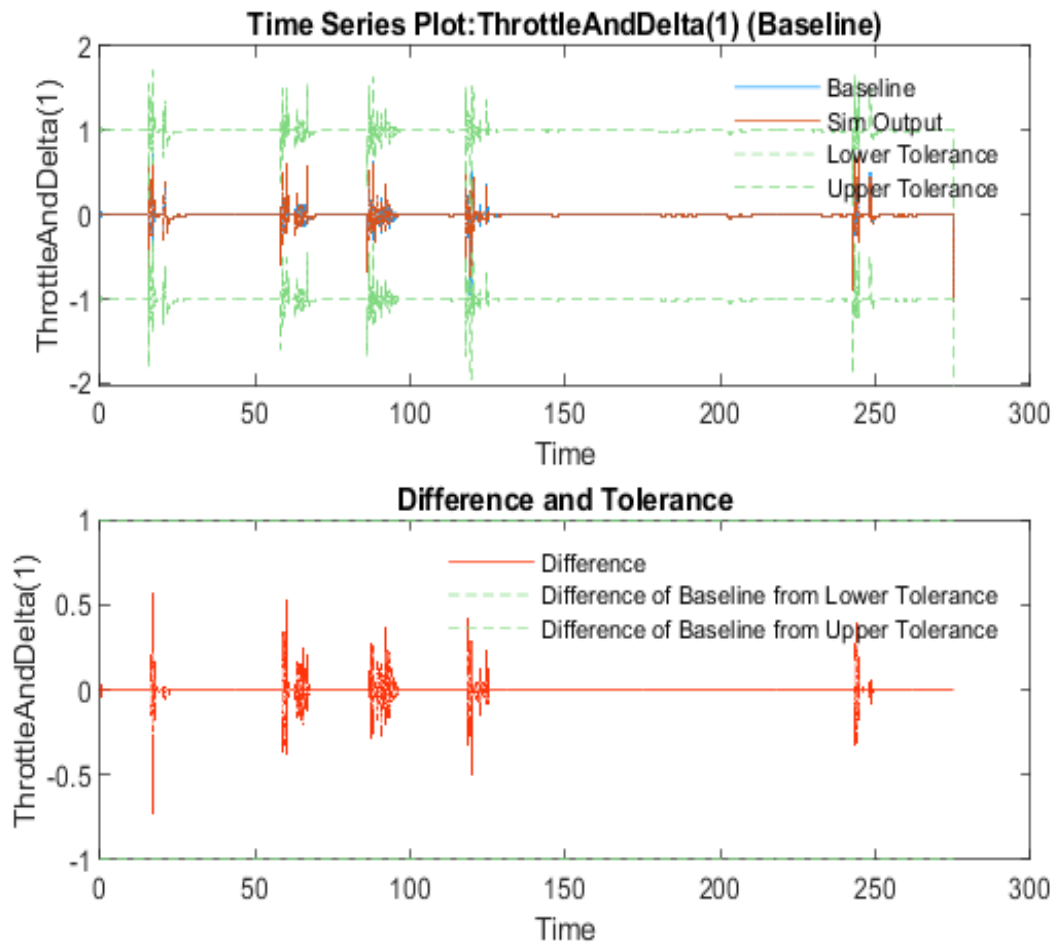
Name: A14 Highway

Type: Equivalence Test

### Equivalence Comparison

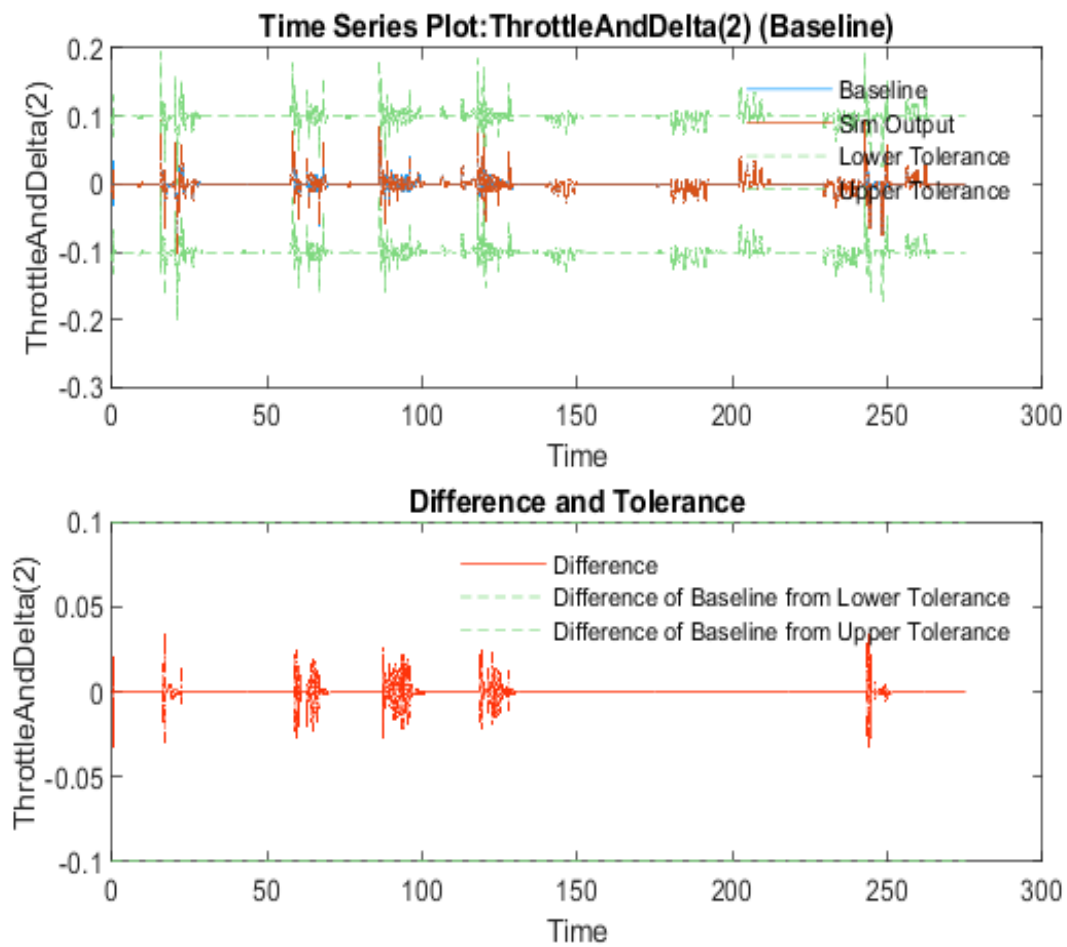
Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync	Link to Plot
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.72	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>
✔ ThrottleAndDelta(2)	0.1	0.01	0	0	0.034	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.72	double		Continuous	double		Continuous	zoh	union



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Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type	Units	Sample Time	Data Type	Units	Sample Time	Interp	Sync
✓ ThrottleAndDelta(2)	0.1	0.01	0	0	0.034	double	1	Continuous	double	2	Continuous	zoh	union



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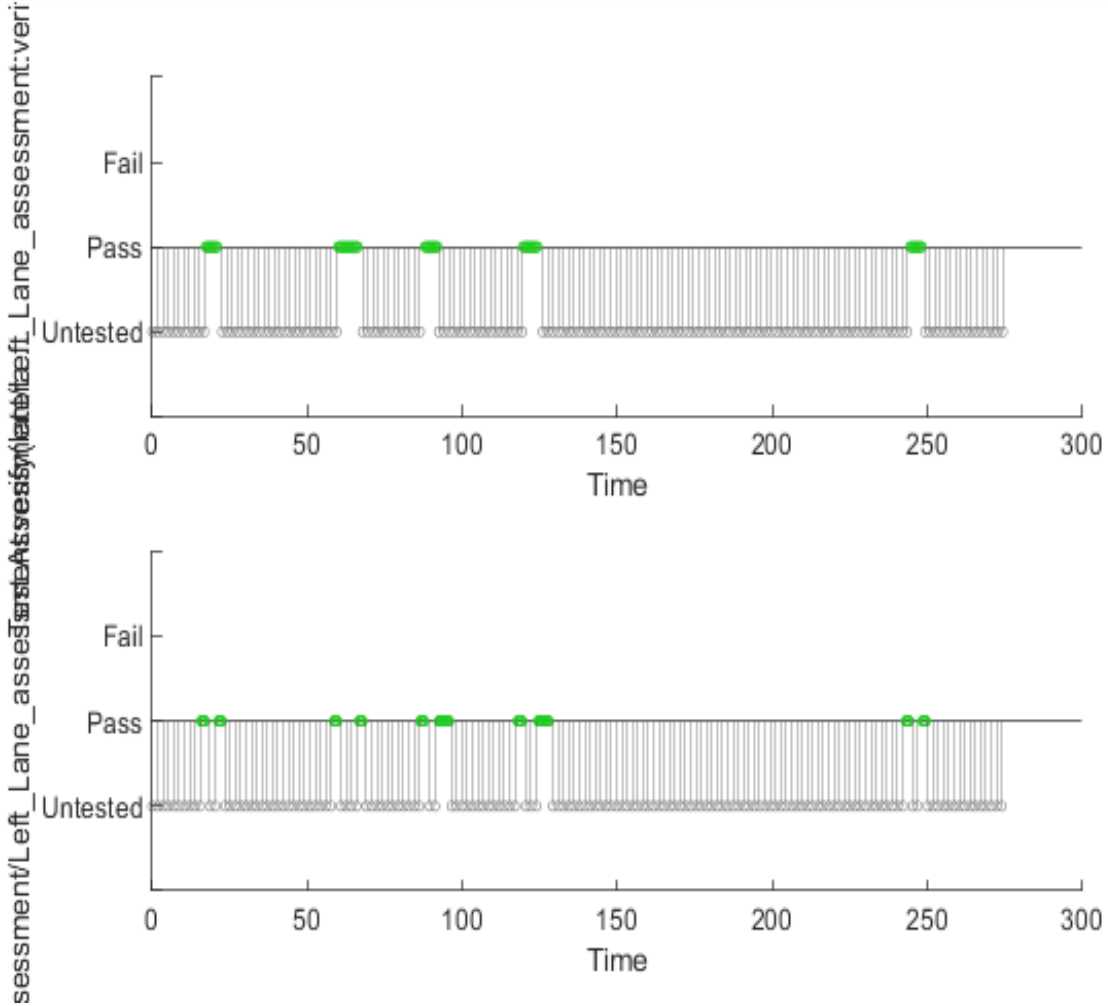
## Verify Result 1

Name		Link to Plot
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓	Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓	Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓	Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

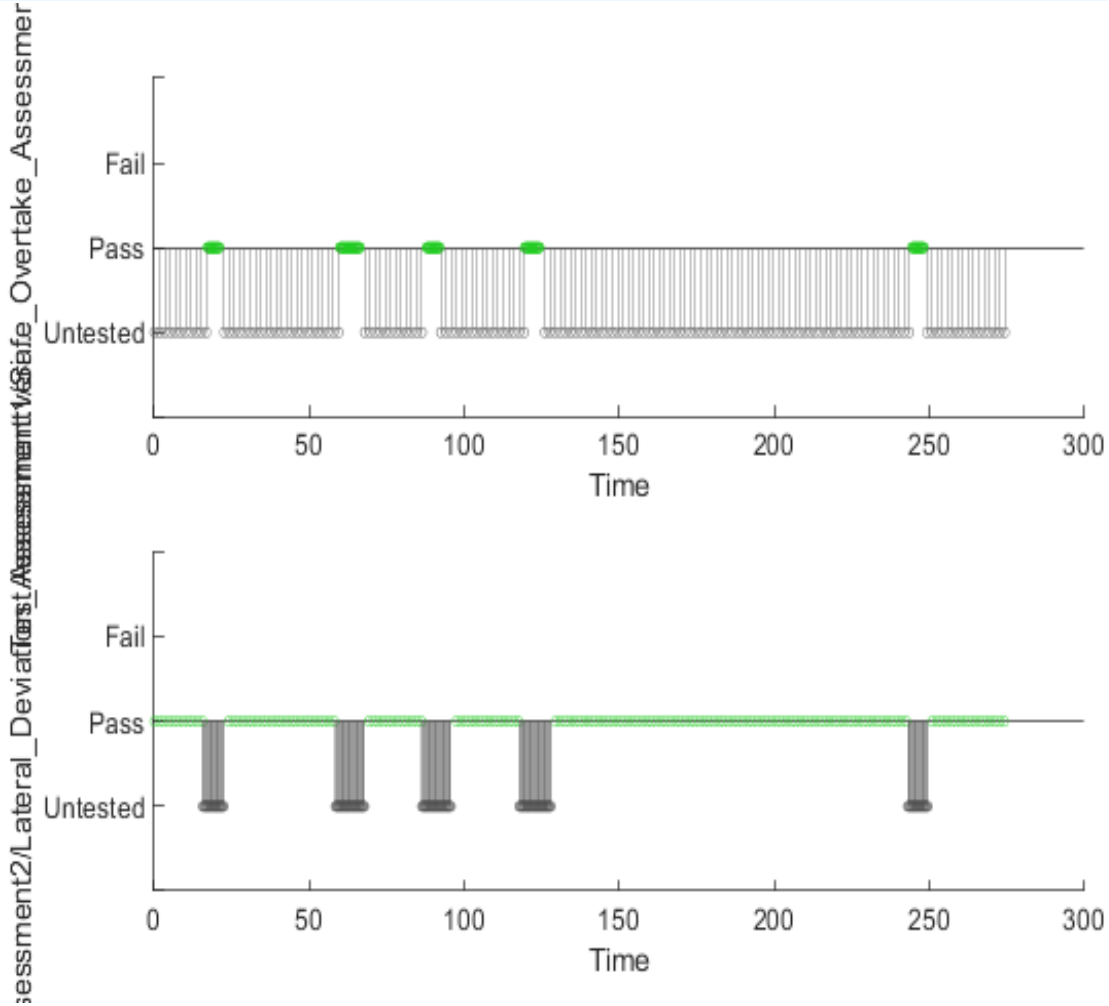


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)



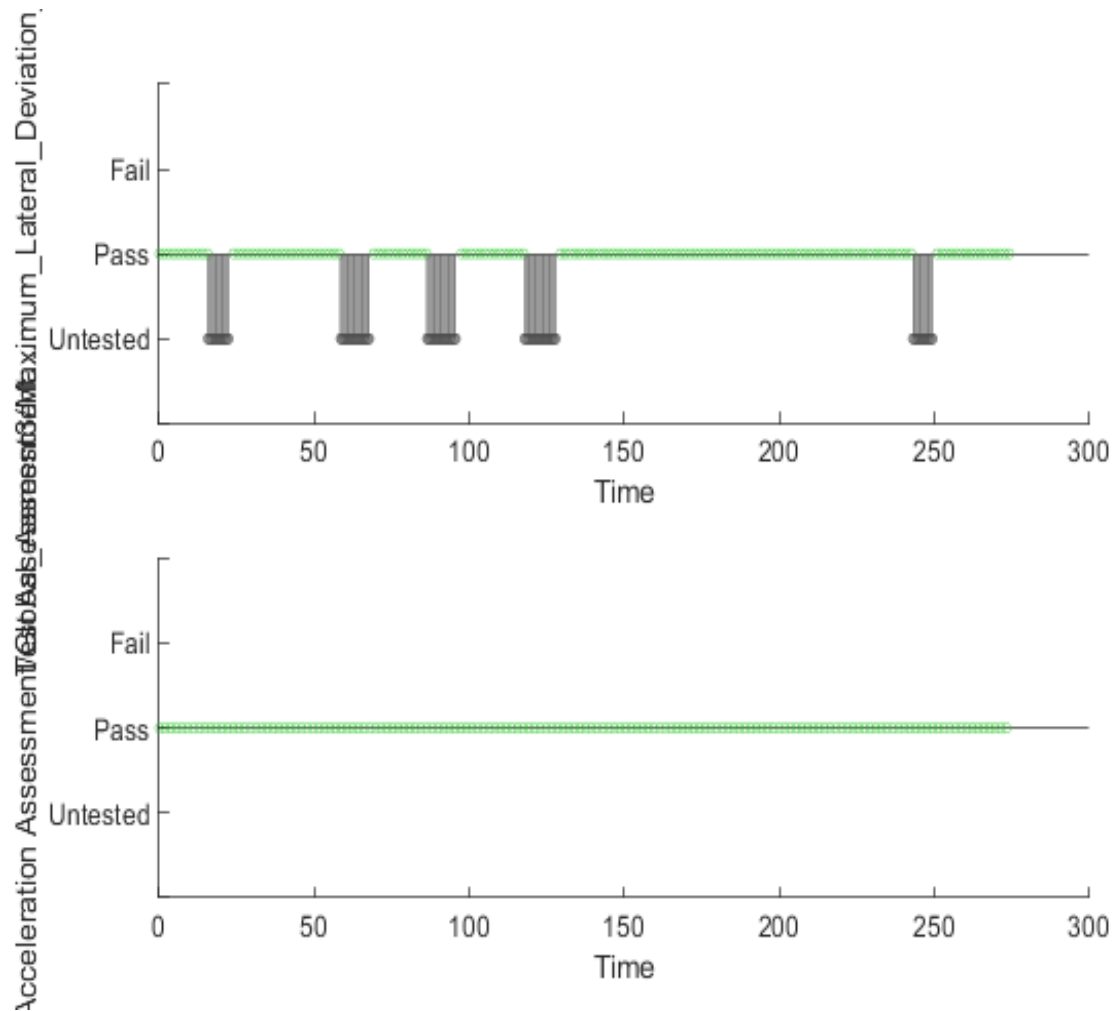
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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)





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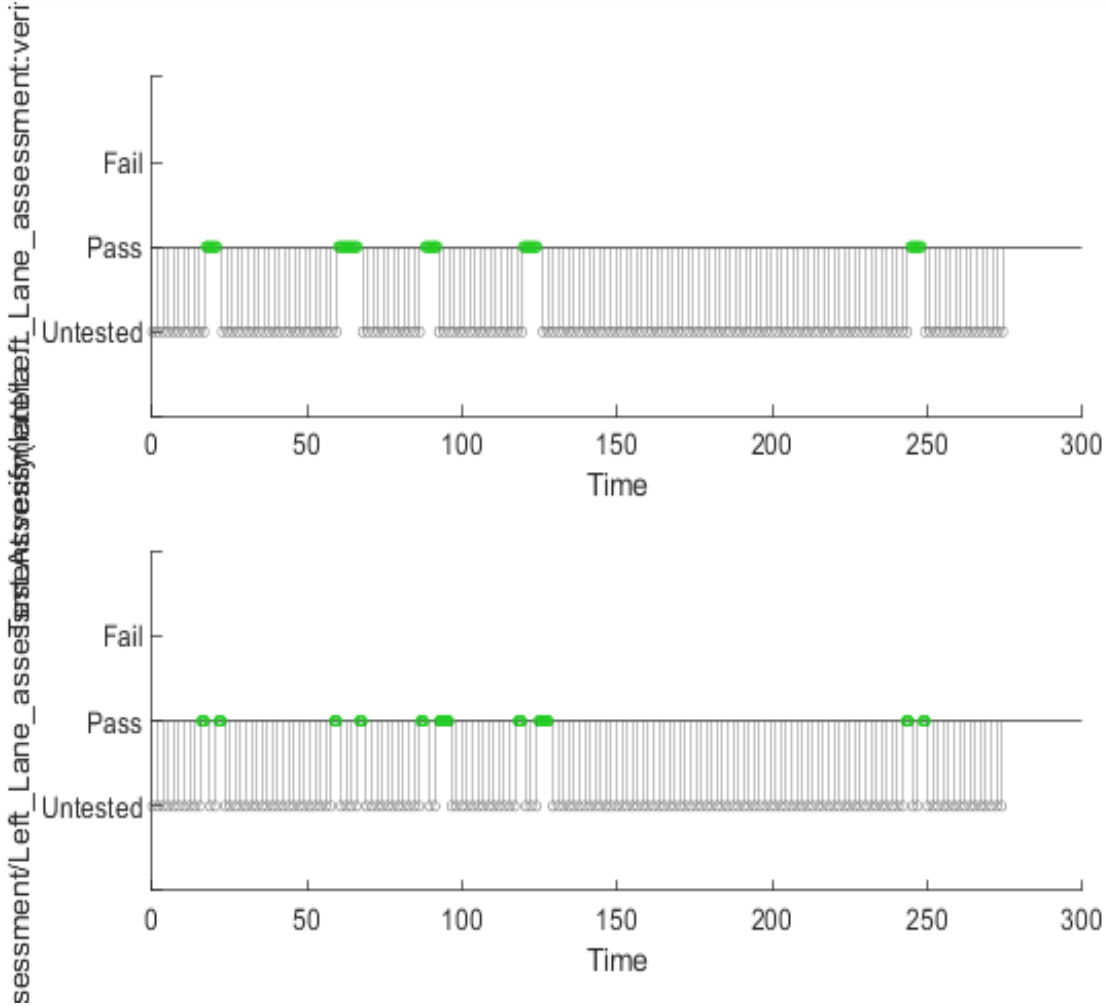
## Verify Result 2

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

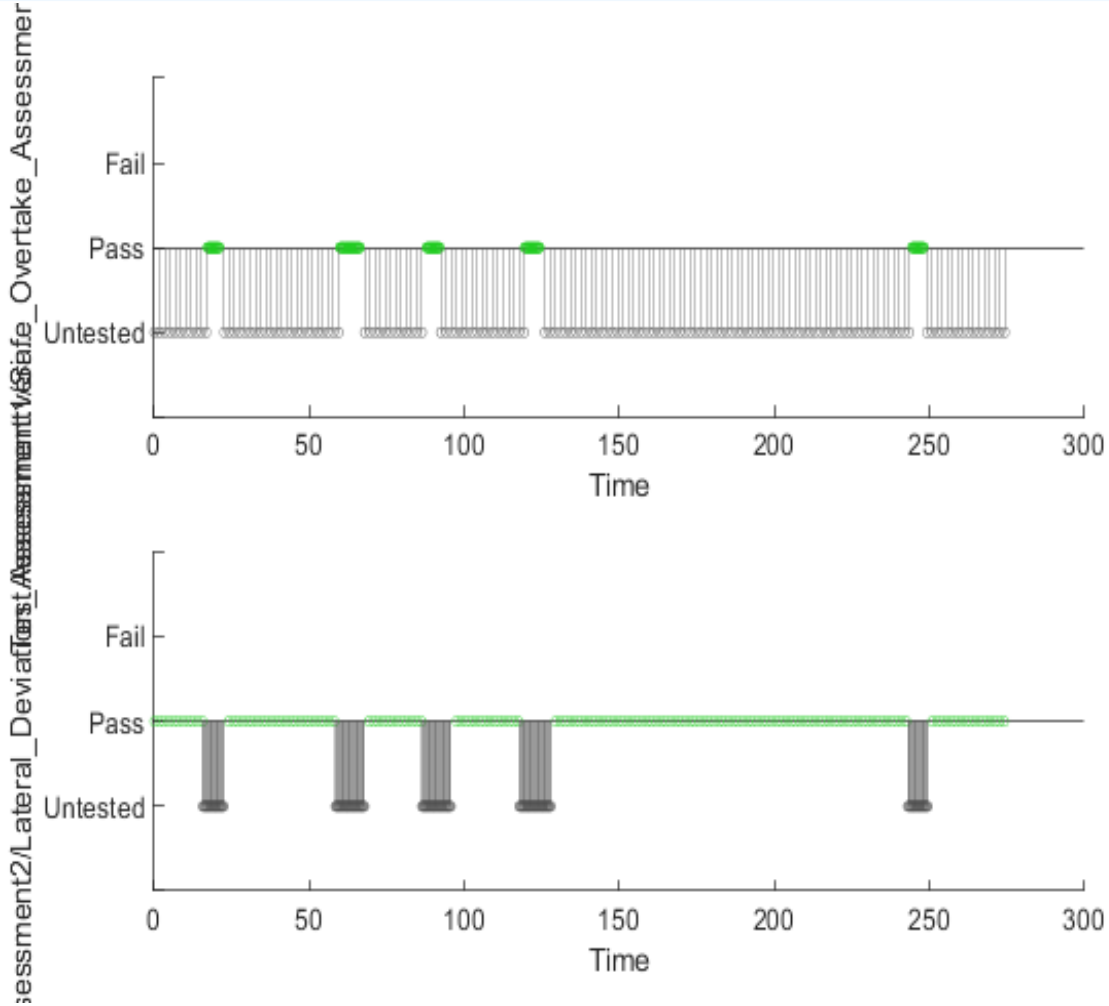


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

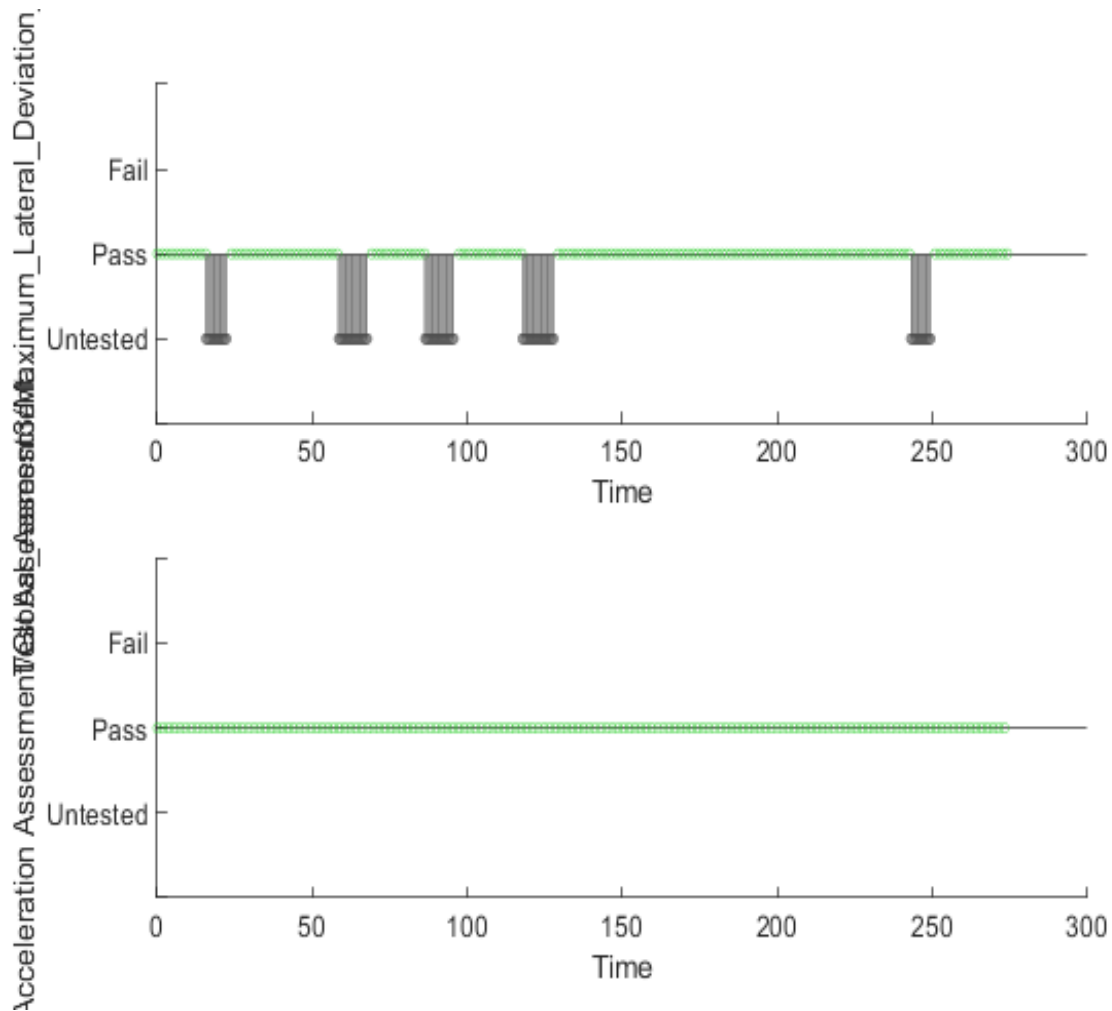


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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## Simulation 1

### System Under Test Information

Model:	Dynamic_obstacle_avoidance
Harness:	Avoidance_in_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

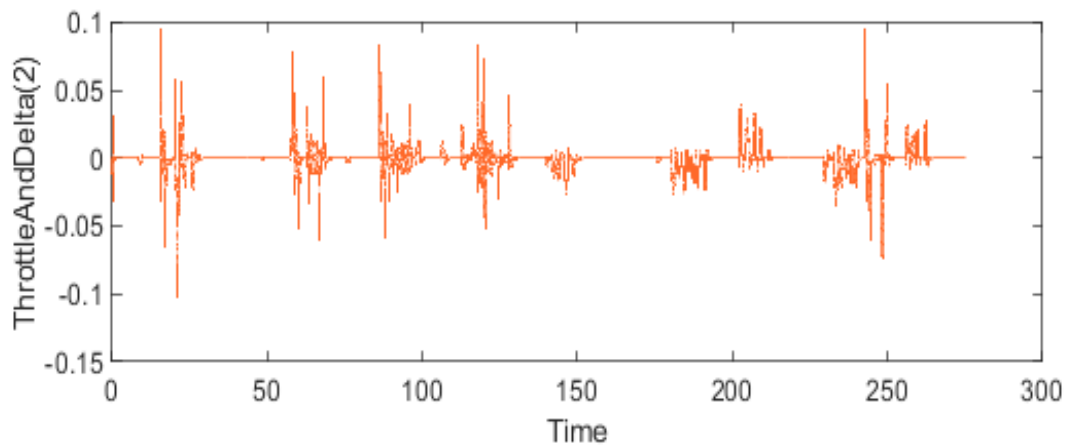
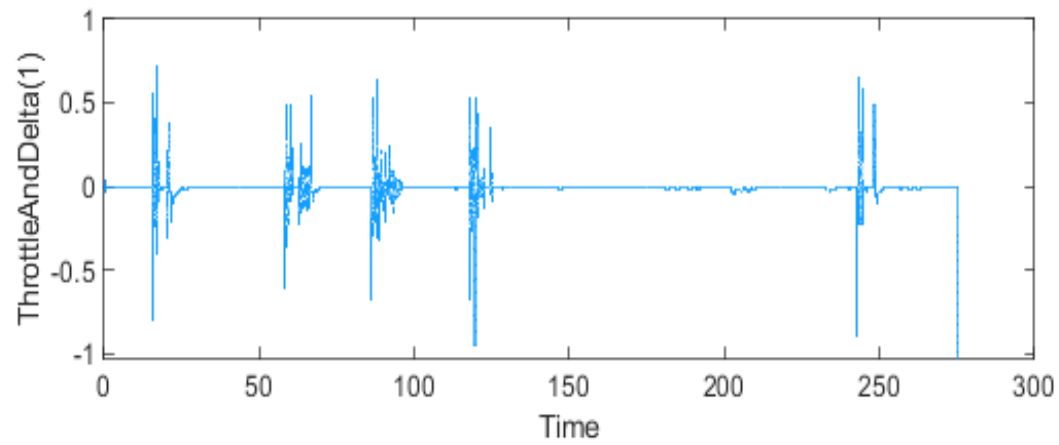
Stop Time:275.08204274327625

Checksum:560512140 2077323266 670520786 1624456250

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Simulation 2

### System Under Test Information

Model:	Dynamic_obstacle_avoidance_SIL
Harness:	Avoidance_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance_SIL/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

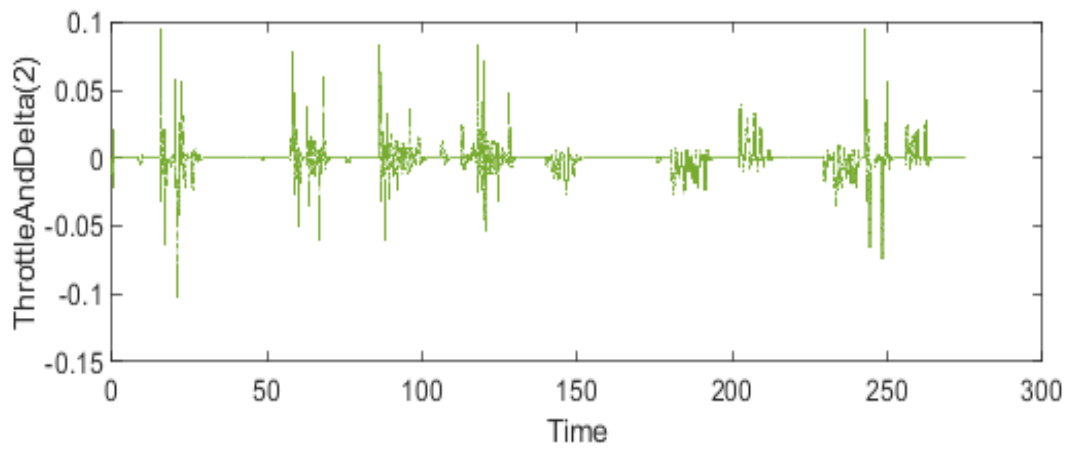
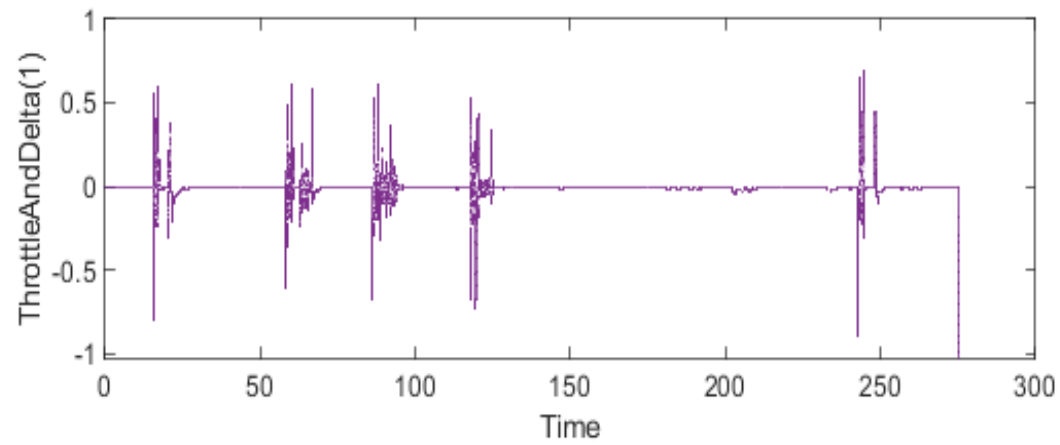
Stop Time:275.08204274327625

Checksum:3910346978 2654682495 3529197182 4188007937

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Puglia

### Test Result Information

Result Type: Test Case Result  
Parent: [Avoidance in real scenario \(Hyundai Azera\)](#)  
Start Time: 17-Jun-2021 14:27:00



End Time: 17-Jun-2021 14:31:45  
 Outcome: **Failed**  
 Cause of Failure: **Failed criteria: Equivalence**

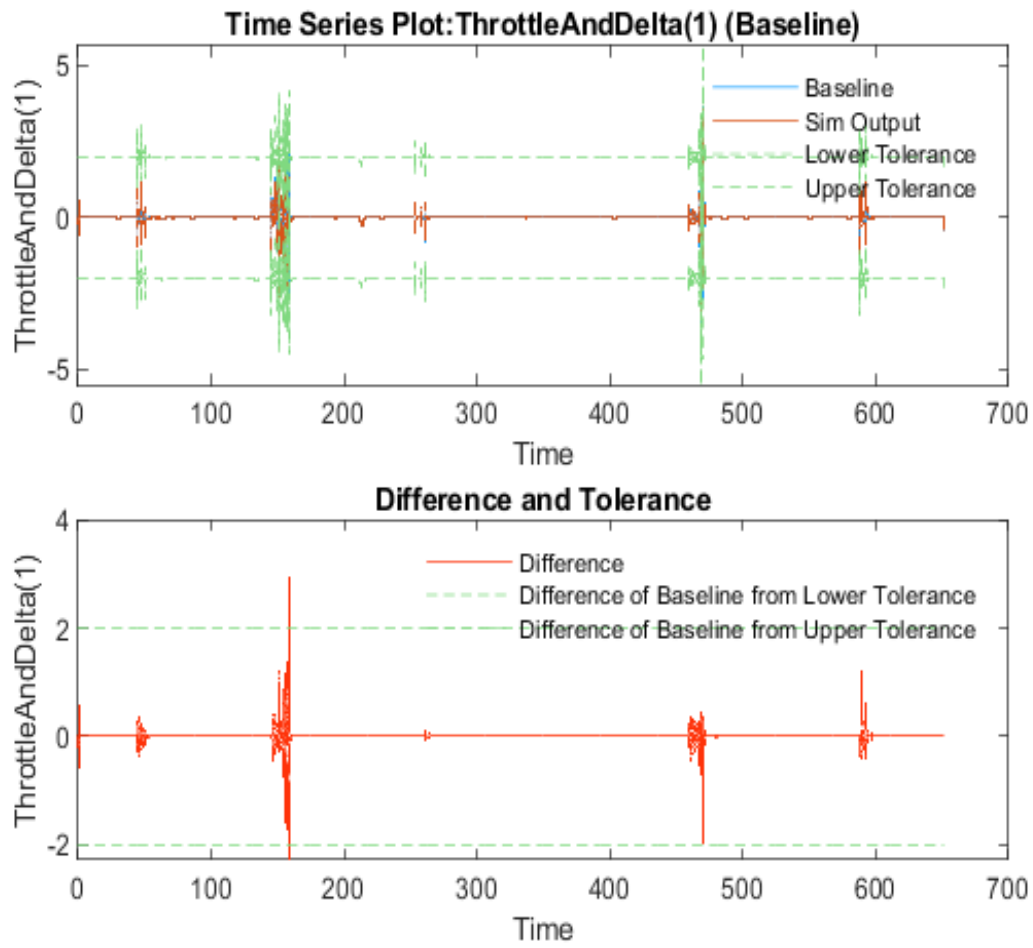
## Test Case Information

Name: Puglia  
 Type: Equivalence Test

## Equivalence Comparison

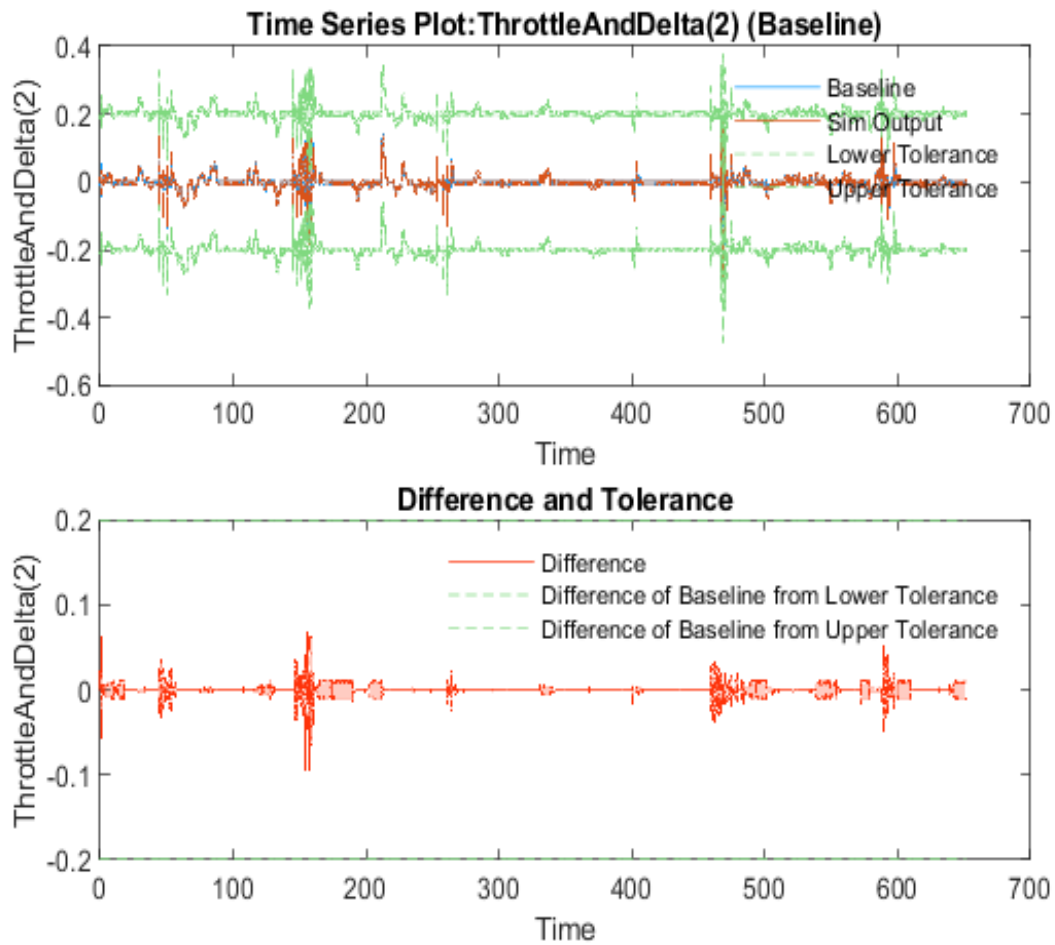
Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync	Link to Plot
✖ ThrottleAndDelta(1)	2	0.01	0	0	2.95	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>
✔ ThrottleAndDelta(2)	0.2	0.01	0	0	0.095	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✖ ThrottleAndDelta(1)	2	0.01	0	0	2.95	double		Continuous	double		Continuous	zoh	union



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Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✓ ThrottleAndDelta(2)	0.2	0.01	0	0	0.095	double		Continuous	double		Continuous	zoh	union



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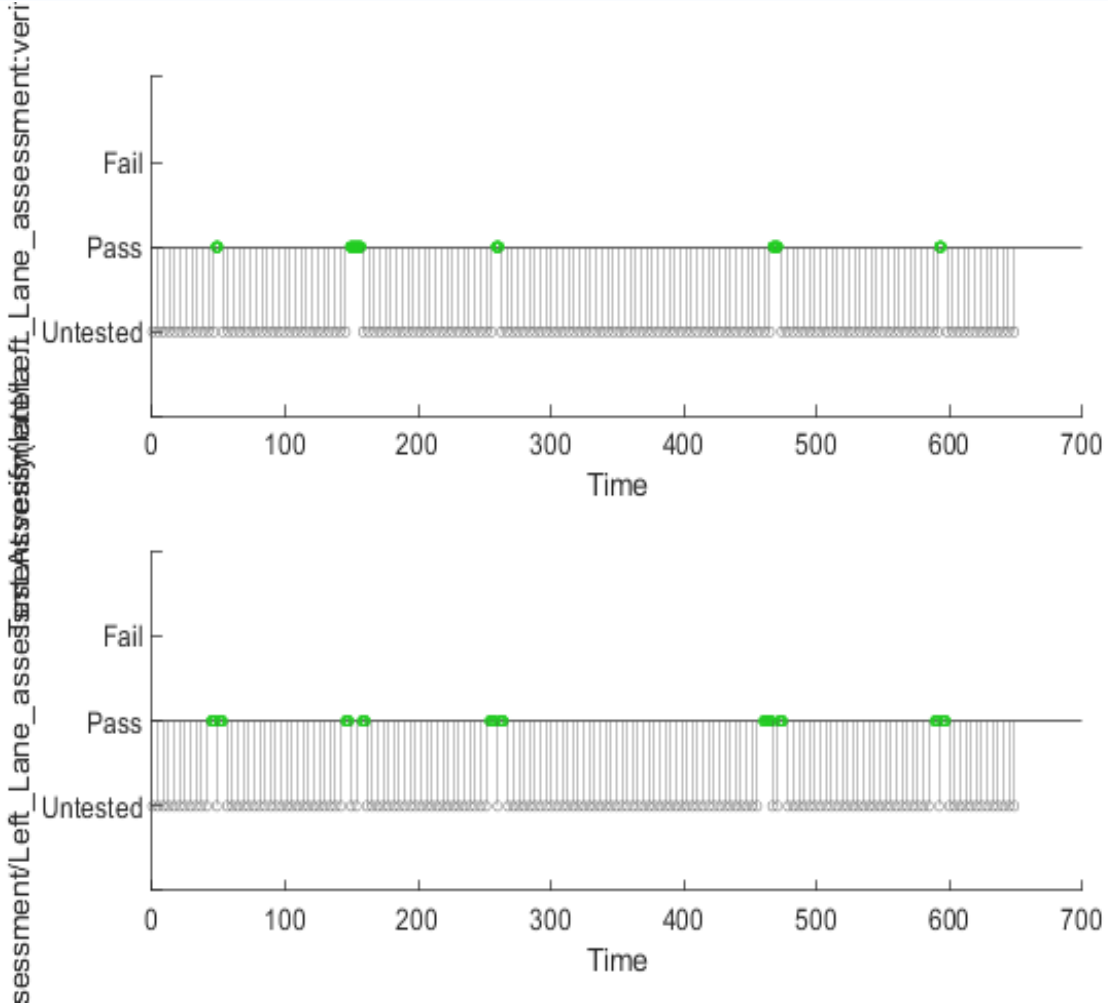
## Verify Result 1

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✔ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	
✔ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	

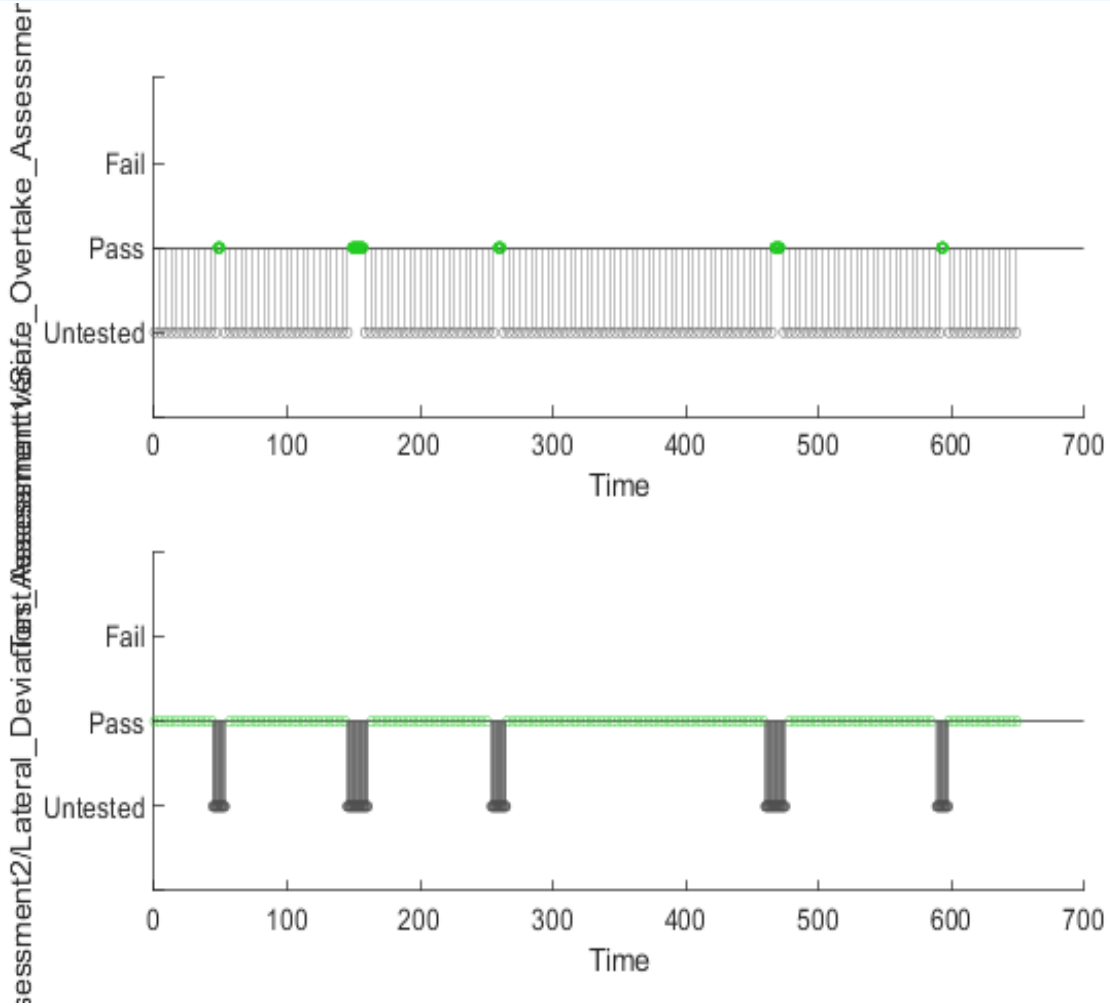


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

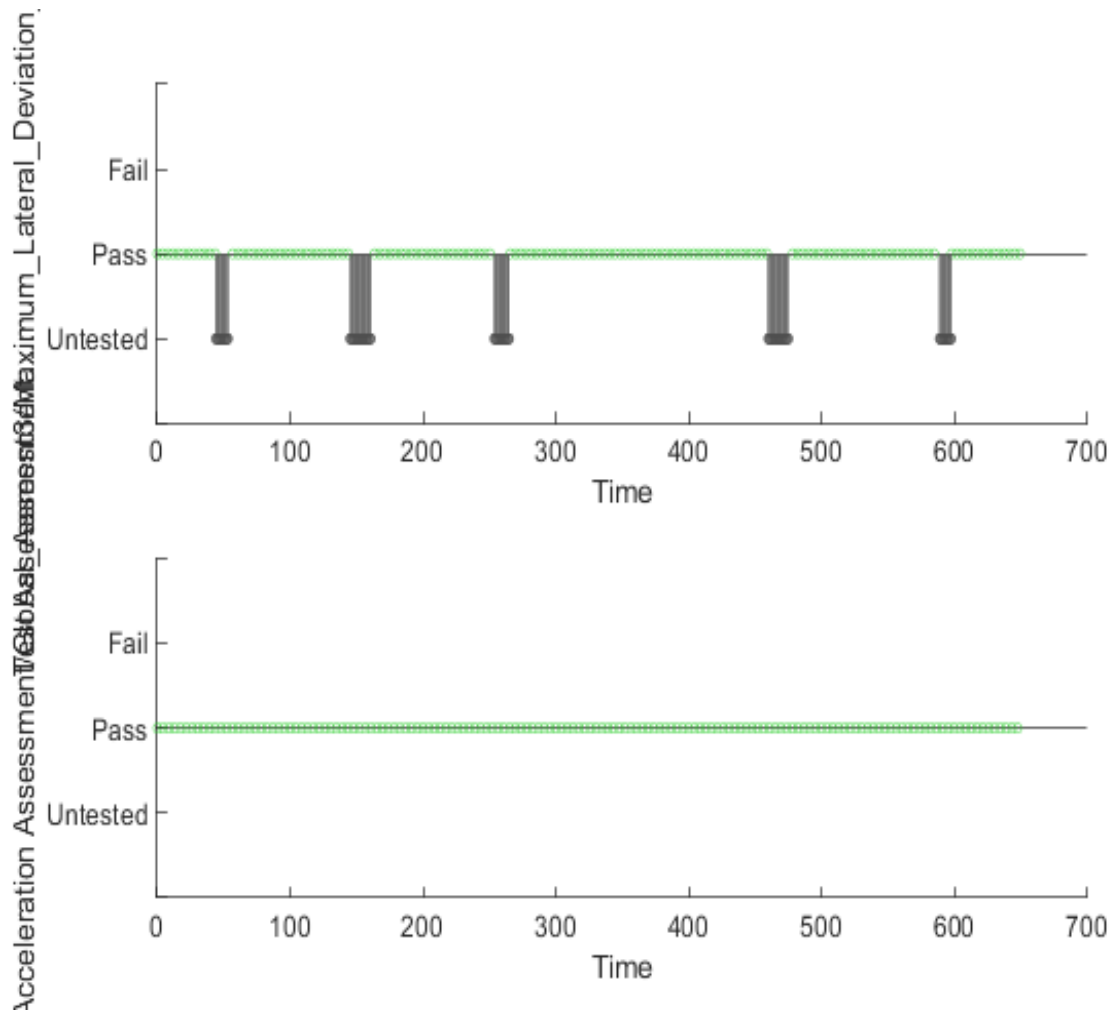


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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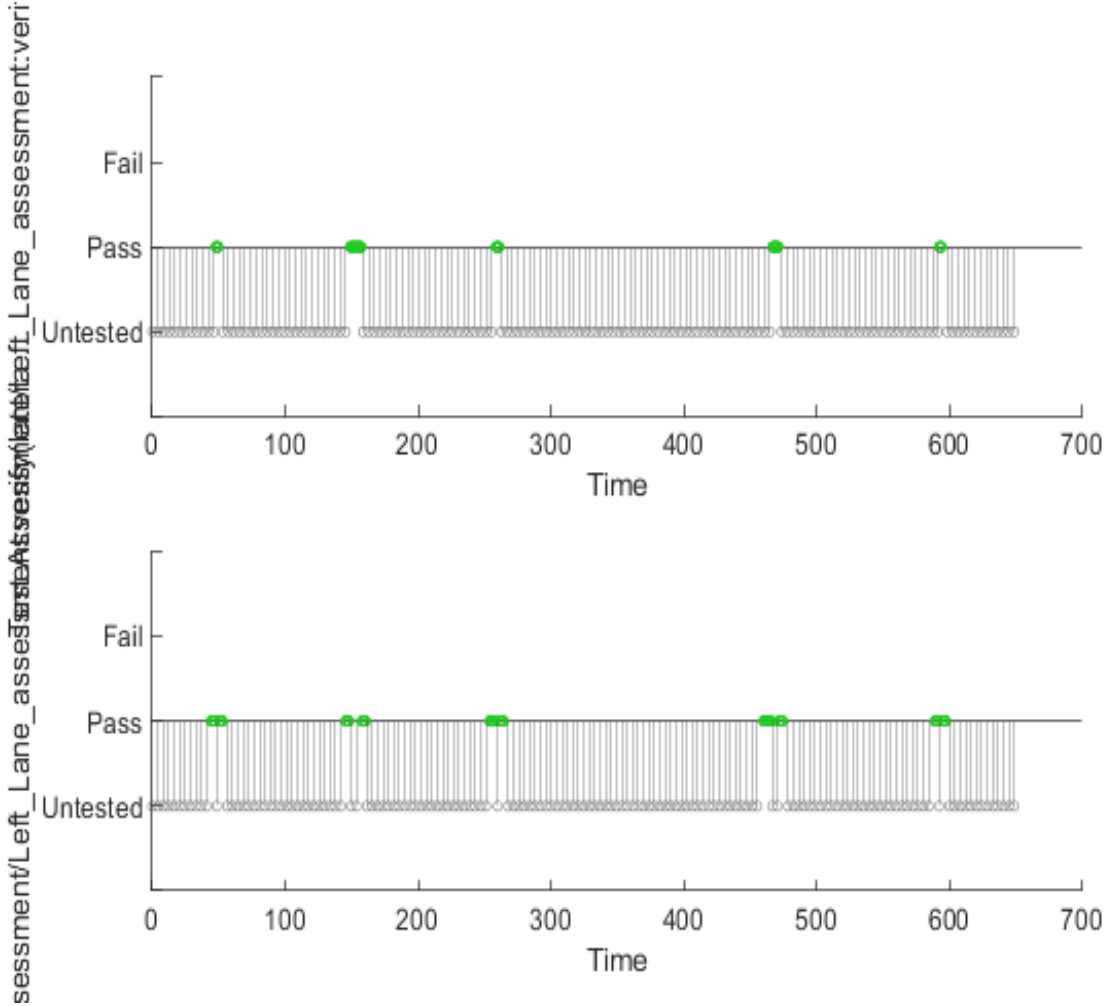
## Verify Result 2

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

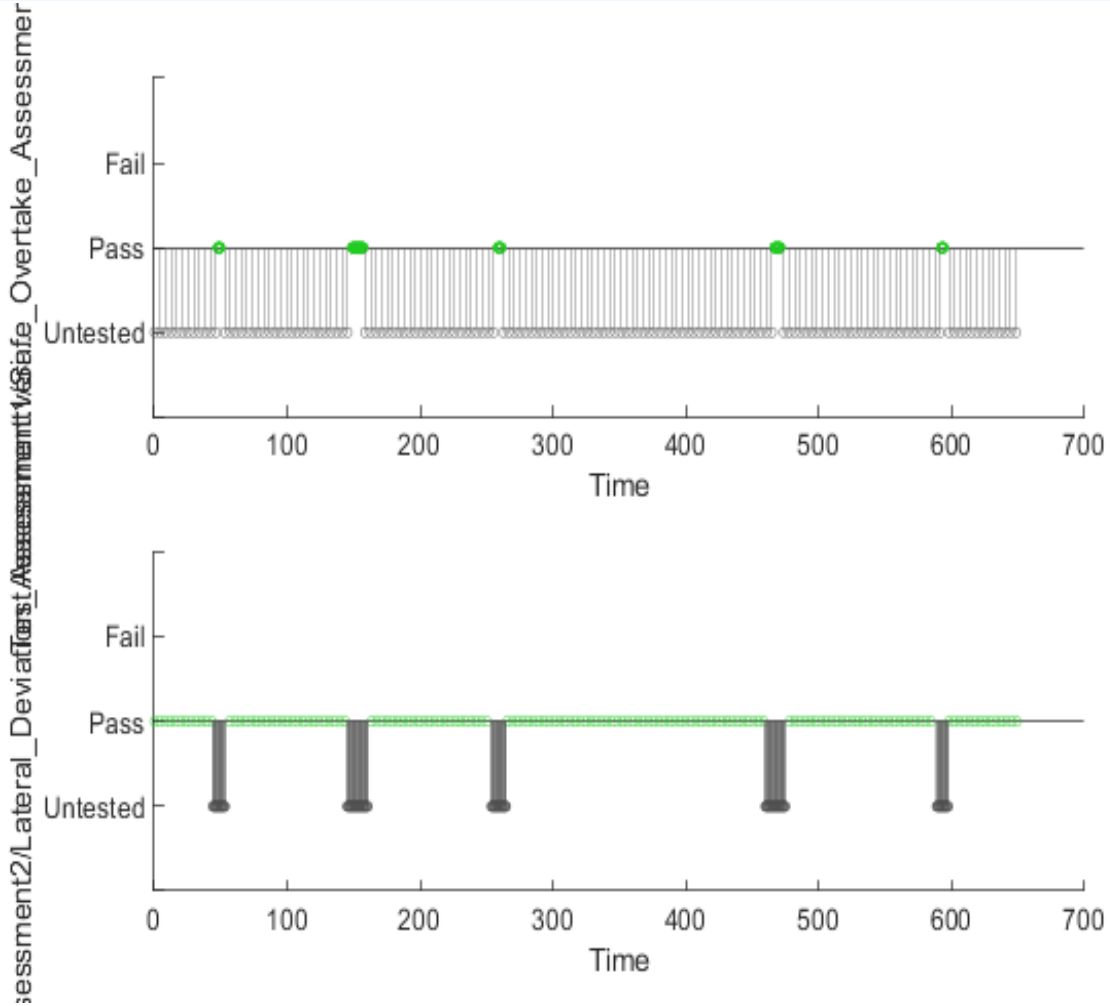


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)



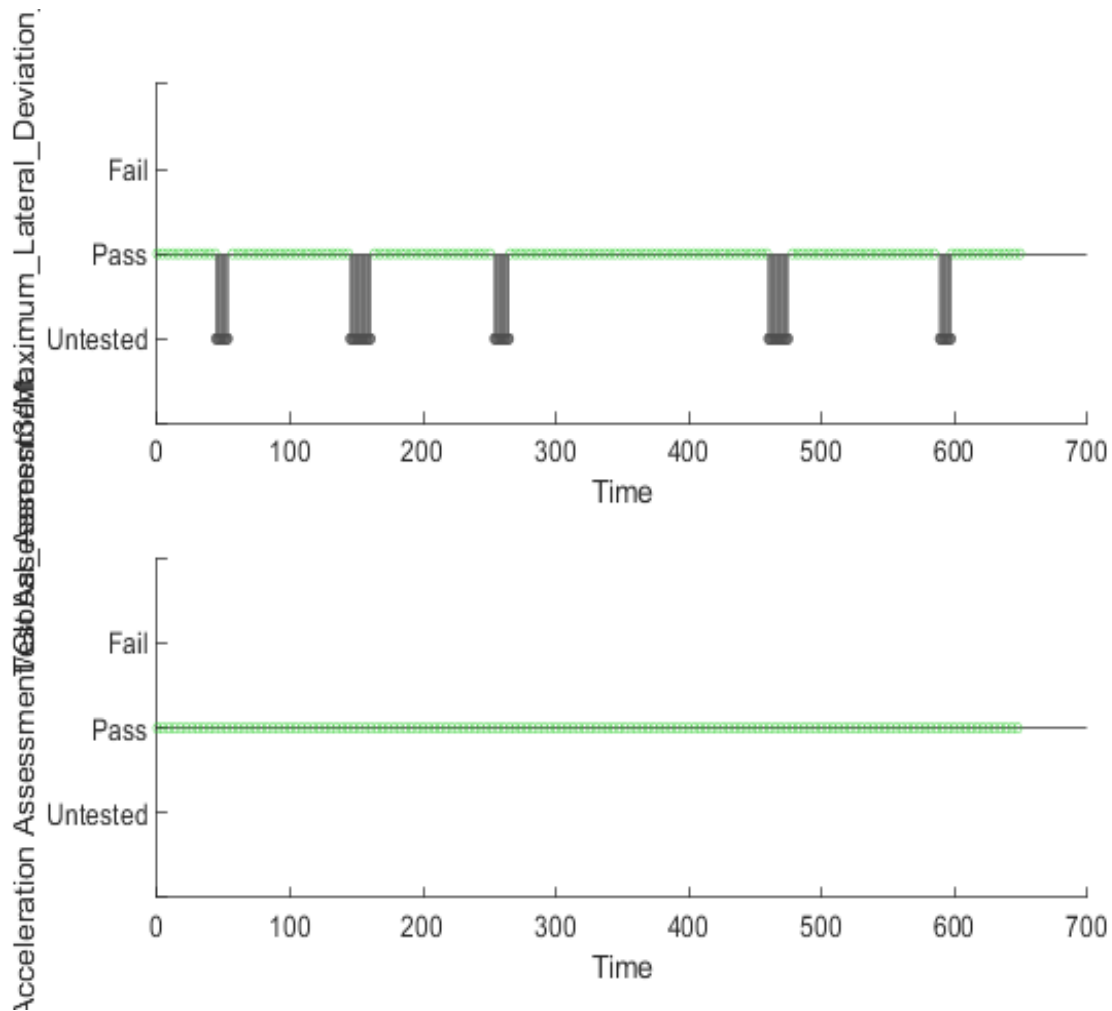
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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)





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## Simulation 1

### System Under Test Information

Model:	Dynamic_obstacle_avoidance
Harness:	Avoidance_in_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

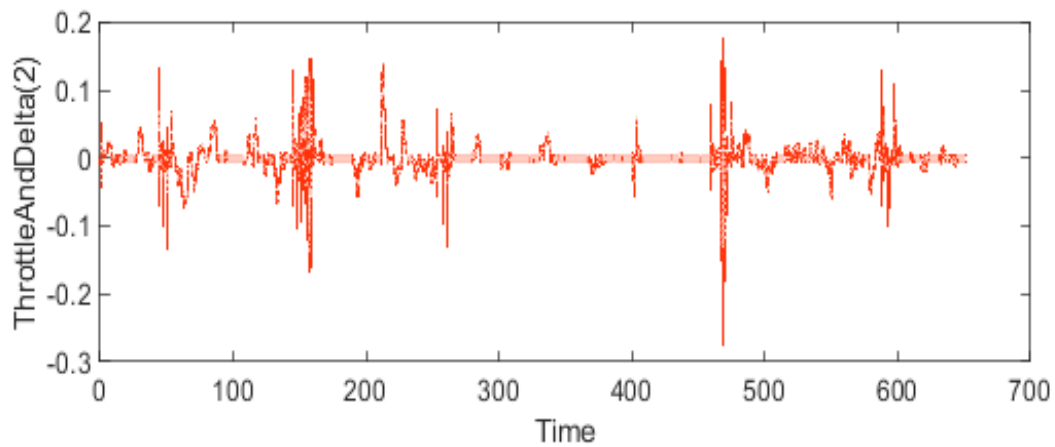
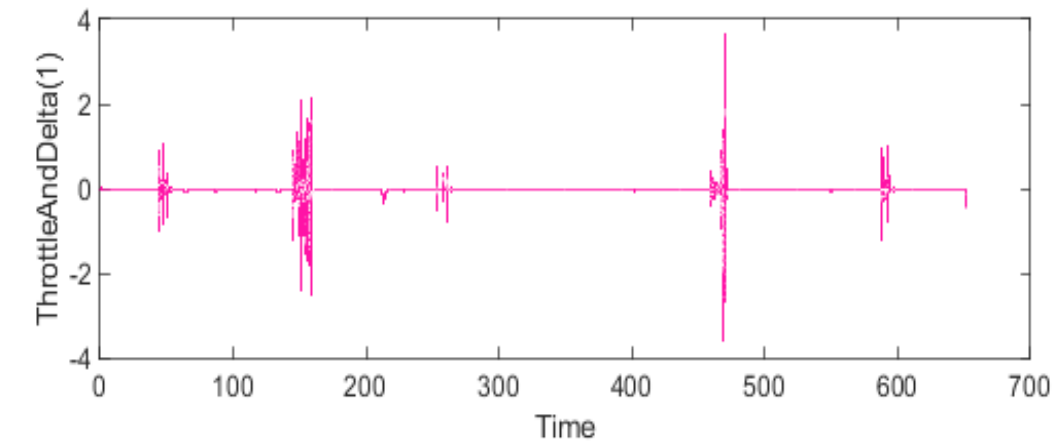
Stop Time:651.65546907329588

