

OpenPASS Questions



To be as specific as possible in what we would like to know, some of the questions are presented over the screenshot of the function in question

Please read carefully

Thank you

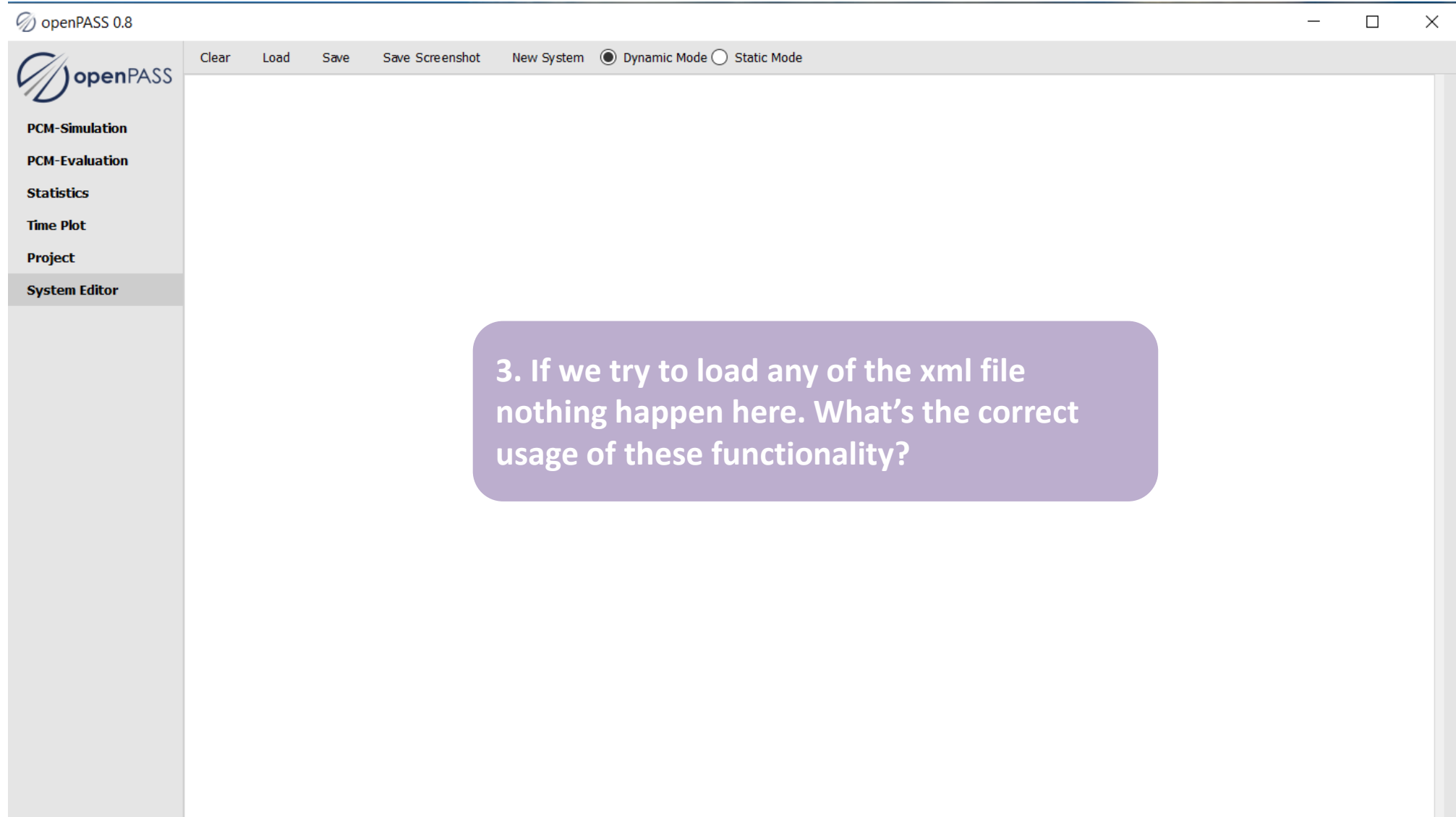
Fernando Chirici



GUI Plug-in – Project Settings

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After loading Agent Follow.xml





