

CASE STUDY

Digital process control with Opticon ESL solution

Introduction

Metplex GmbH, headquartered in Schorndorf, specializes in ERP consulting and software development. With the help of Opticon's digital ESL labels, production documents and the entire process control are now also digitally mapped and networked. Particularly in production and logistics environments, the use of digital labels leads to significantly greater efficiency and timely output.



Initial Situation

In the daily production of mechanical parts and components, it is often necessary to make last-minute prioritizations and shifts in production orders. Whether dealing with missing parts or time-critical completions, information must reach the target container and the production station quickly and reliably. Manual and paper-based processes often lead to delays and misunderstandings, which ultimately result in incorrect deliveries or complaints.

The aim, therefore, was to eliminate unproductive work steps and time-consuming manual processes by digitalizing them through the use of ESL technology. Opticon's digital ESL labels fulfill precisely this purpose.

Solution

The advantage of using ESLs lies in the dynamic connection between the ESL software and the ERP system. By combining ESLs with mobile scanners in day-to-day operations, production orders are identified and automatically updated using 2D barcodes, including order status, priority, designations, missing parts, and resupply.

Metplex has elevated the use of ESLs to a new level with its own software environment. The ESLs are not only used as digital displays but also show helpful data and parameters for employees to track and prioritize processes.

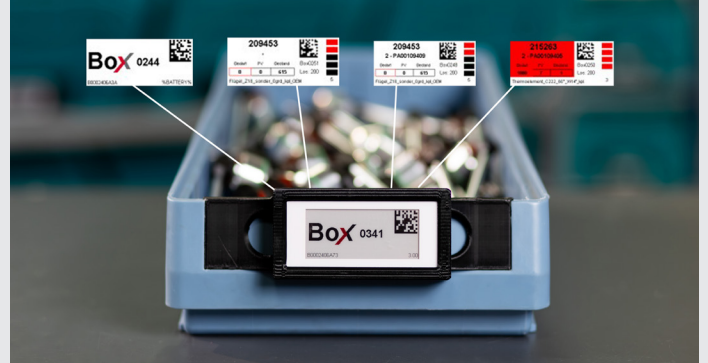
By networking various systems, dynamic 2D barcodes can be used to control subsequent processes, such as important production parameters or torque settings for the assembly of individual components. Scanning the barcode opens the associated work instruction directly on mobile devices or the workstation PC for the employee. The ESL label immediately adopts the executed action as a status change and updates the linked database accordingly.



Additionally, ESLs can take on the function of interactive Kanban cards (eKanban). By using ESLs and mobile scanners, the replenishment process is automatically prioritized, while material booking is carried out directly in the ERP system. This process takes into account production suggestions and demand fluctuations. An overview of all boxes for an item allows for timely detection of when a box needs to be refilled.

With eKanban, paperless work becomes possible, as scanning a box automatically creates and updates a new production order. This is a real competitive advantage, especially for time-critical orders or fluctuations in demand!

Through process synchronization, production and logistics processes can be synchronized and automatically controlled in parallel. Status points provide insights into how far a process has progressed. With the automatic updating of process progress, users are proactively informed, gain a comprehensive overview, and are notified of the next steps in the process.



For Metplex, the integration of existing systems combined with the use of Opticon sensors and ESLs represents an important step toward digital transformation. Process digitalization promises numerous benefits, such as increased efficiency, cost savings, improved data availability and analysis, enhanced flexibility and adaptability, and an improved customer experience. Additionally, it contributes to sustainability, supporting the company's long-term competitiveness and success.

About Opticon

We scan, connect and communicate

We are Opticon, a Japanese manufacturer, and have been developing barcode scanners since 1976. You see them everywhere, both here and abroad. From the electronic shelf label at your local supermarket to the scanner used at a Covid test facility. From scanners used by large retail chains to the barcode scanner of parking garages. We are one of the world's key players in the automatic identification market.

This is what we can do for you

Opticon is the right provider for all your intelligent barcode scanning solutions. No matter which business process or market. Do you have any other demands or requirements? We always offer solutions that are tailored to your requirements and enjoy the challenge to think along with you.



www.opticon.com



Opticon Products in use: EE-293R and EBS-40

The EE-293R is a 2.9-inch high-resolution, fully graphical E-paper display. The label can display the colors black, white, and red, creating a highly attention-grabbing effect for product images. Thanks to its E-paper technology, it is even possible to scan barcodes from the display using a laser scanner. The display only consumes power during wireless transmission and has a long battery life even when operating on batteries.

The fully graphical display is automatically controlled via the EBS-40 base station, which is necessary for the operation of all ESL displays. The base station manages both communication with the labels and data management through the included server software, which is automated via a wireless protocol.