

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 individualizes and classifies them to, afterwards, monitor (track) each of them. It evaluates, in real time, the **object's behavior** detecting **events and traffic offences**, being able to analyze 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 analyze a scene, **count**, apply **sanctions**, **AID** or **analyze video with cars or people** with ONVIF cameras.

VIDEO ANALYTICS BASED ON DEEP LEARNING

NEURAL ORCHESTRATOR detects and classifies the following actors:

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

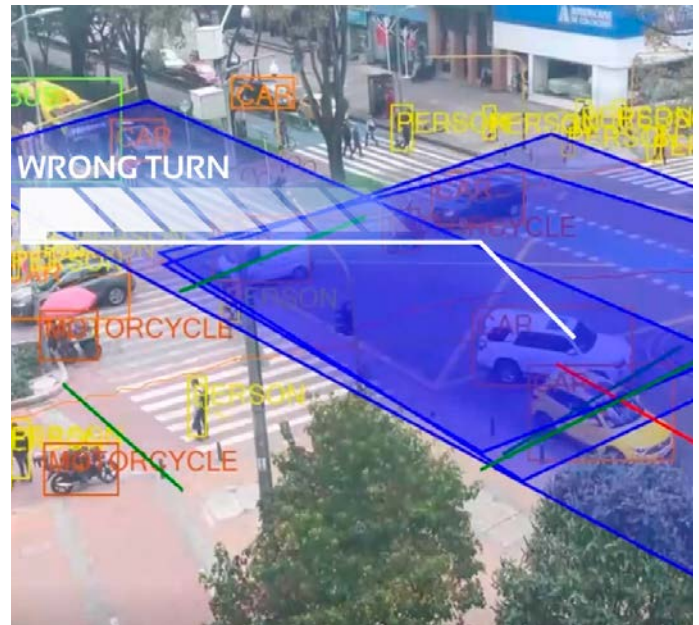
Tracks objects while they are on the scene. Storing their trajectory for its analysis.



INCIDENTS / EVENTS DETECTION

NEURAL ORCHESTRATOR tracks and counts pedestrians and vehicles according to their category. Furthermore, using a rules engine, It recognizes the following situations (many more can be programmed):

- Traffic infractions: crosswalk violation, ignoring a zebra crossing, vehicles circulating in a forbidden direction...
- Traffic density: moving, heavy or stopped.
- Queue lengths.
- Pedestrians and objects on the road (abandoned or fallen).
- Vehicles at an abnormal speed.
- Several occupants of motorcycles, bicycles and electric scooters.
- Smoke detection.



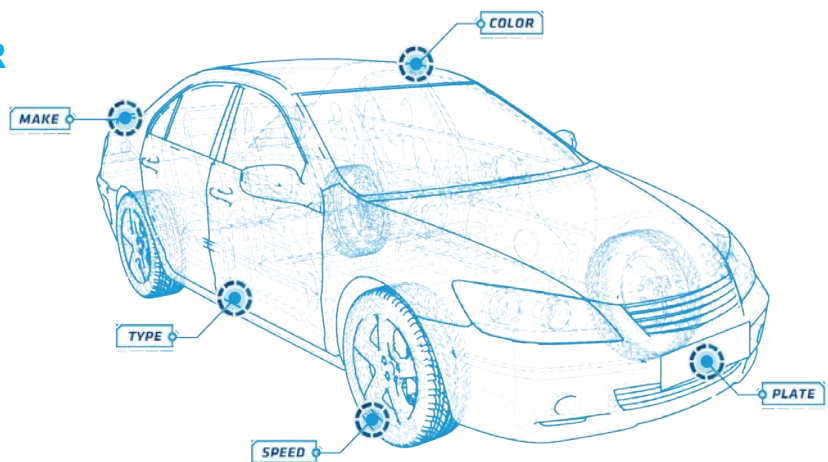
The solution offers templates management to make its daily use easier.

INTEGRATION

NEURAL ORCHESTRATOR is integrated with the Neural Labs solutions Suite. It works with **NEURAL SERVER** for the license plate reading to sanction, for example.

Combined with **NEURAL SERVER** it can also detect:

- Make.
- Color.
- Lane.
- Speed.
- Classification by vehicle type.
- Country.

