

Cerexio MHMS

Machine Health Monitoring System

Healthier Machines; Wealthier Futures

www.cerexio.com



Introduction

Safeguarding Success By Enhancing Machine Efficiency with AI, IoT and More

Industry 4.0 definitions demand the collaboration between Cyber-Physical Systems and smart digital capabilities, and we make that definition an actionable strategy to narrate your success story. Cerexio Machine Health Monitoring System is a multifaceted solution for your physical asset managers to oversee end-to-end machines and equipment in your industrial zones.



Machines Monitoring has Never Been This Easier

@Cerexio Smart Machine Monitoring Solutions

Industries We Serve



Automotive



Life
Sciences



Food



Beverage



Pharma



Medical
Devices



Aerospace



Defense



Electronics



Oil & Gas



Chemical



Metal



Retail

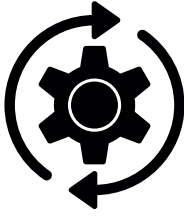


Fabrics



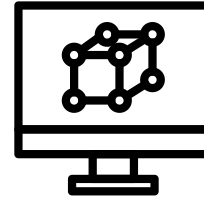
Printing

Key Highlights



1. Automation and Integration

Cerexio's AI and ML automation boosts machinery intelligence, speed, efficiency, and lifespan.



2. Immersive Visualisation

AR/VR digital twins and dashboards provide deep insights into machine conditions and performance.



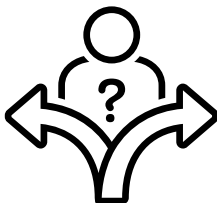
3. Analytical Prowess

A decade of AI analytics delivers insights on performance, degradation, and maintenance budgeting.



4. Predictive Excellence

Industry 4.0 algorithms predict issues, enabling proactive maintenance and reducing downtime costs.

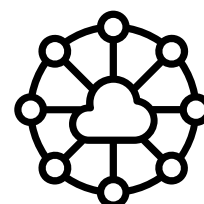


5. Data-driven Decisions

Advanced analytics provide real-time, historical data empowering strategic, informed operational decisions.

6. Edge Computing

Local edge processing reduces latency, speeds decisions, and optimizes machinery efficiency effectively.



Industry 4.0 Capabilities We Offer

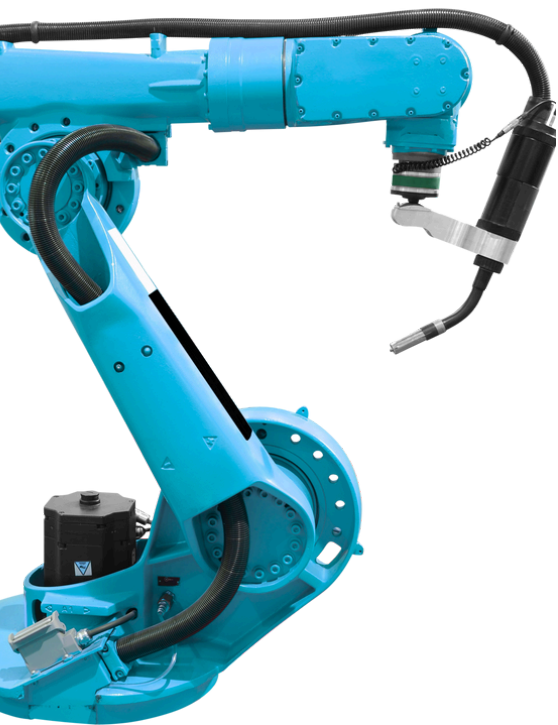
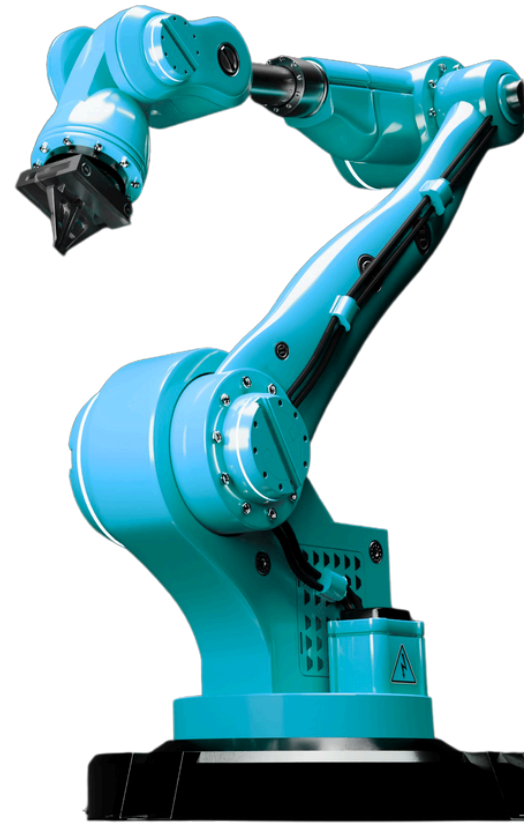
1 AI & Machine Learning

