

24 Industrial IoT Use Cases



Condition-Based Maintenance

Use real-time sensor data and predictive analytics to predict which assets are likely to have declining performance. Take action by assigning corrective tasks through XMPro or an EAM solution to prevent unplanned downtime.



Asset Performance Optimization

Monitor asset performance in real-time by detecting exceeded thresholds in your sensor data. Use predictive analytics to predict where thresholds are likely to be exceeded and spot trends in your asset data as they emerge.



Drone-based Inspections

Use unmanned aerial vehicles (UAVs) to inspect assets instead of sending a field crew. Drones can be equipped with sensors and cameras to send live data about the asset's status to a technician.



Real-Time Overall Equipment Effectiveness

Gain real-time insights into how you can improve your manufacturing processes. Detect losses, benchmark progress and reduce waste to improve the productivity of your equipment.



Real-time Service Parts Planning

Combine remote diagnostics data with real-time inventory data and route planning to optimize the service parts inventory for each service truck.



Connected Field Service

Give technicians access to real-time sensor and business data from an easy to use mobile application, so they'll have all the information they need to get the job done the first time.

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Operational Intelligence

Combine data from business systems like ERP or CRM with real-time data from your plant historian and devices to create actionable analytics dashboards. Gain real-time visibility by unifying the data from multiple sources into integrated dashboards.



Unified Key Performance Indicators

Monitor KPI's in real-time using data from multiple systems and combining them into an easy to use drill-down dashboard. Have the information you need to diagnose problems, detect bottlenecks and assign corrective actions at your fingertips.



Identity and Security Management

Secure the bidirectional communication between devices and ensure compliance with policies regarding access control, logging and auditing of the interaction between connected assets.



Inventory Management

Use sensor data to track and trace shipments in real-time during manufacturing and throughout the transportation process. Proactively replenish inventory based on accurate real-time data and demanding forecasting. Detect damaged or outdated inventory faster.



Factory Visibility

Give decision makers the production line information they need to improve factory efficiency in real-time. View the efficiency of each machine, compare production between multiple locations and make data-based decisions faster.



Quality Management

Use sensor data and predictive analytics to predict and detect product defects like spoiled food, defective manufactured goods, and low-quality mining yield faster.

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Energy Management and Resource Optimization

Optimize your energy usage to avoid peak demand charges and combine weather data with demand forecasts to plan your energy consumption.



Optimize On-shelf Availability

Use smart-shelves with embedded sensors to send notifications or automatically place an order when product stocks are low.



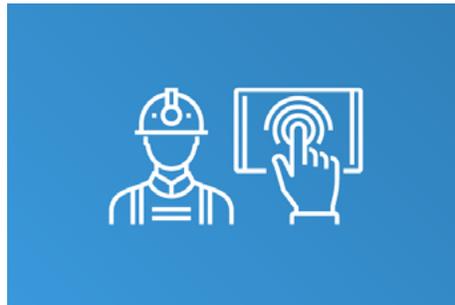
Cold Chain Monitoring

Continuously monitor real-time temperature data throughout the cold chain to reduce waste and quality issues caused by transporting sensitive products at incorrect temperatures.



3D Data Overlays

Show a 3D model of an asset on a tablet from the user's perspective, "augmenting" it with additional production-related data to reduce inspection times.



Remote Monitoring & Diagnostics

Interact with connected products to identify and diagnose product issues remotely to eliminate unnecessary service calls and improve first-time fix rate.



Warranty Management

Track equipment and assets that are under warranty conditions to monitor operating conditions and provide evidence of operations and application in the event of a warranty claim or dispute. Monitor warranty compliance and create corrective actions for breaches.

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In-Transit Visibility

Gain detailed visibility all the way from the manufacturing plant to the shop floor. Use GPS and RFID technology to determine identity, location and transit times. Use this data to automate shipping and delivery, by predicting arrival times more accurately.



Fleet Vehicle Monitoring

Combine real-time GPS data with vehicle usage data from sensors to monitor the location and status of your fleet.



Dynamic Route Planning

Use real-time GPS, traffic, weather and inventory data to dynamically plan vehicles routes for maximum efficiency.



Smart Buildings

Prevent and detect equipment failure, like HVAC systems, reduce the energy costs and manage disparate building systems from multiple vendors from one unified dashboard.



Asset and Material Tracking

Monitor the use and location of key assets, like raw materials, hand tools or containers. Simple track and trace sensors provide a cost-effective way to optimize logistics, prevent theft and retrieve misplaced assets.



Crew Safety Monitoring

Use wearable multi-gas detectors to continuously monitor your employees' exposure to harmful gases during a shift. Create real-time exposure profiles using data from the sensors and adjust the work schedule to prevent health issues.