Uniforce® PHD Selected as Choice Historian for Gas Processor

Application Note

With Uniforce PHD, we have a successful implementation that provides the level of enterprise data we need to address our key requirements. The historian captures relevant data across multiple plants and the result is greater accuracy, faster troubleshooting, and greater confidence in our decision making.

- Automation Supervisor

Challenges

The process automation team at the Gas Processor Company evaluated several operational areas and identified those that needed improvement.

The team noted the following key findings:

- Many geographically distributed sites were not connected.
- A number of sites are acquired from a variety of companies needed a solution that could be connected to the mix of equipment vendors from those different sites.
- Long-term history was not being collected.
- Plants used manual reporting methods and relied on operator memory for process upsets and environmental issues.
- Data was not available for process optimization.
- Operations could not correlate pipeline and plant history.

The team realized that a historian with rich functionality and an enterprise-wide database would provide the foundation and tools to address these key challenges. They began an analysis of historian products and found at least 20 different products that might meet their needs. The team narrowed the evaluation down to the three leading historians, which included Honeywell Uniforce PHD. The evaluation criteria were based on their requirements, by ranking, and how each of the three leading historians met those requirements.

Product evaluation was not the only challenge they faced. Internal perceptions and bias presented challenges in historian implementation.

The major internal challenges included:

- Management reluctance, as a previous vendor for a non-historian related software implementation had failed to deliver as promised.
- Company culture did not embrace network connectivity to plant control systems for security reasons.
- Because of diversity at many of the plants involved, IP addresses needed to be changed.
- Many disparate control systems needed to connect and plants with PLC systems could not be re-addressed online.
- Most of the plants were islands unto themselves and had never had antivirus or updates implemented. Many were on obsolete operating system versions, such as Windows XP.

With more than 450,000 tags to configure, they needed a system that could handle this number of tags, with adequate network bandwidth.

Customer’s evaluation of total project cost included software, hardware, and networking. Over a 12-year period, the analysis showed that Uniforce PHD was the most cost effective choice from year 1 all the way through year 12.

A Senior Process Control Engineer, commented: “Uniforce PHD is very cost effective – Best bang for the buck!”
Advanced Solutions from Honeywell

Unifomance PHD is part of Honeywell’s Advanced Solutions Unifomance Suite, a fully integrated suite of best-in-class data, analytics and visualization products built on a common platform, designed to meet complex customer challenges while delivering significant business value with reduced total cost of ownership.

This powerful historian reduces data collection effort by 25% through intelligent analytics. Plus, through the secure process network, customer is able to access critical process control information whenever it is needed, while maintaining data security.

Solution
The Customer needed a solution with an established user base, well-developed user tools, the capability to handle enterprise data, and supported by a company with substantial financial background and industry experience.

Unifomance PHD was selected as the best solution.

Benefits
Unifomance PHD captures and stores real-time process event data across the enterprise, enabling users to make the right process decisions through fast access to required data. It features robust data collection, distributed architecture across multiple sites, scalability from single unit to enterprise, and system monitoring to ensure high availability.

Unifomance PHD’s Consolidated Event Journal provides a history of operational alarms, events, and process changes for incident reporting and investigation. It combines traditional trends and graphics with alarms and events to understand and troubleshoot incidents. In addition, integrated calculations apply engineering knowledge to raw data.

Results
The Customer characterized their Unifomance PHD implementation results in five areas.

- **Training** – The training conducted in a group setting at each site was very successful, with the majority of questions focused on how to find pipeline tags. Personnel were able to use their own laptops and attendance was higher than anticipated.

- **Process Trouble Shooting** – Customer highlighted two areas: air finned coolers and fired heater output. They found that, during the cooler months, the WSAC (wet surface area cooler) was actually warming the process. They implemented fan staging and saved energy. The fired heater output was swinging, making it difficult to control fractionation towers. They found a pressure regulator on the fuel gas header was sticking.

- **Modeling** – Customer had previously used screen shots taken hourly as their data. After some initial struggles with developing an accurate process model, the use of models is now more common. Data accuracy is the main benefit.

- **Reports and Trending** – Operators have saved time and improved accuracy by automating daily and monthly reports. Plant operators are able to trend pipelines and some plants use Unifomance PHD trends exclusively.

- **Measurement** – With the use of acoustic transmitters to detect flaring, operators fix issues faster now that the data can be seen outside the plant. Using composite sampler, they can easily troubleshoot measurement problems by viewing the data. A greater accuracy in truck loads has been reported, compared to the previous method of driver estimating. They now use historian data for their inventory system instead of operator entered data, providing greater accuracy.

For More Information
Learn more about how the Honeywell Unifomance’ Suite provides the data, analytics and visualization solutions you need to turn plant data into actionable information, visit www.unifomance.com.

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Summary
Following this successful Unifomance PHD implementation, the customer is evaluating additional solutions from the Unifomance Suite, including Unifomance Asset Sentinel and Unifomance Insight.