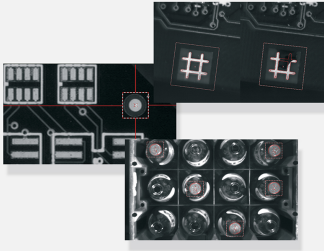


EasyFind

Geometric Pattern Matching Library



At a Glance

- Pattern matching using a feature point technology
- Fully automatic, fast and robust
- Invariant to rotation and scaling
- High tolerance to pattern degradation
- Support of "don't care" areas

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 functions. A scripting function 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 can be downloaded to evaluate the performance of Open eVision.

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.

Sub-pixel accuracy

With an adjustable accuracy up to sub-pixel level, EasyFind reports very precise information about the instances found, such as their location, rotation angle, scale and matching score.

"Don't-care" areas

EasyFind supports "don't-care" areas. This feature allows the creation of complex pattern shapes.

Fast Processing and Improved Robustness

EasyFind is based on a novel feature-point technology. Instead of comparing the reference model to the sample image pixel-wise, it carefully selects salient features in the model. This method allows EasyFind to match only the areas that convey valuable information, resulting in faster processing and much improved robustness.

Choose the most suitable Licensing System

- Open eVision Dongle-based Licenses: Dongle-based Licenses offer the flexibility to be transferred from a PC to another. To purchase a Dongle-based License, select one of the Euresys dongles (USB or Parallel) plus the license(s) to be stored on this dongle. Licenses are delivered as activation codes, which are stored on the dongles.
- Open eVision Software-based Licenses: Software-based licenses do not require any dongle, they are linked to the PC on which they have been activated. Licenses are delivered as activation codes and can be managed online.

Applications

MACHINE VISION FOR THE ELECTRONIC MANUFACTURING INDUSTRY

Alignment

EasyFind and EasyMatch are able to quickly and reliably locate PCB and other fiducial marks in the image.

Pick and place

EasyFind and EasyMatch are able to quickly and reliably locate fiducial components in the image.

Wire bonding and Die bonding

EasyFind and EasyMatch are able to quickly and reliably locate fiducial marks in the image.

LED inspection

MACHINE VISION FOR THE GENERAL MANUFACTURING INDUSTRIES

Presence / Absence check

EasyImage gray-scale analysis functions are used for simple presence/absence checks

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 SSE2 instruction set. • Open eVision can be used on the following operating systems: – Windows 10, 8 and 7 (32- and 64-bits) – Windows Vista 32-bits Service Pack 1 – Windows XP 32-bits Service Pack 3 – Windows Server 2008 32-bits – Windows Server 2008 R2 64-bits – Windows Server 2003 32-bit Service Pack 1 – Windows Embedded Standard 2009 32-bits • The Open eVision installer does not allow installation on virtual machines. • Minimum requirements: – Display size: 800 x 600. 1280 x 1024 recommended. – Color depth: 16 bits. 32 bits recommended. – Between 20 MB and 300 MB free hard disk space for libraries, depending on selected options. – Between 60 MB and 400 MB free hard disk space for development tools, depending on selected options.
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APIs	Supported Integrated Development Environments and Programming Languages: • Microsoft Visual Studio 6.0 SP6 (C++, Basic) • Microsoft Visual Studio .NET 2003 SP1 (C++) • Microsoft Visual Studio 2005 SP1 (C++, C#, VB .NET, C++/CLI) • Microsoft Visual Studio 2008 SP1 (C++, C#, VB .NET, C++/CLI) • Microsoft Visual Studio 2010 (C++, C#, VB .NET, C++/CLI) • Microsoft Visual Studio 2012 (C++, C#, VB .NET, C++/CLI) • Microsoft Visual Studio 2013 (C++, C#, VB .NET, C++/CLI) • Borland C++ Builder 6.0 update 4 (C++) • CodeGear C++ Builder 2009 (C++) • CodeGear Delphi 2009 (Object Pascal) • Embarcadero RAD Studio XE4 (C++, Object Pascal) • Embarcadero RAD Studio XE5 (C++, Object Pascal)
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Ordering Information

Product code - Description	• 4008 - EasyFind for USB dongle • 4058 - EasyFind for PAR dongle • 4108 - EasyFind for board licensing • 4158 - Open EasyFind for USB dongle • 4208 - Open EasyFind for PAR dongle • 4258 - Open EasyFind for soft-based licensing
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