Rockwell Automation and Cybertrol Engineering Satisfy Food Manufacturers’ Appetite for Real-Time Data

FactoryTalk Software Reveals Hidden Efficiencies

**Solutions**

**Manufacturing Intelligence**
- FactoryTalk Batch and Historian software allows for more effective management of materials and recipes by integrating plant-floor data with the ERP system
- FactoryTalk VantagePoint EMI software provides a comprehensive picture of the factors contributing to operational performance
- FactoryTalk View Site Edition software provides an easy-to-use interface to visualize system information and trends

**PartnerNetwork System Integrator**
- Cybertrol Engineering provided consulting creating an effective information system including hardware, software, engineering/CAD design, programming, factory acceptance testing, and on-site commissioning

**Results**

**Improved Efficiency**
- Immediately identified sources of downtime
- Saves at least one batch per month

**Improved Data Collection and Visibility**
- Increased visibility into the production process for real-time reporting and analytics
- Connected plant-floor and ERP systems for enhanced reliability for recipe execution, less operator action and less probability for error

**Background**

When a multinational food manufacturer recently acquired a new manufacturing plant, the company quickly realized the custom-made batch software and human-machine interface (HMI) system were becoming obsolete and resulting in increased maintenance costs, wasted batches and limited production flexibility.

Because the legacy systems were aging and did not comply with corporate standards, they were no longer supported by the manufacturer or by company resources. The custom batch system had no scheduling or historical batch record keeping capabilities, making it difficult for plant managers to manage production. Often, the only way managers were made aware of wasted batches was when there was a shortage of raw materials for a given recipe because those ingredients were used when they shouldn’t have been – quite problematic in a facility that produces more than a dozen product varieties. In addition, the inflexible nature of the system was keeping the plant from making software programming changes for routine enhancements, which meant that if an issue were to arise, the company was at risk of incurring significant plant downtime.
Challenge

The food manufacturer determined it needed a new off-the-shelf batch software and HMI system to deliver increased control and visibility. To do so, the system need to produce detailed records of batch and process data as well as integrated enterprise resource planning (ERP) system data. The system also needed to be flexible enough for repeat uses in other corporate facilities.

The company contracted the services of Cybertrol Engineering, a control and information systems integrator, and member of the Rockwell Automation PartnerNetwork™ program. As an approved provider of Rockwell Automation offerings, Cybertrol Engineering implemented a manufacturing intelligence solution utilizing the FactoryTalk® software suite from Rockwell Automation.

Solutions

The solution included FactoryTalk Batch software, which provides operators with electronic batch reports and access to real-time data through tighter integration with the ERP system. The enhanced integration allows the company to drive the batch schedule from, and store all recipes in, the ERP system. All procedures remain in the FactoryTalk Batch software, allowing for enhanced reliability for recipe execution and flexible product changeover, and less operator actions and probability for operator error.

Cybertrol also implemented FactoryTalk VantagePoint EMI software to provide data analysis to business network users, as well as to plant operators who can use it to gain access to historical production data throughout the facility. The software taps into information from systems across operations that have been automatically identified, gathered and stored by FactoryTalk Historian software. FactoryTalk VantagePoint EMI provides management reports to track and compare batch cycle times, so users can identify and correct maintenance and procedural problems that impact productivity. For example, if a transfer pump begins to wear, operators will see transfer times increase and have the ability to schedule a rebuild with minimal interruptions to production.

Cybertrol also implemented FactoryTalk View Site Edition software to provide production personnel the ability to set up unique parameters, like agitator and transfer pump speeds. Utilizing FactoryTalk Security not only helps protect critical machine settings, but also requires supervisor overrides for certain functions reducing losses previously caused by incorrect operator actions.

“The plant needed visibility of historical batch records,” stated Ben Durbin, Cybertrol president, “with plant floor and ERP system integration, plus access to real-time data, our client was able to immediately identify and correct production issues that had been causing lost batches all along.”

Results

Thanks to Cybertrol and Rockwell Automation, the plant estimates it now saves at least one batch per month. And with the success of this plant, the corporate business has already rolled out similar manufacturing intelligence solutions to other facilities.

“The production superintendent told us that the best compliment he could give was that the plant staff never discusses the system, because they are not having issues with it,” Durbin said. “And that is our ultimate goal; to integrate a solution seamlessly so that our clients can focus on what they do best – manufacturing their product.”

The results mentioned above are specific to the customer’s use of Rockwell Automation products and services in conjunction with other products. Specific results may vary for other customers.
Cybertrol Engineering is a Rockwell Automation Recognized System Integrator for Control, Process and Information. Cybertrol works with clients to define their control and information system needs and to integrate cost effective equipment and software to meet their goals. We use highly structured internal standards for batch and MES systems that are combined with ISA S88 and S95 standards for consistent database modeling and software development. Founded in 1996 with 400+ clients and facilities served. Headquartered in Minneapolis, MN.