VAXALPR Advanced software for license plates recognition

High-performance software for recognizing license plates in the most demanding circumstances, intended mainly for companies wishing to incorporate the license plate-scanning function into their range of solutions quickly and easily.

Key Features

- Hits rate audited above 95%
- ALPR reading at vehicle speed of 250km/h (special ALPR camera is required)
- Work with any surveillance IP camera with ONVIF standard
- Able to read license plate from standard .avi video
- Ready SDK for 3rd party video management software integration
- Operation in real time free flow mode or signaled mode
- Currently supported more than 200 countries
- Multiple regions of interest, rectangular or polygonal
- Image improvement module and double-contrast correction
- Detection of the direction of travel: vehicle approaching or going away
- Build in with driver face snapshot module or environmental camera module
- Plug-In for calculating instantaneous speed
- Plug-In for MMC (Vehicle brand, model & color) recognition module
- Plug-in for Dangerous Good Module

Installation and Configuration

VaxALPR is easy to install and easy to use. It is designed for novice users or those with little experience who need rapid and effective start-ups in simple scenarios, as well as for expert users who want maximum ALPR performance and reliability in complex scenarios

Display Interface

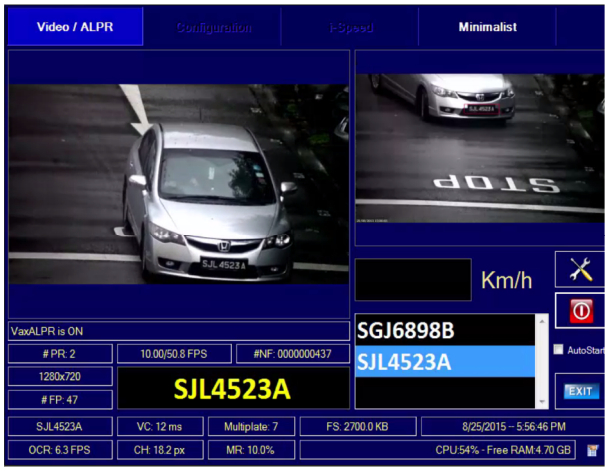
- A visual display panel to showcase the license plate recognition result, reading parameters, an overview picture of the detected vehicle and a cropped license plate picture together with the current reading number for accuracy comparison.
- A configuration module to further calibrate the video source, duplication elimination rules, license plate clarity reading range, plate slope angle, country grammar rules, Regions of Interest, scene complexity level.

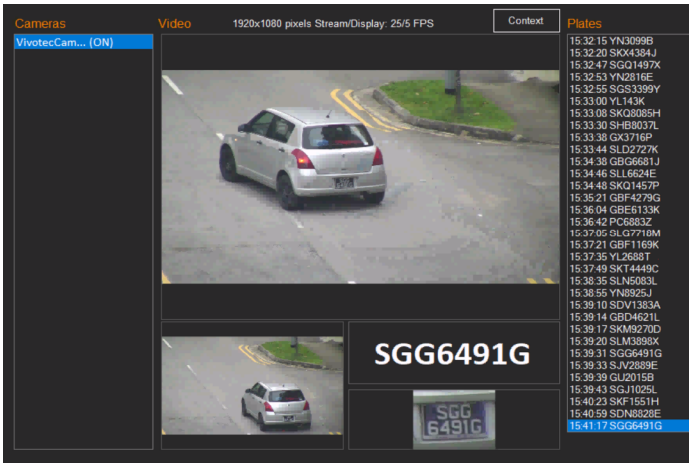
Results

- Basic information about the license plate (text, time marker, metrics...)
- Original photo, with configurable overlay, isolated plate and isolated vehicle
- Results in standard formats (TXT and JPEG), stored on hard disk or shared unit
- Publish result by HTTP port or network socket

Video input

- Any surveillance IP camera with ONVIF standard
- Standard .avi video
- Many supported brands: Axis, Pelco, DivioTec, Avigilon, Huawei, Mobotix, Panasonic, Sony, Bosch, IDS, Basler, Lumenera, Arecont, Dahua, Hikvision, Lidera, Euresys video capturer...





Specification

Main features	Product	VaxALPR. License Plates Recognition System
	Version	3.5
	Operating System	Microsoft Windows 7 or above, MS Windows 10 recommended
	Format	Software installer / SDK library
	Recommended workstation processor	Intel i5, i7, i9, Xeon with Hyper-threading
	Recommended workstation RAM	Baseline 8GB (Resources valid for 1080p video resolution 2 lanes with speed less than 90km/h)
	Disk space	1TB
Video source	Additional hardware	No
	Video acquisition	Yes
	Video Source	Video camera, video file
	Supported cameras	Axis, Pelco, DivioTec, Avigilon, Huawei, Mobotix, Panasonic, Sony, Bosch, IDS, Basler, Lumenera, Arecont, Dahua, Hikvision, Lidera, Euresys video capturer
	low lux environment	IR, white light or blue light illuminator
	Codec, video format	RTSP / .avi
License plate reading conditions	Video Format	Progressive or interlaced
	Min. Characters height	13 pixels (recommended 18 pixels)
	Max. rotation X (pitch)	± 25°
	Max. rotation Y (yaw)	± 30°
	Max. rotation Z (roll)	± 25°
Functionality and performance	Clear image required	No
	# Countries Supported	200
	Working mode	Free flow mode or signaled mode
	Processing mode	Cooperative: several ALPR instances on one video source Independent: One ALPR instance per video source
	Scalability	Largest single project upto 3000 channels
	Additional modules	Video acquisition Mode multi-capture (>1 reading attempts per vehicle) Control of duplication plates and grammar filtering Support of polygonal region of interest SDK available for developers Trigger OCR by smart motion detection External trigger activation (loops)
	Results	Save results in hard disk or database Per plate remote TCP transmission (both HTTP post and sockets) Basic information (license plate, confidence, size…) Original camera image (source frame) Image with overlay (time stamp, description…) Both vehicle and isolated license plate

Hit Rate	Stopped Vehicle	>98, 80% tested in parking: Lycée Francais (Madrid)
	In motion (real-time mode)	>98, 75% tested by ACEGA in AP-53 highway, Galícia, Spain
	Free-Flow (delayed mode)	>99, 1% tested by Globalvía at M-45, (Madrid)

Cooperative mode performance (1 camera in one PC, 1-4 cores / camera)			
# instances	Plates / Minute	V.Max (Km/ h)	T.Cycle (ms)
1	343	206	175
2	617	>250	92
3	823	>250	73
4	960	>250	63
* Video 720x576, Intel i5 2,20 GHz, 4 cores, 8GB RAM along 10 meters stretch			
Independent mode performance (1-4 camera in one PC, 1 cores / camera)			
# instances	Plates / Minute	V.Max (Km/ h)	T.Cycle (ms)
1	343	206	175
2	309	185	194
3	274	165	219
4	240	144	250
* Video 720x576, Intel i5 2,20 GHz, 4 cores, 8GB RAM along 10 meters stretch			

**Specification is subjective to change without further notice.