

Chemical Manufacturer Upgrades OSIsoft® PI System™ and Deploys Golden Batch System

Many OSIsoft systems are older installations that have not kept pace with recent developments. New versions of the OSIsoft PI database include the Asset and Event Framework (AF / EF) databases, which allow ISA95 and ISA88-compliant meta data structuring. This approach simplifies data historian use and provides process data to a larger pool of users.

Objective

The objective of the project was to upgrade the main PI server and install the AF / EF databases along with a new OPC interface to connect to a Hitachi OPC server, define the asset and batch structures and calculate Golden Batch profiles to be displayed in real time on the operator screens.

Results

Process engineers and operators are now using the new system and its capabilities on a daily basis. New, custom-built ProcessBook displays allow operators to quickly scroll through the plant hierarchy and display process variables on the fly. The new Golden Batch application allows early fault detection and has already decreased process variability, leading to a more consistent product.

Solution

MAVERICK upgraded the PI server and installed asset framework (AF) and event framework (EF) databases on Microsoft® SQL Server. In addition, the team installed a new OPC interface to a custom-built Hitachi OPC server.

Working with the manufacturer's process engineers, the MAVERICK team designed the asset framework, including all enterprise levels, reactors, vessels, tanks and dryers.

Generic displays were developed for the following purposes:

- » Real time data
- » Overlay and replay data
- » Overlay batch data
- » Golden Batch data

MAVERICK developed a .NET-based COM interop to access the AF database using VBA within PI ProcessBook. The library allows retrieval of elements, attributes, engineering units and values.



The MAVERICK team configured a client image with Microsoft Office, PI ProcessBook, PI Batch, EXELE and PI-AF for a virtualized desktop environment.

MAVERICK developed and led training sessions for process engineers and operators, focusing on general PI applications and custom built displays.

Once the project was complete, the team developed project documentation detailing the system architecture, technology and use of the development environment.

A final project review examined lessons learned and provided migration steps for further process improvements.

The MAVERICK Difference

The customer relied on MAVERICK's deep expertise to select the right technology for their specific process. The data structuring and analysis resulted in quantifiable process improvements.



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