Deloitte.

Live Enterprise – Predictive Maintenance

Function: Manufacturing
Processes: Production, Maintenance
Industry: Manufacturing

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Business Driver

While a lot of shop floors have all the data available for efficient decision making, the key to predict the machine failures lies hidden in the noise. Predicting those failures ahead of time can help prevent downtime, additional costs and long term damage. Extracting information from this huge data is like finding a needle in a burning haystack, especially when time is of the essence.

Solution Overview

Deloitte's use case of "Live Enterprise – Predictive Maintenance" built on top of SAP® Predictive Maintenance and Service provides a holistic management of asset health and decision support for maintenance schedules and the optimization of resources based on health scores, anomaly detection, and spectral analysis.

Features

Connect Sensors from shop floor to the digital core

- ✓ Apply deep analytics capabilities on sensors available on the shop floor
- ✓ Generate actionable insights from the shop floor signals into the SAP S/4HANA® Digital Core and through to IBP Response Management for immediate action and re-planning

Predictive Analytics

- ✓ Survival techniques
- ✓ Anomaly detection
- ✓ Distance based analysis

Scalable, High Performance and Open Platform

- ✓ Integration with SAP® IQ for low cost data storage
- ✓ In memory computing SAP HANA® database with connected R server

Potential Benefits

- ✓ Improve asset utilization via reduction of unscheduled asset downtime and extending the useful life of assets.
- ✓ Increase in machine uptime can contribute to improved productivity and increased revenue.
- ✓ As an OEM, you can serve your customers better by monitoring customer assets and providing them with a timely maintenance.
- ✓ Move towards a service-driven business model over a product-driven business model with a higher guarantee on the asset longevity and utilization

IoT	• Connected Sensors/Telemetry • Historian Integration • Real Time Streaming & Big Data Storage
Machine Learning	• Real Time Data Scoring • Predictive Modeling of Maintenance Needs
Analytics	• Geographical Dashboarding • Asset Health Scoring • Simple Extension to Provide New Customer Specific Analyses • History and Trend Analysis • Real Time Reporting in Lumira
SAP S/4HANA Integration	• Plant Maintenance Integration • Quality Management Integration

Deloitte ReimaginePlatform