Checksum:1175733023 1860673233 1531597131 2149246587

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Simulation 2

### System Under Test Information

Model:	Dynamic_obstacle_avoidance_SIL
Harness:	Avoidance_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance_SIL/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

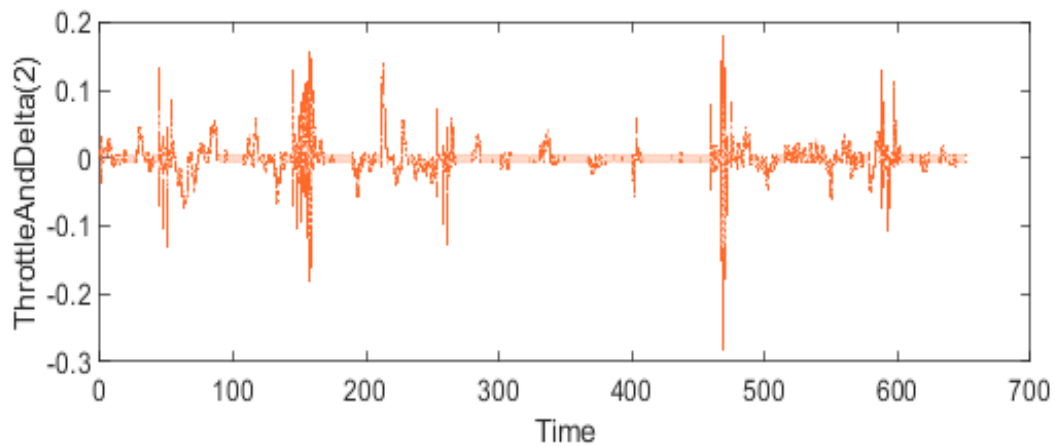
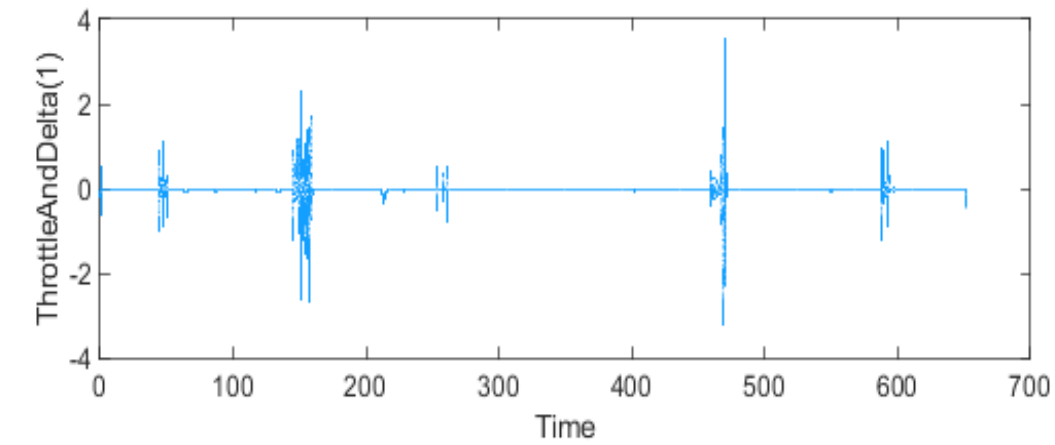
Stop Time:651.65546907329588

Checksum:3207812238 536380018 4266494897 4273513856

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Indianapolis Motor Speedway

### Test Result Information

Result Type: Test Case Result  
Parent: [Avoidance in real scenario \(Hyundai Azera\)](#)  
Start Time: 17-Jun-2021 14:31:46

End Time: 17-Jun-2021 14:32:41  
Outcome: Passed

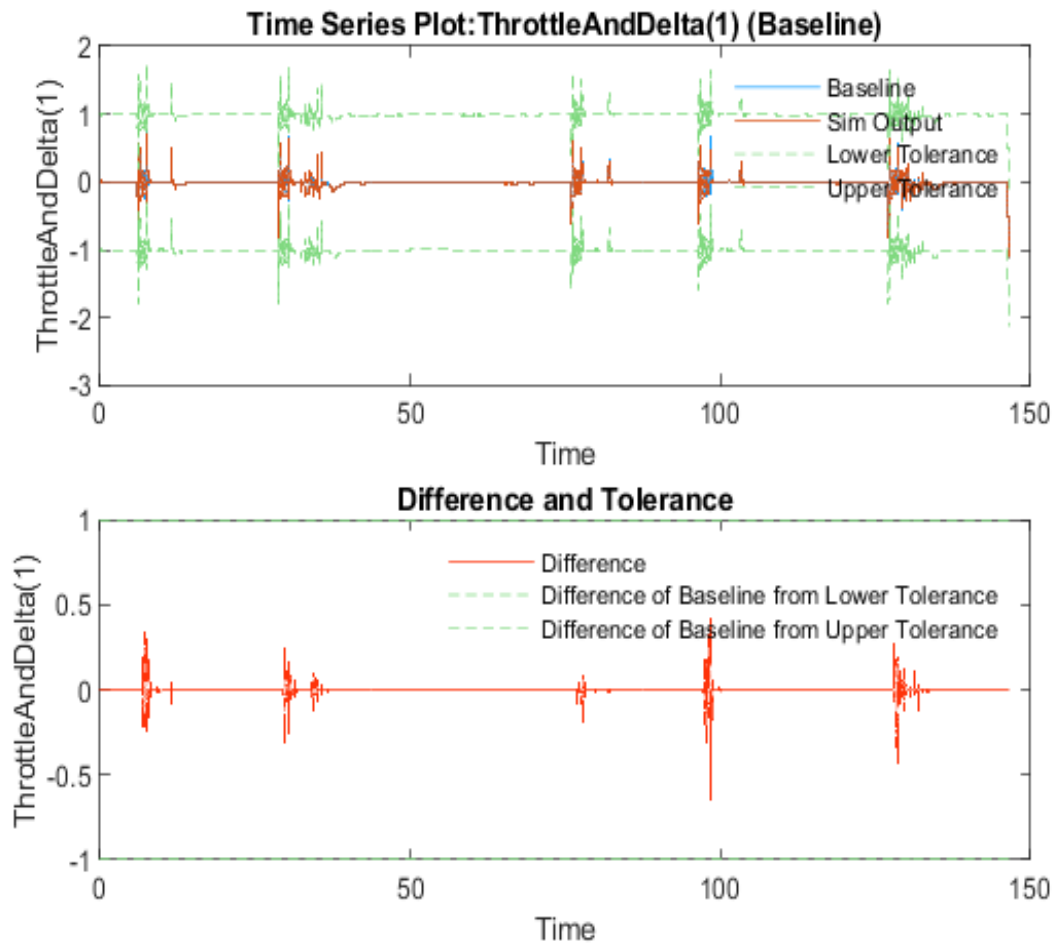
### Test Case Information

Name: Indianapolis Motor Speedway  
Type: Equivalence Test

### Equivalence Comparison

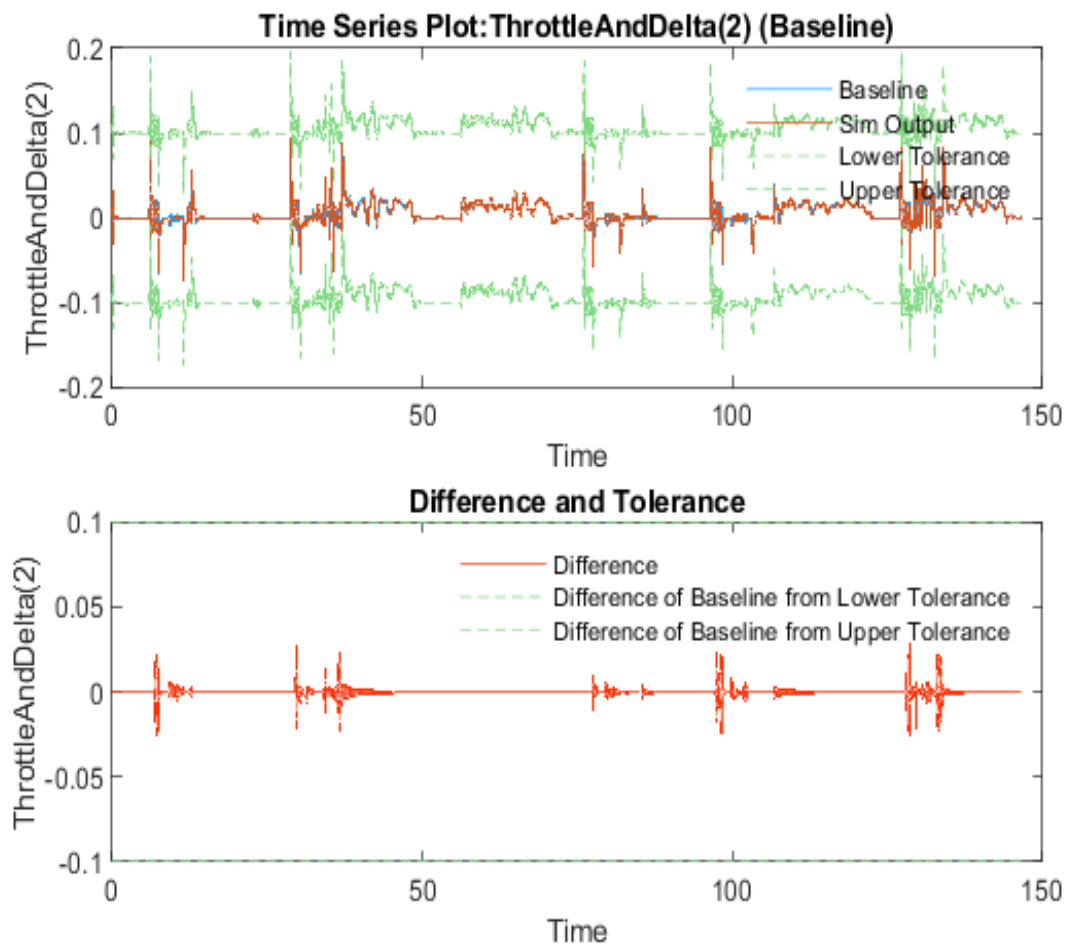
Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync	Link to Plot
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.647	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>
✔ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0279	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.647	double		Continuous	double		Continuous	zoh	union



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Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✓ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0279	double		Continuous	double		Continuous	zoh	union



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## Verify Result 1

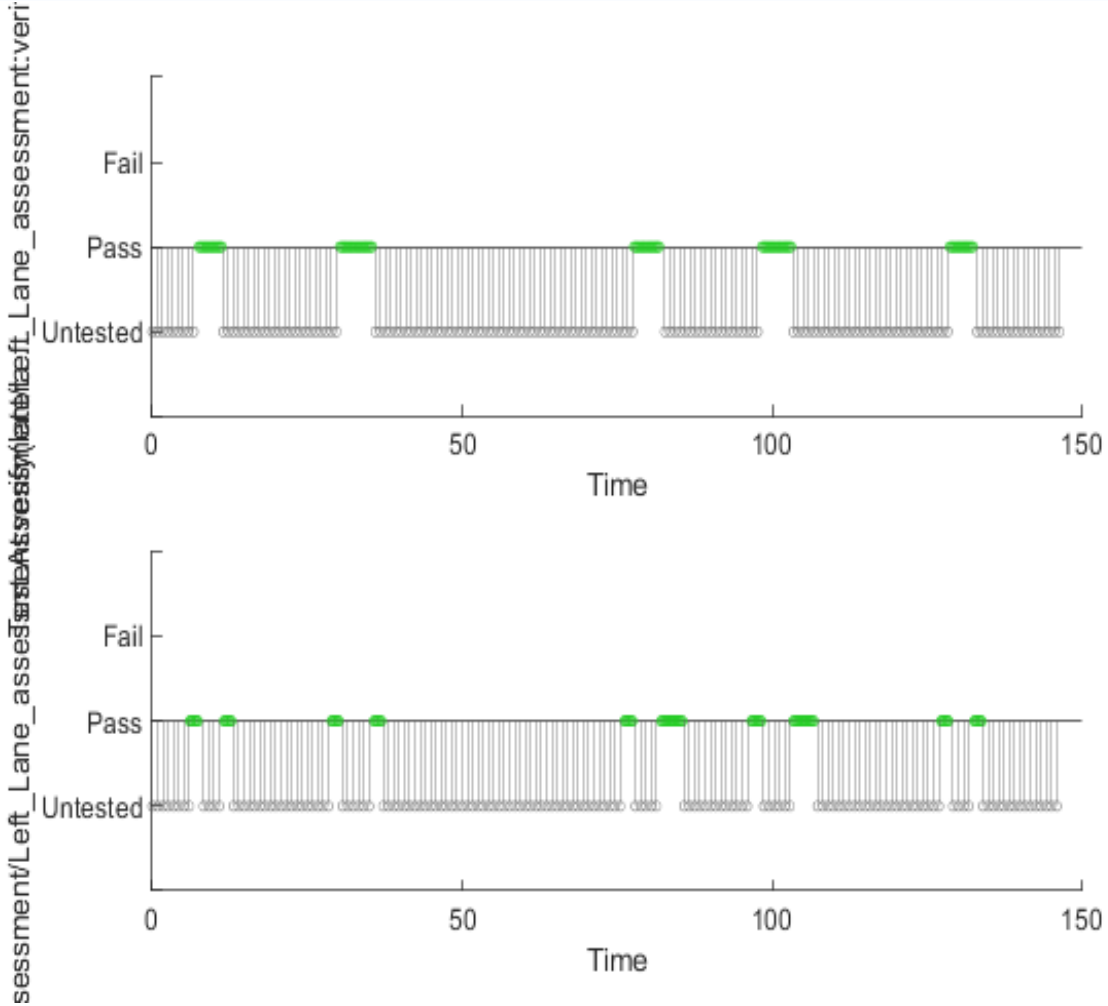
Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>



✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✔ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	
✔ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	

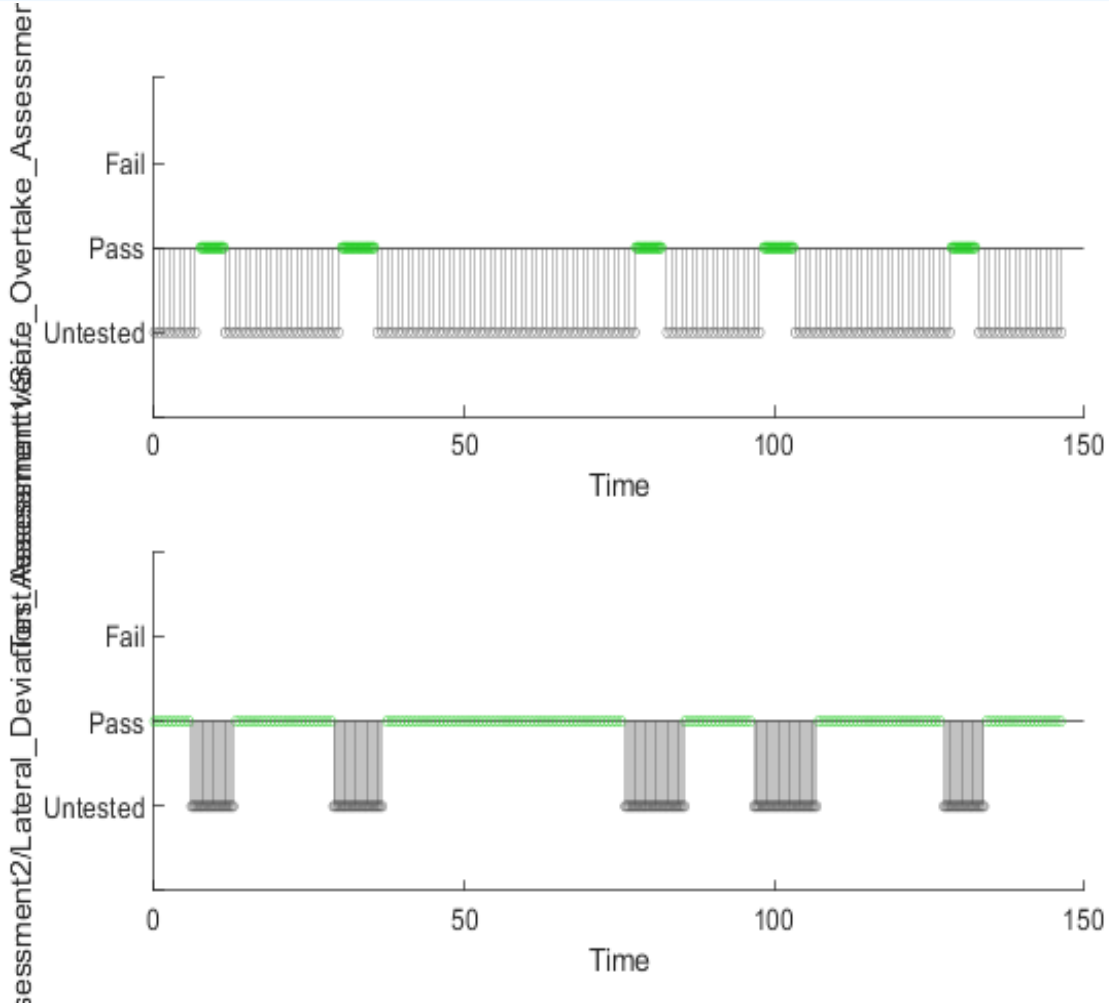


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

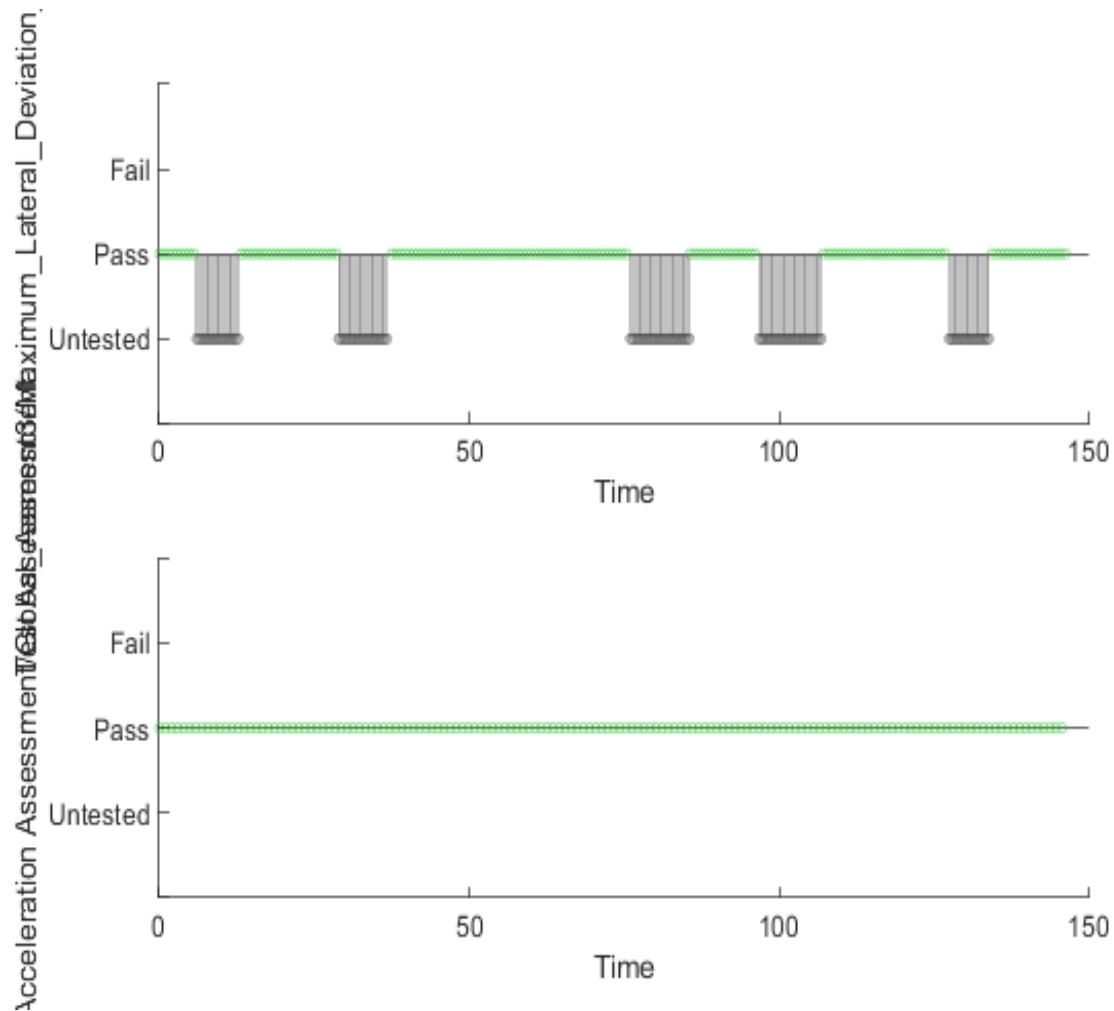


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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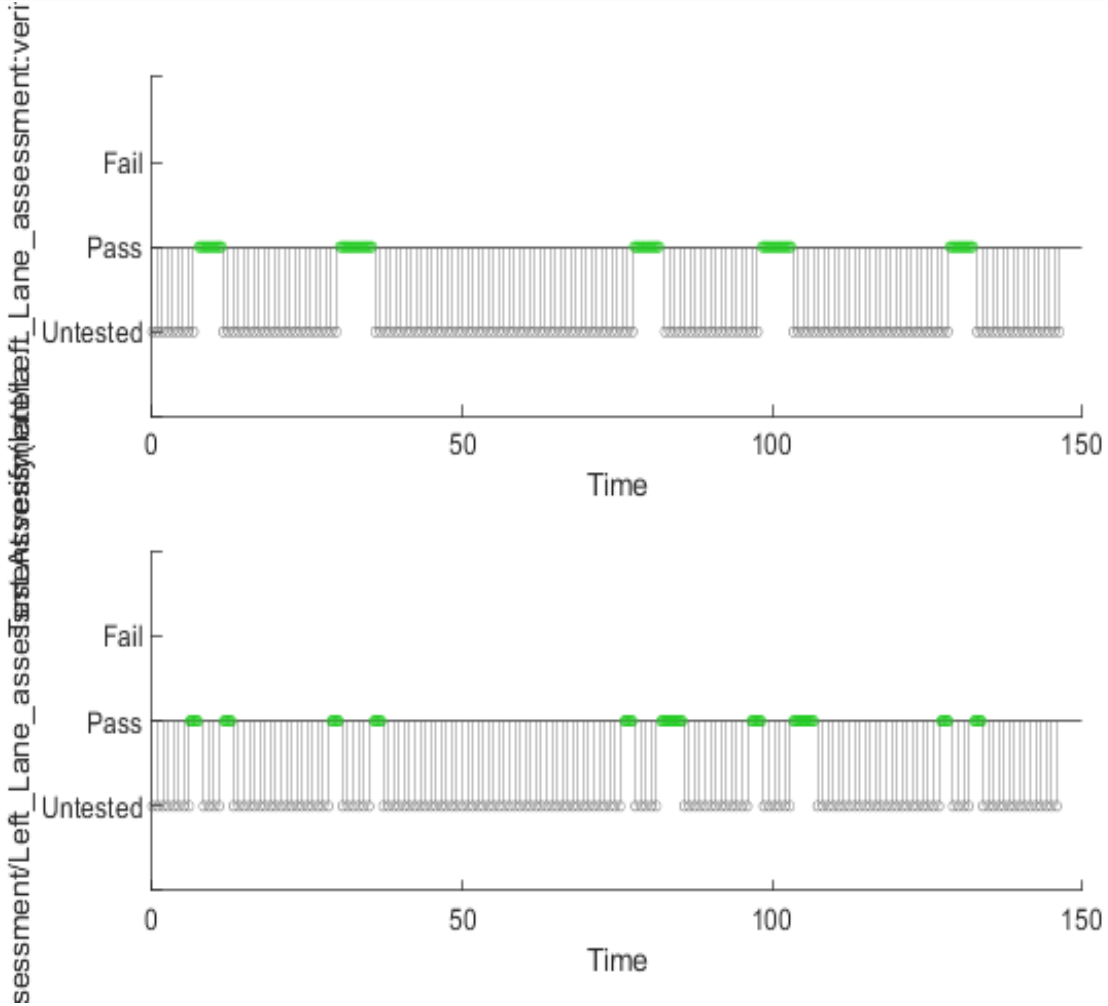
## Verify Result 2

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

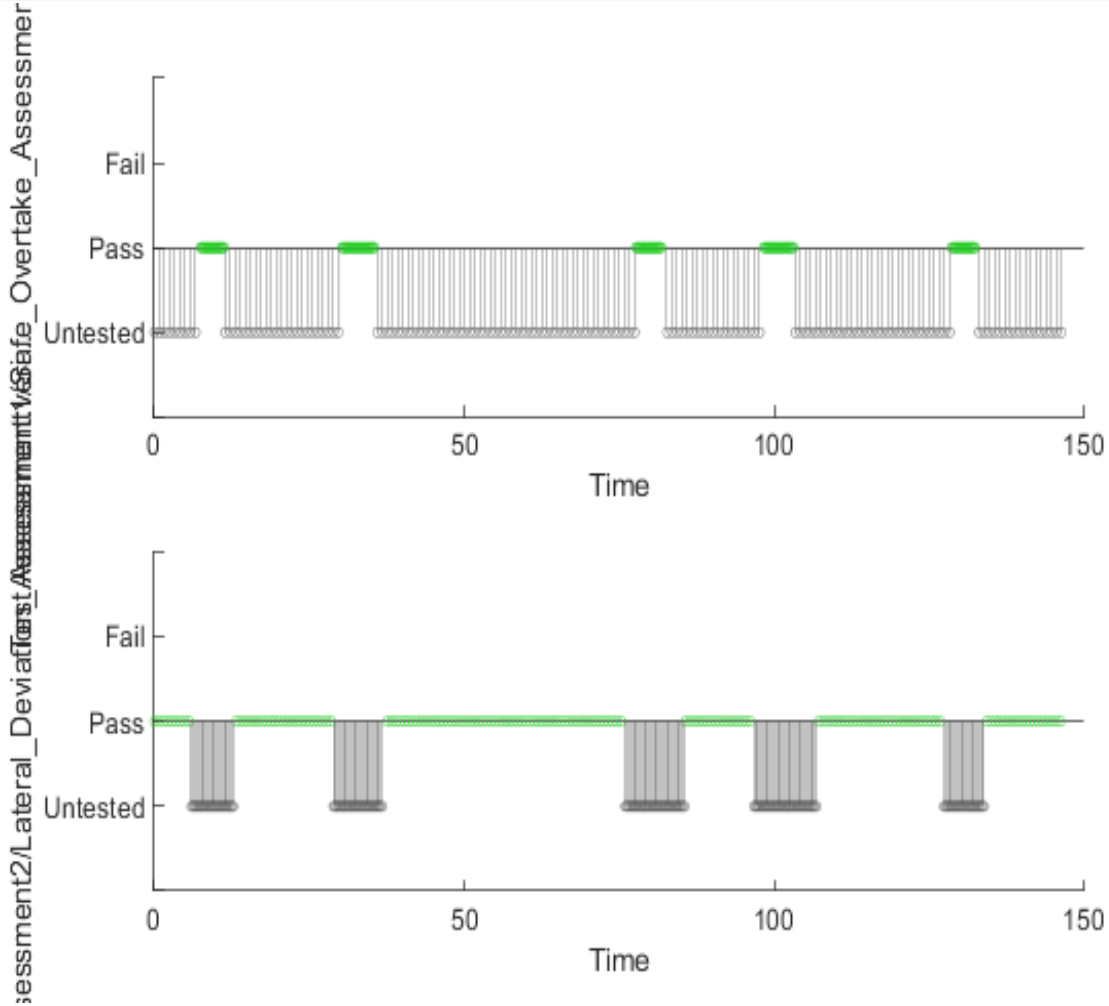


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

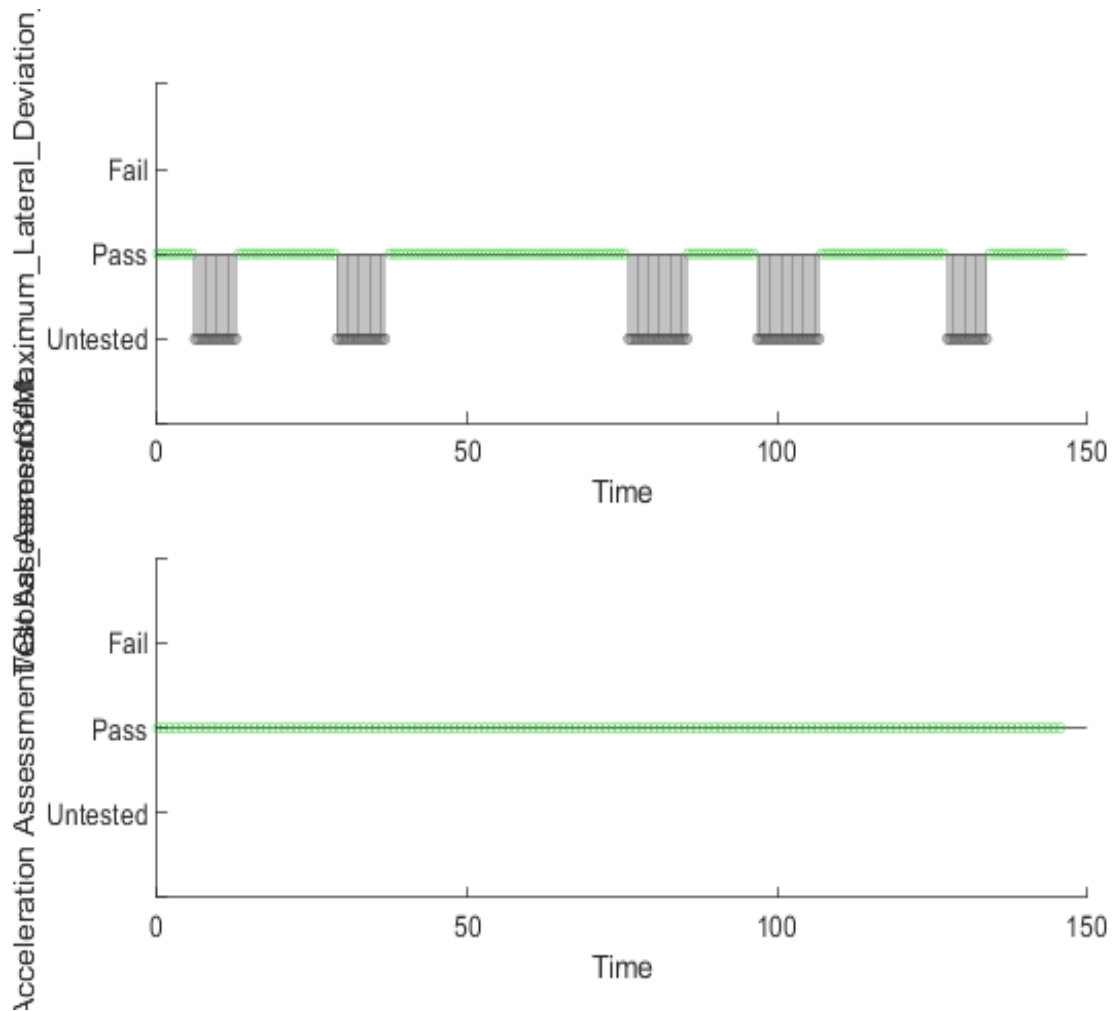


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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## Simulation 1

### System Under Test Information

Model:	Dynamic_obstacle_avoidance
Harness:	Avoidance_in_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

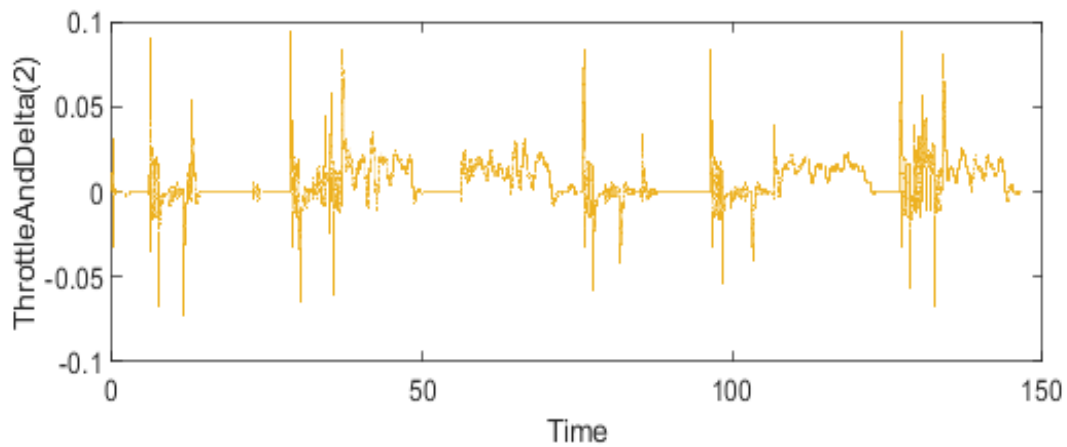
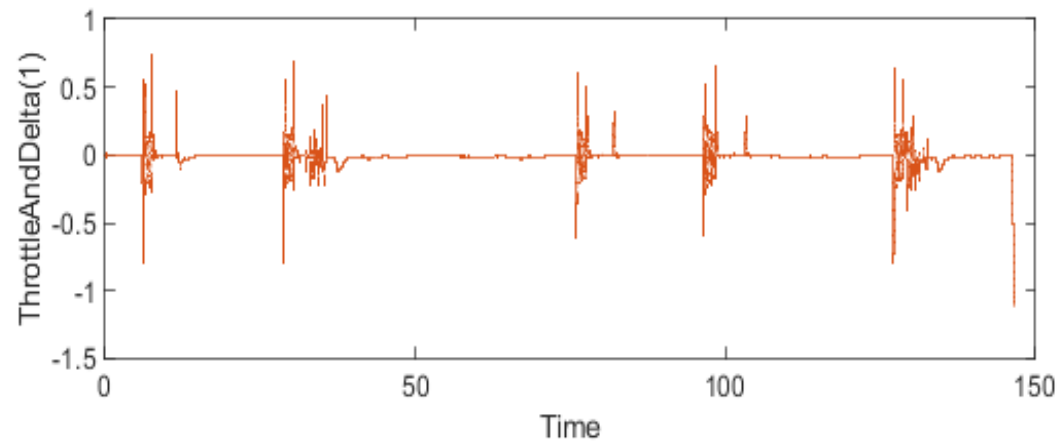
Stop Time:146.51791178475014

Checksum:1435385966 2039963742 2097507888 2861652933

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Simulation 2

### System Under Test Information

Model:	Dynamic_obstacle_avoidance_SIL
Harness:	Avoidance_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance_SIL/Subsystem
Release:	Current
Simulation Mode:	normal



Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

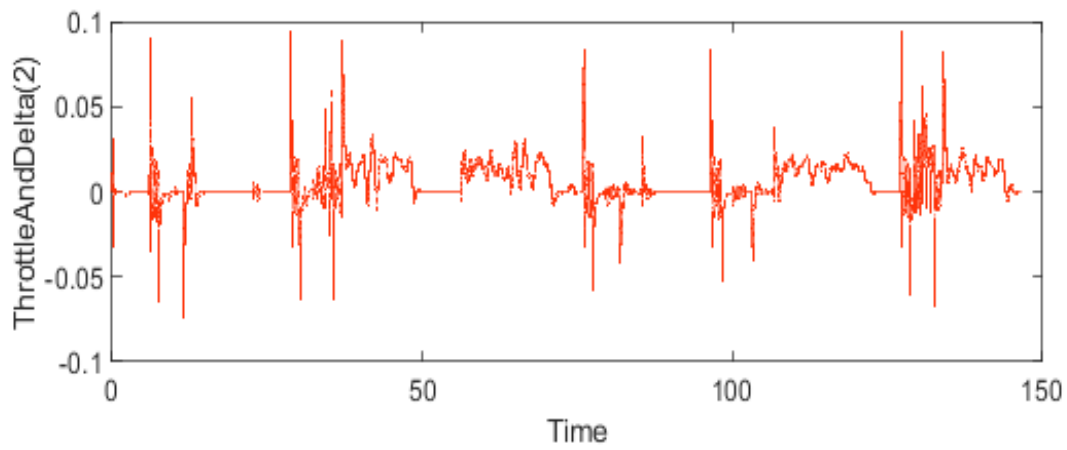
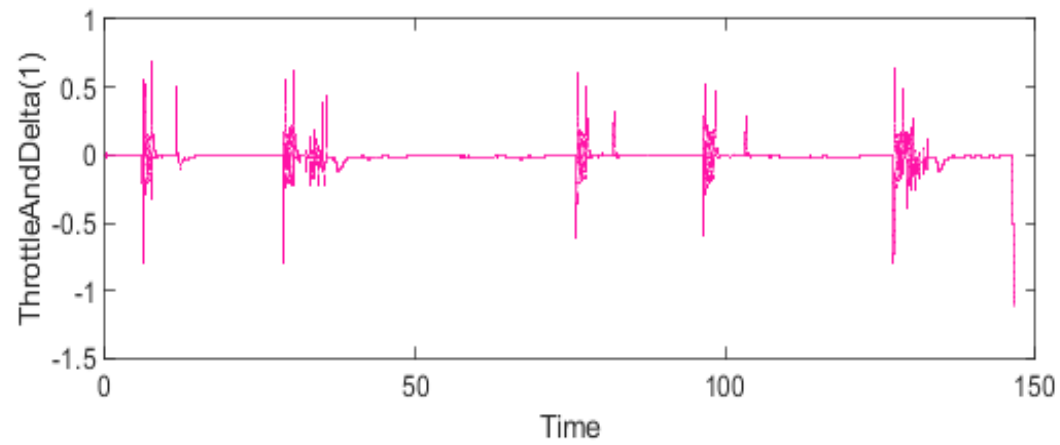
Stop Time:146.51791178475014

Checksum:3141116588 90218501 3127706781 1180433817

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Avoidance in real scenario (BMW 325i)

### Test Result Information

Result Type: Test Suite Result  
Parent: [SIL Test](#)  
Start Time: 17-Jun-2021 14:32:42

End Time: 17-Jun-2021 14:40:56  
Outcome: Total: 3, **Passed: 3**

### Test Suite Information

Name: Avoidance in real scenario (BMW 325i)

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## A14 Highway

### Test Result Information

Result Type: Test Case Result  
Parent: [Avoidance in real scenario \(BMW 325i\)](#)  
Start Time: 17-Jun-2021 14:32:42  
End Time: 17-Jun-2021 14:34:46  
Outcome: **Passed**

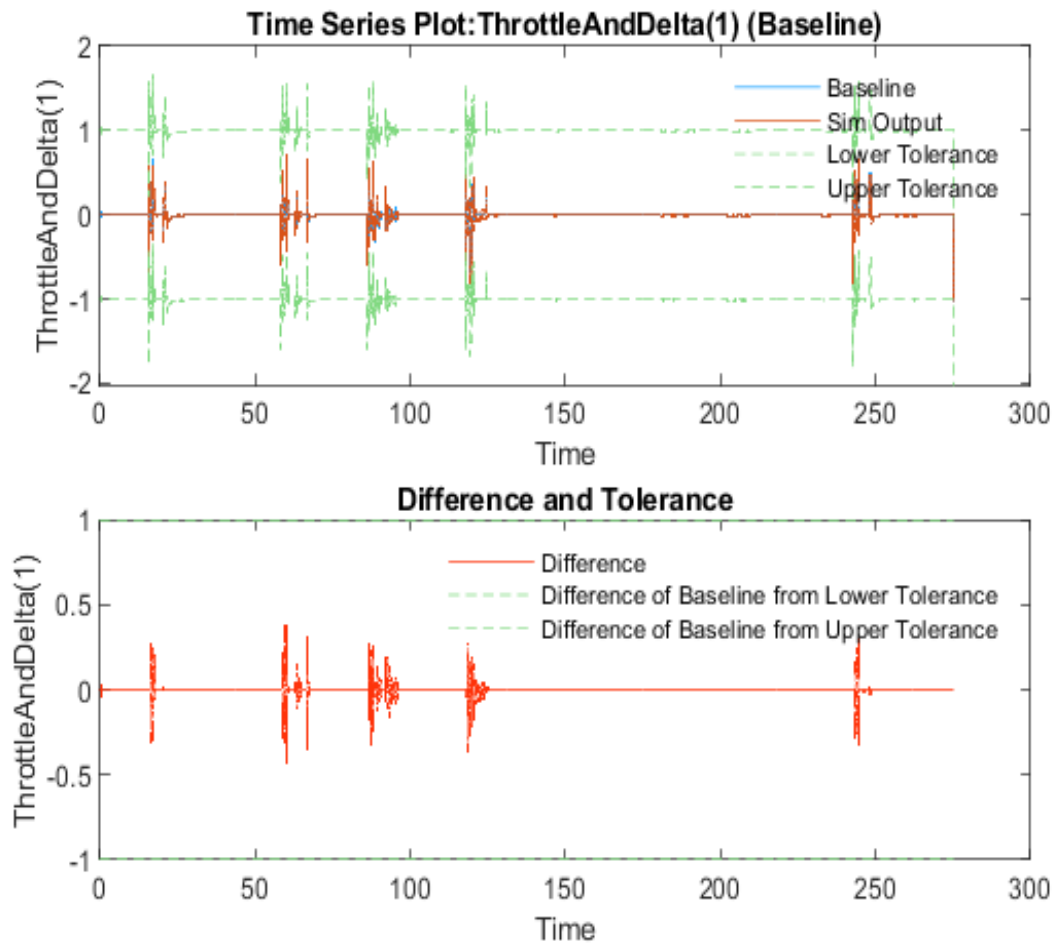
### Test Case Information

Name: A14 Highway  
Type: Equivalence Test

### Equivalence Comparison

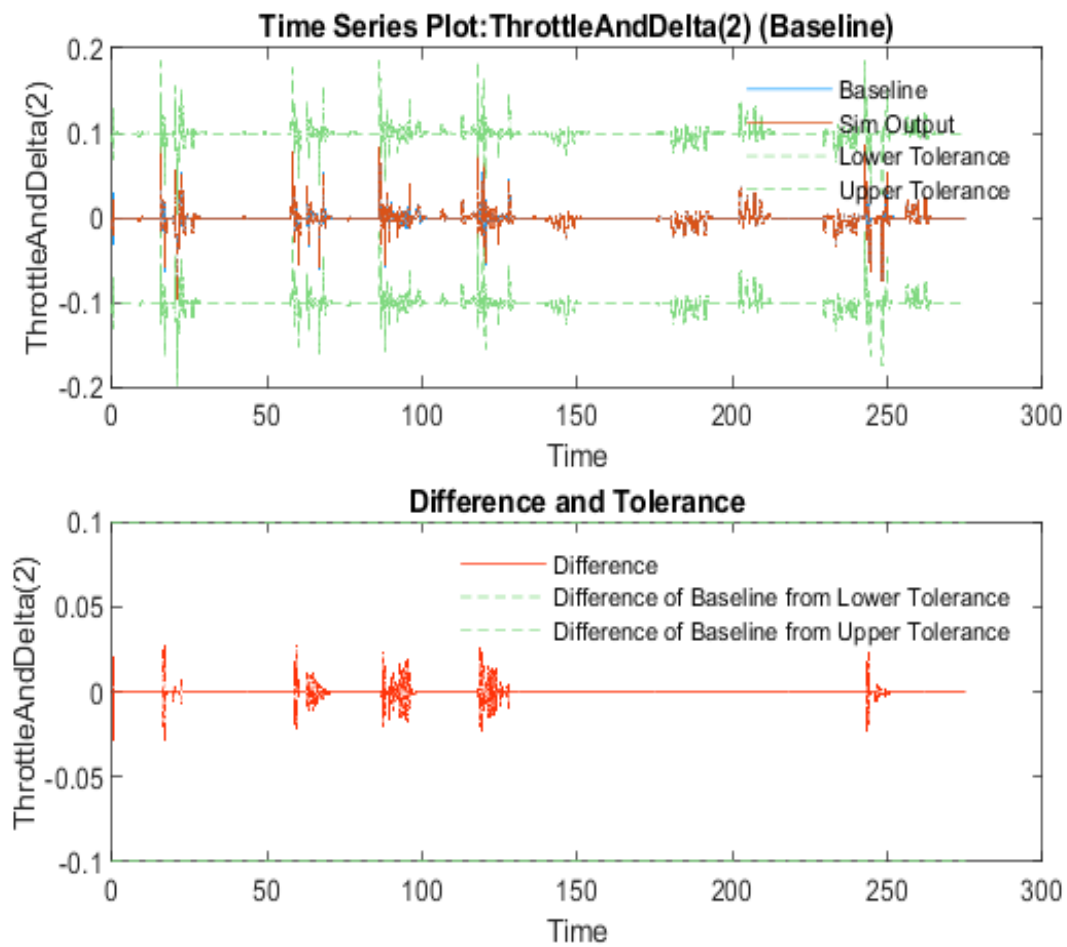
Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync	Link to Plot
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.432	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>
✔ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0283	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.432	double		Continuous	double		Continuous	zoh	union



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Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✓ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0283	double		Continuous	double		Continuous	zoh	union



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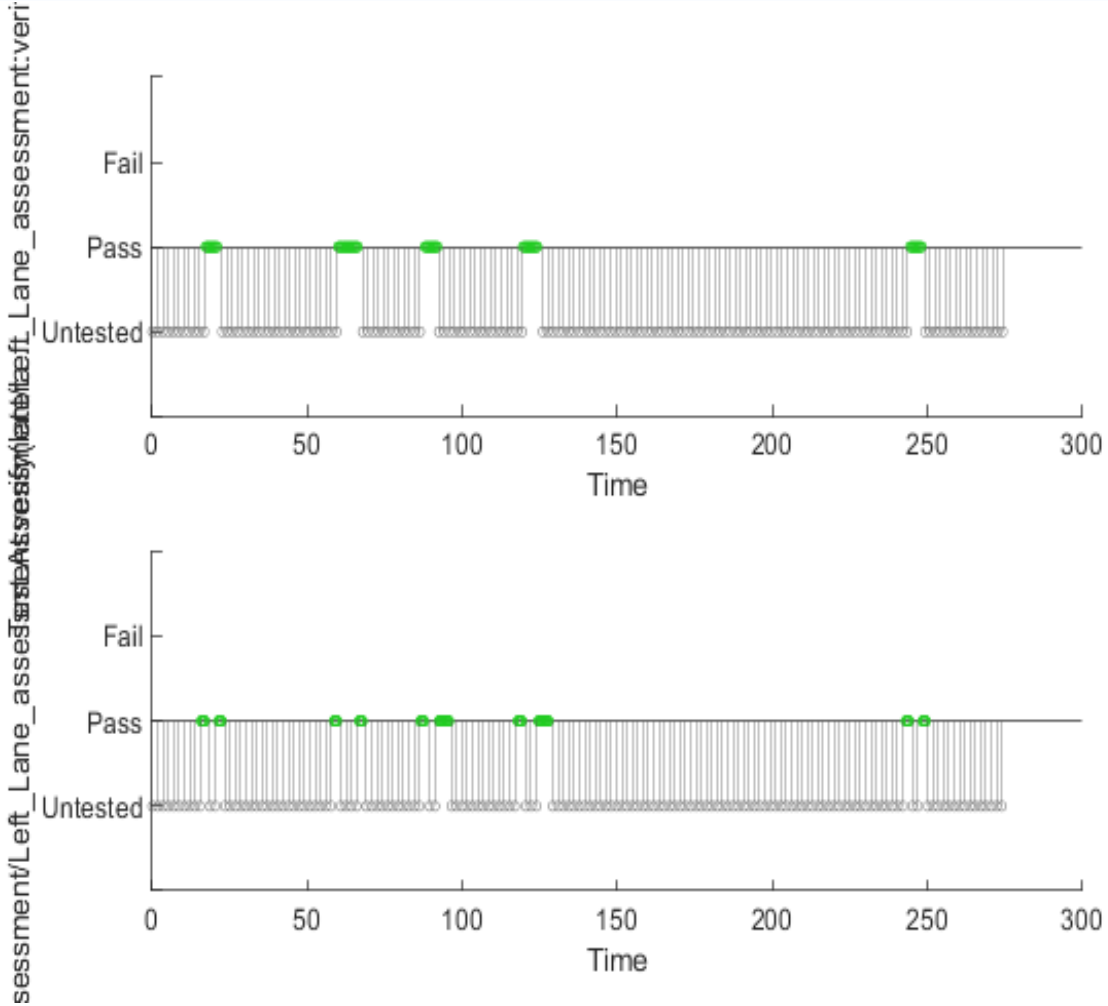
## Verify Result 1

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

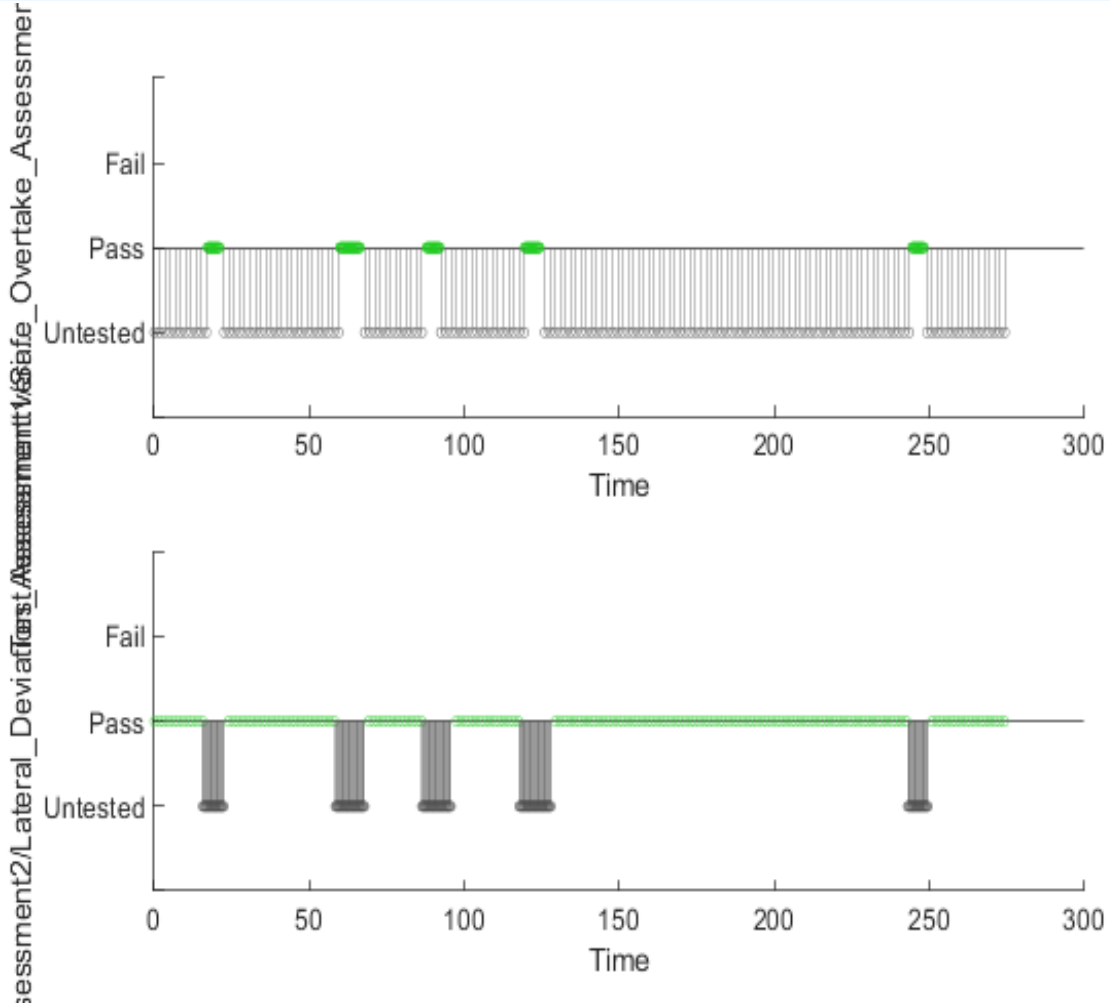


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

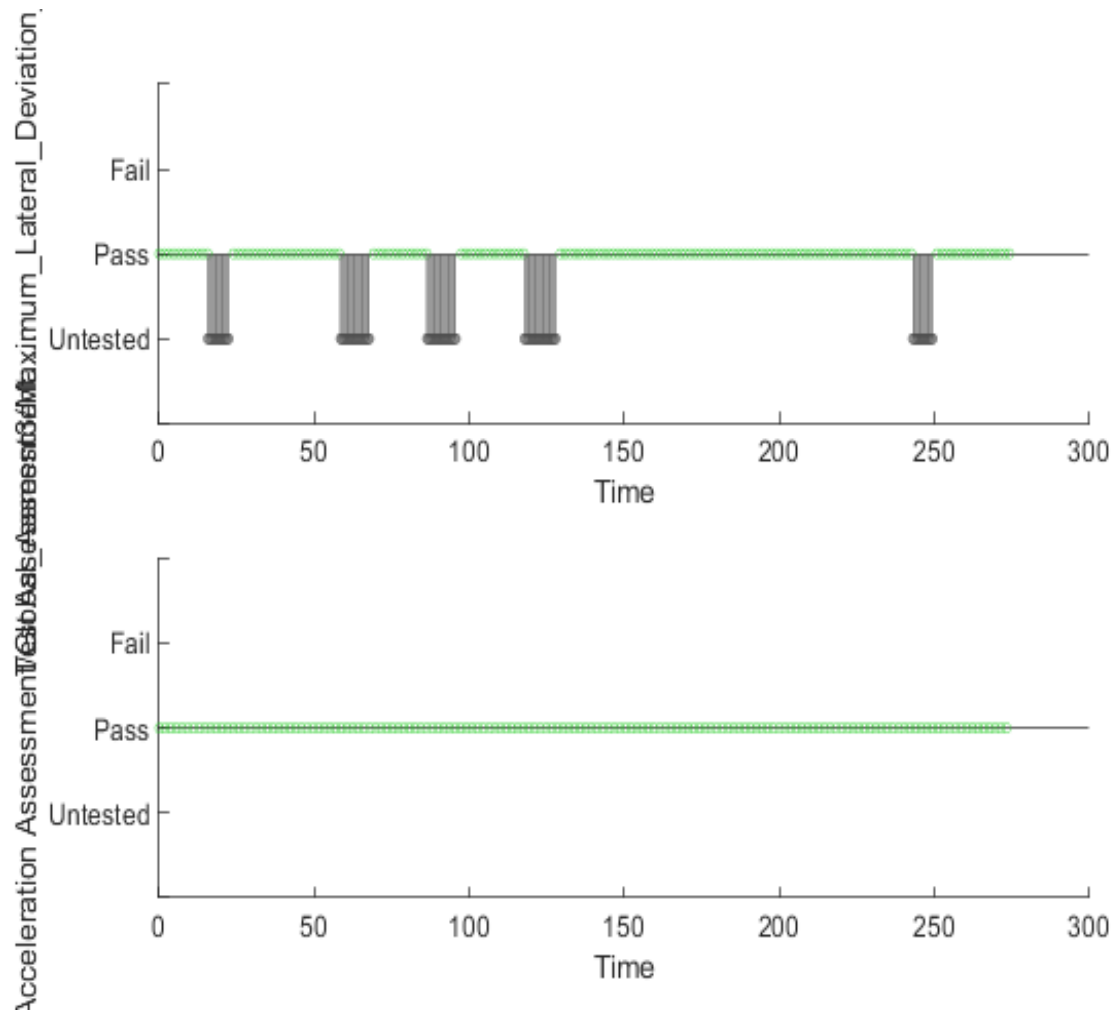


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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## Verify Result 2

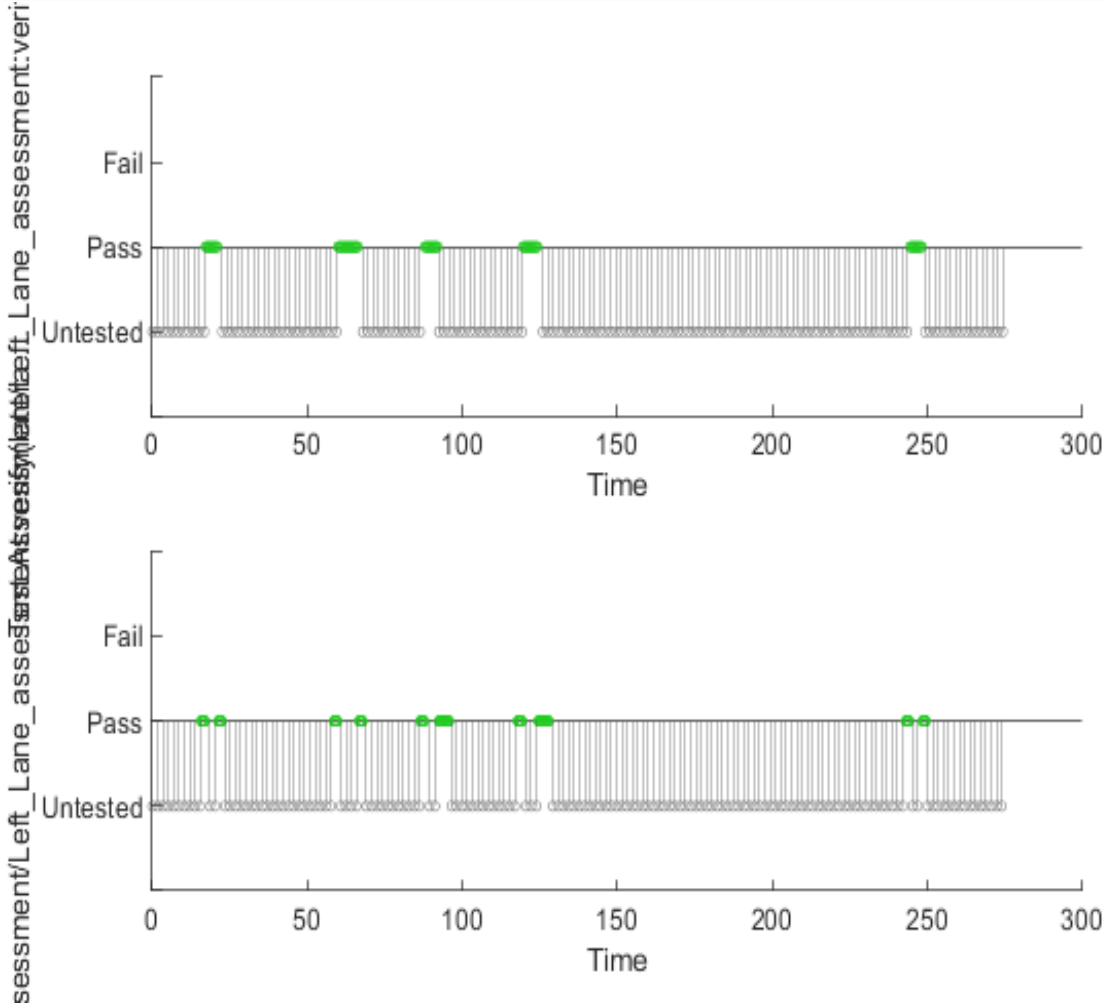
Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>



✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

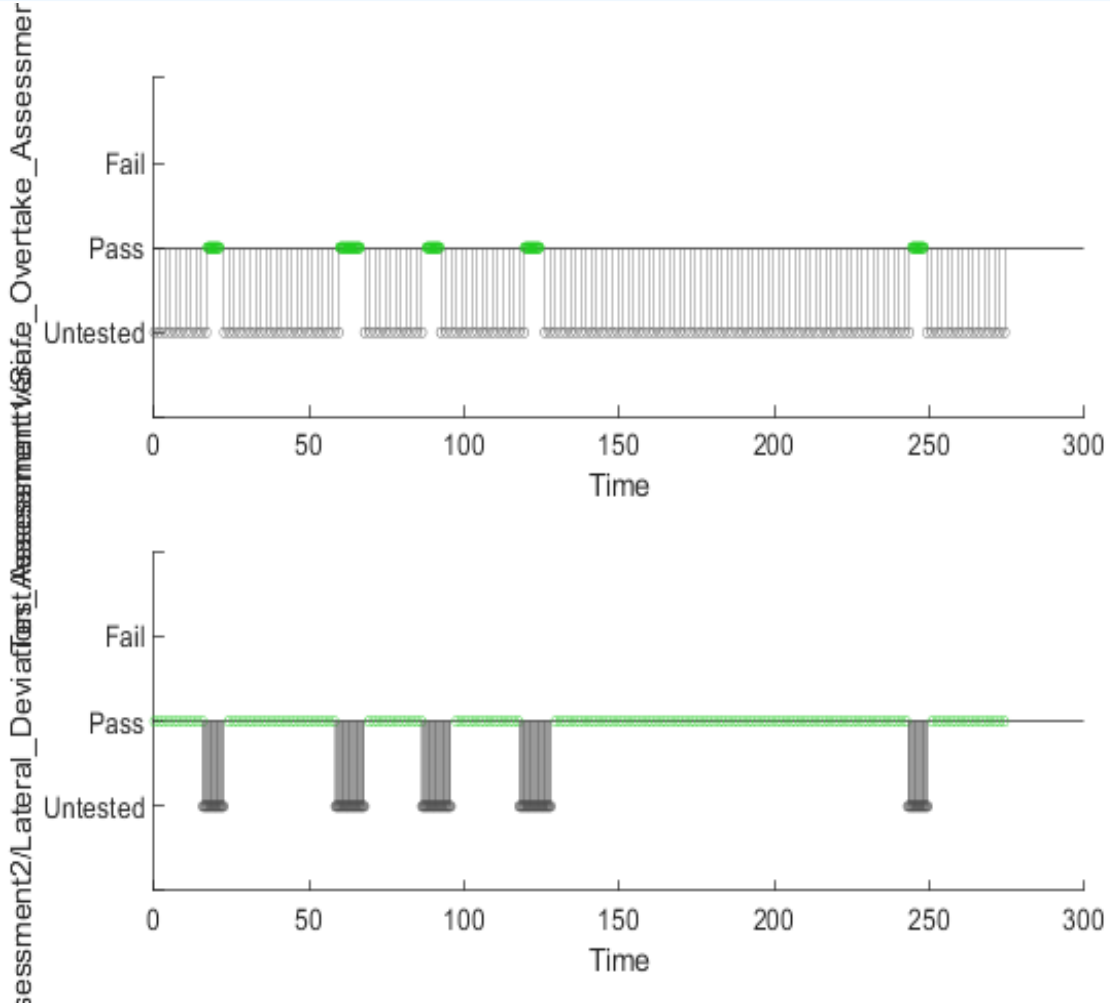


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

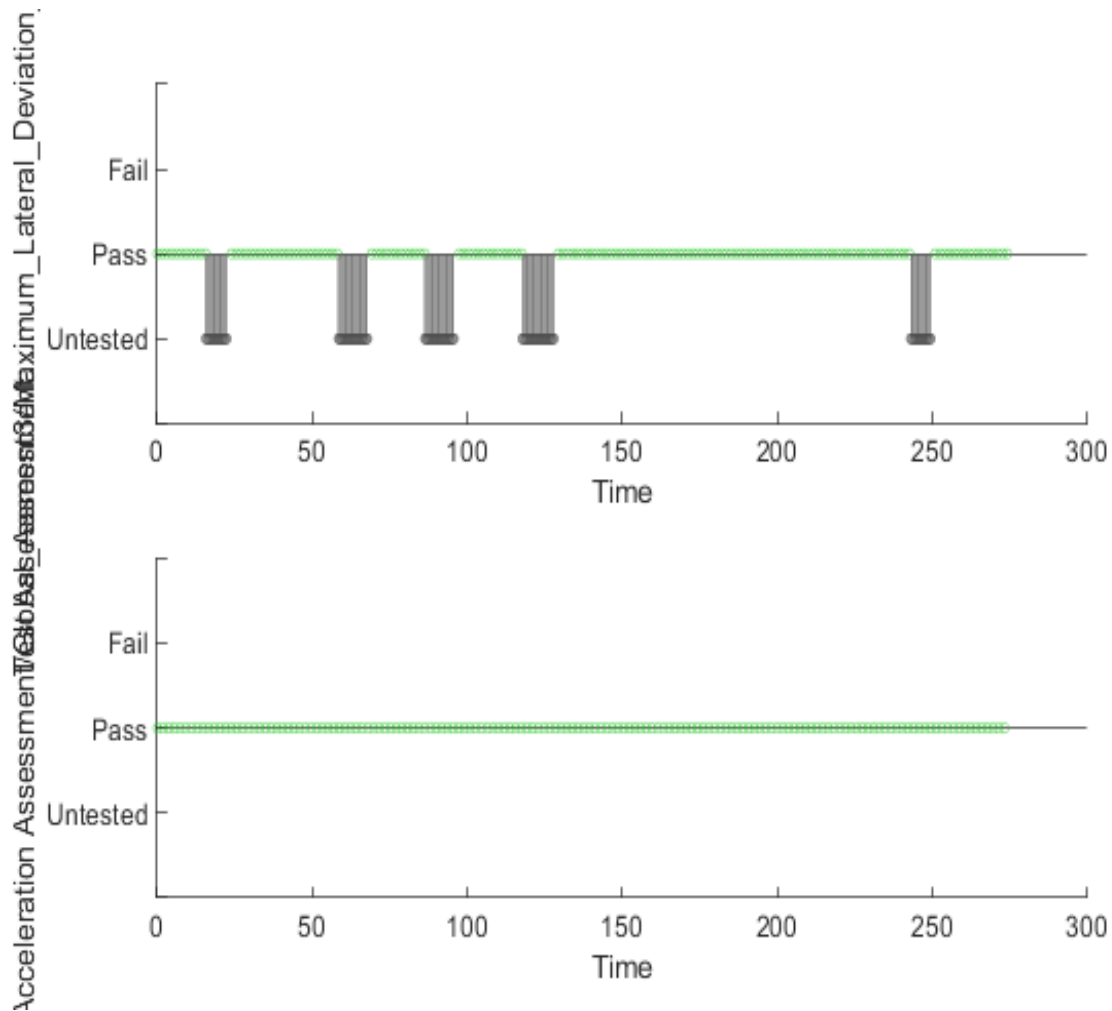


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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## Simulation 1

