



PLC with MES Interface Module Reduces Manufacturing Cycle Time and Engineering Resources

Case Study

Solution

- MES Interface IT e-F@ctory for data management
- iQ Platform Programmable Logic Controller

Solla Benefits

- 75% reduced data entry times
- 17% reduced Work In Process (WIP)
- Improved product quality

Mitsubishi Electric Value-added Advantages

- Improved data management
- Optimized production efficiency
- Reduced redundancy errors



“Our results are the best. We help our customers make a profit and continue to focus on improving the automation of our plants though using innovative technology.”

– Hernán Toro Botero, Solla

BACKGROUND

With a 65% market share in Colombia, Solla produces hundreds of varieties of balanced animal feed products for farmers and distributors. Specializing in foods for household pets, horses, livestock, broiler chickens, pigs and cattle, Solla has 7 plants in Colombia with plans to expand into new areas such as Peru and Ecuador. Raw materials are transported into silos for storage after which sections of machinery are used to dose, grind and mix the materials before being palletized and packaged for distribution. Industrial automation equipment has always played a key role toward successfully managing recipes, providing weight control, conveyor distribution, and safety.

CHALLENGE

After 50 years of servicing the development, production and marketing of animal feed in the country of Colombia, Solla S.A. decided to streamline their operations using industrial automation equipment in the late 1990s. The deployment of an SAP ERP system in 2009 provided

real-time access to plant floor information, reducing the possibility of redundancy errors. The new system, however, required integration with industrial components, including communication with conveyor sensors, networked I/O, and PLC data. In addition to this, the integration had to take place without resulting in downtime that would affect production levels. To address the challenge, Solla partnered with a strong solutions provider in the area, Metalandes S.A.S. Working together, a dependable solution was put together to provide end-to-end visibility.

SOLUTION

As part of a fully automated system with analog and digital control elements, human machine interfaces and industrial control networks, Solla implements a wide range of technologies from Mitsubishi Electric’s portfolio of products. To address the connectivity challenges between the new SAP ERP system and all of the automation products, Solla utilizes Mitsubishi Electric’s MES Interface IT module, a device that is part of the e-F@ctory concept to improve manufacturing plant connectivity and performance. The

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MES Interface IT module enables bi-directional data communication from the plant floor to the SAP ERP system, and with the help of Metalandes, an additional software known as Admin Planta is used to manage information related to metering systems, grinding, and bagging. Jhonier Jiménez, the Technical Manager at Metalandes commented on his team's core capabilities to provide complete system integration services including database management for customers throughout Medellín, Colombia.

RESULTS

Mitsubishi Electric's e-F@ctory solution with the iQ Platform Programmable Logic Controller and MES Interface IT module have helped increase Solla's productivity from 12,000 tons of feed materials per month to 20,000 tons per month, almost doubling their production capacity. Automation equipment has also helped Solla provide their customers with product guarantees on consistency and quality. Solla offers to pay the difference whenever customers are dissatisfied with their products. Hernán Toro Botero, the General Manager of the Solla plant in Bello, Colombia stated, "Our results are the best. We help our customers make a profit and continue to focus on improving the automation of our plants through using innovative technology." The new system for data management has improved Solla's internal operations through providing a 75% reduction in data entry times and a 17% reduction in the the Work In Process (WIP) to optimize production management. Step-by-step, Solla moves forward improving operations using advanced technology from Mitsubishi Electric to increase its competitiveness in the market.



Solla S.A. is a leading manufacturer of balanced animal feed products in Colombia successfully implementing Mitsubishi Electric's e-F@ctory concept to improve production efficiency and data management.

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