VaxALPR-PC

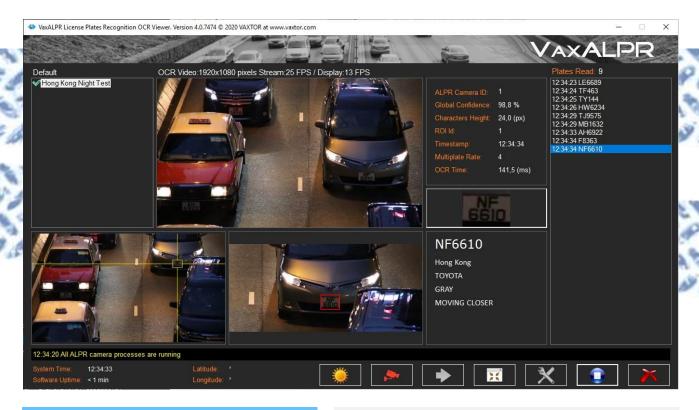**VAXTOR**

Multi-Platform OCR Engine
Windows 32/64 bit (Server 20XX, 8,10), Debian Linux GNI 1.4+, Ubuntu 8.04+, Windows Mobile 6.0, 6.5.3, Windows Phone 7.0+

Country-Independent Engine
Multi Neural-net supports Latin, Arabic & Hebrew Characters.

Input Image Format
BMP24, JPEG, YUY2, RGB, Gray8, 5MB maximum image size.

Operating Mode
Free-flow & Triggered

Plate Formats
Rectangular or square 2/3 line plates Dark character on light background Light character on dark background

Character Height
14 – 70 pixels

Direction Reporting
Towards, Away & Unknown

VaxALPR is a license plate recognition application developed by Vaxtor Recognition Technologies for the most demanding scenarios using Vaxtor's powerful proprietary OCR engine.

The application connects to multiple cameras using standard protocols and the ALPR engine recognizes plates in real time on fast-moving vehicles across several lanes simultaneously.   In high speed scenarios plates are read from multiple cameras on vehicles travelling at speeds up to 225 Km/h and in access control deployments up to 128 cameras can be connected simultaneously to an appropriate PC.

The engine will report the direction of travel and optional plugins include full Make, Model & Color recognition.   Other variants include ADR Plates (Hazardous Cargo), ISO Container recognition and Speed and Red Light detection.

Results can be sent to Helix, Vaxtor's powerful back office, or reported to third-party applications via TCP/IP, HTTP-POST-XML, HTTP-POST-JSON or simply save results to a directory (.csv list of plate events & separate associated jpg images).   Most major VMS products are supported including Milestone, Genetec, Network Optix etc.

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VaxALPR-PC

VaxALPR-PC CPU & RAM Recommendations

	Total amount of ALPR cameras that can be managed per PC using VaxALPR only (1)									
	Approximate Maximum Vehicle Speed for **1 lane ALPR**					Approximate Maximum Vehicle Speed for **2 lanes ALPR**				
	Stop & Go Cam: 2 FPS	30 Km/h 20 Mph Cam: 10 FPS	100 Km/h 60 Mph Cam: 20 FPS	160 Km/h 100 Mph Cam: 30 FPS	250 Km/h 150 Mph Cam: 50 FPS	Stop & Go Cam: 2 FPS	30 Km/h 20 Mph Cam: 10 FPS	100 Km/h 60 Mph Cam: 20 FPS	160 Km/h 100 Mph Cam: 30 FPS	250 Km/h 150 Mph Cam: 50 FPS
i5: (2.70-3.30) GHz 2 Cores - 4 Threads Intel Core i5-4570TE	12	4	4	0	0	8	4	2	0	0
i7: (2.00-3.80) GHz 4 Cores - 8 Threads Intel Core i7-7700T	24	16	8	4	0	24	16	8	0	0
i7: (3.70-4.70) GHz 6 Cores - 12 Threads Intel Core i7-8700K	48	36	24	12	6	48	24	12	6	3
i9: (3.10-4.40) GHz 16 Cores - 32 Threads Intel Core i9-9960X	128	96	64	32	16	128	64	32	16	8

(1) Further Considerations	
Cam. Mount	Fixed
RAM	Base 8 GB RAM add +1 GB additional per ALPR instance
Hard Disk	No special consideration
1 lane	1280x720 video resolution
2 lanes	1920x1080 video resolution
Cam. Angles	0 Km/h - 30 Km/h: Horizontal: < 30°, Vertical: < 30°
	30 Km/h -160 Km/h: Horizontal: < 20°, Vertical: < 25°
	160 Km/h -250 Km/h: Horizontal: < 5°, Vertical: < 20°

ALPR OCR Settings

Lane-Independent Settings

Each connected video stream can be independently configured for optimum OCR performance.

Country-Independent

The engine contains four neural-nets meaning that the same ALPR product can operate almost anywhere in the world.

VaxALPR-PC Export Options

The program has multiple output options including:

TCP/IP Sockets, Plain TCP/IP Sockets, HTTP-POST XML & HTTP(s)-POST JSON in addition to local disk storage.

Results can also be sent several VMS products as events & bookmarks including: Genetec Security Centre, Milestone XProtect, Network Optix nx Witness VMS, Genetec Security Centre, Exacq, March Networks and many more.

For more information on any of Vaxtor's ALPR products contact any of the Vaxtor offices below.

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