

CARMEN® ACCR Software

ISO CONTAINER CODE RECOGNITION SOFTWARE LIBRARY & SDK



THE ULTIMATE RECOGNITION ENGINE FOR INTELLIGENT LOGISTICS APPLICATIONS

The Carmen® Automatic Container Code Recognition (Carmen® ACCR) software is a dedicated version of the Carmen® Recognition Software family. Carmen® ACCR is created to extract and read the Container Codes of ISO containers. The ISO Container Code – defined by the ISO 6346 international standard – is the primary identification number of intermodal (shipping) containers. This code tells the owner and the type/category of the container as well as its unique serial number. The software's ability to read the ISO codes of shipping containers makes harbor, port, and logistic hubs much more intelligent. Carmen® ACCR software can assist in building comprehensive databases of container movement; automate and simplify road, railway and harbor logistics; manage border control inventory and container surveillance systems. The Carmen® ACCR reads the unique ISO Container Codes from digital still images, digital image flow or live video signal. The unique serial number with check digit, the owner, the country code, the size, type and equipment category as well as operational marks (if any) of every cargo container are returned with the highest accuracy available in the market.



AIRPORT AND HARBOR LOGISTICS



BORDER CONTROL CUSTOMS



INVENTORY MANAGEMENT



CONTAINER SURVEILLANCE SYSTEMS



TRAFFIC MOVEMENT DATABASES



TRAFFIC SECURITY MONITORING

MAIN BENEFITS

- Automating ISO 6346/MOCO/ILU code reading that saves time and resources
- Increased accuracy and security for logistic supply chains
- Allowing faster, more accurate inventory tracking
- High accuracy and recognition rates
- Smooth and maintenance-free 24/7 operation

TOWARD THE FUTURE IN SAFETY – SINCE 1991

SPECIFICATIONS

CARMEN® ACCR Software

- straightforward use • hardware independent • multi format image input • motion detection • scalable • high accuracy

Special ACCR cameras are available for higher quality images and recognitions rates.

GENERAL INFORMATION

Purpose	Automatic recognition of container codes – an ISO container code recognition software for logistic systems (railway, marine, harbors and airports), supporting ISO 6346 (BIC code), ILU and MOCO codes
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 license per application thread, multiple license/controller is available 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 Multi image for same container
Output	OCR data ISO Container code in ASCII text Position of the code Confidence level in percentage Confidence level for each character ID of the best image Country ID and dimension information (optional)
Trigger	Can be integrated with any trigger device (recommended when recognizing from live video 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



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