

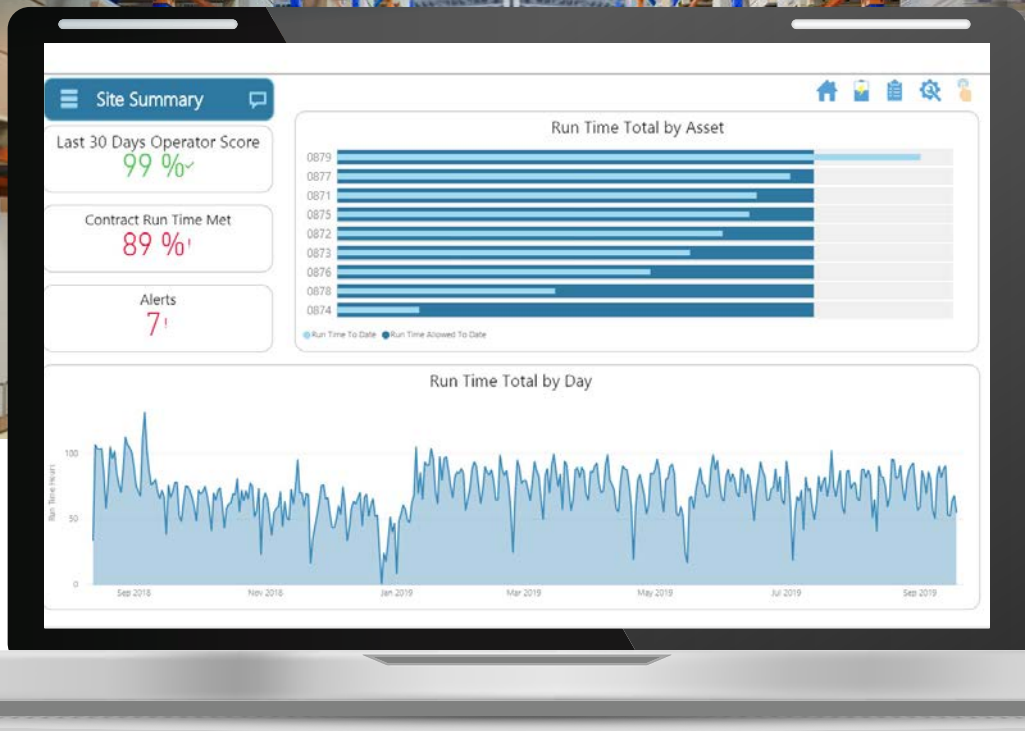


REMOTE AUTOMATED ASSET  
MANAGEMENT SYSTEM

MANAGE  
FORKLIFT  
POWER LIKE  
THE EXPERTS.



# ABOUT RAAMS®



RAAMS® (Remote Automated Asset Management System) power management software remotely monitors and manages batteries and chargers so you don't have to.

Information continually uploads to Concentric's cloud where it's automatically analyzed. For out of compliance equipment, data converts into corrective service alerts or automated charge profile adjustments.

RAAMS® takes the mystery out of the battery box and enables charger systems to meet the specific needs of batteries, optimizing performance like never before.



## Automated Alerts

Alerts for water level, charging, runtime, temperature, rotation and operator compliance.



## Universal Software

Compatible with any battery application and multiple charger brands.



## Digital Planned Maintenance

RAAMS® focuses tasks and maintenance.

## Facility Impacts



Less repairs



Longer asset life



Less downtime

# OPTIONS FOR RAAMS®

## 01 SELF SERVICE BATTERY MANAGEMENT

This is for customers with relatively new batteries and/or chargers in use but want to optimize their power system as it exists. This is a simple deployment. Battery recorders (sensors) are placed on existing batteries. They send data to the RAAMS® cloud system where it is organized, analyzed and run through the decision system's business rules.

The facility's leaders can then receive real time service alerts to email or text to drive proactive service. They also have the ability to review online reporting on key metrics to help drive operator compliance and maintenance practices. Think of this solution as a "digital PM" that keeps you up to date on your power assets' health, allowing you to fix issues before they create downtime issues.



## 02 AS PART OF AN ENGINEERED SOLUTION

RAAMS® operates as the key power manager for a Concentric-designed power system. First an engineered system is developed by Concentric's engineering team to meet the customer's unique application(s). RAAMS is deployed to collect, organize and analyze battery and charger data in real time. The decision engine then can provide service alerts to technicians, longitudinal review data to Concentric application engineers, as well as ongoing charge adjustments to meet peak and non-peak demands.

A RAAMS®-enabled power system reduces the risk of downtime, ensuring your power system has the flexibility to meet the changing power needs of your material handling system at the charger and battery level.



## FAST FACTS

- Concentric helped Microsoft beta test the Azure IoT platform starting in 2013 by leveraging 15 years of GuaranteedPOWER® data and experience.
- Today, RAAMS® utilizes data from 50MM battery and charger events to drive 27,000 daily business decisions.
- RAAMS® enables 200+ GuaranteedPOWER® contracts nationwide today for manufacturers and distributors.
- Patented automatic charge profile adjustments extend asset life and ensure customers have the power they need for peak and non-peak needs.

RAAMS® is focused on delivering discreet service actions and charging changes — eliminating the need to review cumbersome power data regularly. **Talk to your power expert to see if RAAMS® is right for you.**

888.691.8100

## **ON-SITE MATERIAL HANDLING MAINTENANCE**

- Conveyors
- Carousels
- Docks & Doors
- Aerial & Scissor Lifts
- Yard Trucks & Spotters
- Feeders, Levelers & Tables
- Storage & Racking
- Class 1–5 Forklifts
- Sweepers & Scrubbers

## **FORKLIFT & AGV POWER**

- Cable Repair & Replacement
- Battery Washing
- Watering System Repair
- Acid Adjustments
- Battery Recycling
- Capacity Testing
- Battery Reconditioning
- Safety Evaluations
- Remote Monitoring
- Planned Maintenance

## **CRITICAL POWER & MAINTENANCE SERVICES**

- System Design & Drawings
- Power System Installations
- AC - DC, AC - AC, DC - AC Power
- EPA Certified Recycling Program
- Telecom Power + Cabling & Distribution
- IEEE Battery PM & Testing
- Data Center & Industrial Grade UPS
- Lithium Thermal Scanning
- Grounding Upgrades
- Site Assessments



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**CALL TO DISCUSS A POWER AND  
OPERATIONAL ASSESSMENT**

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