Optimizing Project Performance
with Condition Monitoring Technologies

Transforming Project Management with
Real-Time Condition Monitoring of Electrical Assets.

Project Management Consultants are experts who advise, guide and oversee a project's lifecycle to completion. They work with clients including EPCs and DEFs, to ensure projects are delivered on time, within budget, and meet specific goals.

Electrical asset condition monitoring is crucial for Project Management Companies, particularly those involved in large-scale infrastructure, industrial plants, and utility services. Effective condition monitoring ensures reliability, safety, and efficiency of electrical assets, which include transformers, switchgear, circuit breakers, cables, and other critical components.

We at Rugged Monitoring have designed state of the art solutions with advanced IoT sensors, edge devices, and Asset Performance Management Software RM EYE.

Our comprehensive condition monitoring solutions enable asset managers/ operators to ensure predictability, optimal performance, cost-effectiveness, and risk minimization for successful project completion and client satisfaction.

While not directly responsible for the day-to-day asset monitoring, PMCs can play a crucial role in establishing and overseeing the process.

Project Planning and Strategy

PMCs can help define the project's need for condition-based monitoring (CBM), determine monitoring requirements, establish data collection and analysis protocols, and recommend incorporating CBM systems for various electrical assets.

Vendor Selection

PMCs can assist in selecting the right electrical asset condition monitoring systems by evaluating various factors like functionality, costs, compatibility with existing systems, and vendor offerings.

Integration and Implementation

PMCs can work with the engineering teams to seamlessly integrate CBM systems with the overall project design, this involves facilitating communication between stakeholders to implement the monitoring system.
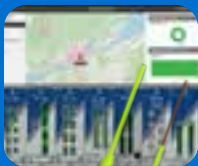
Data Analysis and Reporting

PMCs are not directly responsible for continuous monitoring but they can help establish protocols for data analysis and reporting. They can advise on selecting the right Asset Performance Management (APM) software, for real-time data analysis.

WHY RUGGED MONITORING

At RM, our experts collaborate with PMCs to define the project's CBM needs, identify critical assets, and establish data collection protocols designed for the unique requirements of different projects.

Our products include edge devices, IoT sensors, and AI-enabled APM software, RM EYE seamlessly integrates with any project infrastructure and is optimal for various monitoring solutions for electrical assets like transformers, switchgear, rotating machines, power cables, circuit breakers, etc.

RM EYE empowers PMCs to establish data analysis and reporting protocols to ensure informed decisions based on actionable insights.

At RM, our experts offer ongoing support throughout the project lifecycle, ensuring PMC's choice of CBM system from Rugged Monitoring's vast catalog delivers optimal results.

Empowering PMCs

With Predictive Asset Management Solutions

Project Management Consultants (PMCs) understand the critical role of reliable assets in ensuring the project's success. Unforeseen equipment failures can disrupt timelines, inflate budgets, and compromise safety. Rugged Monitoring offers a comprehensive suite of products for different asset solutions, designed to empower PMCs with predictive asset management.

Transformers

RM's edge devices and IoT sensors continuously monitor transformers, providing real-time data on parameters such as temperature, vibration, and partial discharge. AI-powered analytics within the RM EYE software helps identify anomalies and predict potential failures, enabling PMCs to schedule timely maintenance and avoid costly outages.

Switchgear

Proactive monitoring of switchgear health and performance can be done with RM's edge devices and IoT sensors. They help detect issues such as overheating, loose connections, and breaker issues, allowing PMCs to address problems before they escalate into critical failures that can halt project progress.

Rotating Machines

Early detection of issues such as bearing wear, misalignment, etc., in rotating machines is essential. RM's edge devices, IoT sensors, and RM EYE software help PMCs by providing them with actionable insights to optimize maintenance schedules and prevent catastrophic equipment breakdowns.

Circuit Breakers

Ensuring reliable power delivery can be done using RM's advanced edge devices, IoT sensors, and AI-enabled RM EYE. Identifying potential trip issues and contact wear empowers PMCs to schedule preventive maintenance and minimize downtime.

