neural Labs
The traffic analytics company!

PRODUCT DESCRIPTION

Neural Orchestrator is a traffic analysis solution independent of the camera's model or brand. Using Deep Learning techniques, it analyses the scene recognizing objects, it individualises and classifies them to, afterwards, monitor (track) each of them. It evaluates, in real time, the object's behaviour detecting events and traffic offences, being able to analyse up to four lanes per camera.

It can process multiple Onvif cameras and takes advantage of the processing GPU (Graphics Processing Unit) power to detect objects using Deep Learning.

Ideal for situations in which you want to analyse a scene, count, apply sanctions, AID or analyse with video cars or people with Onvif cameras.

VIDEO ANALYTICS BASED ON DEEP LEARNING

Orchestrator detects and classifies the following actors:

- Cars
- Motorcycles
- Vans
- Trucks
- Buses
- People
- Electric scooters
- Bicycles

Tracks objects while they are on the scene. Storing the trajectory of each of them for its analysis.

INCIDENTS / EVENTS DETECTION

Using a rules engine, Orchestrator can recognise the following situations (many more can be programmed):

- People tracking
- People and vehicles (even by category) counting
- People's improper crossing
- Crosswalk violation
- Traffic jam/ congestion detection
- Pedestrians on the road detection
- Objects on the road detection
- Vehicles on the opposite direction
- Road density
- Vehicle at an abnormal speed

INTEGRATION

Orchestrator works with Neural Server for the license plate reading to sanction, for example.
Combined with Neural Server you can also detect:

- Make
- Colour
- Lane
- Speed
- Classification by vehicle type
- Country

Orchestrator con deliver results of objects and events detected to a third-party software using an SDK.

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WEB PLATFORM OPERATION

Through Neural Labs web platform, you can visualise and evaluate the scene analysis.

- Visualise all the detected objects
- Perform historical searches
- Receive notifications
- Validate and export sanctions
- Manage lists
- Manage operators
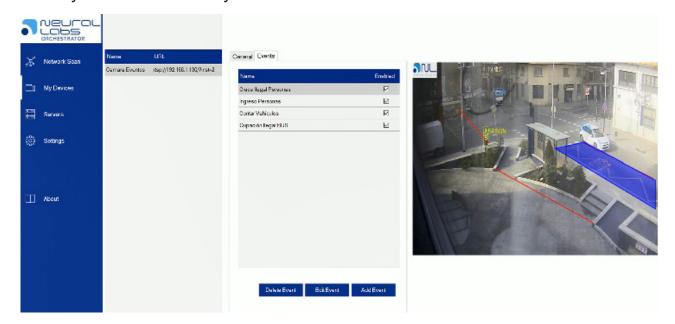- Monitor the equipment's condition
- Etc.

SUITE NEURAL LABS

Orchestrator is integrated with the Neural Labs solutions suite.

HARDWARE COMPATIBILITY

Consult your Neural Labs advisor to dimension your hardware according to your requirements and needs.

Orchestrator can work on the Edge with a Neural Labs AI UNIT or can be centralized through servers with Xeon and GPUs technology.
It always is dimensioned by Neural Labs technical office.

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