

Driving Business Success Through Asset Performance Management



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Streamlined operations, predictive maintenance and risk minimization have become increasingly important for organizations looking to achieve better cost management and throughput. Asset Performance Management (APM) has not only been refined to integrate operational data monitoring and asset failure prediction, but also to synchronize with maintenance systems - ultimately helping organizations minimize risk and improve cost optimization.

As defined by independent research and advisory firm Verdantix, APM encompasses “industrial software applications and associated asset content that monitor operational data, predict asset failures, and synchronize with maintenance systems to generate insights that help optimize operations reliability, prioritize repairs, plan inspections and enhance asset risk management.”

Organizations see APM as an essential business driver, predominantly for four reasons:

 <p>Cost Optimization</p> <p>By leveraging APM’s predictive ability, organizations can anticipate asset failures and prioritize maintenance tasks, leading to significant risk and cost reduction.</p>	 <p>Throughput</p> <p>APM helps organizations detect emerging failure risks to operations, ensuring optimal uptime and uninterrupted production lines.</p>	 <p>Sustainability</p> <p>Beyond pure operational considerations, APM is vital in keeping an organization’s environmental promise by monitoring energy usage and managing waste production.</p>	 <p>Productivity</p> <p>APM’s capability to capture and catalog workforce knowledge means that companies can derive the best from their team, fostering improved productivity and efficiency.</p>
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Implementing a modern digital APM solution is essential for driving these business initiatives, supporting asset strategy success and ultimately achieving operational excellence.

Introducing HxGN APM

As a new addition to Hexagon's portfolio, HxGN APM offers exceptional capabilities to serve various industrial markets on their journey toward operational excellence.

HxGN APM revolutionizes asset strategies and maximizes asset value by allowing industrial organizations to carefully balance performance, cost and risk. This balance facilitates a proactive work process that assesses and prioritizes asset risk exposure and protects against known failure modes. Moreover, it diligently monitors asset condition and performance, enabling organizations to act swiftly when risk escalates, or potential threats emerge.



HxGN APM offers an advanced analytical and optimization engine to solutions like HxGN EAM, HxGN SDx2 and j5 Shift Operations Management. This operationalizes asset strategies that carefully strike a balance between performance, cost and risk, which aligns with Hexagon's commitment to driving sustainable, data-driven transformations in asset-intensive industries."

Inderpreet Shoker
Director of Research at ARC Advisory

HxGN APM Drives Proactive Asset Management

With HxGN APM, organizations can provide their team with a standardized and holistic work process. Not only is this work process effective in helping organizations achieve optimal asset strategies, it has been designed to enable equipment experts to drive a scalable model with four key elements:



Ease-of-use

Designed to simplify processes, engage experts, and drive improvement.



Embedded libraries and Asset Twin

Models promote reuse and rapid scaling of strategies across operations, enabling immediate implementation.



Enterprise Data Integration

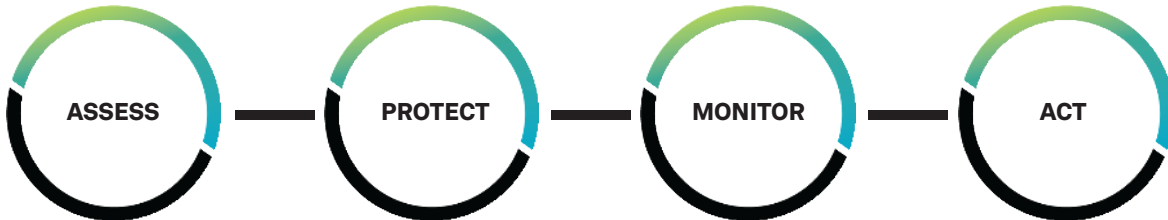
with existing business systems (EAM, inspection systems, sensors, historians, data lakes, etc.) to create automated workflows.



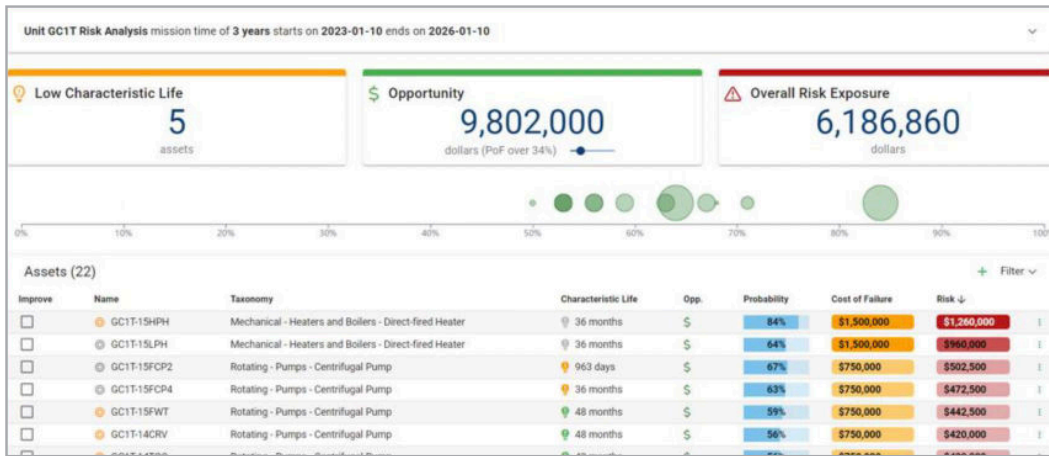
Collaboration tools

allow tapping into people's talent, engaging equipment experts, and capturing knowledge for ideal failure risk remediation and lessons learned.

