



CUSTOMER CASE STUDY

Empowering Industrial Operations with ML Core Predictive Modeling

Simplifying machine learning workflows for real-time asset analytics and proactive maintenance

Solution: ML Core **Industry:** Industrial Operations **Use Case Focus:** Predictive Asset Analytics

GOALS

- Simplify the creation of predictive models using automated machine learning workflows.
- Deliver accurate real-time data predictions through an intuitive operator interface.
- Clarify the primary objective described in the source.
- Align the initiative with stated business priorities.

SOLUTIONS

- Deploy template-driven contextualization to streamline asset analytics and ensure consistency
- Embed predictive models directly into existing platforms like Seeq and AVEVA PI for real-time
- Tune machine learning models to the plant's unique characteristics and historical data
- Apply the described approach to the core problem.

CHALLENGES

- Industrial datasets from fragmented sources lack the structure needed for efficient model
- Generic machine learning models fail to capture the unique operational behaviors of industrial
- Address the key constraints noted in the source.
- Reduce manual effort across the current process.

RESULTS

- Operators receive early predictive alerts that allow for proactive interventions and reduced
- Integrated dashboards provide immediate visibility into model outputs to enhance
- Plant operations achieve streamlined asset analytics through consistent, easy-to-use templates.
- Improved clarity over the previous approach.

EXECUTIVE SUMMARY

Industrial organizations frequently struggle to apply machine learning to fragmented datasets, resulting in delayed and reactive operational decisions. ML Core addresses these hurdles by simplifying the predictive modeling process through automated machine learning and template-driven contextualization. By embedding custom-tuned models directly into existing industrial platforms like Seeq and AVEVA PI, ML Core provides real-time, highly accurate predictive insights. This transition enables plant operators to move from reactive troubleshooting to proactive interventions, successfully minimizing unplanned downtime and optimizing asset performance.

Overcoming Industrial Data Complexity

Applying machine learning to industrial environments is historically challenging due to extreme data fragmentation and a lack of structured inputs across legacy systems. Traditional generic models often fail because they do not align with the unique, complex behaviors of specific plant assets and processes. Consequently, operators face delayed insights, forcing them to react to costly equipment failures after they occur rather than preventing them. To bridge this critical operational gap, industrial facilities require a simplified, highly scalable approach to train, deploy, and manage predictive models that reflect real-world plant dynamics.

Streamlining Analytics with ML Core

ML Core simplifies predictive modeling by utilizing automated machine learning (AutoML) within an intuitive user interface. The solution introduces template-driven contextualization, which standardizes asset analytics to ensure consistency, accuracy, and ease of use across all complex industrial systems. Rather than relying on generic algorithms, each model is custom-tuned to the plant's unique operating characteristics and historical data patterns. Furthermore, ML Core integrates seamlessly with existing enterprise platforms such as Seeq and AVEVA PI, embedding real-time predictive capabilities directly into daily operator workflows.

Driving Proactive Operational Decisions

Integrating custom predictive models into plant operations delivers immediate, actionable visibility for control room teams. Through centralized dashboards, operators can monitor live model outputs and receive early warnings regarding potential equipment anomalies. This proactive operational stance allows maintenance teams to perform targeted, scheduled interventions before failures occur, significantly reducing unplanned downtime and maintenance costs. Ultimately, combining automated machine learning with seamless platform integration empowers industrial enterprises to maximize asset reliability, improve safety, and make rapid, data-driven decisions.