GUI Plug-in -- evaluation

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openPASS 0.8



PCM-Simulation

PCM-Evaluation

Statistics

Time Plot

Project

System Editor

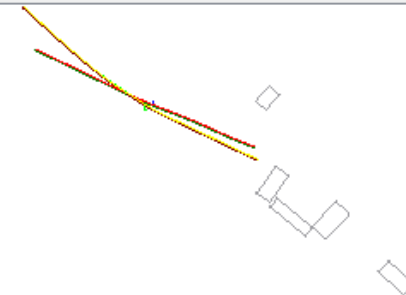
Browse Result Files

- result_pcm
 - 1060755
 - 0-0-0
 - Default
 - Var_00001
 - Var_00002
 - 1190874
 - 0-0-0
 - Default
 - Var_00001
 - Var_00002

	Cyclics_Run_000.csv_0	Cyclics_Run_000.csv_1	Cyclics_Run_000.csv_0	Cyclics_Run_000.csv_1	Cyclics_Run_000.csv_0	Cyclics_Run_000.csv_1
Timestep	AgentId	AccelerationEgo	VelocityEgo	XPosition	YPosition	YawAngle
0	0	-0.000000	15.557300	70.992100	-29.417200	2.767000
10	0	-0.167841	15.557300	70.847315	-29.360277	2.767000
20	0	-0.246399	15.555622	70.702530	-29.303354	2.767000
30	0	0.264036	15.553158	70.557764	-29.246429	2.766988
40	0	-0.079790	15.555798	70.413024	-29.189504	2.766963
50	0	-0.328122	15.555001	70.268263	-29.132559	2.766924
60	0	0.014435	15.551720	70.123514	-29.075608	2.766871
70	0	0.359879	15.551864	69.978799	-29.018658	2.766802
80	0	-0.107331	15.555463	69.834088	-28.961697	2.766719
90	0	-0.100397	15.554390	69.689347	-28.904710	2.766621

4.1- No color-code: We don't know which line is which agent and in case of variations, we don't know which line represent which simulation (default, var001, var002?) Is there a way to fix these?

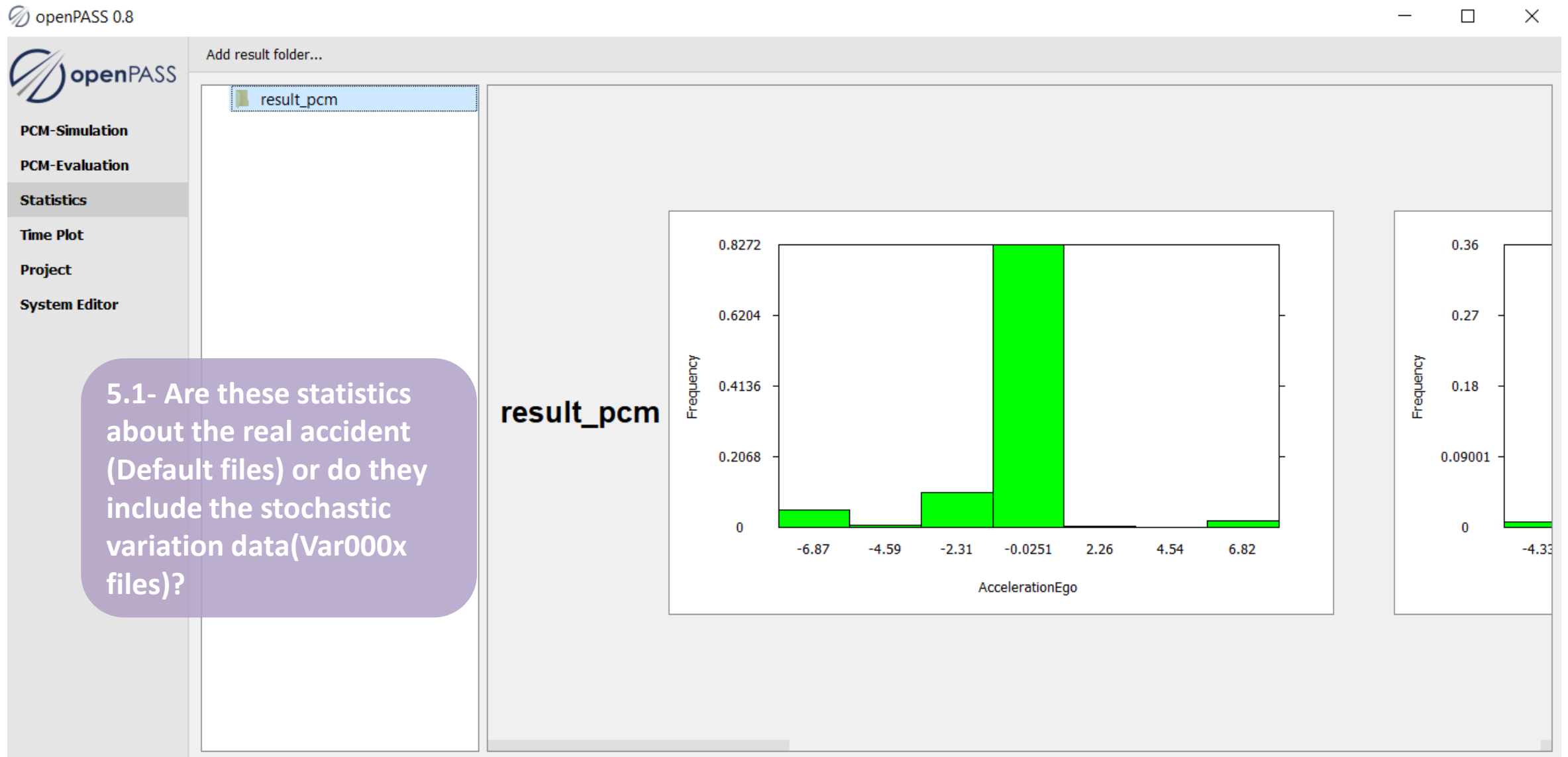
4.2-Also which one is Ego and which one is Opponent from the PCM data?
Is there a way to get this information?





