

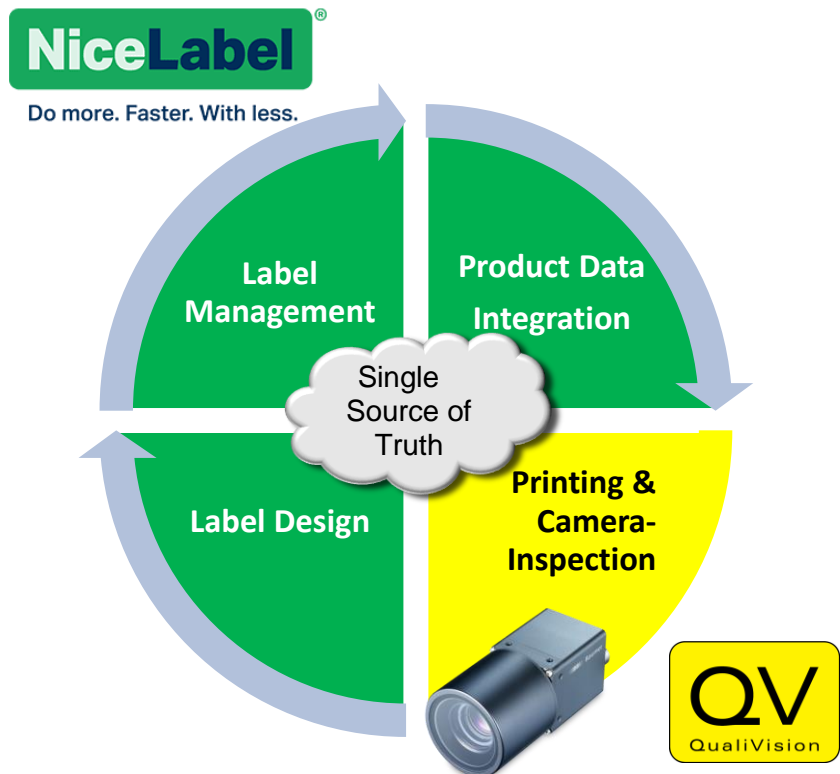


A Baumer Company

Full automated Labeling and Inspection

Integration of QualiReader PI into NiceLabel Labelmanagementsystem

New



Automate, minimise risks and save money with the "Single Source of Truth" principle

Nicelabel mit QualiReader® PI – Single Source of Truth

QualiReader PI with Nicelabel – Print Quality Assurance System

Fully automated Labeling and Inspection Solution that includes:

- QualiReader® PI printing & inspection system for providing full quality assurance
- NiceLabel Management System for label design, management, data integration and print

Eliminate the costs of mis-labeling

Labeling errors lead to returned product, charge-back fines, delays, re-manufacturing, and ultimately, lost customers and lost business. The consequences of labeling errors in regulated industries, including pharmaceuticals and medical technology, are even more serious.

Avoid the risks of labeling errors, by introducing QualiVision's end-to-end, closed-loop quality process in label layout creation, approval, and production.

Your current situation: time-consuming and high risk

Many companies have limited or no quality control for their label printing processes. They deploy multiple, manual steps and people to design label templates, visually approve a test print, teach the camera system with that test print-out, transfer those templates to production, input variable data, and act when an error is detected after printing. It requires expertise and strict adherence to a manual process.

QualiVision's unique offer

QualiVision's unique offer is that the single source of truth is the label template, which is designed, approved and stored electronically within the NiceLabel Management System. Design the label in NiceLabel and your QualiVision inspection system is ready to go. QualiReader® PI measures every printed label exactly against that single source of truth. All manual processes are eliminated. Time to print is reduced.

QualiReader PI Scope of Testing

When High-resolution matrix or linescan cameras provide thorough, point-by-point inspection of fixed, variable and serialised data. Inspection process includes:

- Full area print control (print image control, code inspection, OCR/OCV)
- Control of all print features including bar codes, 2D symbols, plain text and graphics
- Print control even from Chines, Arabic, ... characters
- Comprehensive print control which detects even missing points
- 1D/2D code reading including grading estimation
- Fast printing and checking of serialized data
- Upgradable to perform further quality assurance functions (wrinkles in label, label position check, ...)

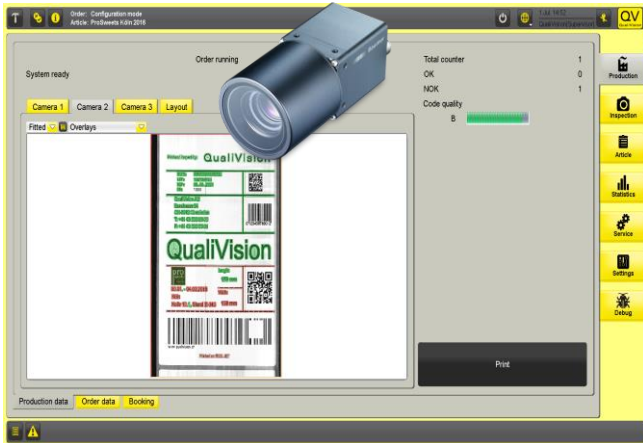
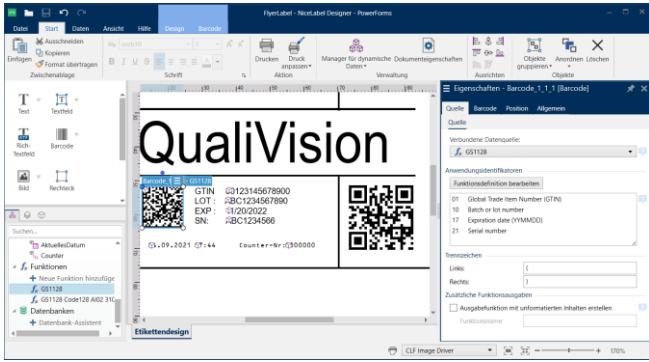
System Integration Feature Set

