

Eye Vision



Technology



EyeVision Software

The ultimate machine vision solution

Platform freedom

Unmatched performance

AI – driven intelligence



End-to-end machine vision expertise - simple, adaptable, and ready for any application!



- Comprehensive Imaging**
1D, 2D, 3D, Thermal, SWIR & Hyperspectral technologies
- AI & Robotics**
Deep learning, automation & robot vision solutions
- Simple & Adaptable**
Drag & drop programming, cross-platform & hardware flexible

25+
YEARS OF EXPERIENCE

58.237+
SOLD LICENSES

Agenda

- [Platform Independence: Any OS, any architecture](#)
 - [Supported hardware](#)
 - [Embedded & Smart camera support](#)
 - [Multi-camera connectivity](#)
 - [EyeVision Software – universal machine vision platform](#)
 - [1D & 2D vision application](#)
 - [3D vision application](#)
 - [Multi-instance processing power](#)
 - [High-speed performance](#)
 - [Powerful command library](#)
 - [Built-in AI Suite](#)
 - [AI & Deep learning integration](#)
 - [Broad AI Acceleration Support](#)
- [From product test to AI solution](#)
 - [Handwriting on Workpiece](#)
 - [Anomaly detection on surface](#)
 - [Object segmentation](#)
 - [Object segmentation and recognition](#)
 - [Numberplate finder and reader](#)
 - [Defects on metal surface](#)
 - [Coil recognition](#)
 - [Extensive SDK integration](#)
 - [Flexible deployment options](#)
 - [Unified User Experience](#)
 - [Seamless Robot integration](#)
 - [Advanced user management](#)
 - [Compleat OEM Customization](#)
 - [Integrated GUI Builder](#)
 - [Comprehensive Communication Protocols](#)
 - [Remote Operation Capabilities](#)
 - [Why choose EyeVision?](#)
 - [Software download](#)
 - [EyeCademy](#)
 - [Contact us](#)

Platform Independence: Any OS, any architecture

EyeVision offers flexibility by supporting a broad spectrum of operating systems and CPU architectures, freeing customers from hardware constraints and ensuring future-proof investments.

x86 (Intel, AMD)



Standard architecture for PCs and servers

ARM (32/64Bit)

LINUX

Android (Optional)

Popular for embedded systems and mobile devices

MIPS

LINUX

Used in specialized networking equipment

Key Benefits

Investment Protection

 Choose hardware based on project requirements rather than software limitations

Future-Proof

 Compatible with upcoming hardware technologies and standards

Hardware Freedom

 Not locked into specific hardware, allowing cost-effective solutions

Platform Flexibility

 Run consistent vision code across different hardware platforms

Supported hardware



Embedded & Smart camera support

EyeVision seamlessly integrates with a diverse range of hardware platforms, from compact embedded systems to advanced smart cameras, enabling powerful vision solutions across various scales and environments.

Embedded systems support

- ✓ Raspberry PI, Banana PI, ODROID,...
- ✓ Other ARM/MIPS-based systems
- ✓ PC-based embedded (ODROID, NUC)



Raspberry PI with I/O Module

Smart camera support

- ✓ Standard smart cameras (SensoPart, Baumer)
- ✓ Ready for upcoming AI Smart Cameras
- ✓ Internal AVT models (coming soon)



EyeCheck – smart camera solution

Key Benefits

-  **Universal Platform**
Same EyeVision software works from low-power devices to high-end PCs
-  **Performance Optimization**
Hardware-specific optimizations for optimal processing

-  **Simplified Development**
Consistent API and tools across all supported hardware
-  **Hardware Independence**
Focus on application development, not hardware constraints

Multi-camera connectivity

EyeVision offers robust multi-camera support, allowing integration of as many cameras as your system's bus infrastructure can accommodate. This flexibility is essential for building comprehensive, multi-view inspection systems that require data from various angles or different camera types simultaneously.



Common and versatile for many applications



High-speed Ethernet for industrial environments



High-performance for high-speed, high-resolution cameras



Standard for high-speed digital cameras

Key Benefits

- Comprehensive Coverage**
Supports virtually any industrial camera setup
- Synchronized Processing**
Coordinated capture for multi-view inspection

- High-Speed Acquisition**
Captures data from multiple cameras simultaneously and fast
- System Integration**
Easily integrates with existing infrastructure

EyeVision Software – universal machine vision platform

Enables zero-error production – with high speed inspection, improving quality control.

Easy to install, customize, and extend with drag-and-drop features. – No programming only drag and drop to inspection solution.



1D / Line scan cameras

Endless material – woven and non woven
Precise Error detection



2D Grey & Color Cameras

Key match, correlation, OCR, histogram
analysis, color filter, edge detection



3D Sensors

3D contour check, 3D key point match,
3D measurement, 3D bin picking



Thermal Cameras

Thermo sequence capture, thermo measure,
Impulse and Lockin, thermal reading



SWIR / Hyperspectral

Hyperspectral analysis, moisture
detection, spectral reading



Deep Learning

Object detection, image segmentation,
classification, anomaly detection



Robot Vision

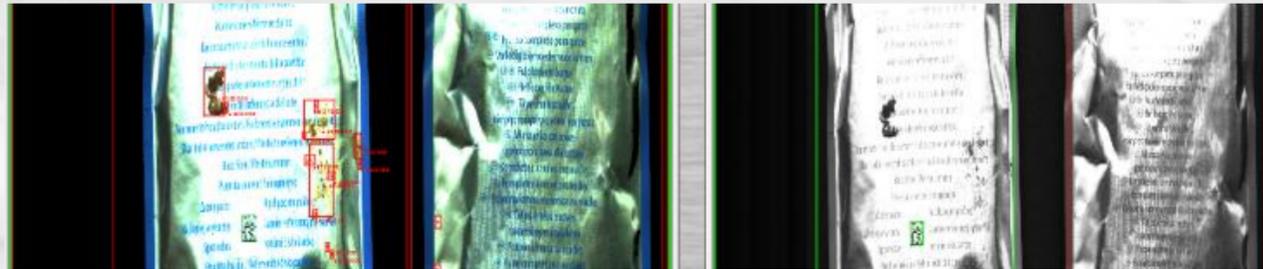
Hand-eye calibration, robot communication,
Absolut calibration