GUI Plug-in -- statistics between results

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OpenPASS GUI – outputs summarized

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**In the next slides there is a summary of the output parameters relative to the
ExtendedCollisionInformation**

Since we couldn't find any documentation we try to understand these data

Please read it and tell us if there is something that has been wrongly interpreted

In particular please give us some feedback on the one marked in red:

- Key="OYA" – Why is there only the opponent yaw angle? Why not the Ego Yaw Angle?
- Key= "Velocity" and "Opponent Velocity" -- At what time steps are these parameters referring to?
- Key= "VelocityDirection" and "OpponentVelocityDirection" -- What exactly does these parameters represent?



OpenPASS GUI – SimulationOutput.xml parameters

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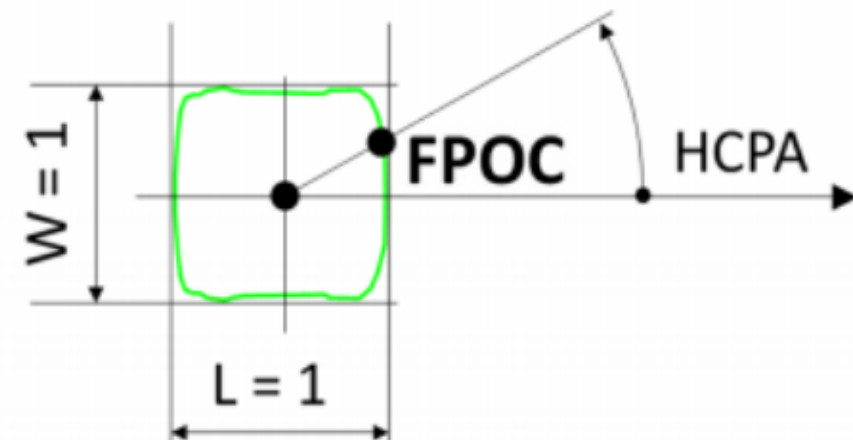
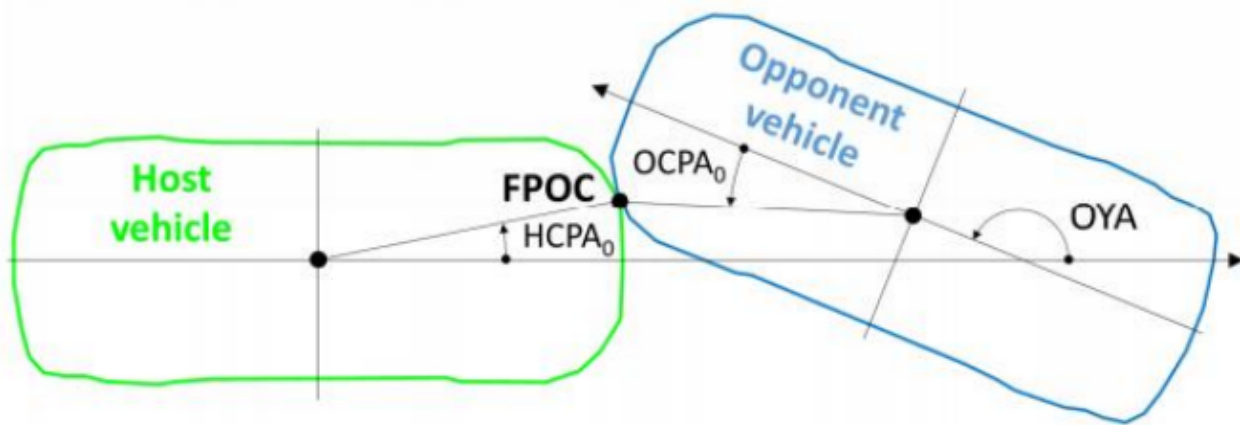
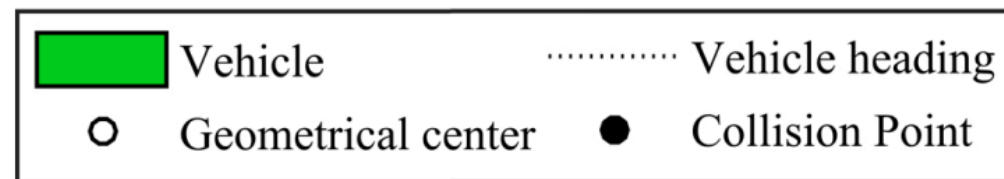
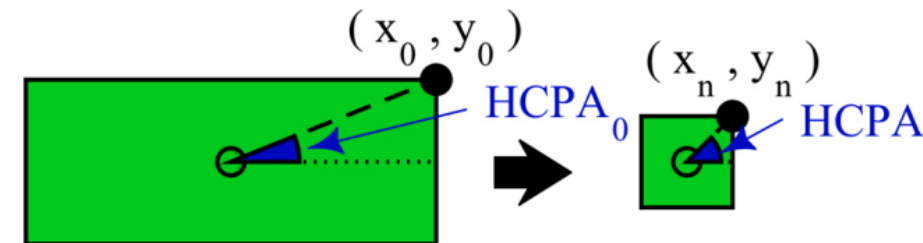
<Event Time="xxxx" Source="OpenPASS" Name="ExtendedCollisionInformation">

