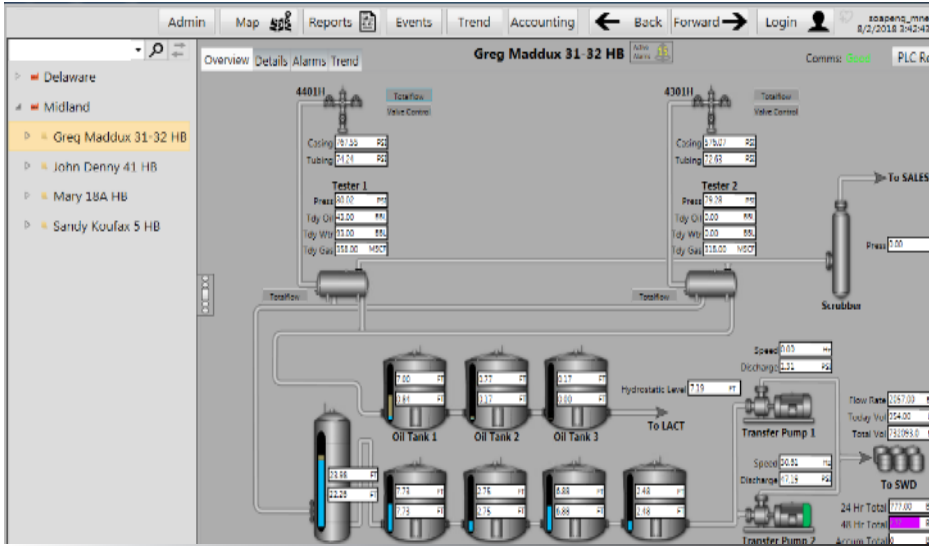# INCREASING OPERATIONAL EFFICIENCY WITH SCADA IMPLEMENTATION

Upstream (South Texas) company utilizes a SCADA Implementation to bridge the gap in data availability and operational action.

Challenge Overview

The Upstream company was using XSPOC Production Optimization software for artificial lift analysis for their well operations. XSPOC focuses on well operation diagnostics and provides recommendations to resolve issues. This temporary SCADA solution for their horizontal facilities lacked some features, because it was not designed for facility management. The operations team struggled with reoccuring tank spills and downtime due to lack of monitoring and proper notifications.

To streamline facility management, the Upstream company wanted to focus on building out their SCADA operations team. The team currently relied on multiple sources of data to compile reports and detailed information for field personnel (Foreman and Pumpers) and Management. Sources of data include eVIN, Carte, and XSPOC.

Project Scope

SOAP Engineering was brought in to help select a SCADA system to implement for monitoring the production facilities. SOAP needed a system that was flexible enough to deal with the variety of PLC platforms that were used to manage the different assets. Measurement data was also brought into the same SCADA system so all data related to the facility was stored in one place.

The system designed consisted of a web and mobile platform to allow versatility in the access of data. Alarm management was also put in place to route notifications via email, SMS or phone call.

BACKGROUND

Challenge

+ Around 150 well-sites were acquired overtime with different hardware and software platforms
+ Large number of tank spills and downtime due to improper or lack of monitoring

Solution

+ Design and implement an end-to-end SCADA system to make all production data available for analysis
+ Monitoring alarms and enabling notifications to allow for better routing of operations personnel

Outcome

+ Reduced tank spills by 25%
+ Decreased response time to maintenance issues by 50%
+ Allowed for operations routing based on alarm priority and geographic location

Tools & Technology

+ KEPServerEX
+ ICONICS Genesis64
+ ICONICS AlarmWorX MMX

Technical Implementation

ICONICS Genesis64 was chosen as the SCADA platform. ICONICS AssetWorX product helped to normalize the tag structure and allowed for building templatized design for faster development. The Kepware platform was utilized to connect to various different PLC protocol through their suite of drivers. ICONICS AlarmWorX and Multimedia tools were used to prioritize facility alarms and route them through various workflows to notify the appropriate operations resource for actioning.

ICONICS ReportWorX was setup to allow for reporting across the entire field or a particular wellsite. The reports included everything from battery life remaining of transmitters to an overall production summary that could be passed on to management.

The Business Case

In today's environment, automation is vital to the success of oil and gas operations. Lower oil prices shift the focus from exploration to performance optimization. The first step in doing this is ensuring that there is sufficient monitoring and data access to all field assets.

For this project, the implementation of the ICONICS Genesis64 SCADA platform brought in data from different equipment and systems within the field to one main monitoring system. The easy-to-use navigation and visual elements simplified the operational use of the system to allow for better knowledge on the status of their system performance.

This helped the company's field operations team save time and money by decreasing the number of field personnel required to maintain each Production facility and added efficienies into the ablity to route the required personnel to the correct site to minimize downtime.

> The SOAP team was always quick to respond to any issues. They had a strong knowledge of the systems they were working with.

SCADA Supervisor
Upstream (South Texas)

SOAP Engineering has earned its reputation as one of the country's premiere System Integrators, and have served the oil and gas industry almost exclusively on referrals. Our focus on advanced integration strategies that account for a rapidly evolving technology landscape provides our clients with innovative solutions to Upstream and Midstream facilities management.

SCADA. Intelligence. Delivered.

For more information, visit:
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