



DATA ELEMENTS FOR DSSAD OBJECT RECORDING FOR TIME SERIES DATA

October 2024

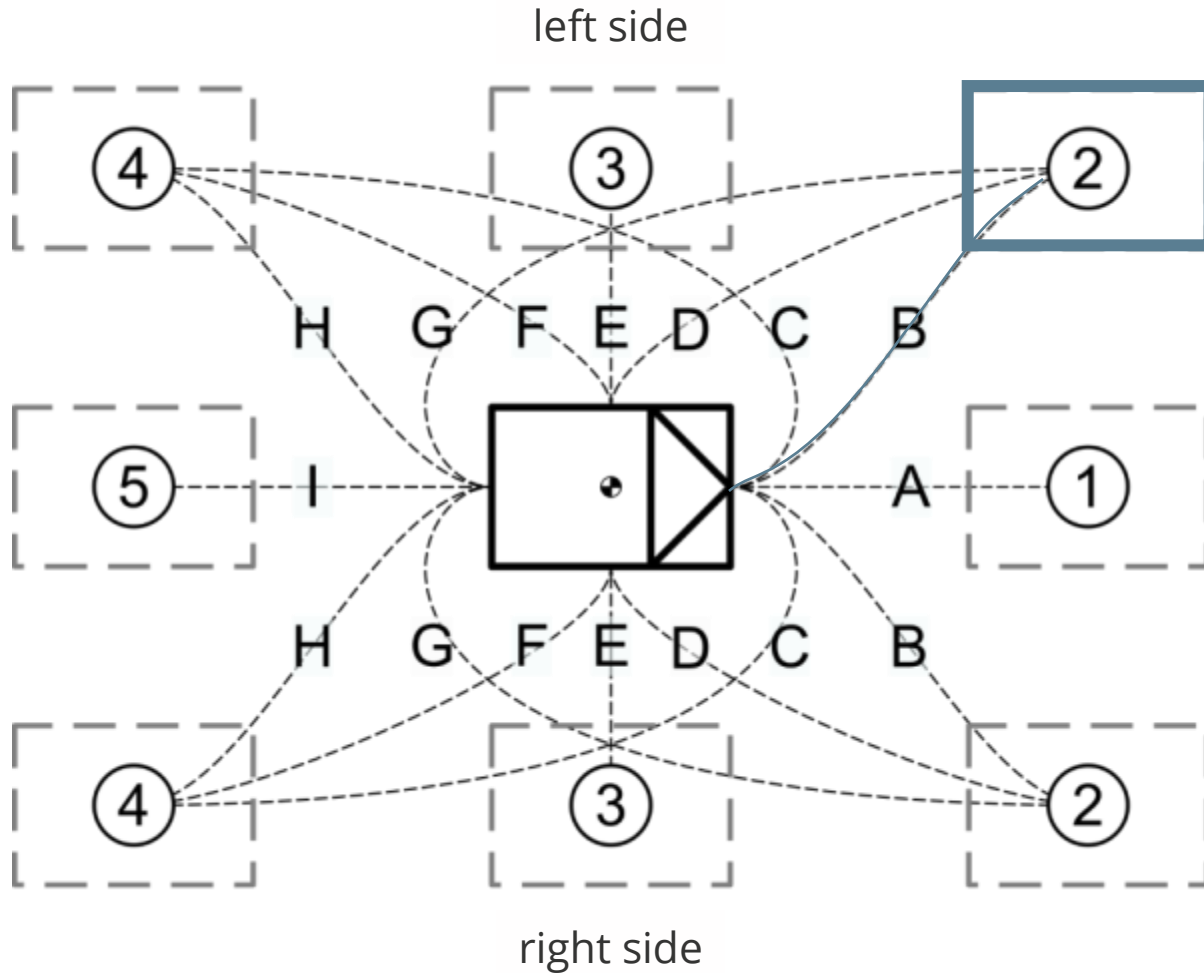
Object Recording for Time Series Data

- » Purpose: Definition of bounding criteria to record objects as time series data
 - Focus: Time Series data
- » Prerequisite: only consider data, which can be detected by the sensors of the ADS designed by the ADS manufacturer and not impose data necessary to be detected!

- » Data Elements
 - Detected object distance, longitudinal
 - Detected object distance, lateral
 - Detected object relative velocity, longitudinal
 - Detected object relative velocity, lateral
 - Detected object classification

- » Question: Which objects need to be recorded?

Overview of Scenario Types from German Research Project PEGASUS

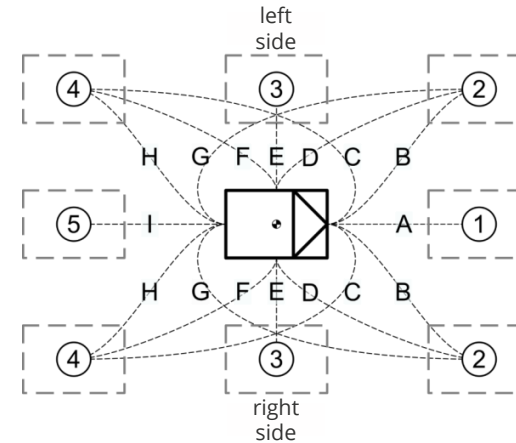


Impact	Initial position	Path	Indication
Front	1	A	Lead vehicle challenger
	2	B	Slower turn into path challenger
	4	C	Overtaking turn into path challenger
Side	2	D	Slower side swipe challenger
	3	E	Side swipe challenger
	4	F	Overtaking side swipe challenger
Rear	2	G	Slower Rear End Challenger
	4	H	Rear end turning into path challenger
	5	I	Rear end challenger
Non	-	-	Uninfluenced/Free driving

Which objects need to be recorded?

» Number of objects to be recorded

- 8 objects
 - 1: Lead challenger
 - 2/6: Slower challenger turn into path
 - 3/7: Side swipe challenger
 - 4/8: Overtaking turn into path challenger
 - 5: Rear end challenger
- Assumption: vehicles and pedestrians, cycles etc. considered equal



» Object size: relevant for collision

- Based on object classification
- Any type of classified object

» Object distance

- Within a certain threshold depending on the current velocity (distance and relative velocity as factors)