- Configurable illumination and camera technology
- Versatile process integration (ejector, PLC, line, ...)
- Collect In Process Control data (e.g. statistics, audit trail from camera and printer, ...) for reporting
- Add material- and printer-dependent configuration at line
- Multiply layout at line to nest configuration



Workflow Labelmanagementsystem NiceLabel to QualiReader PI

Reduce risks and costs by setting up the print layout once



NiceLabel: label creation, approval and release

- Create, check, approve and manage print layouts via central database
- Convenient label creation process in the office
- Documentation over the entire life cycle
- Efficient variant handling
- Integration of layout generation with other business software (e.g. ERP)

QualiReader PI: Inline/Offline printing and camera inspection of NiceLabel Printing Layouts

- Automatic teach-in of camera settings
- Article/Order Management incl. Standard Level 3 Interface
- Handling of printing-specific printer and camera configurations, multiple-up handling
- Central audit trail of printer and camera
- Fast serialization processes for Track & Trace
- Collects data for electronic manufacturing reports
- Error handling of printing device
- Flexible Machine integration

Inline/Offline printing and inspection solution with QualiReader PI

Offline printing solution with QualiReader PI Roll to Roll

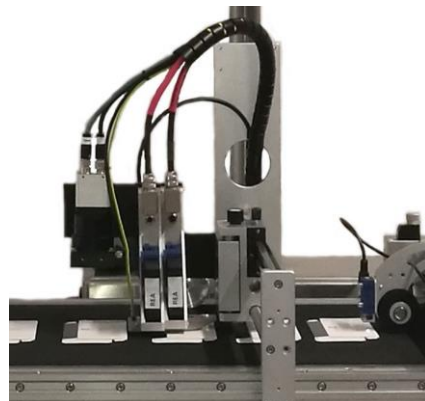
- Printing with thermotransfer printer
- Devalue of bad printed labels
- Batch documentation

Inline printing on folding boxes with cartridge printer

- Printing also of serialised data up to 10 boxes/second
- Reporting

Thermoformer with DOD-Foil printer and labeler

- Tyvec DOD printing
- Label printing
- Camera mixup control



Process transformation of digital printing with QualiVision

Integration NiceLabel LMS and QualiReader PI

The QualiReader PI inline and offline printing and inspection solution enables printing and automatic full-area camera inspection based on digital printing image (print layout, no "golden label"). With NiceLabel, printer-independent layouts are generated, released and managed throughout their entire life cycle.

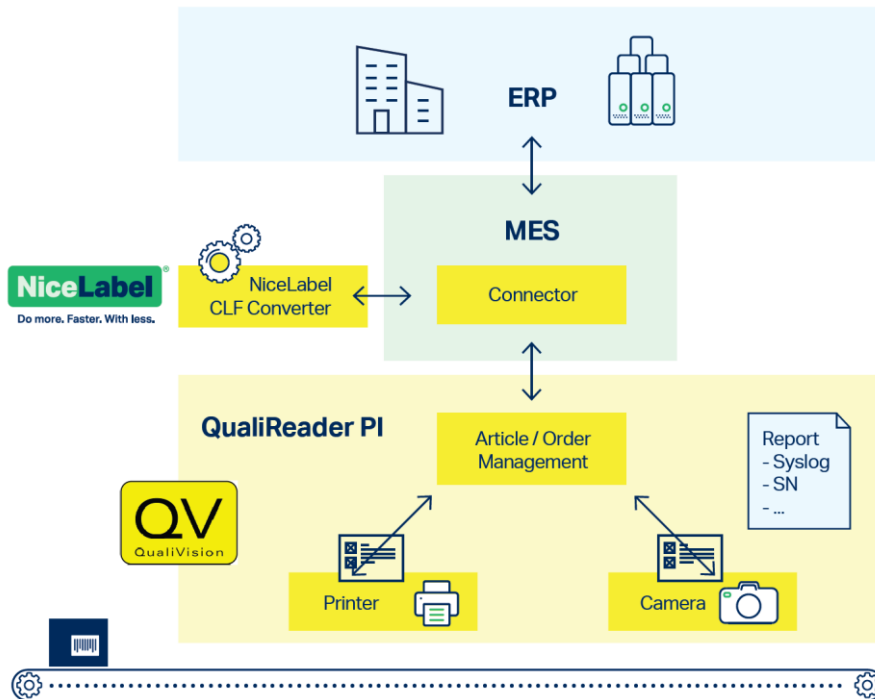
Customer requirements in the layout creation process and in production are very diverse. To reduce project complexity, the QualiReader PI solutions offer a standardised level3 interface that allows access to the internal order/article management.

This versatile and open interface enables the staged transformation to a fully digital labeling process including inline process control.

Therefore, in addition to the QualiReader PI solutions, QualiVision offers services for

- Requirement analysis, specification
- Design of architecture NiceLabel-LMS to QualiReader PI
- Software development
- Maintenance, training, support

System overview



Key Features QualiReader PI

- Inspects the print quality and readability of barcodes, 2D symbols, plain text, graphics, regardless of character sets, e.g. Chinese, Arabic, Kanji script)
- Inspects data accuracy for applications with serialized data
- Inspects label wrinkles, position and other functions
- Integrated order and article management
- Supports printer-specific configurations
- Central audit trail of printed and vision inspection data



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