

# Reliable Availability

Grupo AC Marca: MES solution with SIMATIC IT



## SIMATIC IT

Answers for industry.

**SIEMENS**



“We opted for the Agent-based Diagnosis Service because the 24/7 remote monitoring by a qualified technical support team allows us to detect and anticipate potential failures. This optimizes our responsiveness and minimizes maintenance time and thus production downtime. The agents also contribute to continuous improvements by revealing minor errors that are otherwise hard to trace, and assisting with hotfixes and system upgrades.”

Mr Jordi Clapes, IT Director AC Marca

## Plant and System Availability with SIMATIC IT

AC Marca has achieved maximum flexibility and efficiency in the production processes at its new plant in Sant Llorenç d'Hortons. This was the result of implementing SIMATIC IT MES (Manufacturing Execution Systems) to cover production management and establish real-time interoperability with SAP. To ensure optimum availability of both the plant and the systems AC Marca opted for the Agent-based Diagnosis Services offered by Siemens, for predictive and preventive maintenance.



## The customer

Grupo AC Marca is a Spanish manufacturer of a wide range of products for home and personal care as well as DIY products. From its headquarters in L'Hospitalet de Llobregat, near Barcelona, the company operates a total of five factories, two in Spain, one in France, one in Czech Republic and one in Mexico, and sales offices in 8 countries.

AC Marca's extensive product portfolio includes a large variety of detergents, floor wax, dyes, shoe polish, hair gel, shampoo, glues, etc. Many of their brands such as IBERIA, NORIT, ORION, GIORGI, LIDA, ALEX, PASO, YAK, BRIL are local market leaders.

The location in Sant Llorenç d'Hortons covers the production of household products such as Norit, Gior, Iberia, Yak, Sanytol, and personal care products including Giorgi, Lida, Hidrogenesse, Cabello Sano Ecran, etc.

On top of the manufacturing activities the 26.000 m<sup>2</sup> premises also house the services and logistics and R&D departments. All of which is handled by a workforce of 150.

## The business challenge

To AC Marca it is of greatest importance to have the flexibility and agility in place to meet its customers' requirements.

The construction of a new plant in Sant Llorenç d'Hortons was the ideal occasion to make this flexibility an integral aspect of production, and gain production efficiency and operational cost reductions at the same time.

The existing manual and paper-based processes and information exchange could not cover this strategy, so it was decided to bring in a MES to manage the production and automate production orders, material consumption, notifications, production quantities, pallet labeling, ...

From a functional point of view this production management system had to offer the possibility to integrate different production units in one single system. It had to provide a standard interface with the SAP system to allow real-time mutual data exchange and communication with the machines in production, as well as personnel management and automatic label management.



## The solution

Several arguments justified the selection of Siemens' MES SIMATIC IT.

Siemens was the only vendor offering hardware, software as well as services, and able to automate both the discrete as well as the process manufacturing areas, and cover the connection to SAP with an MES system.

SIMATIC IT offers a single platform covering the complete MES layer and integrates seamlessly with other Siemens systems such as the PCS7 process control system. This was particularly important to accomplish the predefined integrated production management model.

Siemens was also able to function as the system integrator for the MES system.

This reduced the number of involved parties, facilitated the communication during the project and helped speed up the start of operations.

When starting the production at the new plant in Sant Llorenç d'Hortons the management wanted basic MES functionality covered from the start.

The entire system was in fact native to the plant. Being fully embedded from the design phase, when a new production line in the Greenfield plant was ready to become operational, so was the MES system.

SIMATIC IT now covers functionality such as process management, SAP integration, personnel management, production order management, material management, downtime management, box and pallet labeling, traceability, CIP/PIG registering, and basic data collection from process and filling lines.

Process management is handled through the SIMATIC IT Production Modeler which allows to define a clear and integrated model of plant operations.

The SIMATIC IT Production Modeler triggers the different system components to initiate certain operations. This also includes the functionality offered by PCS7 and SIMATIC Batch, such as recipe definition and management, automatic or manual batch execution, process control points and process data acquisition. For instance, equipment and pipe cleaning (CIP/PIG) are scheduled and can be registered to avoid contamination in case of product switchovers.

The interaction with SAP is bidirectional and consists in the downloading from SAP to SIMATIC IT of production orders, master data, ... and the uploading and notification from MES to SAP of information such as production output, order status, line personnel status, quality control,...

SIMATIC IT visualizes which production order is active on which production line, and the output quantities.

When the pallet of final products leaves the production line SAP is notified and feeds back the product description for the labels to MES which functions as the interface to the label printer.

All of this is done automatically, no personnel traffic, no paper traffic required.



## At a glance

**Company:**  
Grupo AC MARCA

**Industry:** CPG

**Key Challenges:**

- efficient, paperless data exchange
- plant and system availability
- integrated process and production model

### **Solution:**

- SIMATIC IT Production Suite
- SIMATIC IT Agent-based Diagnosis Service

### **Key Benefits:**

- reduced operational and administrative costs
- accurate real-time data for decision support
- improved responsiveness (plant, customers and regulatory)

This increased efficiency, and resulting cost savings and profit increases make it more important than ever to guarantee system availability and continuity. The people at AC MARCA were well aware of this.

In case of a system failure the entire production process may come to a halt. The time it takes to solve the problem is money lost, so qualified people need to be available to deliver immediate solutions. As work shifts at the plant cover over 16 hours per day, and master data synchronization takes place at night, ensuring a 24/7 supervision was hardly an exaggerated measure.

The SIMATIC IT Agent-based Diagnosis Service does just that. And more. Not only does it ensure that the system is constantly monitored. It also offers assistance in the restart or shutdown of an application, ensuring that it is done properly and sparing the people at AC MARCA the trouble of studying the system in detail.

The Agents are installed in the systems at the customer site analyzing events related to the hardware, software and applications.

When a problem is detected at the customer site, the agents alert the SIMATIC IT Technical Support Service (TSS) people who take immediate action. Say for instance that a system error prevents the loading of production orders, blocking the entire system until a system

reboot is initiated. When Agents are in place the problem will be reported to the TSS as soon as it occurs or even before it actually happens. Through a secure VPN connection the TSS team has the necessary visibility on the system to verify the cause of the problem and, in agreement with the customer, can do a remote reboot of the system within minutes. No data are lost. The downtime is nihil. Afterwards this case is analyzed and the necessary steps can be taken to prevent the problem from occurring again.

## The pay-off

SIMATIC IT has played an important role in the introduction of the integrated management model which in turn substantially contributed to the reduction of operational costs.

The scalable and modular approach of SIMATIC IT allows roll-out and scaling of the solution towards other plants in the AC MARCA Group.

The implementation of the integrated production model has not only seriously reduced the amount of time and costs spent on administration and paperwork. It also helps avoid errors in the production management thus improving the quality of the information.

The first phase in the project was the implementation of personnel management and production order management, material management as well as the integration with PCS7 for quality control. This is already in place in Sant Llorenç d'Hortons and paying off.

The second phase includes OEE/DTM, traceability and production reporting in Sant Llorenç d'Hortons.

This is to be done simultaneously with the roll-out of the first phase to other plants in the AC MARCA Group.

## Get more information

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