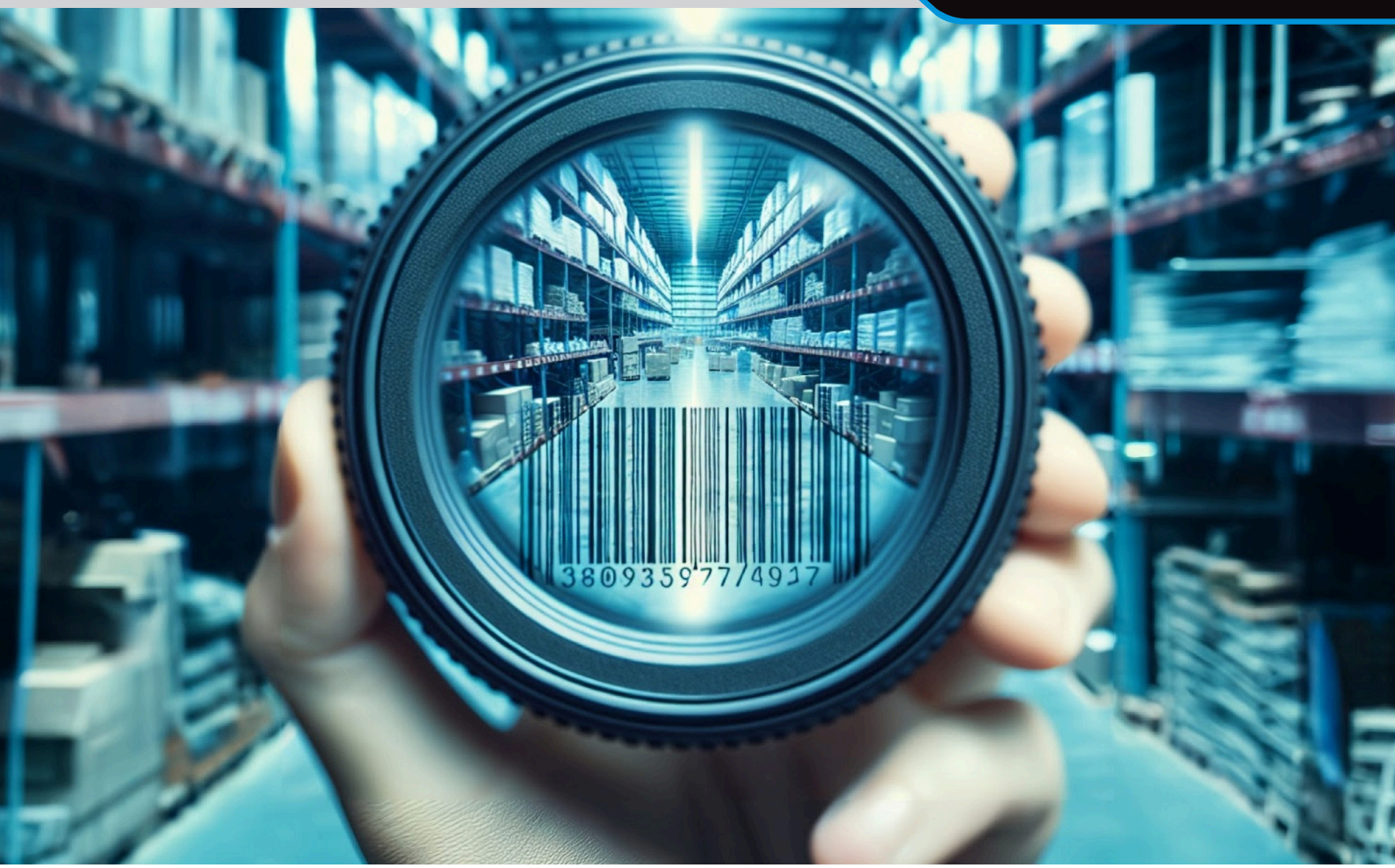


Powerful AI applications with automated image processing

COMI We enable AI in a smart way >

Rutronik and collective mind join forces for AI solutions tailored to industry and retail. Expertise in the distribution of components meets AI-based know-how in the seamless tracking of goods and their processes.

In the field of Computer Vision, collective mind brings extensive expertise in the development of AI-based image recognition and image processing applications.

The benefits at a glance:

- Camera images are evaluated in a manner similar to human vision
- Machines recognize their environment and processes
- Autonomous and intelligent interpretation enables responses to different events

With the first AI safety system from collective mind certified in Germany, you benefit from camera-based object and process recognition in your production environments.

And there is even more potential in Machine Vision!
The use cases on the next two pages show the benefits for logistics and quality control.

Take advantage of powerful camera-based AI applications: Document Reader & Label Reader

The AI solution captures product and delivery note-related information via an industrial camera. Real-time images detect delivery bills and articles, read labels and supplement them with ERP data. The result: greater speed, accuracy and automation for logistics.

Initial situation

- Complexity in goods receipt due to a wide variety of products and formats as well as documentation standards cause increased manual activity
- Visual impairment to the point of partial illegibility of documents, e.g. QR codes, make automatic capture difficult
- 24 percent of QR codes are unreadable
- Changing lighting conditions from very strong to very weak with interfering reflections are not ideal for scanning projects

Goal

- Speed up processes, reduce manual steps and minimize susceptibility to error
- Optimize QR code reading rate (standard approx. 75 percent)
- Read multiple codes simultaneously

Deployment

- No need to customize environments and workstations to achieve automated capturing
- Optimize QR code reading rate to 99.8 percent
- Capture and validate bills of lading up to 10 times faster and with more information
- Automatic reconciliation of data management details (ERP interface)

COMI Vision AI Document Reader: Automated document capture

AI-supported automation of capturing delivery bills and documents. Save time and reduce errors in logistics.