One platform, unlimited applications

EyeVision integrates all these
technologies in one unified solution

1D & 2D Vision Application

1D Vision Technology



Surface inspection

Detecting defects and blemishes on surfaces

Line segmentation Edge detection

Dimension Measurement

Precise measurement of object dimensions

Measure gap width Caliper

Pattern Matching

Identifying specific patterns and features

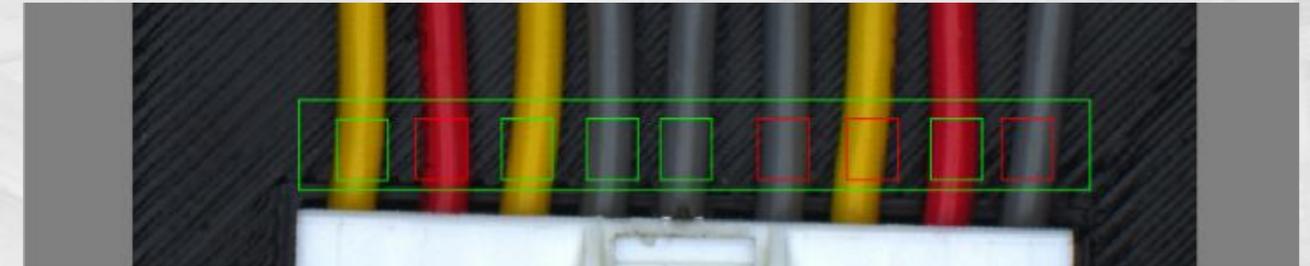
Key match Correlation

Code reading

OCR/DMC code interpretation

OCR Count objects

2D Vision Technology



Surface inspection

Comprehensive 2D surface defect detection

Edge detection Histogram analysis

Dimension measurement

Mult-dimensional object sizing

Distance measurement Key match

Pattern matching

Complex pattern recognition

Correlation Key match

Object detection

Identification and classification

Object detection Color filter

Color detection

Color based object detection

Color filter Histogram analysis

Code reading

QR codes, barcodes and characters

QR Code Barcode

3D Vision Solutions

EyeVision 3D applications

Surface topology

3D contour check for surface defects

Defect detection

Identifies defects in 3D models

3D Measurements

Height, depth and volume analysis

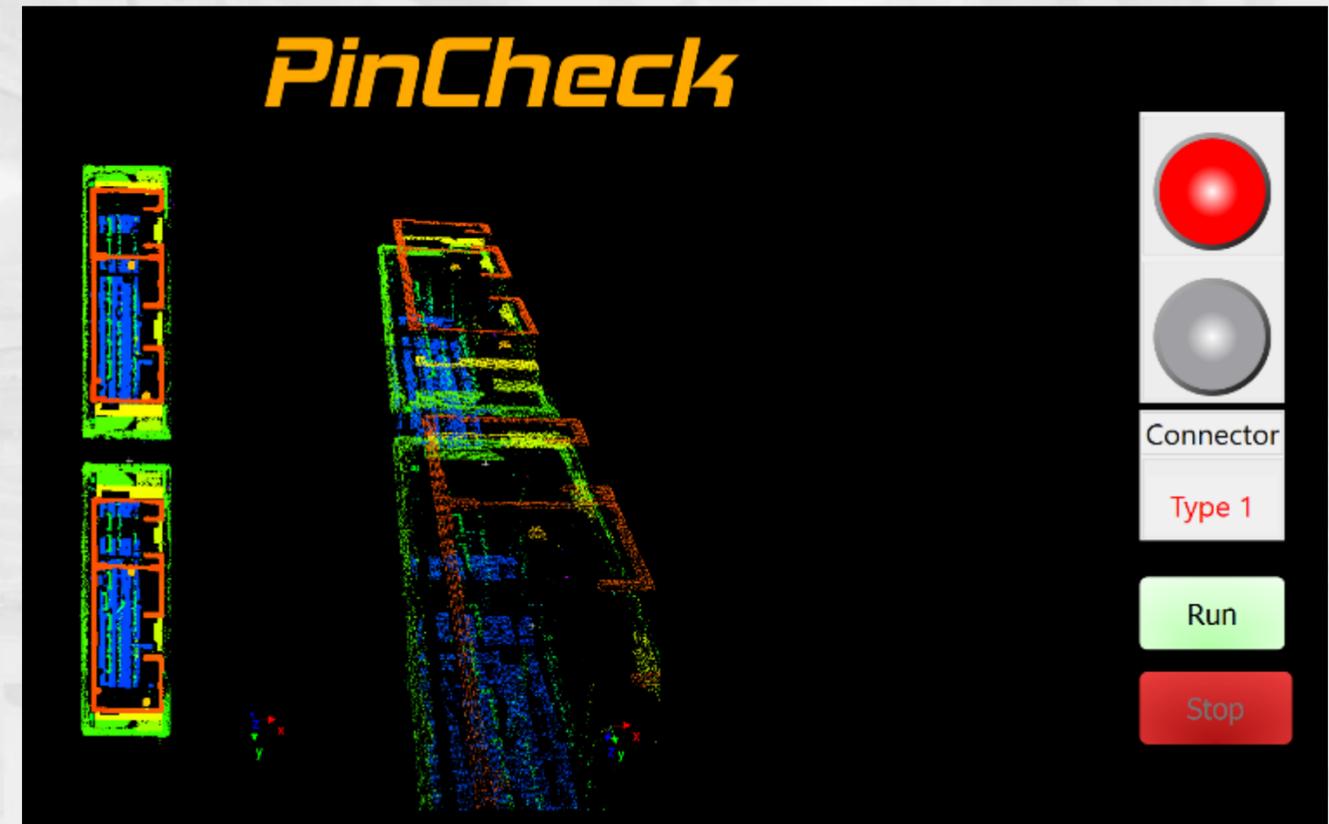
Object recognition

3D Key Point Match for identification

Other application examples

- 3D Bin Picking for robot guidance
- 3D geometry for complex shapes
- Weld, seam, glue, seal, gap inspection

PinCheck – 3D pin inspection solution



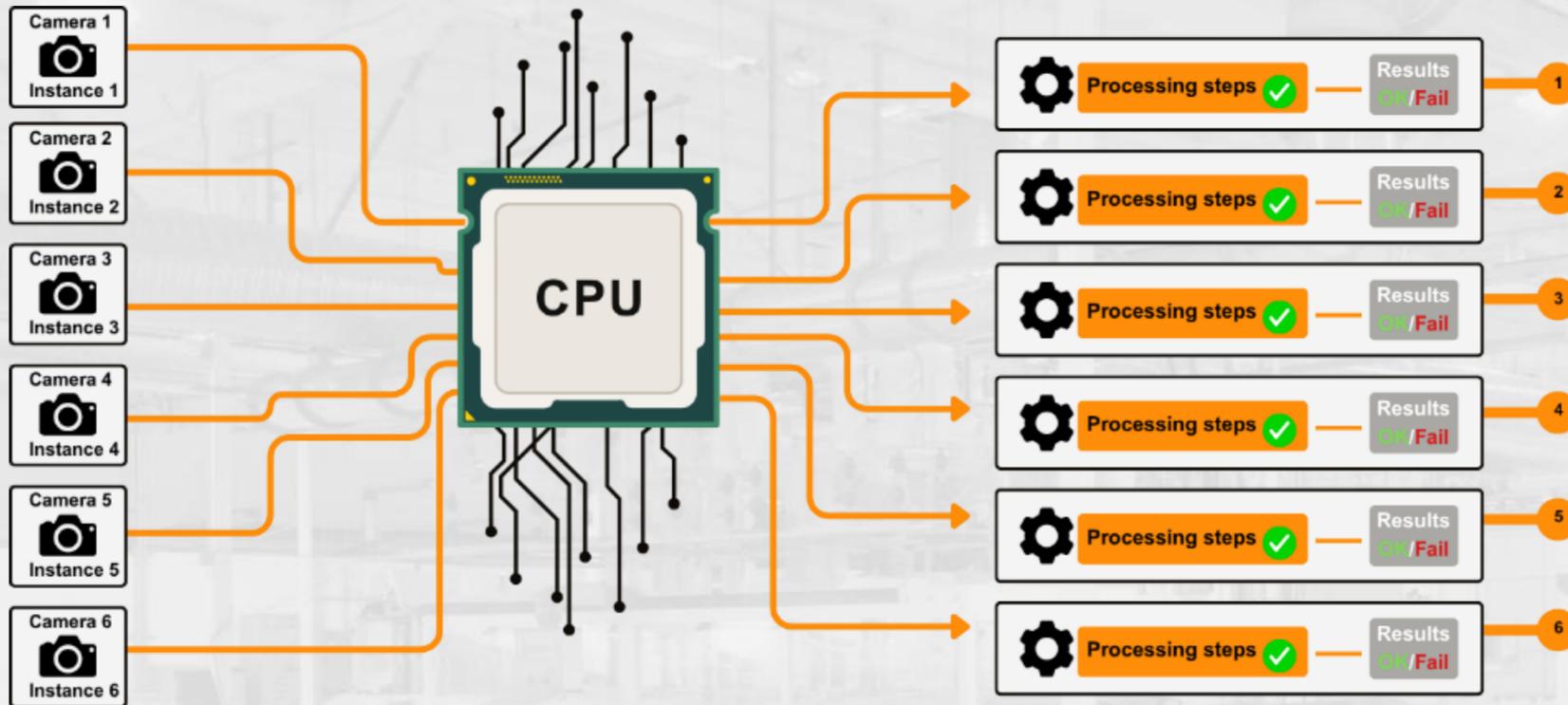
Key benefits

- Combines 3D data with 2D/1D inspection for complete quality control
- Enables accurate measurements without complex calibration
- Integrates seamlessly with PLC and HMI systems
- Cost-effective solution compared to specialized 3D vision systems

Multi-instance processing power

EyeVision provides advanced multi-instance support to maximize processing efficiency and throughput for demanding vision applications.

