

VCR Software

Cognitechna VCR

Version: EN20220329

The Cognitechna VCR SDK is a highly optimized library for recognition of vehicle categories based on advanced deep learning techniques. It supports a wide range of platforms and offers a high accuracy of recognition even in challenging conditions like night, fog or image blur.

Exceptional Features:

- High recognition accuracy: 98+ %
- Extremely low latency
- 10 vehicle categories
- Front/Rear view recognition
- Works with low contrast, low light and blurry images
- Seamless integration with support of various programming languages



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Applications

- Speed enforcement
- Vehicle counting and statistics
- Weight-in-motion
- Recognized categories

In the SDK, we recognize the following vehicle categories which are given by EU law.

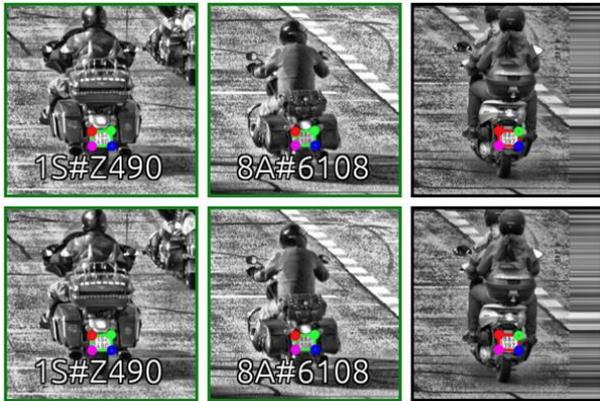
L	Motorcycles of any category including tricycles and quads
M1	Passenger cars, pickups, minivans, sport cars
M2-M3	Minibuses, buses, coaches
N1	Vans for person or cargo transport
N2	Small cargo trucks, vans with cargo area
N3	Large cargo trucks, cisterns, ...
O1, O2	Small trailers for M1, N1
O3, O4	Trailers for N2, N3

For the purpose of recognition, we use the following categories which differ for frontal and rear view. Some categories are relevant for rear view only (e.g. trailers) and some categories are impossible to recognize from rear view.

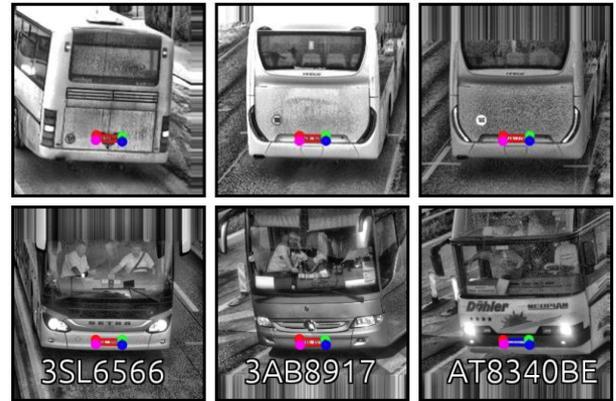
Category according to EU law	Front label	Rear label
L (all subclasses)	-	BIKE
M1	CAR	CAR
M2-M3	BUS	BUS
N1	VAN	VAN
N2 vans	VAN	TRUCK
N2 without vans	LIGHT TRUCK	TRUCK
N3	HEAVY TRUCK	TRUCK
O1, O2	-	TRAILER
O3, O4	-	TRUCK
T, C, R, S, Z	OTHER	OTHER



Examples



Bike



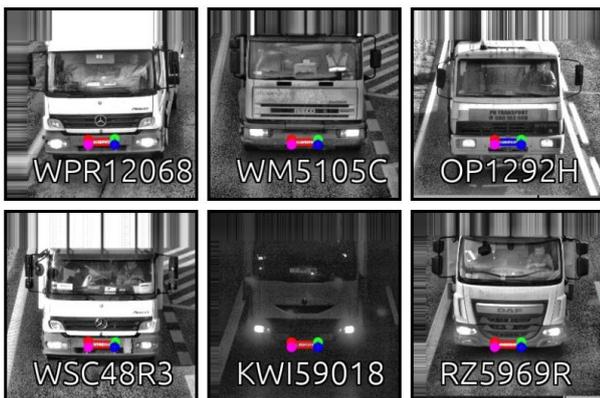
Bus



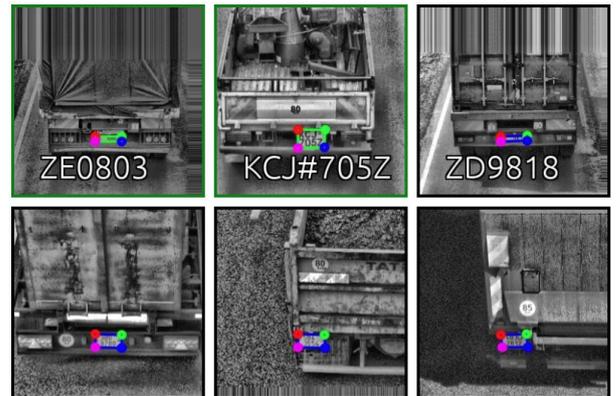
Car



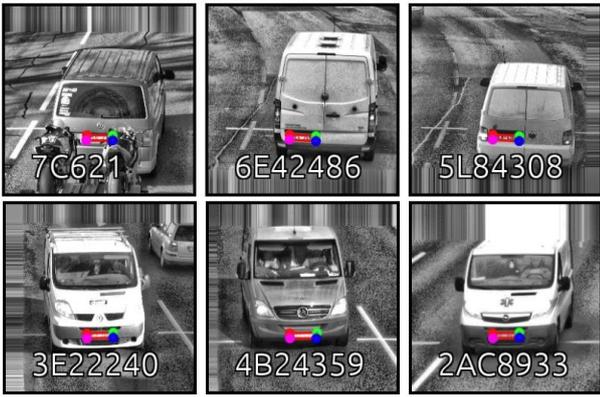
Heavy truck



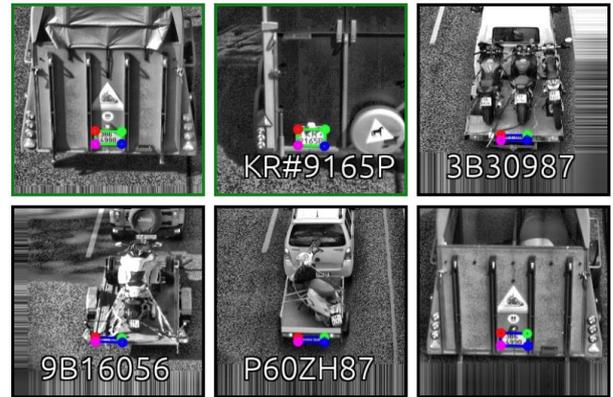
Light truck



Truck



Van



Trailer



Other