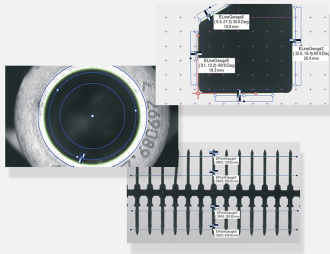




# EasyGauge

Sub-pixel measurement & dimension control library

## At a Glance



- Sub-pixel point location and edge fitting
- Highly accurate and robust
- Advanced and automatic calibration
- Multiple gauge models
- Measurement of position, orientation, size, curvature, distance
- Interaction through graphical interface

## 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.

### 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.

### 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

### **Advanced and Automatic Calibration**

EasyGauge features advanced built-in calibration capabilities to transparently convert pixel measurements to physical units; this relieves the user of the need to convert coordinates. Non-square pixels and rotated coordinate axis are supported. EasyGauge also provides means to determine and correct perspective and optical distortion, with no performance loss.

### **Gauge Grouping**

EasyGauge supports grouping of the measurement gauges and lets these groups track the measured items in the image. These can freely translate and/or rotate while the probes are repositioned accordingly. Derived measurements such as distances between feature points can then be computed.

### **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

## **Applications**

### **Machine Vision for the Electronic Manufacturing Industry**

- Lead inspection
- LED inspection

### **Machine Vision for the General Manufacturing Industries**

- Checking dimensional accuracy
- Assembly inspection

# Specifications

## Software

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|                          |   |
|--------------------------|---|
| Host PC Operating System | <ul style="list-style-type: none"><li>• 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.</li><li>• Open eVision can be used on the following operating systems:<ul style="list-style-type: none"><li>– Microsoft Windows 11, 10, 8.1, 7 for x86-64 (64-bit) processor architecture</li><li>– Linux for x86-64 (64-bit) and ARMv8-A (64-bit) processor architectures with a glibc version greater or equal to 2.18</li></ul></li><li>• Remote connections<ul style="list-style-type: none"><li>– Remote connections are allowed using remote desktop, TeamViewer or any other similar software.</li></ul></li><li>• Virtual machines<ul style="list-style-type: none"><li>– Virtual machines are supported. Microsoft Hyper-V, Oracle VirtualBox and libvirt hypervisors have been successfully tested.</li><li>– Only the Neo Licensing System is compatible with virtualization.</li></ul></li><li>• Minimum requirements:<ul style="list-style-type: none"><li>– 2 GB RAM to run an Open eVision application</li><li>– 8 GB RAM to compile an Open eVision application</li><li>– Between 100 MB and 2 GB free hard disk space for libraries, depending on selected options.</li></ul></li></ul> |
| APIs                     | <ul style="list-style-type: none"><li>• Supported Integrated Development Environments and Programming Languages:<ul style="list-style-type: none"><li>– Microsoft Visual Studio 2017 (C++, C#, VB .NET, C++/CLI)</li><li>– Microsoft Visual Studio 2019 (C++, C#, VB .NET, C++/CLI)</li><li>– Microsoft Visual Studio 2022 (C++, C#, VB .NET, C++/CLI)</li><li>– QtCreator 4.15 with Qt 5.12</li></ul></li></ul>  |

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## Ordering Information

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|----------------------------|--|
| Product code - Description | <ul style="list-style-type: none"><li>• 4009 - EasyGauge for USB dongle</li><li>• 4059 - EasyGauge for PAR dongle</li><li>• 4109 - EasyGauge for board licensing</li><li>• 4159 - Open EasyGauge for USB dongle</li><li>• 4209 - Open EasyGauge for PAR dongle</li><li>• 4309 - Open eVision EasyGauge</li></ul> |
| Optional accessories       | <ul style="list-style-type: none"><li>• 6512 - eVision/Open eVision USB Dongle (empty)</li><li>• 6513 - eVision/Open eVision Parallel Dongle (empty)</li><li>• 6514 - Neo USB Dongle (empty)</li></ul>   |

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