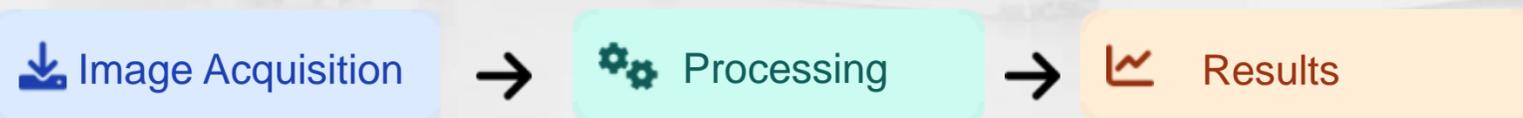
Per-Instance Parallel Processing



Key Applications

- High-Speed Production:** Multiple products inspected simultaneously
- Continuous Operation:** Overlapping processing stages for maximum throughput
- Complex Inspection:** Dividing tasks for better resource utilization
- System Integration:** Seamless integration with existing automation systems

Pipelined Instances



Dividing complex tasks across instances creates a processing pipeline.

One instance acquires images, another processes them, and a final instance consolidates results.

High-speed performance

EyeVision is engineered for demanding, high-speed applications with specialized debugging support for environments processing 40+ parts per second.

⚡ Real-time Processing

EyeVision provides high-speed debugging support for fast-paced industrial environments, allowing engineers to identify and resolve issues in real-time.

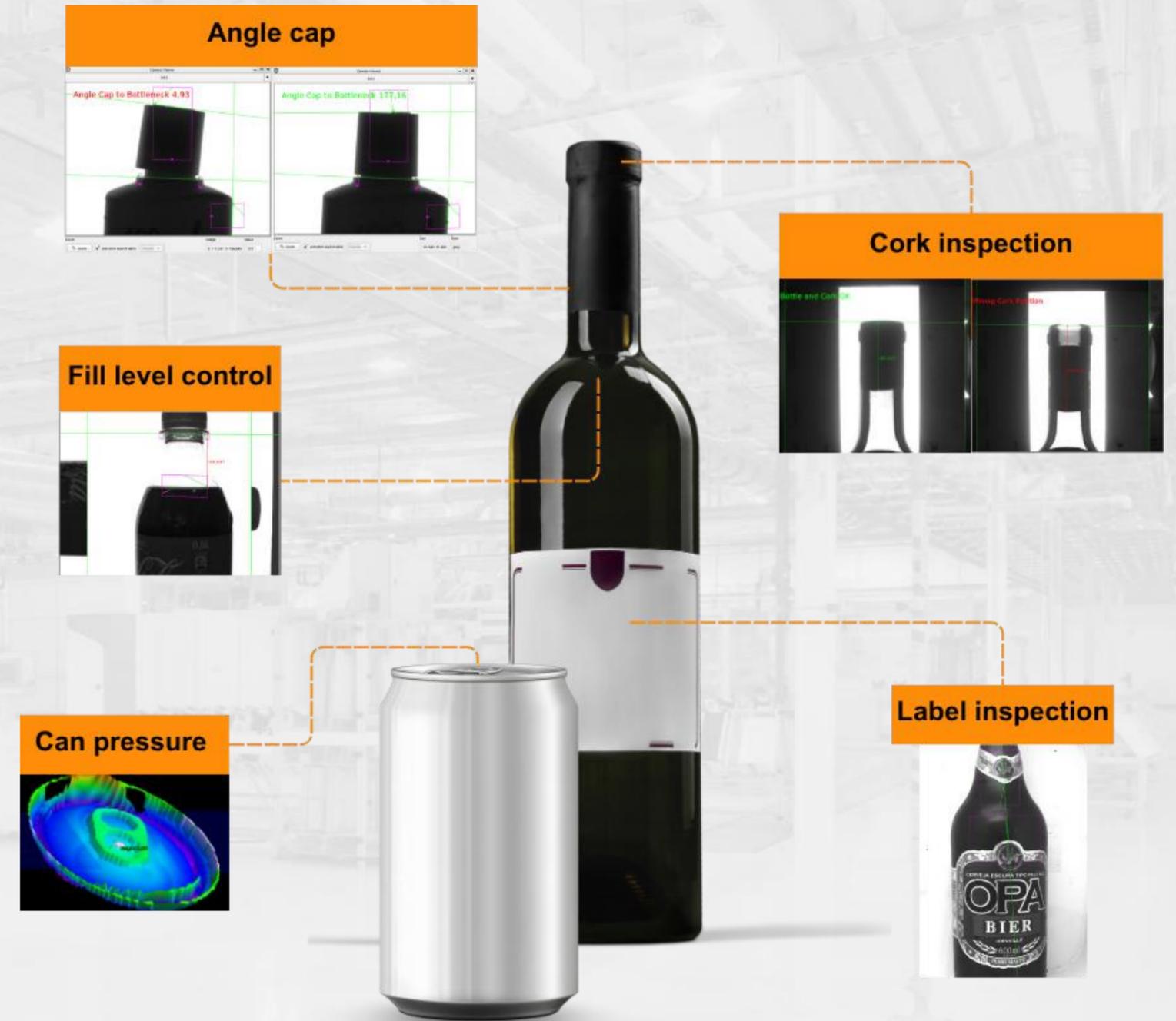
📈 Performance Impact

Detailed insights into processing steps at high speeds help maintain peak performance and efficiency, directly impacting productivity and profitability.

Key Benefits

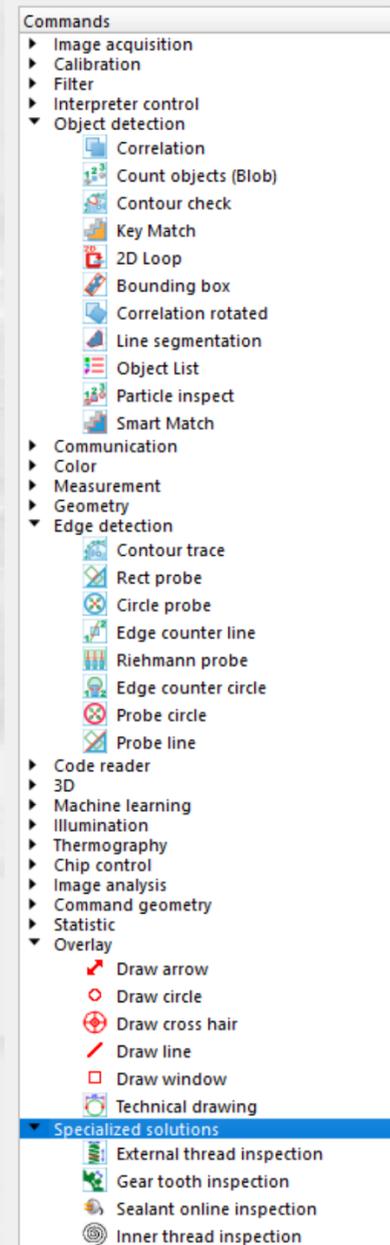
- ✓ **Minimized Downtime**
Quick issue resolution
- 🔍 **Detailed Insights**
Processing step analysis

- 🕒 **Continuous Operation**
Real-time monitoring
- 🎯 **Precise Diagnostics**
High-speed troubleshooting



Powerful command library

EyeVision boasts a powerful library of over 380 functions, providing diverse tools for machine vision applications with a flexible "pay-what-you-need" pricing model.



Pay-What-You-Need Pricing

License functions at a granular level based on your specific project requirements.

- ✓ Pay only for what you use, avoiding unnecessary expenses

Key Benefits

 **Cost-Effective**
Pay only for required functions

 **Modular Flexibility**
Scale solutions as needs evolve

 **Comprehensive Tools**
Over 380 functions available

 **Future-Ready**
Add new functions as needed

Built-in AI Suite

EyeVision integrates a comprehensive AI toolset, enabling deep learning implementation without separate platforms or specialized expertise.



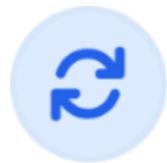
Integrated Annotation Tools

Efficient labeling of data to prepare for AI model training, streamlining the data preparation process.



Integrated Training

Train custom AI models directly within the EyeVision environment, eliminating the need for specialized platforms.



