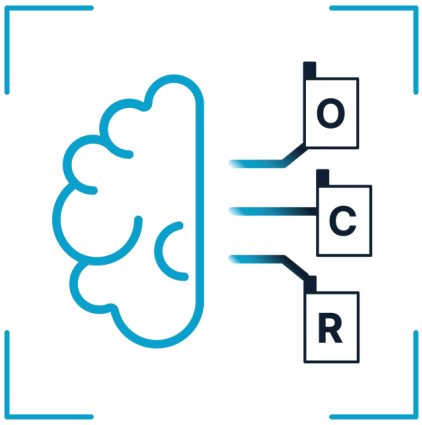
2/26/2025

Datasheet

EasyDeepOCR

Deep learning based Optical Character Recognition library



- Tool designed for industrial markings, like serial numbers, expiry dates, part numbers...
- Very easy to use, simple API and no training required
- Optional topology definition to filter out non-relevant texts
- Focus on text reading capability without compromising speed
- Optional optimization of the processing pipeline with a few examples
- Runs on CPU and GPU, Intel and ARM platforms

Main benefits

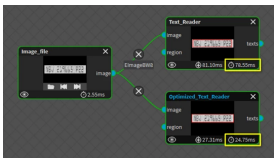
```
// instantiate and initialize a reader
EasyDeepOCR::ETextReader reader;
reader.Initialize();

// load an image
EImageBW8 image;
image.Load("/path/to/image");

// read all the texts
std::vector<EasyDeepOCR::EText> texts = reader.Read(image);
```

Simple API yet impressive results

With a single “Read” call, all the texts in the image will be detected and read. No more need to setup complex configuration

Topology definition to focus on the right texts

Topology defines the format of the targeted text. Topology is very practical in the context of industrial marking, to focus on expiry date, part number or other strongly formatted texts. The definition of Topology allows the user to get only the required texts but also helps the character recognition by reducing ambiguities.



Optimize operation to fasten the processing

A processing pipeline optimization feature can lead to faster reading. A few sample images, typically between 1 to 3, must be annotated by the user. Then, EasyDeepOCR will choose the internal parameters that will reduce the processing time.

Full featured New Open eVision Studio tool

The EasyDeepOCR tool in the New Open eVision Studio exposes all the features of this library. The user can choose the topology and annotate some sample images to perform a pipeline optimization. Deep learning execution settings are exposed, to choose between different Devices (CPU, GPU) and Engines (OpenVINO, TensorRT…).

Good performances on CPU (Intel OpenVINO) and GPU (NVidia TensorRT)

EasyDeepOCR has been optimized to run on Intel and ARM CPU (thanks to OpenVINO) and NVidia GPU (thanks to TensorRT).

Specifications

Software

Host PC Operating System

Open eVision is a set of 64-bit libraries that require an Intel compatible processor with the SSE4 instruction set or an ARMv8-A compatible processor.

Open eVision can be used on the following operating systems:

Microsoft Windows 11, 10, 8.1, 7 for x86-64 (64-bit) processor architecture

Linux for x86-64 (64-bit) and ARMv8-A (64-bit) processor architectures with a glibc version greater or equal to 2.18

Remote connections

Remote connections are allowed using remote desktop, TeamViewer or any other similar software.

Virtual machines

Virtual machines are supported. Microsoft Hyper-V, Oracle VirtualBox and libvirt hypervisors have been successfully tested.

Only the Neo Licensing System is compatible with virtualization.

Minimum requirements:

2 GB RAM to run an Open eVision application

8 GB RAM to compile an Open eVision application

Between 100 MB and 2 GB free hard disk space for libraries, depending on selected options.

APIs

Supported programming languages:

The Open eVision libraries and tools support C++, Python and the programming languages compatible with the .NET Framework (C#, VB.NET)

C++ requirements: A compiler compatible with the C++ 11 standard is required to use Open eVision

Python requirements: Python 3.11 or later is required to use the Python bindings for Open eVision

.NET requirements: .NET Framework versions 4.8 or later are supported

Supported Integrated Development Environments:

Microsoft Visual Studio 2017 (C++, C#, VB .NET, C++/CLI)

Microsoft Visual Studio 2019 (C++, C#, VB .NET, C++/CLI)

Microsoft Visual Studio 2022 (C++, C#, VB .NET, C++/CLI)

QtCreator 4.15 with Qt 5.12

Image processing

Input

Monochrome and color images

Minimum text height: 12 pixels

Text line maximum aspect ratio: 20

Number of text lines in image: unlimited

Ordering Information

Product status

Released

Product code - Description

PC4191 Open EasyDeepOCR for USB dongle

PC4341 Open eVision EasyDeepOCR

Related products

PC6512 eVision/Open eVision USB Dongle (empty)

PC6514 Neo USB Dongle (empty)

Offices

- Europe, Middle East & Africa
  Euresys SA
  Contact support : support.europe@euresys.com

  Sensor to Image GmbH
  Contact support : support.europe@euresys.com

- China
  Euresys Shanghai Liaison Office
  Contact support : support.china@euresys.com

  Euresys Shenzhen Liaison Office
  Contact support : support.china@euresys.com

- Japan
  Euresys Japan K.K.
  Contact support : support.japan@euresys.com

- South Korea
  Euresys South Korea Liaison Office
  Contact support : support.korea@euresys.com

- Asia (other countries)
  Euresys Pte. Ltd.
  Contact support : support.asia@euresys.com

- North, Central & South America
  Euresys Inc.
  Contact support : support.usa@euresys.com

  TKH Vision Experience Center
  Contact support : support.usa@euresys.com