Manufacturing Intelligence Provides the Right Mix for Dairy Processor

Rockwell Automation and Malisko Engineering
Provide Centralized Source for Viewing Process Data

Challenges

Manual Recording and Reporting

- Manual recording of production data was time consuming, error prone and delayed, hindering the ability to make changes necessary to maintain or improve profitability

Solutions

Manufacturing Intelligence

- FactoryTalk VantagePoint EMI, Historian, View SE and AssetCentre software provide real-time, secure access to web-based critical production data

PlantPAx Process Automation System

- The Rockwell Automation PlantPAx process automation system provides a unified solution for process, discrete and information control

Rockwell Automation PartnerNetwork Solution Partner

- Malisko Engineering provided design, consulting, programming and integration

Results

Improved Data Collection and Visibility

- Centralized source for viewing process data improves visibility across the enterprise
- Easy-to-understand operator reports and dashboards identify sources of downtime
- Elimination of manual reporting saves time and improves accuracy
- Access to production data helps management pinpoint sources of inefficiency in real time
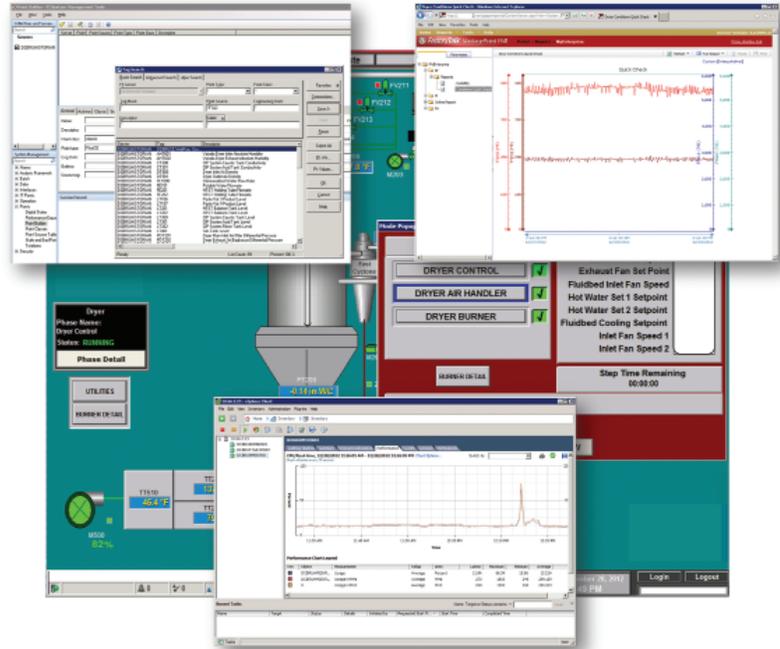
Virtualized FactoryTalk View SE, Historian SE and VantagePoint EMI provide a robust, detailed control and information system.

Background

In an industry where margins are often razor thin, it's critical that food manufacturers have access to real-time, plant-floor data so they can quickly make adjustments to the production environment. Manual reporting practices at one manufacturer of cheese and dairy ingredients for the global food industry were hindering management's visibility into operations and its ability to make changes necessary to maintain profitability. Manually recording production data was both time consuming and error prone, and data was often days old by the time it reached management.

Challenge

When the company rolled out a new generation of flavor-enhancer products in five of its production facilities, management saw an opportunity to improve analysis and reporting of manufacturing data across the enterprise. The company wanted the ability to simultaneously gather data from plant historians and SQL servers across its facilities and use this data to create reports and real-time dashboards through a centralized Web interface.

AB Allen-Bradley • Rockwell Software

Rockwell Automation

Solutions

To achieve this goal, the food processor first needed a platform that would support a multiplant, real-time interface to a central point for analyzing manufacturing information. The manufacturer worked with Malisko Engineering, a control, process and information systems integrator and member of the Rockwell Automation PartnerNetwork™ program, to implement a virtualized PlantPAx™ process automation system from Rockwell Automation. This system provided the framework necessary to produce and gather plant-floor data from each facility.

As part of the control system upgrade to the PlantPAx system, Malisko implemented FactoryTalk® View Site Edition human-machine interface (HMI) software. The team designed user-friendly screen layouts and functionality to offer consistency across all facilities. Sophisticated alarms and events save the food processor time in troubleshooting. The company can use associated tags to include process data with event information and alarm messages. This means operators automatically receive relevant information that describes what the system's environment looked like when the alarm was triggered. The software also interfaces with Specter Instruments WIN-911, so specific alarm notifications can be sent to stakeholders via email when they need to respond immediately.

The system upgrade also made it possible to run the process system and HMI from a centralized server that can be accessed virtually via remote desktop connection in the food processor's other facilities. No longer tied to specific hardware, virtual HMIs can extend the company's software lifecycle. Additionally, virtualizing frees up server space and IT maintenance time needed with the previous approach. The virtualized process system will allow this food processor to take hardware offline for maintenance or future upgrades while the system is up and running, migrating the application between servers without interrupting production to improve uptime or speed disaster recovery.

With the virtualized PlantPAx process automation system in place, the company was ready to implement a manufacturing intelligence strategy to better gather and analyze the production data. Leveraging FactoryTalk VantagePoint EMI software, the company can now access federated data from all its plants in one screen for centralized viewing and analysis. Historical process data from a variety of sources on each facility's plant floor can be retrieved for dashboards and reports in real-time. Data is archived by FactoryTalk Historian software. Because data always remains at its original source, whether in the controller, the historian or a SQL server, the operators, maintenance and plant managers and business executives can more easily and quickly share information while maintaining one version of the truth.

Results

Using the FactoryTalk VantagePoint software, Malisko organized each plant into areas using commonly referenced industry and business terms, rather than cryptic equipment serial numbers, and assigned user groups so plant managers and maintenance personnel could access data specific to their individual facilities and roles. The integrator also set up production reports within the application that allow management to view hourly, daily, monthly or annual data online. Managers also can view trends by month, allowing them to analyze specific events, such as the effect of a cold spell on dryer efficiency.

"The ability to see, in real time, which side of the profitability line a plant is operating has been a game changer," said Steve Malyszko, Malisko Engineering president. "Virtualizing the system gave the customer the added bonus of reducing risk and improving future flexibility. They now have crucial production data available to managers and corporate personnel to monitor, without the need for manually generated reports."

The results mentioned above are specific to Malisko Engineering's use of Rockwell Automation products and services in conjunction with other products. Specific results may vary for other customers.

M A L I S K O
ENGINEERING, INC.

Rockwell Automation
Solution Partner
Control • Process • Information

The Rockwell Automation PartnerNetwork framework offers global manufacturers access to a collaborative network of companies mutually focused on developing, implementing and supporting best-in-breed solutions to achieve plantwide optimization, improve machine performance, and meet sustainability objectives.

707 N. 2nd Street, Suite 650
St. Louis, MO 63102
USA

Phone: (314) 881-5410
Fax: (314) 621-4774

www.malisko.com

Malisko Engineering is a Rockwell Automation Solution Partner for Information, Control & Process. Their multi-disciplined team of Engineers, Designers, Programmers, Automation and Validation Specialists help clients safely increase production speed, reduce cost and maintain the highest product quality. They are CSIA certified, headquartered in St. Louis, MO with a Western Regional office in Denver, CO USA.

www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444
Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640
Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846