Integrated Transfer Learning

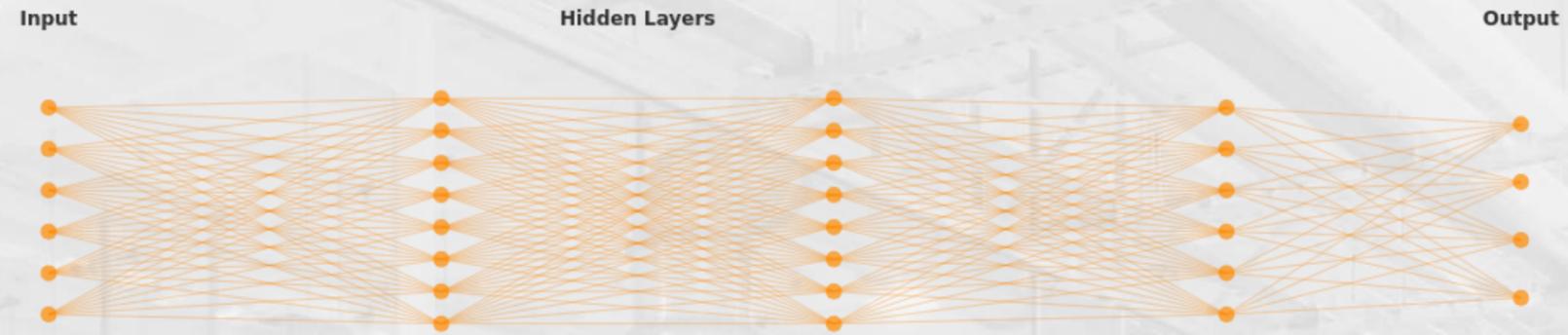
Adapt pre-trained models to specific requirements, reducing development time and data needs.



Ready-to-Use Networks

Pre-trained models that can be deployed immediately or fine-tuned for specific tasks.

AI & Deep learning integration

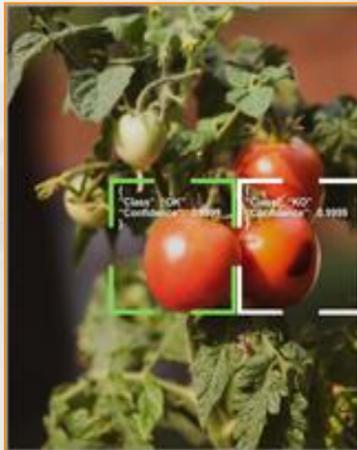


EyeVision's deep learning architecture enables AI-based inspection and classification



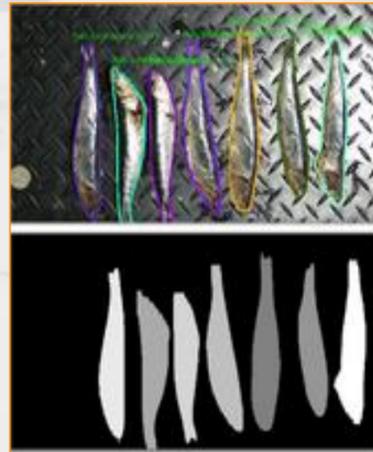
Automated defect detection

AI-powered detection of defects in products that traditional methods miss.



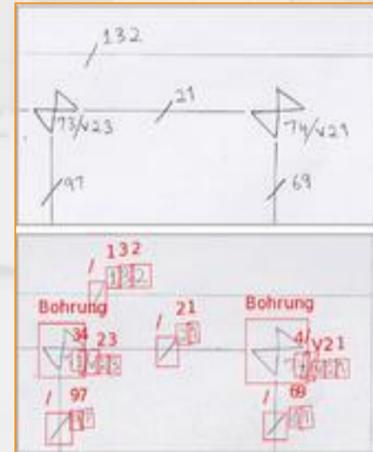
Object classification

Classifies and sorts objects based on learned features with high accuracy.



Advanced OCR

Reads complex codes and text with superior accuracy even in poor lighting.



Anomaly detection

Identifies rare defects or variations that indicate quality issues.



Classification

What can we see in this image?



Screw



Object detection

What is in the image and where?

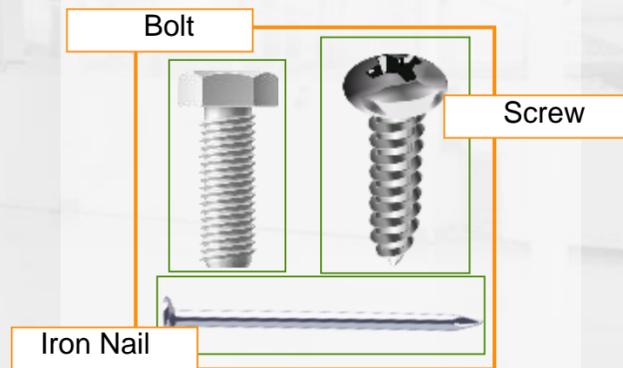
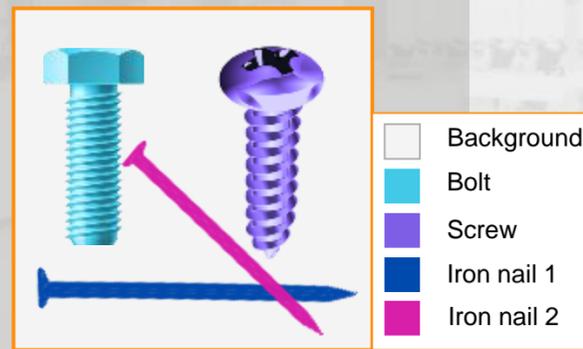
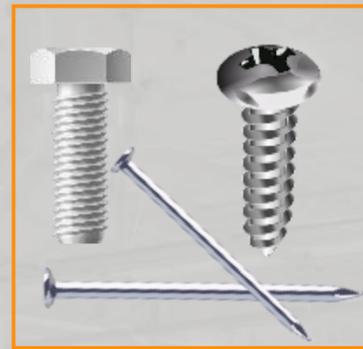


Image Segmentation

Which pixel belongs to which object?



Anomaly detection

How to find the error?



OCR

How to generate text?



Broad AI Acceleration Support

EyeVision supports a wide range of AI acceleration hardware, enabling real-time inference with maximum throughput and efficiency.



High-performance GPUs for demanding AI tasks.



AI acceleration for embedded and desktop systems like MI450-GPUs



Edge TPU for embedded and PC systems.



