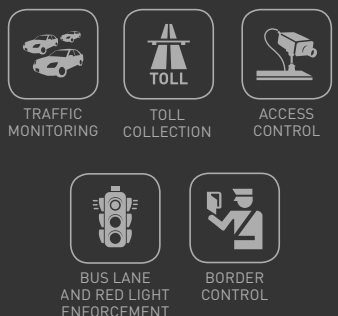
CARMEN® ANPR

NUMBER PLATE RECOGNITION
SOFTWARE LIBRARY & SDK

THE ULTIMATE RECOGNITION ENGINE FOR TRAFFIC APPLICATIONS AND ACCESS CONTROL

The Carmen® ANPR software is the flagship of the Carmen® Recognition Software family. Carmen® ANPR is designed to read the license plates of vehicles in free-flowing traffic situations and vehicle access control applications.
Carmen® is the common core software for both the unlimited FreeFlow version for high density traffic situations and the cost effective 5k/8k/11k versions for less intense traffic or parking applications. They all share the same recognition engines with the same high standard knowledge base.
Many systems can benefit from the fast and accurate automatic identification and recognition capabilities of Carmen® ANPR, including traffic monitoring and security, toll and congestion charging systems, speed and journey time measurement, access control, parking management, bus lane enforcement, border control or gas station monitoring.
Carmen® is a proven core technology, currently used by around 10,000 integrator companies, running in more than 80,000 ANPR systems around the world. In order to accommodate diverse ANPR needs, ARH offers a whole range of CARMEN licenses. Learn more about the currently available license types on www.arh.hu.



MAIN BENEFITS

- Proven, fast and reliable automatic number plate reading software
- Industry leading high accuracy and recognition rates (>98% globally)
- Ability to recognise various plate sizes, syntaxes and distorted plate images
- Reads Arabic, Cyrillic, Chinese, Korean, Latin, Thai and many more characters
- ADR non-empty plates recognition included
- Unlimited and cost effective versions available

TOWARD THE FUTURE IN SAFETY – SINCE 1991

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SPECIFICATIONS

CARMEN® ANPR Software

• highly customizable • camera independent • diverse input options • country/state recognition • motion detection • scalable • high accuracy • plate color detection

Special ANPR/LPR cameras are available for higher quality images and recognitions rates.

GENERAL INFORMATION

Supported Operating Systems	Windows (32/64 bit) | Linux (32/64 bit)
Supported Platforms	x86_32 | x86_64 | ARMv7 Cortex A8 and above | PPC
Minimum System Requirements	1 GHz CPU | 512 MB RAM | 1 GB HDD | free slot for NNC
Licensing	one year from purchase included, optional subscription available on yearly basis
Available Neural Controllers	USB 2.0 dongle - type A USB internal 4-pin PCIe card (X1) Mini-PCIe card

INTERFACE

Input	Still image from file or memory in various image formats (BMP | PNG | JPEG | JPEG2K | RAW) Live analog video input (PAL or NTSC) Live digital camera input
Output	OCR data Number plate DATA in ASCII/UNICODE text Position of the plate Confidence level in percentage Confidence level for each character List of further suggestions for each character Individual result for each plate on an image Color of plate (optional) Country ID (optional) Location of each plate on one image
Trigger	Can be integrated with any trigger device (recommended when recognizing from live image stream) Software motion detection module is included

DEVELOPMENT TOOLS FOR EASY INTEGRATION

Supported programming languages under Windows	C/C++, C# Visual Basic .NET Java
Supported programming languages under Linux	C/C++, Java
In The Box	Development libraries: .dll, .so files Demo application, sample codes for each programming language Neural network controller Comprehensive digital documentation

AVAILABLE VERSIONS	FREEFLOW	5K / 8K / 11K
Capacity (images/day)	unlimited*	5760 / 8640 / 11250
Processing threads	1 / 2 / 4 parallel threads	4 parallel threads
Credit buffer	unlimited	300 / 240 / 200
Time for 4 new credits (sec)	–	60 / 40 / 30

* Depends on CPU speed, settings, engine type

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