2 Big Data

3 GIS

4 AR/VR

5 Simulation



6 Satellite Remote Sensing

7 CCTV and Laser

8 5G, IoT, Quantum Sensors

9 Digital Twin

10 Robotics and CPS

Cerexio MHMS Modules



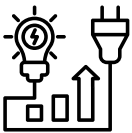
3D/4D Factory Modelling

Experience a simulative platform with Cerexio that empowers asset managers to analyse and submit requests remotely. Our digital twin solution ensures swift machine optimisation with unparalleled visualisation, surpassing market alternatives.



AI-powered Machine Prognostics

Harness the smart analytical framework of our system, tailoring machine prognostics reports to user-defined information. This dynamic approach saves time, streamlining the decision-making process based on specific requests.



Energy Consumption Oversight

Harness the smart analytical framework of our system, tailoring machine prognostics reports to user-defined information. This dynamic approach saves time, streamlining the decision-making process based on specific requests.



ESG-compliant Power Management

Stay ahead in asset management with Cerexio's continuous improvement, uniquely addressing ESG policies. This system stands as the sole solution integrating ESG principles for safer, smarter, and greener manufacturing.

Cerexio MHMS Modules



Exemplary Cybersecurity Measures

Cerexio's proprietary security protocols guarantee futuristic data protection, encryption, privatisation, and anti-theft mechanisms. Safeguard your sensitive asset and financial information, ensuring unauthorised users remain barred from access.



Proactive Risk Indicators

Detect harmful impacts during machine utilisation or maintenance with our solution's failure prediction and real-time fault detection technologies. Powered by AI and ML, the Failure Mode And Effects Analysis (FMEA) Module enhances asset manoeuvring capabilities.



Robust IT Integration

Seamlessly integrate Cerexio Machine Health Monitoring System with MES, ERP, Asset Maintenance, Project Management, and other IT frameworks. Keep permitted stakeholders updated in real-time with comprehensive end-to-end asset information.



Smart Machine Calibration

Elevate performance with Cerexio's Smart Machine Calibration, leveraging advanced algorithms for peak efficiency. Enhance reliability and reduce downtime, upgrading your industrial operations with precision and intelligence.

Cerexio MHMS Modules



Unlimited Sensor Input Channels

Integrate IIoT with Cerexio to consolidate sensor data (vibration, force, temperature, pH Value, RPM, thermocouple, RTS, thermal video, etc.). Uncover hidden root causes behind machine performance declines and spontaneous breakdowns within a single, intelligent system.



Intelligent Maintenance Scheduling

Optimise your maintenance calendar with Cerexio's Intelligent Maintenance Scheduling module. Using real-time asset health data and predictive analytics, this module prioritises maintenance tasks to minimise downtime and maximise operational efficiency, ensuring resources are allocated where they are needed most.



Automated Compliance Reporting

Simplify regulatory adherence with Cerexio's Automated Compliance Reporting module. It generates accurate, audit-ready reports aligned with industry standards and regulations, reducing manual workload and ensuring your asset management practices remain transparent and compliant.



AR Assisted Diagnostics

Empower your maintenance teams with AR-assisted diagnostics that overlay critical machine health data and repair instructions directly onto physical equipment via smart glasses or mobile devices. This hands-free, interactive approach accelerates troubleshooting and enhances precision during maintenance operations.