AI acceleration for embedded and PC systems. Also supports e.g. NXP

Key Benefits



Maximized Throughput

Dedicated processing power for real-time AI inference



Enhanced Efficiency

Optimized performance for complex AI models



Platform Flexibility

Support for diverse hardware across embedded and enterprise systems

Embedded System
Raspberry Pi with MIPI sensor



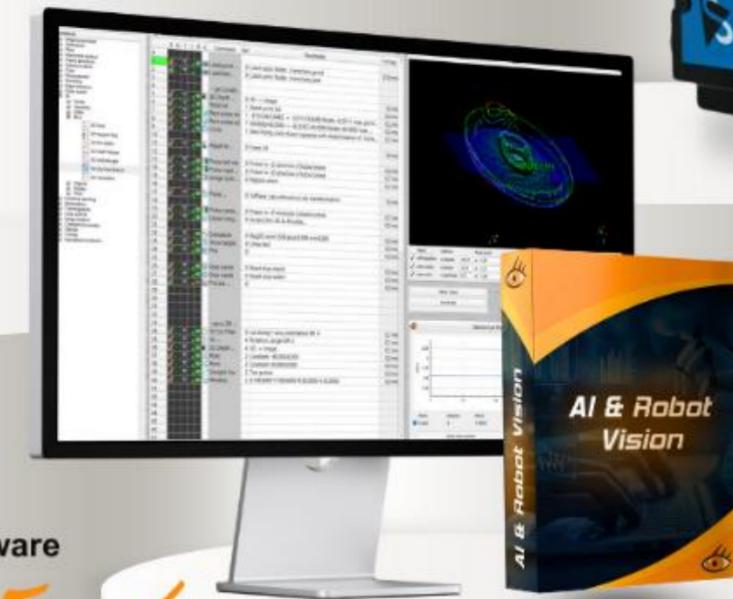
Standard camera
GigE or USB 3



HAILO or Coral
AI accelerator



EyeVision Software



From Product Test to the AI Solution

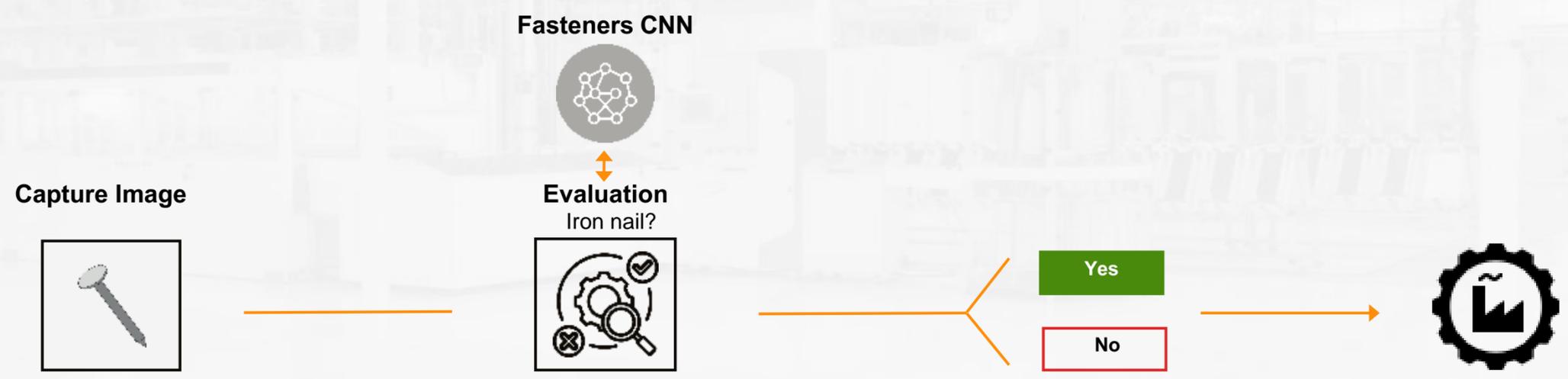
Unknown inspection task



Transfer Learning



Ready To Use



Handwriting on Workpiece

The image displays two windows from the EasyCNC OCR software. The left window is the 'Program Editor' for 'EasyCNC_OCR.kcp', showing a table of operations with columns for E, G, T, I, R, C, Comment, IM, Parameter, and Timing. The right window is the 'Camera Viewer 0' showing a technical drawing of a workpiece with handwritten green annotations. The drawing includes labels like 'Bohrung', 'V57', 'V21', and various alphanumeric codes (e.g., R 32, F 82, E 73, E 89, F 76, 95, 72, 19, 42, 21, 132, 34, 23, 97, 69, 19, 18, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23). A zoom control at the bottom of the camera viewer shows a zoom level of 24.05% and a size of W:3456 H:2499.

	E	G	T	I	R	C	Comment	IM	Parameter	Timing
0			T				Capture image	0	Load cyclic ...	82.7 ms
1			T				DL OCR	0	General OCR ...	481.4 ms
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										

Project link: https://download.evt-web.com/fileadmin/downloads/special_releases/DemoProgs/DL_EasyCNC_OCR.zip

Anomaly detection on surface



Project link: https://download.evt-web.com/fileadmin/downloads/special_releases/DemoProgs/DL_BottleCapAnomaly.zip

Object segmentation

The screenshot displays a software interface for object segmentation, divided into three main windows:

- Program Editor:** Shows a table with columns for E, G, T, I, R, C, Comment, IM, Parameter, and Timing. The first row is highlighted in green.
- Camera Viewer 0 (IM 0):** Displays a video frame of fish on a diamond-plate metal surface. Each fish is enclosed in a colored bounding box (purple, cyan, orange, green). Green text labels above the fish indicate their confidence scores, such as "fish, confidence: 0.977".
- Camera Viewer 1 (IM 1):** Shows the segmented output of the fish, where the fish are represented as white shapes on a black background.

Both Camera Viewer windows include a "Zoom" section with a "zoom" button, a "preserve aspect ratio" checkbox (checked), and a zoom percentage dropdown set to "33.44%". The "Size" section shows "W:1920 H:1080" and the "Type" section shows "color" for Camera Viewer 0 and "gray" for Camera Viewer 1.

Project link: https://download.evt-web.com/fileadmin/downloads/special_releases/DemoProgs/DL_FishSegmentation.zip

Object segmentation and recognition

The screenshot displays the ERT software interface, divided into three main windows:

- Program Editor:** Shows a table with columns for E, G, T, I, R, C, Comment, IM, Parameter, and Timing. The first two rows are highlighted in green. The first row has a green background and contains 'Capture image', '0 Load cyclic ...', and '7.8 ms'. The second row has a white background and contains 'Image ...', '0 Toy_boxes_up...', and '377.3 ms'. A zoom slider at the bottom indicates 'zoom: 21'.
- Camera Viewer 0 (IM 0):** Displays a camera feed of a toy box on a table. The box is segmented and labeled with confidence scores: 'Somat confidence: 0.995', 'Front confidence: 0.99', 'Front confidence: 0.995', and 'Smiles confidence: 0.997'. The window includes zoom and size controls (W:1280 H: 960, color).
- Camera Viewer 1 (IM 1):** Displays the segmented image from Camera Viewer 0, showing the toy box as a white shape on a black background. The window includes zoom and size controls (W:1280 H: 960, gray).

Project link: https://download.evt-web.com/fileadmin/downloads/special_releases/DemoProgs/DL_ToyBoxSegmentation.zip

Numberplate finder and reader

The screenshot displays a software interface for numberplate finding and reading. It consists of three main windows:

- Program Editor:** A window titled 'Application.ckp' showing a table of steps. The table has columns for 'E', 'G', 'T', 'I', 'R', 'C', 'Comment', 'IM', 'Parameter', and 'Timing'. The steps are as follows:

	E	G	T	I	R	C	Comment	IM	Parameter	Timing
0							Capture image	0	Load cyclic ...	21,0 ms
1										
2										
3							Object Detection	0	License Plate ...	429,2 ms
4										
5							Copy Region ...	0	IM[0] -> (1) ...	0,0 ms
6										
7							OCR	1	License Plate ...	9,2 ms
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										

- Camera Viewer (IM 0):** A window showing a camera feed of a white car. The license plate 'AA 022 VT' is highlighted with a green bounding box. The zoom level is 52,47%.
- Camera Viewer (IM 1):** A window showing a zoomed-in view of the license plate. The text 'AA 022 VT' is overlaid in green above the license plate. The zoom level is 548,7%.

Project link: https://download.evt-web.com/fileadmin/downloads/special_releases/DemoProgs/DL_LP_reader.zip

Defects on metal surface

The screenshot displays a software interface for defect detection. On the left is the **Program Editor** window, which contains a table with columns for step number, status (E, G, T, I, R, C), comment, image name (IM), parameter, and timing. The table shows two steps: 'Capture image' (1.7 ms) and 'Anomaly ...' (98.3 ms). To the right are four **Camera Viewer** windows, each showing a different stage of image processing:

- Camera Viewer 0 (IM 0):** Shows the original image with a green outline highlighting a defect.
- Camera Viewer 1 (IM 1):** Shows the zoomed image of the defect.
- Camera Viewer 2 (IM 2):** Shows the image after thresholding, with the defect area highlighted in blue.
- Camera Viewer 3 (IM 3):** Shows the image after thresholding, with the defect area highlighted in white.
- Camera Viewer 4 (IM 4):** Shows the binary mask of the defect, with the defect area highlighted in white.

The **EVT** logo is visible in the top right corner of the interface.

Project link: https://download.evt-web.com/fileadmin/downloads/special_releases/DemoProgs/OPTIMAI_EVT_Antenna_Defects.zip

Coil recognition

The screenshot displays two windows from a software application. The left window is the 'Program Editor' for a file named 'coilsprings.ckp'. It contains a table with columns for step number, status icons (E, G, T, I, R, C), a comment, an image ID (IM), a parameter name, and a timing value. The right window is the 'Camera Viewer' for 'IM 0', showing four grayscale images of coil springs. Each image has a green bounding box and associated JSON metadata.

	E	G	T	I	R	C	Comment	IM	Parameter	Timing
0							Global string	0	Reset string	0,0 ms
1										
2							Capture image	0	Load cyclic ...	14,1 ms
3										
4							DL Image ...	0	Coil springs	60,0 ms
5										
6							DL Image ...	0	Coil springs	60,1 ms
7										
8							DL Image ...	0	Coil springs	62,1 ms
9										
10							DL Image ...	0	Coil springs	72,6 ms
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										

The Camera Viewer shows four images of coil springs with the following JSON metadata:

- Top-left: `{ "Class": "5", "Confidence": 0.9995 }`
- Top-right: `{ "Class": "5", "Confidence": 0.9996 }`
- Bottom-left: `{ "Class": "3", "Confidence": 0.9999 }`
- Bottom-right: `{ "Class": "3", "Confidence": 0.9902 }`

At the bottom of the Camera Viewer, there are controls for zoom (59,75%), a 'preserve aspect ratio' checkbox, and size/type settings (W:1600 H:1200 color).

