

measurement
 checking
 inspection
 controlling
 sorting
 positioning
 completeness detection
 presents check
 surface control
 part checking
 integrated tool presetting
 reader function
 3D vision
 robot vision
 marker control
 coplanarity
 BGA check
 contour check
 defects
 contamination
 OCR/OCV character recognition
 barcode
 datamatrix-code
 thread inspection
 fabric inspection
 paper inspection
 Plastic inspection
 Metal inspection
 dash board inspection
 Display inspection LCD, LED, OLED
 pattern matching
 pharmacode
 blister control
 robot guidance
 3D recognition
 drill measurements
 and many more



EYE-SPECTOR

The smart all-in-one package for industrial machine vision

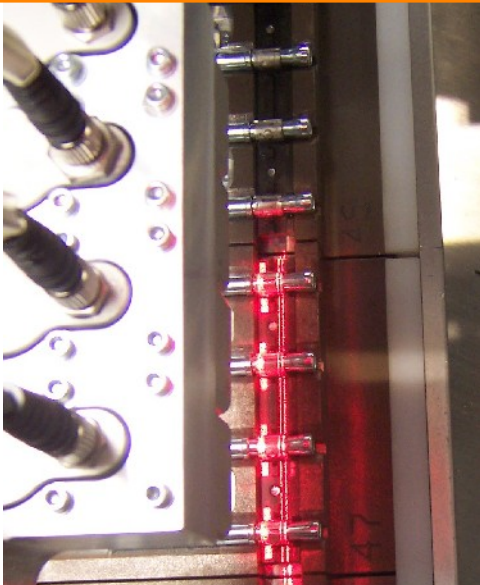


EVT





EyeSpector – for automation and quality control in industrial applications



Single manual or visual controlling steps are required to achieve a result, anywhere, where you have to measure, identify, control, locate or place something.

A high expenditure of time, as well as high manpower requirements are part of this process.

All industrial tasks can be solved quickly, efficiently and cost-effectively with the help of the all-in-one machine vision system EyeSpector.

EyeSpector stands for the „zero-error-production“, a reduction of processing time, an increase in quality and productivity and coming along with all this of course a higher customer satisfaction.





EyeSpector offers you:

- it can be used even for challenging tasks
- a quick installation
- universal application
- an easy application-specific adaption
- easy-to-use software
- modular expendable
- economic and efficient
- compact and insusceptible to shock
- integrated SPS for machine connection

The machine vision system with its integrated software

EyeSpector is more than just a smart camera. You get a complete machine vision package for all possible application areas in machine vision.

EyeSpector combines a powerful hardware working on the level of current PC technology with its already integrated machine vision software *EyeVision*.

Inspection procedures for all applications can be generated without programming skills, with its help, just with a minimum of training time.



Kamera

+



PC

+



Software

+



Grabber

+



Digital I/O

+



Lens

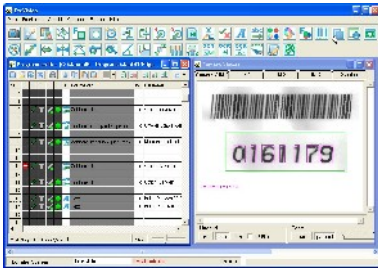
+



Light



Software



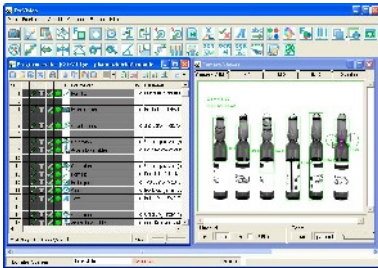
EyeVision means programming via graphical user interface – simple and easy

- Easy handling and programming, intuitively per drag-and-drop
- universal software for all machine vision tasks
- expendable without any problem
- easily portable
- quick solutions
- individually configurable
- broad range of given solutions for various applications

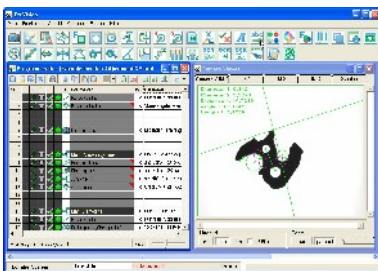
The easy programming per drag-and-drop is exemplary for the extremely customer and user friendly handling of the **EyeVision** Software. It is possible to solve challenging machine vision tasks autonomously without any previous knowledge, just after a short training (if needed).

The **EyeVision** user interface was created in order to be easily operated and to be functional.

Of course we provide our support at any time.



Pre-configured check programs and a broad branch of application specific instruction sets for varied applications are what make EyeSpector a highly functional machine vision system.



Branch

Task

Semiconductor	marker control, coplanarity, BGA test, THT solder test
Rotating parts	measuring, testing, sorting
Stamping parts	measuring, checking, completeness, contour
Glue inspection	sealing bead control (contour, thickness, position)
Screw inspection	thread, screw head, dimensions
Endless material	fabric, plastic, metal
Dash board inspection	gas, electric and water flow meter
Display control	LCD,LED, OLED
Pharma	pharmacode reading, seal inspection, scratches
Robot vision	robot leading (e.g. Kuka, Fanuc, Stäubli, ABB...)

