How Does eMaint Condition Monitoring Work?

eMaint condition monitoring gathers data from Fluke 3563 Analysis Vibration Sensors and can send data and alarms to eMaint CMMS.

Εemaint™

eMaint condition monitoring is a cloud-based software that simplifies asset health monitoring, vibration analysis, and predictive maintenance.

You gather asset data, view and analyze that data in eMaint condition monitoring, and then can send your data and alarms to eMaint CMMS.

But how does it work? And what's unique about eMaint's integrated sensors, tools, software, and services?

Here's how eMaint condition monitoring, and the Fluke Reliability family of connected technologies, work together to maximize your uptime and strengthen reliability – leading the market with the only seamless solution for connected reliability.

How Does eMaint Condition Monitoring Work?

Let's take a look at each of the Fluke Reliability products involved in eMaint condition monitoring and how they connect.

1. Fluke Wireless IIoT Sensors: See Machine Failures Coming

Your first step in setting up a condition monitoring program is sensors: gathering asset data for monitoring and analysis.

eMaint condition monitoring connects to the Fluke 3563 Analysis Vibration Sensor. The Fluke 3563 is a wireless vibration sensor with high-frequency, high-resolution piezoelectric technology at its heart that captures in-depth vibration readings.

Fluke 3563 sensors connect to a gateway, which sends asset data to the cloud. Once sensors and gateways are installed on the asset(s) and the connection is achieved, you can start monitoring.

Once you determine the critical assets you want to monitor, install your sensors, and test your data, you can set up the Fluke 3563 to measure vibration and temperature at a regular cadence. Going into eMaint condition monitoring, you can view your vibration data and configure alarms.

Our alarms are flexible. You can set up alarms to trigger based on overall vibration readings when vibration levels reach your limits. Or, you can configure narrowband alarms to go off when vibration signatures match common indicators of faults: bearing faults, imbalance, looseness, or misalignment.

How do you configure your alarms, view your data, and gain deeper insight into trends?

That's where eMaint condition monitoring comes in.

2. eMaint Condition Monitoring: Asset Health Analysis, Simplified

Now that your sensors and alarms are set up, you can take advantage of eMaint condition monitoring's easy-to-use data exploration and AI recommendations.

Your Fluke 3563 sensors send data to the cloud, where eMaint condition monitoring accesses it for monitoring and analysis.

eMaint condition monitoring frees you from traditional, limiting, low-security software. You can deep-dive into vibration data, discover historical trends, and identify and eliminate failure patterns – simplifying analysis in an era of labor and expertise shortages.

Core eMaint Condition Monitoring Software Portal

Going into the standard eMaint condition monitoring interface, you can establish alarms at vibration or temperature levels, specifying your limits and even configuring complex narrowband vibration alarms to trigger for specific fault types.

Here, in the core eMaint condition monitoring portal, you can quickly navigate between sensors, assets, and components, seeing their overall vibration trends. The intuitive interface allows you to easily filter through to the data snapshots you need or drag and drop graphs for comparison.

Advanced Analysis

Our Advanced Analysis offering is an upgrade to the core software that equips you with powerful tools to dive into your signal data and cascade views of historical FFTs.

Here, you can analyze complex vibration signatures, discover and track trends, and unlock the insights that will supercharge your asset health and maintenance strategy.

Advanced Analysis gives you powerful vibration analysis features designed for experts, but with a simplified interface, strong security, and integration to your CMMS.

AI Analysis

Currently live in beta form, our AI Analysis upgrade can recognize 1,600+ combinations of fault factors and prescribe maintenance solutions.

Designed to help non-experts quickly diagnose faults and failures, and to save experts time, AI Analysis will send you alerts and email notifications with a recommended solution. Recommendations include urgency, severity, and the prescribed correction, like so:

- *Severity: SERIOUS*

- *Priority: IMPORTANT*

- *Occurred at: 07-Aug-2023 01:02:03 [UTC]*

- *Recommendations:*

  - *MONITOR MOTOR FOR INCREASED VIBRATION*

  - *REPLACE MOTOR ROTOR*

Human and machine intelligence work hand in hand with AI Analysis – our condition monitoring experts are here to help interpret your AI recommendations and set up your notification system.

Once eMaint condition monitoring is delivering you valuable insights, the next step is to turn those into action with eMaint CMMS.

3. eMaint CMMS: Empower Your Team with Asset Health Data

You can send your Fluke sensor vibration alarms, set up via eMaint condition monitoring, to eMaint CMMS.

eMaint CMMS serves as a maintenance and reliability command center: you can manage work orders, PMs, assets, spare parts, and much more. But eMaint is also a powerful tool for predictive maintenance.

You can see machine failures coming with Fluke sensors – but once you begin sending alarms to eMaint CMMS, you can also automate work orders to trigger based on your vibration alarms. And before faults or failures even occur, your team is on the job.

Predictive maintenance maximizes your equipment uptime and saves you the time, labor, and costs associated with reactive work. Your team arrives on the scene far before the costly unplanned downtime begins.

Detective work with eMaint condition monitoring's vibration analysis tools can often predict failures far in advance, too, ensuring maintenance planning is optimized to achieve your KPI goals.

eMaint CMMS is also a powerful reporting platform. You can build reports or dashboards that synthesize vibration data, maintenance history, uptime, and much more.

Your Teams, Sensors, and Software Work Better Together

eMaint condition monitoring works in harmony with a suite of Fluke Reliability technologies that together form a connected reliability framework.

What is connected reliability? It's hardware and software combined in a cloud-based ecosystem – a competitive advantage that increases your uptime, strengthens your reliability, and drives production.

Fluke Reliability is the global leader in connected reliability and the only seamless solution on the market.

Establishing your condition monitoring program with eMaint will reward you beyond wins in uptime and OEE: you gain access to a connected ecosystem that unites your CMMS, sensors, tools, assets, mobile CMMS app, ERPs, SCADA systems, and more. You'll be prepared for an era of breaking down data siloes and empowering teams with data-driven decision-making. Your team will have the edge in achieving your production goals and defeating the competition.

Learn more about eMaint Condition Monitoring.