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Real-time industrial monitoring

Improve operations, assets and sensor health with IIoT analytics

Operations and processes alerts

Asset and equipment health check

Sensor, network and connectivity alerts

The Issue

Process monitoring solutions, such as statistical process control, monitor and control a process to make sure it operates efficiently, resulting in high quality and productivity while minimizing waste. Add real-time capabilities, and SPC can identify process deviations to fine-tune industrial operations on the fly. In theory, that should be enough to hold process performance to exacting standards. But is it? Or is it just delivering an incomplete view of process health?

In an asset-heavy industrial environment driven by high-volume, high-speed Industrial Internet of Things data, there could be inconsistencies and errors in the process parameters under observation. Is the asset itself underperforming, or are its sensors delivering incorrect data? Are the sensors operating correctly? Or are network issues skewing the data? Any of these could mislead operations or quality managers with false positives and false negatives and lead to unnecessary, misinformed or missed corrective action.

The Challenge

Disconnected processes. Industrial operations, assets and sensors are often monitored by multiple departments that operate separately with little collaboration.

Disparate systems. Monitoring solutions at each level are built in-house or procured from multiple software providers, each adding cost to the overall IIoT implementation.

Lack of in-house expertise. The organization depends heavily on an internal IT department or third-party IT service providers to operate and maintain the software systems.

User-unfriendly. Business users who lack coding or data science knowledge find it extremely difficult to use these applications. It's a real challenge to configure and implement rules to get usable insights from the system.

Our Approach

We approach the problem by providing software and services to help you:

- Easily generate data profiles from IIoT devices.
- Quickly analyze the data profiles.
- Effortlessly configure smart alert rules.

Quality engineers, operations and maintenance managers, and field engineers can be self-sufficient in monitoring and managing all levels of the production hierarchy:

- Production processes and industrial operations.
- Asset, equipment or machine behavior.
- Sensor, network and connectivity issues.

SAS® delivers value through real-time monitoring of industrial operations, including:

Operations and processes. Spot variance in critical manufacturing parameters, a voltage drop causing instability in the electric grid or signals that predict imminent failure of a turbine.

Asset and equipment health. Speed, pressure and temperature alerts identify underuse and overuse of pumps and motors. Oil level monitoring helps schedule condition-based maintenance.

Sensors and connectivity. Real-time calibration and detection of weak signals, low batteries and dust or debris maintain sensor integrity.

The SAS® Difference

Unlike other solutions, SAS industrial monitoring spans multiple industries and use cases at the process, asset and sensor level. Business users and systems can make data-driven business decisions in real time.

Built on Microsoft Azure. The industry-standard cloud computing service supports many tools and frameworks.

Easy app management. With the ease of Azure Marketplace, cloud administrators can provision the app in 30 minutes.

Designed for business users. No statistical or data science background is needed to define assets, profile data and apply monitoring rules.

Multiuse flexibility. Tackle multiple applications across industries without investing in multiple point solutions.

Highly scalable. Industry-leading SAS streaming analytics capabilities can process millions of events per second.

Highly extensible. Combine industrial monitoring with other SAS analytical capabilities, such as online streaming algorithms, production quality analytics and asset performance analytics.
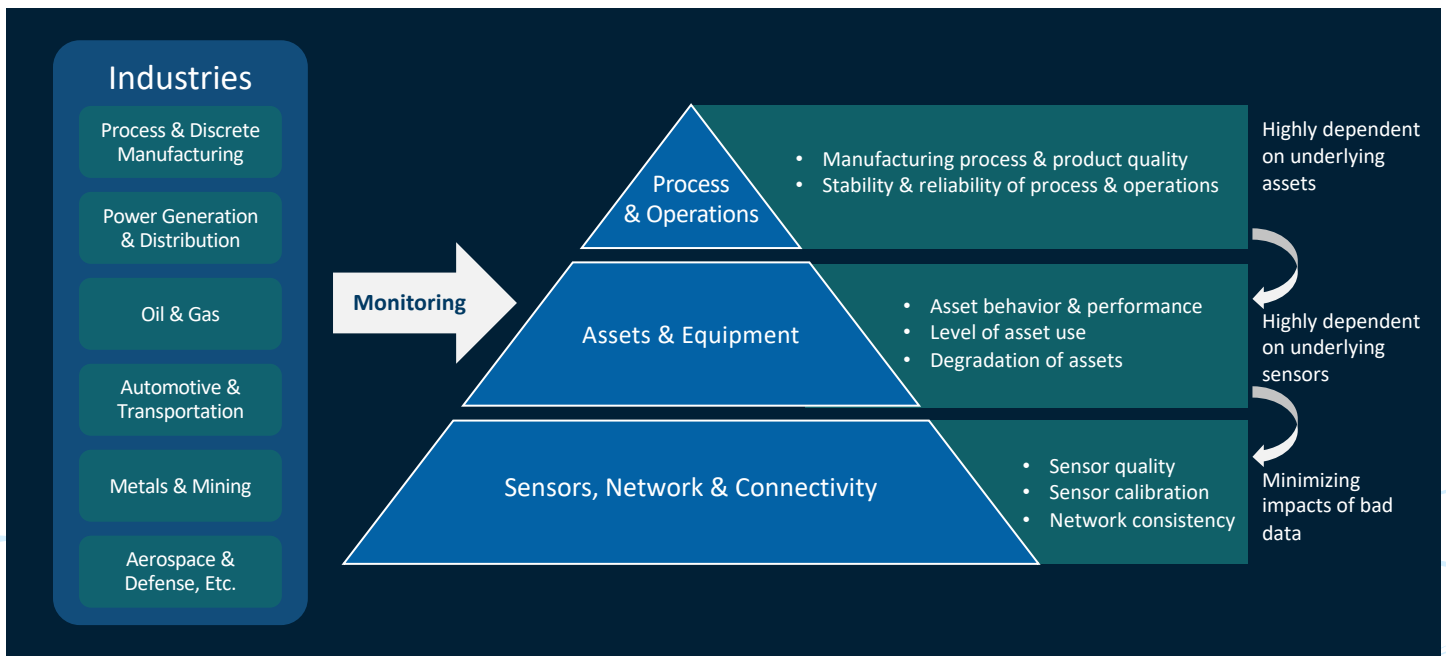
Learn more about SAS Intelligent Monitoring on the Microsoft Azure Marketplace.