### System Under Test Information

Model:	Dynamic_obstacle_avoidance
Harness:	Avoidance_in_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

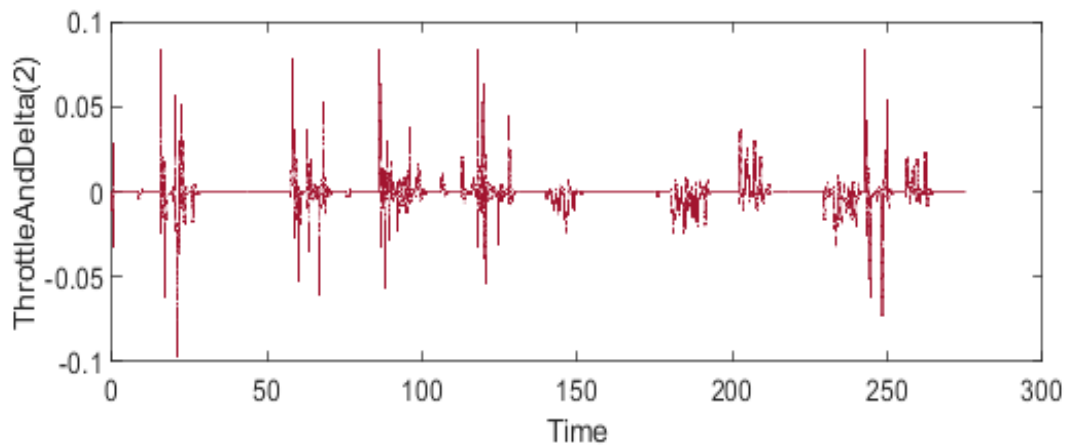
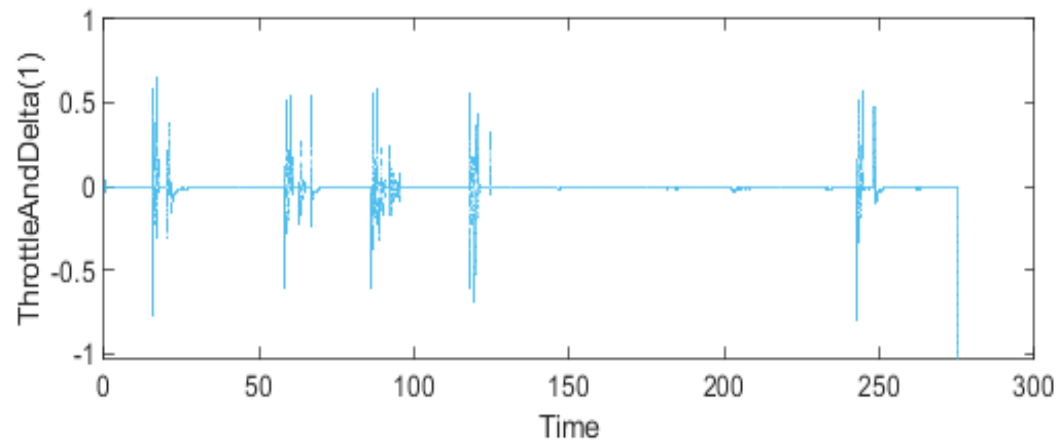
Stop Time:275.08204274327625

Checksum:560512140 2077323266 670520786 1624456250

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Simulation 2

### System Under Test Information

Model:	Dynamic_obstacle_avoidance_SIL
Harness:	Avoidance_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance_SIL/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

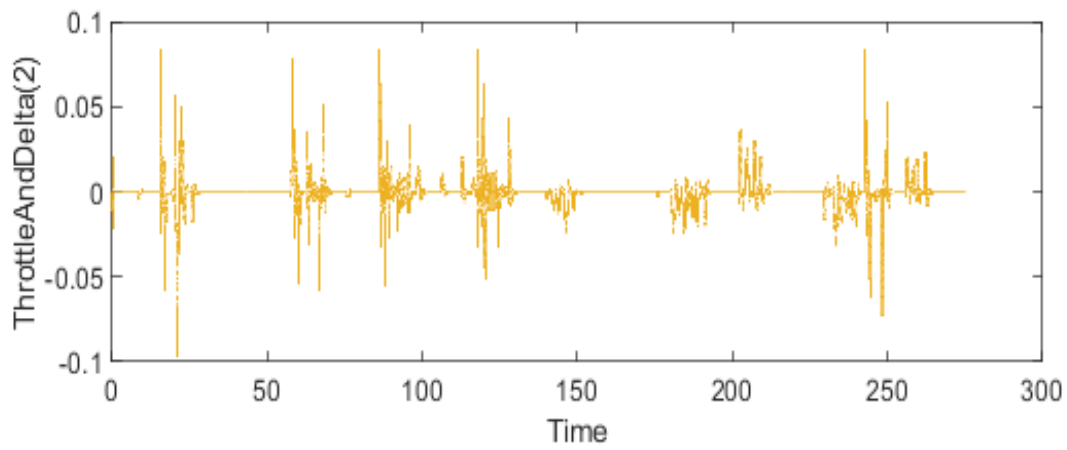
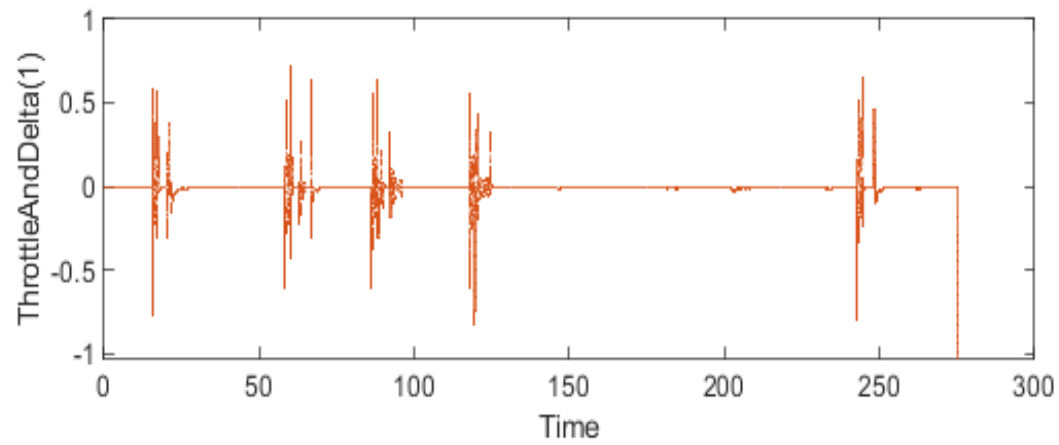
Stop Time:275.08204274327625

Checksum:3910346978 2654682495 3529197182 4188007937

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Puglia

### Test Result Information

Result Type: Test Case Result  
Parent: [Avoidance in real scenario \(BMW 325i\)](#)  
Start Time: 17-Jun-2021 14:34:47

End Time: 17-Jun-2021 14:39:54  
Outcome: Passed

### Test Case Information

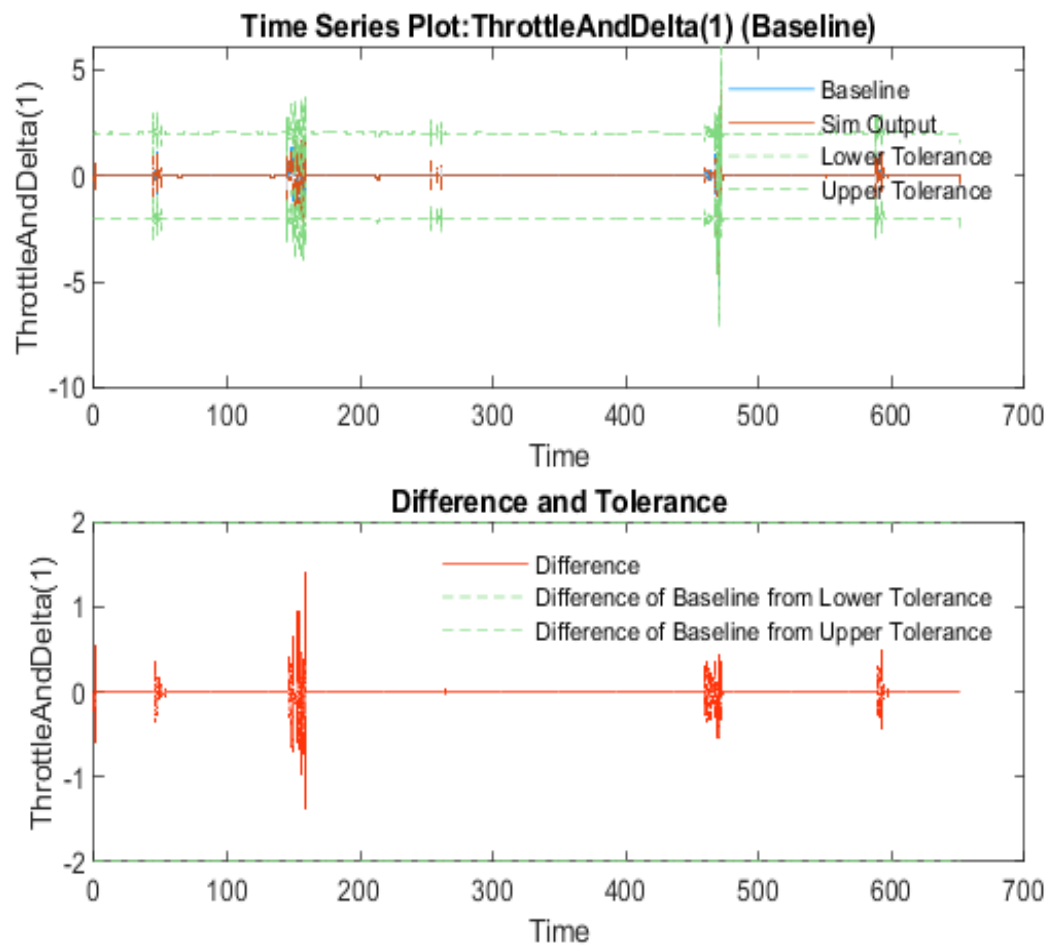
Name: Puglia  
Type: Equivalence Test

### Equivalence Comparison

Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync	Link to Plot
✔ ThrottleAndDelta(1)	2	0.01	0	0	1.41	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>
✔ ThrottleAndDelta(2)	0.2	0.01	0	0	0.0962	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>

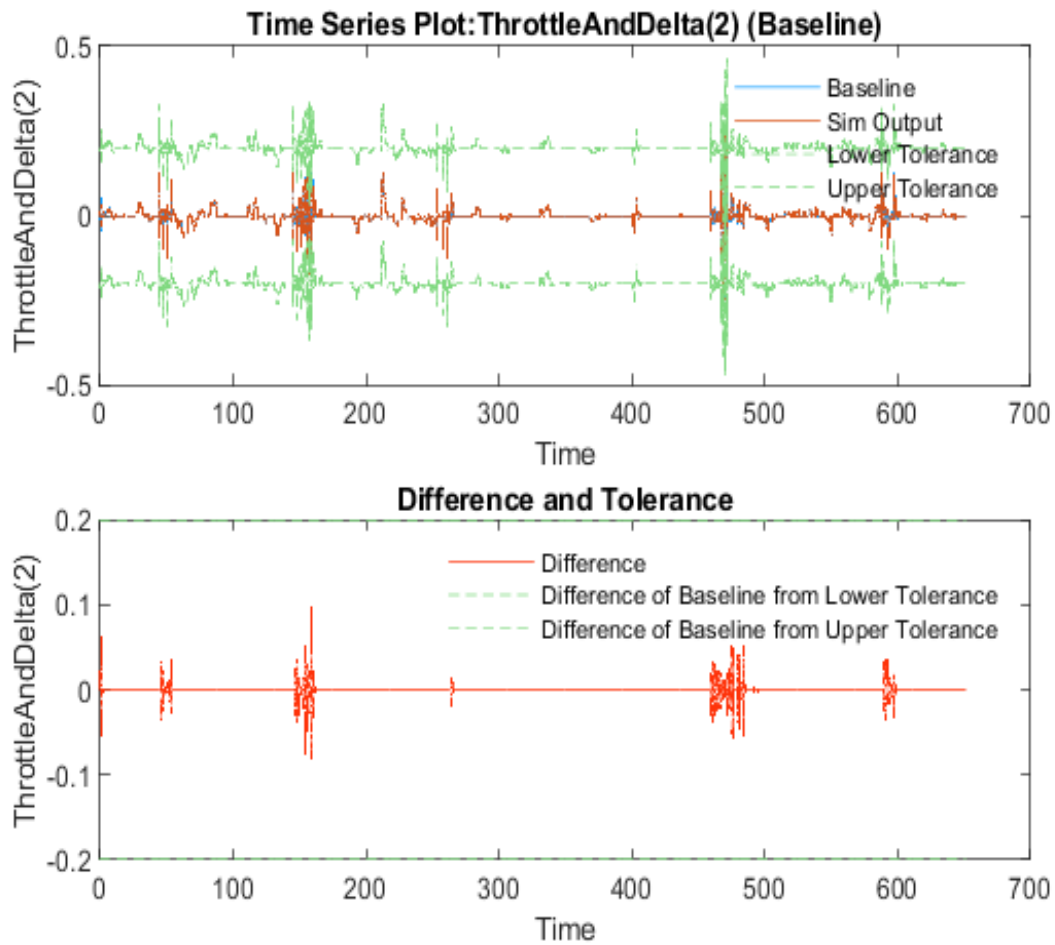
Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✔ ThrottleAndDelta(1)	2	0.01	0	0	1.41	double		Continuous	double		Continuous	zoh	union





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Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✓ ThrottleAndDelta(2)	0.2	0.01	0	0	0.0962	double		Continuous	double		Continuous	zoh	union



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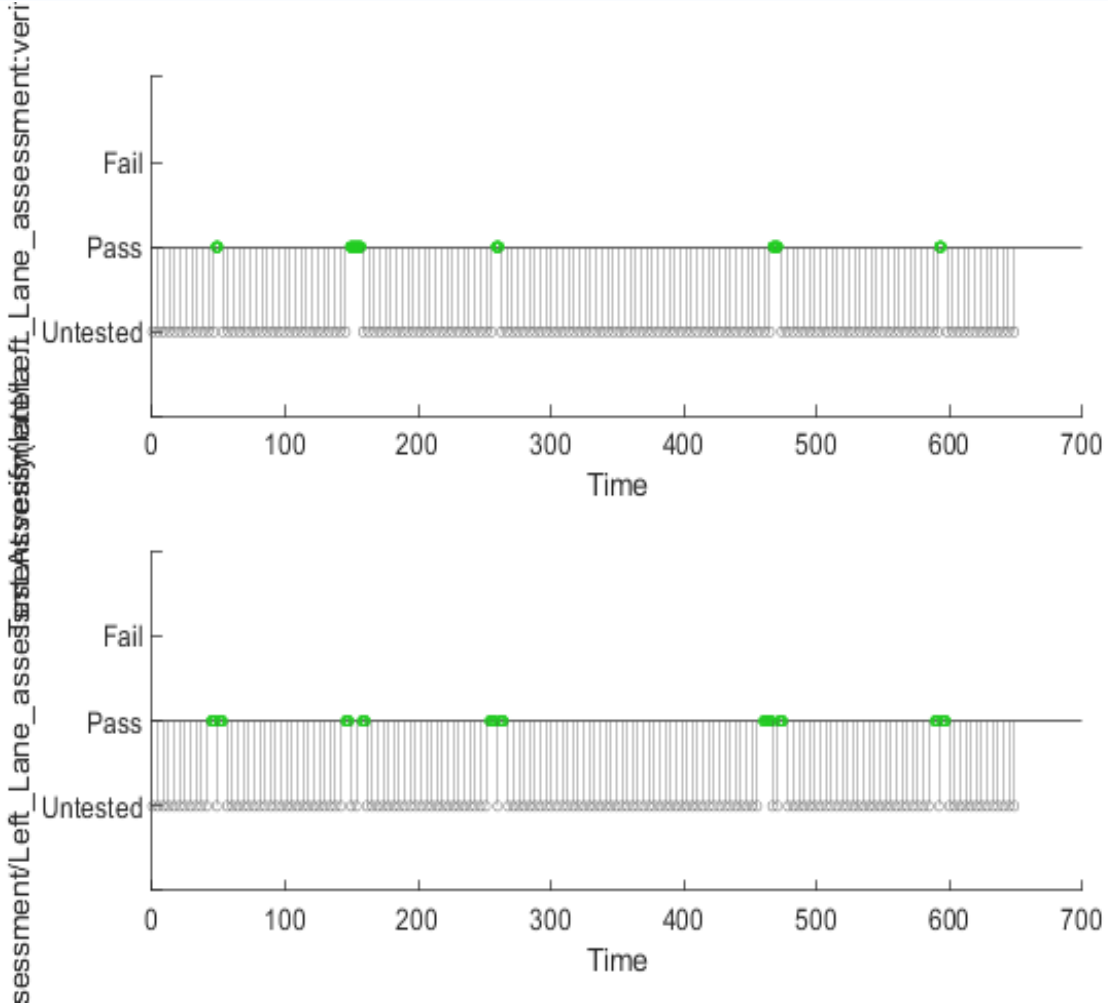
## Verify Result 1

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

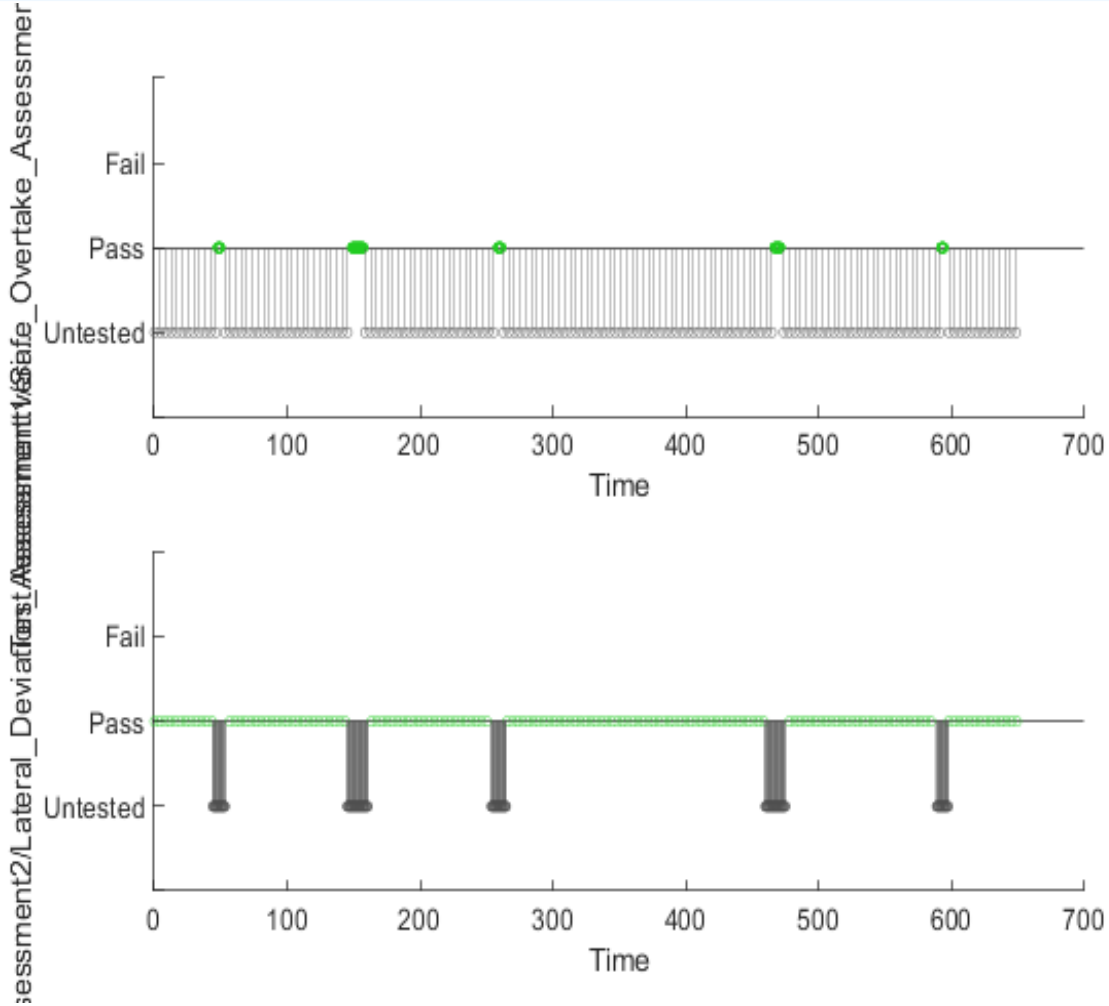


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

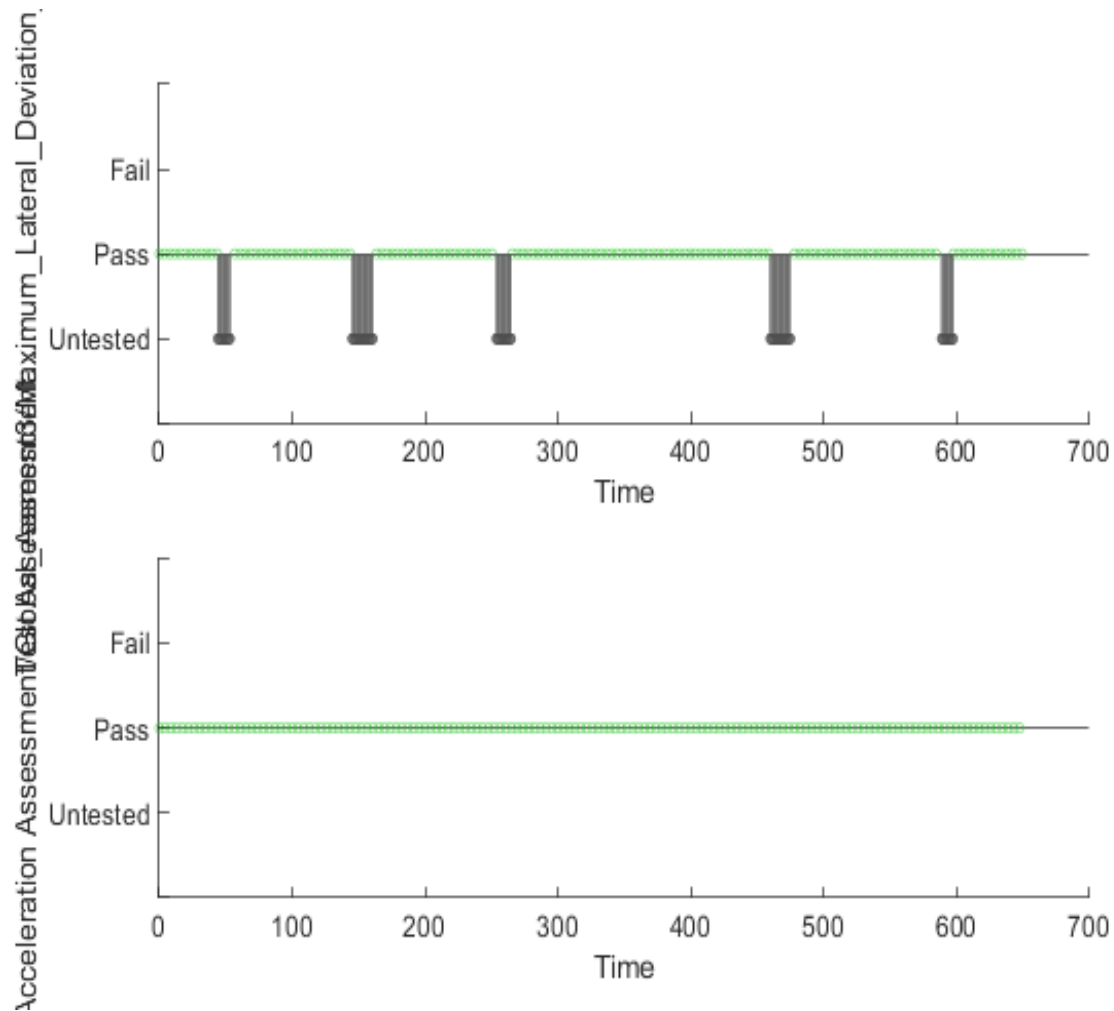


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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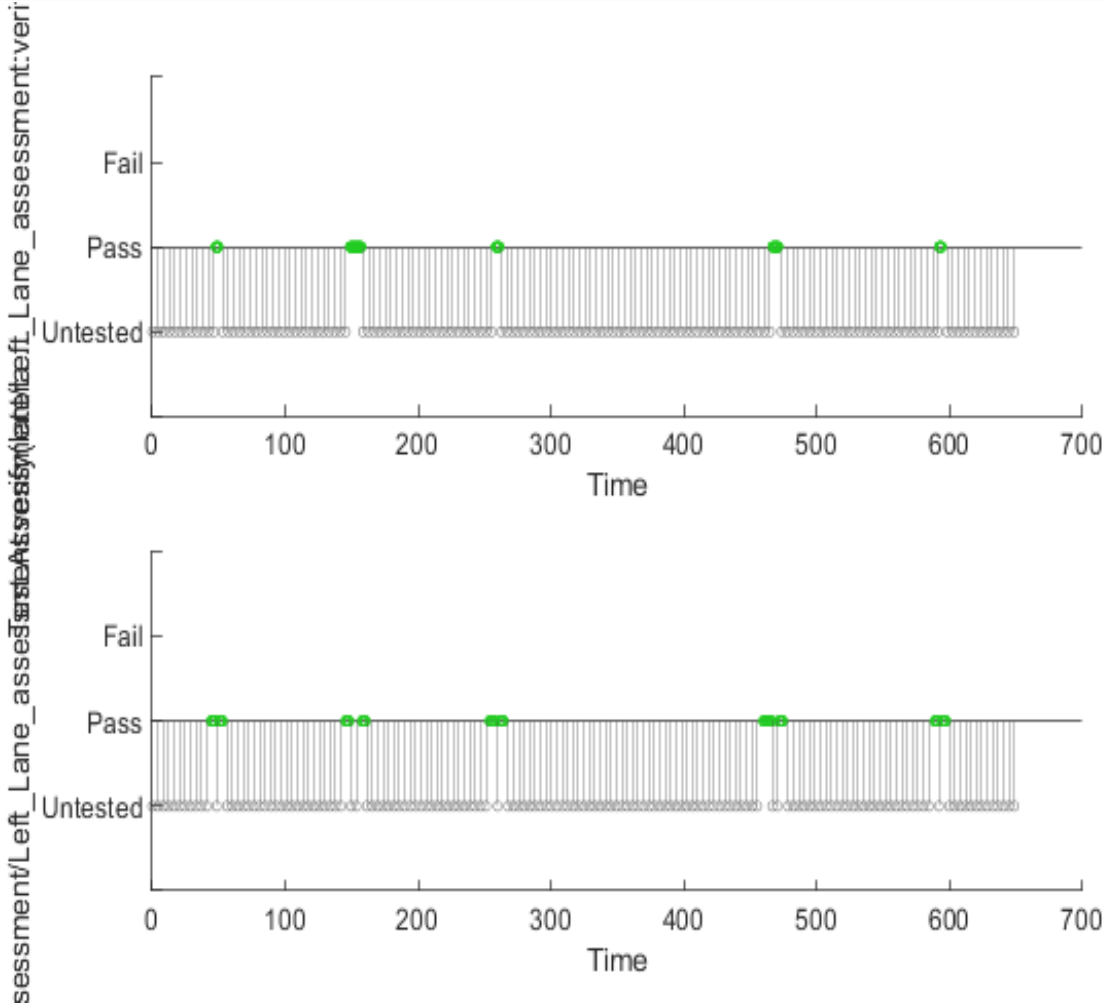
## Verify Result 2

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

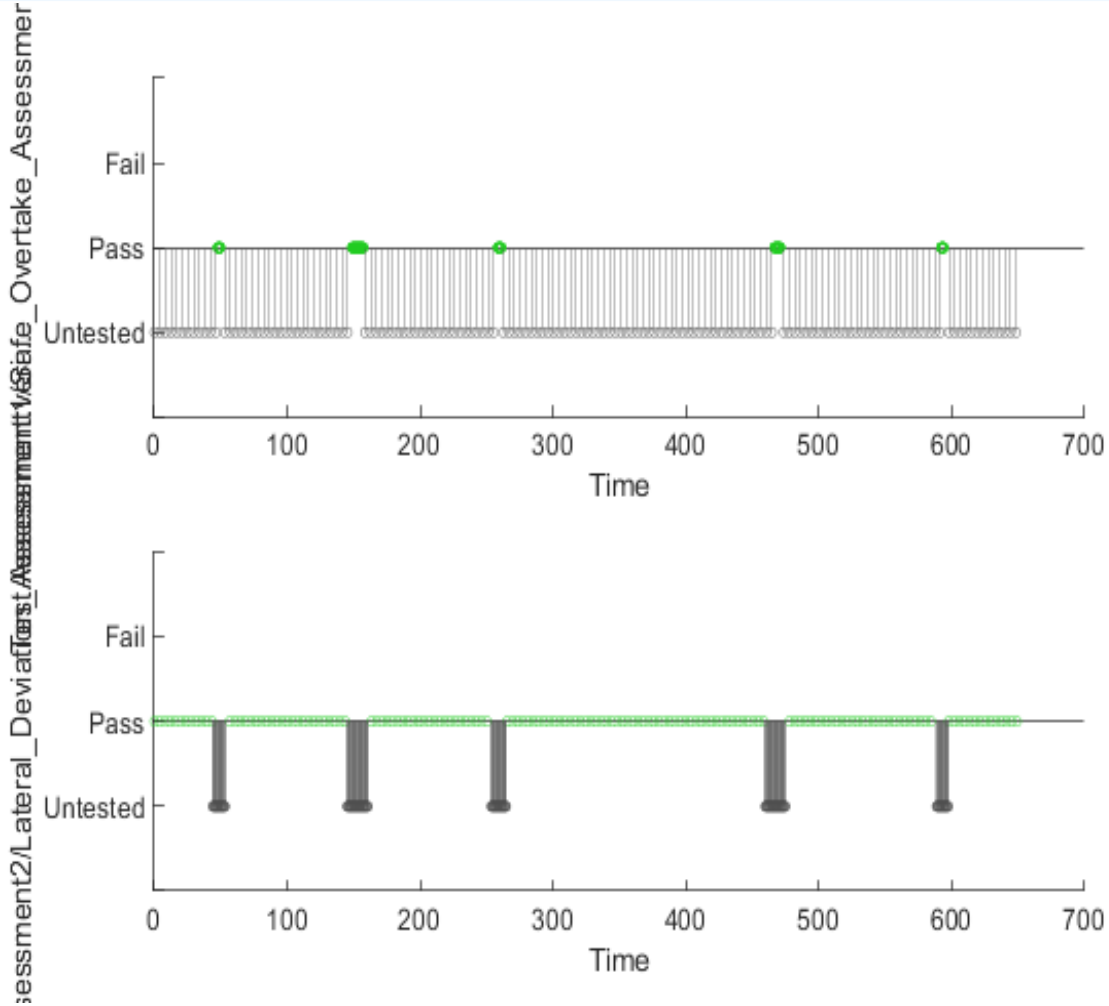


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

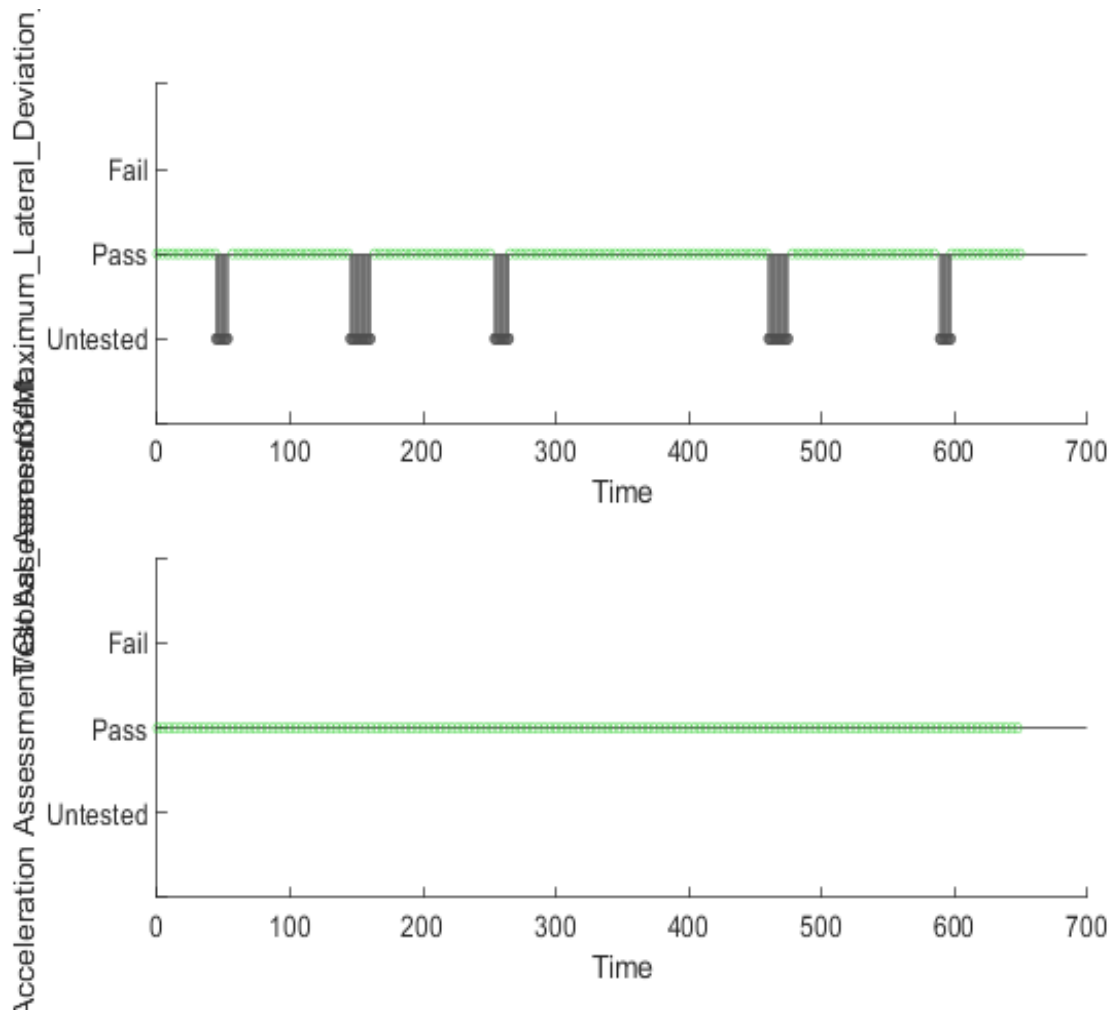


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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## Simulation 1

### System Under Test Information

Model:	Dynamic_obstacle_avoidance
Harness:	Avoidance_in_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance/Subsystem
Release:	Current
Simulation Mode:	normal



Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

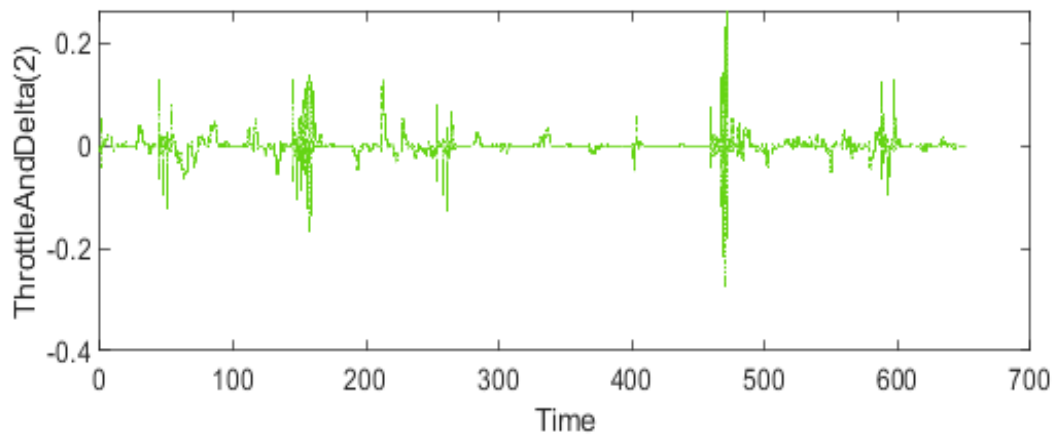
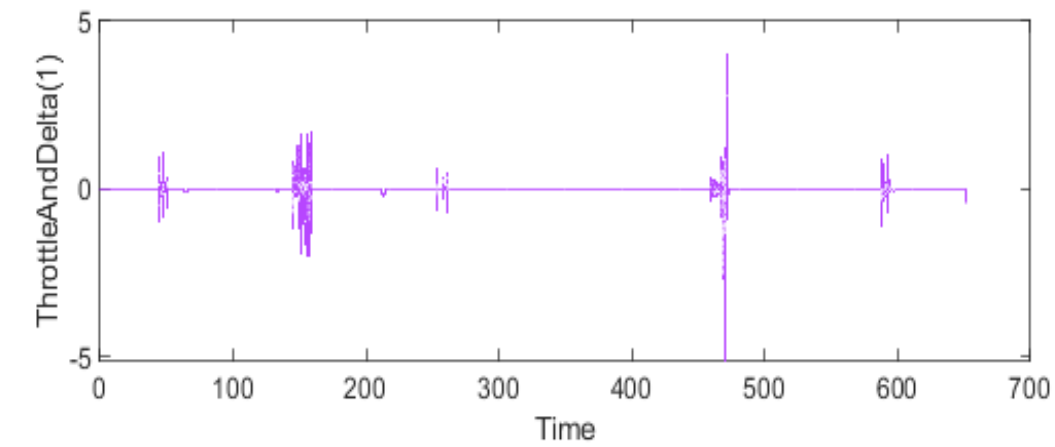
Stop Time:651.65546907329588

Checksum:1175733023 1860673233 1531597131 2149246587

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Simulation 2

### System Under Test Information

Model:	Dynamic_obstacle_avoidance_SIL
Harness:	Avoidance_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance_SIL/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

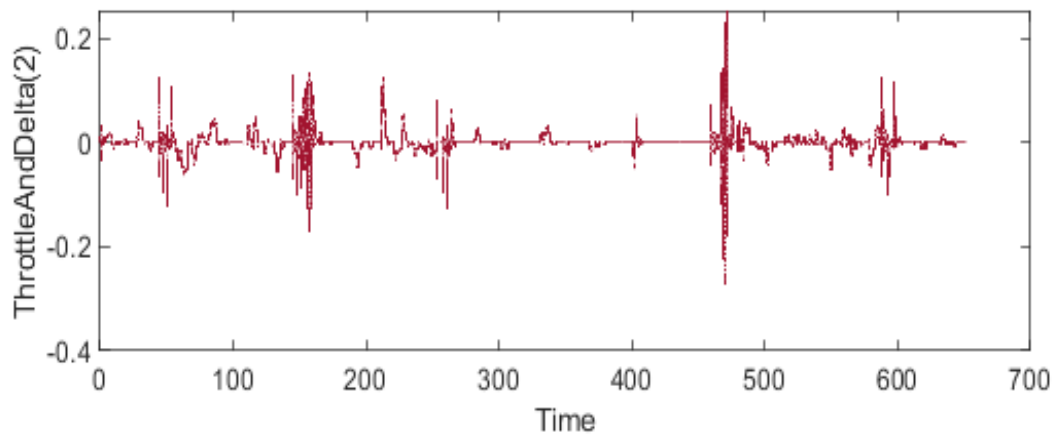
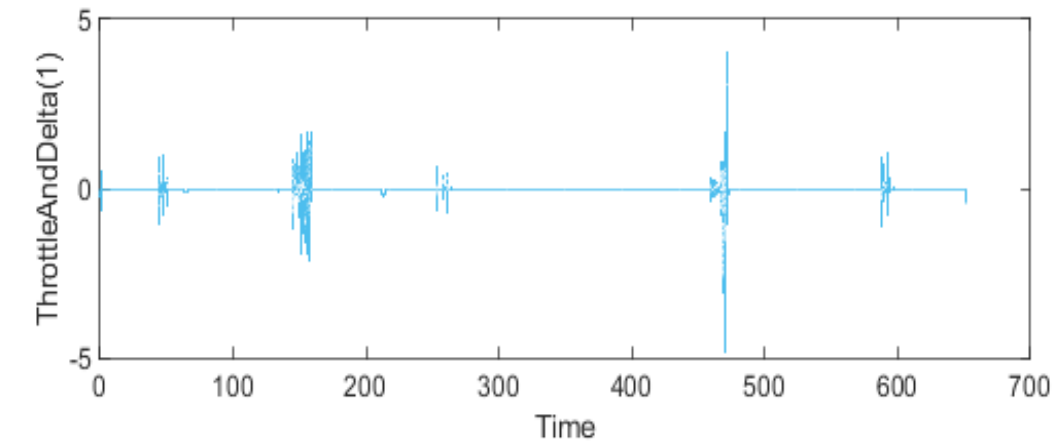
Stop Time:651.65546907329588

Checksum:3207812238 536380018 4266494897 4273513856

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Indianapolis Motor Speedway

### Test Result Information

Result Type: Test Case Result  
Parent: [Avoidance in real scenario \(BMW 325i\)](#)  
Start Time: 17-Jun-2021 14:39:55

End Time: 17-Jun-2021 14:40:56  
Outcome: Passed

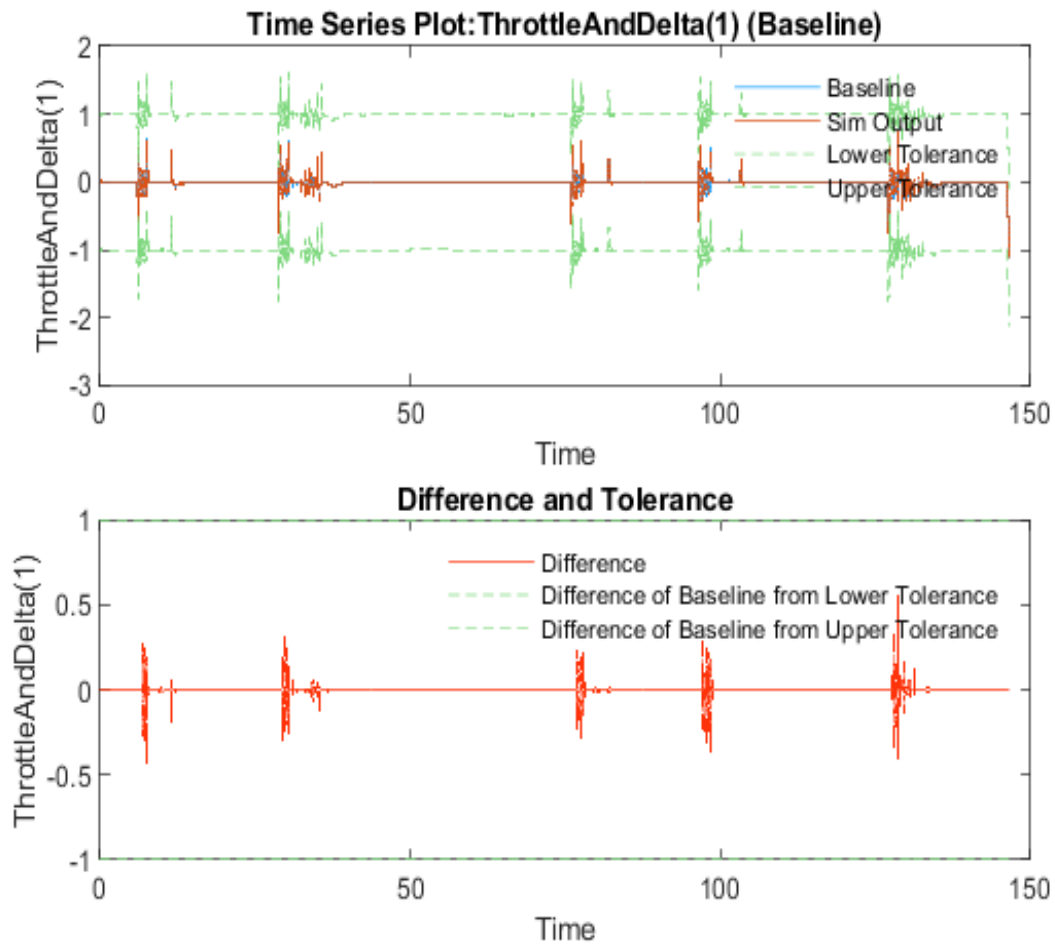
### Test Case Information

Name: Indianapolis Motor Speedway  
Type: Equivalence Test

### Equivalence Comparison

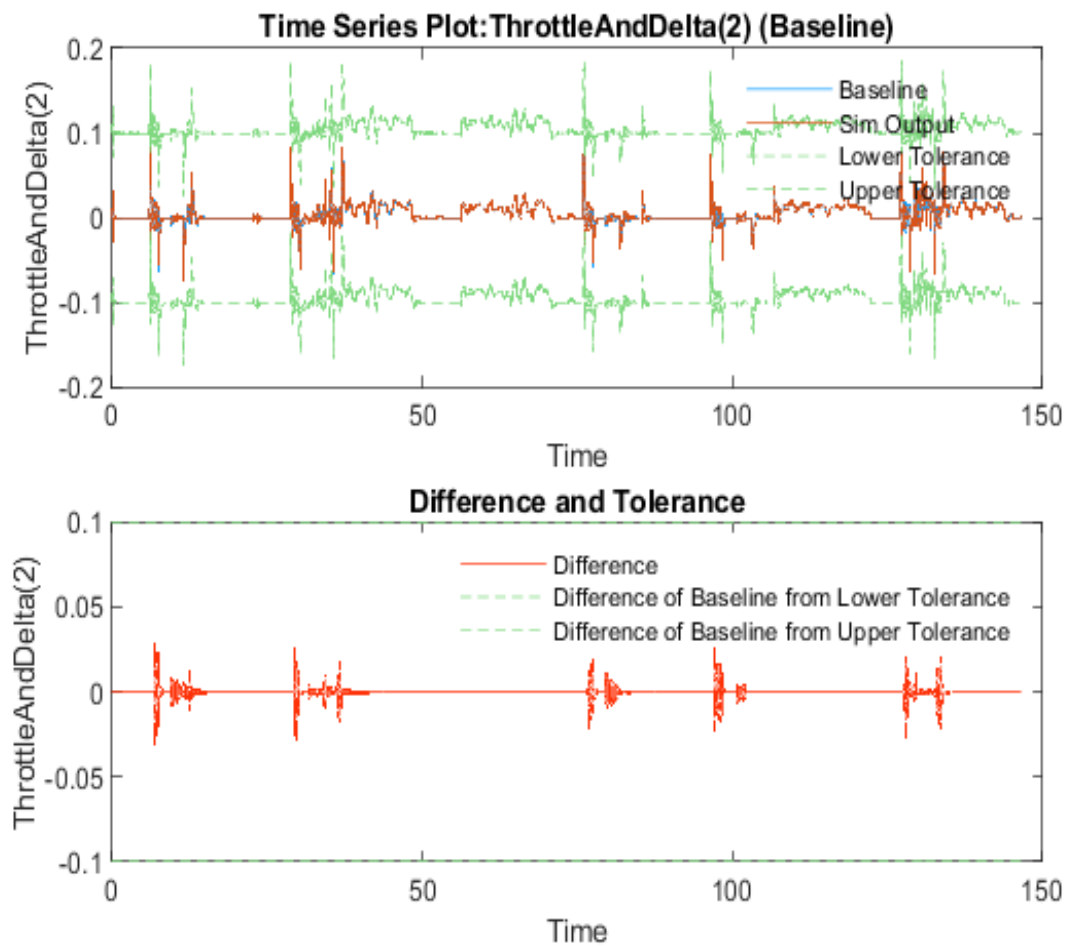
Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync	Link to Plot
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.552	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>
✔ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0301	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.552	double		Continuous	double		Continuous	zoh	union



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Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✓ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0301	double		Continuous	double		Continuous	zoh	union



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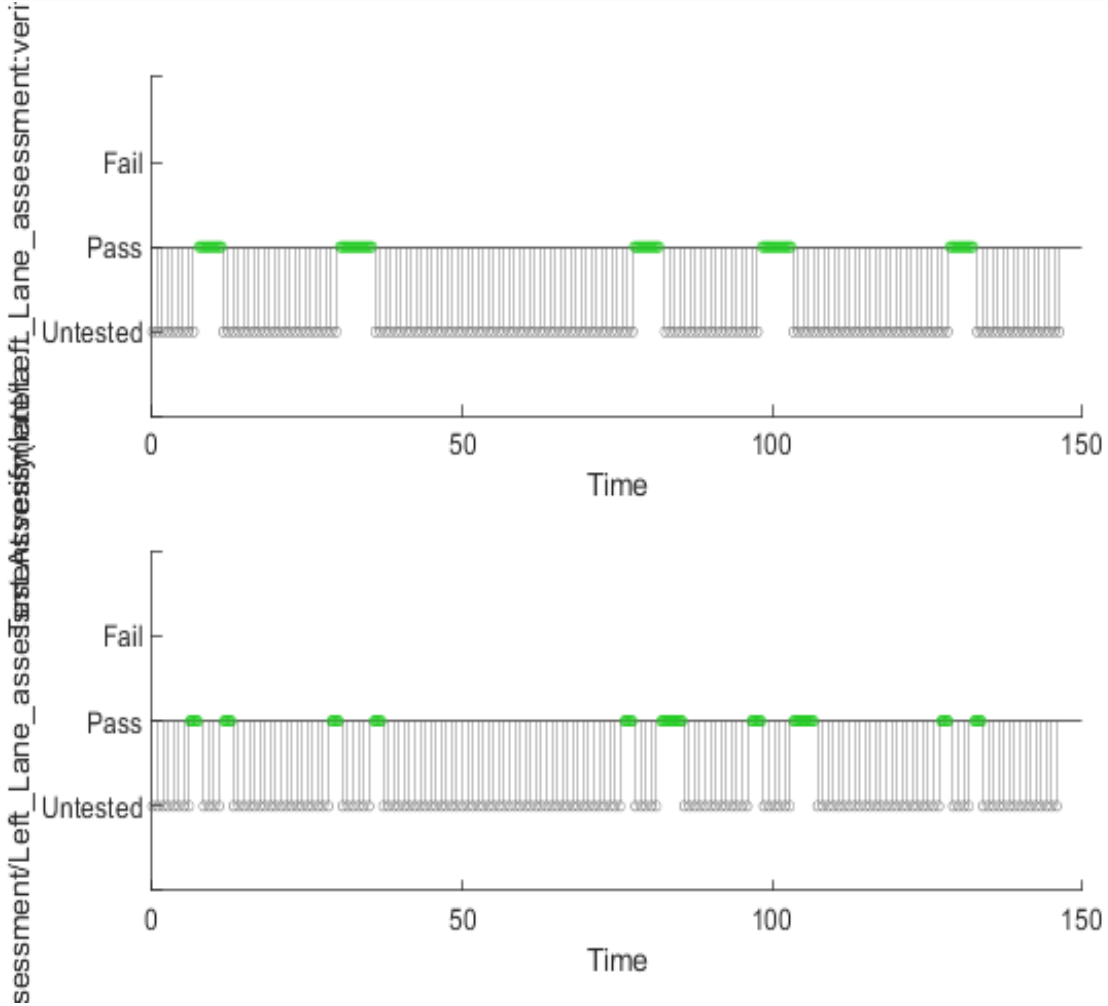
## Verify Result 1

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✔ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	
✔ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	



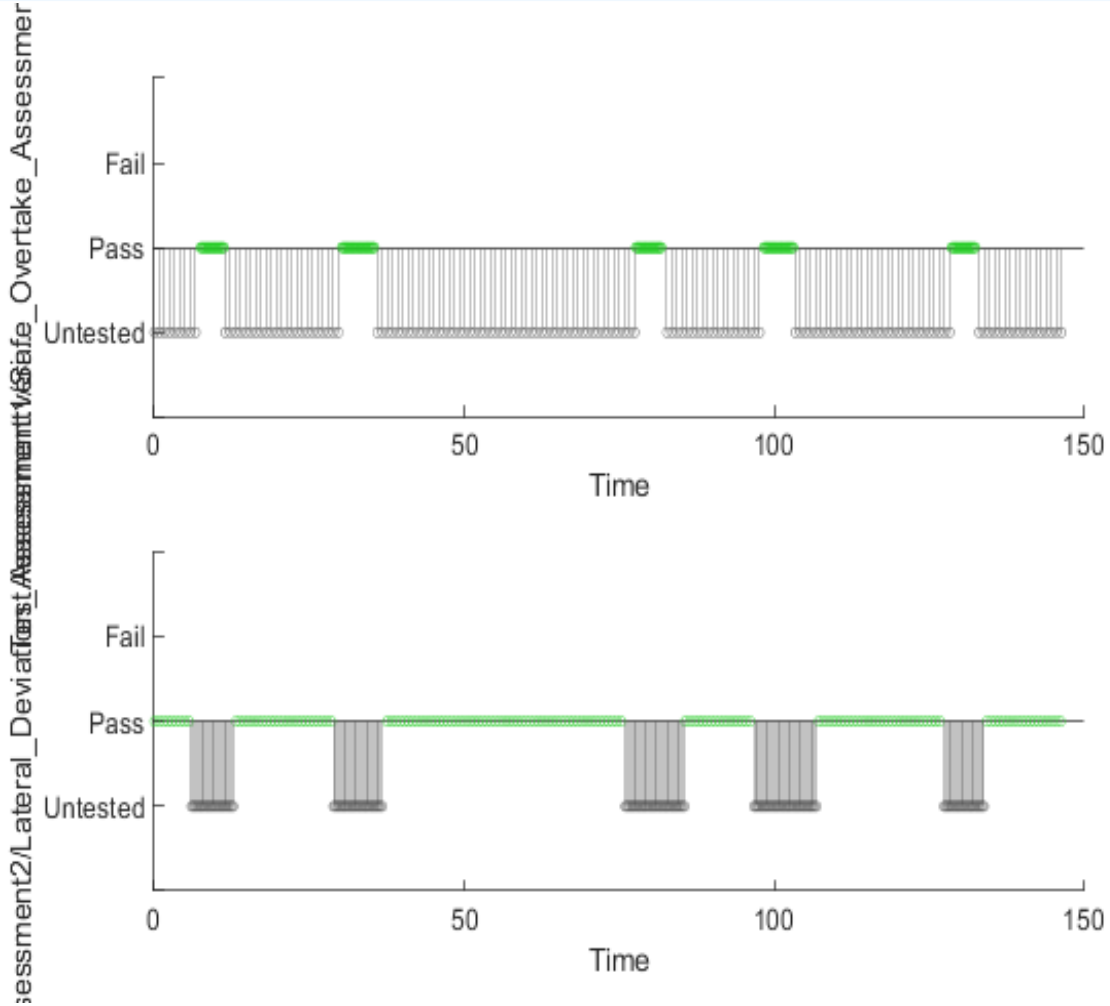
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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

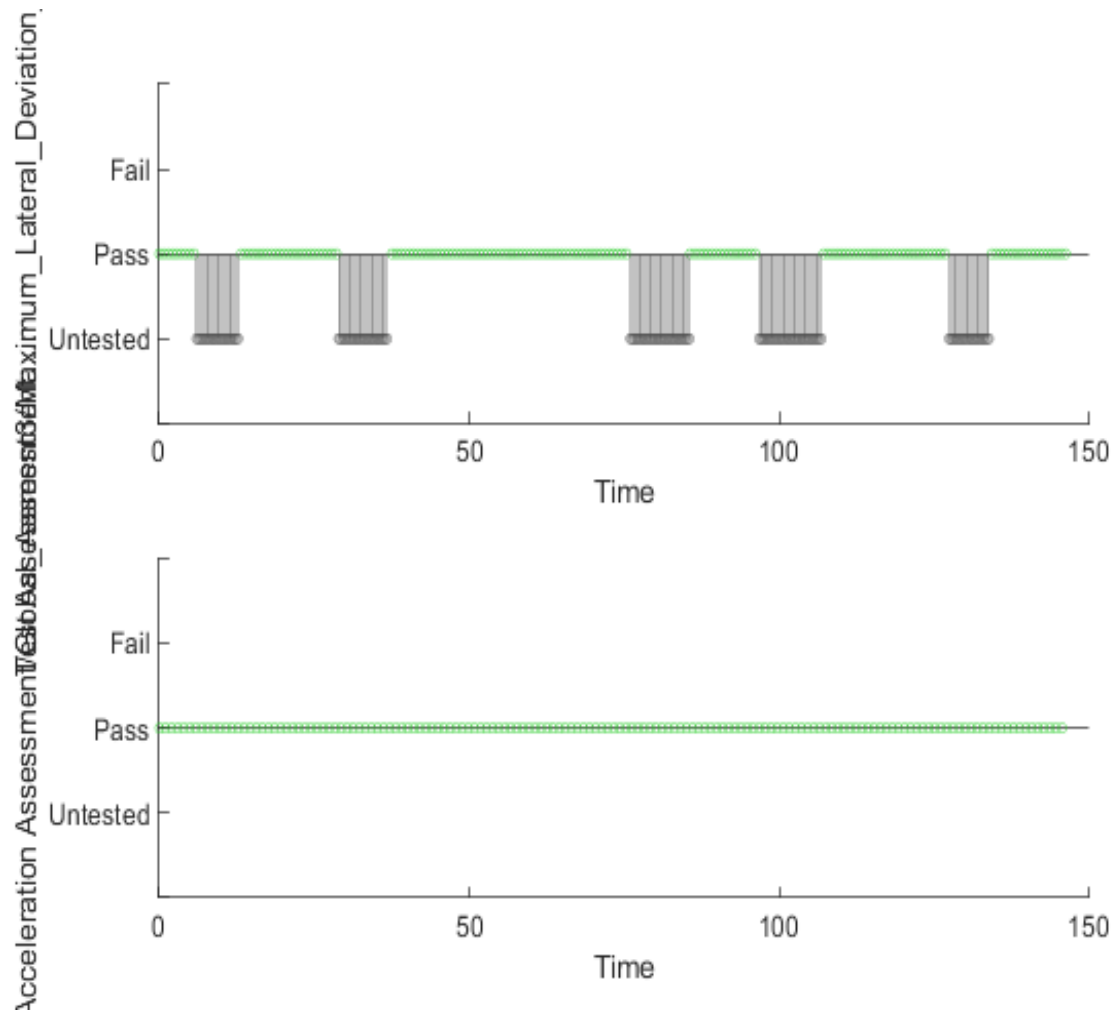


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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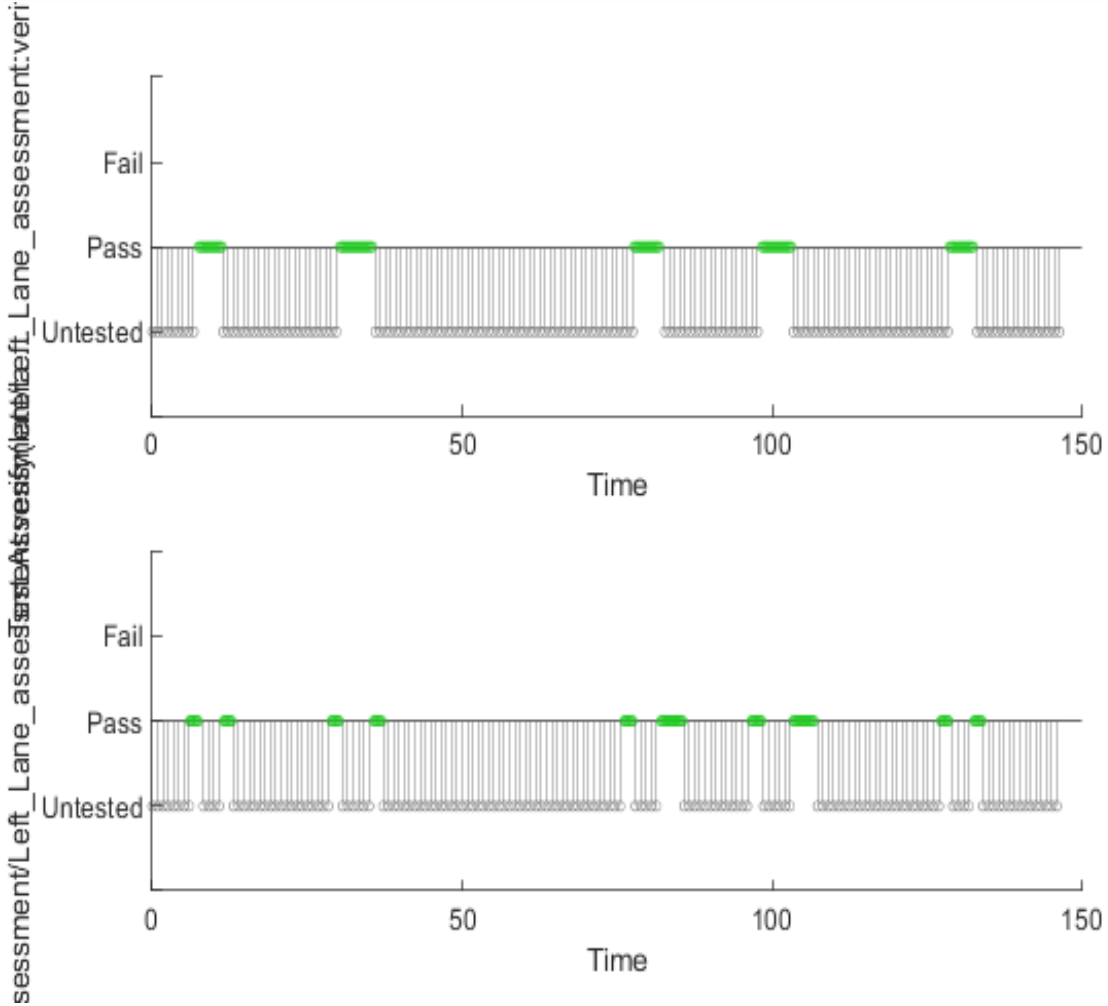
## Verify Result 2

