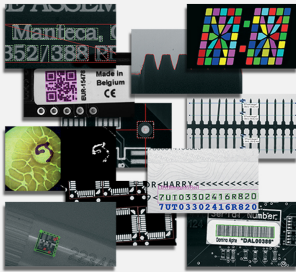


Full Bundle

Bundle of primary Open eVision libraries



At a Glance

- Cost effective bundle of eVision 2D libraries
- Includes EasyImage, EasyGauge, EasyFind, EasyMatch, EasyObject, EasyColor, EasyOCR, EasyOCR2, EasyBarCode, EasyMatrixCode and EasyQRCode
- Does not include 3D and Deep Learning libraries

Benefits

New in Open eVision 24.02

EasyFind : Significant speed increase, without any loss of accuracy.

EasyImage

- New Gabor filtering function to help with texture analysis and edge detection.
- New inverse circle warp function, providing conversion between polar and cartesian coordinates.

Easy: Improved off-screen rendering on all platforms.

Admin: Simplified version upgrade procedure with version numbers removed from filenames.

Open eVision Studio: Evaluation, prototyping and development tool

Open eVision Studio is the evaluation, prototyping and development tool of Open eVision. Its intuitive graphical user interface allows you to call and immediately see the result of any of eVision's 2D image processing functions. A scripting functionality generates the corresponding code, which can then be copied and pasted into your application.

Open eVision Studio is free (when using Open eVision 2.0 and above) and does not require any license.

Just click on DOWNLOAD OPEN EVISION STUDIO and install Open eVision. Sample images, manuals and sample programs are included.

EasyImage Description

- EasyImage includes operations usually performed as pre-processing steps to improve the image quality and obtain a good contrast between the background and the objects to be inspected.
- EasyImage supports gray-level and color images. Selected morphology functions are also optimized for binary (1-bit per pixel) and bi-level images.
- EasyImage includes numerous image processing functions, such as enhancement and restoration by linear or non-linear filtering, arithmetic and logic operations, geometric transformations for image registration, histogram analysis for thresholding, projection, ...

New in Open eVision 23.12

Import of standard datasets into Deep Learning Studio

- Import of COCO Json dataset for EasyLocate or EasySegment Supervised
- Import of YOLO TXT annotations for EasyLocate
- Import of Pascal VOC XML annotations for EasyLocate

EasySpotDetector (Beta release, contact us for more information)

- A single API and license for the alignment of region of interest, surface defect detection (particles, scratches,...) and classification with a custom trained Deep Learning classifier.
- Realtime processing for inline surface inspection

EasyGauge Description

EasyGauge is a cutting-edge measurement and dimension control library for use in gauging and metrology applications. By relying on proven sub-pixel edge detection (Point & Line) and shape fitting (Rectangle, Circle, Wedge & Polygon) algorithms, it allows determining the dimension, position, curvature, size, angle or diameter of manufactured parts with an excellent accuracy. Robustness is ensured by powerful edge-point selection mechanisms that are intuitive and easy to tune, allowing measurement in cluttered images. In addition, EasyGauge also supports the automatic measurement of parallel sides, thus providing means of measuring the thickness of flat or bent objects, as well as the precise location of corners.

EasyObject Description

The EasyObject library handles image segmentation, i.e. the decomposition of images into separate objects, also called blobs.

Once the objects have been constructed, they can be handled as independent entities. Various geometric parameters or features, such as area, width, or ellipse of inertia, can be computed for each object.

Objects of interest can be selected by means of their position or of their computed features.

EasyObject also supports the inspection of holes in defined objects. Holes are managed as the objects themselves, benefiting from the same geometrical features. EasyObject manages the relationship between objects and holes, defining parent objects for holes.

EasyColor Description

EasyColor includes a set of optimized color systems transformation functions and color analysis functions.

The color systems supported are RGB, XYZ, $L^*a^*b^*$, $L^*u^*v^*$, YUV, YIQ, ISH, LSH, VSH, LCH and YSH.

EasyColor provides efficient means to convert images between these systems and to transform color images into gray level images and vice versa.

