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**Forging a path towards predictive asset performance management with** **ABB Ability™ Genix**

**By Charles Blackbeard, Business Development Manager, ABB Ability Digital Solutions**

**Charles Blackbeard,** *Business Development Manager for ABB Ability™ Digital Solutions elaborates on the evolution from reactive or time-based asset performance management (APM) to Genix APM, highlighting why collaborating with a reliable technology provider will help industrial operators mitigate costly downtime and optimise profitability.*

In today’s industrial processes, assets are fundamental to keeping the production cycle going, avoiding unplanned shutdowns, and ensuring strategic business outcomes. Managing and maintaining these assets dictates the efficiency of industrial operations and meeting customer needs. With digitalisation, asset performance management (APM) is moving away from traditional time-based maintenance approaches, which can lead to high costs, low output, unplanned work, safety risks, environmental damage, regulatory issues, and energy inefficiencies.

The ABB Ability™ Genix APM suite is a comprehensive asset management platform powered by artificial intelligence (AI), the industrial internet of things (IIoT), and model-based predictive data analytics. This enables a paradigm shift towards a more proactive and predictive asset management approach.

**Maximising performance, minimising failures**

Data is at the heart of APM. Access to data on operational systems (OT), information technology (IT), and engineering technology (ET) is helping industries such as oil and gas, refining, and power generation to monitor their critical assets proactively.

By applying this data-driven approach, the Genix APM suite leverages advanced analytics and predictive algorithms, and provides insights into asset health, identifies potential issues or failures, and recommends proactive measures to avert unplanned downtime – thereby establishing a reliability culture.

Furthermore, it reduces maintenance costs and wastage, optimises energy usage, and helps enterprises meet their business and sustainability targets. Moreover, it engenders greater confidence among plant operators to act proactively based on actionable insights to avoid production incidents.

Lack of visibility across assets can give rise to risk exposure and potential costs. The Genix APM suite begins with an initial event – such as a process upset or asset degradation – that triggers the implementation of protective measures to prevent further failures. These measures start with rules-based monitoring, ranging from simple sensor alerts to more complex conditional statements based on multiple sensors.

Genix APM also includes various risk and predictive analysis models. These include Predictive System and Analytics, which integrates technologies into a unified APM solution for the process automation industry while facilitating predictive maintenance by contextualising OT, ET, and IT data.

Furthermore, Genix APM goes beyond routine-based predicted maintenance schedules and equipment condition monitoring while giving role-specific actionable insights, thereby helping tactical decision making. Efficient asset maintenance based on real-time data reduces maintenance costs by more than 15 percent and downtime in industrial contexts by more than five percent.

**Ensuring safety, higher productivity**

Genix APM plays a key role in ensuring safety and helping reduce energy usage by providing data on asset utilisation and enabling plant operators to prioritise and optimise productivity. It has been implemented across various industries worldwide.

Norwegian oil and gas producer OKEA has a Memorandum of Understanding (MoU) with ABB to deploy digital solutions that help drive smarter, safer and sustainable operations. As part of the MoU, signed in 2019, OKEA has been leveraging ABB’s digital offerings, including APM.

**Strong domain expertise**

ABB is a pioneer in automation, electrification, and digital solutions and is making a world of difference in enhancing asset performance and extending asset lifespan. In July 2024, ABB was recognised as a leading provider of APM solutions based upon the Genix suite, by Verdantix.[[1]](#footnote-2)

The research firm, which evaluates software suppliers across 18 capability areas and nine strategic success factors, placed ABB in the Leaders quadrant for its advanced functionality and strategic advantages offered by its solutions.

As production processes become more complex, evolving towards a more proactive and predictive APM is welcome. And collaborating with a leading solution provider like ABB will help achieve operational excellence and optimise productivity.

**ABB GROUP Press Release**

ABB is a technology leader in electrification and automation, enabling a more sustainable and resource-efficient future. The company’s solutions connect engineering know-how and software to optimize how things are manufactured, moved, powered and operated. Building on over 140 years of excellence, ABB’s more than 105,000 employees are committed to driving innovations that accelerate industrial transformation. www.abb.com

**ABB Process Automation Press Release**

ABB’s Process Automation business automates, electrifies and digitalizes industrial operations that address a wide range of essential needs – from supplying energy, water and materials, to producing goods and transporting them to market. With its ~20,000 employees, leading technology and service expertise, ABB Process Automation helps customers in process, hybrid and maritime industries improve performance and safety of operations, enabling a more sustainable and resource-efficient future. go.abb/processautomation

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1. [↑](#footnote-ref-2)