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

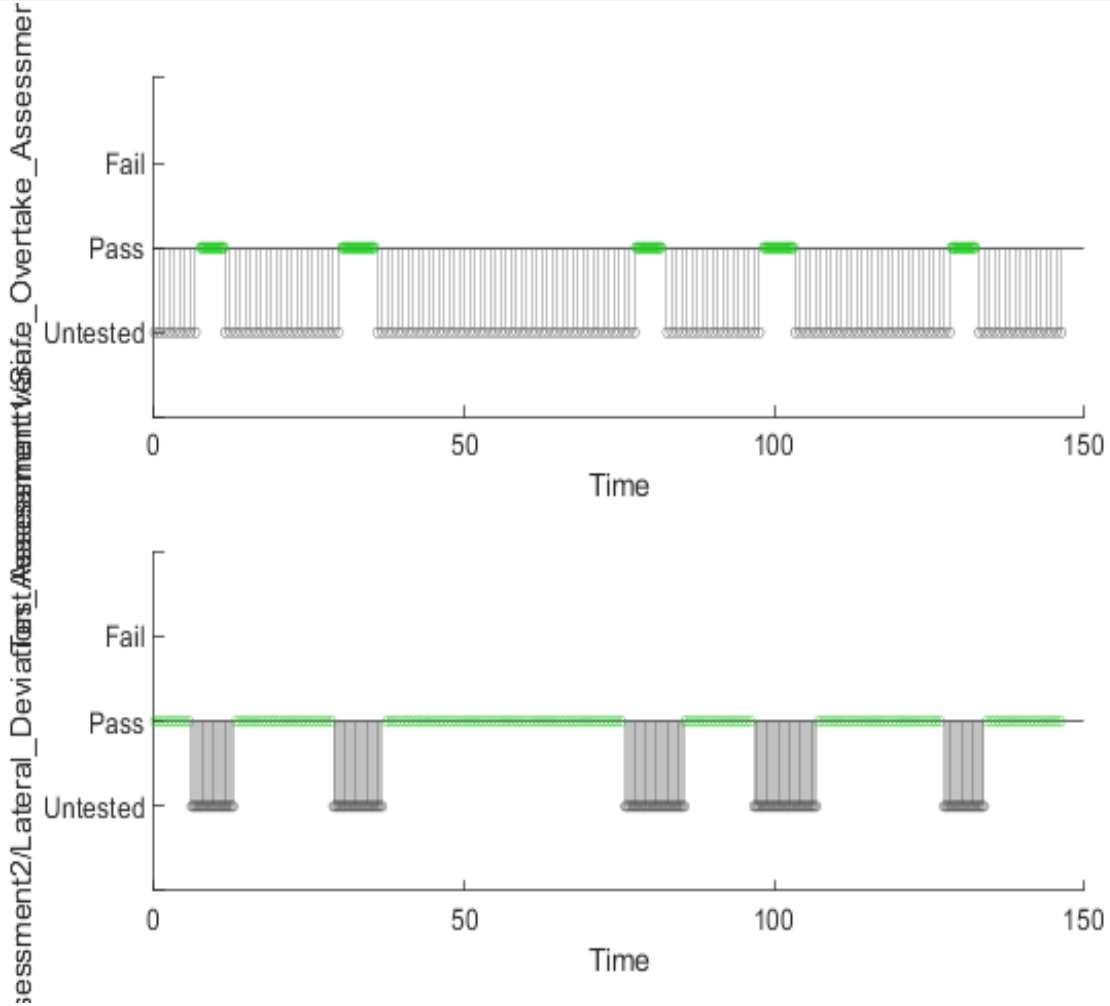


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

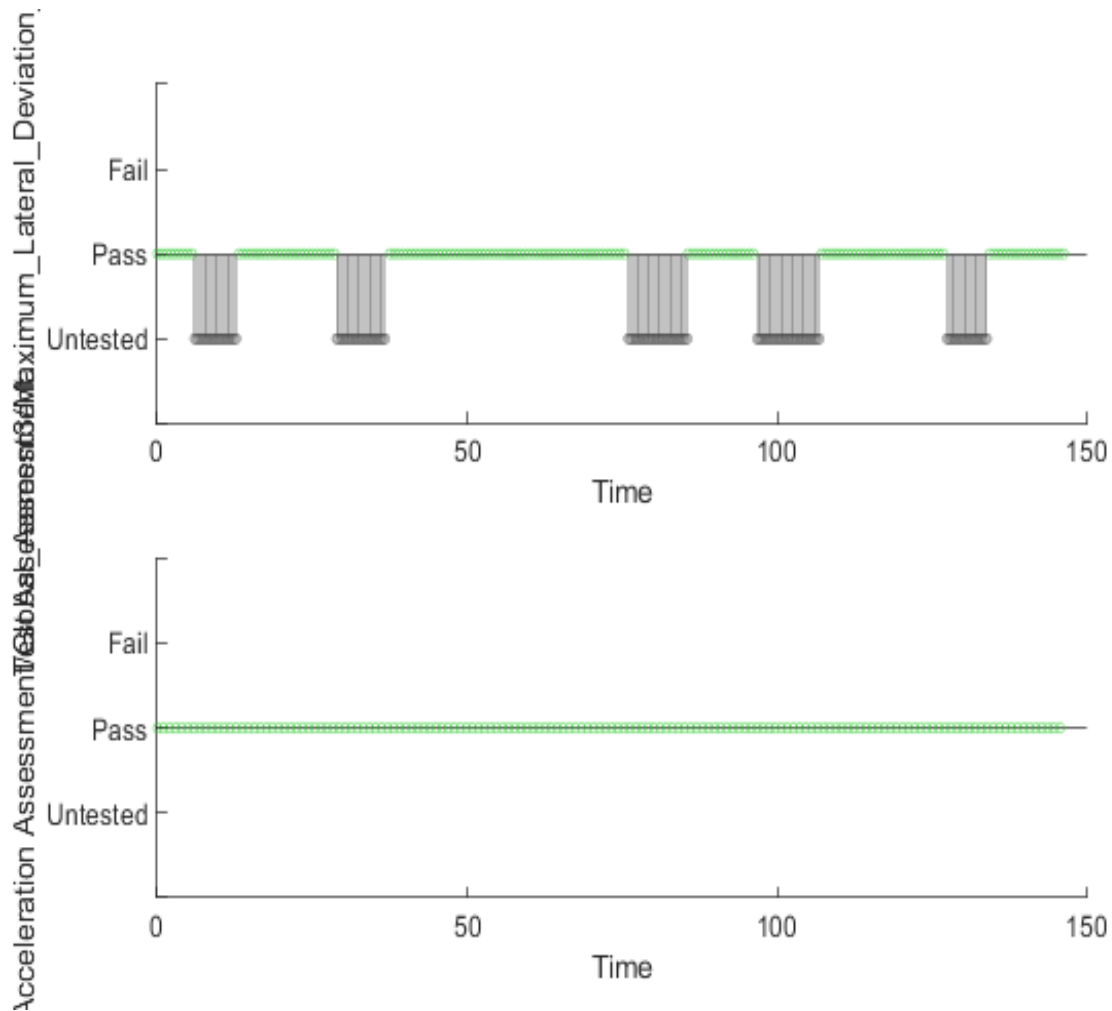


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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## Simulation 1

### System Under Test Information

Model:	Dynamic_obstacle_avoidance
Harness:	Avoidance_in_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

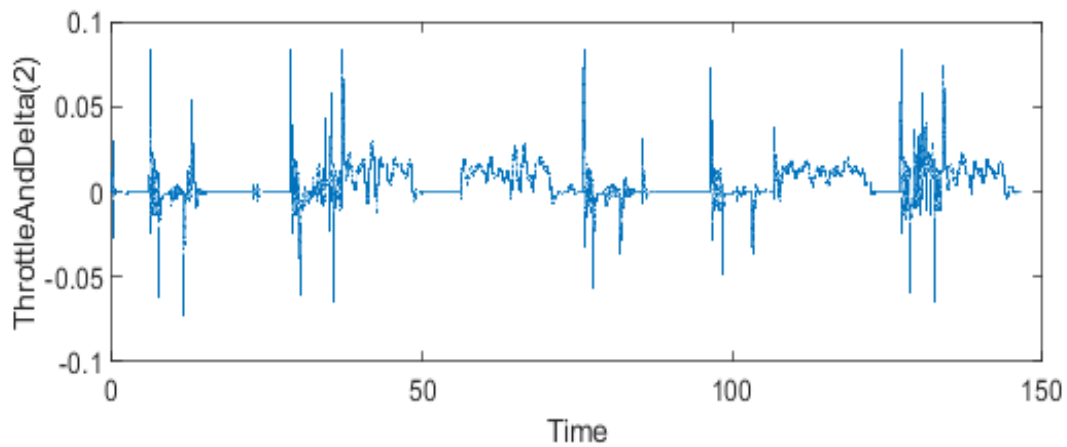
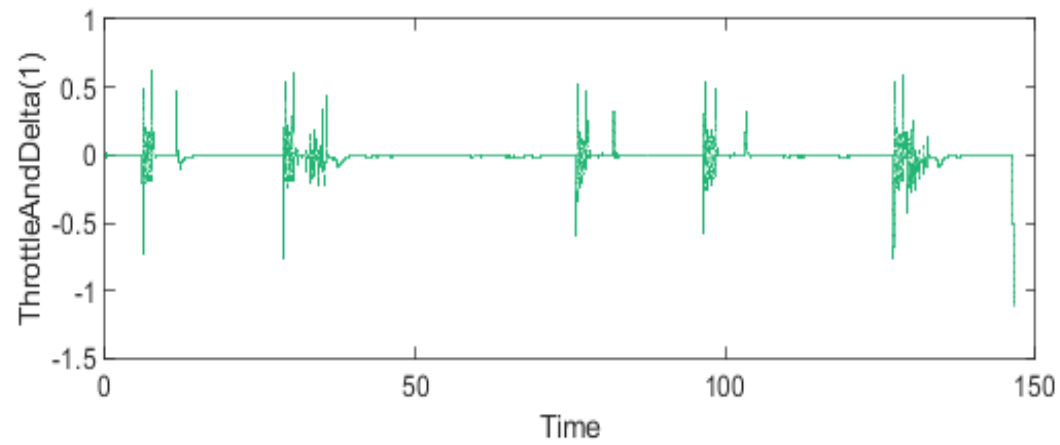
Stop Time:146.51791178475014

Checksum:1435385966 2039963742 2097507888 2861652933

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Simulation 2

### System Under Test Information

Model:	Dynamic_obstacle_avoidance_SIL
Harness:	Avoidance_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance_SIL/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

Stop Time:146.51791178475014

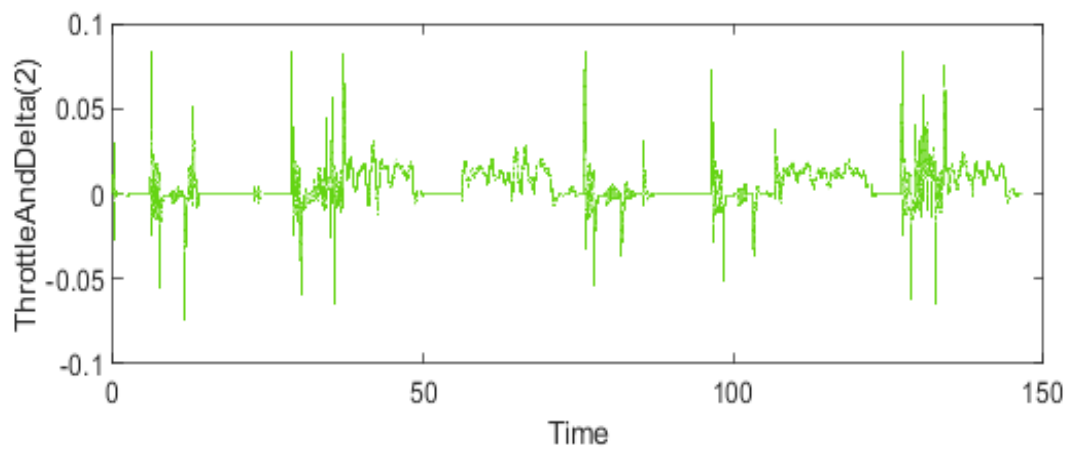
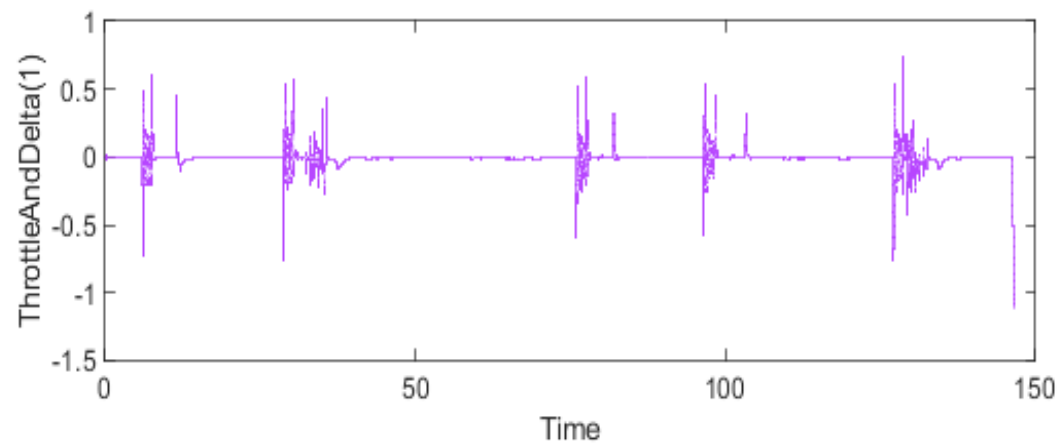
Checksum:3141116588 90218501 3127706781 1180433817

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union





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## Avoidance in real scenario (Ford E150)

### Test Result Information

Result Type: Test Suite Result  
Parent: [SIL Test](#)  
Start Time: 17-Jun-2021 14:40:56

End Time: 17-Jun-2021 14:50:00  
Outcome: Total: 3, Passed: 2, Failed: 1

### Test Suite Information

Name: Avoidance in real scenario (Ford E150)

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## A14 Highway

### Test Result Information

Result Type: Test Case Result  
Parent: [Avoidance in real scenario \(Ford E150\)](#)  
Start Time: 17-Jun-2021 14:40:56  
End Time: 17-Jun-2021 14:42:50  
Outcome: Passed

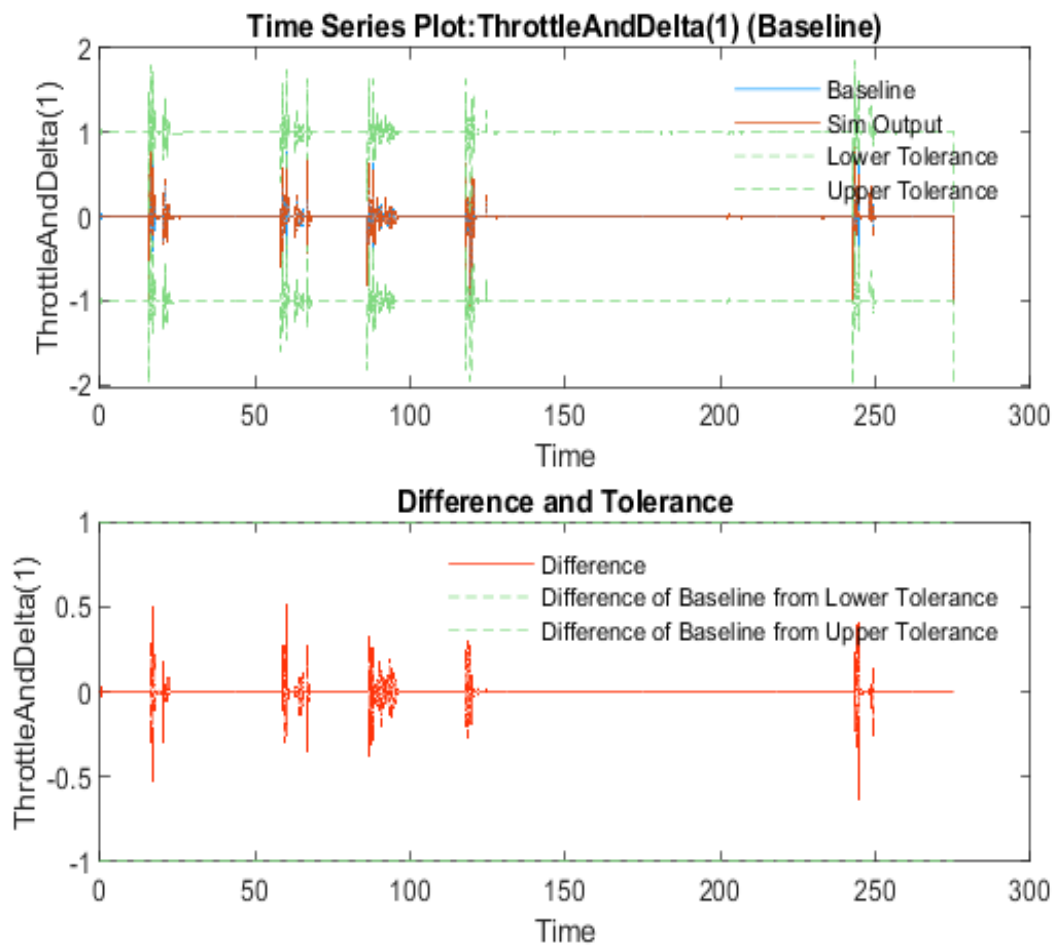
### Test Case Information

Name: A14 Highway  
Type: Equivalence Test

### Equivalence Comparison

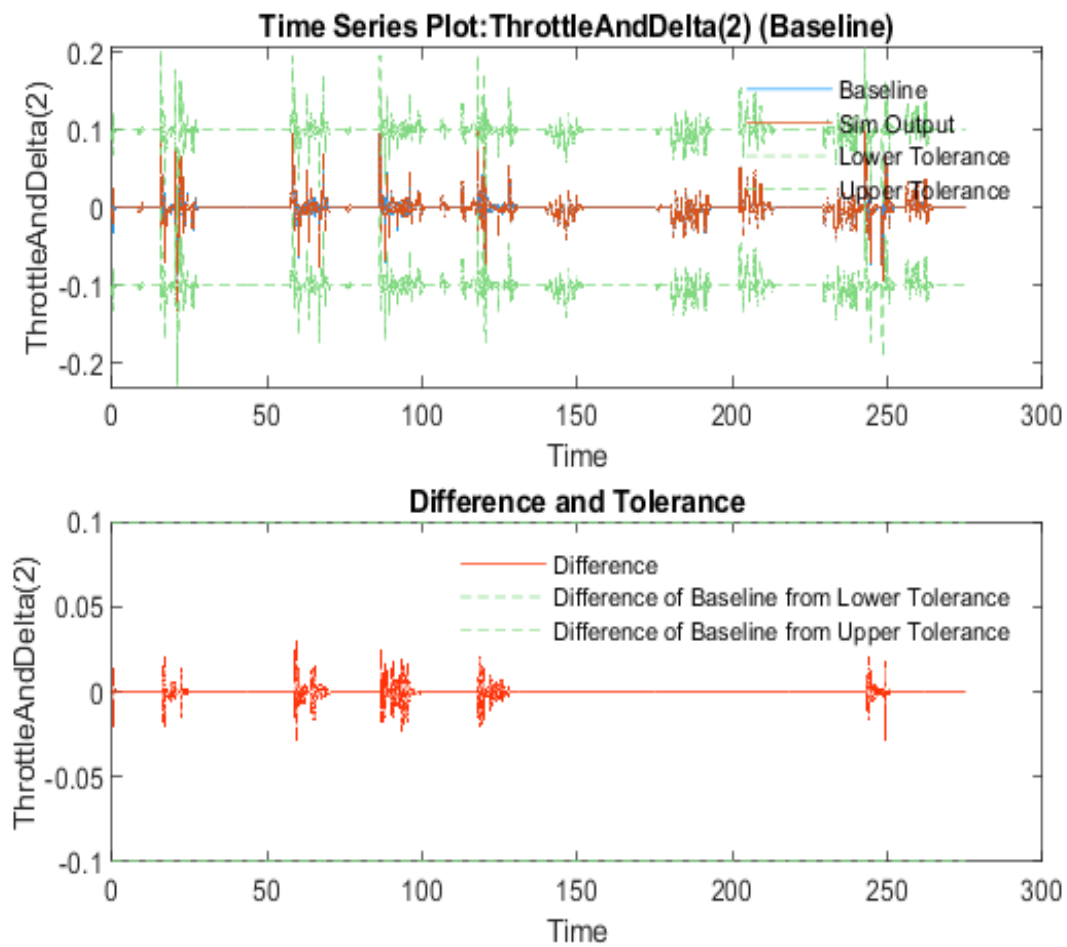
Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync	Link to Plot
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.631	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>
✔ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0296	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.631	double		Continuous	double		Continuous	zoh	union



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Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✓ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0296	double		Continuous	double		Continuous	zoh	union



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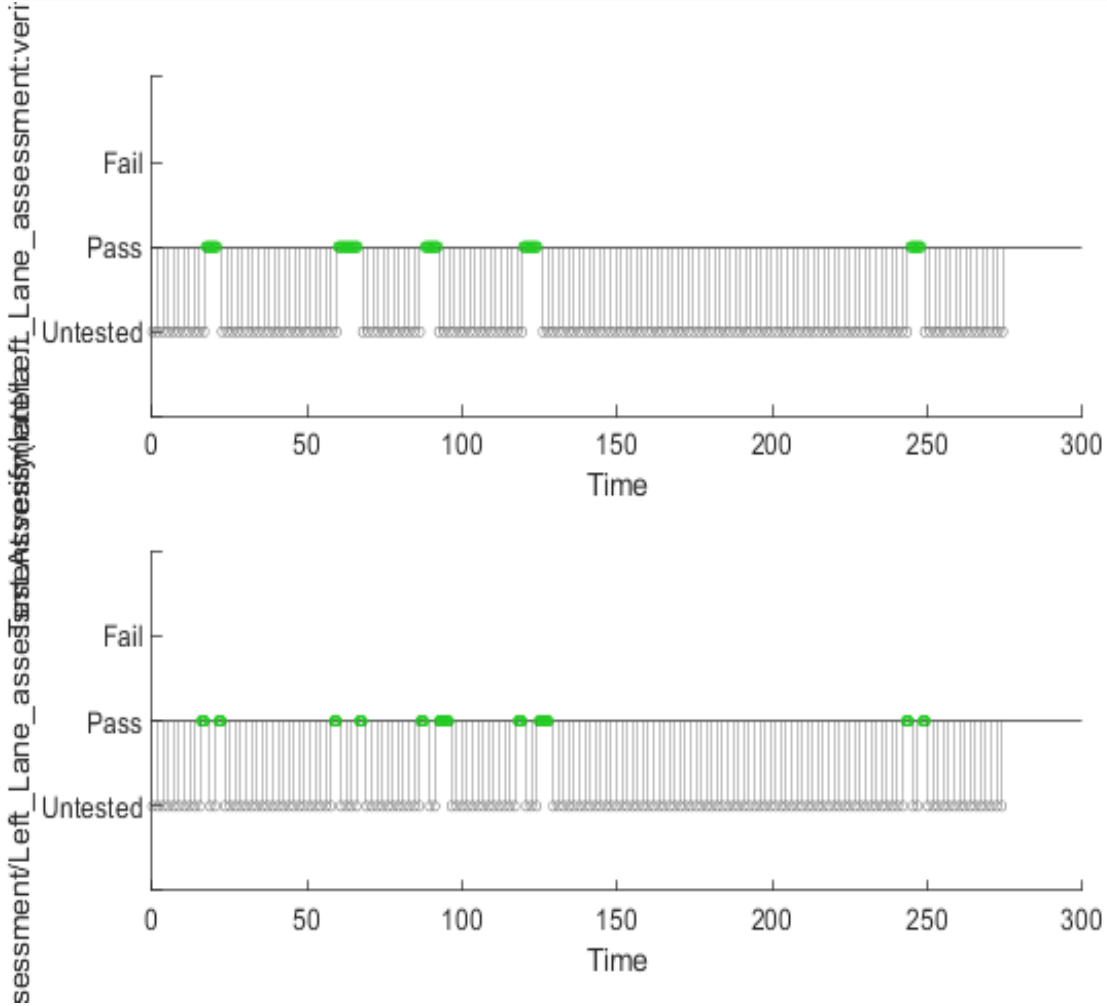
## Verify Result 1

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

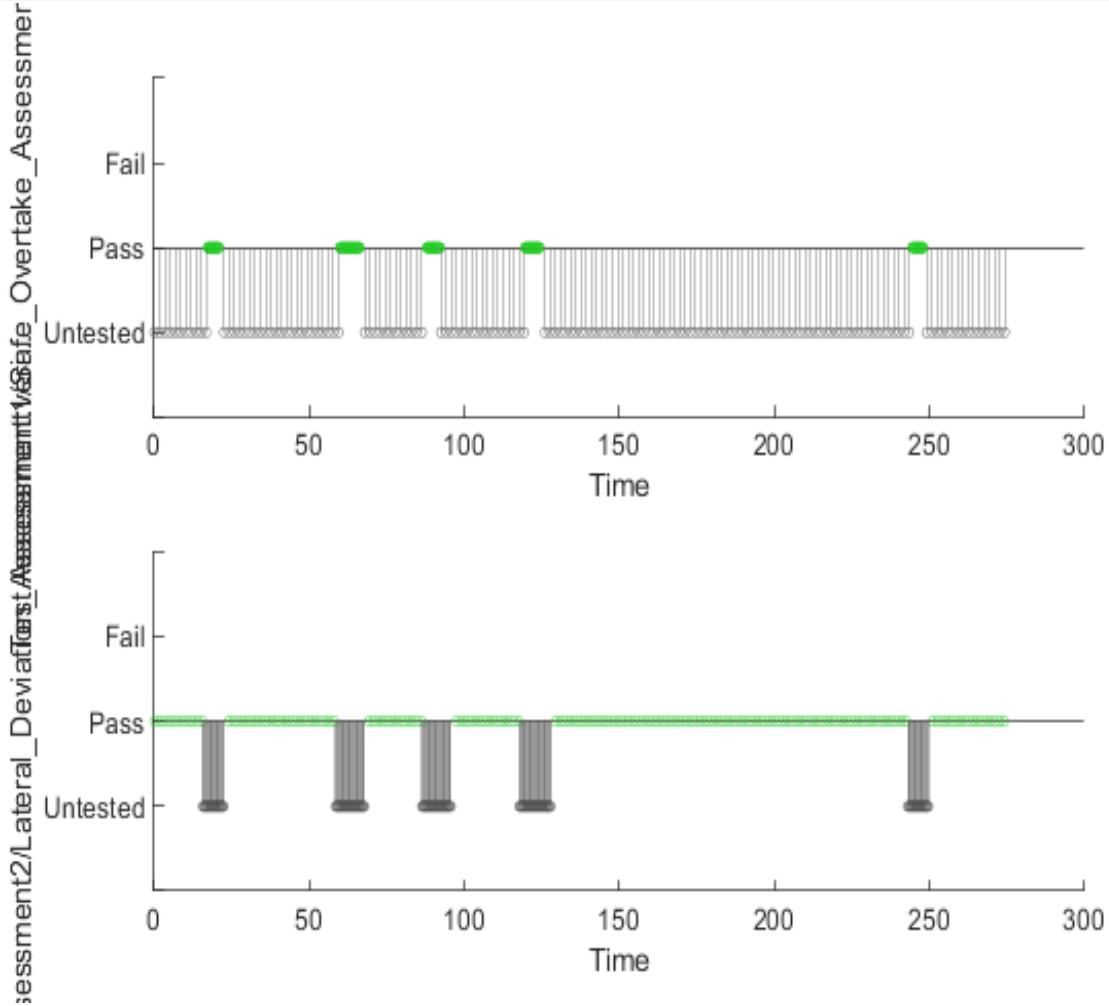


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

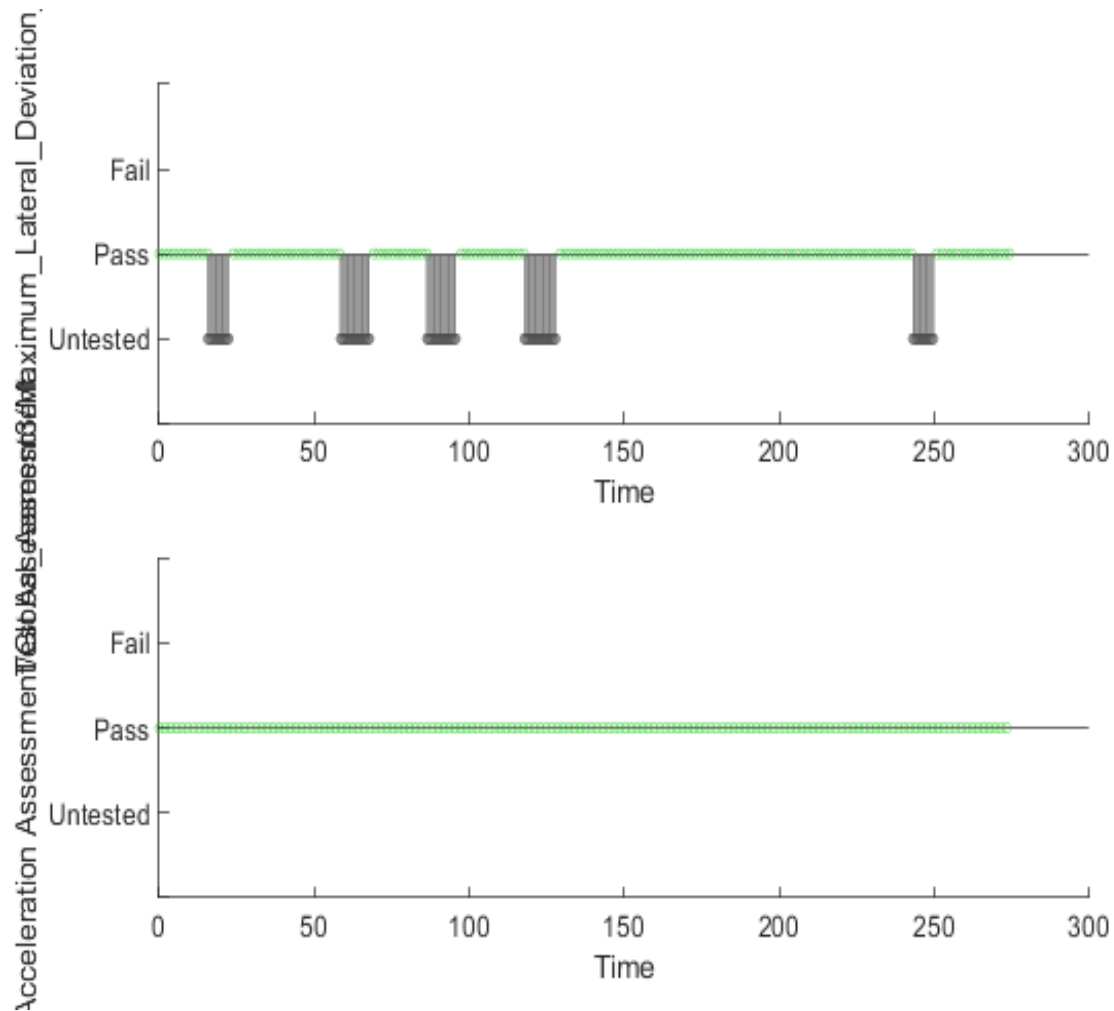


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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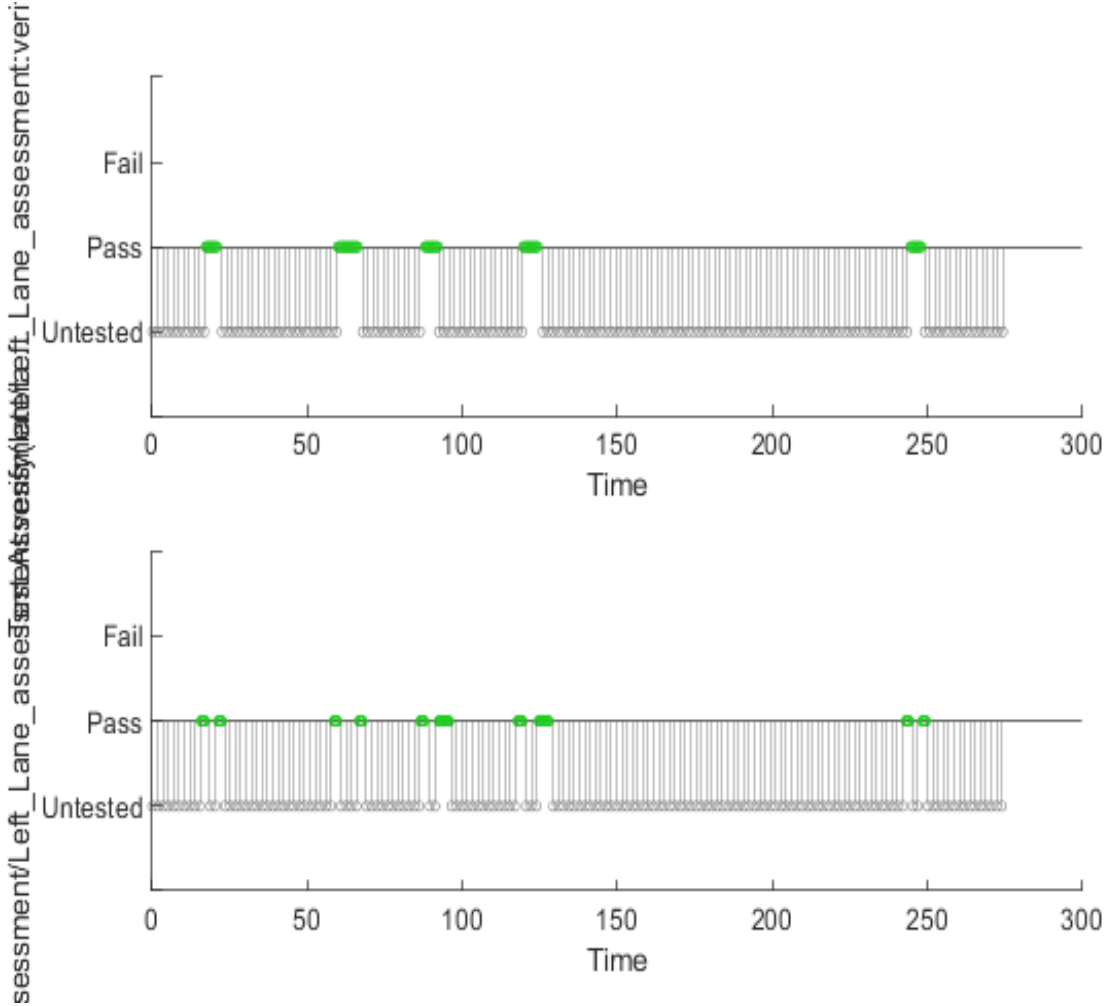
## Verify Result 2

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)



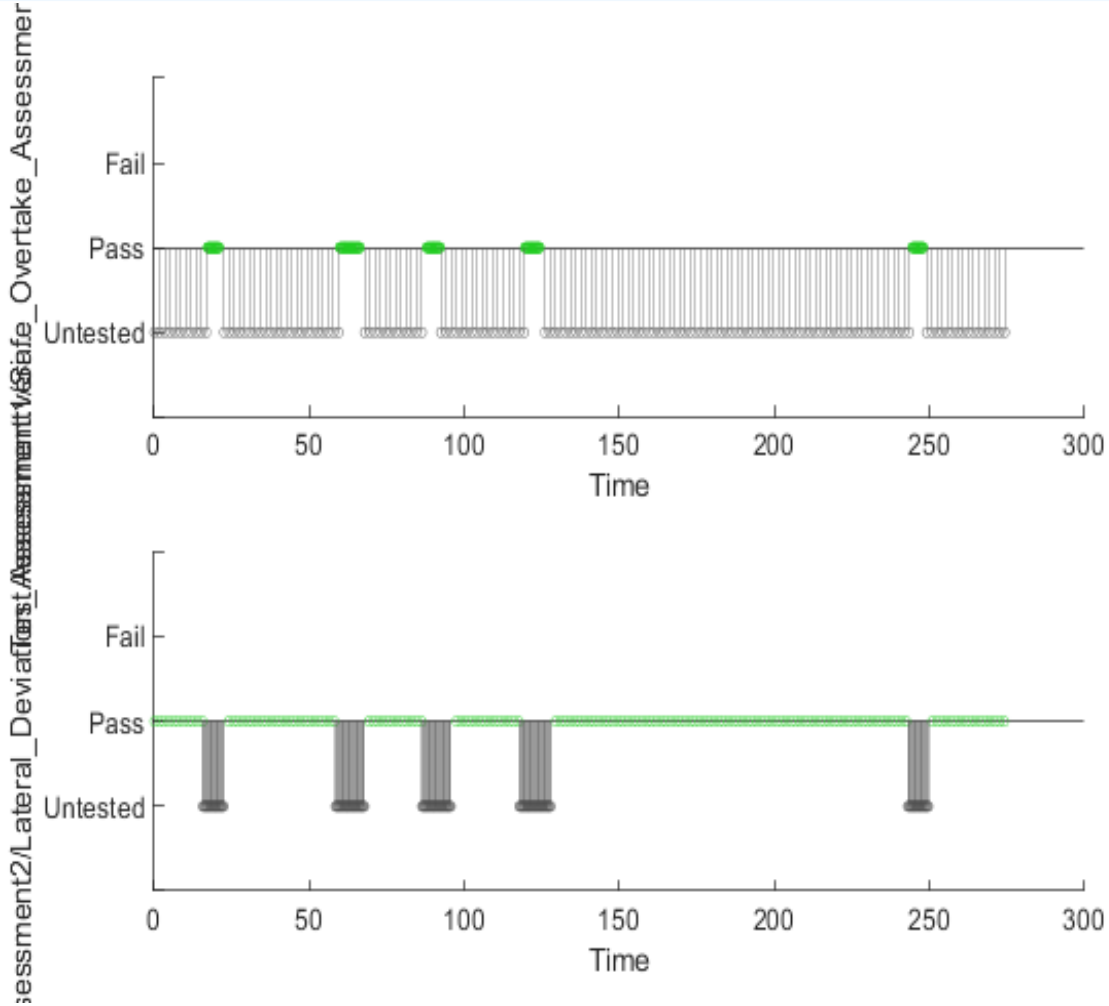
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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

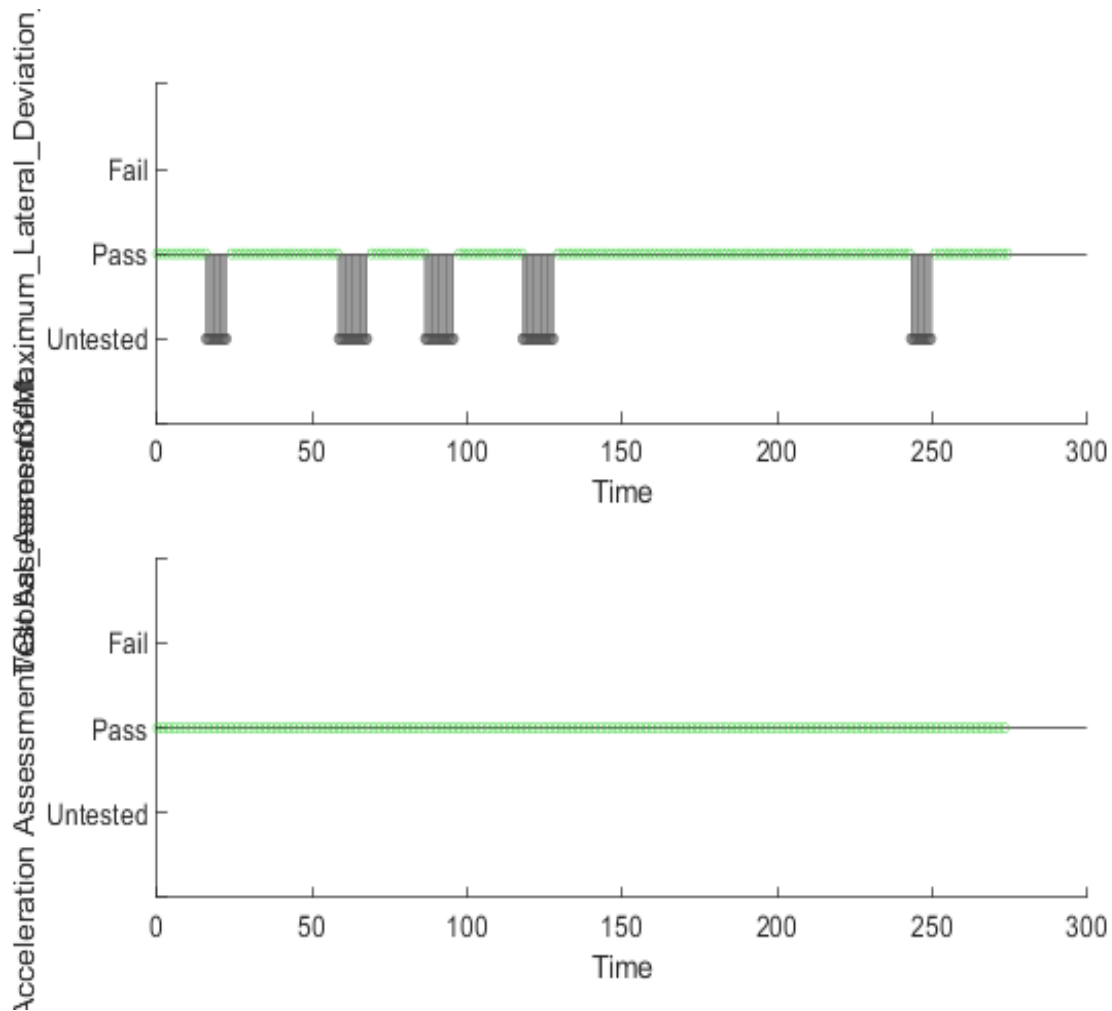


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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## Simulation 1

### System Under Test Information

Model:	Dynamic_obstacle_avoidance
Harness:	Avoidance_in_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance/Subsystem
Release:	Current
Simulation Mode:	normal

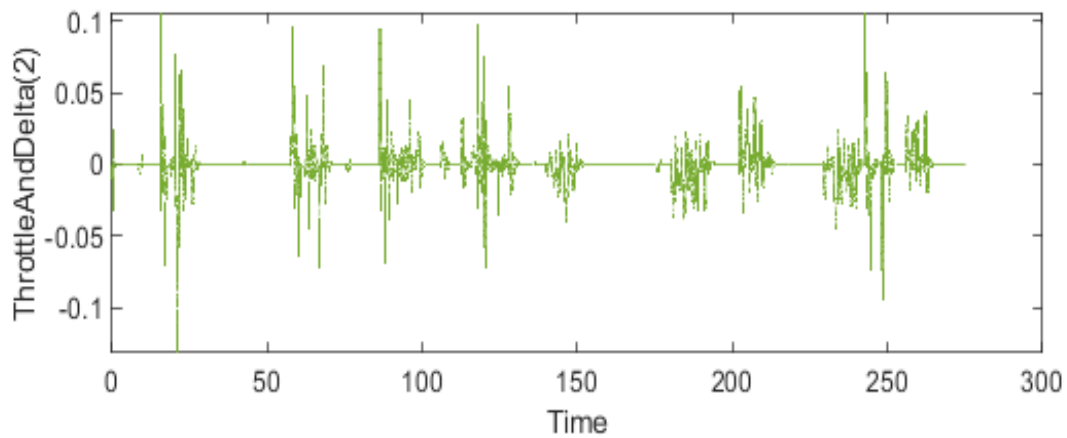
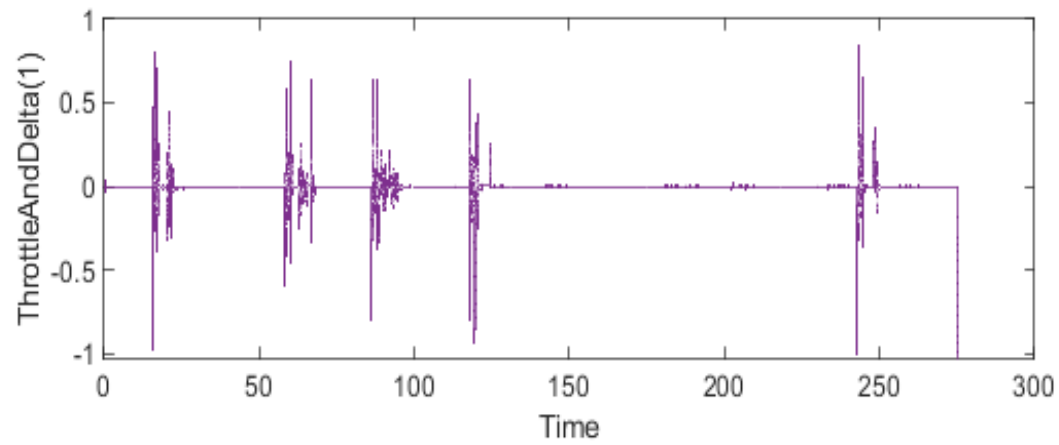
Override SIL or PIL Mode: Configuration Set: Start Time: Stop Time: Checksum:

0 Configuration1 0 275.08204274327625 560512140 2077323266 670520786 1624456250

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Simulation 2

### System Under Test Information

Model:	Dynamic_obstacle_avoidance_SIL
Harness:	Avoidance_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance_SIL/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

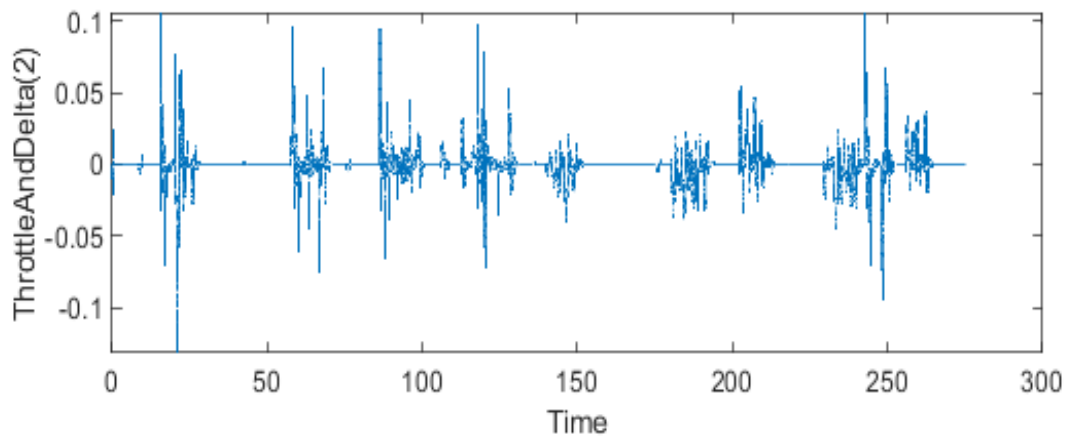
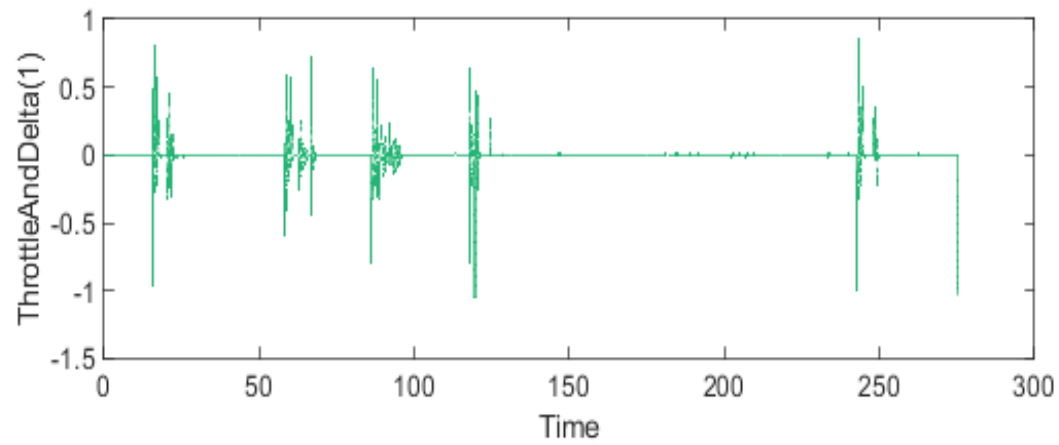
Stop Time:275.08204274327625

Checksum:3910346978 2654682495 3529197182 4188007937

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Puglia

### Test Result Information

Result Type: Test Case Result  
Parent: [Avoidance in real scenario \(Ford E150\)](#)  
Start Time: 17-Jun-2021 14:42:51

End Time: 17-Jun-2021 14:48:53  
 Outcome: **Failed**  
 Cause of Failure: **Failed criteria: Equivalence**

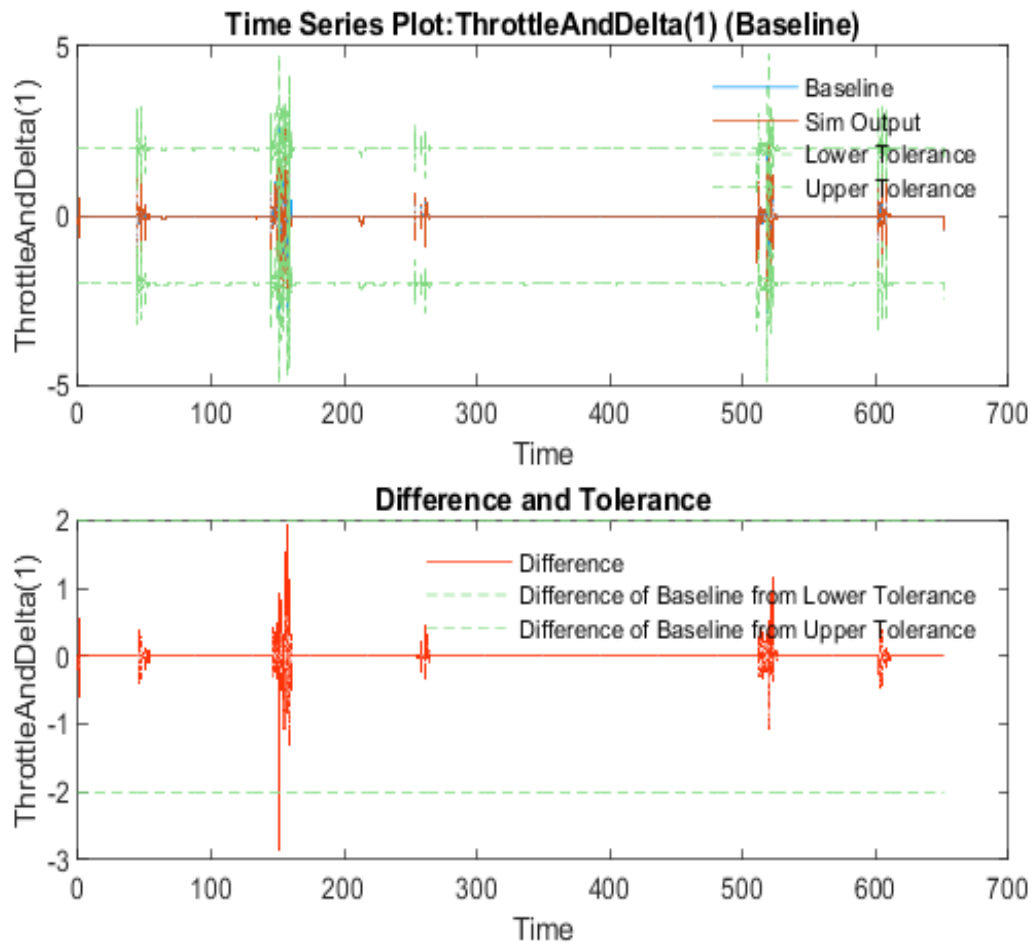
## Test Case Information

Name: Puglia  
 Type: Equivalence Test

## Equivalence Comparison

Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync	Link to Plot
✖ ThrottleAndDelta(1)	2	0.01	0	0	2.86	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>
✔ ThrottleAndDelta(2)	0.2	0.01	0	0	0.146	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>

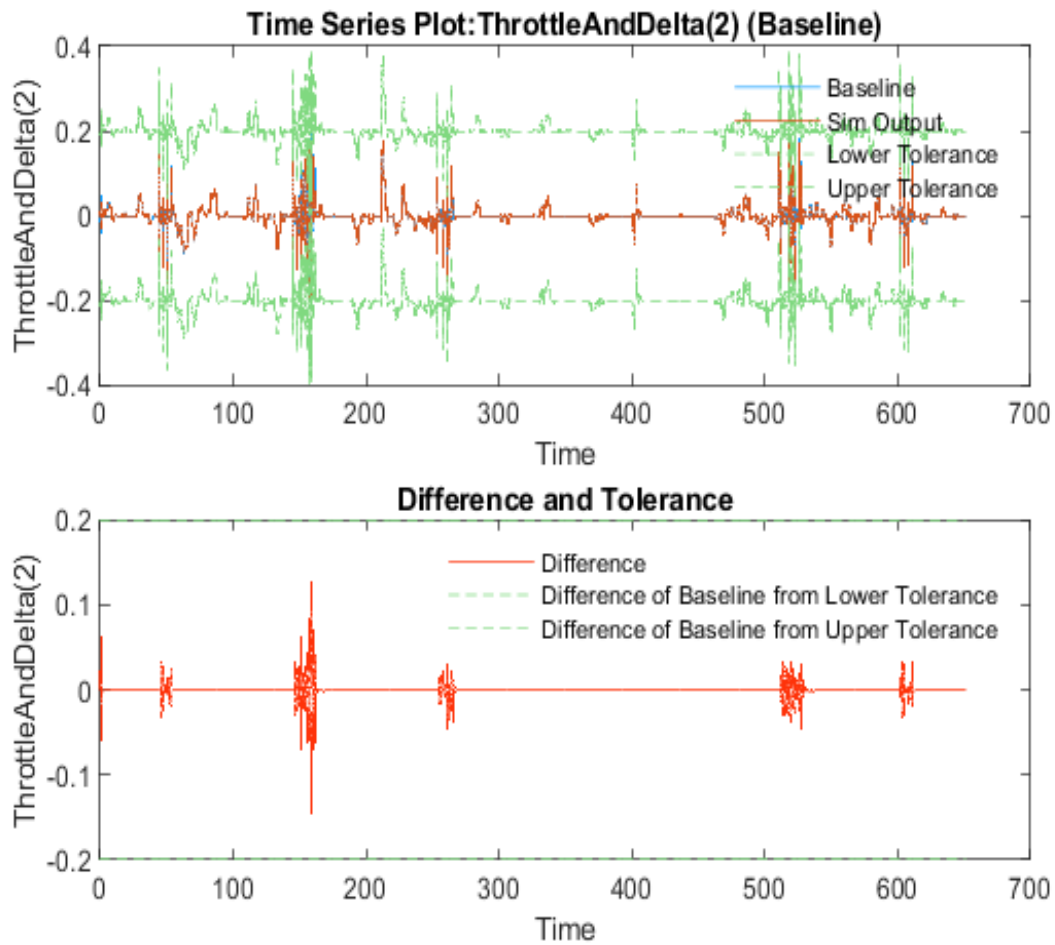
Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✖ ThrottleAndDelta(1)	2	0.01	0	0	2.86	double		Continuous	double		Continuous	zoh	union



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Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✓ ThrottleAndDelta(2)	0.2	0.01	0	0	0.146	double		Continuous	double		Continuous	zoh	union





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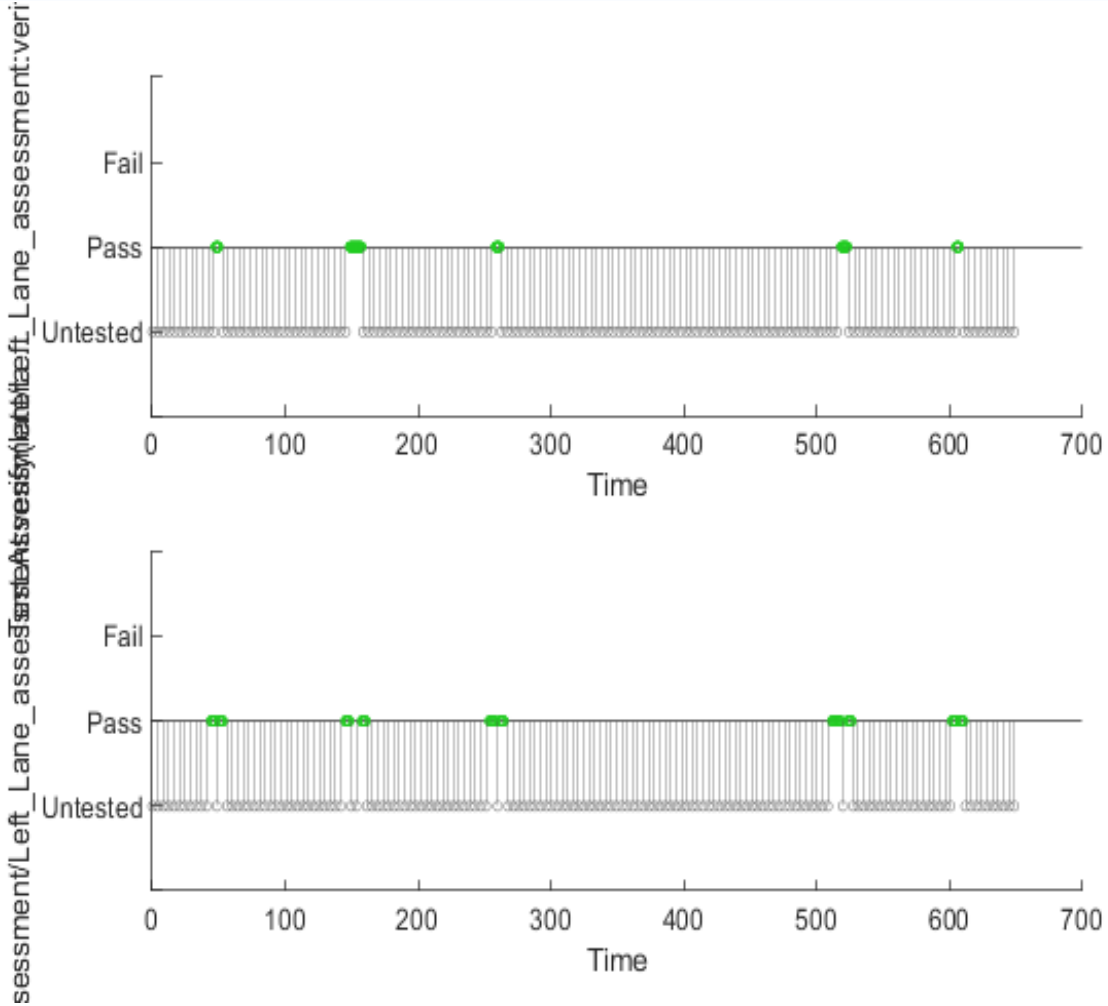
## Verify Result 1

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

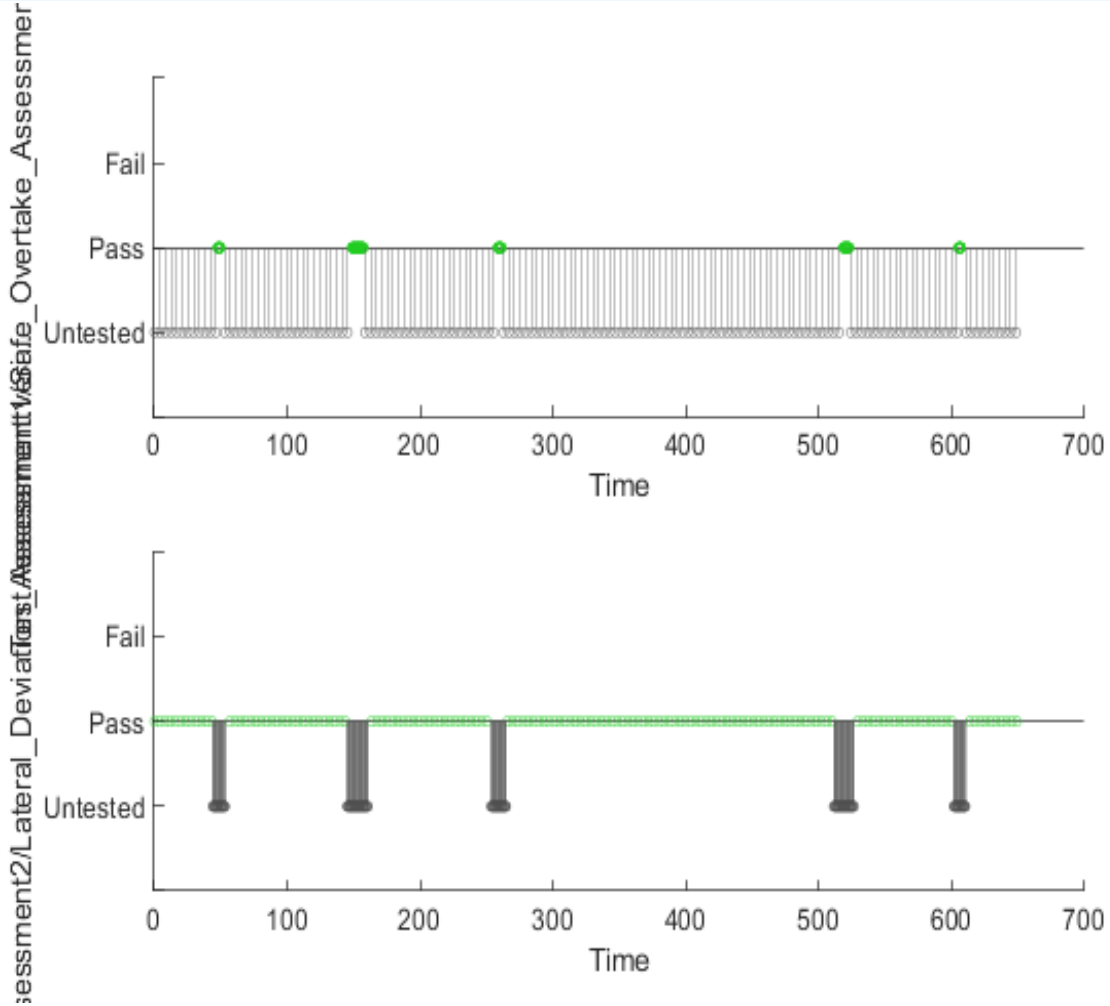


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

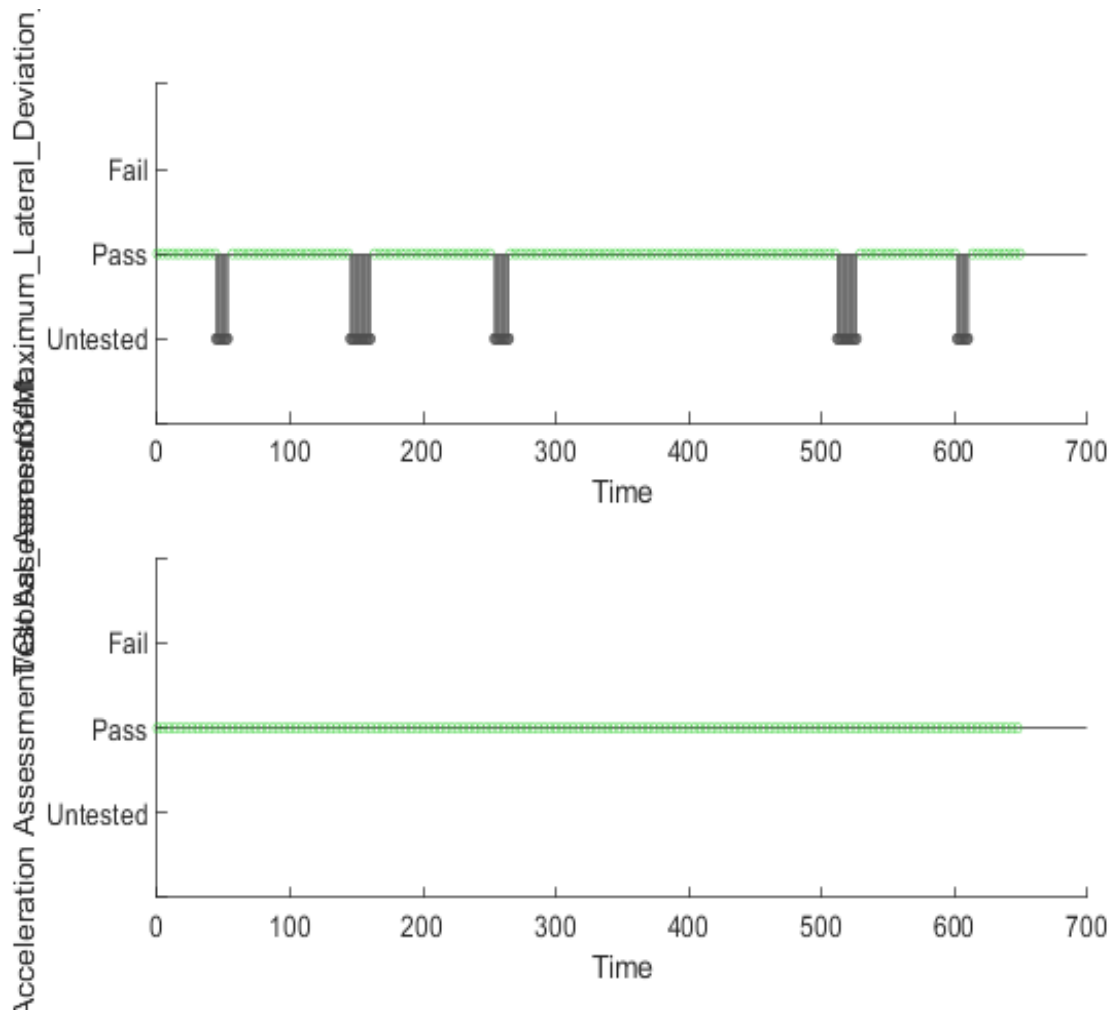


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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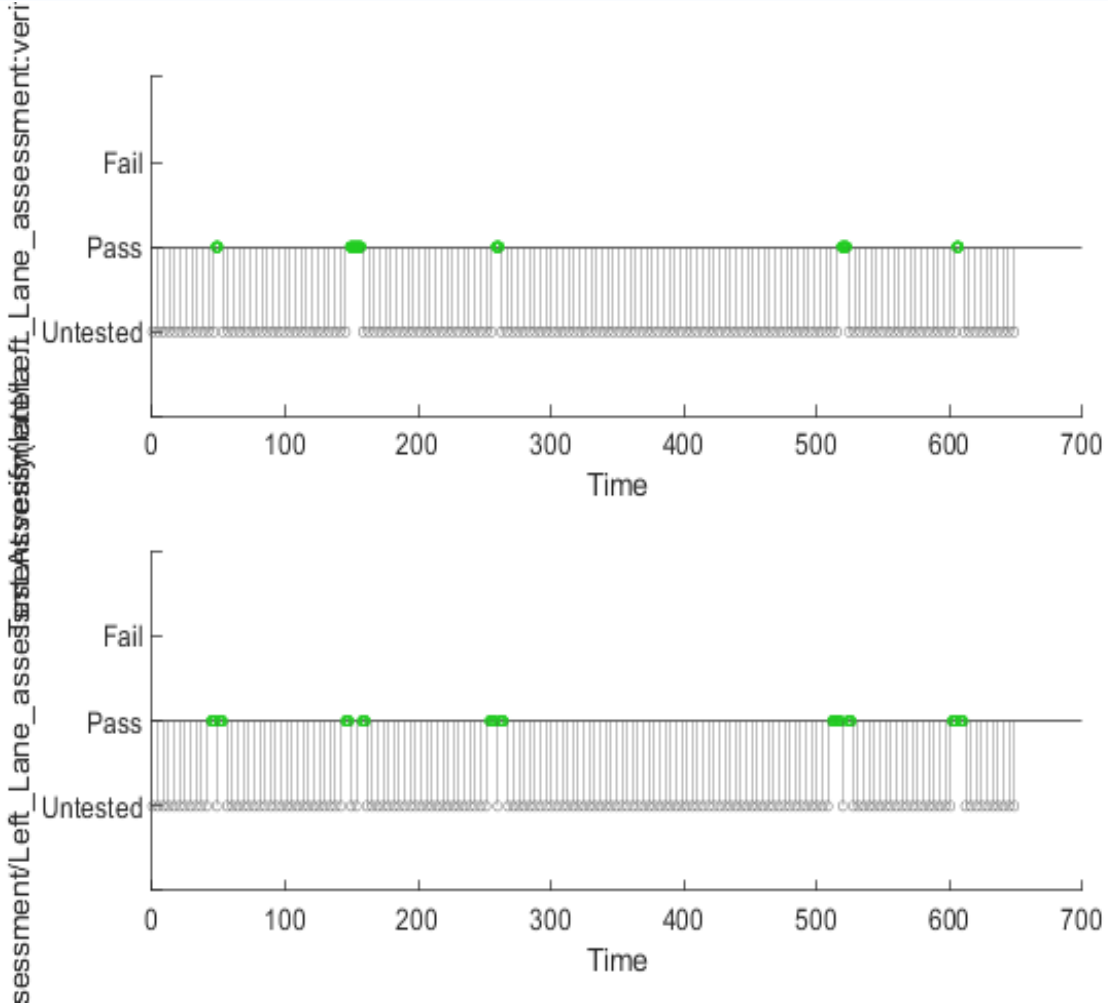
## Verify Result 2

