T4SM
TOOLS FOR SMART MINDS

Case Study

Real-time Monitoring of a Powder Coating Plant

VERINCOLOR

The Challenge

- Monitoring of the production plant

- Interconnection of two paint coating robots

- Monitoring of the temperature of the paint coating oven

- Automation of data collection

- Automatic monitoring of paint consumption

Solution

- Based on a system consisting of iDaq and custom drivers that allow monitoring of the entire painting system

Resources

- iDaq

- Lilium

- Custom Driver

The Goal

VERINCOLOR is a leading company in the field of **industrial powder coating** for third parties, which guarantees the highest quality currently on the market.

The goal of VERINCOLOR is to have the traceability and constant monitoring of the entire painting system process with the **objective data on consumption** and operating conditions in order to reduce waste.

The first challenge is **to interconnect existing machinery** with the third-party supervision software chosen by VERINCOLOR.

The second technological challenge is to **detect in real time all the system parameters, including paint consumption.**

![VERINCOLOR logo]

Since 1984 VERINCOLOR Srl has been dedicated to third-party industrial powder coating, within a programme of expansion and renovation of equipment and facilities in order to maintain its superior edge.

Verincolor is committed to designing the best solution to meet the diverse needs of the customer so as to maintain the highest quality on the market today. This is due to the attention paid to every production process and the purchase of certified raw materials.

www.Verincolor.it

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Solution

T4SM solved the needs of VERINCOLOR in a very short time by using software already developed and tested for long internally: iDaq and Lilium, reaching the objectives with a complete and scalable solution.

iDaq is used to communicate directly with the two painting robots, the painting oven and the painting tank.
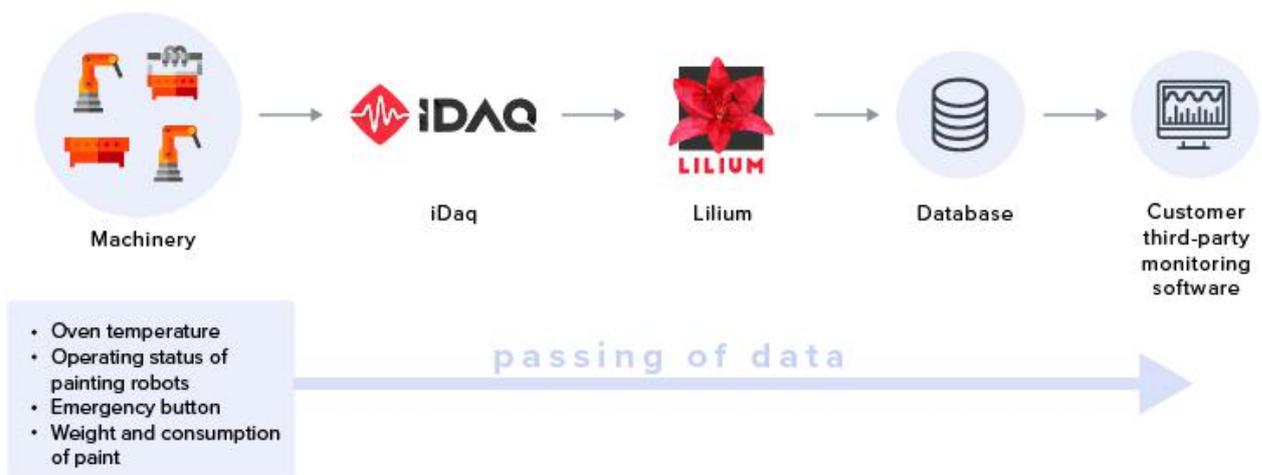
iDaq collects the main process data, such as:

- Oven temperature

- The operating status of painting robots

- Emergency button

- Weight and consumption of paint

Lilium deals with the transfer of data to the company database, from which the supervision software extrapolates the information for viewing and archiving.

The huge advantage is the constant and remote monitoring of the operating status of the painting system and obtaining objective data on paint consumption.

Diagram of the solution

TOOLS for SMART MINDS

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 set objectives have been achieved, allowing VERINCOLOR to obtain significant benefits:

- **Cost determination:** with all the automatically collected production data it is possible to have a precise report of the costs by type of article.

- **Traceability:** all the data of the production cycle are tracked to obtain a production history.

- **Total control of the system**

- **Waste Reduction:** thanks to the objective data it is possible to see the waste and know exactly where and how much to correct, thus acting much more efficiently and increasing profits.

"The choice of T4SM as a supplier has been winning because their system now allows us to have a constantly updated and monitored situation in our process."

Daniela Arrigoni - CEO
VERINCOLOR srl