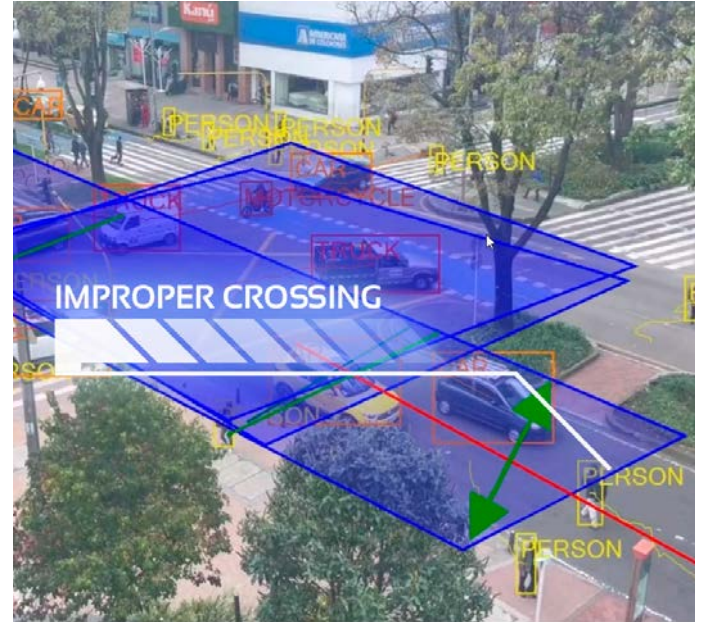


NEURAL ORCHESTRATOR delivers objects and events detected results to a third-party software using an SDK.

WEB OPERATION PLATFORM

With Neural Labs web platform, you can visualize and evaluate the scene analysis:

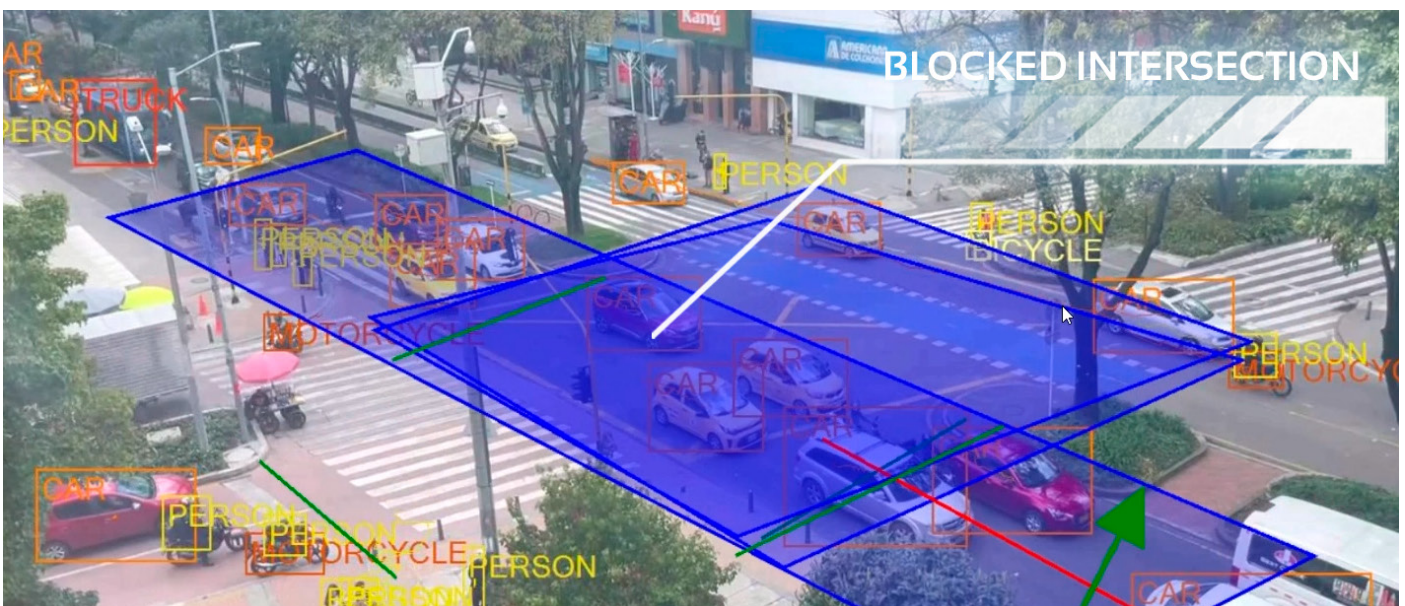
- Visualize all the detected objects.
- Perform historical searches.
- Receive notifications.
- Validate and export sanctions.
- Manage lists.
- Manage operators.
- Monitor the equipment's condition.
- And much more!



HARDWARE COMPATIBILITY

NEURAL ORCHESTRATOR processes images from ONVIF cameras, being compatible even with PTZ cameras. It also is ready to work on the edge with a Neural Labs **AI UNIT** or **KIT ORCHESTRATOR**, or It can be centralized through servers with Xeon and GPUs technology.

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



ORDER INFORMATION

CODE	DESCRIPTION
NL -ORCH	NEURAL ORCHESTRATOR 1 CHANNEL
KIT ORCH 1	KIT ORCHESTRATOR 1 CAMERA
KIT ORCH 2	KIT ORCHESTRATOR 2 CAMERAS



**MORE INFORMATION ABOUT
NEURAL ORCHESTRATOR:**

