

# 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 environments much more intelligent. CARMEN® ACCR software can assist in building comprehensive databases of traffic movement; automate and simplify airport, railways or harbors; 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.

### KEY FEATURES

- Automatic recognition of ISO6346 (BIC), MOCO (MOnTan COntainer) and dimension codes
- Fast, easy and straightforward use
- Hardware independence: compatible with any image source (e.g. analog or digital cameras; line scanners)
- Identification of both vertical and horizontal aligned codes

### MAIN BENEFITS

- Saving time and energy in data entry, automating ISO6346/ MOCO code reading
- Decreasing data entry errors with high accuracy and recognition rates
- Increasing security and safety of transport units
- Allowing smooth and problem-free 24/7 operation

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

CARMEN®



AIRPORT AND HARBOR LOGISTICS



BORDER CONTROL CUSTOMS



INVENTORY MANAGEMENT



CONTAINER SURVEILLANCE SYSTEMS



TRAFFIC MOVEMENT DATABASES



TRAFFIC SECURITY MONITORING

# SPECIFICATIONS

## CARMEN® ACCR Software

### GENERAL INFORMATION

Purpose	Automatic recognition of the container codes – a ISO container code recognition software for logistic systems (railway, marine, harbors and airports), supporting ISO 6346 (BIC code) and MOCO code
Supported operating systems	Windows (32/64 bit) Linux (32/64 bit)
Supported Platforms	x86_32   x86_64
System requirements	1 GHz CPU   512 MB RAM   1 GB HDD   free port/slot for NNC
Licensing	One license per application thread, multiple license/controller is available
Available Neural Controllers	PCIe card (x1) USB 2.0 Internal USB 2.0 PCI 2.1 video capture card (FXVD4) (EOL*) PCI 2.1 card (FXMC) (EOL*) Express card 34 (54 compatible) (EOL*) PC 104+ card (EOL*)

\*end of life

### INTERFACE

Input	Still image from file or memory in any image format ( BMP   PNG   JPEG   JPEG2K   RAW ) Live analog video input (PAL or NTSC) Live digital camera input
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 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



..... Technical specifications are subject to change without prior notice. This document does not constitute an offer.



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