Power Cables

PMCs can prevent cable failures and ensure consistent power supply with RM's edge devices, IoT sensors, and AI-powered RM EYE software. They can monitor temperature and moisture levels to identify hotspots and potential failures, allowing PMCs to take corrective measures before disruptions can occur.

EV Stations

The rise of EV adoption necessitates robust charging infrastructure. RM's condition monitoring solutions provide PMCs with insights into component health, power quality, and energy usage. This empowers them to optimize EV station performance and ensure a seamless user experience.

WHY PARTNER WITH RUGGED MONITORING

What do PMCs gain by partnering with Rugged Monitoring for
Conditional Asset Monitoring Solutions?

- Enhanced risk management
- Data-driven decision making
- Improved Project Efficiency
- Cost Optimization
- Reduced downtime
- CBM expertise throughout the project lifecycle
- Seamless integration

- Proven functionality
- Unmatched Compatibility
- Streamlined Communication
- Tailored Reporting Protocols
- Advanced APM Software powered with AI
- Strengthen Client Relationships

R501 Rack Mount Comprehensive and Customizable Asset Monitoring Solution

R501, the customizable, rack mount, comprehensive electrical asset condition monitor is designed to monitor multiple electrical assets and its parameters enables a simple and user-friendly interface. R501 provides condition monitoring of electrical assets by focusing on preventing asset failures and reduce downtime. With our comprehensive monitoring solution, the health of assets can be determined, and maintenance activities can be scheduled. The R501, our versatile rack-mounted monitor, with its customizable features allow you to monitor multiple assets simultaneously, providing a user-friendly interface and an extensive range of parameters to track. The R501 focuses on preventing asset failures and minimizing downtime, empowering you to take proactive maintenance actions.

R501
ADVANCED MULTI ASSET MONITOR

Features of R501

- Expandable with daisy chain & Field Upgradable to add different monitoring modules.
- Highly secure, web server-based visualization and configuration software
- Simple visualization & easy to configure.
- Equipped with most accurate & advance health assessment analytics.
- Range of communication options and protocol support; ethernet redundancy (PRP)
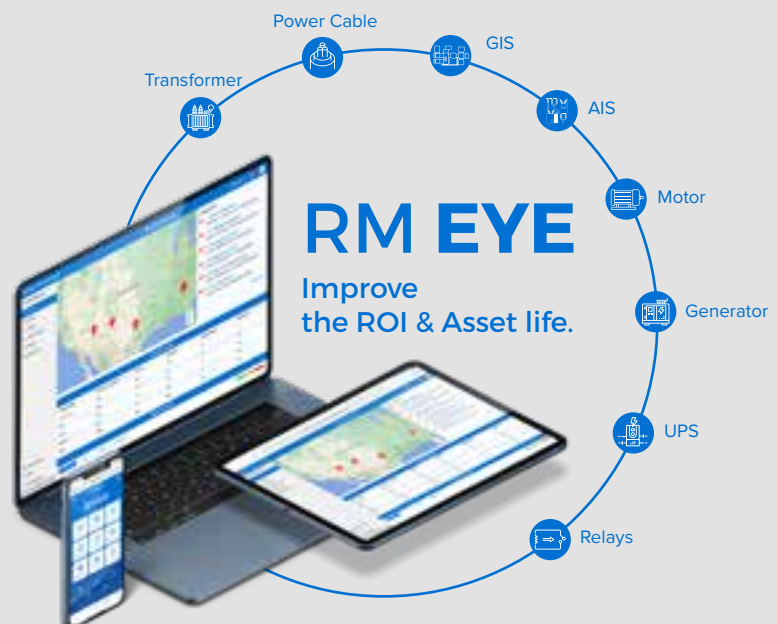
Benefits of R501

- Improved asset reliability
- Accurate predictive analysis
- Access asset data from anywhere
- One monitoring solution for multiple assets
- Increased asset lifetime
- Highest return on investment
- Field upgradable with no device downtime

RM EYE: Multi Site, Multi Asset Condition Monitoring Solutions

We at Rugged Monitoring have developed an AI based comprehensive electrical asset condition monitoring system "RM EYE" with multiple analytical capabilities in asset condition monitoring that stands way apart in technological advancement.

