

CUSTOMER USE CASE

THE PROBLEM

A Maximo user of over 15 years, the Customer already had an established maintenance program, but they were experiencing growing pains brought on by several acquisitions. Maintenance did not have a clear line of sight on asset data collected by operations and were sometimes left out of minor line issues altogether. As a result, "tribal knowledge" became more reliable than the system for all maintenance information.

Looking to standardize these processes and move towards a predictive maintenance structure, the Customer identified an opportunity to better manage their asset data and utilize it within Maximo. They wanted to understand their smaller issues and act on them more efficiently.



CUSTOMER PROFILE

Company: A large dairy manufacturer

Customer Project Lead: Asset & Reliability Engineer, Chair of Maximo Manufacturing User Group, Maximo Super User and Certified CRL

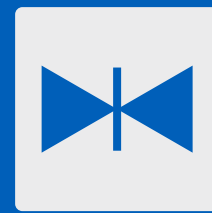
Total Number of Sites: 7

Maximo Use: Version 7.6

Critical Asset Involved: Milk separators, clarifiers

PILOT DETAILS & IMPLEMENTATION

After selecting a pilot site, the Customer brainstormed three use-case scenarios to test the solution's ability to create a work order in Maximo. All three use cases leveraged information that was already being captured in another system, but were not provided to the maintenance organization.



Valve Cycles

Valve = track number of cycles
After 30k cycles, create a work order in Maximo to check O-rings



Temperature

Set control temperature and check for deviations that last longer than 20 minutes



Temperature Comparison

Compare multiple readings for temperature within heating and cooling media



How does it work?

A two-way integration between an EAM system like IBM's Maximo and PTC's ThingWorx allows maintenance organizations to aggregate any asset data, create "recipes" to identify when conditions require action, and automate the response from maintenance.

SOLUTION OVERVIEW

In order to tackle these smaller, often recurring issues, the Customer needed a way to build onto their existing maintenance infrastructure by harnessing the data they were already routinely collecting. The key focus of this project would then be to:

- Utilize existing SCADA/IoT data to eliminate smaller losses
- Migrate from time-based preventive maintenance to condition-based maintenance
- Digitize analog information and bring it into Maximo

Using the customer's existing IoT infrastructure of PLCs, sensors, and meters, Aquitas could easily implement the solution with these goals in mind and help move their maintenance program towards a predictive management strategy.

These use cases impacted the Customer's maintenance processes in three key areas:

1. Automatic Meter Readings are now taken directly from the PLCs attached to plant equipment to track run hours, which will then flow into Maximo's meters and create work orders as needed. Previous processes relied on manual readings that would be taken twice daily and recorded on paper.
2. Time-consuming, intrusive preventive maintenance activities are far less frequent thanks to asset data that now drives maintenance. Using this data to reveal when conditions require maintenance rather than routine scheduling frees up time for technicians and eliminates unnecessary labor.
3. Smart anomaly detection has improved the accuracy of and attention to irregular fluctuations in asset performance. In the previous process, an anomaly could easily be missed or inadvertently addressed, but with Connected Maintenance the Customer can guarantee that these conditions will be monitored and flagged appropriately in Maximo.

SOLUTION IMPACT

In total, over 100 assets on the plant floor are being monitored with Connected Maintenance, and the Customer has fundamentally changed their approach to maintenance. In this implementation, they were able to reduce labor hours by eliminating non value-add PM activities and increase the accuracy of their data collection by automating many of the maintenance processes. They are currently working through Phase II and III of the project - expanding use case scenarios to further utilize the capabilities of the platform. Although the project is still ongoing, they expect a significant impact on cost savings, productivity, and product quality.