- Read product and delivery note-related information
- AI models recognize and read information on delivery notes
- Support for approx. 1,000 different delivery note formats
- Suitable for physical and digital documents (e.g. PDF, image files)
- Structured capturing and data storage
- Reduction of time expenditure and susceptibility to errors during manual entry

COMI Vision AI Label Reader: Efficient label capture

Efficient and error-free automation of the capture and processing of article information. Improved traceability and optimized logistics processes.

- Capture of article information such as date code and trace code
- Reading of all code and font information on labels
- Structuring and higher data availability
- Master data synchronization in the logistics system and ERP
- Support for seamless traceability of all products
- Reduction of errors and acceleration of processes in incoming goods

Joining forces in enterprise resource planning and automated image processing to create powerful AI solutions for industry, logistics, retail, and more.

Let‘s start the exchange and become part of the COMI Vision AI community now!

Register here now and don‘t miss any updates.

Streamline quality management with automated anomaly detection

In addition to AI-based article and delivery note scanning options for real-time traceability, collective mind‘s Machine Vision expertise also takes quality management, and specifically anomaly detection, to the next level.

Initial situation

- Manual sample-based visual inspection is inadequate and time consuming
- Competitive QM products require input from historically collected defect types
- Extremely high number of different, complex, known or unknown defect types makes it difficult to predefine and up-to-date rules and reference values for anomaly detection
- Analysis to draw conclusions about the causes of defects
- Traditional systems typically only check individual parameters (e.g. temperature, pressure, dimensions) separately

Goal

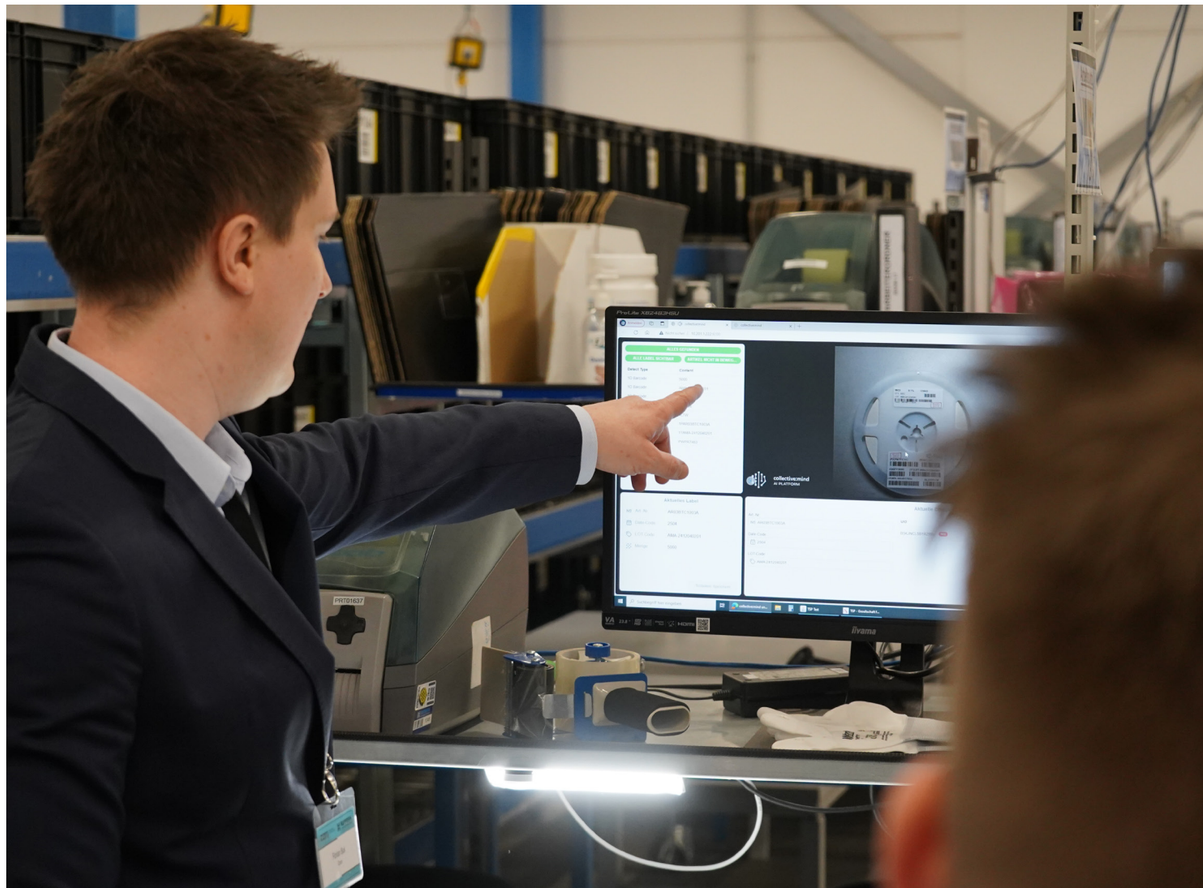
- Minimize manual visual inspection effort
- Eliminate the need for spot checks
- Faster, more efficient conclusions about the causes of defects

Deployment

- Automated, AI camera-assisted testing is more efficient and more robust
- AI solution learns with normal and good parts, no input from already existing or known defect types or anomaly parts necessary
- Automated conclusions about the worn tool involved in the machining process („*predictive maintenance*“)
- Combination of various measurement parameters and sensor data (radar, LiDAR, ultrasound) simultaneously possible („*sensor fusion*“)

The Solution

Quality management currently works with defect types. AI-based anomaly detection enables inspection based on normal and good parts.



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