



TOOLS for SMART MINDS

Case Study



Integration in 4.0 perspective of a Siemens S7 PLC controlled palletizer with a custom solution

Kemper Group

Goals

- Interconnection of a Siemens S7 PLC controlled palletizer with the company management system software
- Automation of data collection and production history
- Real-time monitoring of data produced by a palletizer

Solution

Software solution tailored to the customer's needs that acquires the operating data of the machine in real-time and remotely.

The Challenge

With more than 60 years of presence on the market, through the acquisition of competing companies and the gradual development of new branches of activity, the Kemper group is today a market leader in the production and sale of products for gas and electrical welding, for outdoor applications, for the home, for the HO.RE.CA sector (modular screen system, gazebo, electric and gas heating).

Kemper's need is to **integrate a new generation palletizer** into the company's management system, with a 4.0 perspective.

The palletizer is able to sort boxes containing gas cartridges, of two types, on two different pallets.

The palletizer is controlled by a **Siemens PLC** and is installed in a separate plant from the headquarters where the data visualization is wanted in real-time.

Kemper, therefore, needs to **monitor the palletizing data in real-time**, so that **production progress, batch management, and line performance** can be tracked.



In today's increasingly evolving market, Kempergroup optimizes production and distribution dynamics with the support of a team of selected, young and dynamic professionals. Since 1950, Kemper has been offering a complete range of LPG-powered equipment. The important know-how acquired in the first period of activity has led to the expansion of the area of specialization. This led to the development of new production lines from professional heating to camping equipment and barbecues.

Safety, through constant application of the standards in force, distinguishes the entire range of the KEMPER catalogue.

www.kempergroup.it

Kemper Group

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Solution

To meet Kemper's requirements, TOOLS for SMART MINDS has developed a **tailor-made software solution**.

The software application **remotely reads the Siemens S7 PLC** and **collects the data**, allowing it to be **displayed in real-time in the separate offices** and making it available to the management, ensuring the required **interconnection and monitoring**.

The data requested and acquired are the following:

- Date and time of start and end of processing of each pallet
- Number of boxes processed
- Number of pallets processed
- Processed article code

From the management software, instead, the product codes are sent.

CASE STUDY | INTERCONNECTION

 DEVELOPED BY
TOOLS for SMART MINDS

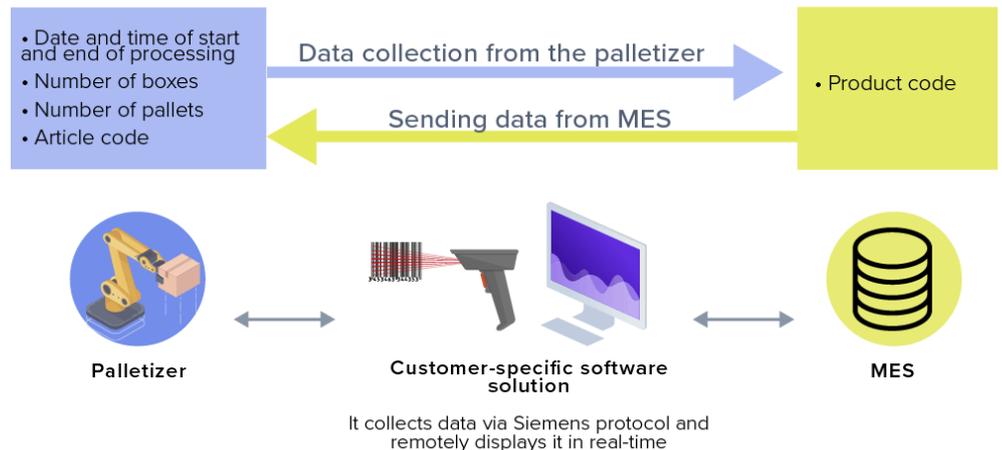


Diagram: integration of a Siemens S7 PLC controlled palletizer with a dedicated solution in 4.0 perspective



TOOLS for SMART MINDS (T4SM) is a system integrator that develops software solutions for manufacturing companies.

T4SM is Alliance Partner of National Instruments and the development team consists of Certified LabVIEW Architects (CLA) who have long experience in LV Real-Time Programming and LV-FPGA.

T4SM designs from scratch to high-quality solutions easily integrable with third-party products, which help customers to shorten time-to-market of their systems.

T4SM uses the AGILE methodology for the development of software projects and the co-design of applications with immediate benefits for customers, helping them to gain a competitive advantage over competitors.

For technical support and product information:

www.toolsforsmartminds.com

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Benefits and Results

All the goals set have been achieved, thus enabling Kemper to achieve significant benefits:

- **Corporate Interconnection in a 4.0 perspective:** Interconnection enables modern production management, thus improving performance.
- **Data available in real-time in the offices:** thanks to the interconnection it is possible to see data in real-time from the offices.
- **Traceability:** availability of production history and traceability for every single packaged product.
- **Digitization:** the process of data collection and transfer is automatic, saving time, and reducing human errors.
- **Determination of times and costs per production batch:** the collection of objective data allows a better organization of the work of the logistics department.

Client Comment

“I found in T4SM professionalism and competence, realizing this project in full compliance with the objectives set and on time.

Fundamental was then the coordination and support activity of the T4SM project manager, both in the collection of information from the interlocutors and in the proposal of further functionalities aimed at optimizing the data flow.”

Ratti Nicola
Management Planning
Kemper Group