

IBM Maximo APM – Predictive Maintenance Insights

Highlights

- Reduces unplanned downtime
 - Optimizes maintenance plans and resources
 - Extends asset life
 - Visualizes asset performance
 - Reduces implementation & IT costs
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Identify and manage asset reliability risks that could adversely affect plant or business operations

The world is more connected than ever before. Using Internet of Things (IoT) technologies, manufacturers are collecting large amounts of data from their machines but do not know how to optimize it. It's as if their machines are speaking on mute. They have so much to say but we simply cannot hear them.

You may even have a rough estimation of how long your assets and equipment will last but how confident are you in that estimate? It could be much more or much less – and you won't know until it's too late.

At the same time, accurate analysis of asset performance and maintenance practices is a factor of the quality and variety of the data captured. Inability to access relevant data undermines accuracy and lessens the prescriptive value of any recommendations that could be made (see Figure 1).

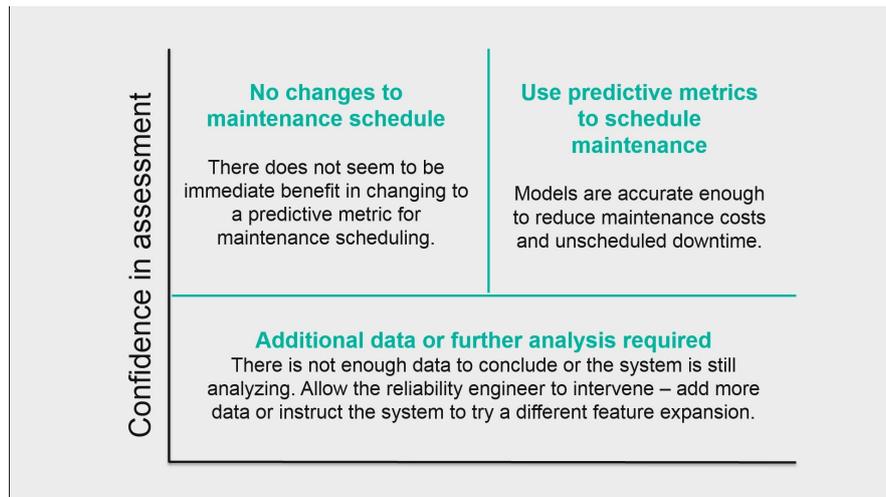


Figure 1: Machine learning analyzes operational data to determine confidence in assessment

IBM Maximo APM - Predictive Maintenance Insights is part of IBM's Asset Performance Management (APM) suite and focuses on the needs of maintenance managers to identify and optimize asset reliability and risks. It applies machine learning to make processes more efficient and dependable. It prescribes actions based on predictive scoring, identifies factors that positively and negatively influence asset health, and delivers a detailed comparison of historical factors affecting the asset performance.

This solution enables workers in asset-intensive industries to:

- Quickly assess and analyze performance of critical assets
- Utilize this data to help plan and prioritize maintenance schedules
- Determine which assets are being over-, under-, or well-maintained to improve resource allocation and extend asset lifespan
- Drill down to examine the performance of individual assets, including attributes, risk factors, maintenance logs, and predicted time to failure, and use this detailed insight to prescribe asset-specific or asset-class maintenance strategies

See the next page for key solution features.

Gain asset visibility

Provides a user experience that incorporates the concept of “cards”, which represent individual assets. It allows maintenance managers to easily access information to determine which assets are being over-, under- or well-maintained and uses this prescriptive analysis to optimize maintenance practices and resources.

Understand drivers and risk factors

At the most granular level, maintenance personnel gain an understanding of individual drivers and factors that affect asset performance, as well as detailed attributes of the asset, predicted time to failure, and maintenance logs. This can be used to recommend or prescribe practices or procedures to improve maintenance strategies.

Compare asset performance

A maintenance manager can chronologically compare drivers and risk factors such as hours of operation, failure frequency, AND cycles for a specific asset. This level of detail can help a manager visually correlate factors that are positively and negatively influencing asset performance

Use machine learning & advanced analytics

Apply machine learning to identify correlations between maintenance data and operating data. In some instances, analysis may indicate current asset maintenance schedules and practices are ideal. For others, analysis will call for immediate attention to avoid asset failure or postponed to avoid unnecessary maintenance.

Why IBM?

Current IBM Maximo users can gain additional value from their investment with this solution. The addition of Maximo data can help to develop more accurate models of asset performance. This solution also aggregates data around maintenance activities to evaluate current strategies. Unlike other predictive maintenance products that simply provide an alert, IBM's solution offers recommendations to improve for individual assets or asset classes.

To accommodate the widest variety of data sources, [IBM Maximo APM – Predictive Maintenance Insights](#) also provides a data ingestion API for connecting to external data sources, thereby enabling access to relevant data contained in a wide range of systems of record.

Finally, IBM's Design Thinking has been applied to provide a user experience that incorporates the concept of "cards", which represent individual assets. This innovative approach to reporting allows reliability engineers to easily access information relevant to their specific responsibilities and utilize these insights to help continually improve maintenance schedules.

Next steps

→ [IBM and Kone: Watson IoT gives life to innovation in smart buildings](#)

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For more information

To learn more about IBM Maximo APM – Predictive Maintenance Insights please contact your IBM representative or IBM Business Partner, or visit the following website(s): ibm.co/predictivemaintenance

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