RM EYE is a versatile condition monitoring solution that can offer comprehensive analysis on various electrical assets spread across multiple industries. It considers every aspect in condition monitoring of different assets like transformer, cable, GIS, AIS, motor, generator, UPS, VFD, MV panel, battery, relays, etc and users to give the best recommendation for longer and better health of the assets.

RM EYE
Improve the ROI & Asset life.

Power Cable
GIS
Transformer
AIS
Motor
Generator
UPS
Relays

Features

- **Advanced asset health monitoring** with analysis and recommendations to increase asset effectiveness in addition to maximizing equipment uptime

- **Modern remote monitoring solutions** provide valuable insights to Multiple Assets at Multiple Sites from time to time

- **Establish a real time and consistent monitoring** by getting the right information into right hands

- **Simple and user-friendly interface** providing easy and fast access to all the features

- **Everything about the asset at one place** The raw data, analysis and recommendations

- **Advanced asset algorithms** for electrical assets to evaluate asset health

- **Advanced reporting technology with automated alerts**

- **An efficient, reliable partial discharge monitoring for all the assets**

- **A detailed comprehensive DGA analysis**

- **Built on well-established remote and cloud-based monitoring technology**

- **Quick configuration** so that you are not required to configure separately.

- **Protocols: IEC 61850, MODBUS, MQTT**

- **Robust integration with 3rd party systems and devices** with industry standard protocols

- **Bulk configuration imports for fast deployment**

- **Encompasses a secure access to data and configuration**

- **QR code scanner on mobile devices**

- **Accessible on web browser and mobile app**

- **Historical data storage and on demand access** via export feature

- **Extended multilingual support** to handle product inquires or troubleshoot problems proactively

- **Systematic fleet management analysis**

- **Offline test data integration and analysis**

Benefits

Company

- Single monitoring solutions for multiple assets
- Avoid unscheduled outages and increase asset utilization
- Extend asset life, with proper maintenance
- Reduce insurance premium with most advanced monitoring
- 24 x 7 remote monitoring, accessible from anywhere

Manager

- Decision support system for short term and long term planning
- Company, region, substation analysis on your fingertips
- Effective management and tracking of monitoring KPIs
- Identify problem areas with interactive dashboards
- Advanced and automatic management/regulatory reports

Asset Experts

- Deep analysis of diagnosed faults with advanced analytical tools
- Complete asset data at one location
- Customise and generate automatic reports for subscribed assets
- Ready access to historical data for root cause analysis

Operators

- Quick identification of problematic assets in the network
- Get real time alarm/ alert notifications
- Realtime updates about the assets on mobile, desktop and emails
- Quick access to assets with QR code scan on handheld devices

Asset Monitoring :
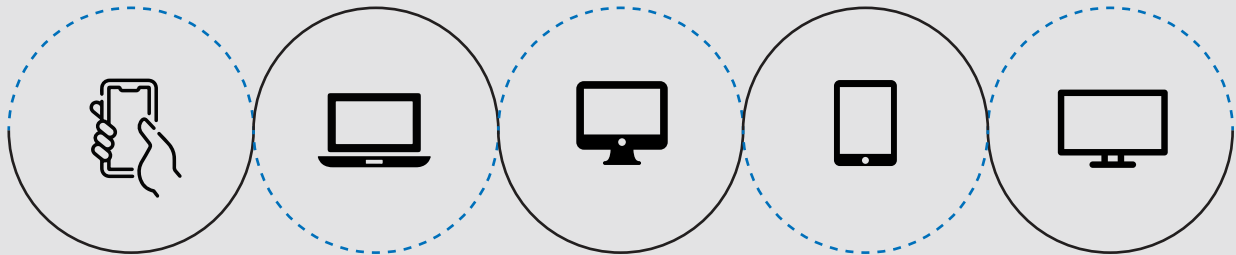# **Enterprise Architecture**

