HAT

ANALYTICS

CM Digital Solutions

What we do

At HAT Analytics, we deliver innovative **IoT solutions for Condition Monitoring (CM)** of vessel mechanical assets. By integrating edge computing, and cloud-based analytics, our systems provide real-time health insights and secure, continuous monitoring of critical equipment. We prioritize the unique needs of each client, enhancing asset reliability and performance through tailored, data-driven solutions.

How we do it

Health Monitoring solutions with powerful embedded diagnostics

Ad|Vi|Se: Portable Vibration Data Collection with Embedded Diagnostics

HAT Analytics' handheld solution streamlines vessel machinery condition monitoring, reducing the need for costly physical surveys and minimizing reliance on onshore vibration specialists. Our advanced diagnostics algorithm, embedded directly in the handheld device, is specifically designed for evaluating rotating equipment on vessels. It automatically analyzes vibration data, detects potential issues, assesses their severity, and provides clear, actionable recommendations for proactive maintenance.

Ad|Vi|Se Live: Real-Time Online Monitoring for Continuous Machinery Health Insights

The **Ad|Vi|Se Live** system offers comprehensive, real-time monitoring of rotating assets onboard vessels. By combining advanced wireless sensors, edge computing, and cloud-based analytics, **Ad|Vi|Se Live** continuously tracks machinery health and provides actionable insights via automated assessments. The system's dynamic, threshold-based analysis instantly alerts operators to deviations, allowing for prompt corrective actions

Ad|Vi|Se CM Dashboard & Seamless API Data Sharing

The Ad|Vi|Se CM Dashboard integrates data from both Ad|Vi|Se Handheld and Ad|Vi|Se Live, providing a unified view of fleet performance and equipment reliability. It consolidates condition monitoring reports, offering comprehensive insights from fleet-wide summaries to detailed equipment analyses. Key features include vibration trends, condition history, and customizable alerts, enabling efficient health monitoring and proactive maintenance.
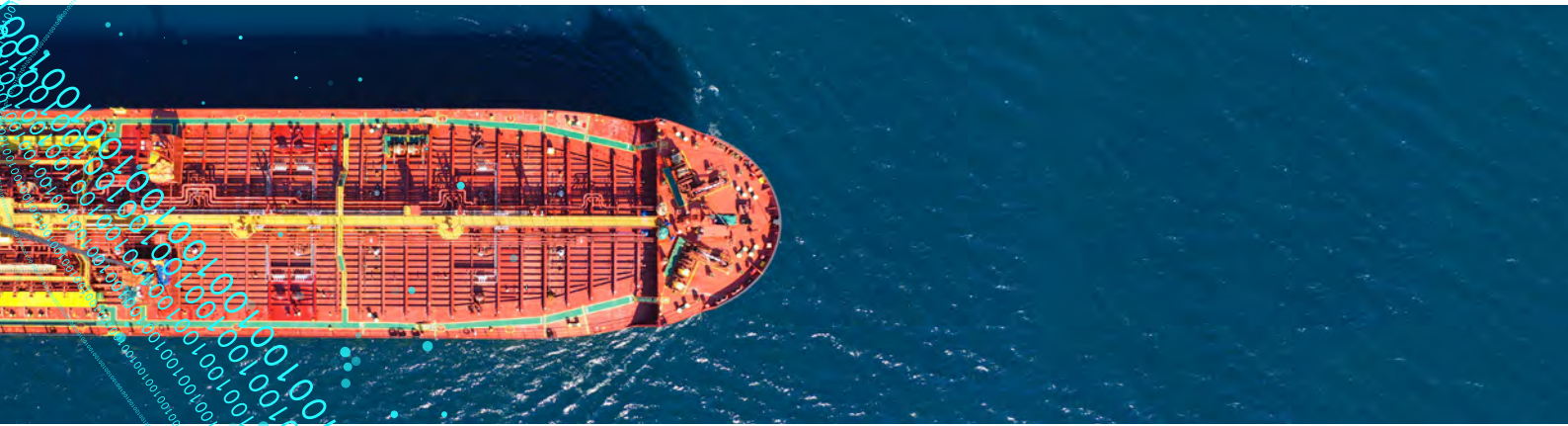
The dashboard supports multiple user roles (Admin, Ship Management, Ship Owner, Vessel Operators), with tailored access rights and relevant data. Real-time notifications and periodic performance reports help operators respond quickly, reducing unplanned downtime and enhancing reliability. This seamless integration ensures a complete, end-to-end condition monitoring experience.

Data sharing with the client's ERP or onboard platform is also available via API or Modbus TCP/IP protocol

What we offer

Data driven decisions

At the core of HAT Analytics products and services lies **AdInsights**, a powerful cloud-based data modeling engine. It leverages advanced algorithms and a robust dataset of over 20 million measurements, dynamically refining equipment health thresholds and baselines. This real-time, data-driven approach enhances diagnostics accuracy and supports optimized predictive maintenance across the entire fleet.

Maximizing ROI with CM technology & continuous support

Ad|Vi|Se solutions provide a proven ROI of 7x-10x by detecting malfunctions early, avoiding costly repairs, reducing downtime, and optimizing asset maintenance, leading to significant cost savings.

CM with HAT Analytics

Our team of highly experienced CAT-III certified vibration analysts continuously monitor vessels' CM plan & performance and support our clients' engineers - at sea and on shore.

Ad|Vi|Se Approval in Principal
(AiP) by

LR Lloyd's
Register

As "Digital Twin READY"

Ad|Vi|Se Live Certified by

FOUNDED 1862 **ABS**®

As Machinery Health Monitorinng
(MHM) Tier 2 SMART Function

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