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✔	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✔	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

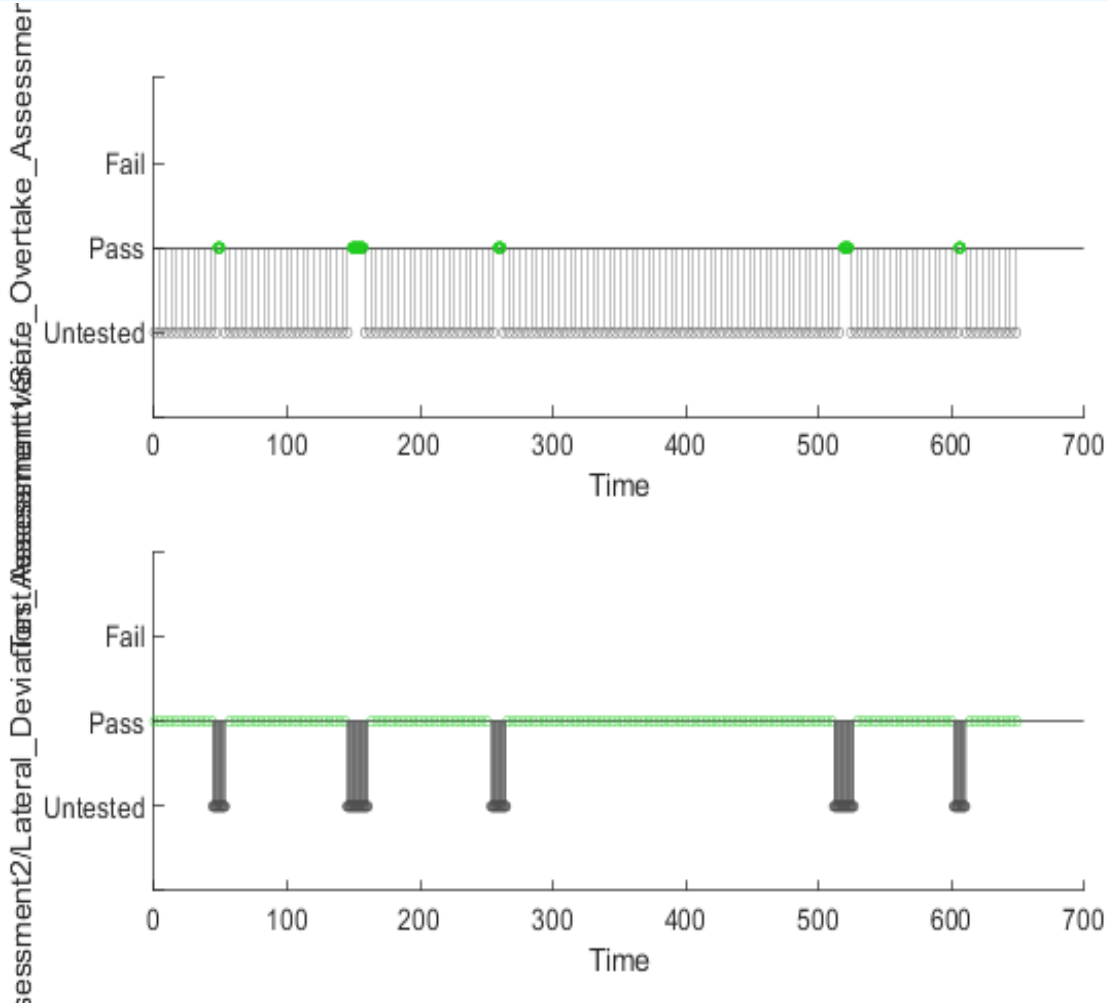


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

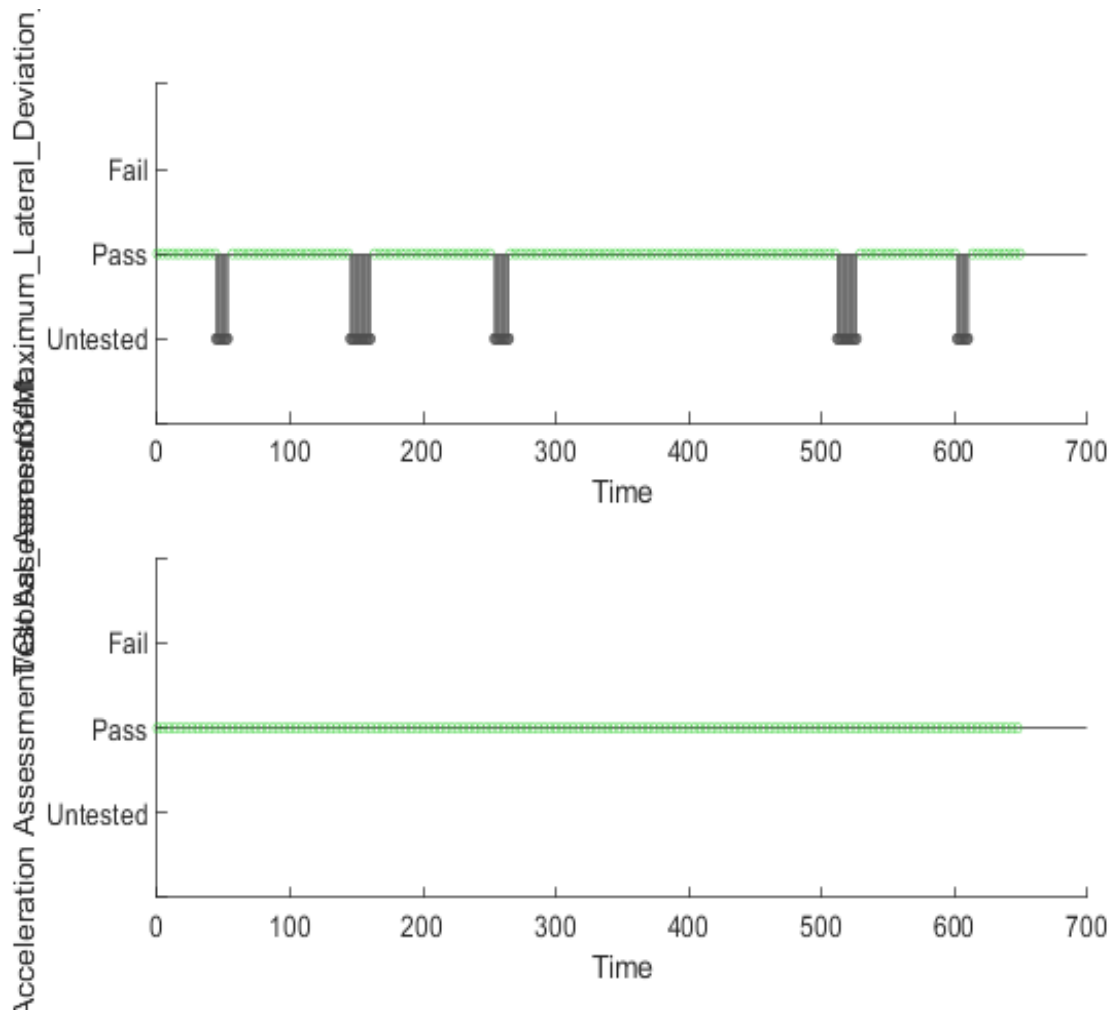


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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## Simulation 1

### System Under Test Information

Model:	Dynamic_obstacle_avoidance
Harness:	Avoidance_in_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

Stop Time:651.65546907329588

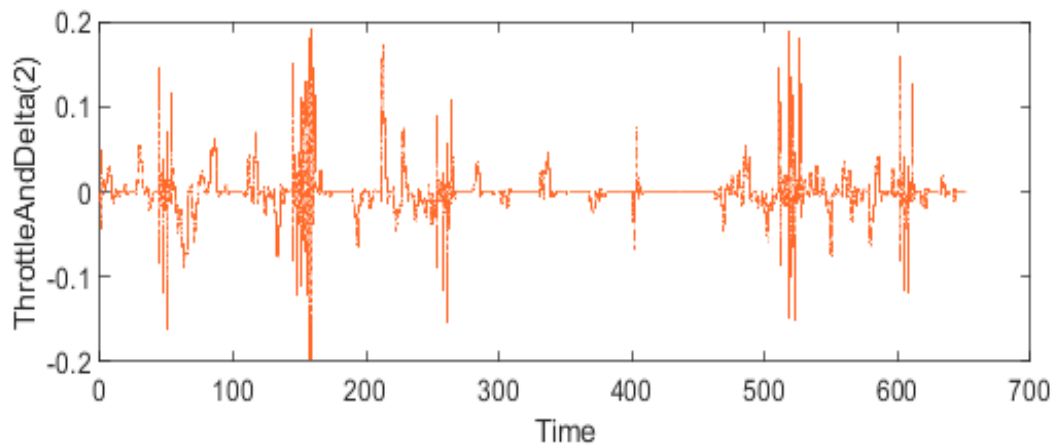
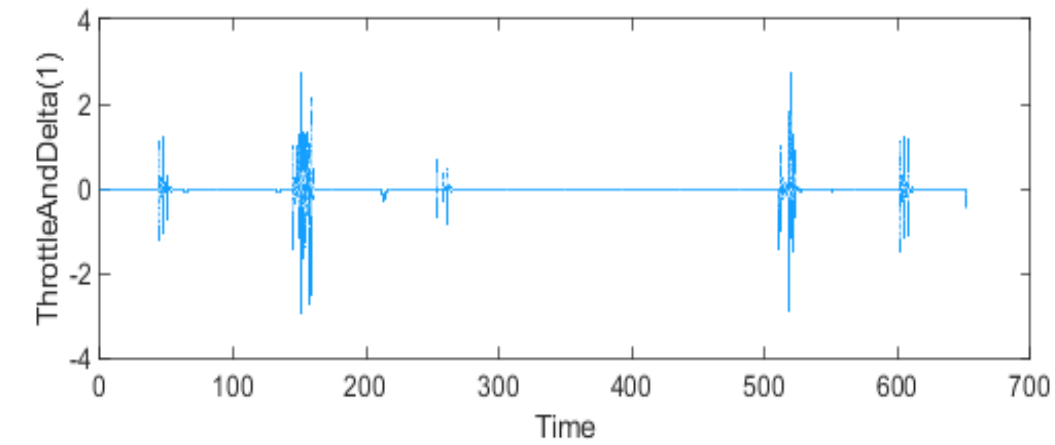
Checksum:1175733023 1860673233 1531597131 2149246587

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union





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## Simulation 2

### System Under Test Information

Model:	Dynamic_obstacle_avoidance_SIL
Harness:	Avoidance_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance_SIL/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

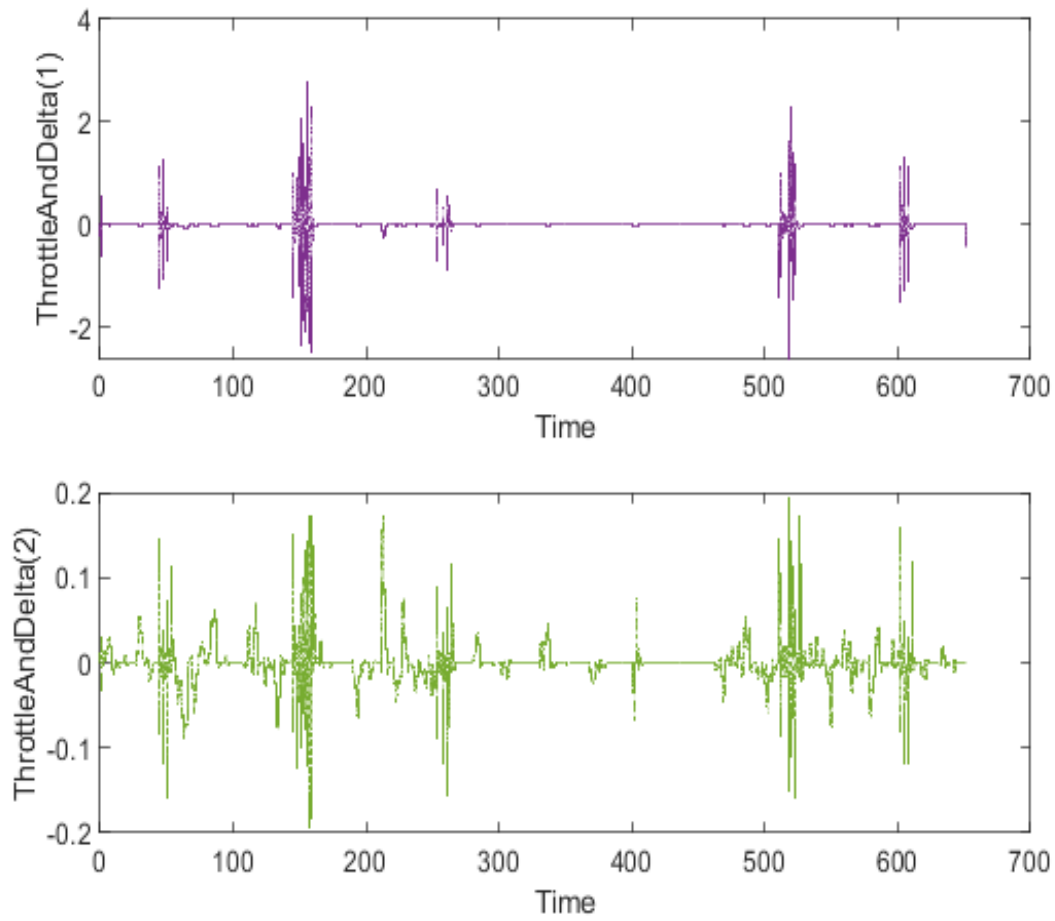
Stop Time:651.65546907329588

Checksum:3207812238 536380018 4266494897 4273513856

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Indianapolis Motor Speedway

### Test Result Information

Result Type: Test Case Result  
Parent: [Avoidance in real scenario \(Ford E150\)](#)  
Start Time: 17-Jun-2021 14:48:54

End Time: 17-Jun-2021 14:50:00  
Outcome: Passed

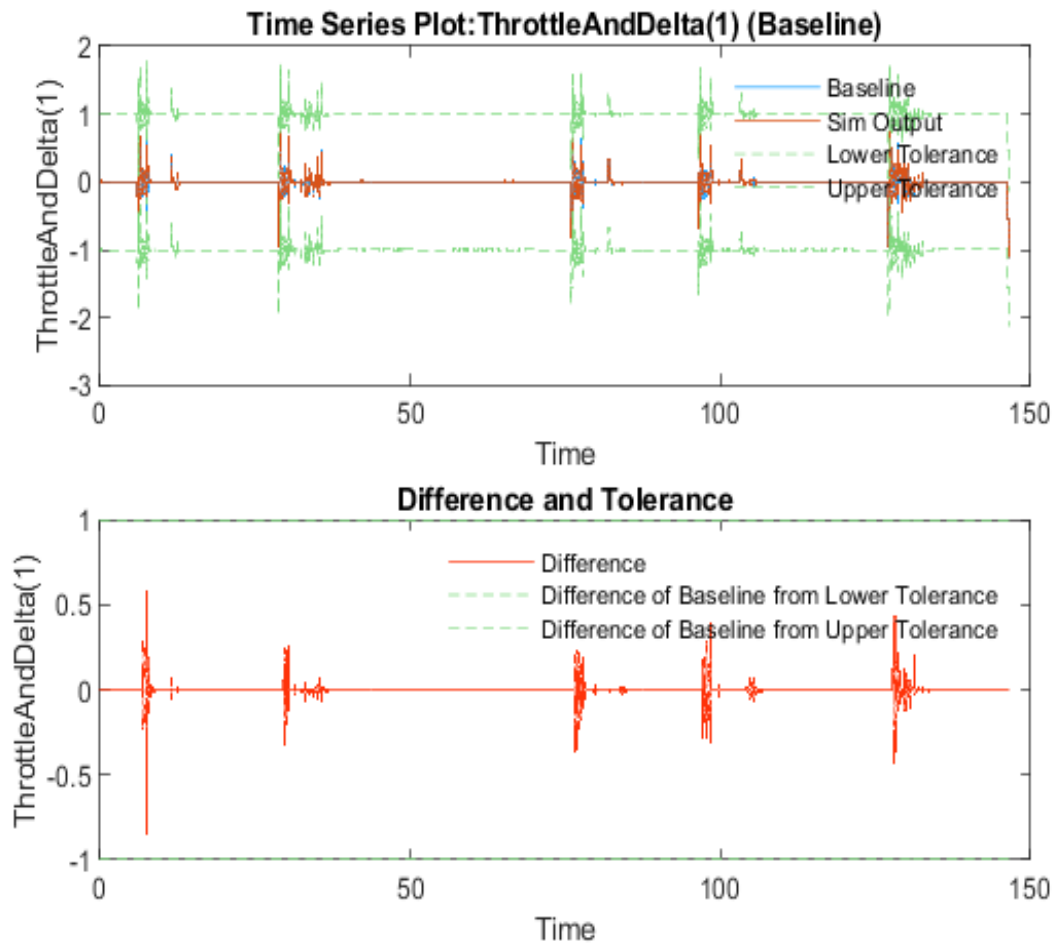
### Test Case Information

Name: Indianapolis Motor Speedway  
Type: Equivalence Test

### Equivalence Comparison

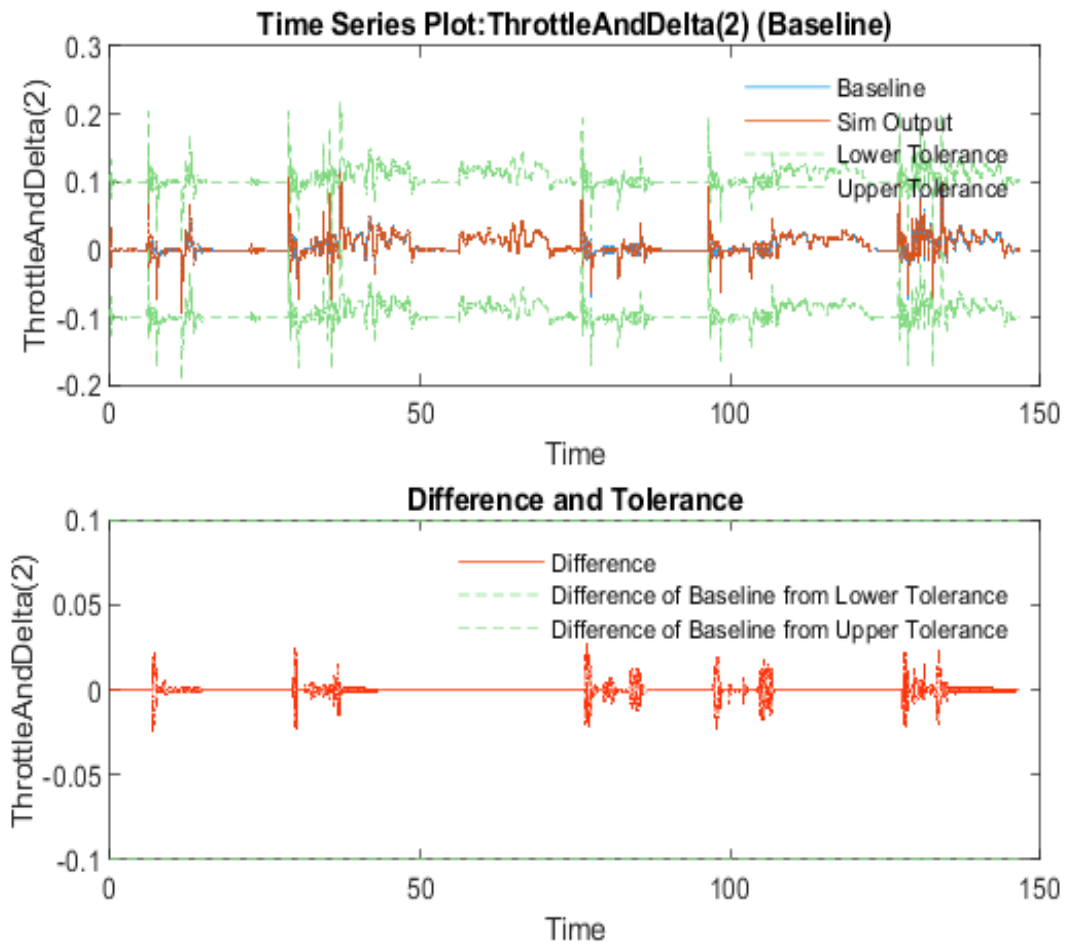
Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync	Link to Plot
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.84	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>
✔ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0271	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.84	double		Continuous	double		Continuous	zoh	union



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Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✓ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0271	double		Continuous	double		Continuous	zoh	union



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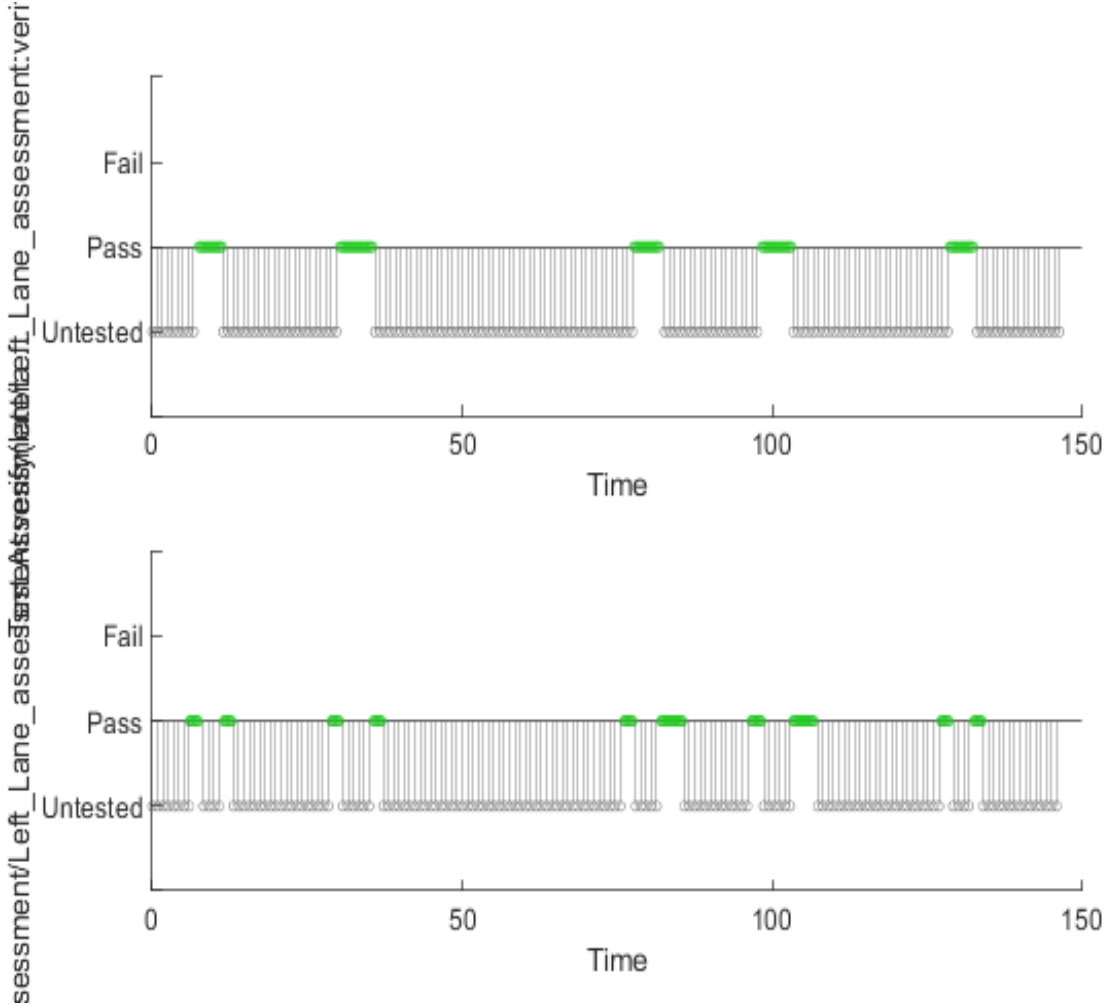
## Verify Result 1

Name		Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)		<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)		<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)		<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)		<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)		<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

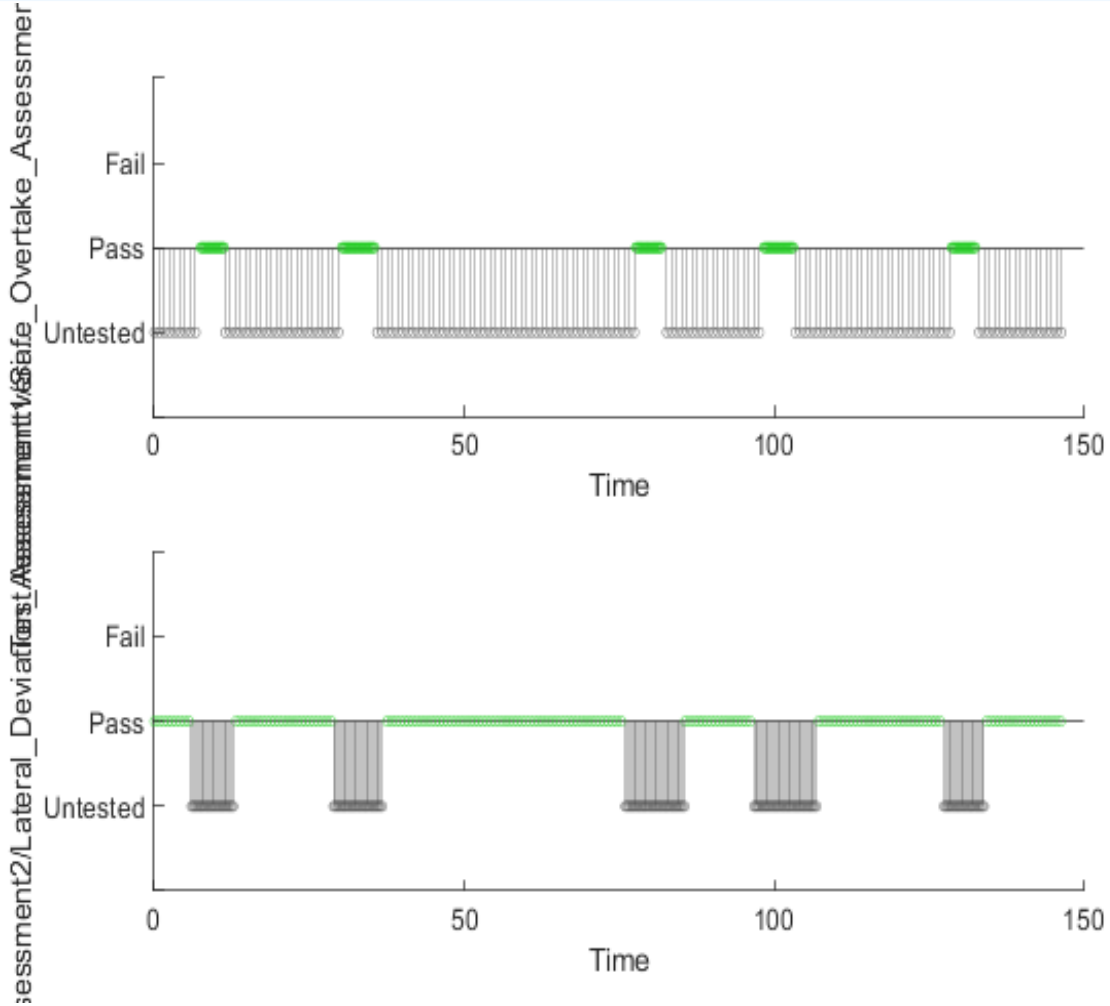


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)



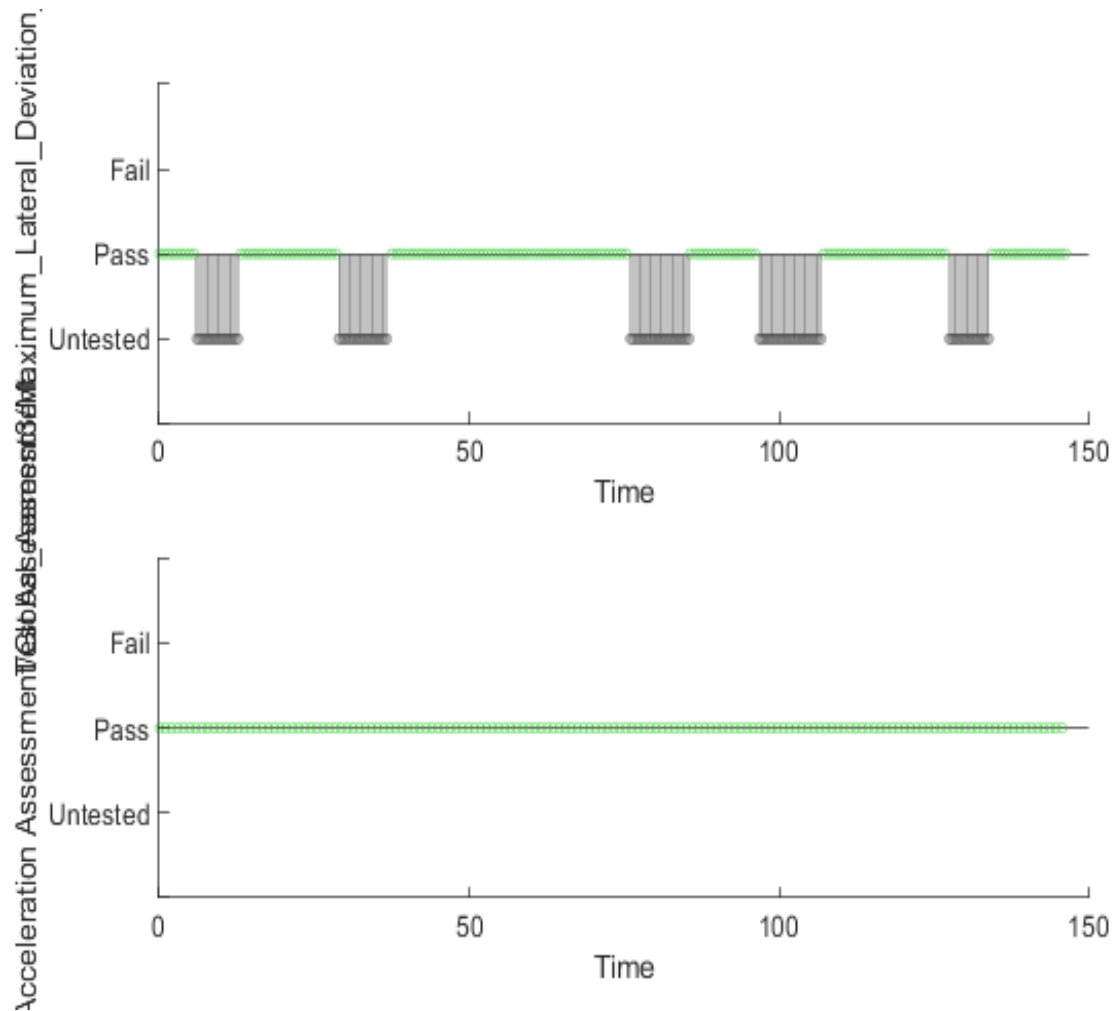
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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)





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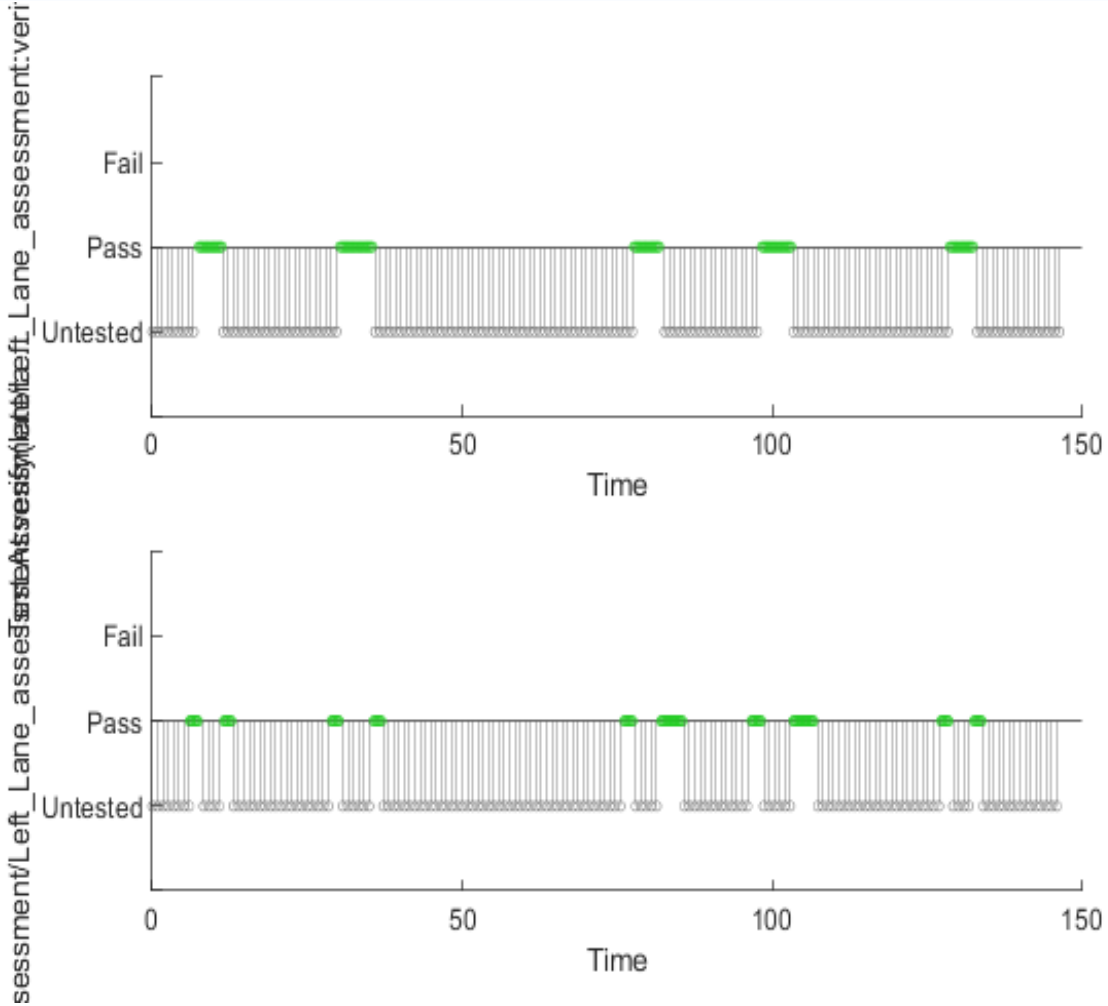
## Verify Result 2

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

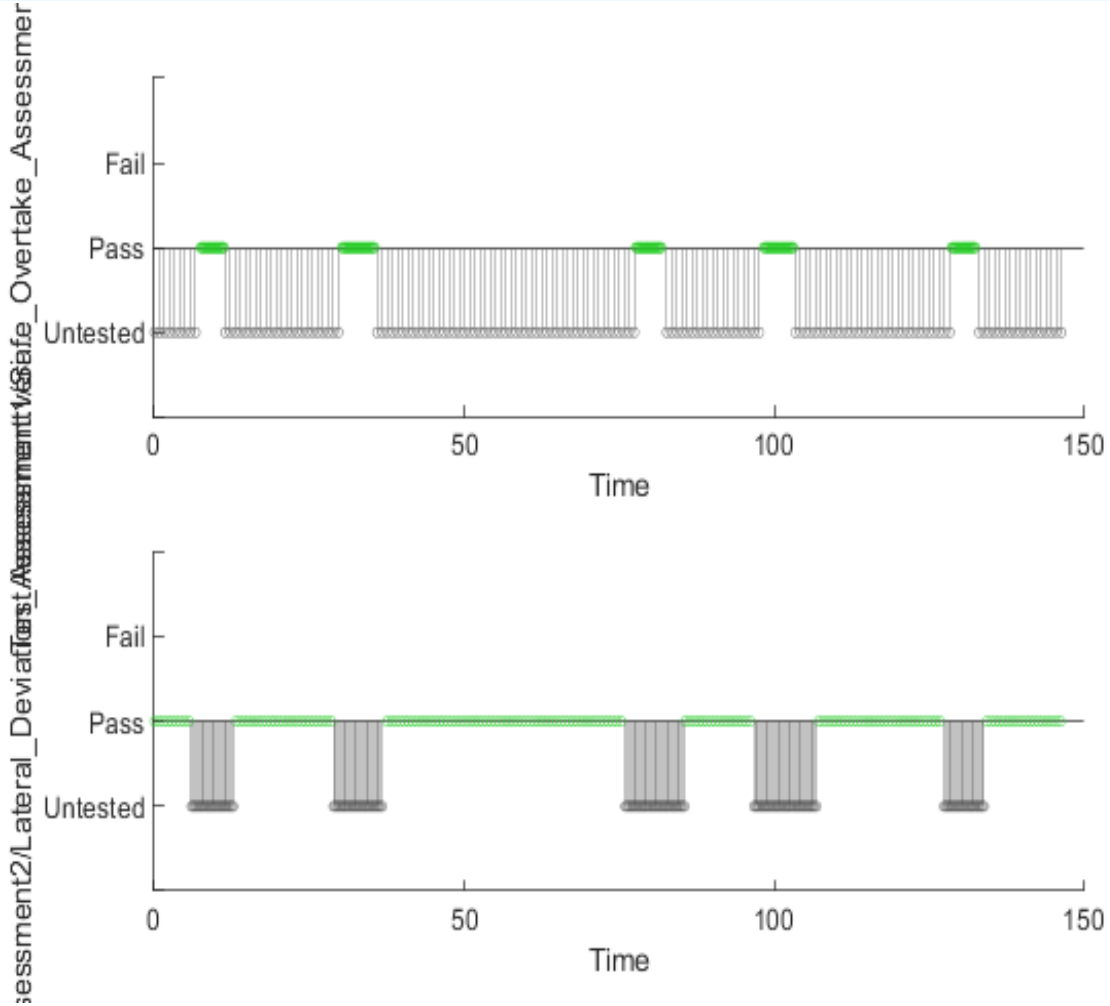


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

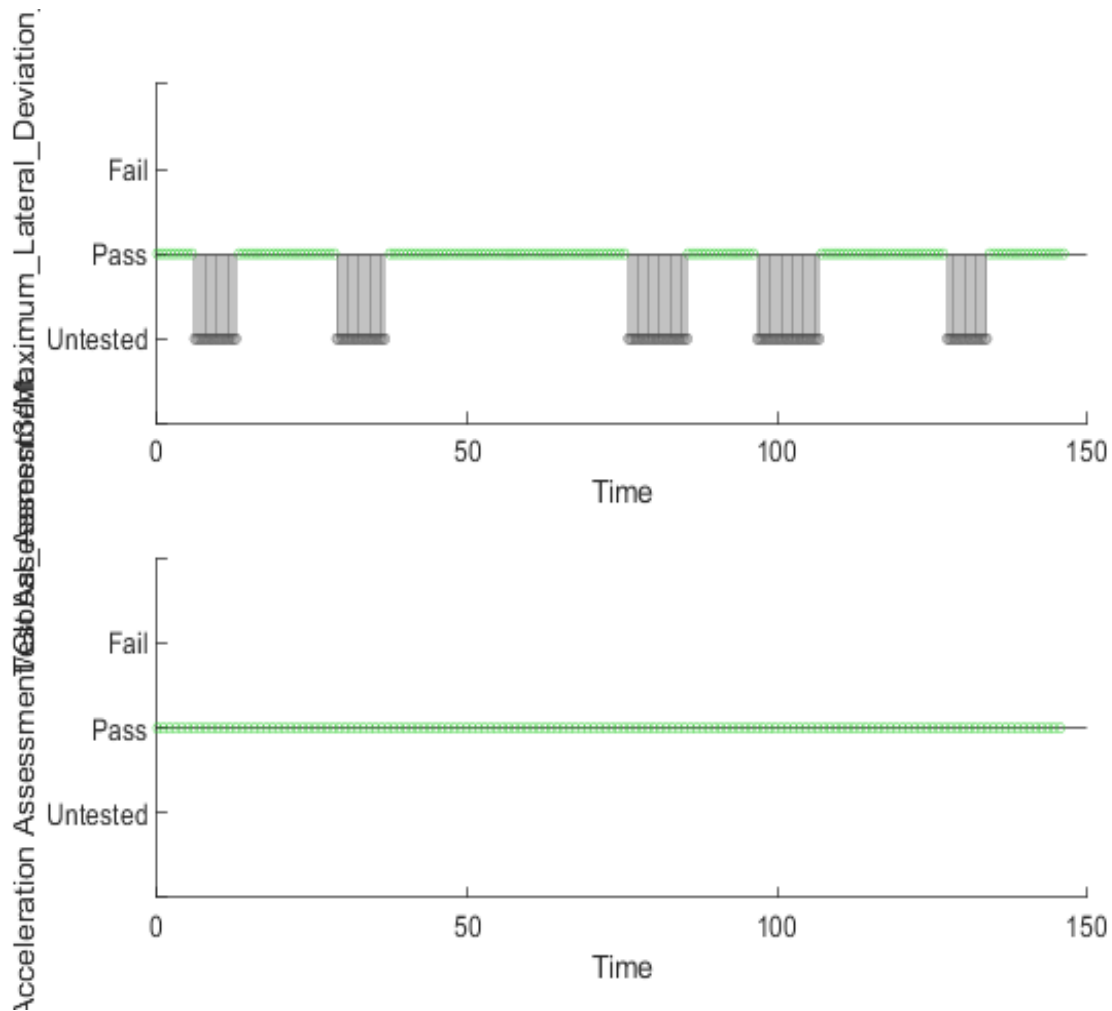


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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## Simulation 1

### System Under Test Information

Model:	Dynamic_obstacle_avoidance
Harness:	Avoidance_in_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

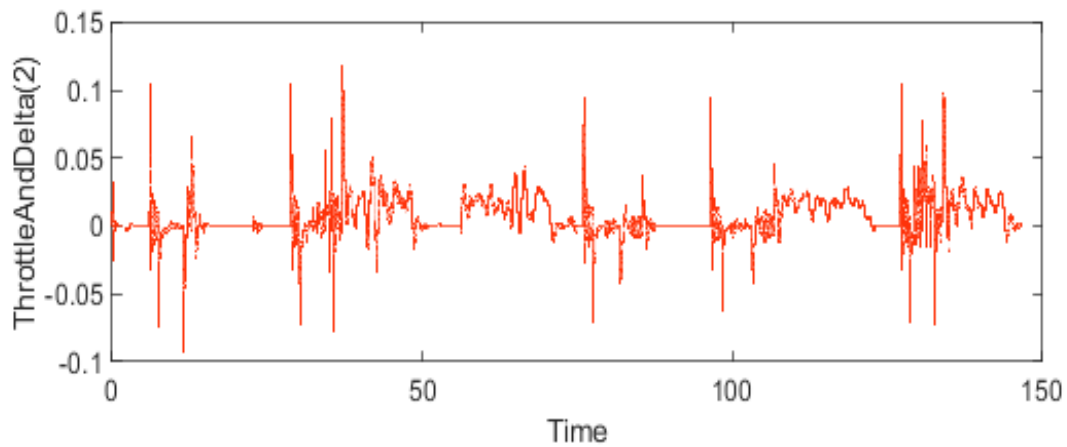
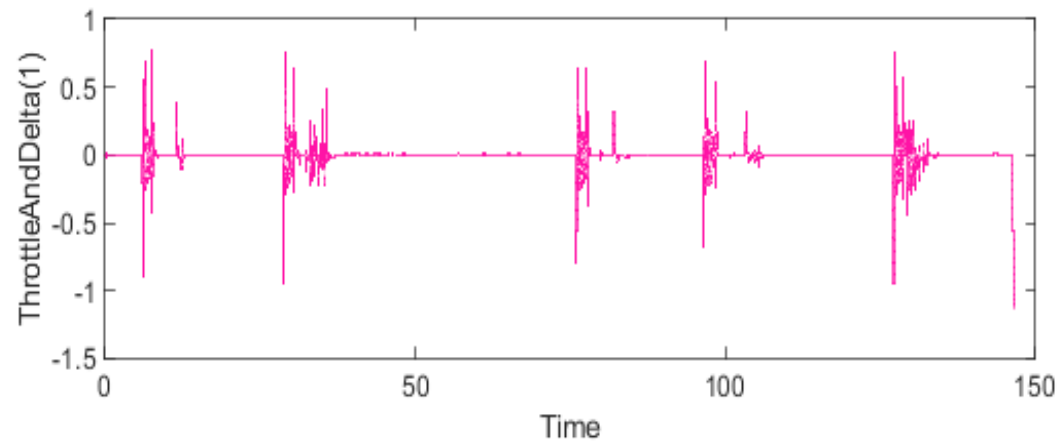
Stop Time:146.51791178475014

Checksum:1435385966 2039963742 2097507888 2861652933

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Simulation 2

### System Under Test Information

Model:	Dynamic_obstacle_avoidance_SIL
Harness:	Avoidance_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance_SIL/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

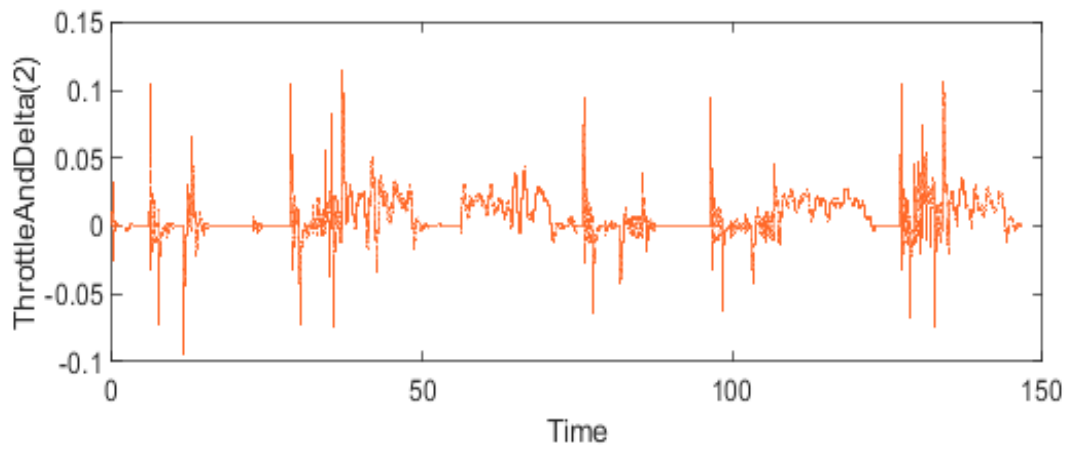
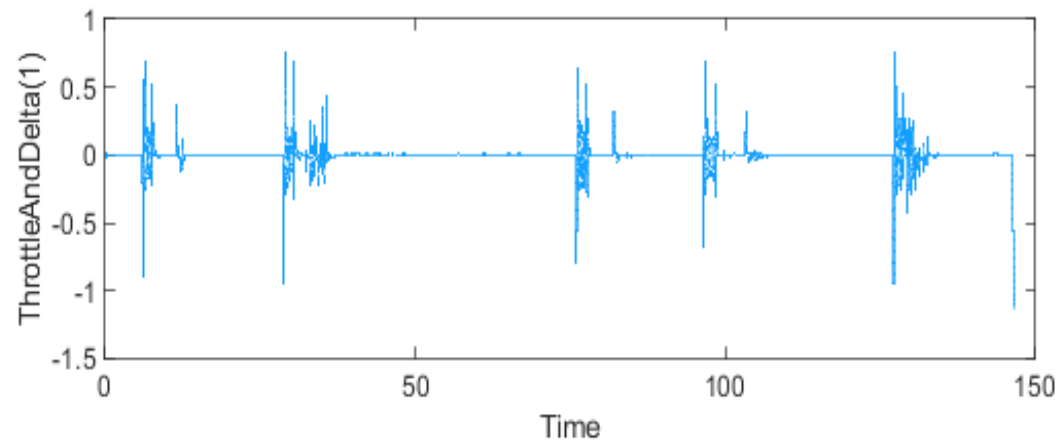
Stop Time:146.51791178475014

Checksum:3141116588 90218501 3127706781 1180433817

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Avoidance in real scenario (Suzuki Samurai)

### Test Result Information

Result Type: Test Suite Result  
Parent: [SIL Test](#)



Start Time: 17-Jun-2021 14:50:00  
End Time: 17-Jun-2021 14:58:29  
Outcome: Total: 3, **Passed: 3**

## Test Suite Information

Name: Avoidance in real scenario (Suzuki Samurai)

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## A14 Highway

### Test Result Information

Result Type: Test Case Result  
Parent: [Avoidance in real scenario \(Suzuki Samurai\)](#)  
Start Time: 17-Jun-2021 14:50:00  
End Time: 17-Jun-2021 14:51:57  
Outcome: **Passed**

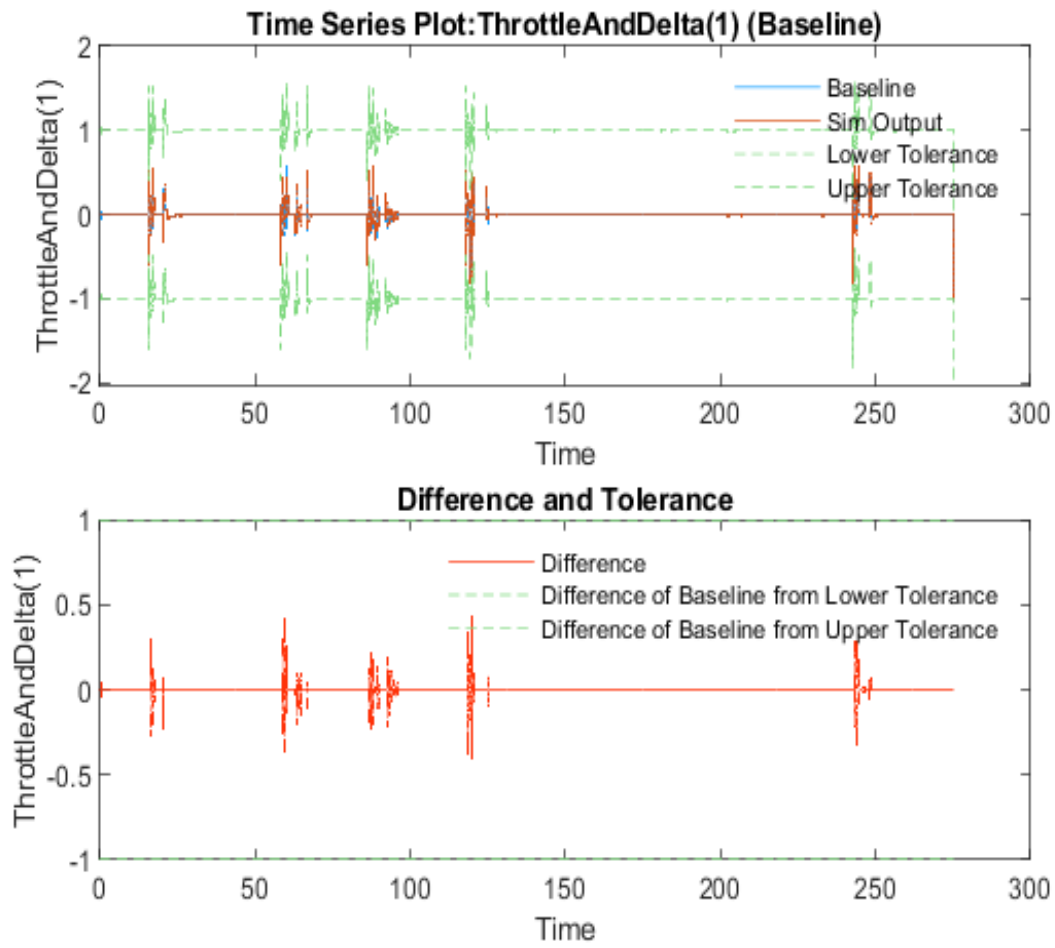
### Test Case Information

Name: A14 Highway  
Type: Equivalence Test

### Equivalence Comparison

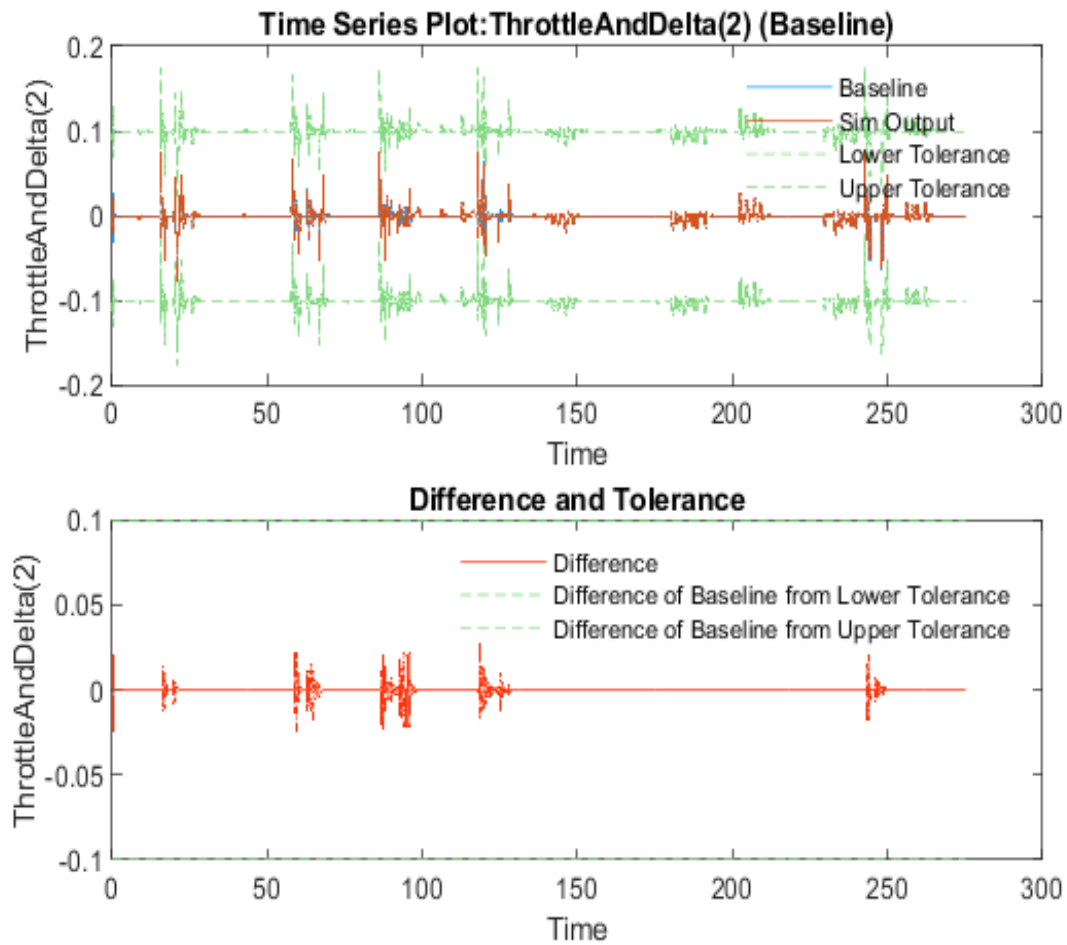
Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync	Link to Plot
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.434	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>
✔ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0268	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.434	double		Continuous	double		Continuous	zoh	union



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Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✓ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0268	double		Continuous	double		Continuous	zoh	union



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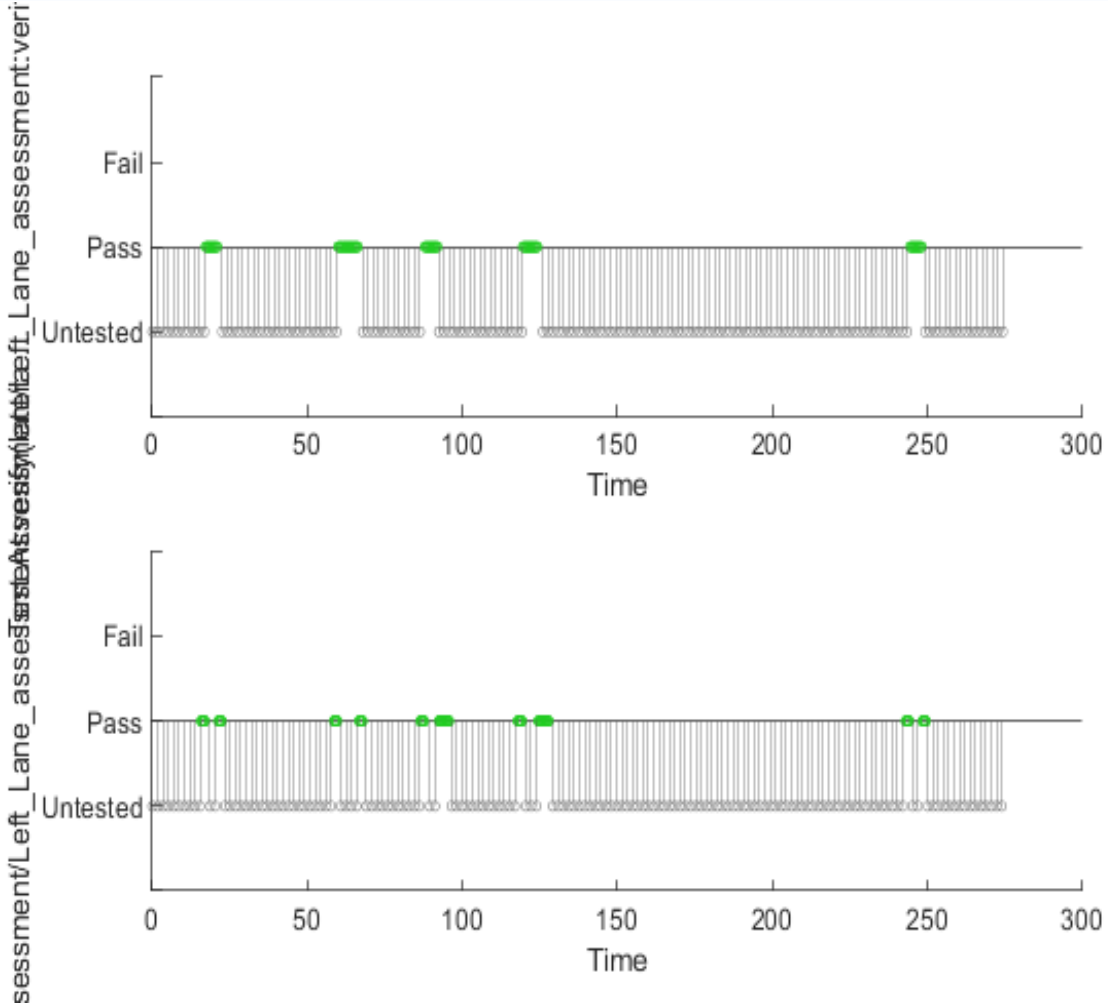
## Verify Result 1

