



PRODUCT DESCRIPTION

VEZHA® LPR analytics, powered by IncoreSoft improves security systems, creates safe and smart Cutting-edge cities with high recognition accuracy, using neural networks in a traffic flow at speeds up to 300 km/h or up to 185 mph. IncoreSoft utilizes mobile and fixed LPR solutions that are designed to work stand-alone, or to be integrated with any third party hardware and software. LPR software with its newest technology will be able to identify license plate characters even in a low quality real world traffic video stream.

VEZHA LICENSE PLATE RECOGNITION FEATURES

- 99.6% recognition rate (including low quality, dirty, blurred, and damaged plates) up to 300 km/h (185 mph)*
- 100+ countries license plate support.
- Make, model, color, direction of vehicle, country/state, speed recognition.
- ADR (Accord Dangereuses Route) Recognition.
- Up to 6 lanes support.
- Unlimited lists (black, white, VIP, etc) quantity with different rules.
- Statistics dashboard enables viewing events per hours, days, weeks, and months.
- Not limited number of license plates that can be recognized in one frame.
- Works on plates with 2 or 3-rows, ordinary, inverse, and special types of license plates.
- License plate for recognition:
 - Europe|CIS - minimum: 48×12 px (WxH), recommended: 100×25 px (WxH)
 - USA|Canada|Mexico - minimum: 50×25 px (WxH), recommended: 100×50 px (WxH)
 - Middle East - minimum: 70×25 px (WxH), recommended: 100×35 px (WxH)

**subject to the instructions for camera installation*



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GENERAL INFORMATION

SUPPORTED OPERATING SYSTEMS	LINUX UBUNTU 20.04 / FROM WINDOWS 10 / FROM WINDOWS SERVER 2019
SUPPORTED PLATFORM	X64
SUPPORTED HARDWARE ACCELERATION	INTEL OPENVINO / NVIDIA TENSORRT
SUPPORTED DATABASE	SUPPORTED DATABASE MYSQL / POSTGRESQL / MS SQL / ORACLE

INTERFACE

CAMERA STREAM PROTOCOL	RTSP / HTTP / HTTPS / ONVIF
RECORDED VIDEO FORMATS	MKV; MP4; ASF; AVI; MJPEG
SUPPORTED CODECS	MPEG-4; MJPEG; H.264; H.265
OUTPUT FORMATS	JSON / XML / CSV / PDF
OUTPUT DATA	NUMBER PLATE OCR RESULT NUMBER PLATE TYPE MAKE & MODEL VEHICLE COLOR ADR VEHICLE CATEGORY COUNTRY / STATE TIMESTAMP LIST NAME

MAIN FUNCTIONALITY

CENTRALIZED MANAGEMENT	✓
REAL-TIME ALARMS	✓
INTEGRATION WITH MICROSOFT POWER BI, GOOGLE DATA STUDIO, AND OTHERS	✓
NOTIFICATION SETTINGS: INTERNAL ALARM, BY TELEGRAM OR OTHER EXTERNAL SYSTEMS	✓
REST API	✓
INTEGRATED BUSINESS LOGIC BUILDER	✓
SUPPORT FOR VARIOUS INTERFACE LANGUAGES	✓

VMS INTEGRATION

EVENT BASED INTEGRATION	LUXRIOT EVO, MILESTONE XPROTECT, NX META, AND OTHER
PLUGINS INTEGRATION	LUXRIOT EVO, MILESTONE XPROTECT, NX META

SECURITY FEATURES

ACTIVE DIRECTORY / LDAP	✓
GROUPS AND ROLES SUPPORT	✓
ENCRYPTION OF ALL PACKAGES	✓



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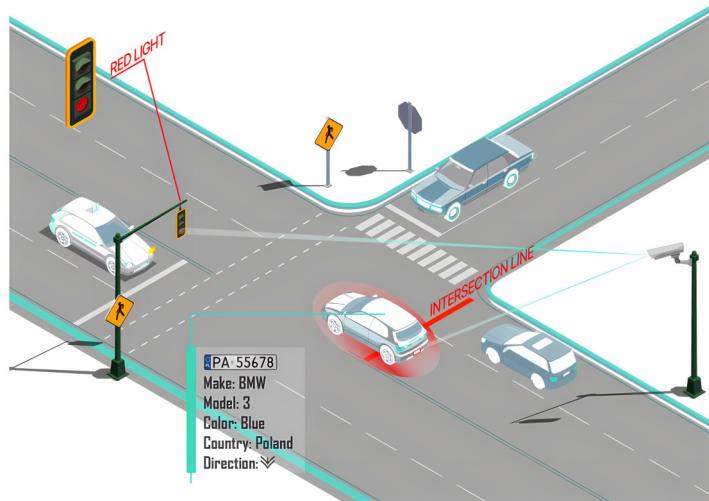
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PLANS OVERVIEW

Plan	Speed	LPR	MMC	Red light	Speed detection
LPR LITE	up to 30 km/h	Yes	No	No	No
LPR	up to 250 km/h	Yes	Yes	No	No
LPR PRO	up to 250 km/h	Yes	Yes	Yes	Yes

FEATURES OF PLANS

- **LPR LITE:** Supports license plate recognition only and opening necessary barriers at the entrance/exit to the parking lot. Speed up to 30 km/h.
- **LPR:** Supports license plate recognition, vehicle make and model, color, direction of movement, as well as working with lists and alert rules.
- **LPR PRO:** Supports license plate recognition, vehicle make, model, color, and direction of movement, as well as working with lists and alert rules, along with red light violation detection and vehicle speed monitoring.

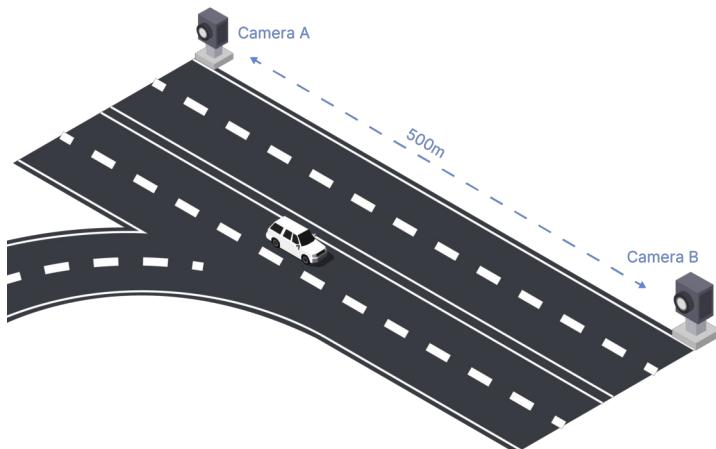


What is Red Light Violation?

Video analytics detects vehicles that pass through a red light and sends notifications with the vehicle's data, along with a frame of evidence of the violation.

Key features

1. Detection of the traffic light status (red, yellow, or green signal) without a physical connection between the analytics system and the traffic lights.
2. Identification of vehicles that pass through a red light.
3. Capturing and recognizing the vehicle's license plate within 8-30 milliseconds.
4. The system supports license plate recognition at speeds of up to 250 km/h
5. It recognizes the vehicle's make, model, type, and color, the direction of movement, as well as the country identifier with 95% accuracy.



How Speed Violation Detection Works?

Distance & Speed Limit

Two cameras are placed 500 meters apart. The speed limit for this section is set at 60 km/h.

Time & Detection

The expected travel time from Camera A to Camera B is 30 seconds. If a vehicle reaches Camera B in less than 30 seconds, it indicates speeding.

Analysis & Response

The system records speeding violations for further analysis, enabling prompt safety measures.



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