Instruction excerpt

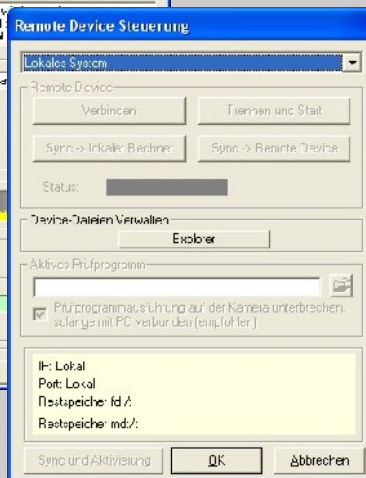
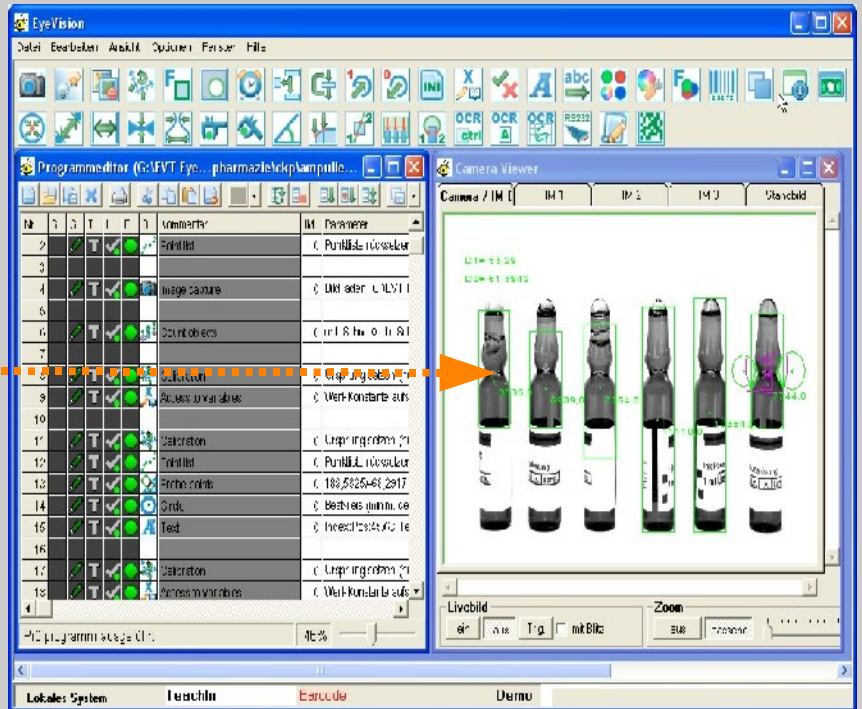
	Image Acquisition; Camera Control		Blob Analysis
	Digital I/O; RS232f; Ethernet		Correlation
	Program control		Measurements
	BASIC Interpreter		Coordinate System
	Data Matrix Code		Evaluation, Distance
	Barcode		Calliper
	OCR / OCV		Color inspection

In a few steps to your own Testprogram

Instruction Overview

Programmeditor

Camera Viewer



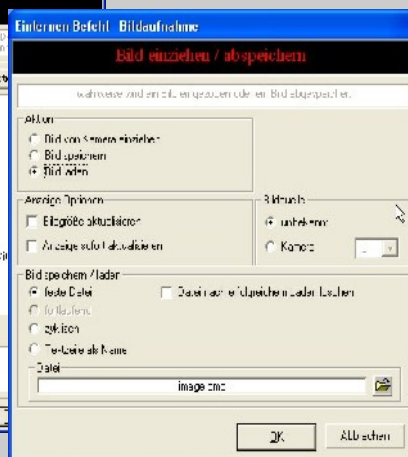
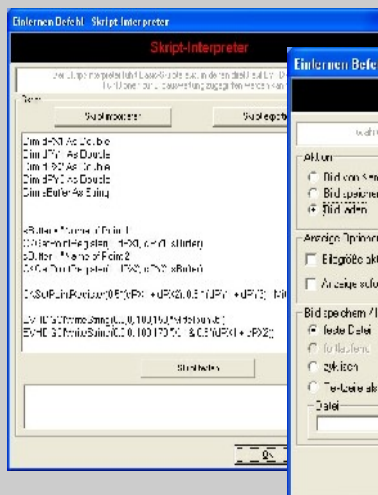
[1] About programming your task

Pull the commands from the menu into the program editor per drag-and-drop and in this way create your own test program – without any programming skills

[2] The required parameters can be set up after transferring the commands into the programmeditor – just per mouse click

[3] Once the test process is generated it will be transferred from the PC onto the camera per Sync command. Now the program runs on the camera without needing a PC

[Ready]



On the other hand you can transfer pictures or live pictures easily from the camera onto the PC, as well.