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

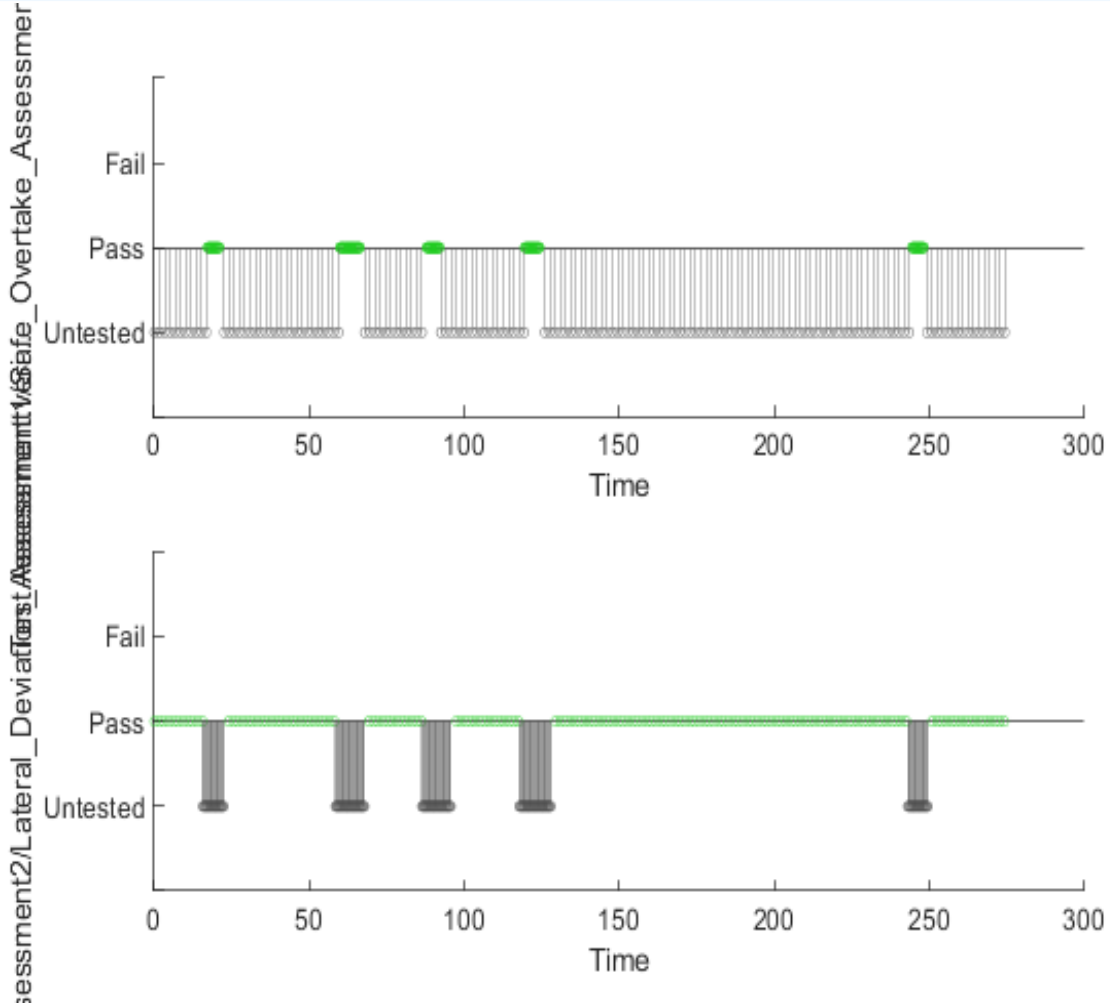


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

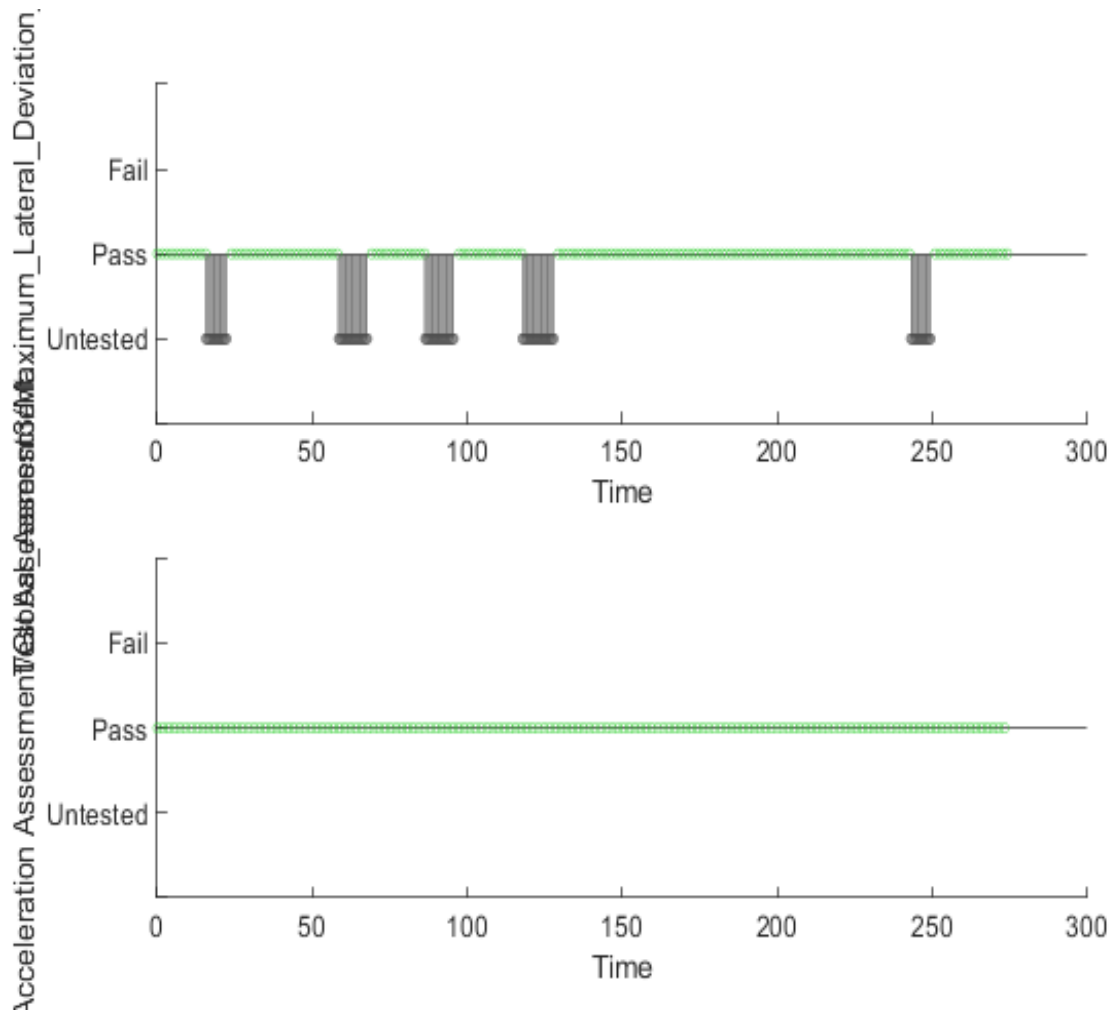


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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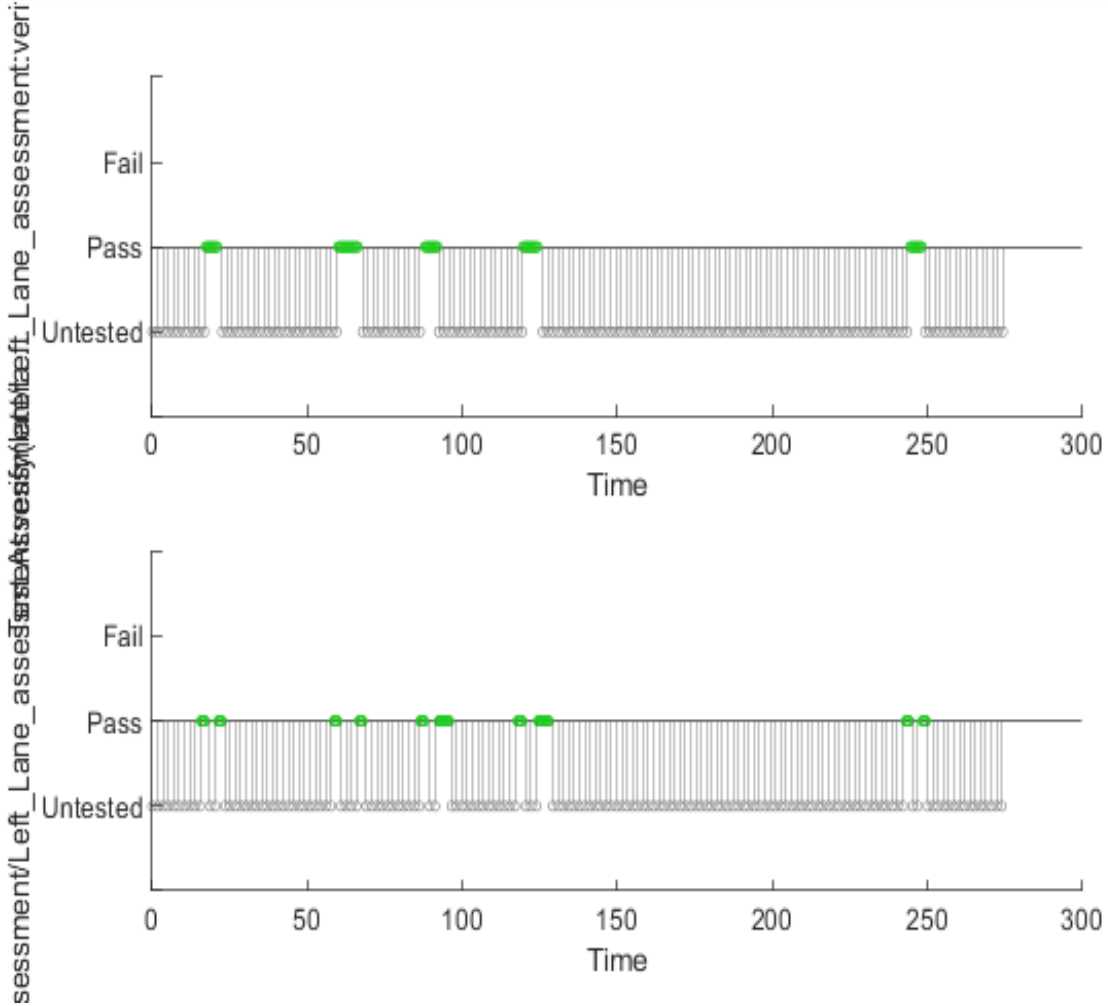
## Verify Result 2

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

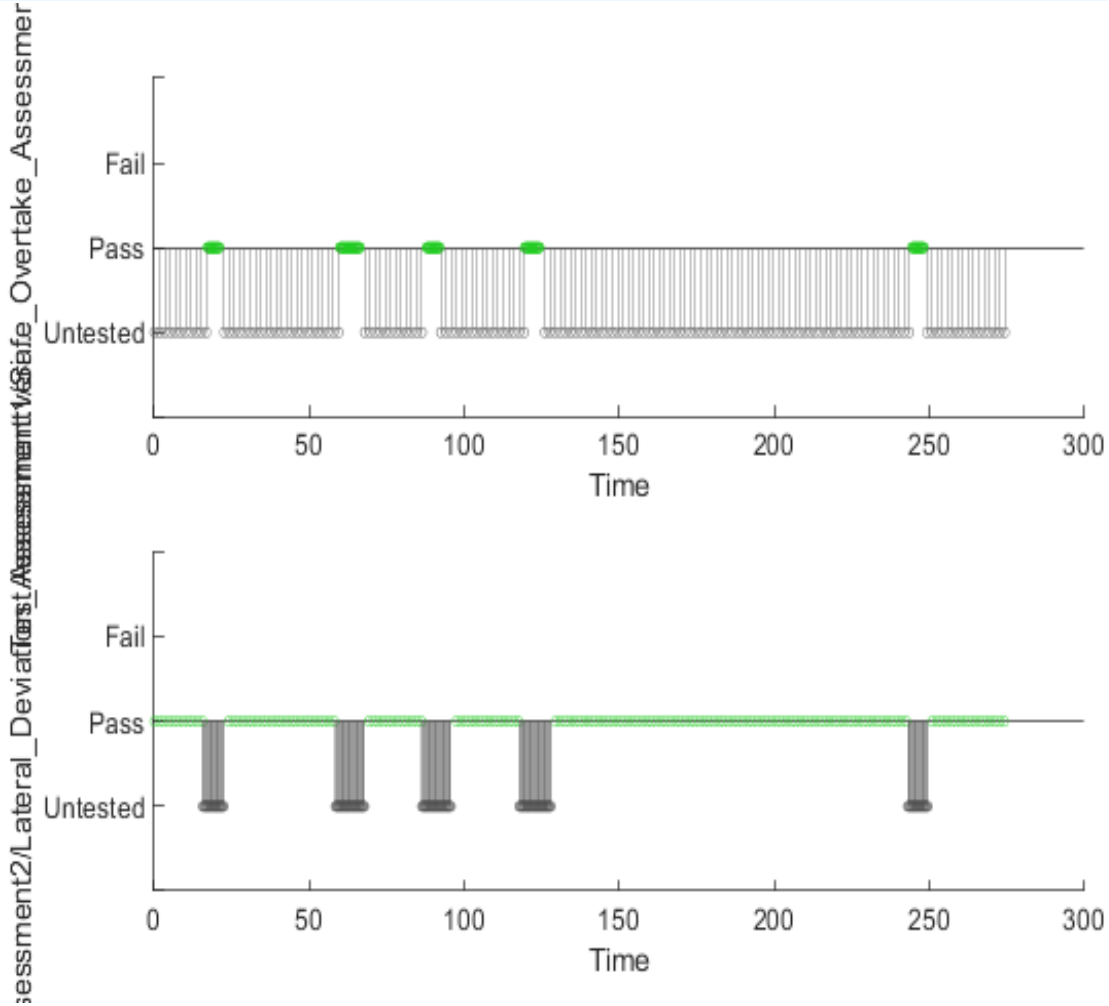


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)



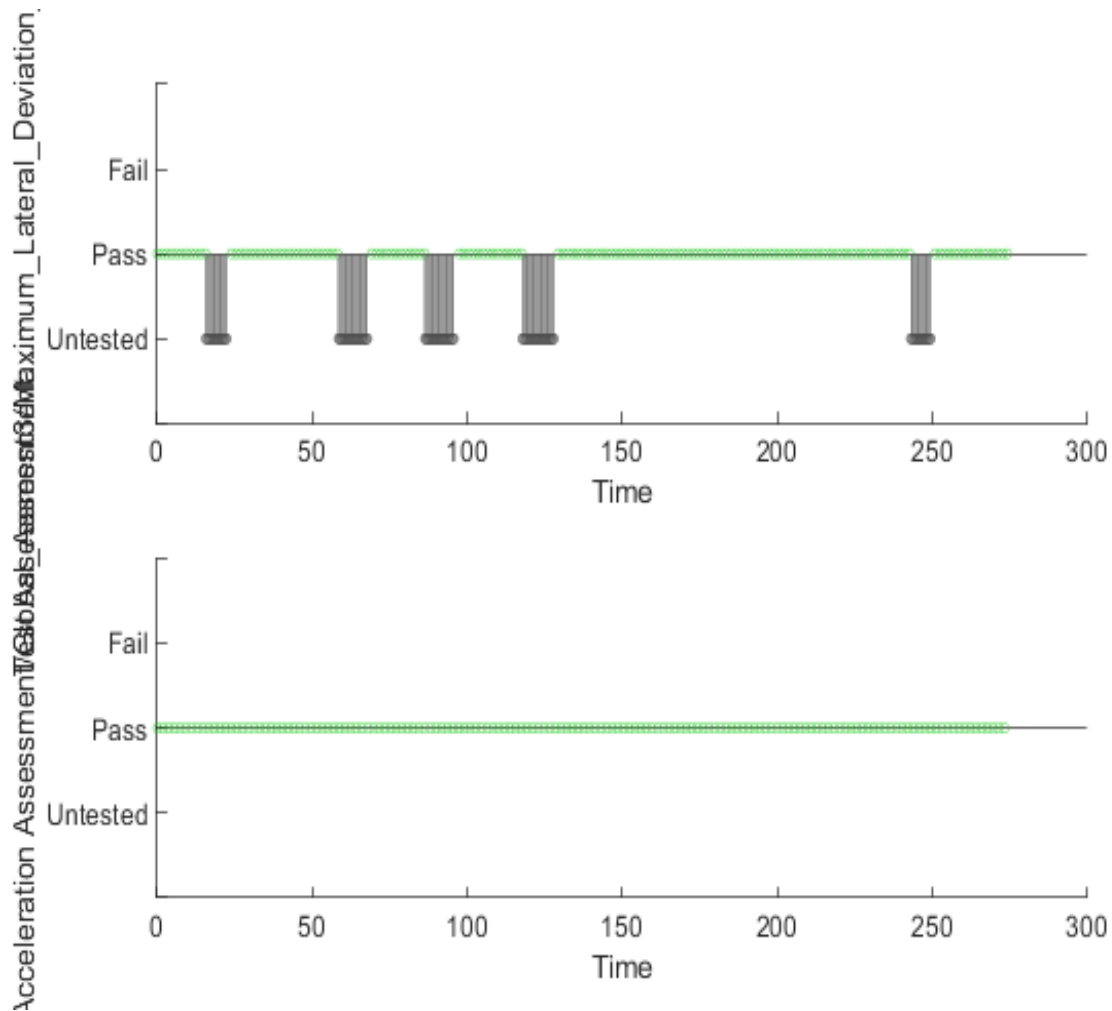
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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)





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## Simulation 1

### System Under Test Information

Model:	Dynamic_obstacle_avoidance
Harness:	Avoidance_in_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

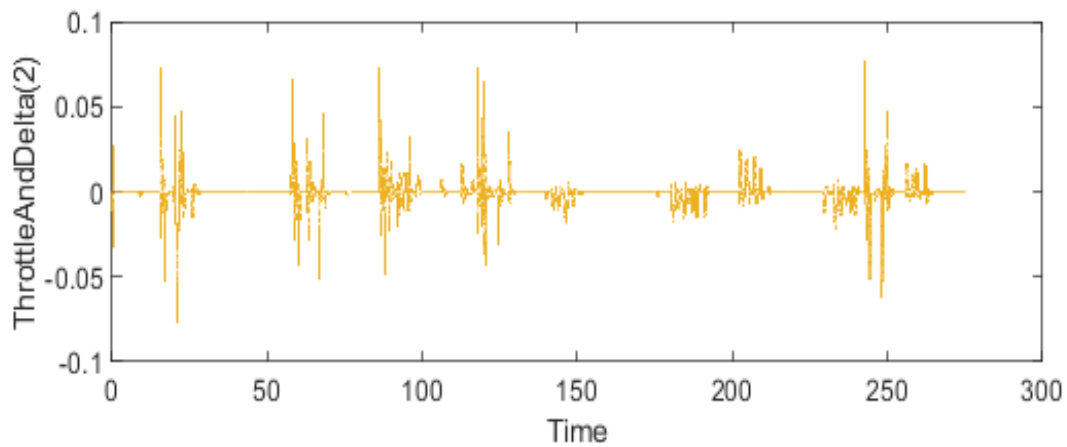
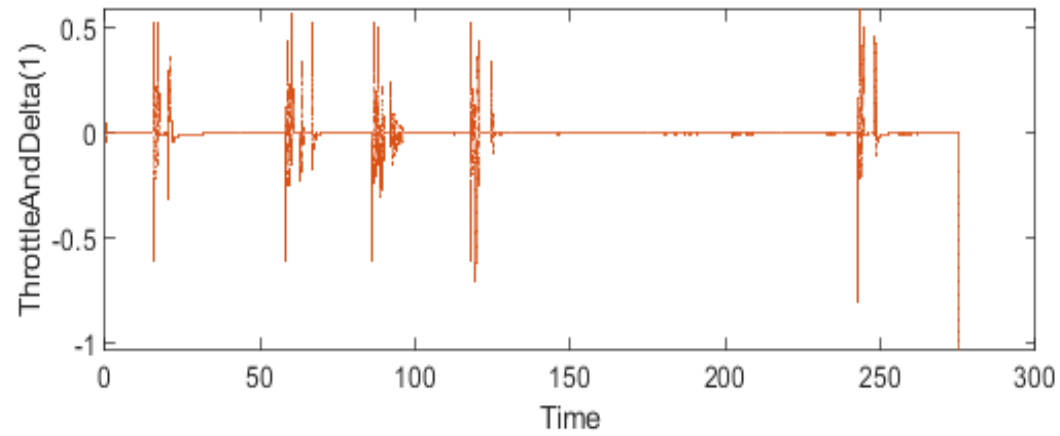
Stop Time:275.08204274327625

Checksum:560512140 2077323266 670520786 1624456250

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Simulation 2

### System Under Test Information

Model:	Dynamic_obstacle_avoidance_SIL
Harness:	Avoidance_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance_SIL/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

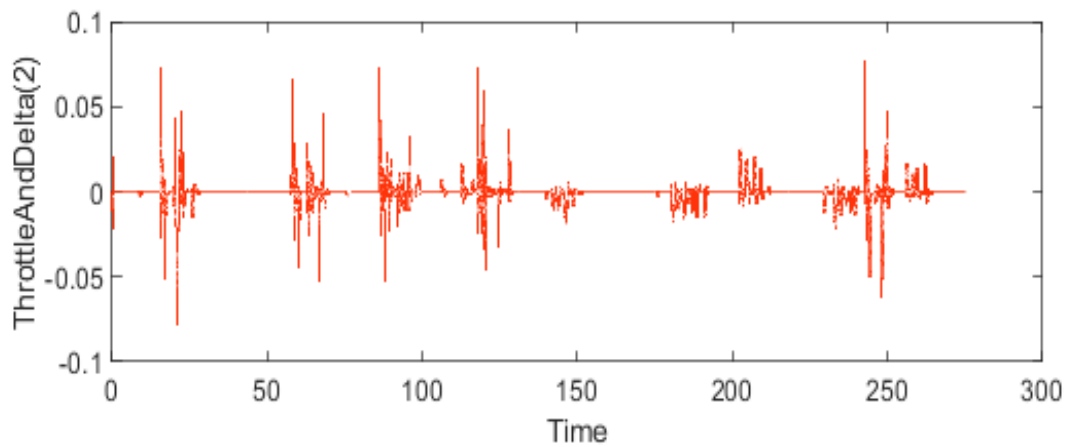
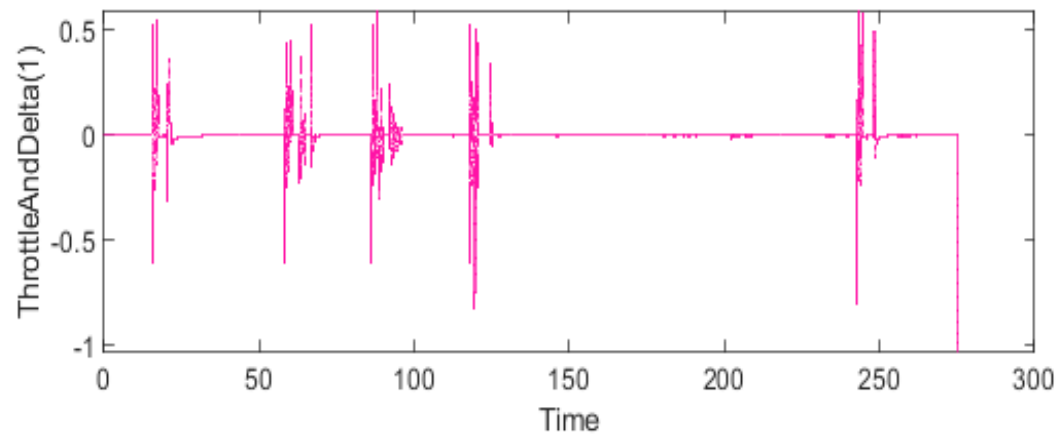
Stop Time:275.08204274327625

Checksum:3910346978 2654682495 3529197182 4188007937

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Puglia

### Test Result Information

Result Type: Test Case Result  
Parent: [Avoidance in real scenario \(Suzuki Samurai\)](#)  
Start Time: 17-Jun-2021 14:51:57

End Time: 17-Jun-2021 14:57:29  
Outcome: Passed

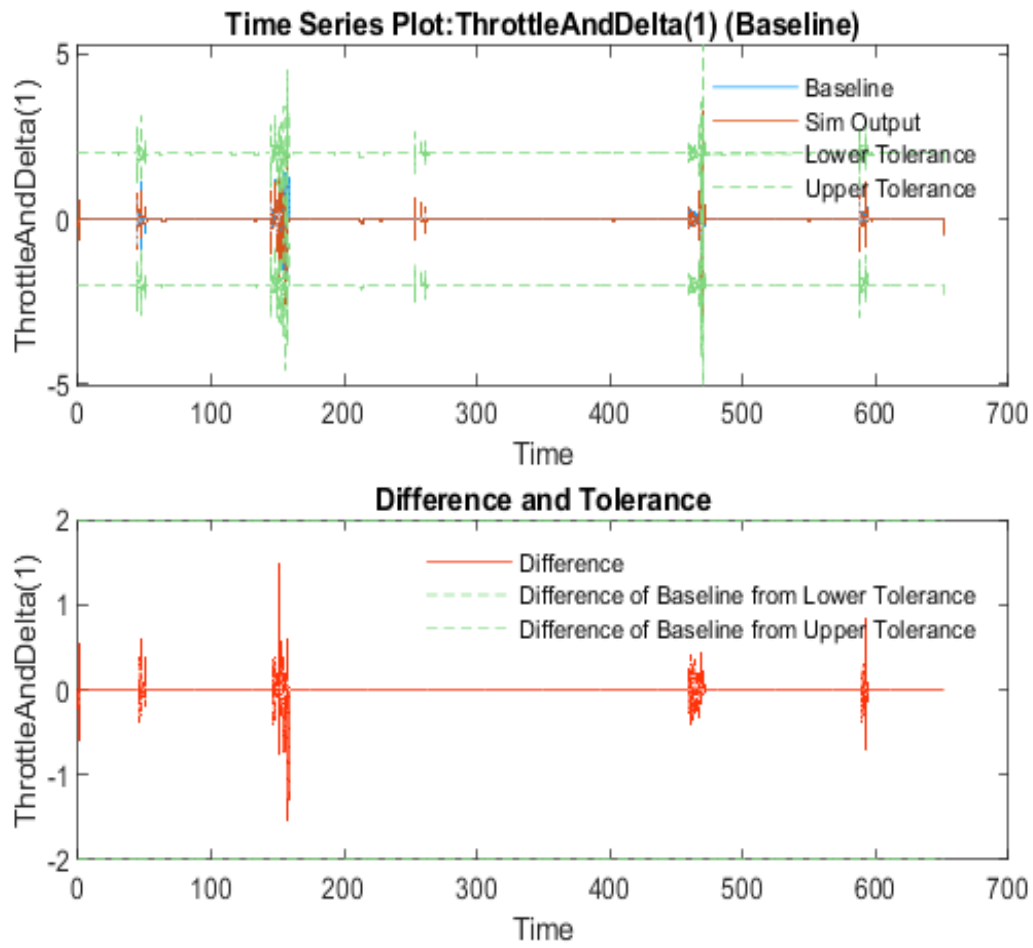
### Test Case Information

Name: Puglia  
Type: Equivalence Test

### Equivalence Comparison

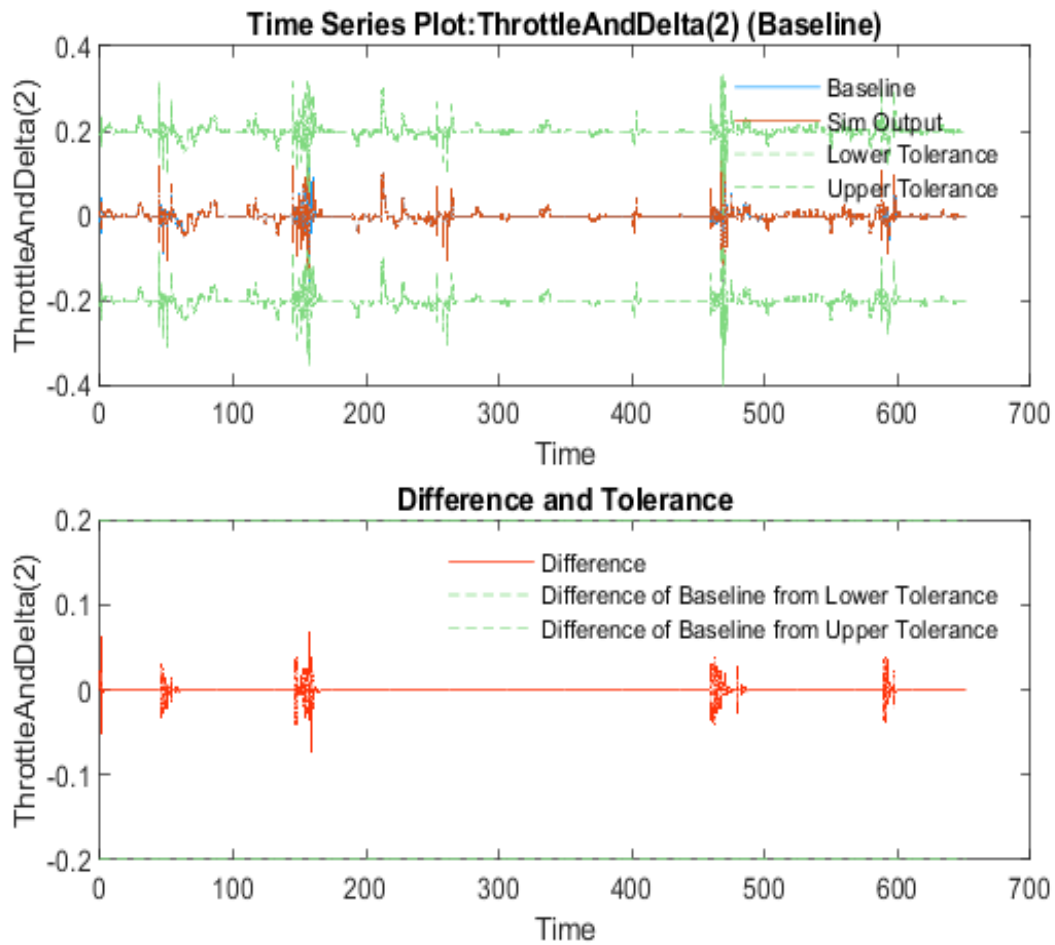
Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync	Link to Plot
✔ ThrottleAndDelta(1)	2	0.01	0	0	1.53	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>
✔ ThrottleAndDelta(2)	0.2	0.01	0	0	0.0709	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✔ ThrottleAndDelta(1)	2	0.01	0	0	1.53	double		Continuous	double		Continuous	zoh	union



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Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✓ ThrottleAndDelta(2)	0.2	0.01	0	0	0.0709	double		Continuous	double		Continuous	zoh	union



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## Verify Result 1

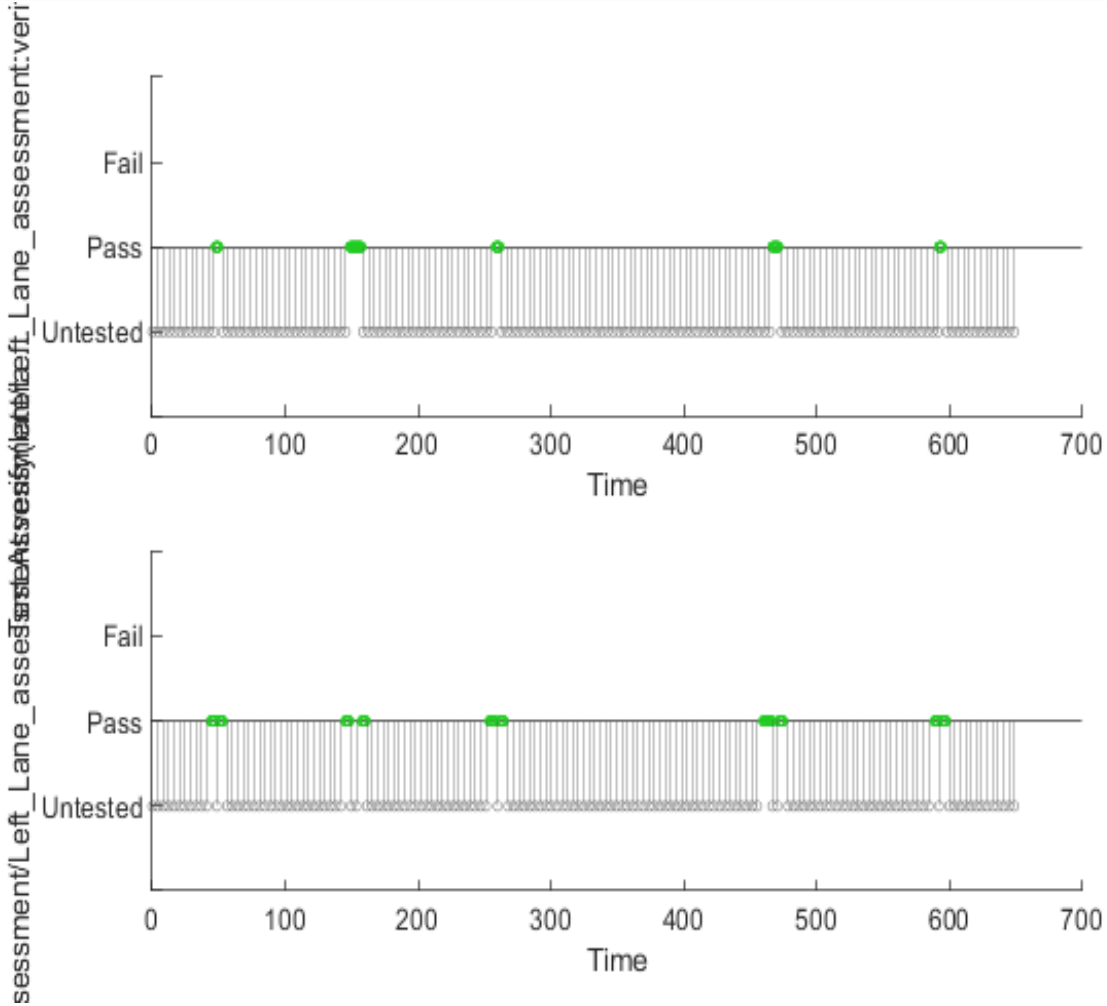
Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>



✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

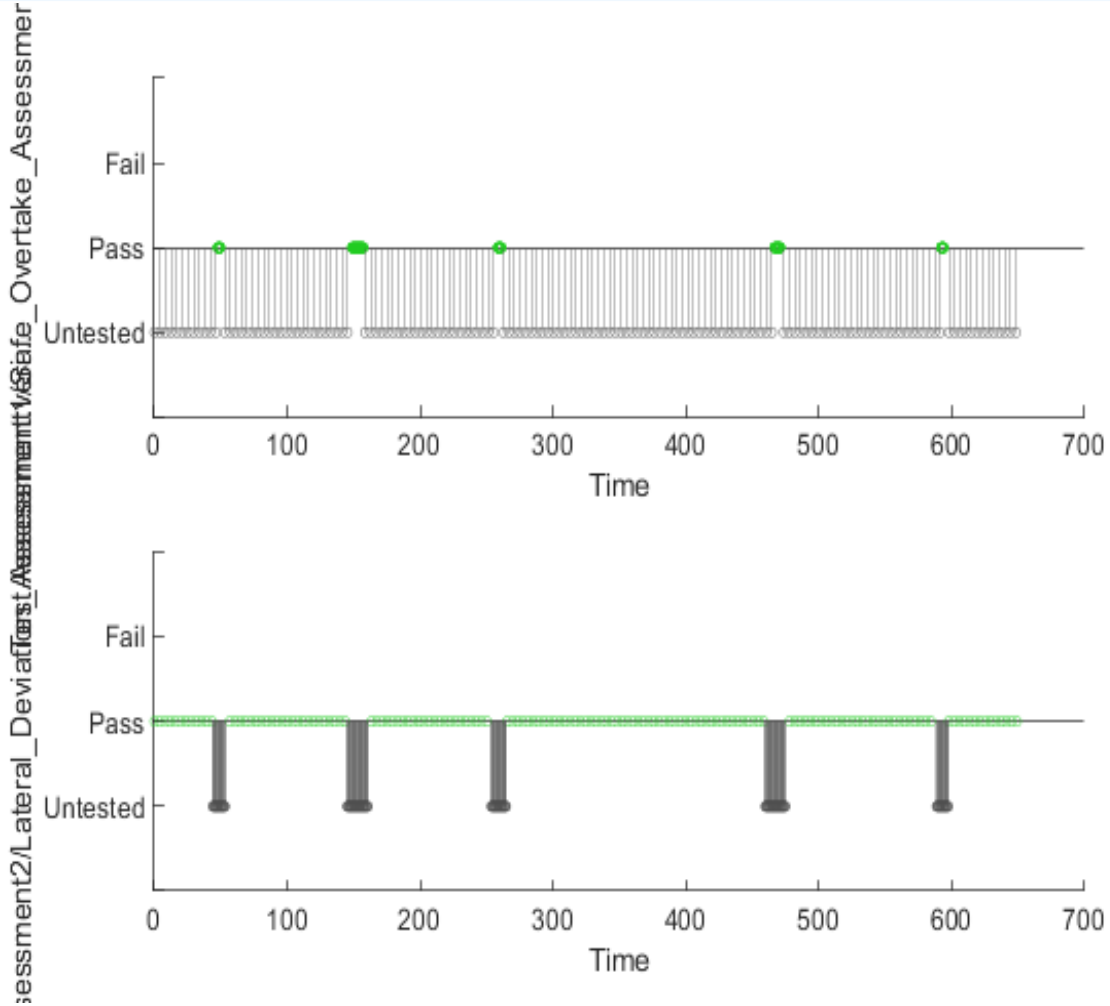


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Name	
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✔ Test Assessment1/ Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

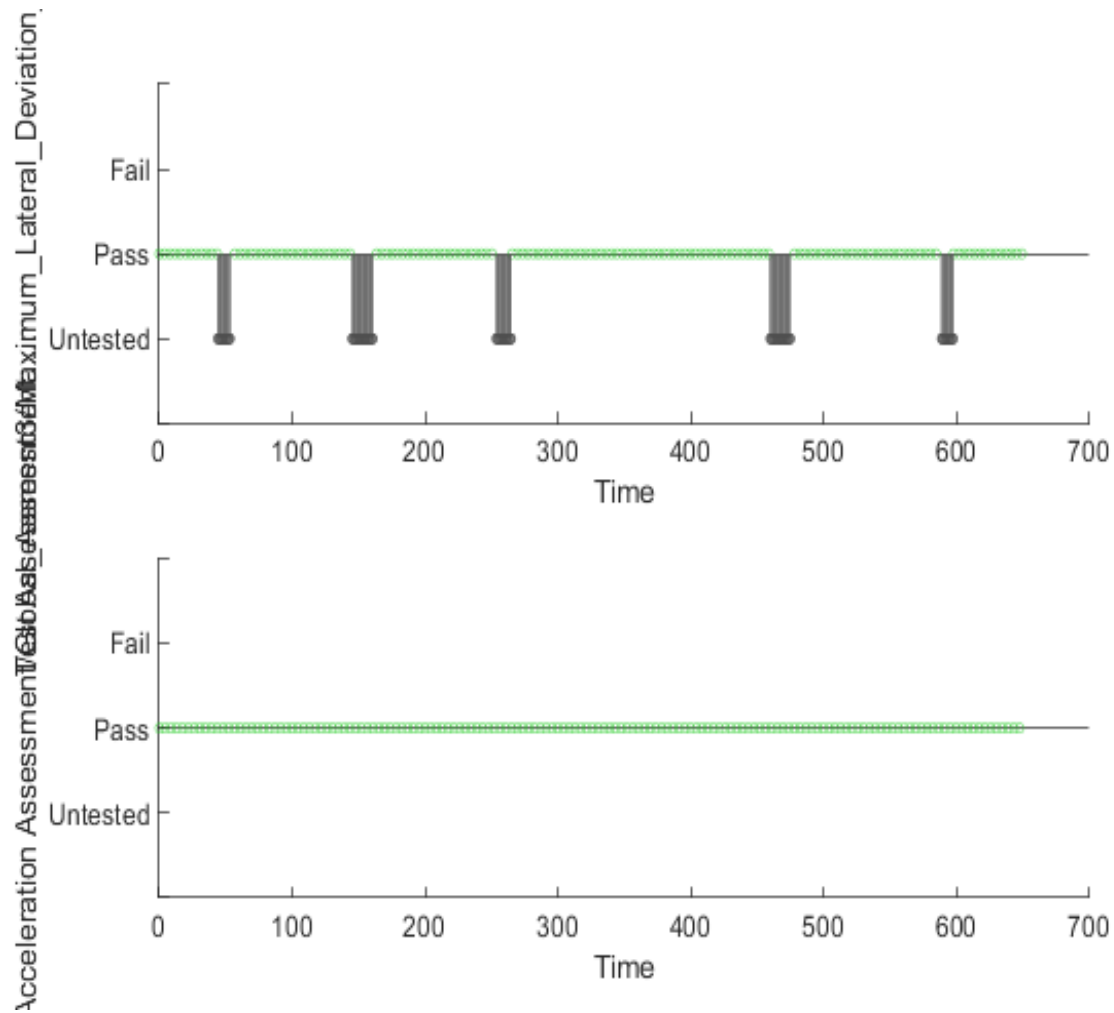


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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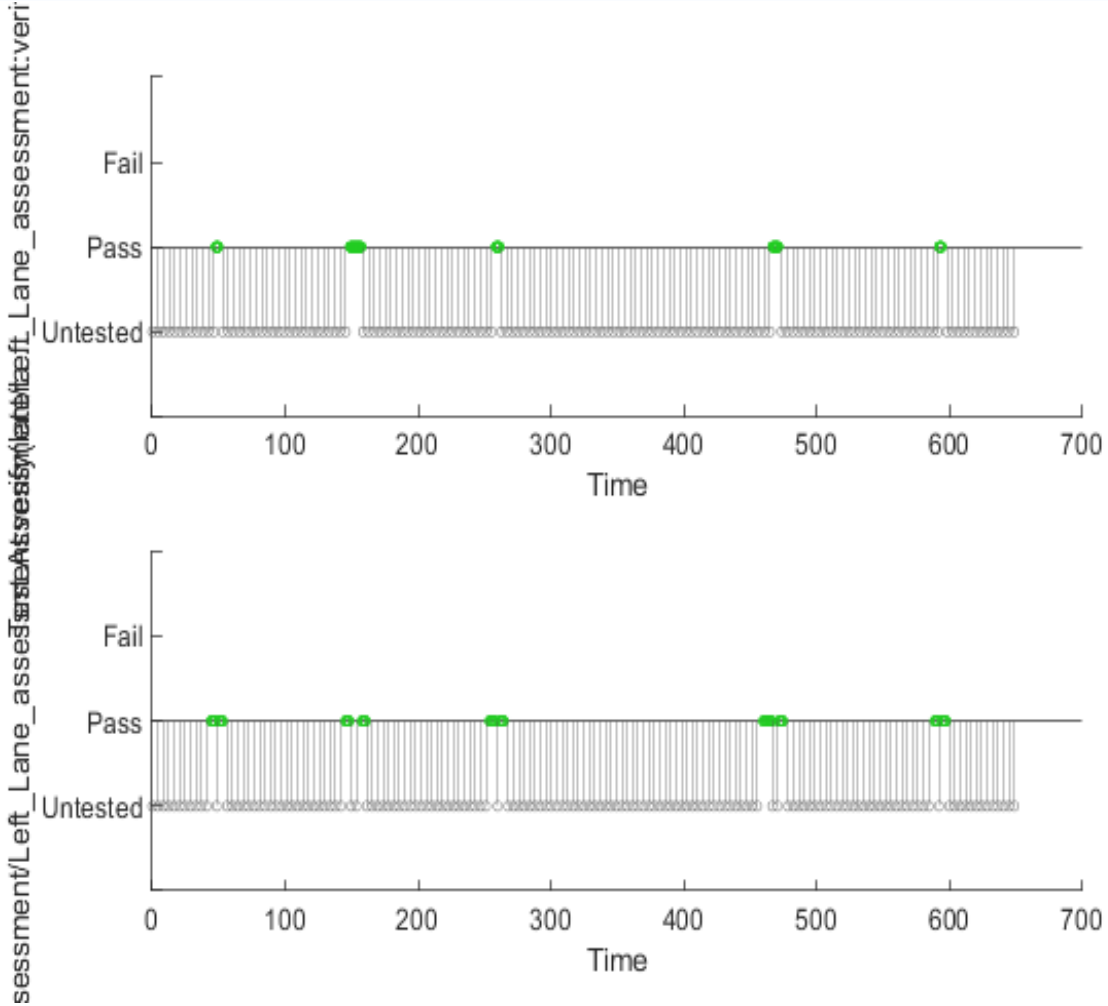
## Verify Result 2

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

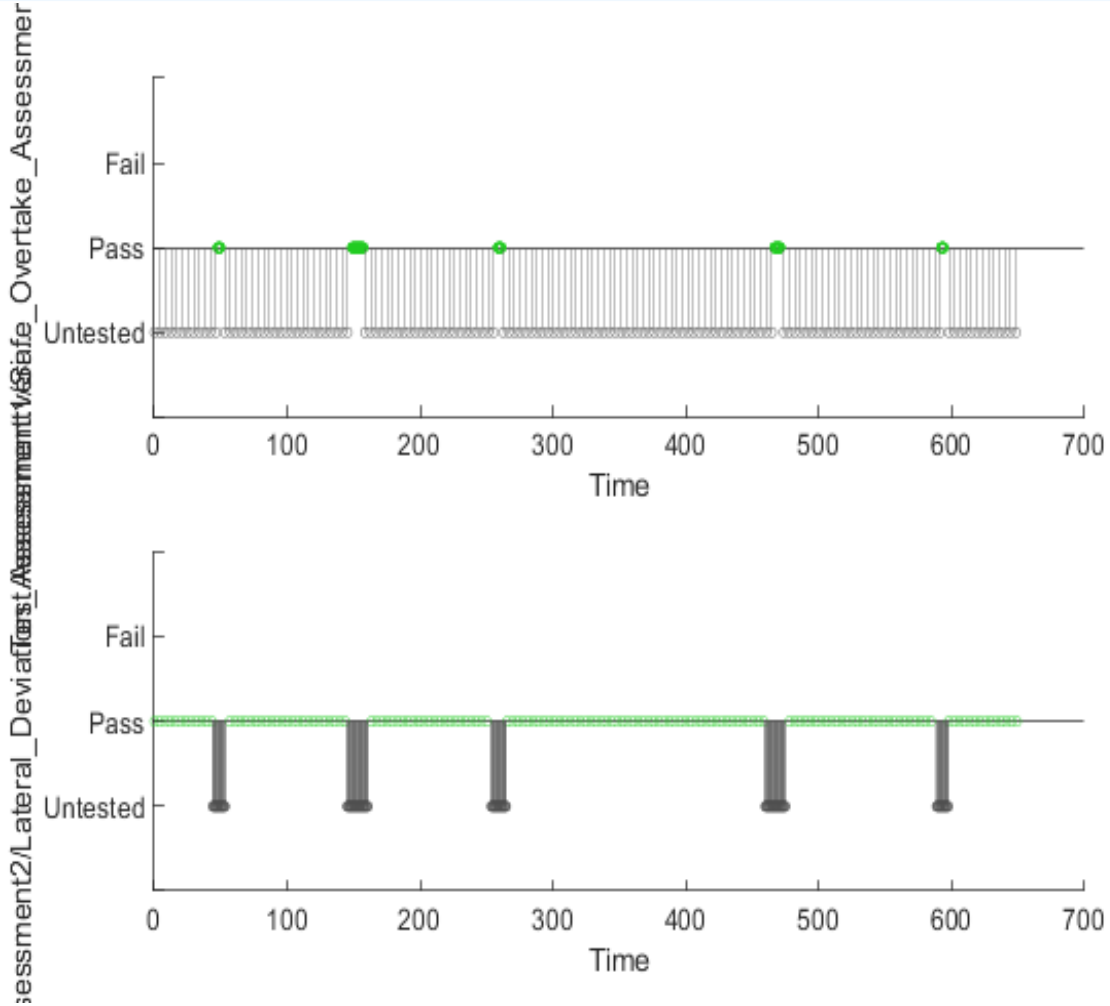


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

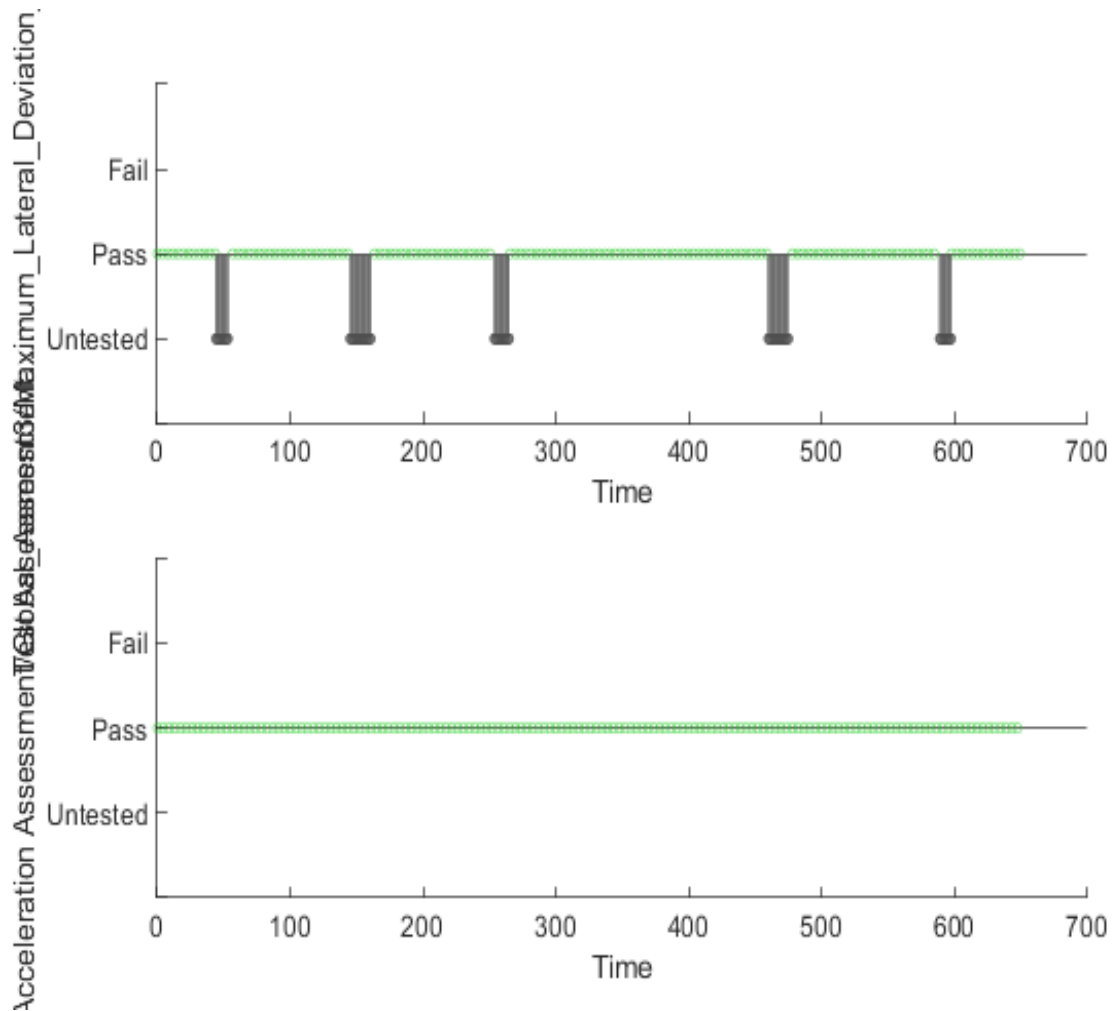


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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## Simulation 1

### System Under Test Information

Model:	Dynamic_obstacle_avoidance
Harness:	Avoidance_in_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

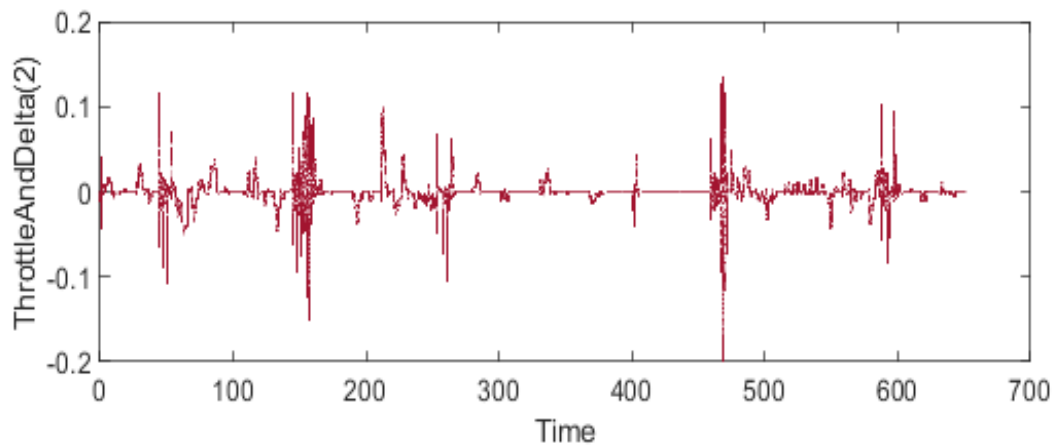
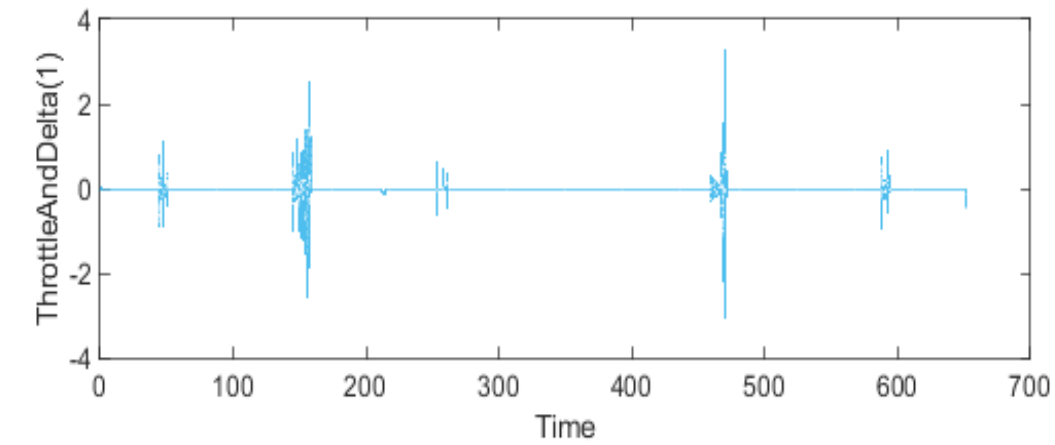
Stop Time:651.65546907329588

Checksum:1175733023 1860673233 1531597131 2149246587

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Simulation 2

### System Under Test Information

Model:	Dynamic_obstacle_avoidance_SIL
Harness:	Avoidance_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance_SIL/Subsystem
Release:	Current
Simulation Mode:	normal



Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

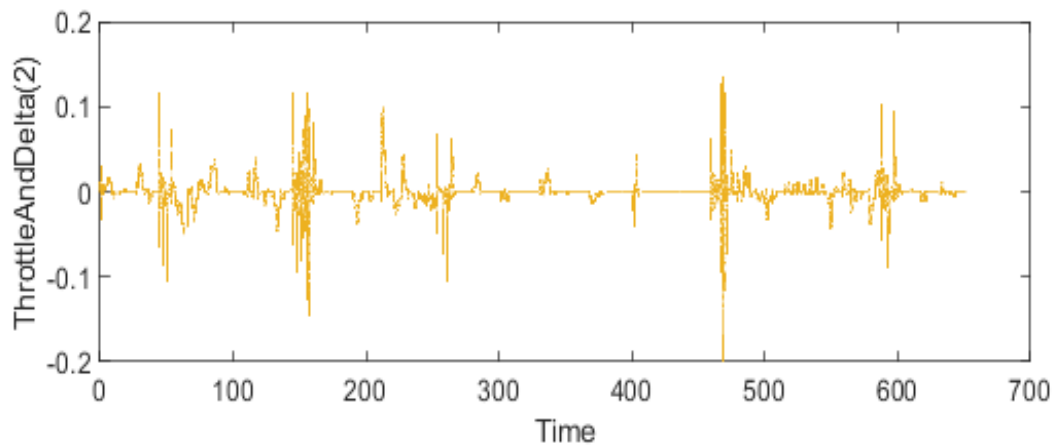
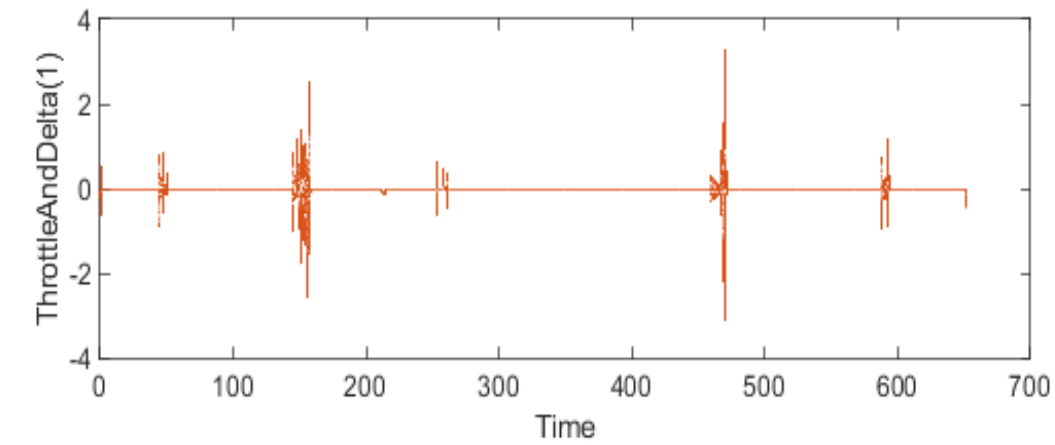
Stop Time:651.65546907329588

Checksum:3207812238 536380018 4266494897 4273513856

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Indianapolis Motor Speedway

### Test Result Information

Result Type: Test Case Result  
Parent: [Avoidance in real scenario \(Suzuki Samurai\)](#)  
Start Time: 17-Jun-2021 14:57:29

End Time: 17-Jun-2021 14:58:29  
Outcome: Passed

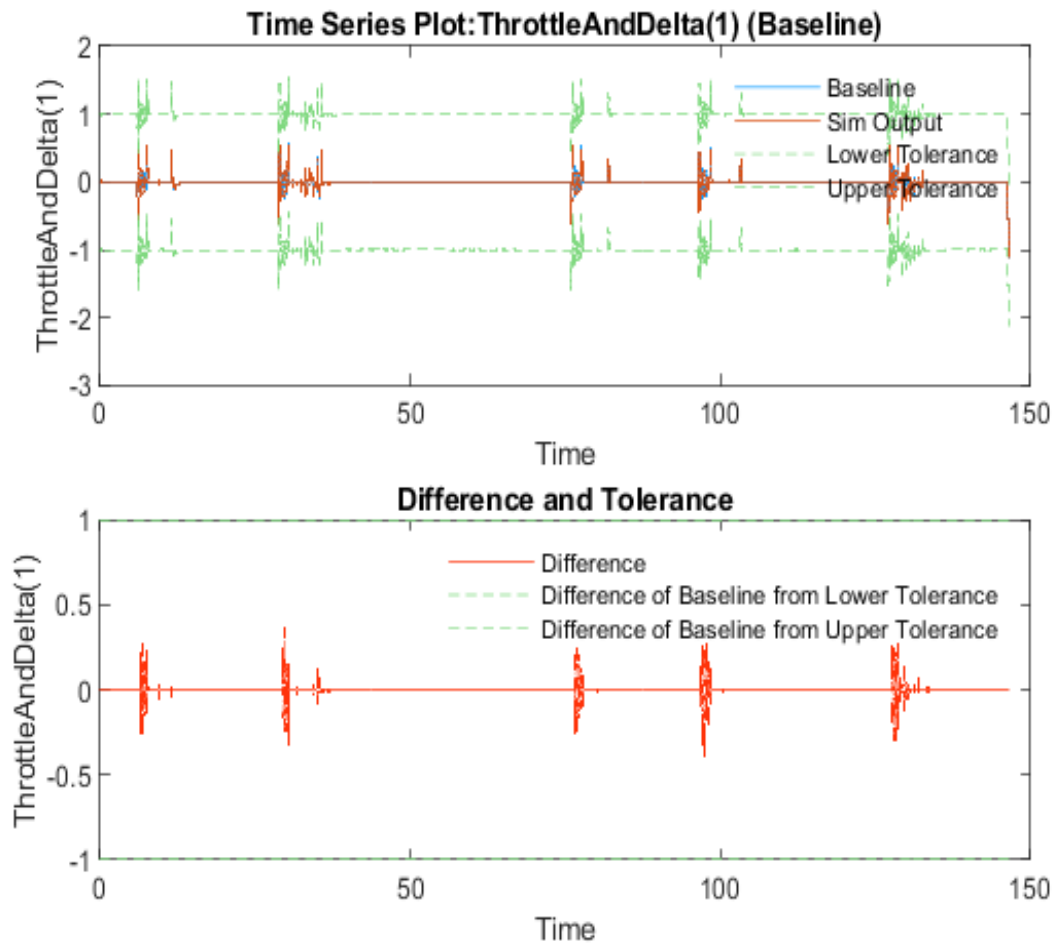
### Test Case Information

Name: Indianapolis Motor Speedway  
Type: Equivalence Test

### Equivalence Comparison

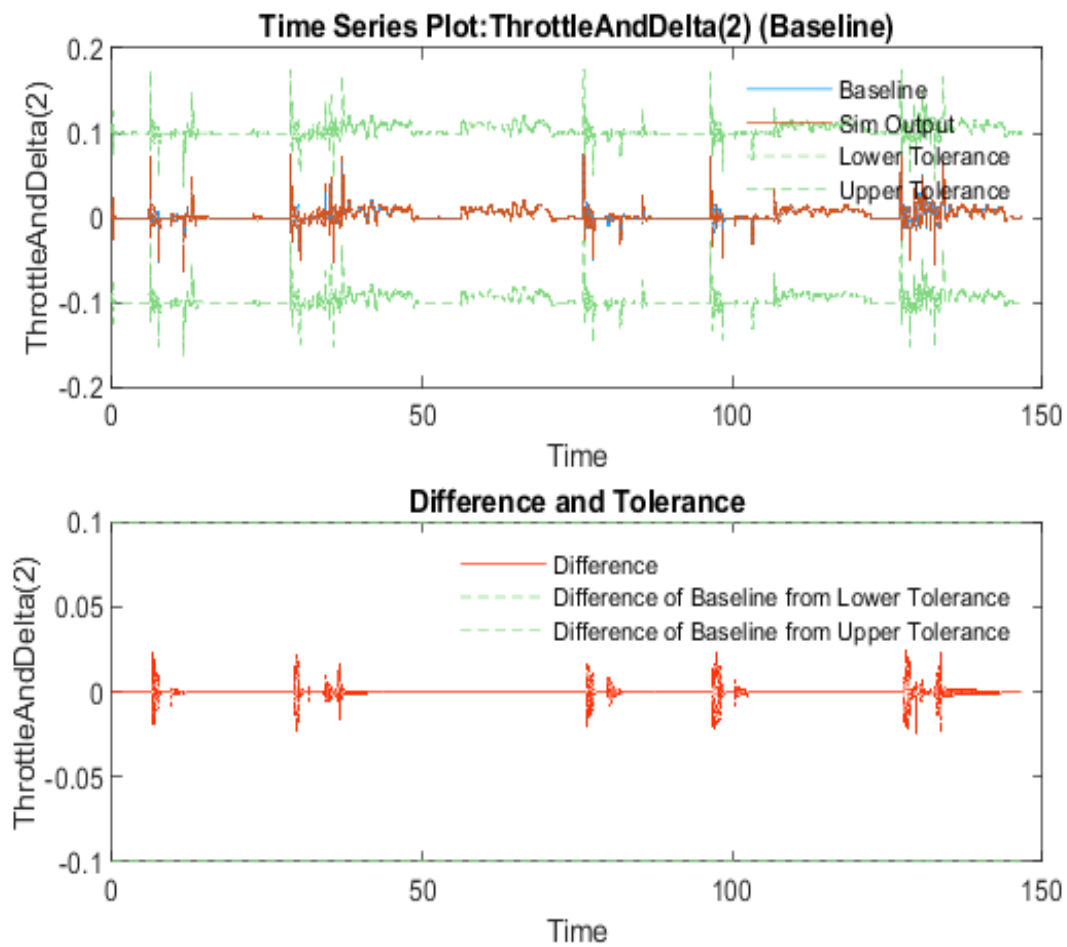
Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync	Link to Plot
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.391	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>
✔ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0246	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.391	double		Continuous	double		Continuous	zoh	union



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Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✓ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0246	double		Continuous	double		Continuous	zoh	union



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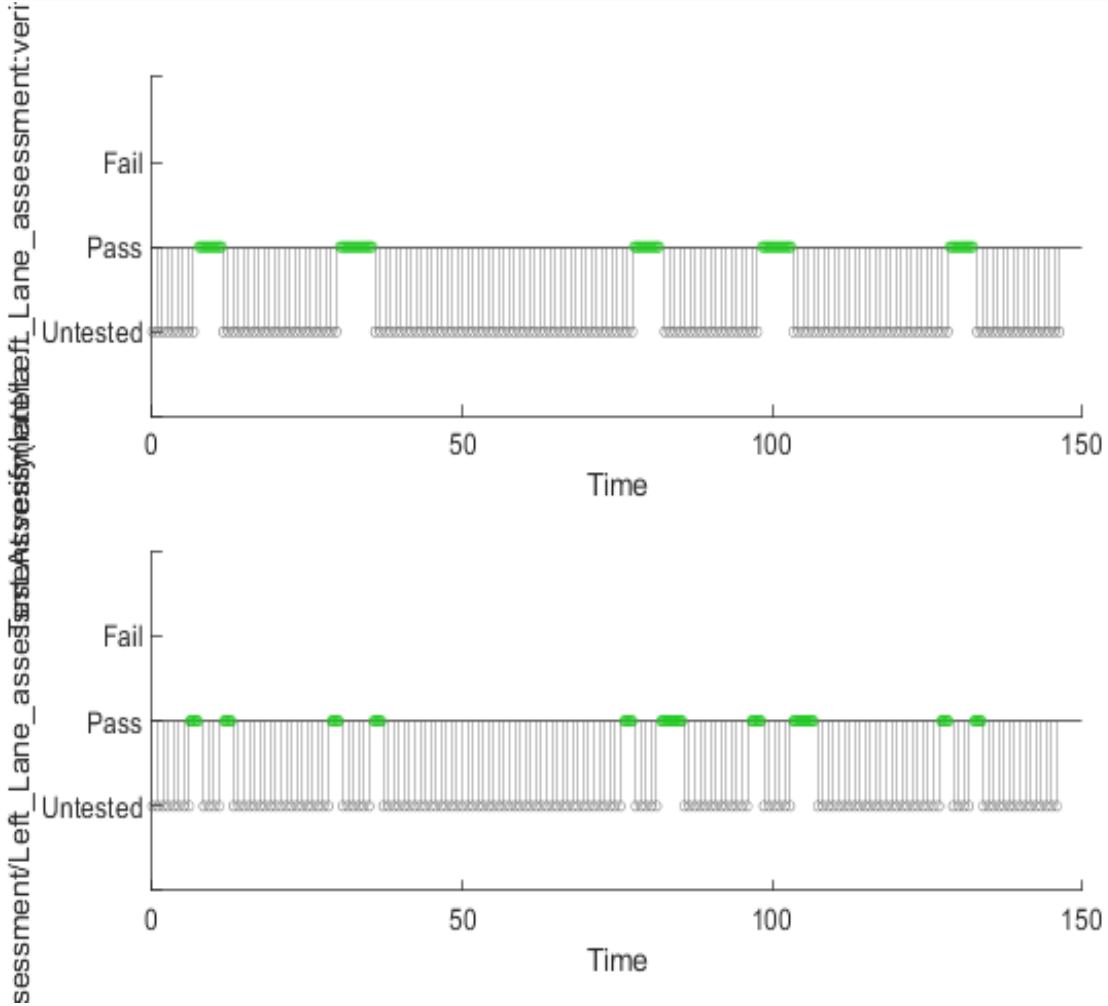
## Verify Result 1

Name		Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)		<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)		<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)		<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)		<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)		<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

