VBOX File Processor - Lane Departure Plugin -



VBOX File Lane Departure software allows you to generate lane departure data between the vehicle and the nearest two lanes.

Lane departure calculations can be mixed with existing VBOX File Processor plugin functions such as filtering, renaming, smoothing, synchronising or math channel generation.

The customised lane departure data can be output in KML, VBO and CSV file format for use in VBOX Tools or other data analysis software.



How does it work?

Simply drag and drop the Lane Departure process block from the ADAS menu into the working area and load the VBOX files you have recorded during the test manoeuvre. Add the surveyed lane data, configure your calculation parameters and channels, and create the output file.

VBOX File Processor								
File Configuration Help								
Available Process Blocks	Load Input File		ection\Vehicles\Subject data\S to E r	ight turn.VBO				
ADAS				Selected P	rocess Blocks			
Interruption	Lane Departure							×
Intersection	Subject Vehicle Measurement Poin	ts						
Lane Data Generation								
Vehicle Separation	Left Point X Offset 0.00							
	Lanes	m Y Offset 0.00 m						
	Lane Seperation Calculation Mo	de Distance perpendicular to	o lane 🔹					
	cane seperation careatation me	File Name Colour Dash						
	Load Lane 1							
	Load Lane 2							
	Output							
	Smoothing Distance	2.00 😭 m						
	Minimum Speed Threshold	5.00 🕞 kmh						
	Range_Lt	📝 🥖 Angle_Lt	🔽 🥖 LatSpd_Lt	▼ / TTC_Lt	📝 🧪 Range_Rt	🗹 🥖 Angle_Rt	🔽 🧪 LatSpd_Rt	
	TTC_Rt							
Channel Selection								
Filtering								
Maths Channel	Process Output File		ection\Vehicles\Subject data\S to E r	ight turn_Processed.vbo 🗔				

Screenshot 1: VBOX File Processor - Lane departure plugin in working area

Features

- Calculates and processes lane departure and vehicle separation data
- Fully configurable calculation modes
- Exports to VBO, CSV, KML

- Filtering and smoothing
- Standard and custom math channels
- Batch processing of VBO files
- Data preview within the software



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Channel configuration options

The VBOX Lane Departure plugin allows you to configure how distances between the subject vehicle and lane edges are calculated.

Lane Departure	
Subject Vehicle Measurement Points	
Left Point X Offset 2.00 m Y Offset -0.90	0
Right Point X Offset 2.00 🔷 m Y Offset 0.90 🖨	n

Screenshot 2: A vehicle can be referenced by fixed points or a polygon.

Lanes Add		
Lane Separation Calculation Mode	Distance perpendicular to lane] 🕖
Stop Line Separation Calculation Mode	Distance perpendicular to lane Distance perpendicular to vehicle	t centre. 👻
File	Shortest distance	lear

Screenshot 3: Lane departure can be set to represent 'distance perpendicular to lane', 'distance perpendicular to vehicle' or 'shortest distance'.

Lanes Lane Seperation Calculation Mode	Distance perpendicular to lane 🔹				
Load Lane 1	File Name Drive line.VBO	Colour	Dashed	Thickness	
Load Lane 2	Drive line.vbo		152	1.0 💟	
					\sim
					\langle

Screenshot 4: Surveyed lane edges can be previewed in the software to make sure that the correct lanes have been referenced.





Screenshot 5: Channels can be deselected if looking for a specific set of outputs, and smoothing distance/speed threshold can be set.

Configurations and calculation sequences can be saved and applied to other files.

Other ADAS Plugins

- Vehicle Separation Software
- Lane Departure Software
- Intersection Software
- Vehicle Interruption Software