Project link: https://download.evt-web.com/fileadmin/downloads/special_releases/DemoProgs/DL_coilsprings_inspection.zip

Extensive SDK Integration

EyeVision offers comprehensive Software Development Kits (SDKs) for seamless integration with various systems, enabling robust communication and functionality extension.



Image Acquisition Control(VIC)

Enables easy integration with any capture hardware.

```
EV_VisionControl_Function()
```



PLC I/O

Enables integration of any I/O hardware

```
EV_PLC_WriteOutput()
```



NET I/O

Enables networking capabilities and remote system integration.

```
EV_NET_Connect()
```



Command Integration SDK

A unique feature that allows users to embed proprietary code directly into EyeVision's toolbox, enabling custom functions to appear as native commands with their own icons.



Modular Design

Add only the functionality you need



Toolbox Integration

Seamless workflow with custom tools



Custom Interface

Create tailored user experiences



IP Protection

Protect your proprietary algorithms by integrating your tools to the toolbox

Flexible Deployment Options

EyeVision offers versatile deployment options, enabling seamless integration into various operational environments while maintaining consistent functionality.



GUI & No-GUI Operation

- ✓ Runs with or without graphical interface // Headless
- ✓ Ideal for both user interaction and automated processes
- ✓ Integrated with OEM customer interfaces



Background Operation

- ✓ Runs in background mode without user interface
- ✓ Perfect for automated systems and batch processing
- ✓ Programmable via command line or scripts



Remote System Operation

- ✓ Runs as remote system on connected computers
- ✓ Compatible with various hardware platforms
- ✓ Enables centralized control and monitoring



Embedded & Standard Systems

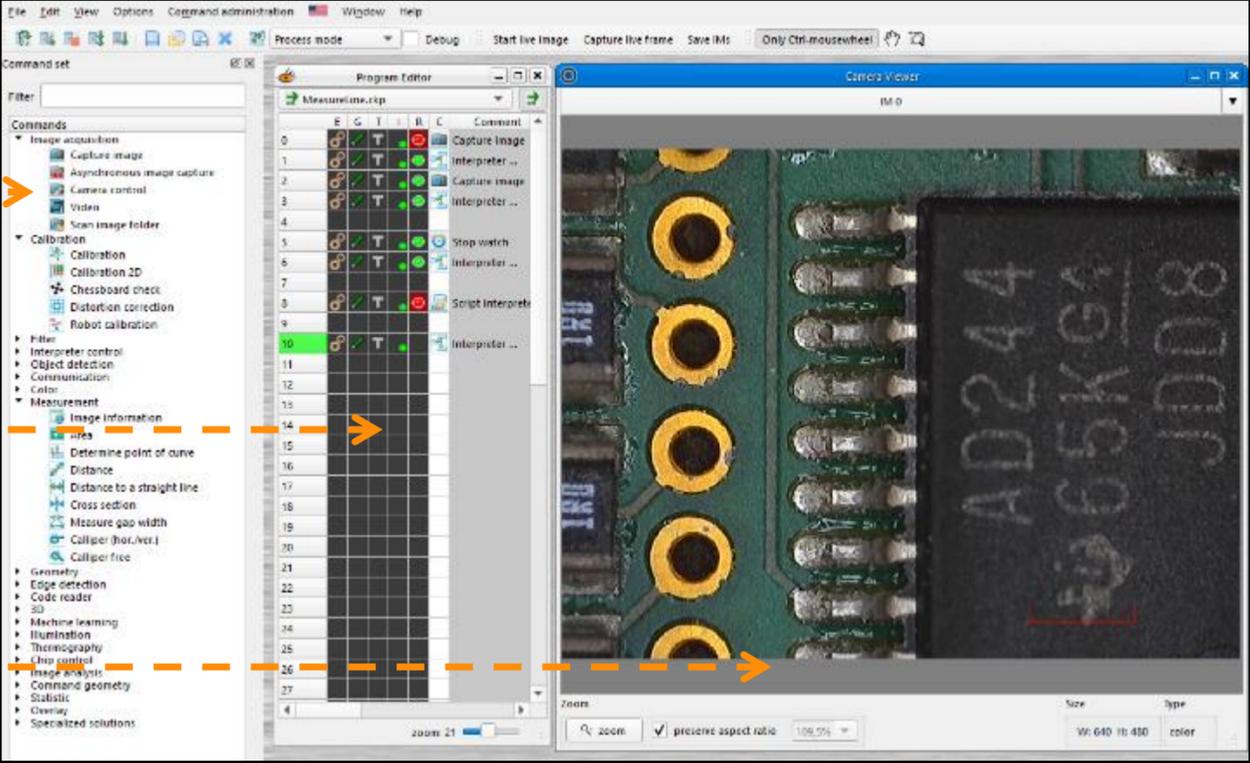
- ✓ Runs on Raspberry PI, Banana PI, ODRROID,
- ✓ Compatible with x86, ARM, and MIPS architectures
- ✓ Ideal for both compact and high-performance systems



EyeVision can be seamlessly integrated into existing systems, displaying images and controlling parameters directly from the OEM customer interface.

Unified User Experience

EyeVision



Toolbox

Program editor

Camera viewer

EyeVision Graphical User Interface

Consistent interface across platforms

Toolbox

Contains all available image processing and control commands categorized for easy access.

Program editor

Create test and debug inspection workflows using drag-drop programming without coding knowledge.

Camera/Image viewer

Real-time display of camera images, inspection results overlay, and data visualization.

Key benefits: Same interface on PCs, embedded systems, and smart cameras provides workflow and advanced training requirements.

Seamless robot integration

EyeVision enables robots to “see” and interact with their environment through advanced 2D/3D vision and seamless integration with robotic systems.

Core applications

- ✓ **Bin Picking:** Vision-guided grasping for unordered parts
- ✓ **Palletizing/Depalletizing:** Automated stacking with precise placement
- ✓ **Sorting:** Object classification and separation using vision
- ✓ **Path guidance:** Robotic welding and tracking with real-time feedback

Integration features

- ✓ **Easy Hand-Eye Calibration:** Streamlined camera-robot alignment for accurate pick-and-place and guidance tasks
- ✓ **Standard Robot Interfaces:** Compatibility with major robot communication protocols for broad interoperability
- ✓ **Automatic Axis Offset Correction:** absolute accuracy to any robot – eliminating even small robot error

Key Benefits

- ✓ Intuitive **hand-eye calibration** and **drag-and-drop** setup
- ✓ **Real-time adaptation** to changing environments
- ✓ 2D/3D vision support for diverse robot application
- ✓ **Enhanced precision, reduced setup time, and simplified integration process**



Advanced user management

EyeVision's Advanced Password Manager provides granular control over software access and functionality based on user roles, enhancing security and operational efficiency.



Operator (MA1)

Limited access focused on process operations



Technician (MA2)

Setup and maintenance procedures



Engineer (MA3)

Full configuration and modification privileges

The screenshot shows a 'User administration' window with a dropdown menu set to 'Admin'. Below the dropdown is a table with columns 'Feature' and 'Is available'. The table lists 18 features, all of which are checked in the 'Is available' column. At the bottom left, there are checkboxes for 'Set as default user' (checked) and 'Set password'. At the bottom right, there are 'Cancel' and 'Ok' buttons.

	Feature	Is available
1	Programeditor	<input checked="" type="checkbox"/>
2	CameraViewer	<input checked="" type="checkbox"/>
3	CommandSet	<input checked="" type="checkbox"/>
4	DataViewer	<input checked="" type="checkbox"/>
5	PickupListViewer	<input checked="" type="checkbox"/>
6	ImageTools	<input checked="" type="checkbox"/>
7	UserAdministration	<input checked="" type="checkbox"/>
8	StartOperation	<input checked="" type="checkbox"/>
9	StopOperation	<input checked="" type="checkbox"/>
10	QuitApplication	<input checked="" type="checkbox"/>
11	LayoutEditor	<input checked="" type="checkbox"/>
12	SaveProgram	<input checked="" type="checkbox"/>
13	OpenProgram	<input checked="" type="checkbox"/>
14	CloseProgram	<input checked="" type="checkbox"/>
15	SwitchToProcessLayout	<input checked="" type="checkbox"/>
16	SwitchToIntegrationLayout	<input checked="" type="checkbox"/>
17	SwitchToConfigurationLayout	<input checked="" type="checkbox"/>
18	StartApplication	<input checked="" type="checkbox"/>

Key Benefits

Enhanced Security
Safeguards system integrity and prevents unauthorized modifications

Access Control
Precise control over functionality based on user roles

Operational Efficiency
Streamlined workflows with role-specific access to necessary functions

Workflow Optimization
Operators interact only with necessary controls for specific tasks

Complete OEM Customization

EyeVision offers comprehensive OEM support for volume customers, transforming the software into a seamless extension of your product line.