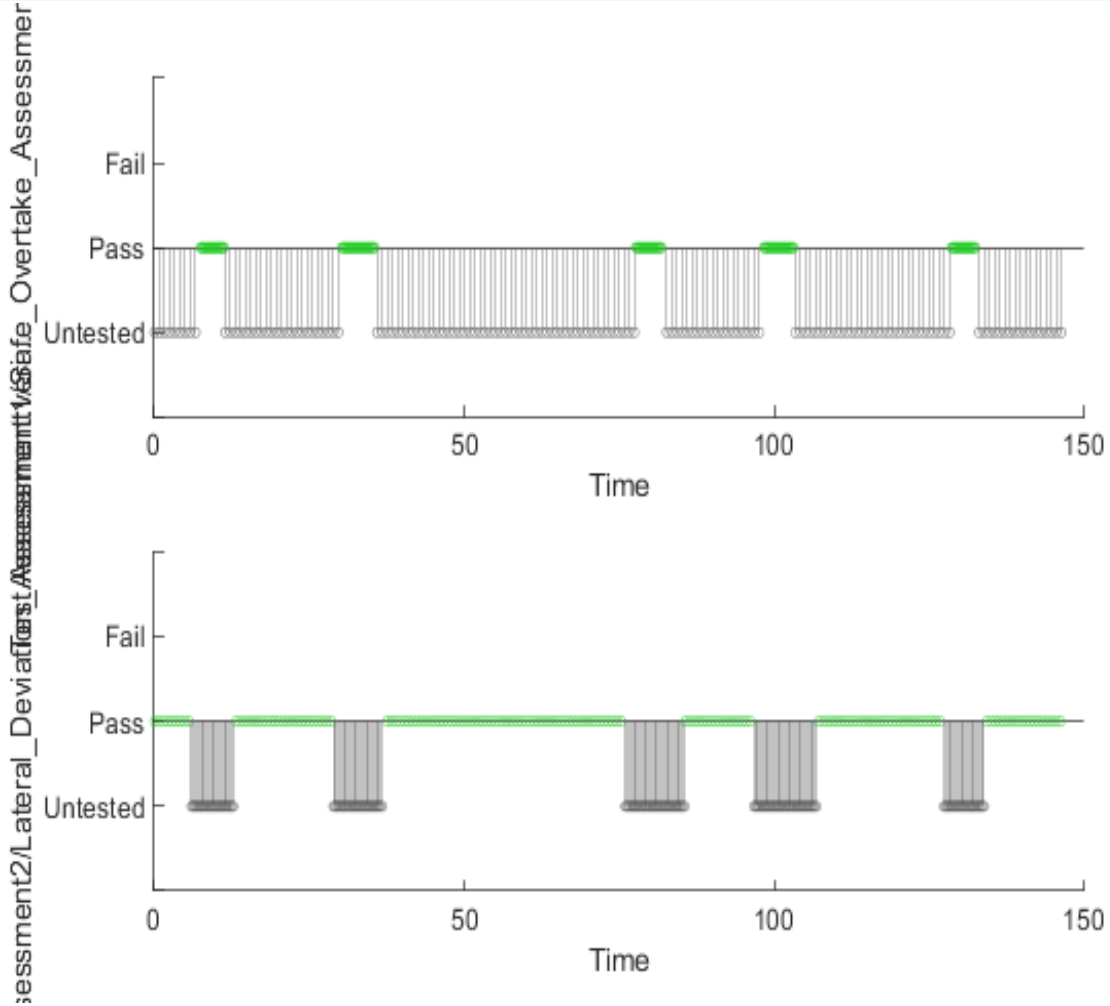


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Name	
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Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

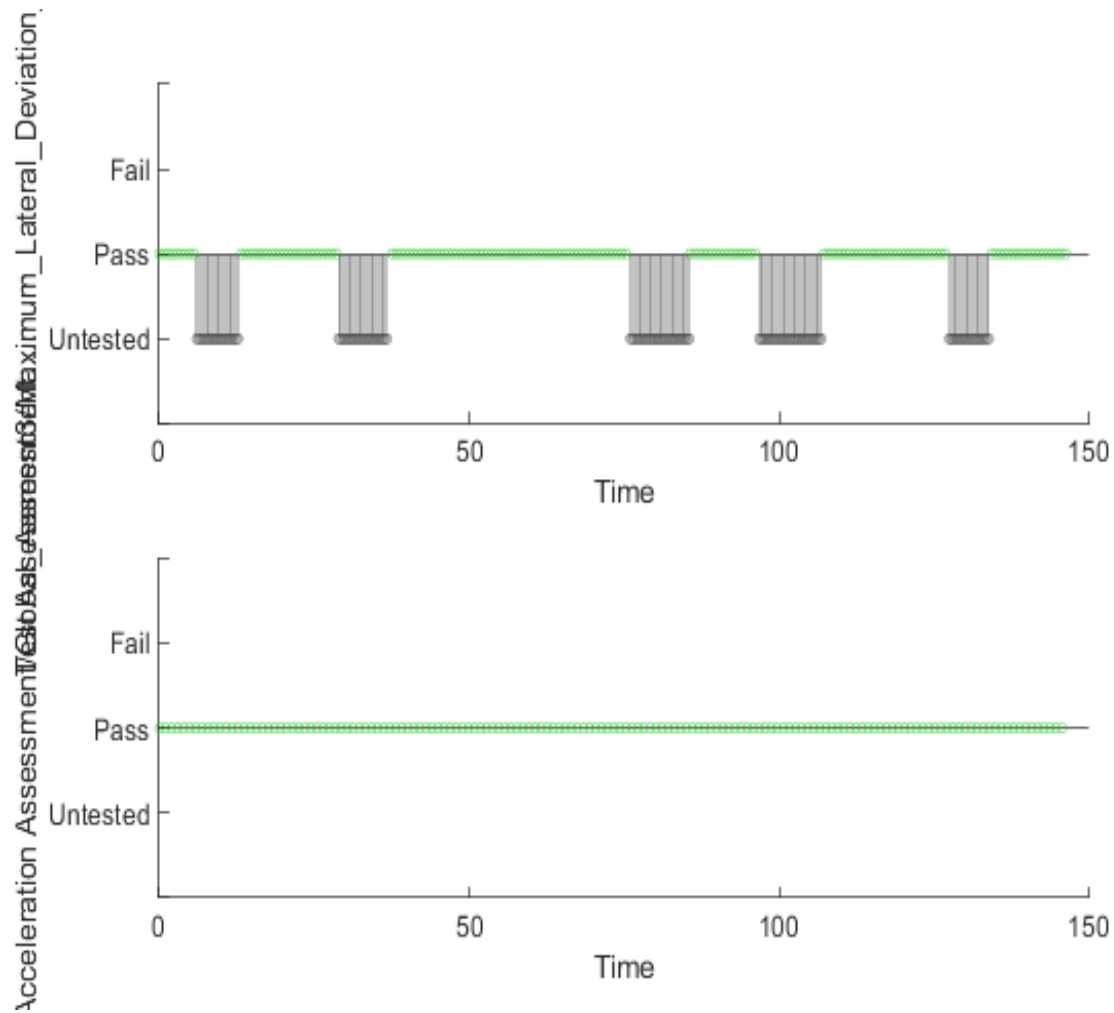


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#### Name

Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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## Verify Result 2

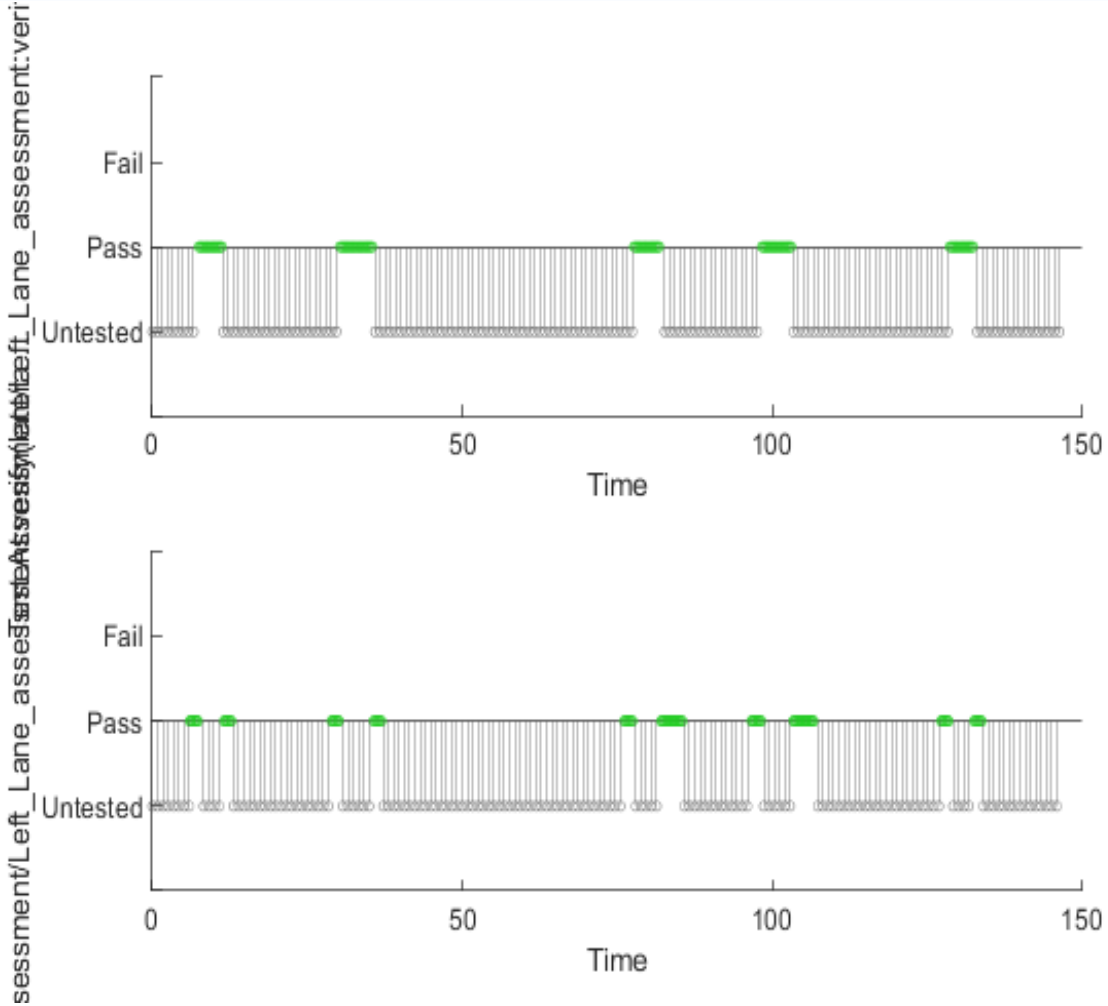
Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>



✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

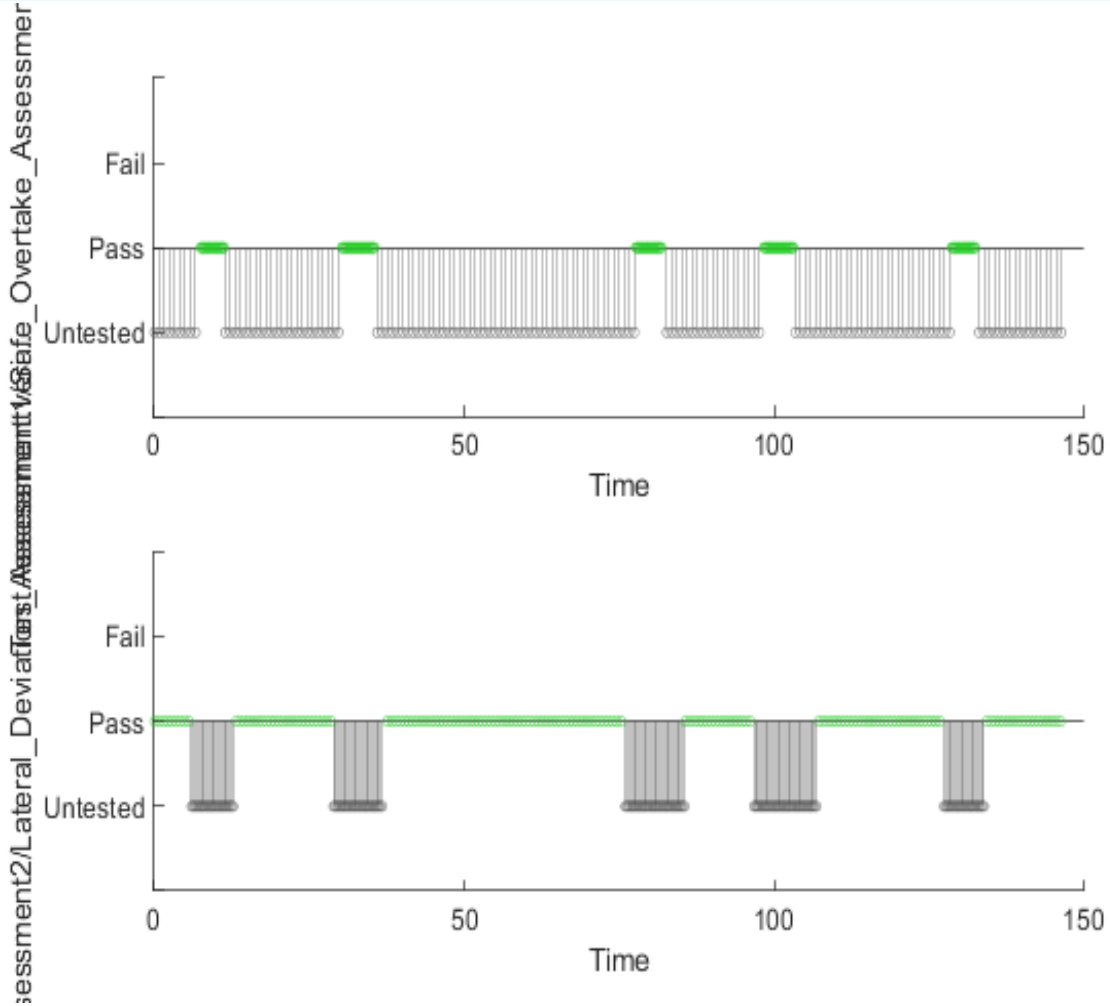


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

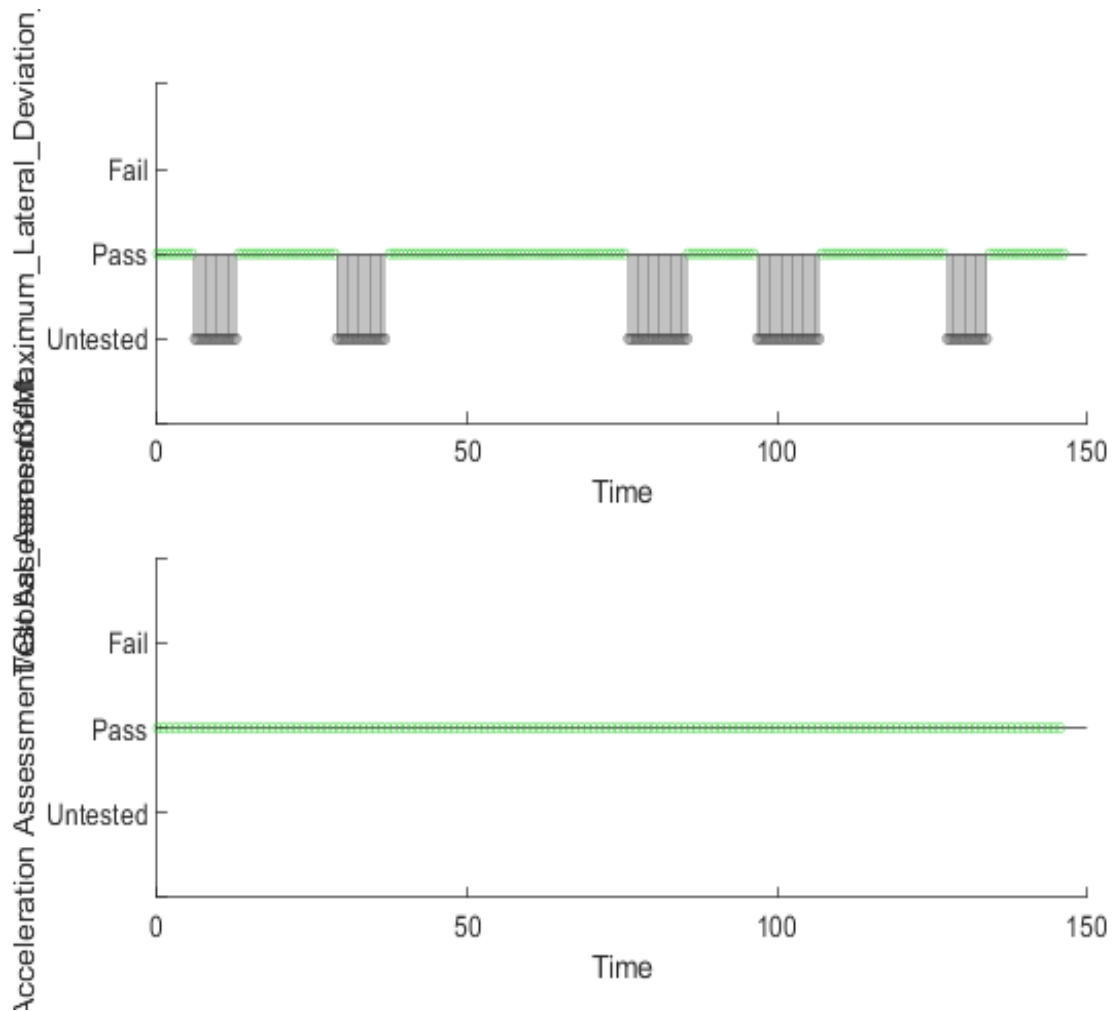


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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## Simulation 1

### System Under Test Information

Model:	Dynamic_obstacle_avoidance
Harness:	Avoidance_in_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

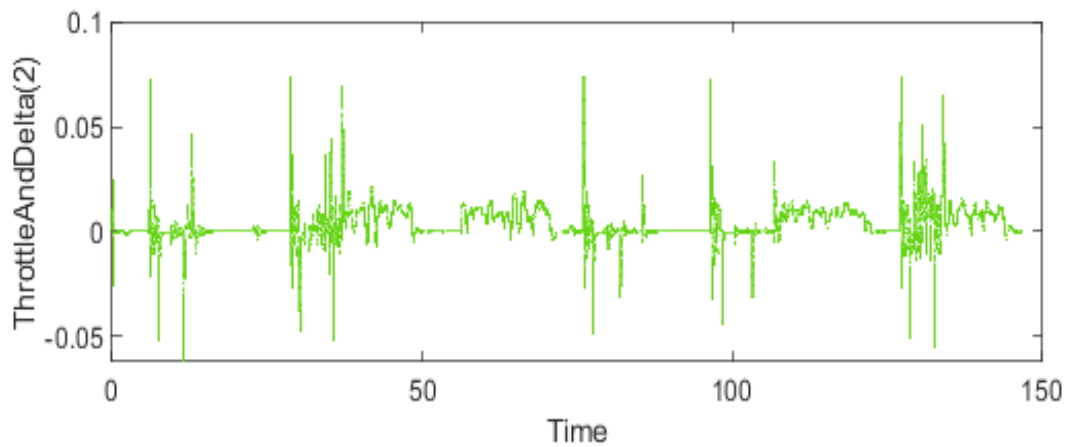
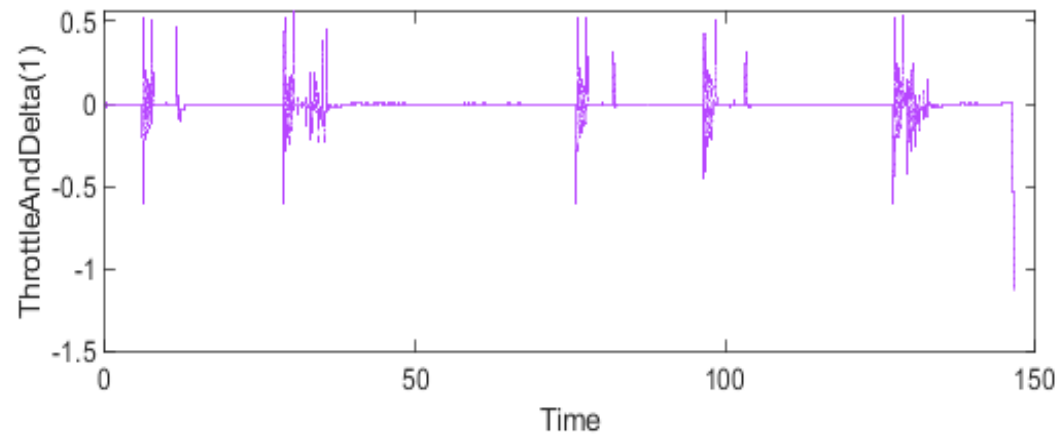
Stop Time:146.51791178475014

Checksum:1435385966 2039963742 2097507888 2861652933

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Simulation 2

### System Under Test Information

Model:	Dynamic_obstacle_avoidance_SIL
Harness:	Avoidance_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance_SIL/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

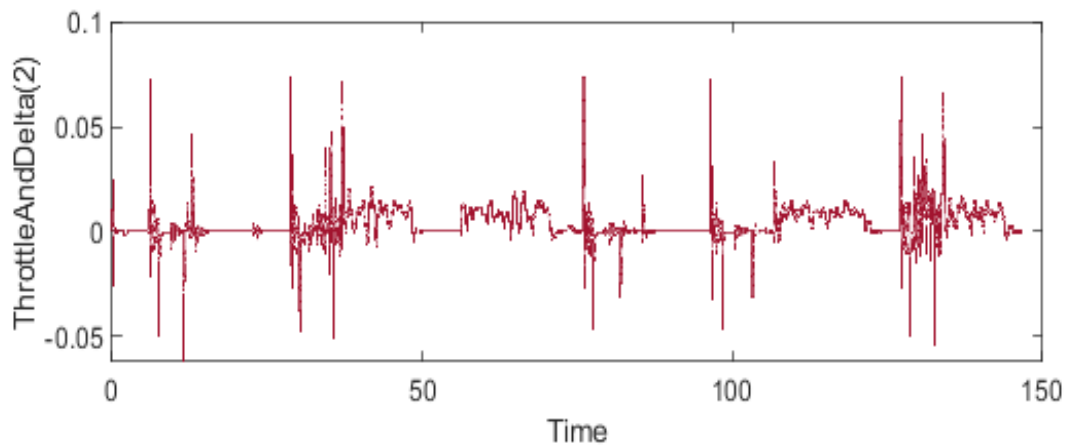
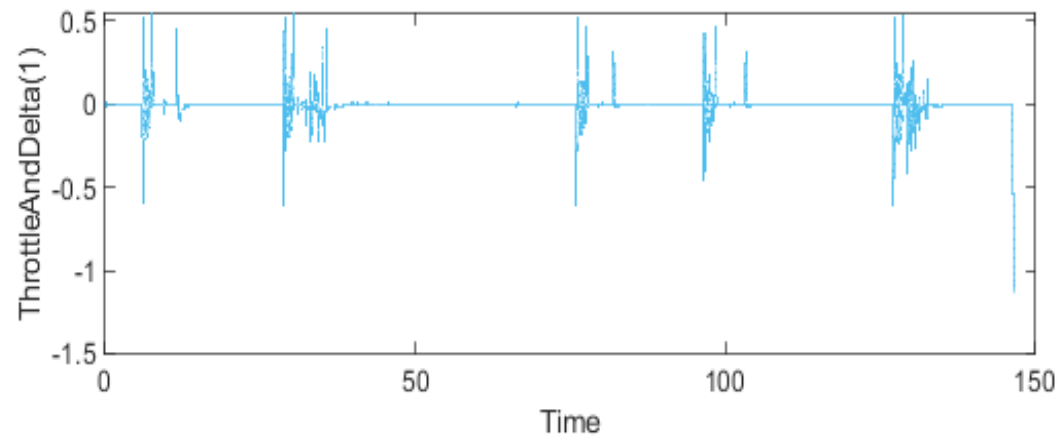
Stop Time:146.51791178475014

Checksum:3141116588 90218501 3127706781 1180433817

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Avoidance in real scenario (Volkswagen Beetle)

### Test Result Information

Result Type: Test Suite Result  
Parent: [SIL Test](#)

Start Time: 17-Jun-2021 14:58:30  
End Time: 17-Jun-2021 15:05:49  
Outcome: Total: 3, **Passed: 2**, **Failed: 1**

## Test Suite Information

Name: Avoidance in real scenario (Volkswagen Beetle)

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## A14 Highway

### Test Result Information

Result Type: Test Case Result  
Parent: [Avoidance in real scenario \(Volkswagen Beetle\)](#)  
Start Time: 17-Jun-2021 14:58:30  
End Time: 17-Jun-2021 15:00:11  
Outcome: **Passed**

### Test Case Information

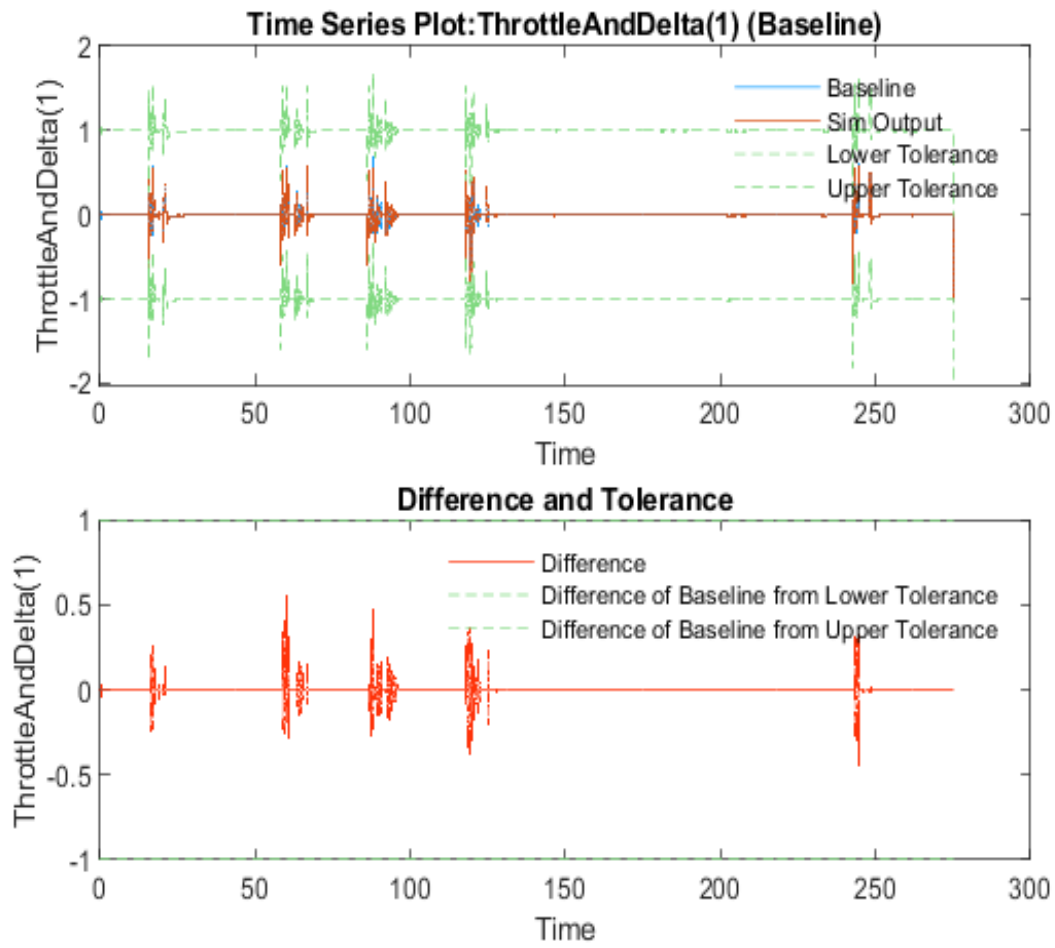
Name: A14 Highway  
Type: Equivalence Test

### Equivalence Comparison

Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync	Link to Plot
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.552	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>
✔ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0354	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>

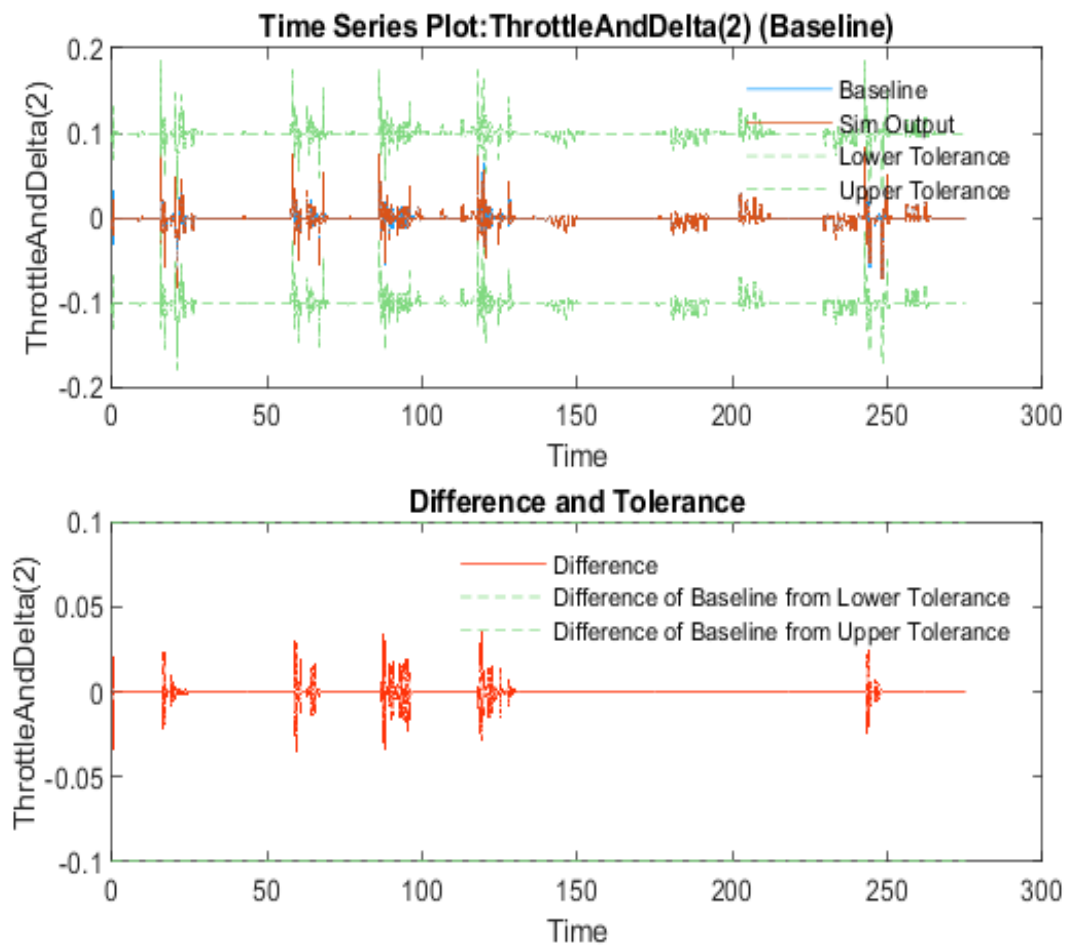
Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.552	double		Continuous	double		Continuous	zoh	union





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Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✓ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0354	double		Continuous	double		Continuous	zoh	union



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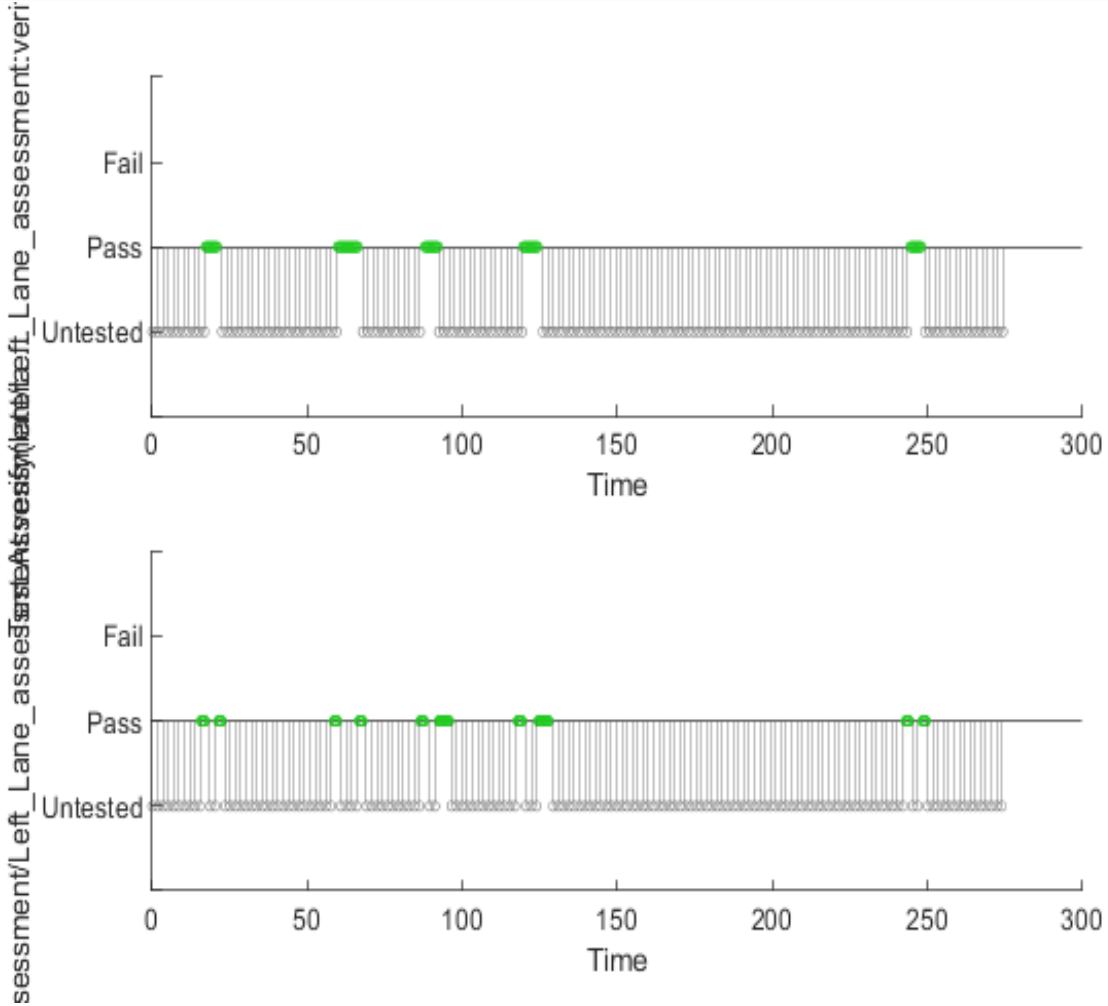
## Verify Result 1

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

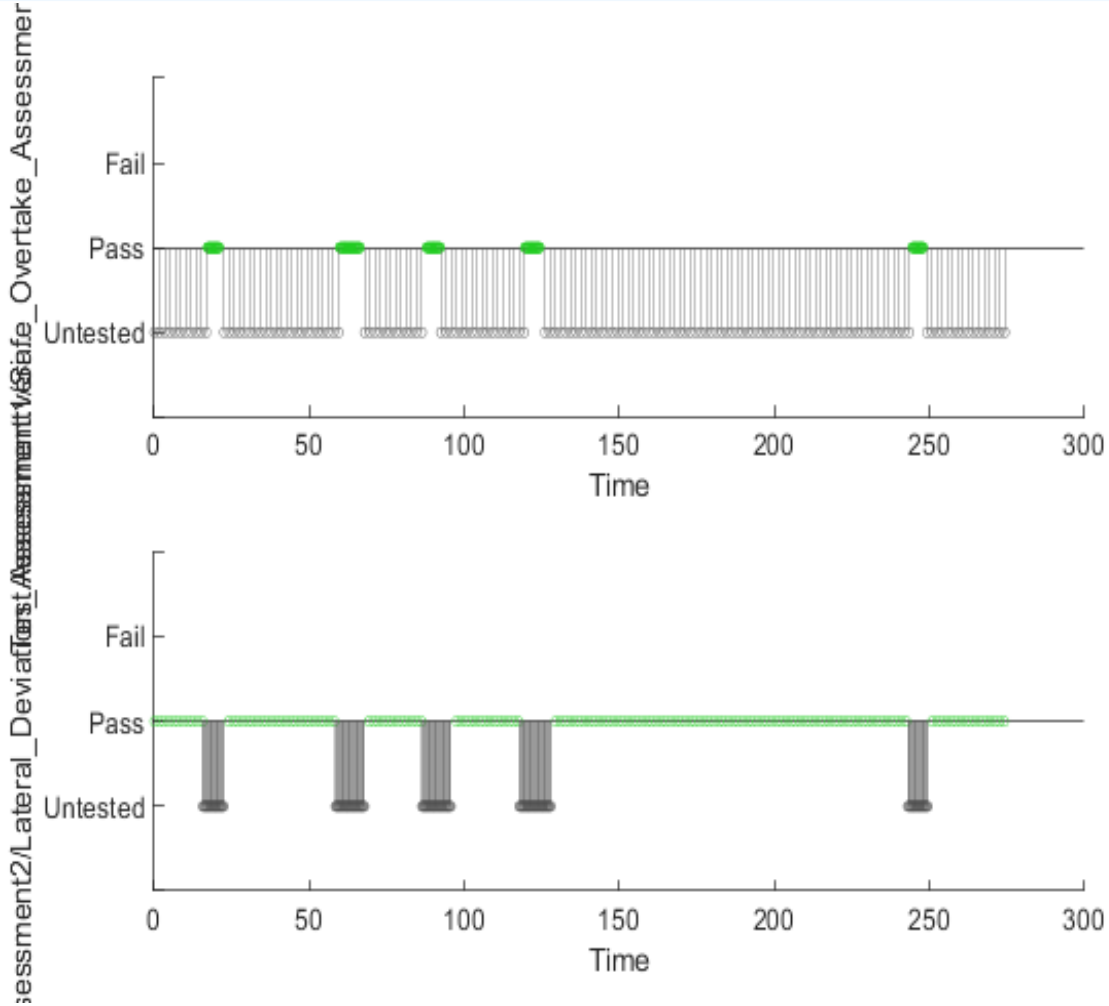


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

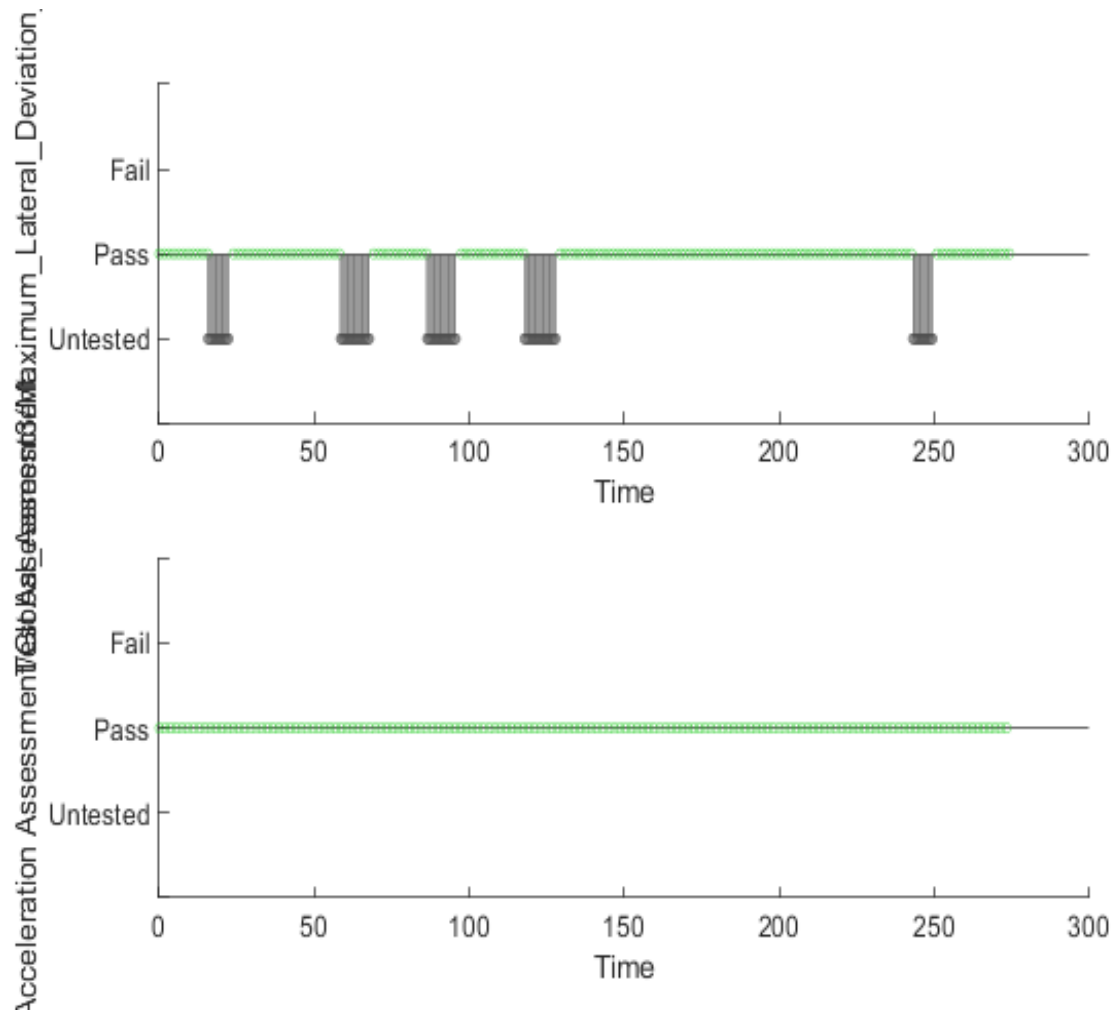


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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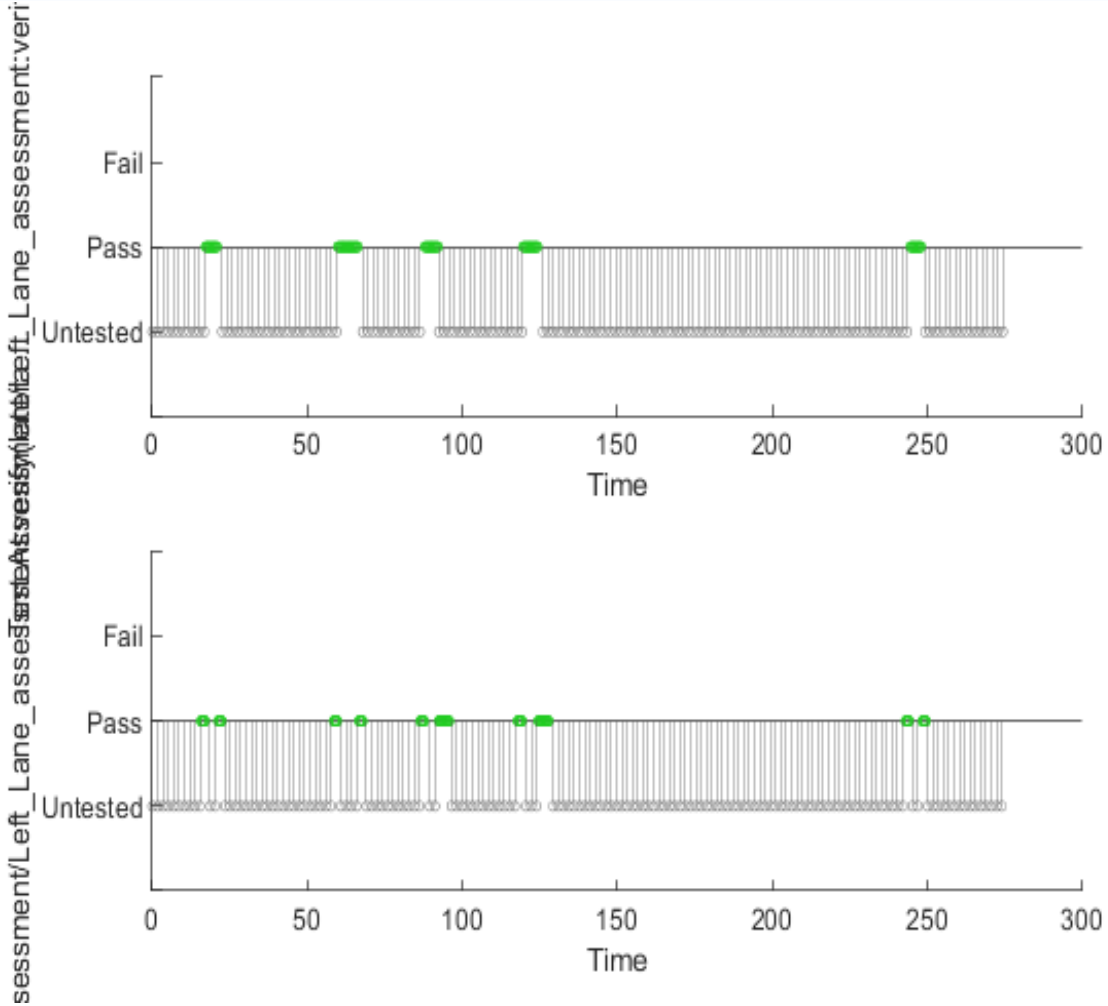
## Verify Result 2

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

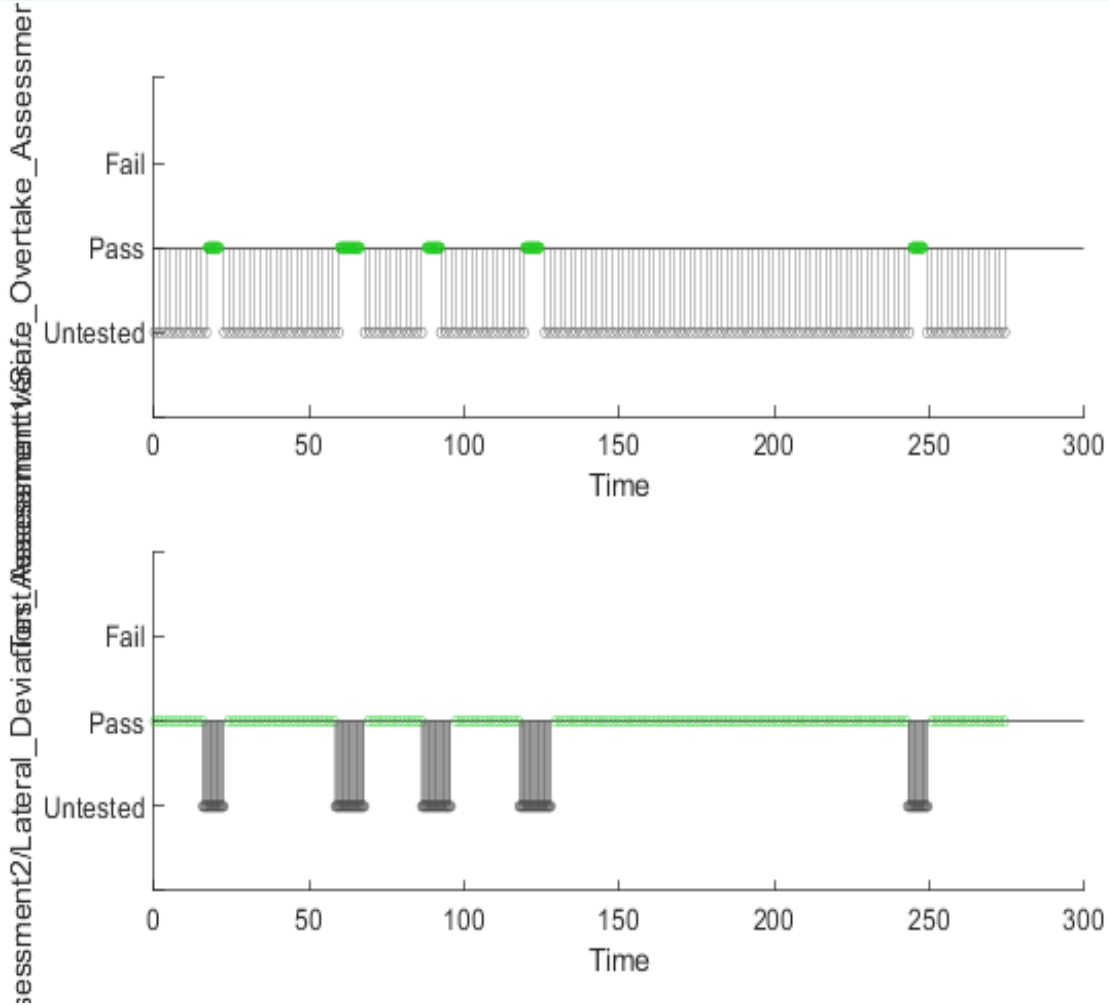


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

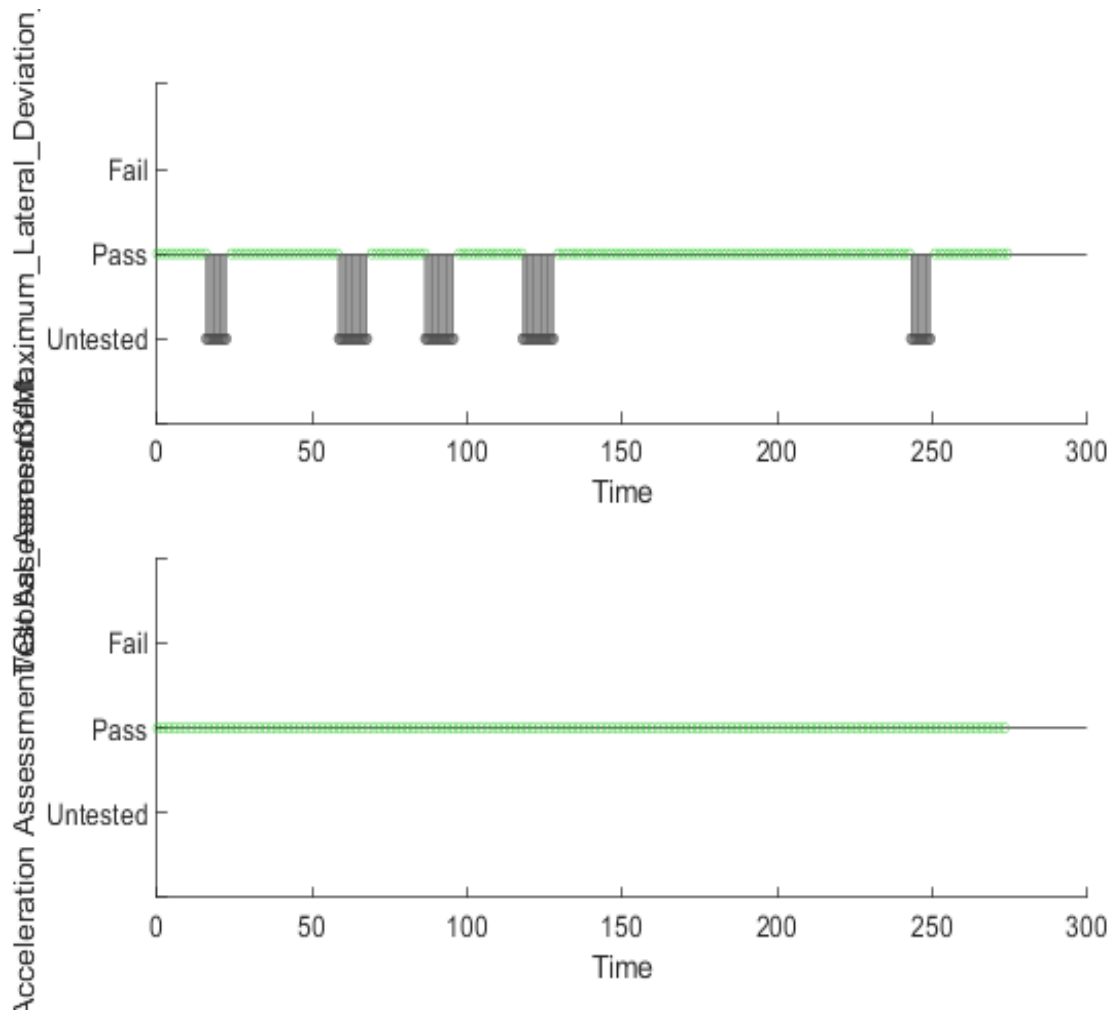


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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## Simulation 1

### System Under Test Information

Model:	Dynamic_obstacle_avoidance
Harness:	Avoidance_in_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance/Subsystem
Release:	Current
Simulation Mode:	normal



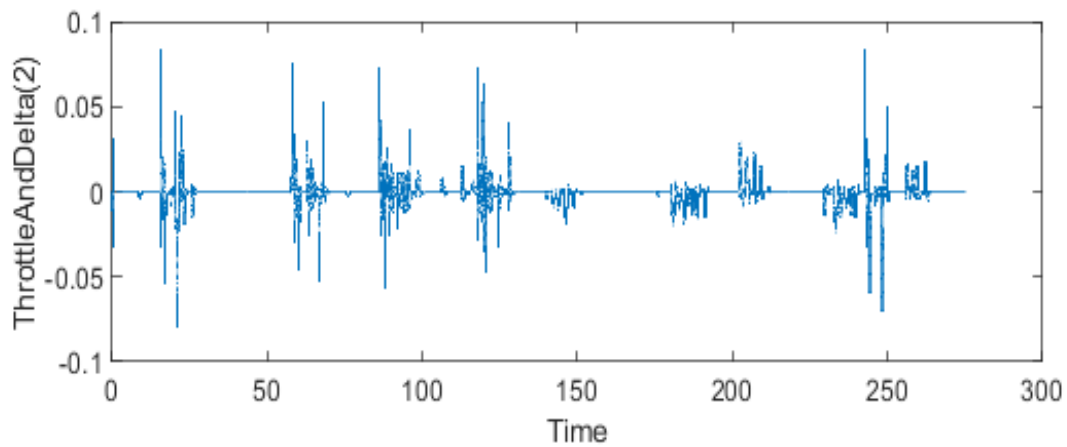
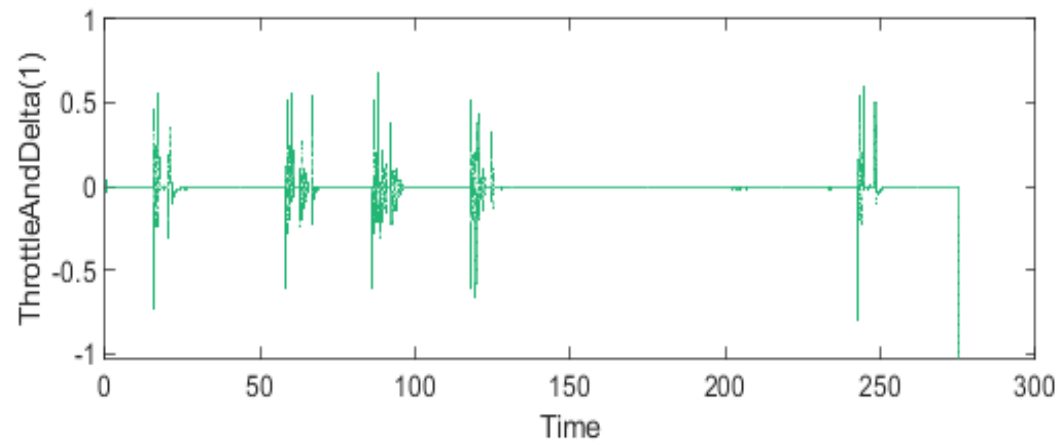
Override SIL or PIL Mode: Configuration Set: Start Time: Stop Time: Checksum:

0 Configuration1 0 275.08204274327625 560512140 2077323266 670520786 1624456250

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Simulation 2

### System Under Test Information

Model:	Dynamic_obstacle_avoidance_SIL
Harness:	Avoidance_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance_SIL/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

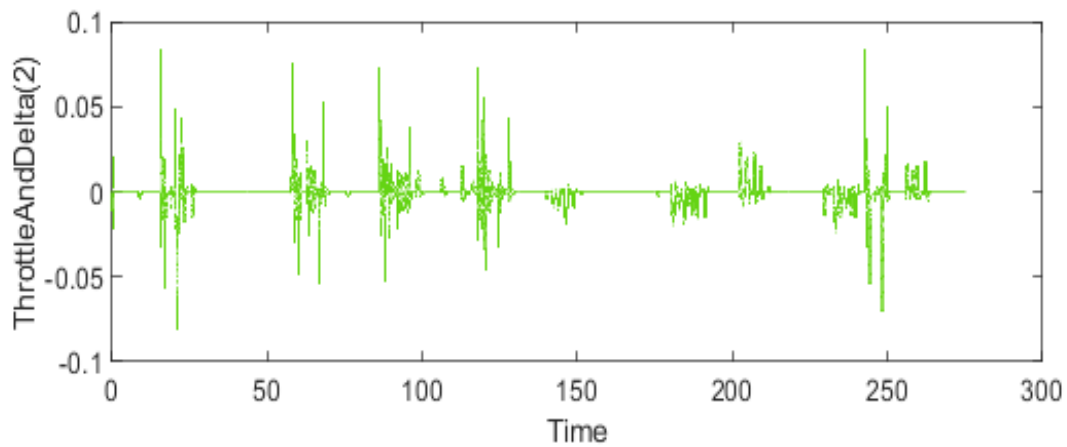
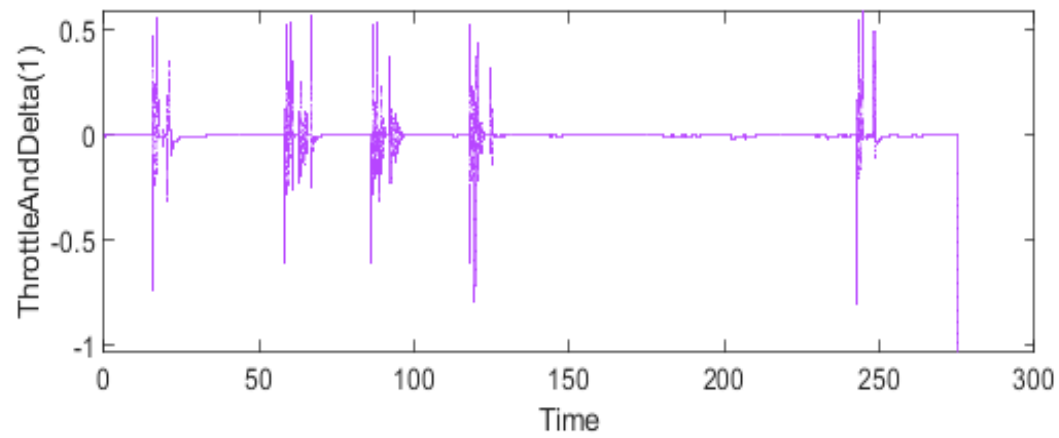
Stop Time:275.08204274327625

Checksum:3910346978 2654682495 3529197182 4188007937

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Puglia

### Test Result Information

Result Type: Test Case Result  
Parent: [Avoidance in real scenario \(Volkswagen Beetle\)](#)  
Start Time: 17-Jun-2021 15:00:12

End Time: 17-Jun-2021 15:04:58  
 Outcome: **Failed**  
 Cause of Failure: **Failed criteria: Equivalence**

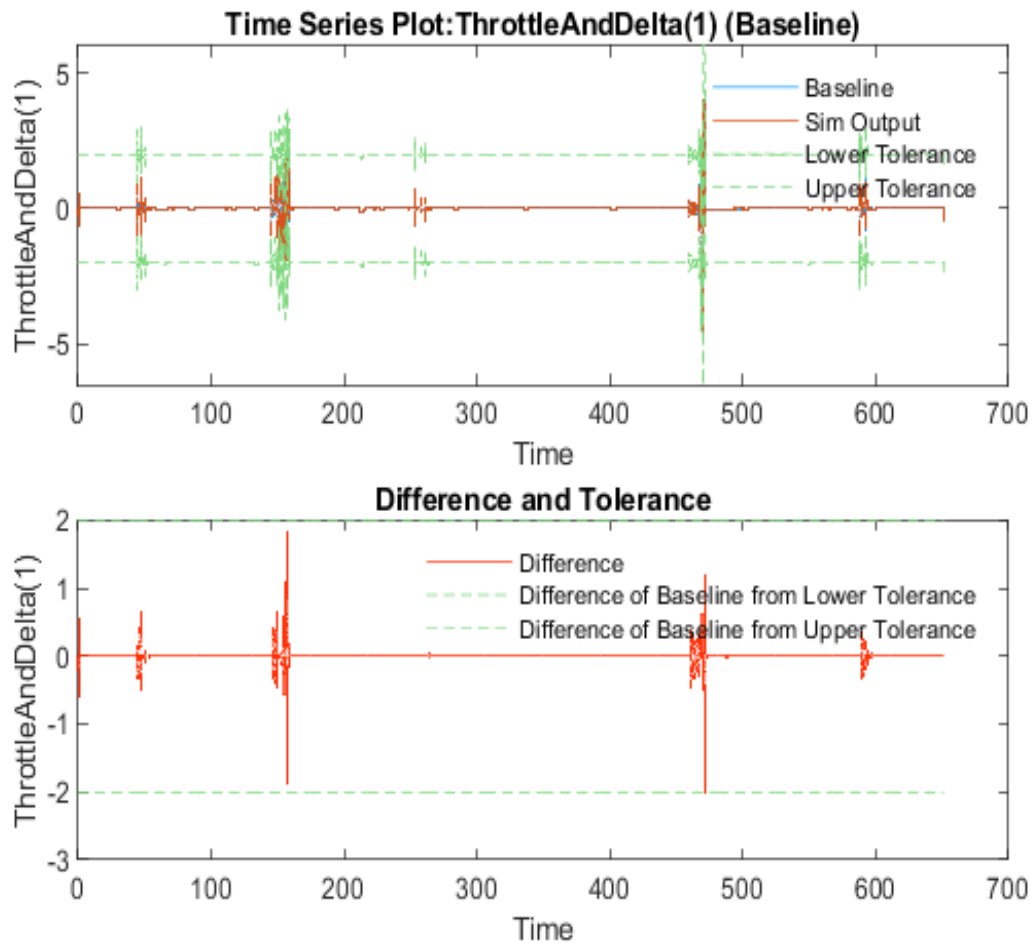
## Test Case Information

Name: Puglia  
 Type: Equivalence Test

## Equivalence Comparison

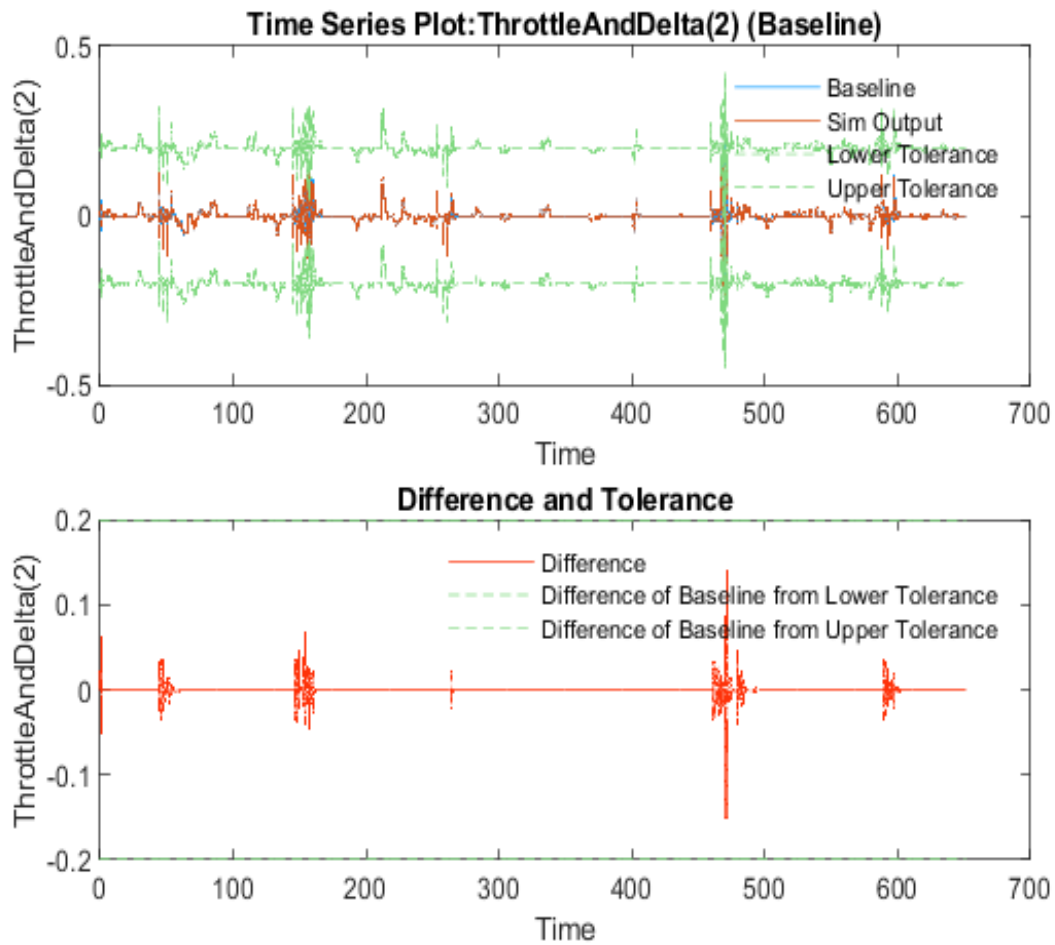
Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync	Link to Plot
✖ ThrottleAndDelta(1)	2	0.01	0	0	2	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>
✔ ThrottleAndDelta(2)	0.2	0.01	0	0	0.15	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✖ ThrottleAndDelta(1)	2	0.01	0	0	2	double		Continuous	double		Continuous	zoh	union