Cerexio MHMS Benefits

Empowering Industries Through Smart Data Insights and Operational Excellence

Explore the benefits of Cerexio to understand how our comprehensive asset data perspective empowers you to make efficient, asset-friendly, and time-saving decisions for your industrial facilities and sites. With Cerexio, experience a new era of operational intelligence, where data-driven insights pave the way for innovation, cost-effectiveness, and sustainable growth.

Decade of Insightful Vigilance

Benefit from a 10-year legacy of anomaly detection, asset health profiling, and compliance reporting, positioning you ahead of industry trends and challenges with unrivalled foresight.

Green Manufacturing Integration

Make your factories not only smarter but greener. Cerexio integrates green manufacturing models into its Machine Health Monitoring System, optimising operational processes for enhanced sustainability and environmental responsibility.

ISO Compliance Assurance

Ensure your asset conditions align with ISO 55000 and ISO 13374 industry standards. Cerexio guarantees compliance, providing a solid foundation for robust asset management within regulatory frameworks.

Scalable Machine Profiles

Cerexio offers extensive yet scalable machine profiles, unveiling insights into Remaining Useful Life (RUL) and Reliability-Centred Maintenance (RCM) strategies. Enhance management efficiency and extend asset lifespan.

Cerexio MHMS Benefits

Engineering the Future — One Solution to Many Problems at a Time.

The Cerexio Manufacturing Control Tower acts as a lighthouse for the manufacturing domain as it extracts the Industry 4.0 digital capabilities under one screen to enhance transparency and visibility, magnifying industry efficiency to an unlimited extent. This leads the operations through a future-proof silk route while keeping its sustainability promise.

Secure Data Shield

Fortify your data with stringent authorisation and authentication protocols. Cerexio keeps data phishers and virtual thieves at bay, ensuring the utmost security for your sensitive information in the digital realm.

Wireless Sensor Networks

Ensure reliability with wireless sensor networks enabled by expert instrumentation services, focusing on thermal imaging and vibration analysis. Cerexio guarantees a robust foundation for continuous machine health monitoring.

Predictive Analytics Empowerment

Leverage advanced predictive analytics to anticipate potential machine failures before they occur. Cerexio's intelligent algorithms analyse real-time and historical data, enabling proactive maintenance decisions that minimize downtime and optimize resource allocation.

Customisable Dashboard Insights

Gain full control with highly customisable dashboards tailored to your operational needs. Cerexio provides intuitive visualisations and real-time alerts, empowering your team to monitor critical asset health metrics and swiftly respond to emerging issues.

Cerexio Client Stories

Cerexio has been at the forefront of digital transformation in manufacturing, empowering companies to achieve operational excellence and sustainable growth. Through its flagship solutions, Cerexio has partnered with industry leaders to solve complex challenges, ranging from throughput optimisation to emission control, while delivering measurable business value.

A company that manufactures and fabricates precision parts, moulds, and dies.

1

Vertically-integrated manufacturing services since 1978. They had a challenge in digitally transforming factories to improve operational efficiencies and reduce labour costs.

CEREXIO MES improved the throughput by digitally transforming their factory of 200+ moulding machines while the same labour capacity was able to deliver a +10% profit

Cement Manufacturer

2

According to Forbes, this company was on the list of the 700 largest global public companies in 2015. They had challenges in achieving kiln stability and optimisation.

CEREXIO MES was utilised by them to prevent poor quality, suboptimal throughput, unhealthy emission rates and energy losses by predicting failures in cyclone infrastructure.

ARTC- Advanced Remanufacturing Technology Centre

3

A Singaporean government agency that researches to facilitate the advanced manufacturing ecosystem in the region.

CEREXIO MES Services and Modules optimised their hyper-personalisation Line- a solution that manufactures personalised products in a fully automated production line.

Contact Cerexio

Don't hesitate to get in touch with us for further clarification or to book a demo this week. The contact particulars of our company are as below:

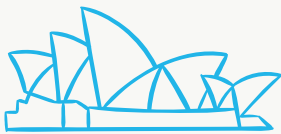


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