Bespoke Setup

Configure initial settings, workflows, and parameters according to your specific requirements.

Custom Application Name

Rename the application to match your company's branding and product line.

Unique Icons

Replace standard icons with your company's visual identity elements.



Picture generated with AI

Integrated GUI Builder

The screenshot displays the Integrated GUI Builder interface. On the left, there is a 'Program Editor' with a table of parameters. The main workspace shows a 3D camera view of a mechanical part and a custom GUI layout with 'Start' and 'Stop' buttons. A 'GUI Designer' panel at the bottom left shows a library of pre-made buttons. A 'Properties' panel on the right allows for customization of the selected widget. An inset window at the bottom right shows a 'Recent Displays' list with various UI components like pie charts, speedometers, and timers.

Your logo here or anywhere else

Customize the buttons: font, size, color...

Change the background

Use the pre-made buttons or create your own

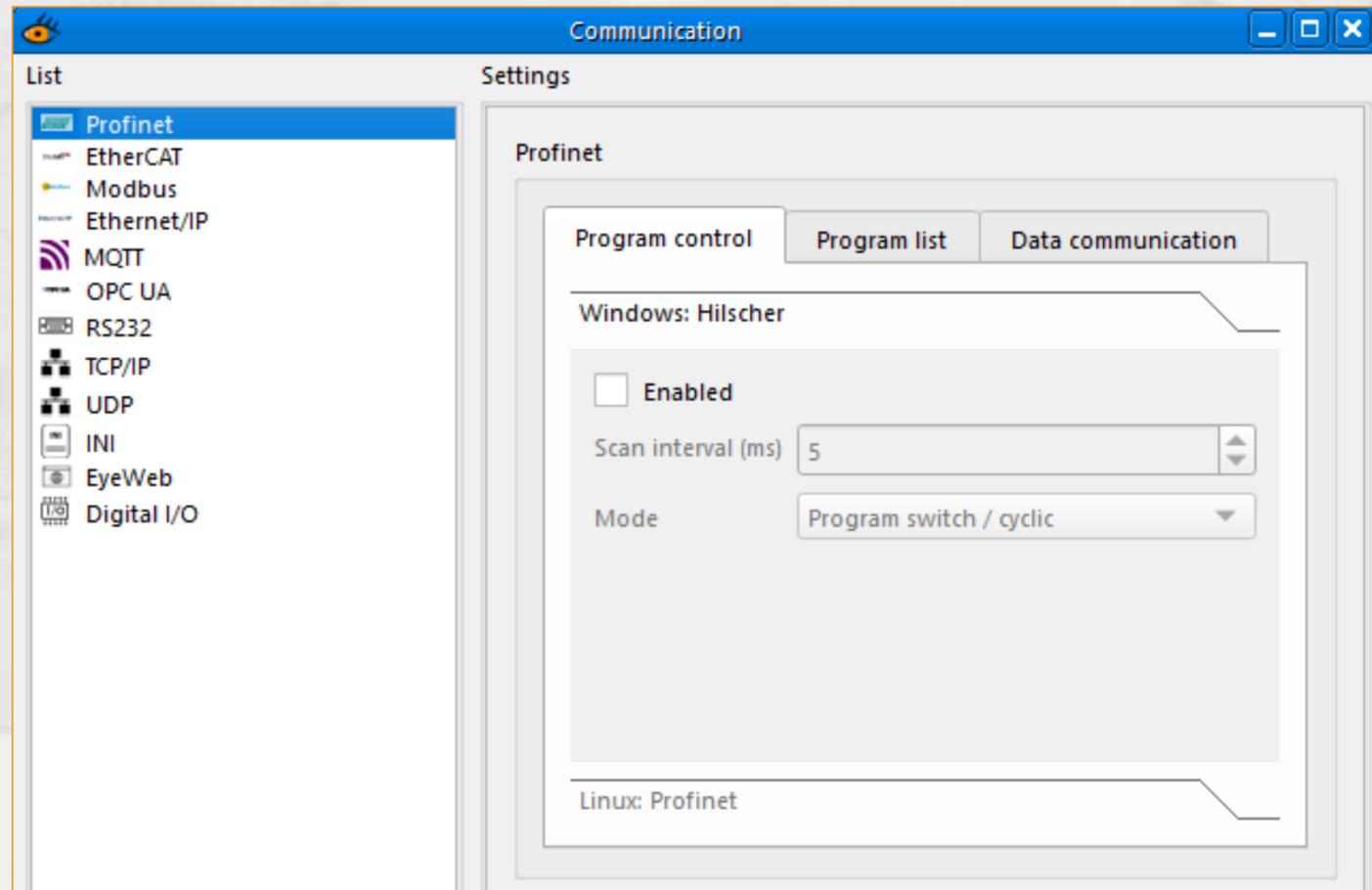
Display the results you want

Key Benefits

-  **Customized Operator Interfaces**
Design simplified, application-specific UIs that enhance usability for machine operators
-  **Task-Specific Tailoring**
Tailor interfaces to specific tasks, ensuring operators interact only with necessary controls
-  **Error Reduction**
Minimize potential errors and reduce training time with intuitive layouts
-  **Implementation Flexibility**
Implement custom interfaces with ease, integrating with EyeVision's robust functionality

Comprehensive Communication Protocols

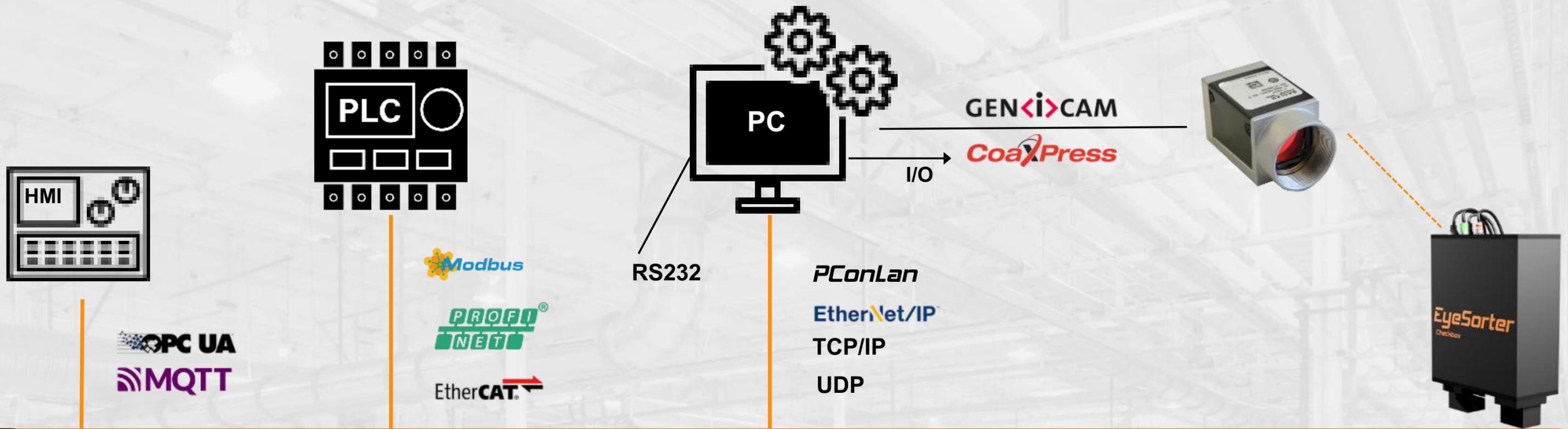
EyeVision provides ready-to-use communication protocols, enabling seamless integration with existing systems and devices.



