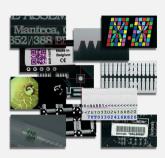


# Full Bundle

# 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**

# 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.

# **Easylmage 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, ...

### **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 and shape fitting 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.

# **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

- Windows 7 to Windows 10, x86 (32 bits) and x86-64 (64 bits)
- Linux x86-64 (64 bits) with a glibc version 2.18 or newer

# **Specifications**

### Software

Host PC Operating System

- Open eVision is a set of 32-bit and 64-bit libraries that require a processor compatible with the SSE4 instruction set.
- The Deep Learning Bundle is only available in the 64-bit Open eVision library.
- Open eVision can be used on the following operating systems:
  - Windows 10 (32- and 64-bits)
  - Windows 8 (32- and 64-bits)
  - Windows 7 (32- and 64-bits)
  - Linux 64 bits (x86-64 only) with a glibc version greater or equal to 2.18
- Since Open eVision 2.6, discontinued support of:
  - Windows Vista 32-bits Service Pack 1
  - Windows XP 32-bits Service Pack 3
  - Windows Embedded Standard 2009 32-bits
- Remote connections
  - Remote connections are allowed using remote desktop, TeamViewer or any other similar software.
- Virtual machines
  - Linux virtual machines are supported. Microsoft Hyper-V and Oracle VirtualBox hypervisors have been successfully tested.
  - Windows virtual machines are not supported.
- Minimum requirements:
  - RAM: 8 GB
  - Display size: 800 x 600. 1280 x 1024 recommended.
  - Color depth: 16 bits. 32 bits recommended.
  - Between 100 MB and 2 GB free hard disk space for libraries, depending on selected options.

APIs	Supported Integrated Development Environments and Programming Languages:
	<ul><li>Microsoft Visual Studio 2008 SP1 (C++, C#, VB .NET, C++/CLI)</li></ul>
	<ul><li>Microsoft Visual Studio 2010 (C++, C#, VB .NET, C++/CLI)</li></ul>
	<ul><li>Microsoft Visual Studio 2012 (C++, C#, VB .NET, C++/CLI)</li></ul>
	<ul><li>Microsoft Visual Studio 2013 (C++, C#, VB .NET, C++/CLI)</li></ul>
	<ul><li>Microsoft Visual Studio 2015 (C++, C#, VB .NET, C++/CLI)</li></ul>
	<ul><li>Microsoft Visual Studio 2017 (C++, C#, VB .NET, C++/CLI)</li></ul>
	<ul><li>Microsoft Visual Studio 2019 (C++, C#, VB .NET, C++/CLI)</li></ul>
	<ul><li>QtCreator 4.15 with Qt 5.12</li></ul>
	<ul> <li>Since Open eVision 2.5.1, discontinued support of:</li> </ul>
	<ul><li>Borland C++ Builder 6.0 update 4 (C++)</li></ul>
	<ul><li>CodeGear Delphi 2009 (Object Pascal)</li></ul>
	<ul><li>CodeGear C++ Builder 2009 (C++)</li></ul>
	<ul><li>Microsoft Visual Studio 6.0 SP6 (C++, Basic)</li></ul>
	- ActiveX API

# Ordering Information

Product code - Description	• 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	
	• 4277 - Open Full Bundle for soft-based licensing	
	• 4327 - Open eVision Full Bundle	
Optional accessories	• 6512 - eVision/Open eVision USB Dongle (empty)	
	• 6513 - eVision/Open eVision Parallel Dongle (empty)	
	• 6514 - Neo USB Dongle (empty)	

• Since Open eVision 2.4.1, discontinued support of:

- Embarcadero RAD Studio XE4 and XE5 (C++, Object Pascal, 32 bits only)



### **EMEA**

### **Euresys SA**

Liège Science Park - Rue du Bois Saint-Jean, 20

4102 Seraing - Belgium

Phone: +32 4 367 72 88

Email: sales.europe@euresys.com

### **EMEA**

### **Sensor to Image GmbH**

Lechtorstrasse 20 -

86956 Schongau - Germany

Phone: +49 8861 2369 0

Email: sales.europe@euresys.com

### **AMERICA**

### **Euresys Inc.**

27132-A Paseo Espada - Suite 421

San Juan Capistrano, CA 92675 - United States

Phone: +1 949 743 0612

Email: sales.americas@euresys.com

### **ASIA**

### **Euresys Pte. Ltd.**

750A Chai Chee Road - #07-15 ESR BizPark @ Chai Chee

Singapore 469001 - Singapore

Phone: +65 6445 4800

Email: sales.asia@euresys.com

### **CHINA**

### **Euresys Shanghai Liaison Office**

Unit 802, Tower B, Greenland The Center - No.500 Yunjin Road, Xuhui District

200232 Shanghai - China

Euresys上海联络处

上海市徐汇区云锦路500号绿地汇中心B座802室

### 200232

Phone: +86 21 33686220

Email: sales.china@euresys.com

# **CHINA**

### **Euresys Shenzhen Liaison Office**

Room 1202 - Chinese Overseas Scholars Venture Building

518057 Shenzen - China

Euresys深圳联络处

深圳南山区留学生创业大厦1期1202

### 518057

Phone: +86 755 86506902

Email: sales.china@euresys.com

### **JAPAN**

### **Euresys Japan K.K.**

Expert Office Shinyokohama - Nisso Dai 18 Building, Shinyokohama 3-7-18, Kohoku Yokohama 222-0033 - Japan

〒222-0033

神奈川県横浜市港北区新横浜3-7-18 日総第18ビル エキスパートオフィス新横浜

Phone: +81 45 594 7259

Email: sales.japan@euresys.com

More at www.euresys.com

