Rockwell Automation and EZSoft
Tidy Up Data for Cleaner Water

Manufacturing Intelligence Reduces Water Discharge Challenges

**Challenge**
Metered data was difficult for control engineers to access or respond to. Data storage was not strategic, taking up too much space and not easily interpretable by managers.

**Solutions**
**Manufacturing Intelligence**
- FactoryTalk® AssetCentre software secures access to the control system, tracks users’ actions and provides backup and recovery of operating asset configurations
- FactoryTalk Historian software gathers historical information across different levels and tiers of the enterprise
- FactoryTalk VantagePoint EMI software provides a comprehensive picture of the factors contributing to operational performance

**Rockwell Automation Recognized System Integrator**
- EZSoft provided assessment consulting and documentation, integration, reporting including startup/commissioning

**Results**
Provided Remote Visibility of Pre-treatment Processes
- Created simple screens in VantagePoint EMI accessing live data

Increased Accessibility to Data
- Operators complete less data entry and can diagnose conditions with more accurate metering
- Reduced water discharge issues from a few each year to zero

Now managers can see at a glance what is being discharged to the township. Live data allows them to reduce potential water discharge issues that could result in fines.

**Background**
The right software tools can help operations managers monitor data and respond to change more easily and efficiently. A U.S.-based excipient (non-active tablet ingredients) manufacturer with international operations recently saw this firsthand in its water discharge treatment process.

When the company’s township upgraded its treatment facility, it also changed the manufacturer’s permit and requirements for its wastewater discharge, forcing the business to re-examine its water discharge practices. Under the new provisions, the company is required to provide monthly reports of daily discharge levels, in addition to CL and pH averages and minimums. Levels reported must be within township limits to meet compliance. The company could be fined for noncompliance if levels did not meet the new limits, so the factory needed to upgrade its systems.
**Challenge**

The company faced two challenges: a lack of intelligence in one area, and adequate data but no analysis in another. The water was monitored at the edge of the property though metering installed with chart recorders. The metering captured the necessary data for the monthly reports, but it was not easily accessible from the control room. This left managers unable to respond proactively to changing pH and CL levels in the pre-treatment process from remote locations.

Additionally, the existing monitoring systems acquired data using trends and recorded that data every two to five minutes. This added up to about 7MB per day, which gave the operators enough data but was not easily accessible or interpretable by the managers.

**Solutions**

The company took several steps to evaluate potential system upgrades that would ensure compliance with the new limits. After speaking with a number of software providers the company selected FactoryTalk applications from Rockwell Automation and contracted with system integrator EZSoft, a member of the Rockwell Automation PartnerNetwork™ program, to install the manufacturing intelligence solution.

EZSoft installed three FactoryTalk applications and integrated them with the existing system: FactoryTalk AssetCentre asset management software, FactoryTalk Historian data management software, and FactoryTalk VantagePoint EMI for data aggregation, analysis, remote visualization and reporting.

FactoryTalk AssetCentre provides one directory for managing enterprise system security from a single location. Set parameters provide personnel access by predefined credentials. This redundant architecture provides the company with greater flexibility to expand the system in the future.

FactoryTalk Historian collects and archives process variables within the pre-treatment process. This information is fed into FactoryTalk VantagePoint EMI, which provides greater accessibility to correlated data in real-time tabular reports and time-series trending. This manufacturing intelligence solution enables the company to analyze its data more immediately and efficiently to create the connections that help them make the decisions important to its production process.

**Results**

This new insight has helped several people who work with the company’s water discharge treatment process. For example, the manager of the pre-treatment process now has access to live plant data anytime from any Internet-enabled device. He can see tank levels, in addition to the past and current pH and CL statuses with simple graphical screens.

The environmental engineer can create monthly reports for the township more easily and efficiently with auto-populated data. She also has the ability to run discharge reports for past months and can complete all of her work at her desk. In addition, operators can reduce data entry time and diagnose upset conditions faster with automatic and more accurate metering.

The newly-integrated infrastructure can grow within the factory and across the company’s global system of factories and technical service laboratories. At this factory, the water discharge issues have already gone from a few each year to zero.

Going forward, the company plans to continue automating its data collection and expand deployments into other production facilities.

The results mentioned above are specific to EZSoft’s use of Rockwell Automation products and services in conjunction with other products. Specific results may vary for other customers.
EZSoft is a leading provider of information and control systems for the process industries. We provide full vertical integration from the process layer to the manufacturing operations layer to the enterprise layer and horizontal integration across the manufacturing supply chain.

We create component based solutions that enable our customers to control and optimize their manufacturing processes while at the same time deliver timely historical and time based data to the process, operations and enterprise levels in the organization.

With the goal to shorten the supply chain and embrace a make to order philosophy EZSoft has created a suite of tools and products that enable companies to achieve that vision. Our tools and products are developed based on the ISA-88 and ISA-95 standards. These standards facilitate our component based strategy which allows us to be extremely efficient in the delivery cycle.