Parameter	Example	Notes
Key="HCPA"	Value="173.412230"	Host Collision Point Angle relative to vehicle
Key="OCPA"	Value="-45.002738"	Opponent Collision Point Angle relative to vehicle
Key="HCPAo"	Value="177.245061"	HCPA at first point of contact
Key="OCPAo"	Value="-22.621809"	OCPA at first point of contact
Key="OYA"	Value="68.501194"	Opponent Yaw Angle. Why not for Ego?
Key="OpponentCollisionVelocity"	Value="8.280934"	m/s
Key="CollisionVelocity"	Value="4.119117"	m/s
Key="OpponentPointOfContactLocalX"	Value="1.781848"	Coordinate
Key="OpponentPointOfContactLocalY"	Value="-0.749684"	Coordinate



OpenPASS GUI – SimulationOutput.xml parameters

- FPOC: first point of contact
- HCPA: Host Collision Point Angle
- OCPA: Opponent Collision Point Angle
- OYA: Opponent Yaw Angle



The vehicle is scaled to a unit-size, allowing for comparison of crash configurations between vehicles of different dimensions. The first point of contact (x_0, y_0) is scaled to generate the normalized coordinates (x_n, y_n) , which, in return, defines the HCPA relative to the vehicle's heading.



OpenPASS GUI – SimulationOutput.xml parameters

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<Event Time="xxxx" Source="OpenPASS" Name="ExtendedCollisionInformation">

Parameter	Example	Notes
Key="PointOfContactLocalX"	Value="-1.983403"	Coordinate
Key="PointOfContactLocalY"	Value="-0.194611"	Coordinate
Key="Velocity"	Value="4.901951"	Velocity at which TS?
Key="OpponentVelocity"	Value="6.325802"	Velocity at which TS?
Key="OpponentSliding"	Value="1"	Boolean
Key="Sliding"	Value="1"	Boolean
Key="OpponentYawVelocity"	Value="-1.242858"	m/s
Key="YawVelocity"	Value="-2.219941"	m/s
Key="VelocityChange"	Value="2.001956"	m/s
Key="OpponentVelocityChange"	Value="2.001956"	m/s



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OpenPASS GUI – SimulationOutput.xml parameters

<Event Time="xxxx" Source="OpenPASS" Name="ExtendedCollisionInformation">

Parameter	Example	Notes
Key="CollisionWithAgent"	Value="1"	Boolean
Key="OpponentVelocityDirection"	Value="-1.637885"	Vector?
Key="VelocityDirection"	Value="-2.360998"	Vector?

Thank you for your time!