Implementation Benefits

- Ready to Use**
Pre-configured protocols for immediate implementation
- Reliable Connectivity**
Robust communication with error handling and recovery

- High Performance**
Optimized for real-time data exchange requirements
- System Integration**
Easily connect with PLCs, SCADA, and other automation systems

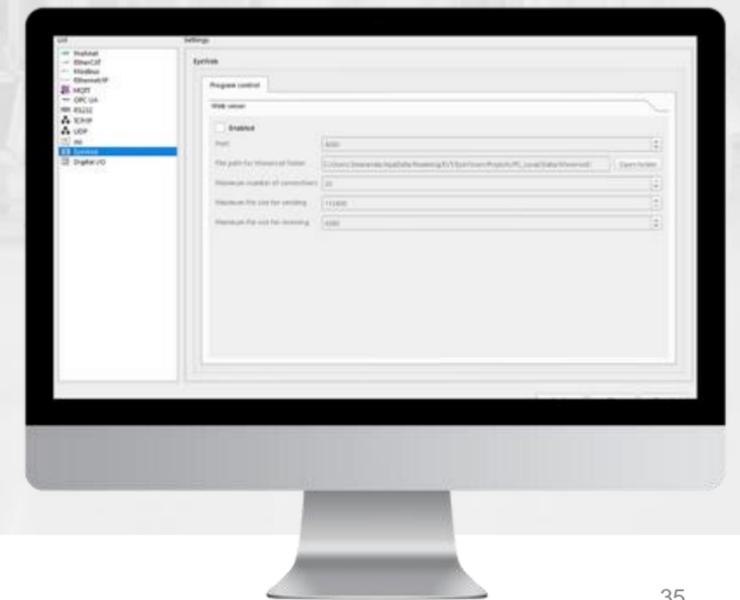


SCADA

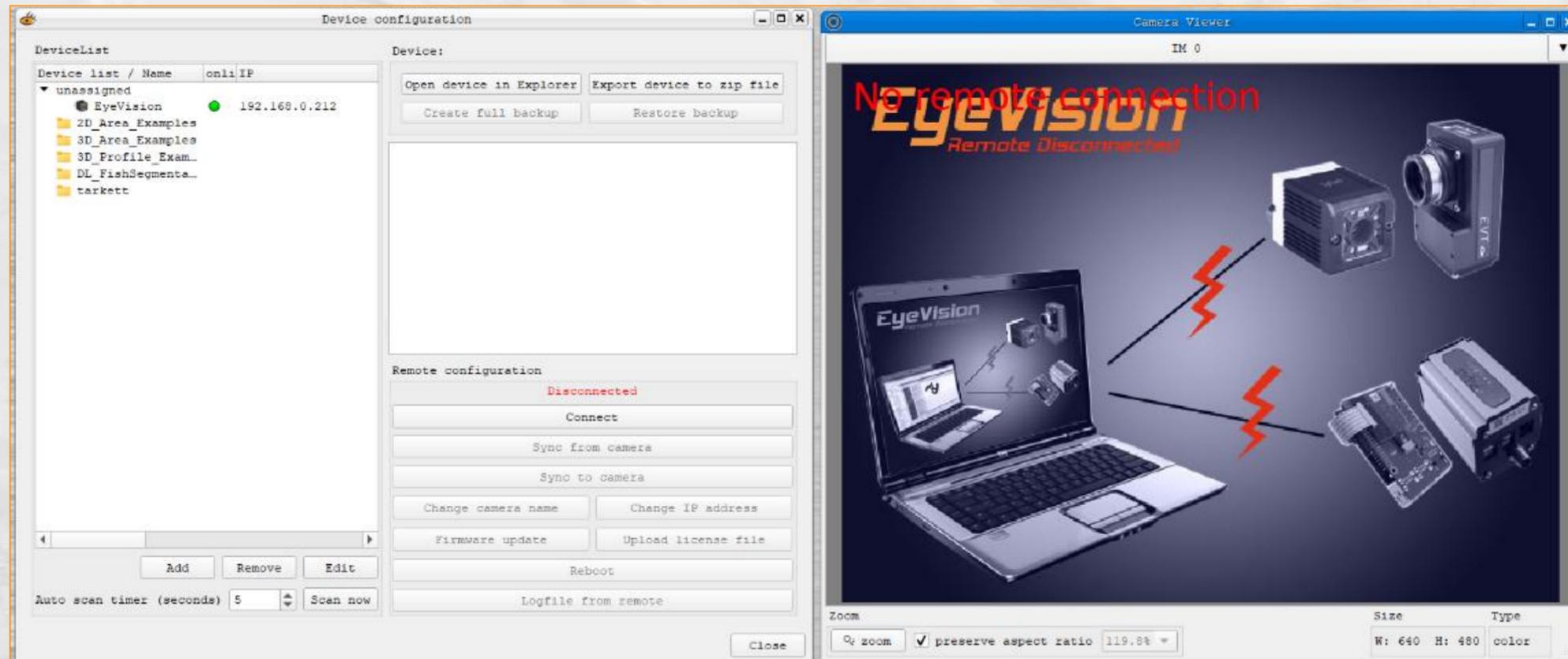
Industrial Ethernet Network Bus



Web - EyeWeb Display



Remote Operation Capabilities



Multi-Hardware Support

EyeVision supports remote operation on smart cameras and various hardware platforms, enabling consistent vision processing across different devices.

Distributed Architecture

Separate processing stages can run on different devices, creating a distributed vision system that optimizes resource utilization.

Remote System Programming

Program EyeVision remotely from any connected device, facilitating setup and reconfiguration without physical access to the hardware.

Secure Communication

EyeVision ensures secure communication between remote devices, maintaining system integrity and preventing unauthorized access.

Why choose EyeVision?

COMMUNICATION PROTOCOLS
Seamless integration with ProfiNet, Modbus, EthernetIP, EtherCAT, OPC UA and more.

SMART CAMERAS
Supports a wide range of smart cameras for diverse applications.

OPERATING SYSTEMS
Supporting with Windows, Linux, macOS, but also Intel, x86, ARM and MIPS platforms.

I/O BOARDS & CO.
Includes EyeMio BLE and other advanced components.



CAMERAS
Handles 1D, 2D, 3D, thermal, and hyperspectral imaging.

ACCESSORIES
Complete range of lighting, lenses, and filters for optimal performance.

PC & EMBEDDED SYSTEM
Flexible solutions for PC-based, PCB-based, and embedded vision applications

EYE VISION

FLEXIBLE COMPATIBLE LIMITLESS

EyeVision

Designed for simplicity and performance in machine vision.



Scan to experience our No-Code,
Drag-and-Drop image processing software

EyeCademy Trainings

Master machine vision – learn, practice, and apply with experts!

The **Beyond the Pixel Training Series** is designed to help you master **machine vision, image processing, and smart automation technologies** through hands-on experience. Whether you're an engineer, integrator, or automation specialist, our one-day intensive sessions will equip you with **practical skills, industry insights, and expert knowledge**.

💡 Why Attend?

- ✓ Learn how to optimize **lighting, lenses, and cameras** for better image processing.
- ✓ Get **hands-on experience** with our powerful **EyeVision software** and real applications.
- ✓ Understand how to **select the right hardware** for different automation scenarios.
- ✓ Improve your **robot vision and quality control capabilities** with smart solutions.
- ✓ Network with **industry experts and like-minded professionals**.

Each session focuses on a key aspect of machine vision, ensuring you gain both **theoretical knowledge and real-world experience**.

Register here: <https://www.evt-web.com/eyecademy-training/>



Beyond the Pixel:
Machine Vision Essentials

Master machine vision in one day – learn, practice & apply with industry experts!

Wednesday, 30 April 2025
EVT - Training Center

Register here:
www.evt-web.com



The Ray of light:
Illuminate Your Vision for better results

Discover how the right light transforms machine vision accuracy and quality.

Wednesday, 30 July 2025
EVT - Training Center

Register here:
www.evt-web.com



Sharp Vision:
Choosing & Using Smart Cameras in Automation

Find the right smart camera for any application – learn, compare & test in this Hands-on training!

Thursday, 30 October 2025
EVT - Training Center

Register here:
www.evt-web.com





CONTACT US



+49 (0) 721-668-004-230



www.evt-web.com



kontakt@evt-web.com



Headquarter: Ettlinger Straße 59, 76137
Karlsruhe, Germany

Training Center: Lauterbergstraße 2, 76137
Karlsruhe, Germany

