

# CARMEN® UIC Software

UIC RAILWAY CODE RECOGNITION SOFTWARE LIBRARY & SDK



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OCR RESULT:  
33-80-7920077-4

## THE ULTIMATE RECOGNITION ENGINE FOR INTELLIGENT RAILWAY APPLICATIONS

The CARMEN® Railway Code Recognition software (CARMEN® UIC), is a unique version of the CARMEN® Recognition Software family. CARMEN® UIC is created to extract and read the UIC numbers from railway vehicles. Railroad wagons, just as commercial motor vehicles and ISO containers, have their own unique and internationally common identification numbers. This identification number on a railroad wagon or coach is called the UIC number.

By recognizing the UIC codes on train cars, CARMEN® UIC provides unparalleled accuracy and rapidity for railway transportation applications. Commercial railway systems carrying materials, cargo or passengers can enter data without human effort by offering automatic data entry and reporting for further processing. By automatically reading the UIC code numbers of railway wagons from an image or video signal for international and logistic operations, the CARMEN® UIC recognizes the UIC codes with the highest recognition accuracy achievable. This enables Railway systems to access important data of the contents of each coach as well as date, time and location of the railway coaches themselves.

### KEY FEATURES

- Automated reading of railway coach numbers (wagon numbers or UIC codes)
- Fast, easy and straightforward use
- Hardware independence: compatible with any image source (analog / digital / still images / MJPEG video streams)

### MAIN BENEFITS

- Saving time and energy in data entry, automating UIC 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

Specifically dedicated UIC cameras are available for higher image quality and recognition rates.

CARMEN®



INTELLIGENT CONTROL SYSTEMS FOR RAILWAY OPERATORS



RAILWAY LOGISTICS



BORDER CONTROL CUSTOMS



INVENTORY MANAGEMENT AT LOGISTIC CENTERS



RAILWAY CARGO DATABASES

# SPECIFICATIONS

CARMEN® UIC Software

## GENERAL INFORMATION

Purpose	Automatic recognition of the railway vehicle ID numbers – am UIC wagon/coach number recognition software for various intelligent railroad management systems.
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	PCI 2.1 video capture card (FXVD4) PCI 2.1 card (FXMC) PCIe card (x1) USB 2.0 (internal is also available) Express card 34 (54 compatible) PC 104+ card

## INTERFACE

Input	Still image from file or memory in any image format ( BMP   PNG   JPEG   JPEG2K   RAW ) Live digital camera input
Output	OCR data UIC number in ASCII text Position of the UIC 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++
Supported programming languages under Linux	C/C++
In The Box	Development libraries: .dll, .so files Sample codes for each programming language Neural network controller Comprehensive digital documentation on CD



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

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