There, test programs may be optimized and tested at the same time

The Basic-interpreter turns EyeVision into a universal machine vision software.




Your own existing algorithms can be imported, as well as you, having the possibility to write new commands. In this way any functionality can be implemented.

Hardware

With a computing power of up to 8000 MIPS *EyeSpector* reaches the range of performance of current PC technology. The cameras cover a CCD resolution level of 640x480 up to 1600x1200 pixel, in grey scales as well as in colour and offer frame rates up to 250 fps. For Windows XP, Vista, Linux Interface RS-232, RS-485 (ES900/C/R)




Product overview

General Purpose

	Model	Sensor	Resolution	Frame Rate	Interface ¹	Video Out	CPU ²	Calc. Power	Dimension in mm ³
	ES900/c	1/4" CCD	VGA	32 fps	RS4/ETH	via ETH	TI 4	3200 Mips	65 x 45 x 45
	ES1000/c	1/3" CCD	VGA	32 fps	RS / ETH	via ETH	TI 4	3200 Mips	90 x 50 x 35
	ES1200	1/3" CCD	XGA	20 fps	RS / ETH	via ETH	TI 4	3200 Mips	90 x 50 x 35
	ES2000	1/3" CCD	VGA	63 fps	RS / ETH	SVGA	TI 4	3200 Mips	110 x 50 x 35
	ES2100	1/2" CCD	XGA	55 fps	RS / ETH	SVGA	TI 4	3200 Mips	110 x 50 x 35
	ES2200	1/3" CCD	SXGA	20 fps	RS / ETH	SXGA	TI 4	3200 Mips	110 x 50 x 35
	ES2300	1/3" CCD	SVGA	14 fps	RS / ETH	SVGA	TI 4	3200 Mips	110 x 50 x 35
	ES4000	1/3" CCD	VGA	63 fps	RS / ETH	SVGA	TI 1G	8000 Mips	110 x 50 x 35
	ES4100/c	1/2" CCD	SVGA	55 fps	RS / ETH	SXGA	TI 1G	8000 Mips	110 x 50 x 35
	ES4200	1/3" CCD	XGA	20 fps	RS / ETH	SXGA	TI 1G	8000 Mips	110 x 50 x 35
	ES4300	1/2" CCD	SXGA	14 fps	RS / ETH	SXGA	TI 1G	8000 Mips	110 x 50 x 35
	ES4400	1/2" CCD	UXGA	10 fps	RS / ETH	SXGA	TI 1G	8000 Mips	110 x 50 x 35
	ES4800	1/3" CCD	VGA	250 fps	RS / ETH	SVGA	TI 1G	8000 Mips	110 x 50 x 35
	ES1200L	1" CMOS	2048x1	11 kHz	RS / ETH	via ETH	TI 4	3200 Mips	90 x 50 x 35

(1) RS4= RS485; RS=RS232; ETH=100 MBit (2) TI4 = 400 MHz TI1G=1GHz (3) length x width x height

Reader

	Model	Sensor	Resolution	Frame Rate	Interface ¹	Video Out	CPU ²	Calc. Power	Dimension in mm ³
	ES900R	1/4" CCD	VGA	32 fps	RS4/ETH	via ETH	TI 4	3200 Mips	65 x 45 x 45
	ES1000R	1/3" CCD	VGA	32 fps	RS / ETH	via ETH	TI 4	3200 Mips	90 x 50 x 35
	ES1200R	1/3" CCD	XGA	20 fps	RS / ETH	via ETH	TI 4	3200 Mips	90 x 50 x 35
	ES2000R	1/3" CCD	VGA	63 fps	RS / ETH	SVGA	TI 4	3200 Mips	110 x 50 x 35
	ES4100R	1/2" CCD	SVGA	55 fps	RS / ETH	SXGA	TI 1G	8000 Mips	110 x 50 x 35

Workshops and Support

We offer free starter seminars in Karlsruhe and at our distributors location. Complementary we have a full training program at the EVT TQ and at our distributors location.

Find the registration form on our homepage. Furthermore we offer trainings at your place, for a small surcharge. Or do not hesitate to call us, if you have any questions or in case of wanting to register for one of our trainings or to get a complete seminar program.

For our *EyeSpector* cameras we provide full product support.

This does not only include the choice of components like cameras, optics, lighting and other accessories, perfectly matching with your application, it also means accompanying you with the help of our partners when implementing your vision task. Starting with the creation of your requirement profile and a feasibility study, as well as implementation and programming to the point of the implementing of your system.



EVT



EVT Eye Vision Technology GmbH

Haid-und-Neu-Str. 7
76131 Karlsruhe
Germany

Fon: +49 721 626 905 82
FAX: +49 721 626 905 96

info@evt-web.com
www.eyespector.com
www.evt-web.com