Compatible with Rugged Monitoring Enterprise Solution

UI/UX

- Data Layer
- Analytics
- User Interface
- Custom Dashboards
- Reporting
- Email/SMS Notifications

RM EYE

Private Cloud (Customer Cloud),
Rugged Monitoring Cloud

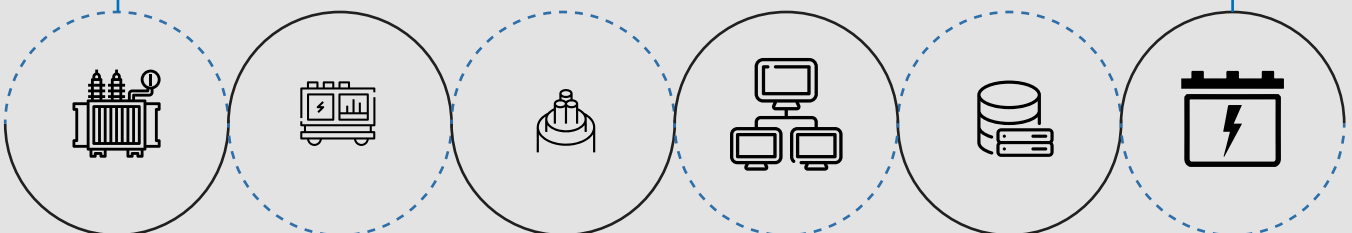|		
IEC 60870-104		ODBC
IEC 61850		MODBUS
FTP/SFTP	**Data Collection**	DNP 3.0
- XML, JSON		HTTPS
- CSV, COMTRADE		MQTT

Asset Data

Transformer Monitoring System

Switchgear Monitoring System

Power Cable Monitoring System

- Offline Test Results
- Inspection Records
- Name Plate

- Historian
- CMMS
- SCADA/ DCS

Power Electronics (Battery, UPS, VFD, Relay)

Why Customers Choose Us?

RM solution, the trusted monitoring solution for over 10000+ assets across 50+ countries. We are a leading High Value Electrical Asset Monitoring Company integrating fibre optic technology to the assets.

Attention to Details
It's our attention to the small stuff, scheduling of timelines and keen project management that makes us stand out from the rest.

A plan for Success
Our Customers are well satisfied with the advisory services that we offer to help them with best in class technological performance and a long durable life.

Experts only
We bring in our diversified experienced team with over 100+ years of experience in Asset Monitoring

Meeting Deadlines
Work with us, and you'll work with seasoned professionals – vigilant of deadlines, and committed to exceeding client expectations.

Money Matters
We protect you against currency fluctuation with competitive and fair market prices

Rugged Monitoring Services

Rugged Monitoring provides customization of sensors, monitors & software. In addition we offer on-site commissioning services, maintenance contracts and technical support to all customers worldwide.

About Rugged Monitoring

Industry's leading team of asset condition monitoring experts with 100+ years of combined experience committed to delivering customizable solutions for challenging applications. We offer a range of reliable, high performance, customizable sensors and monitoring solutions that are immune to external influence.

Certification

| ISO 9001 | ISO 14001 | ISO 45001/ OHSAS 18000 | Llyod's Register | ATEX Certification |

Our Presence **Across the Globe**

Head Office

🇨🇦 **Canada**

1415 Frank-Carrel, Suite
230, Quebec, QC - G1N
4N7, CANADA

📞 +1-418-767-0111

Asia Pacific | **India** | **Europe** | **Latin America** | **Middle East** | **North America**

in f 📷 🐦 ✗ ▶ **ruggedmon**

✉ **info@ruggedmonitoring.com**

🌐 **www.ruggedmonitoring.com**

RUGGED MONITORING
MONITORING SIMPLIFIED