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Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Dif f	Data Type	Units	Sample Time	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(2)	0.2	0.01	0	0	0.15	double		Continuous	double		Continuous	zoh	union



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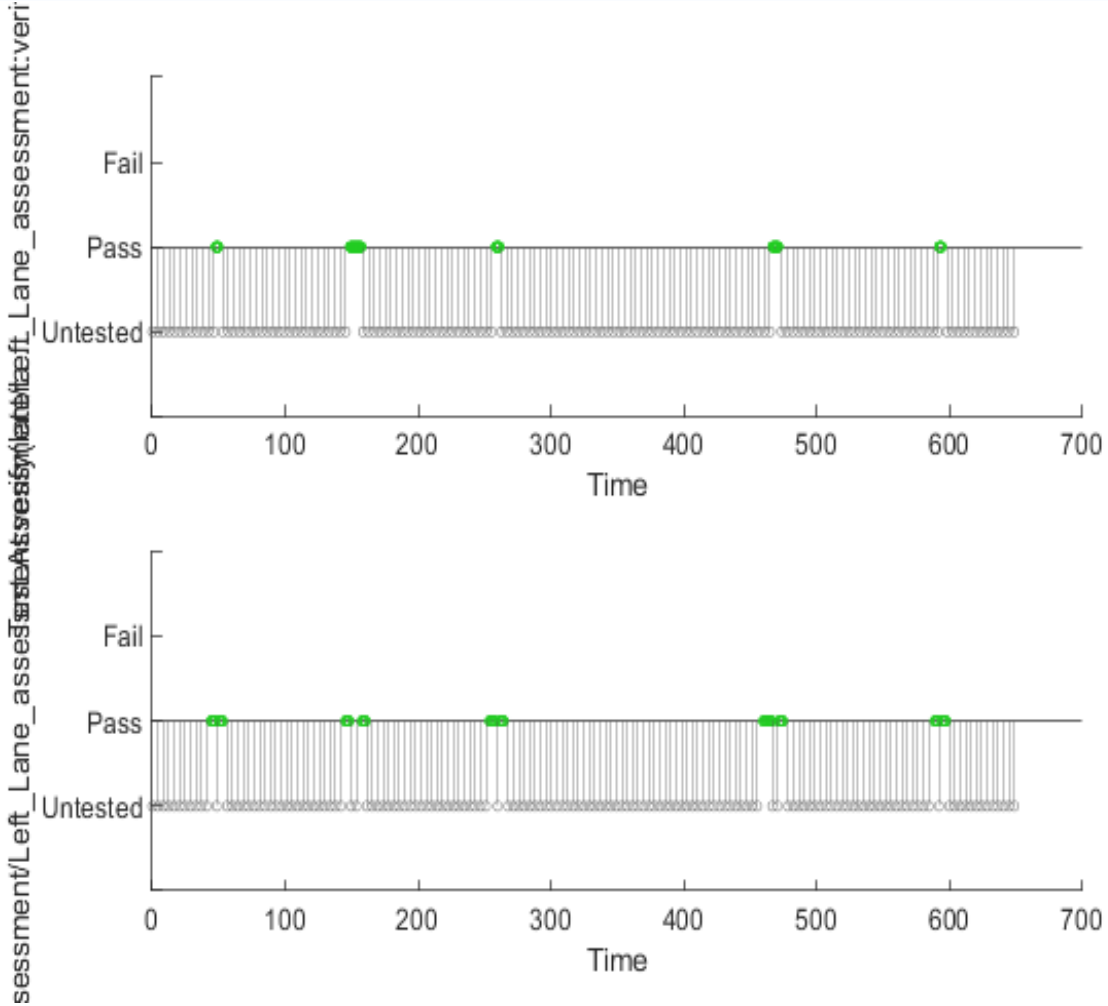
## Verify Result 1

Name		Link to Plot
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓	Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓	Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓	Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)



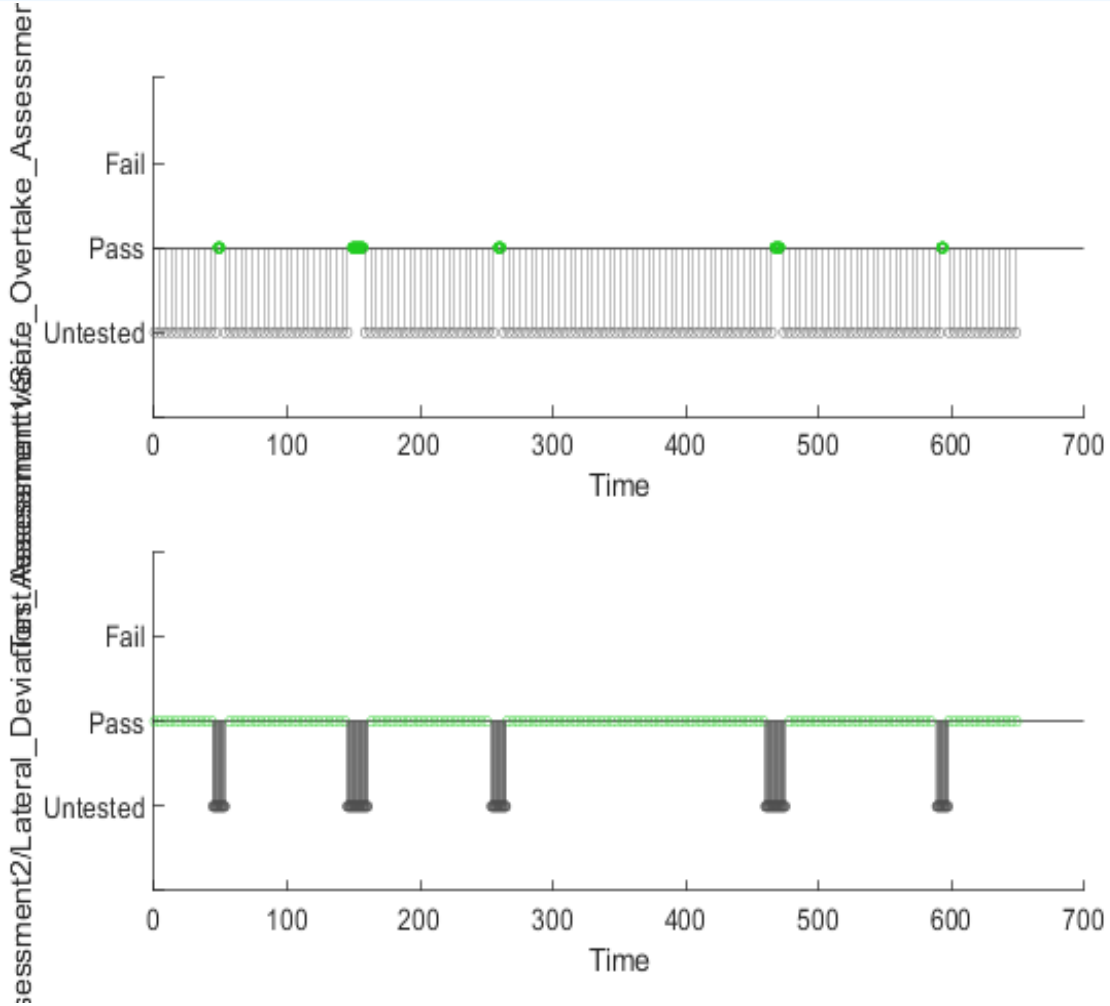
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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

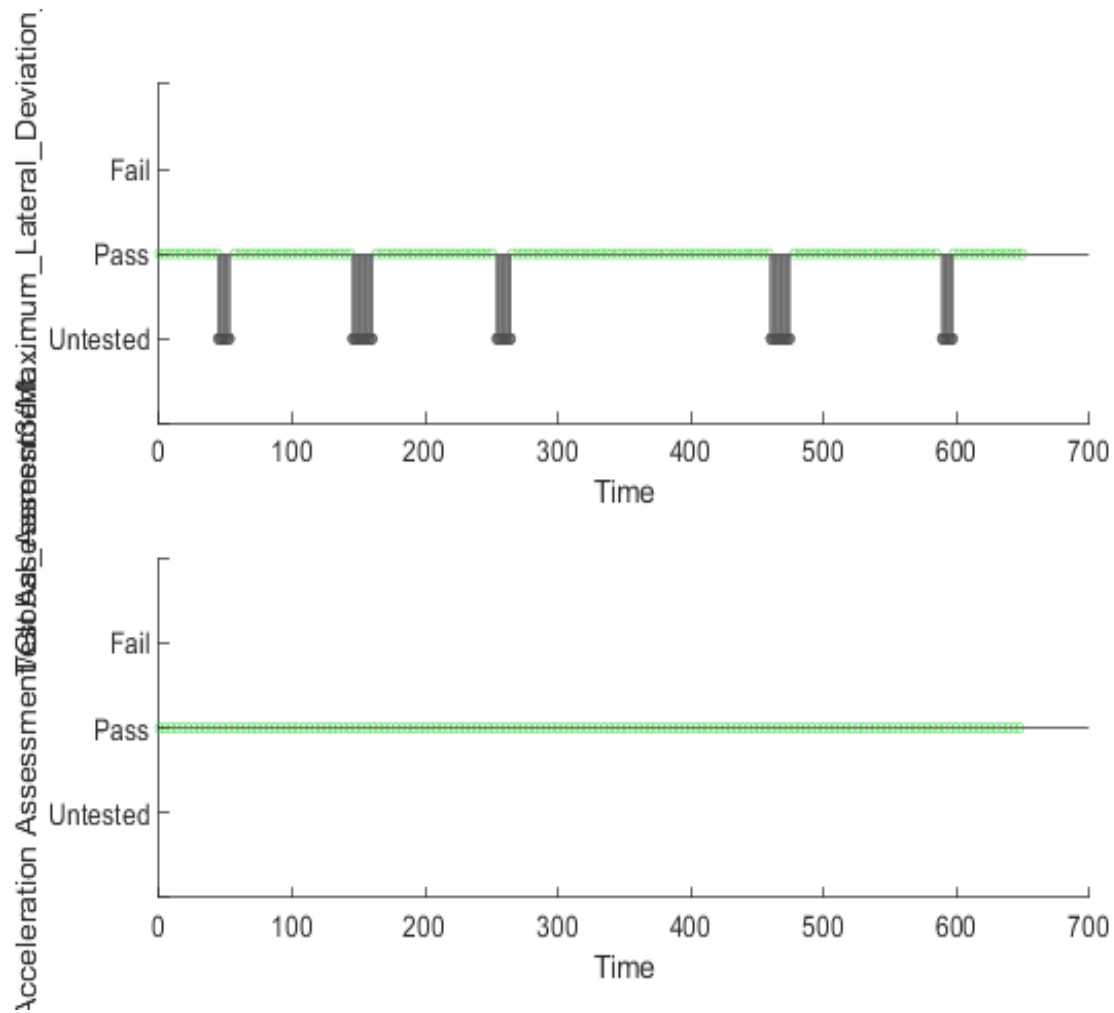


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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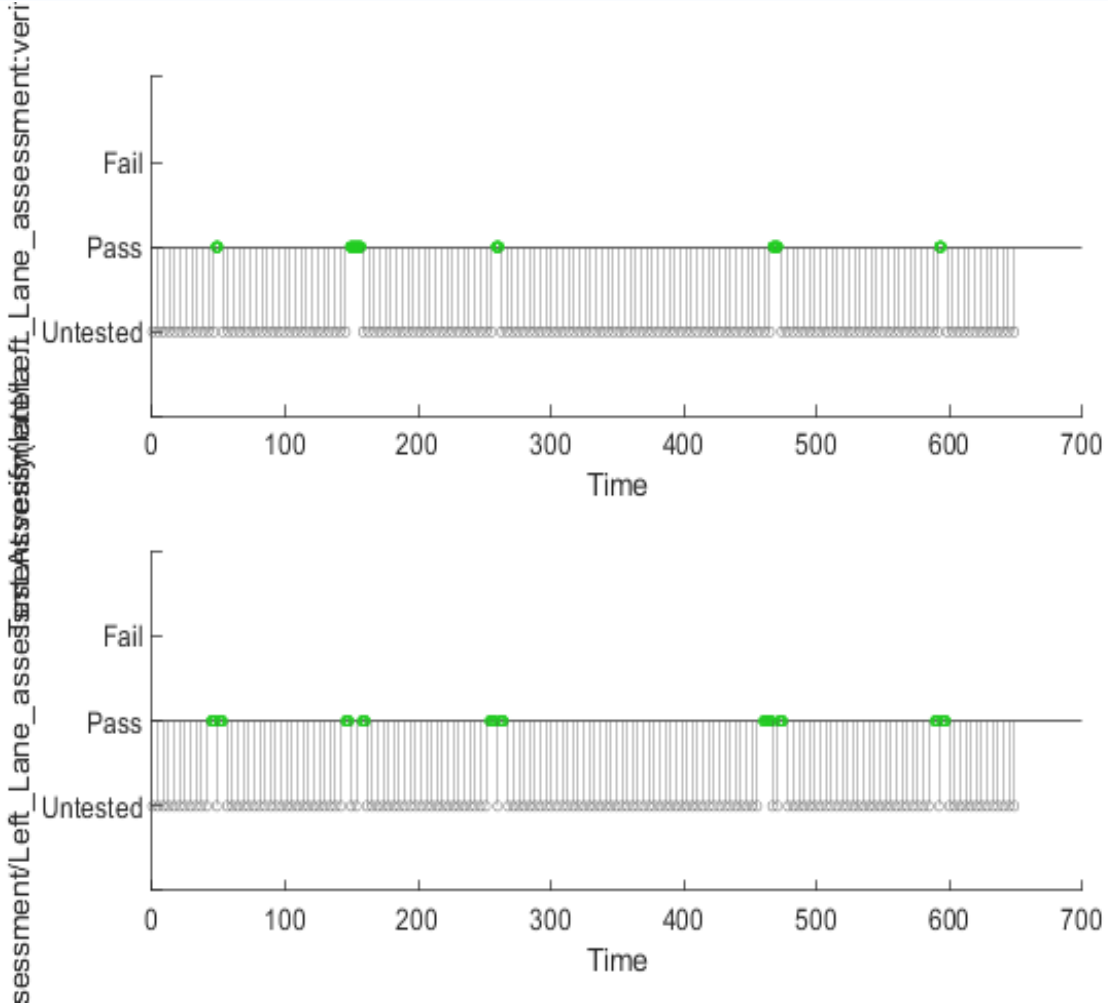
## Verify Result 2

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

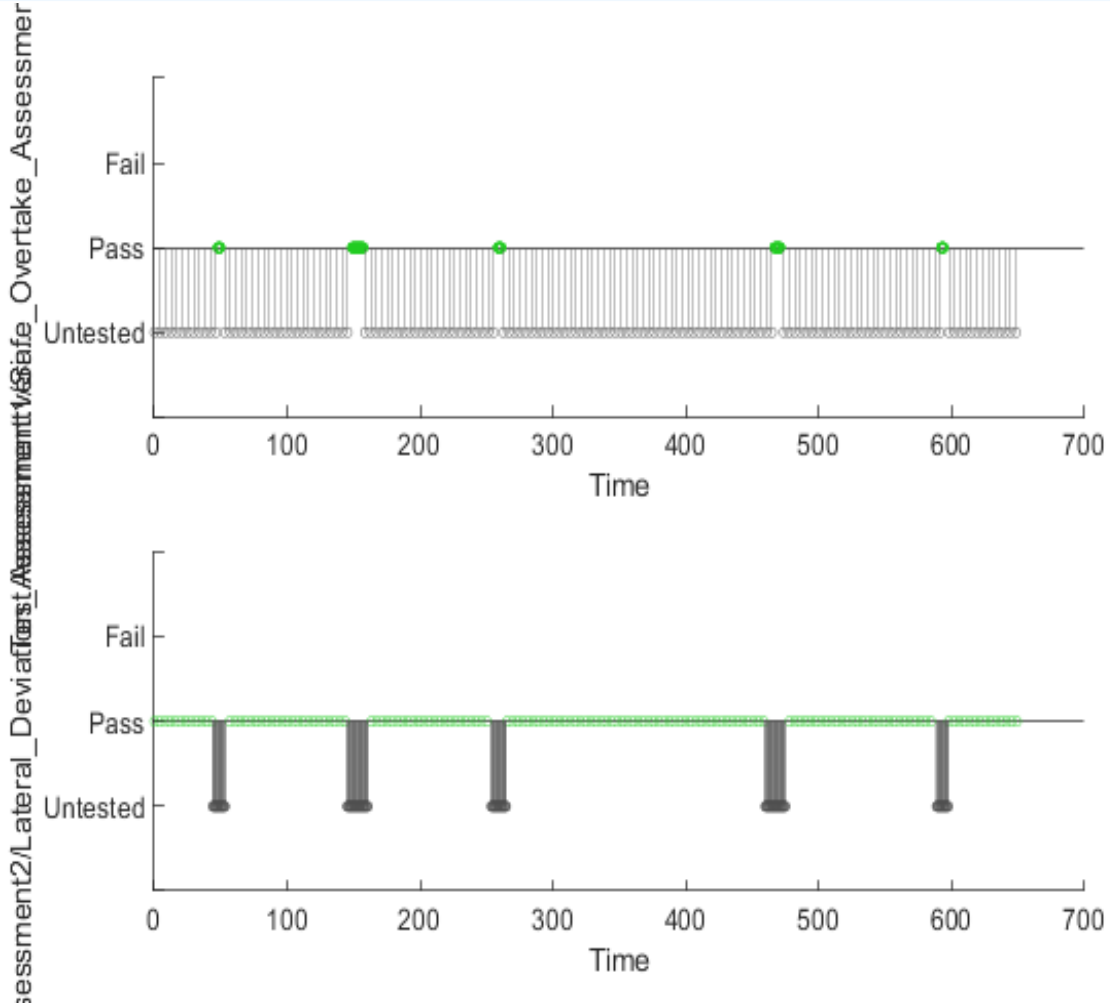


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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

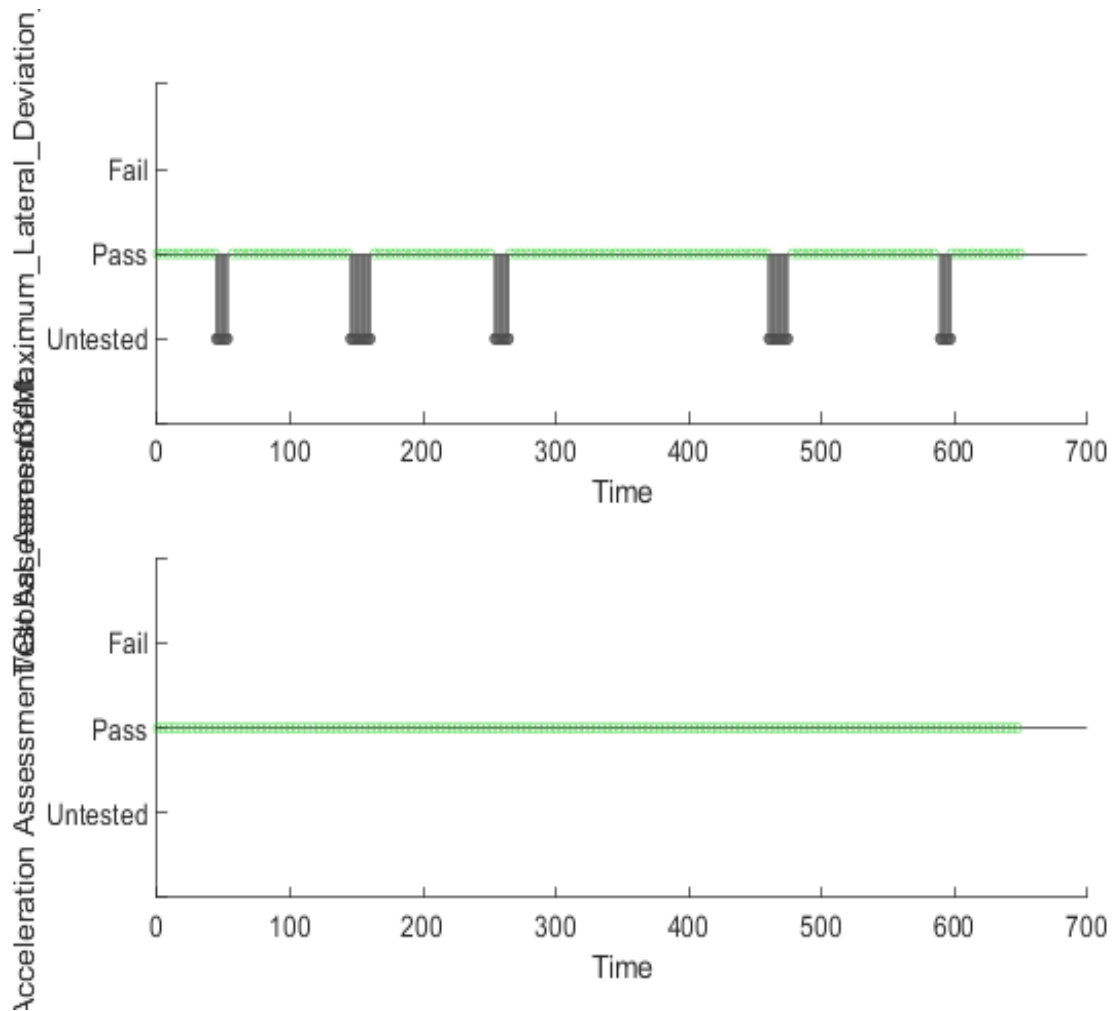


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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## Simulation 1

### System Under Test Information

Model:	Dynamic_obstacle_avoidance
Harness:	Avoidance_in_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

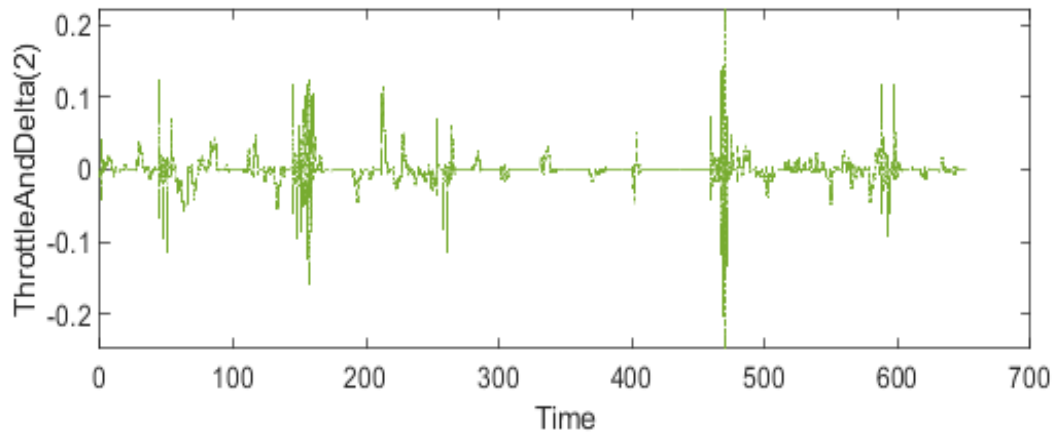
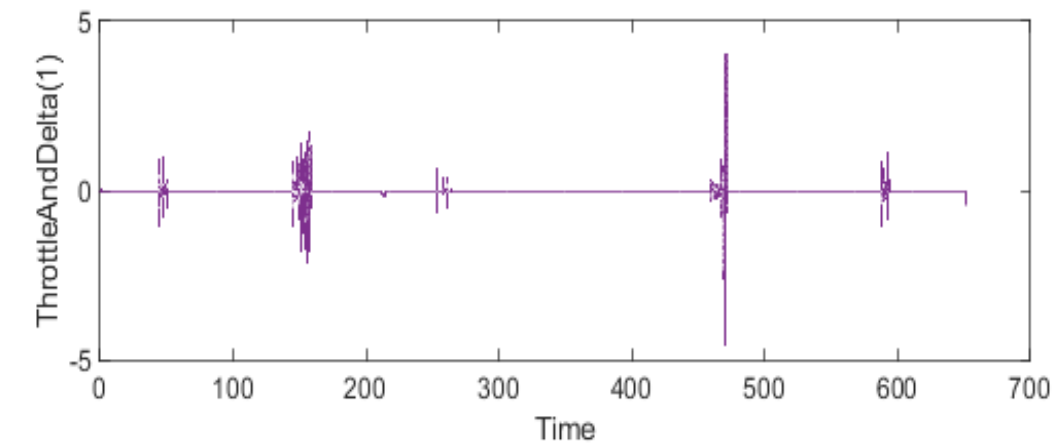
Stop Time:651.65546907329588

Checksum:1175733023 1860673233 1531597131 2149246587

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Simulation 2

### System Under Test Information

Model:	Dynamic_obstacle_avoidance_SIL
Harness:	Avoidance_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance_SIL/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

Stop Time:651.65546907329588

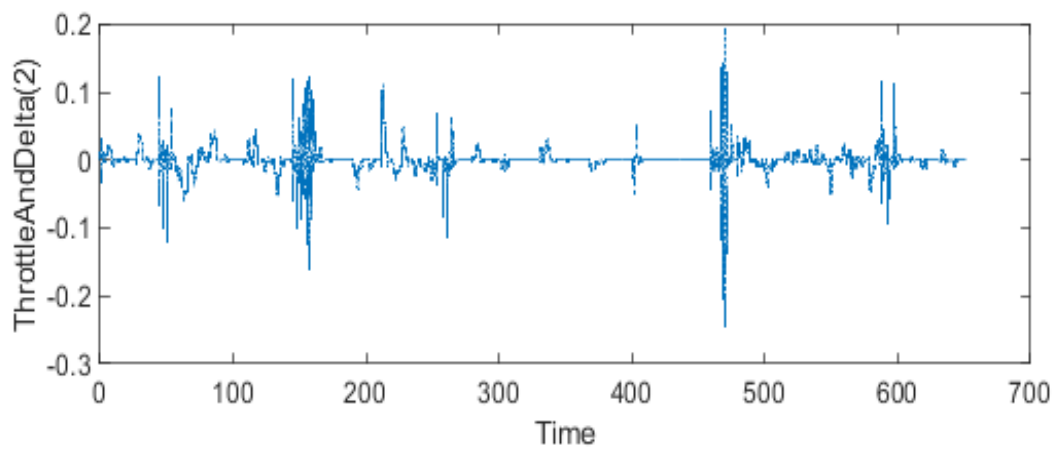
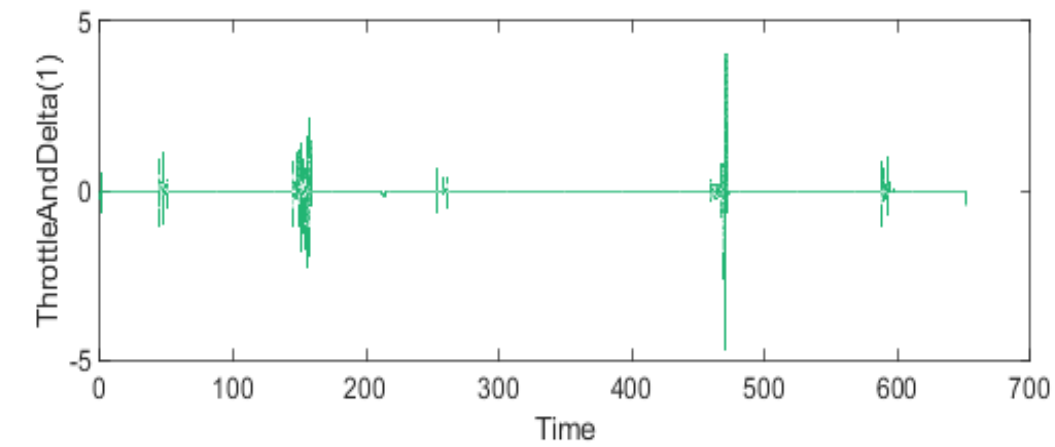
Checksum:3207812238 536380018 4266494897 4273513856

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union





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## Indianapolis Motor Speedway

### Test Result Information

Result Type: Test Case Result  
Parent: [Avoidance in real scenario \(Volkswagen Beetle\)](#)  
Start Time: 17-Jun-2021 15:04:58

End Time: 17-Jun-2021 15:05:49  
Outcome: Passed

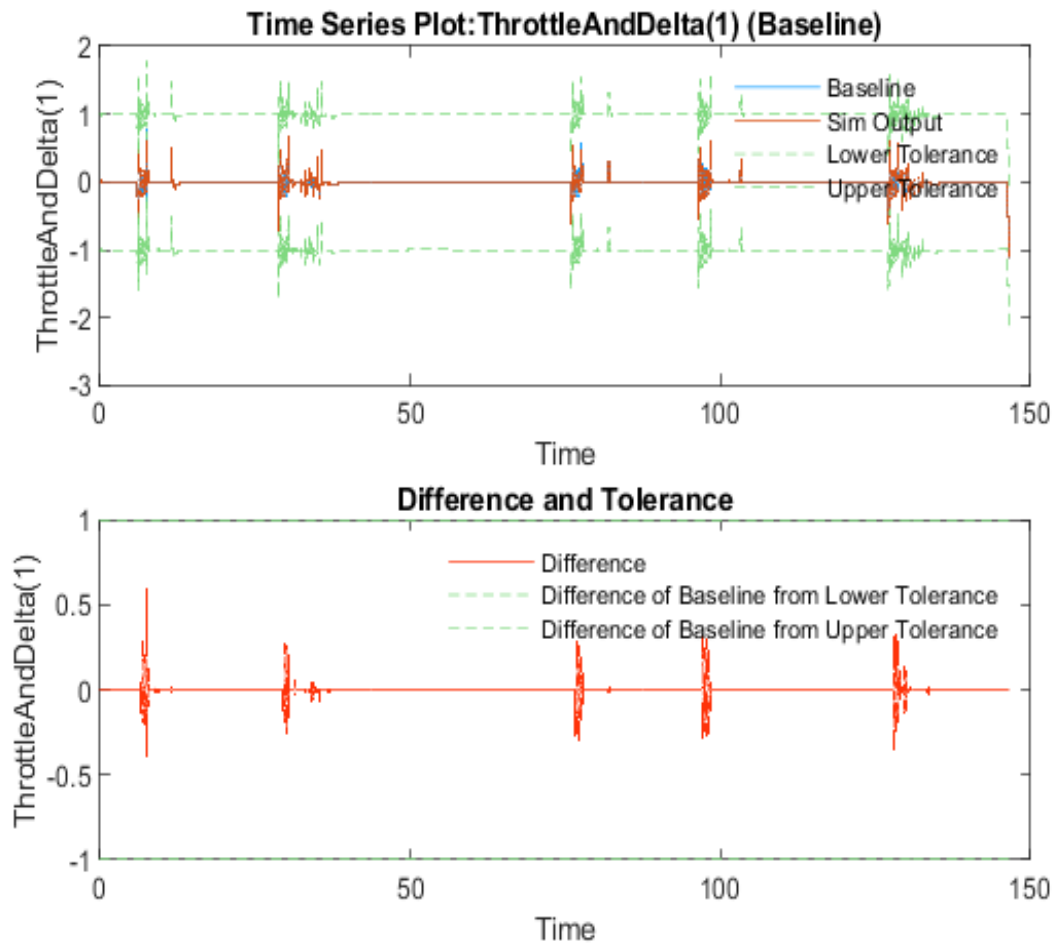
### Test Case Information

Name: Indianapolis Motor Speedway  
Type: Equivalence Test

### Equivalence Comparison

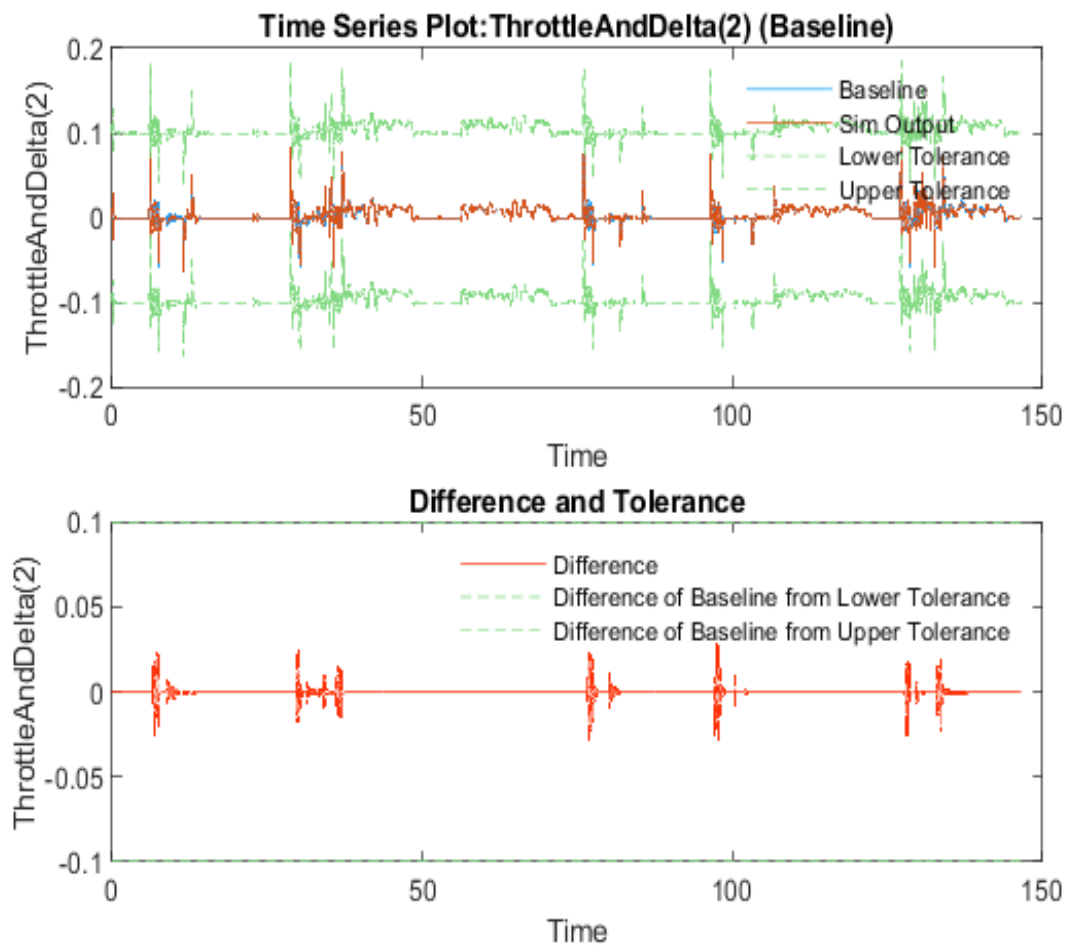
Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync	Link to Plot
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.6	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>
✔ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0283	double		Continuous	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✔ ThrottleAndDelta(1)	1	0.01	0	0	0.6	double		Continuous	double		Continuous	zoh	union



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Name	Abs Tol	Rel Tol	Lead Tol	Lag Tol	Max Diff	Data Type 1	Units 1	Sample Time 1	Data Type 2	Units 2	Sample Time 2	Interp	Sync
✓ ThrottleAndDelta(2)	0.1	0.01	0	0	0.0283	double		Continuous	double		Continuous	zoh	union



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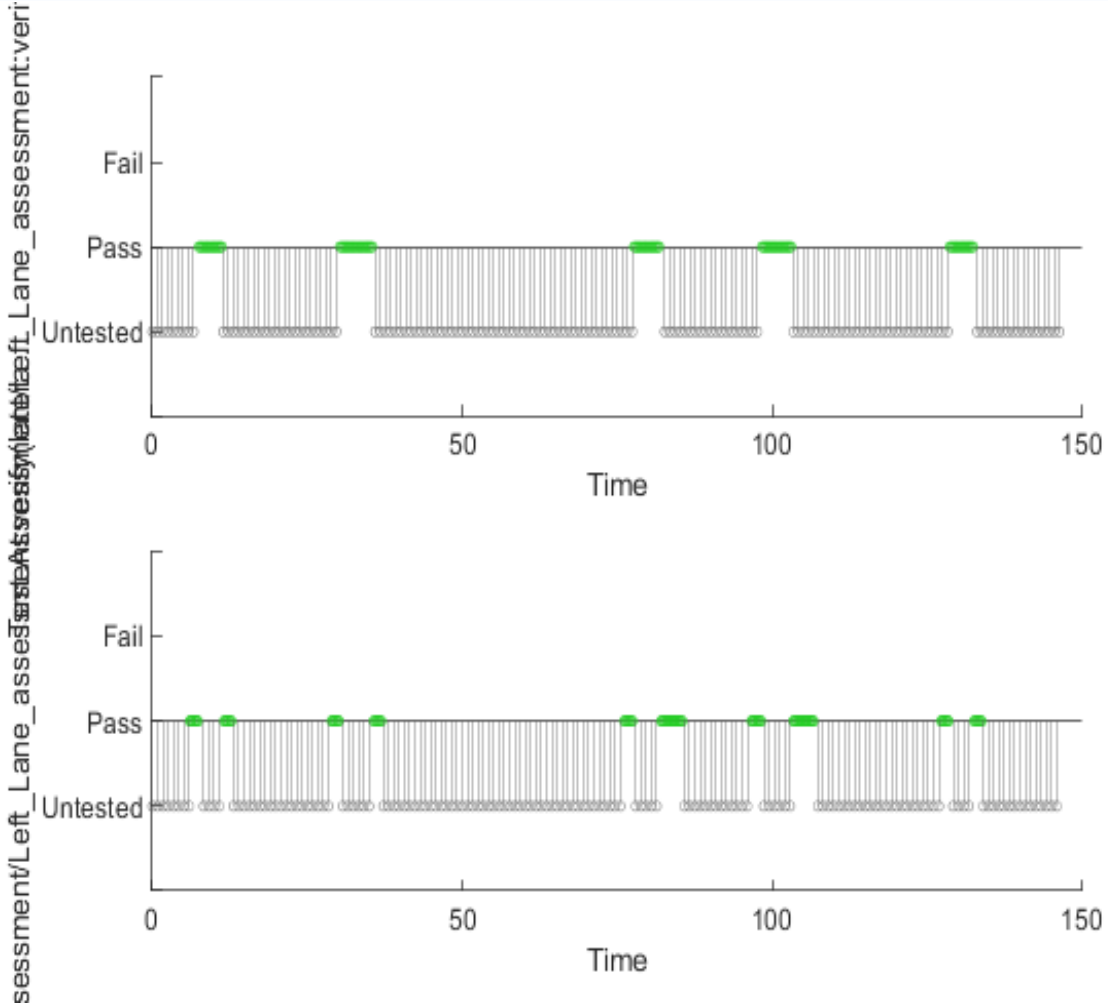
## Verify Result 1

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)

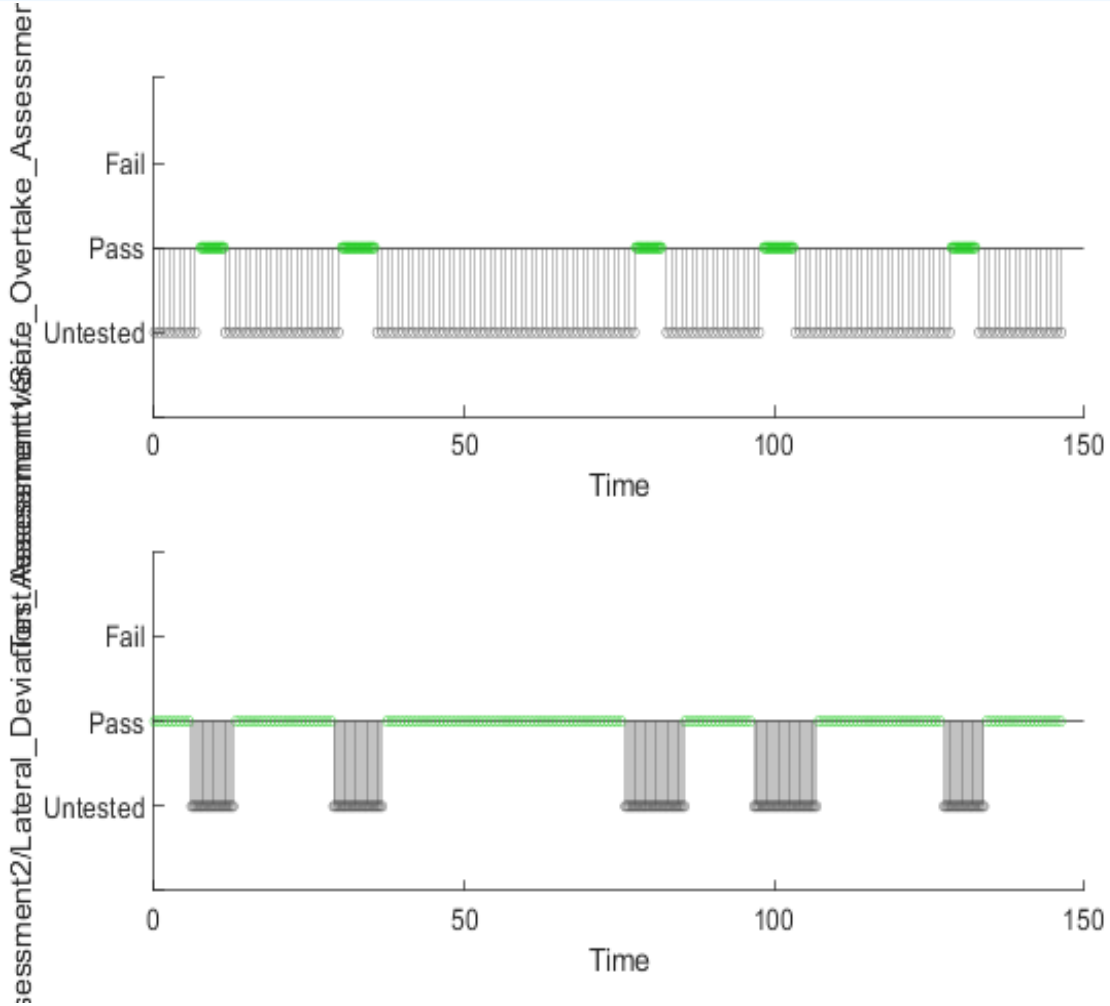


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Name	
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Test Assessment1/ Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

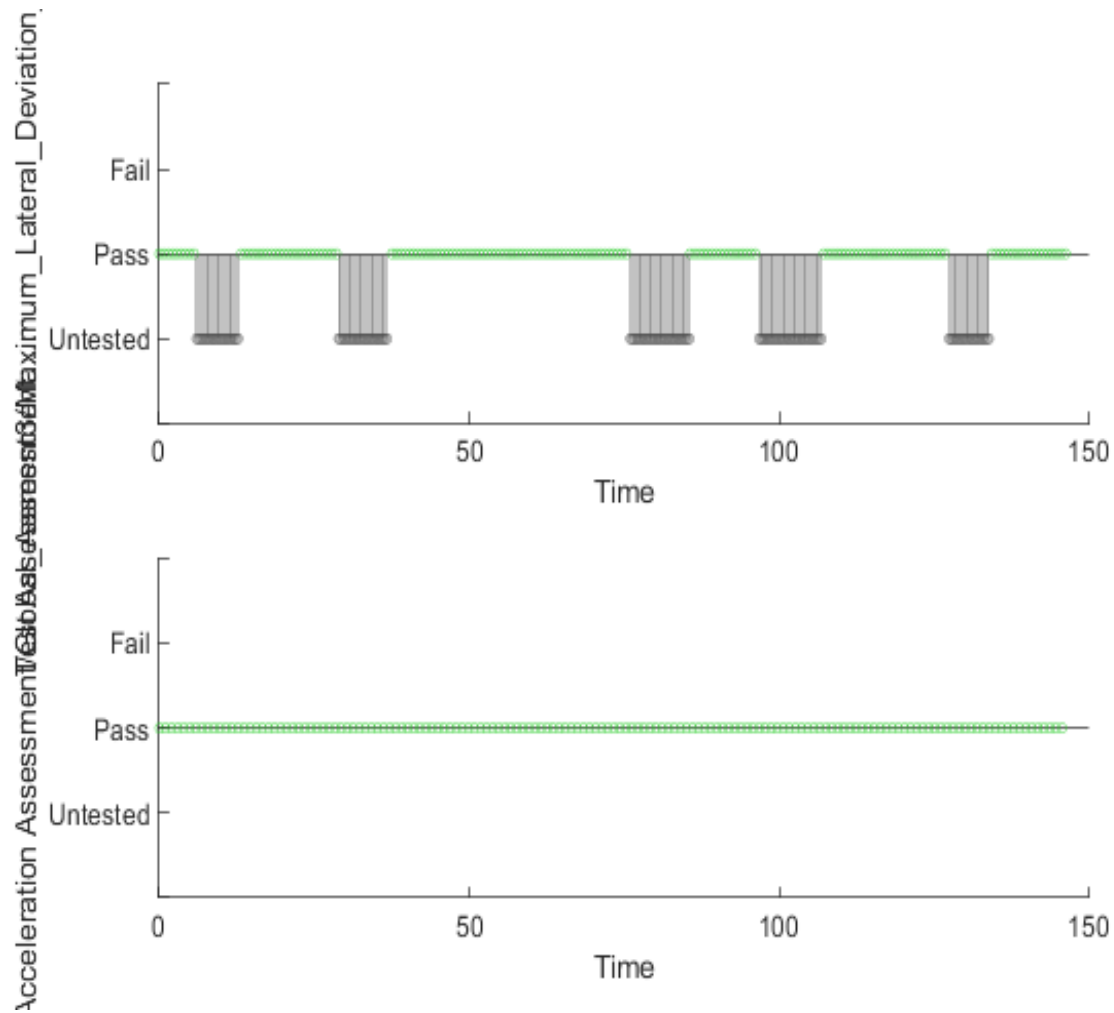


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#### Name

Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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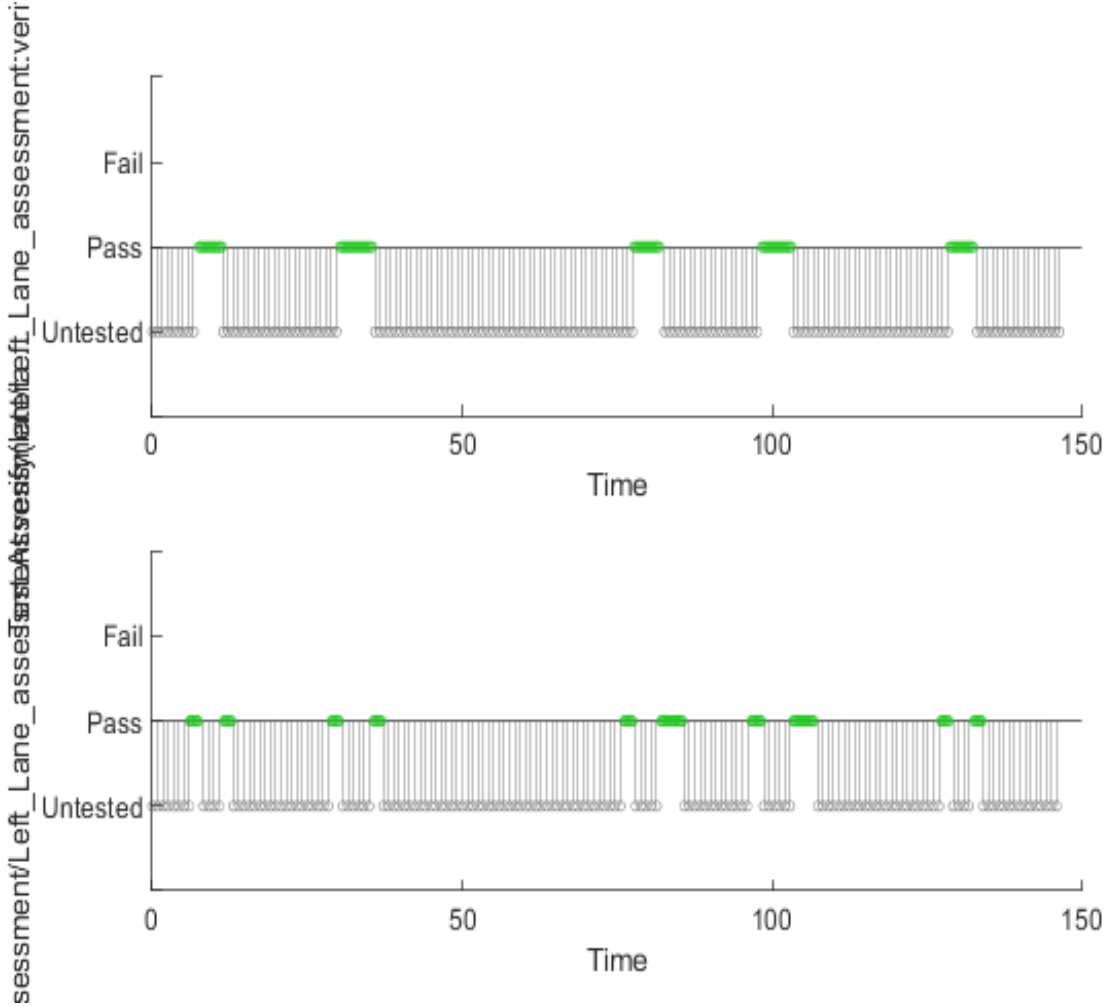
## Verify Result 2

Name	Link to Plot
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)	<a href="#">Link</a>
✓ Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)	<a href="#">Link</a>
✓ Test Assessment1/Safe_Overtake_Assessment:verify(duration(lateral_dev > 5 && lateral_dev < 3,sec)<1)	<a href="#">Link</a>
✓ Test Assessment2/Lateral_Deviation_Assessment:verify(duration(lateral_dev > 0.75,sec)<1)	<a href="#">Link</a>
✓ Test Assessment3/Maximum_Lateral_Deviation_Assessment:verify(lateral_dev < 1)	<a href="#">Link</a>

✓ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)

[Link](#)

Name	
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev >= 2 && lateral_dev <= 6)
✓	Test Assessment/Left_Lane_assessment:verify(lateral_dev < 6)



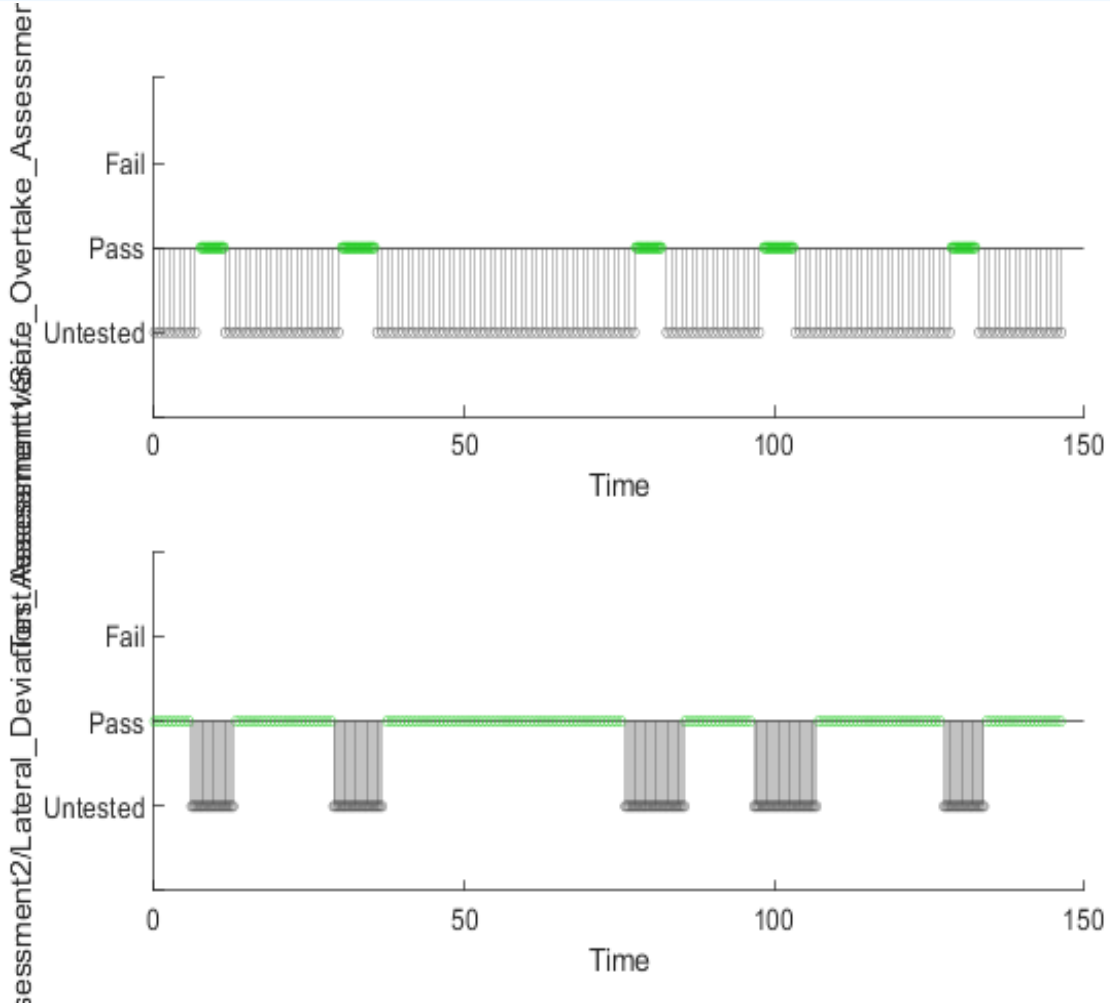
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Name	
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✔ Test Assessment1/Safe\_Overtake\_Assessment:verify(duration(lateral\_dev > 5 && lateral\_dev < 3,sec)<1)

✔ Test Assessment2/Lateral\_Deviation\_Assessment:verify(duration(lateral\_dev > 0.75,sec)<1)

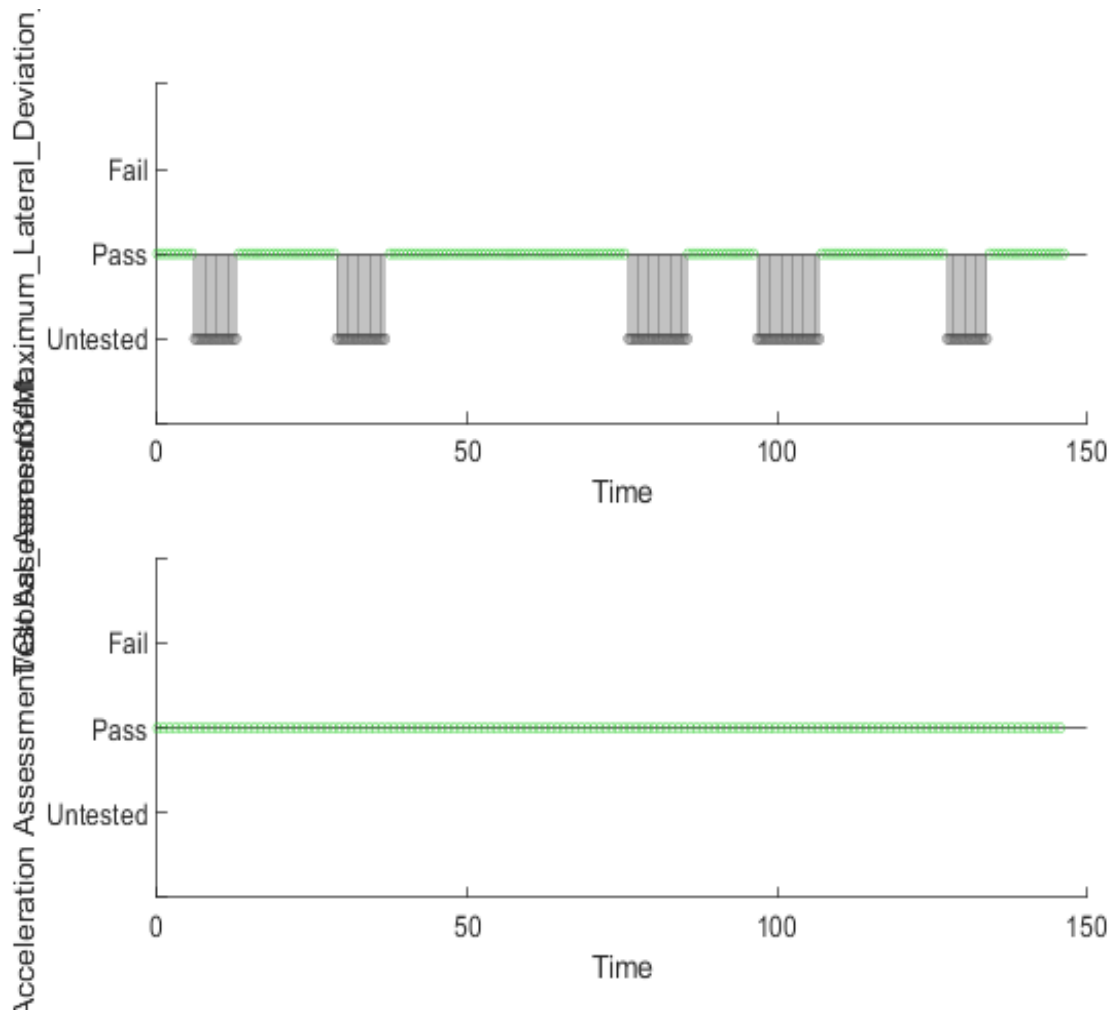


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#### Name

✔ Test Assessment3/Maximum\_Lateral\_Deviation\_Assessment:verify(lateral\_dev < 1)

✔ Lateral Acceleration Assessment/Global\_Assessment:verify(duration(Lateral\_acceleration>=2,sec)<=0.5)



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## Simulation 1

### System Under Test Information

Model:	Dynamic_obstacle_avoidance
Harness:	Avoidance_in_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

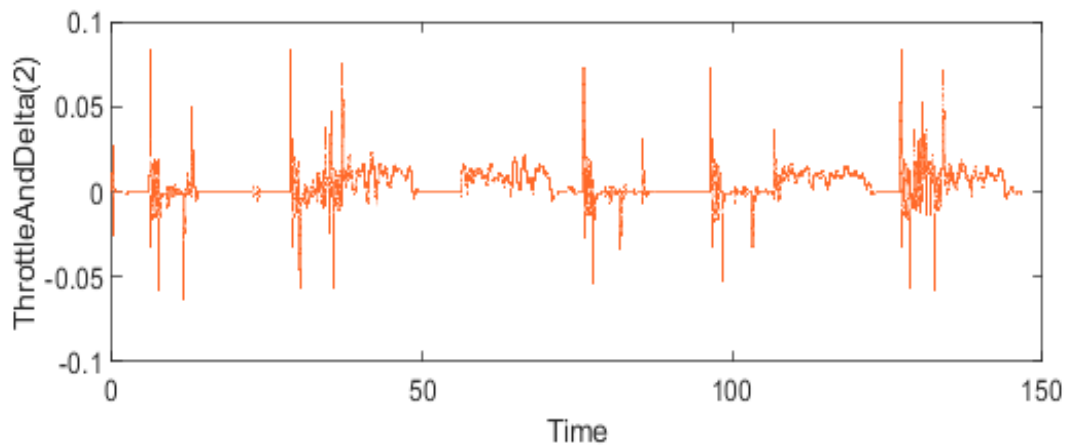
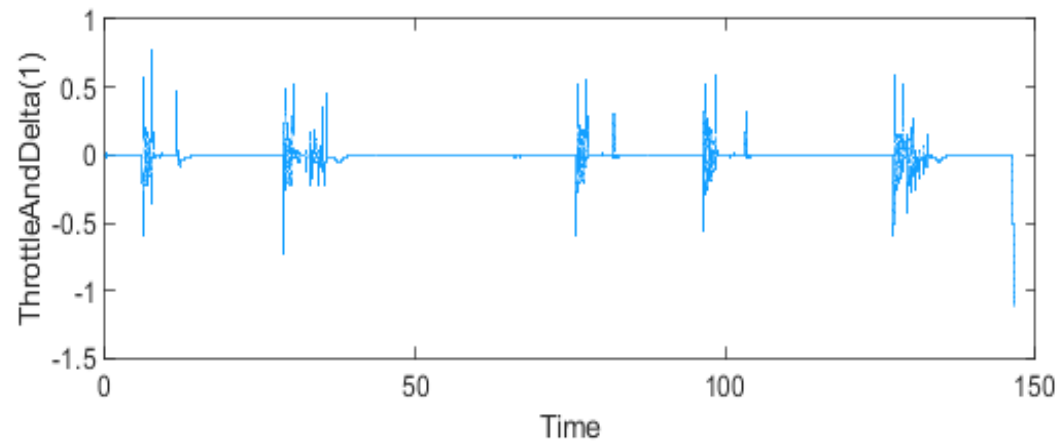
Stop Time:146.51791178475014

Checksum:1435385966 2039963742 2097507888 2861652933

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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## Simulation 2

### System Under Test Information

Model:	Dynamic_obstacle_avoidance_SIL
Harness:	Avoidance_Real_Scenario
Harness Owner:	Dynamic_obstacle_avoidance_SIL/Subsystem
Release:	Current
Simulation Mode:	normal

Override SIL or PIL Mode:0

Configuration Set:Configuration1

Start Time:0

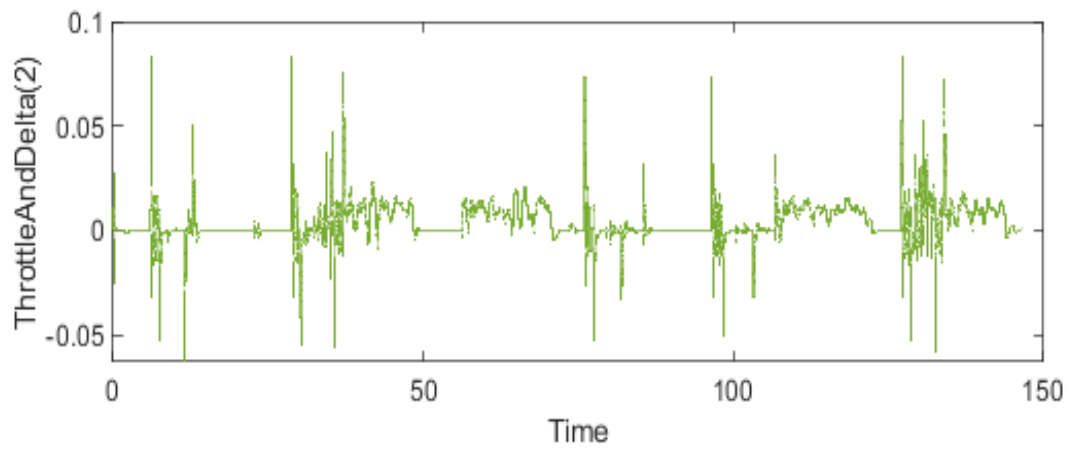
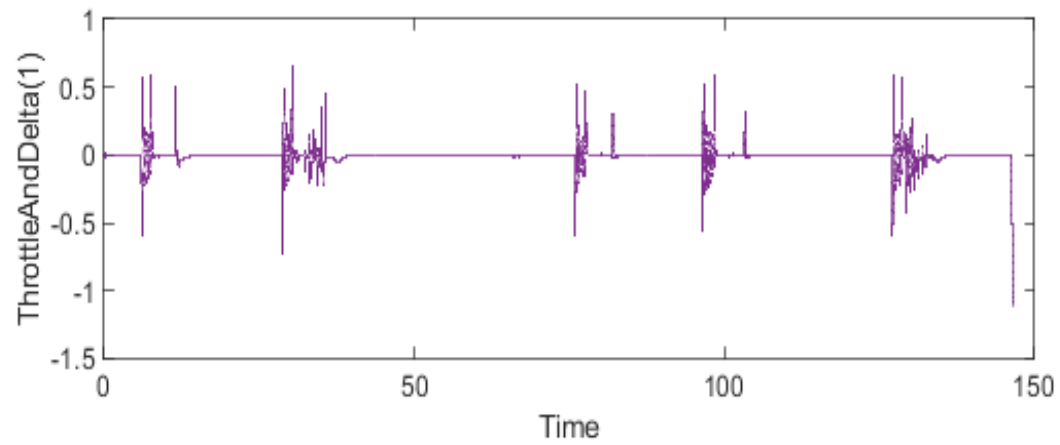
Stop Time:146.51791178475014

Checksum:3141116588 90218501 3127706781 1180433817

Simulation Output

Name	Data Type	Units	Sample Time	Interp	Sync	Link to Plot
ThrottleAndDelta(1)	double		Continuous	zoh	union	<a href="#">Link</a>
ThrottleAndDelta(2)	double		Continuous	zoh	union	<a href="#">Link</a>

Name	Data Type	Units	Sample Time	Interp	Sync
ThrottleAndDelta(1)	double		Continuous	zoh	union
ThrottleAndDelta(2)	double		Continuous	zoh	union



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