

# Large Pharmaceutical Company Generates FDA-Compliant Alarm Summary Reports using the OSIsoft® PI System

Due to its high data reliability and availability, OSIsoft PI is the historian of choice for most large pharmaceutical companies. Their need to produce context-specific reporting requires a robust data infrastructure as well as data abstraction using the Asset (AF) and Event (EF) Framework.

## Objective

The system showed performance problems with reoccurring time-outs of key data interfaces and hundreds of non-functioning tags due to equipment decommissioning. The objective was to stabilize the system and layout the foundation for future developments. To do this, the project was organized into three phases: interface and point remediation, AF / EF configuration and knowledge transfer.

## Results

The MAVERICK team resolved all interface issues and remediated stale points using an automated process. The alarm report is now being used to create weekly summary reports. During the knowledge transfer, the team installed a monitoring system to reduce the maintenance tasks and improve reliability going forward.



## Solution

**Phase I:** MAVERICK identified the root causes for the interface malfunctions by setting up monitoring on PI-OPC, PI-TCP, PItoPI and PI-EMDVB interfaces. The result showed that excessive polling of network monitoring interfaces caused connection time-outs. The scan rate was reduced and the system was then readily stabilized.

An automated process identified stale tags. The process reviewed all tags by key metrics such as write speed and last good value recorded.

The MAVERICK team reviewed the point analysis review with the controls engineering group. Stale tags were cross-referenced to the configuration in DeltaV.

MAVERICK provided Excel templates for the operational verification of point changes and used work orders as the change order process to document the modifications in the system.

The team completed Phase I ahead of schedule, and the analysis discovered all questionable PI points and interface problems.

**Phase 2:** In this phase, the team installed ISA-95 compliant AF templates and ISA-88 compliant EF templates. These templates are standard templates provided by MAVERICK and allow seamless integration of PI data in the Manufacturing IT environment.

In collaboration with the customer, the team developed an initial equipment structure, which was reviewed with operations.

**Phase 3:** During the knowledge transfer phase, MAVERICK set up error log monitoring on all interface nodes. This will reduce the maintenance efforts and, over time, lead to a more robust system.

The main operations in the project were packaged in a C# library and integrated into Excel as an Add-In feature. This includes tag analysis, validation and alarm reporting.

The MAVERICK team trained all engineers and managers on ISA standards and how they apply to OSIsoft AF and EF, best practices to achieve high data quality, and fast and effective operational verification of PI points.

### The MAVERICK Difference

By automating PI server maintenance operations and providing templated solutions for AF and EF, MAVERICK provides fast, consistent and standardized PI installations and configurations. As a result, applications such as alarm reporting are easy to maintain and extend.



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