



Object classification in SWISSTRAFFIC.ai Viewer

SWISSTRAFFIC.ai can recognize 10 categories: which ones?

SWISSTRAFFIC.ai platform can recognize up to 10 categories in your video. Objects are classified based on visual comparison with our wide datasets that can follow US FHWA Scheme, the Standard UK Vehicle Classification Scheme or European Scheme of vehicle classification. See the comparison of world-classifications with SWISSTRAFFIC.ai categories at the end of this article!

SWISSTRAFFIC.ai Viewer, used for offline analysis, can offer you **8 main categories** for your objects, these main categories are: Pedestrians, Bicycle, Motorcycle, Car, Medium Vehicle, Heavy Vehicle, Bus and universal category called Undefined. On top of these categories, we can provide specific sub-categories such as: Van, Light Truck, Truck, Tractor, Tram, Boat, Train or Animal. For more information about specific sub-categories and any other category that has not been mentioned, do not hesitate to [contact our team!](#)

See description and categorization of object of each main category below:

Pedestrians

Stationary and moving people or roller-skaters.



Bicycle

Any type of pedal cycles including the person, e-scooters might be detected as Bicycle as well.



Motorcycle

Any type of motorcycle vehicle, scooters or tuk-tuk including the driver.



Car

Sedan, Hatchback, MPV, MUV, SUV, Coupe, Pick-up or any similar-size vehicle with usually 5 or fewer seats including those that pull light trailers. This category includes cars with an enclosed cab and an open cargo area with low sides as well.



Medium Vehicle

Medium size vehicle with luton body, such as cars for cargos, usually over 3,5t and less then 12t of weight. This category includes small, medium, large-size vans, large combi/crew vans, small motorhomes, smaller supply cars or ambulances.



Heavy Vehicle

Usually three and more axle truck, single-unit or multi-trailer, excavators. Agricultural or forestry tractor with their trailer are defined as a heavy vehicle as well.



Bus

Passengers-carrying large buses, school buses for more then 8 passengers. Tram might be identified as a bus as well.



Are you missing any category? Contact us! We can implement a new category for you!

How do categories fit to classes according to different classification?

See mapping of SWISSTRAFFIC.ai Categories to international standards of vehicle classification, we have chosen three the most used: US FHWA Scheme, Standard UK Vehicle Classification Scheme and European Scheme of vehicle classification.

US FHWA Scheme defines categories of Motorcycles that we do define as the category called "Motorcycle", Passenger Cars, Other Two-Axles, Four-Tire Single Unit Vehicles that are detected as a "Car" by SWISSTRAFFIC.ai system, Busses are labelled as a "Bus", and Two-Axle, Six-Tire, Single-Unit Trucks with Three-Axle Single-Unit Trucks are defined as a Medium Truck. Other larger vehicles are defined as a "Heavy Vehicle".

US FHWA Scheme	SWISSTRAFFIC.ai Category
Motorcycles	Motorcycle
Passenger Cars	Car
Other Two-Axle, Four-Tire Single Unit Vehicles	Car
Buses	Bus
Two-Axle, Six-Tire, Single-Unit Trucks	Medium Truck
Three-Axle Single-Unit Trucks	Medium Truck
Four or More Axle Single-Unit Trucks	Heavy Vehicle
Four or Fewer Axle Single-Trailer Trucks	Heavy Vehicle
Five-Axle Single-Trailer Trucks	Heavy Vehicle
Six or More Axle Single-Trailer Trucks	Heavy Vehicle
Five or Fewer Axle Multi-Trailer Trucks	Heavy Vehicle
Six-Axle Multi-Trailer Trucks	Heavy Vehicle
Seven or More Axle Multi-Trailer Trucks	Heavy Vehicle

Standard UK Vehicle Classification Scheme defines Pedal Cycle, labelled as a "Bike" by SWISSTRAFFIC.ai Viewer, Cars and Light Goods Vehicle that is defined as a "Car", Public Service Vehicles defined as a "Bus", Ordinary Goods Vehicle 1 that are categorized as a "Medium Vehicle" and Ordinary Goods Vehicle 2 is categorized as a "Heavy Vehicle" by SWISSTRAFFIC.ai Viewer.

Standard UK Vehicle Classification Scheme	SWISSTRAFFIC.ai Category
PC (Pedal Cycle)	Bike
Car (Car/Taxi)	Car
LGV (Light Goods Vehicle)	Car
PSV (Public Service Vehicle)	Bus
OGV 1 (Ordinary Goods Vehicle 1)	Medium Vehicle
OGV 2 (Ordinary Goods Vehicle 2)	Heavy Vehicle

European Scheme divides vehicles to categories and sub-categories. Mapped SWISSTRAFFIC.ai Categories are following:

European Scheme of vehicle classification	SWISSTRAFFIC.ai Category
Category L	Motorcycle
Category M1/N1	Car
Category M3	Bus
Category M2/N2	Medium Truck
Category N3	Heavy Vehicle
Combination of Category N3 with O1-O4	Heavy Vehicle

Have you already checked recommendations for resolution of the video and minimal size of objects defined separately for SWISSTRAFFIC.ai SCOUT and SWISSTRAFFIC.ai DRONE that are necessary for accurate outputs? Or go through the list of data exports, you can get by processing the video through SWISSTRAFFIC.ai Viewer.

We will be happy to answer any questions you may have. [Contact us!](#)