Now, let's take a closer look at HxGN APM's standard workflow, including its four main steps, featured below:



Assess Risk



HxGN APM uniquely assesses failure risks on pivotal assets. It spotlights the riskiest assets, compares performance against industry standards and calculates risk impact to focus on asset strategy optimization.

Protect Asset



HxGN APM empowers users to create, import, or select asset strategies from its comprehensive embedded library, enhancing asset protection. It goes beyond mere strategy selection by uniquely operationalizing these strategies within minutes, not weeks—dramatically accelerating time-to-value compared to other APM solutions. At the core of HxGN APM are market-leading information management capabilities, featuring advanced machine learning models. These models can be easily trained and simulated by users to determine optimal asset operating contexts. This powerful combination allows professionals to leverage their expertise more effectively, leading to higher-quality decisions made with greater confidence. By streamlining the process from strategy selection to implementation and optimization, HxGN APM sets a new standard in the APM market for rapid, intelligent, and impactful asset management.

Monitor Twin



HxGN APM integrates existing data and applies analytics to identify emerging threats, offering immediate asset health reports, anomaly detection and potential failure warnings. HxGN APM has the unique ability to gather evidence of faults, defects, and anomalies. It is purpose-built to generate advisories based on that collected evidence, that serves up all the information human experts need to apply their judgment and make decisions.

Act on Threats

GC1T-14HEX - Supply Side Pump Twin ★

Protections

1k

Max Level

Failure Consequence: \$550,000

Advisories

4

Active

Last evaluated 21 hours ago

- Bearing Indicator (Vibration and Te...
- PM 1M - Ensure Operating Parame...
- Inboard Bearing Temperature (degr...

GK4-HX101B ★

Protections

1k

Max Level

Failure Consequence: \$350,000

Advisories

1

Active

Last evaluated 3 years ago

- Corrosion Rate
- ΔP Across Heat Exchanger Tubes
- HTHA Indicator (Hydrogen Partial ...

GC1B-01TR1 ★

Protections

1k

Max Level

Failure Consequence: \$250,000

Advisories

5

Active

Last evaluated 21 hours ago

- Perform Thermography
- Hydrogen Level
- Circulating current winding

GC1T-14CRV ★

There are 7 protections at an elevated level. Those protections identify 7 failure modes at risk based on current asset health conditions. Failure modes at risk are: **Bearing Failure, Impeller Wear, Internal Wear, Coupling Misalignment, Seal Failure, Lubricant Loss, and Undefined Failure Mode**

The following activities have been initiated through advisories to mitigate failures: **Visual Inspection - Submitted and Evaluate Pattern data - Active**

The solution's act feature fosters collaboration for risk mitigation and optimization. It handles non-conformities, automatic evidence collection and collaborative decision-making. It has the unique capability of ensuring the strategies are in place and achieving their intended results.

As the HxGN APM work process is executed, it provides a lifecycle assessment of strategies, tracks remediations and encourages collaboration on corrective actions. It also catalogs best practices in the Asset Twin Library for ongoing improvement.

Organizational Benefits

Up to **10%**
cost reduction
in annual
maintenance
expense spend

1-4%
increased
mechanical
availability

Lower
administrative
burden than
competing
APM solutions

20%
improvement in
user experience
and expert
productivity

Avoid Equipment Downtime and Unplanned Events

HxGN APM uses advanced analytics to assess equipment conditions and provide early warnings for predicted failures, ensuring smooth operations and preventing costly downtime.

Optimize Maintenance Spend

HxGN APM prioritizes resources for assets posing the highest threat to business continuity, optimizing your maintenance budget by directing spending where it matters most.

Lower Operational Risk

HxGN APM enhances situational awareness for faster decision-making on threats to equipment, personnel and sustainability, reducing operational risk and ensuring a safer workplace.

Standardize Asset Strategies

HxGN APM standardizes asset strategies and best practices through library-driven management. This includes managing failure modes, maintenance plans and recommended monitoring activities to create a standardized operational repository that reduces variability and improves efficiency.



I haven't seen a simpler, more easy-to-use, yet powerful and sophisticated APM solution."

Joe Perino
Industry Analyst at PERTEX



Would you like to see HxGN APM in action? Try our [Asset Risk Analyzer Tool](#), a free and easy-to-use solution for assessing industrial asset risks and criticalities. By leveraging HxGN APM's capabilities, organizations will enhance their asset performance while effectively minimizing unnecessary risks. Are you ready to improve equipment efficiency and business performance? Standardize your asset strategies and lower operational risk with HxGN APM.



About Hexagon

Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, quality and safety across industrial, manufacturing, infrastructure, public sector, and mobility applications.

Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's Asset Lifecycle Intelligence division helps clients design, construct, and operate more profitable, safe, and sustainable industrial facilities. We empower customers to unlock data, accelerate industrial project modernization and digital maturity, increase productivity, and move the sustainability needle.

Our technologies help produce actionable insights that enable better decision-making and intelligence across the asset lifecycle of industrial projects, leading to improvements in safety, quality, efficiency, and productivity, which contribute to Economic and Environmental Sustainability.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 24,500 employees in 50 countries and net sales of approximately 5.5bn USD. Learn more at [hexagon.com](https://www.hexagon.com) and follow us [@HexagonAB](https://twitter.com/HexagonAB).