EasyMatch Description

EasyMatch is a gray-level and color pattern matching library. It lets you train the system on a reference pattern and afterwards locate its occurrences in other images.

This tool is very convenient when the position of a given part is unknown in the field of view, or if the presence of parts must be controlled. The library works by using normalized correlation method, i.e. measuring discrepancies between the pattern and the target image.

EasyFind Description

Based on an innovative feature-point technology, EasyFind is designed to rapidly find one or more instances of a reference model in the image.

Compared to normalized correlation, EasyFind features faster processing and improved robustness. It shows excellent performances when handling instances that are highly degraded due to noise, blur, occlusion, missing parts or unstable illumination conditions.

EasyBarCode description

EasyBarCode is a library designed to automatically locate and read bar codes. Bar codes encode short character string and are widely used for marking and identifying goods.

EasyBarCode is able to identify and read a wide range of standard commonly-used symbologies as well as special symbologies. EasyBarCode automatically locates the bar code symbol in the image and supports code rotation. Moreover for prototyping or special cases, an advanced manual location mode is also available.

EasyMatrixCode Description

Data Matrix codes are widely used for parcel tracking and part identification in the semiconductor, pharmaceutical and mechanical industries.

EasyMatrixCode is a fully automatic reader of 2D Data Matrix codes. It recognizes symbols of any size, contrast, location and orientation in a single operation. Error detection and correction algorithms are used to provide a reliable reading.

EasyMatrixCode is fully compatible with the ANSI/AIM BC11-1997 standard. EasyMatrixCode2 now supports the Data Matrix Rectangular Extension (ISO/IEC 21471,DMRE).

EasyQRCode Description

QR codes are 2D bar codes. They are widely used for their fast readability, high reliability and their large storage capacity compared to ordinary barcodes.

EasyQRCode is a robust QR code reading library for industrial applications such as part identification and product or time tracking. These applications typically require the fast and reliable decoding of variable-content QR codes.

EasyOCR Description

EasyOCR is a font-dependent printed character reader based on a template matching algorithm. It has been designed to read any kind of short text (part numbers, serial numbers, expiry dates, manufacturing dates, lot codes,...) printed on labels or directly on parts.

EasyOCR2 Description

EasyOCR2 is a font-dependent printed character reader. It has been designed to read short texts such as part numbers, serial numbers, expiry dates, manufacturing dates, lot codes, ... printed on labels or directly on parts.

Neo Licensing System

- Neo is the new Licensing System of Euresys. It is reliable, state-of-the-art, and is now available to store Open eVision and eGrabber licenses.
- Neo allows you to choose where to activate your licenses, either on a Neo Dongle or in a Neo Software Container. You buy a license, you decide later.
- Neo Dongles offer a sturdy hardware and provide the flexibility to be transferred from a computer to another.
- Neo Software Containers do not need any dedicated hardware, and instead are linked to the computer on which they have been activated.
- Neo ships with its own, dedicated, Neo License Manager, which comes in two flavours: an intuitive, easy to use, Graphical User Interface and a Command Line Interface that allows for easy automation of Neo licensing procedures.

All Open eVision libraries are available for Windows and Linux

- 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

Specifications

Software

Host PC Operating System	<ul style="list-style-type: none">• 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:<ul style="list-style-type: none">– 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<ul style="list-style-type: none">– Remote connections are allowed using remote desktop, TeamViewer or any other similar software.• Virtual machines<ul style="list-style-type: none">– 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:<ul style="list-style-type: none">– 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	<ul style="list-style-type: none">• Supported Integrated Development Environments and Programming Languages:<ul style="list-style-type: none">– 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

Ordering Information

Product code - Description	<ul style="list-style-type: none">• 4017 - Full Bundle for USB dongle• 4067 - Full Bundle for PAR dongle• 4117 - Full Bundle for board licensing• 4177 - Open Full Bundle for USB dongle• 4227 - Open Full Bundle for PAR dongle• 4327 - Open eVision Full Bundle
Optional accessories	<ul style="list-style-type: none">• 6512 - eVision/Open eVision USB Dongle (empty)• 6513 - eVision/Open eVision Parallel Dongle (empty)• 6514 - Neo USB Dongle (empty)



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