

Building Management System

BMS
Monitor & Manage

System Overview

The Building Management System is a high-efficiency, intelligent monitoring and management solution designed for applications requiring high reliability and stability, such as data centers, power facilities, and HVAC (Heating, Ventilation, and Air Conditioning) environmental management. By supporting multiple protocols, the system enables efficient device access, data aggregation, status monitoring, fault analysis, and provides intuitive visual displays.

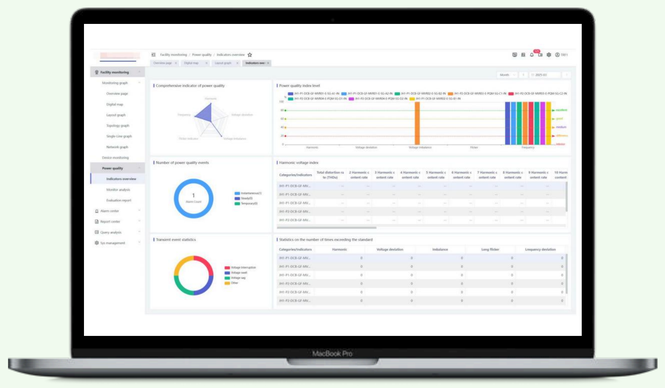
The system is designed to improve operational efficiency, optimize energy consumption, and enhance security by ensuring real-time monitoring and automated fault detection.

Website&Email

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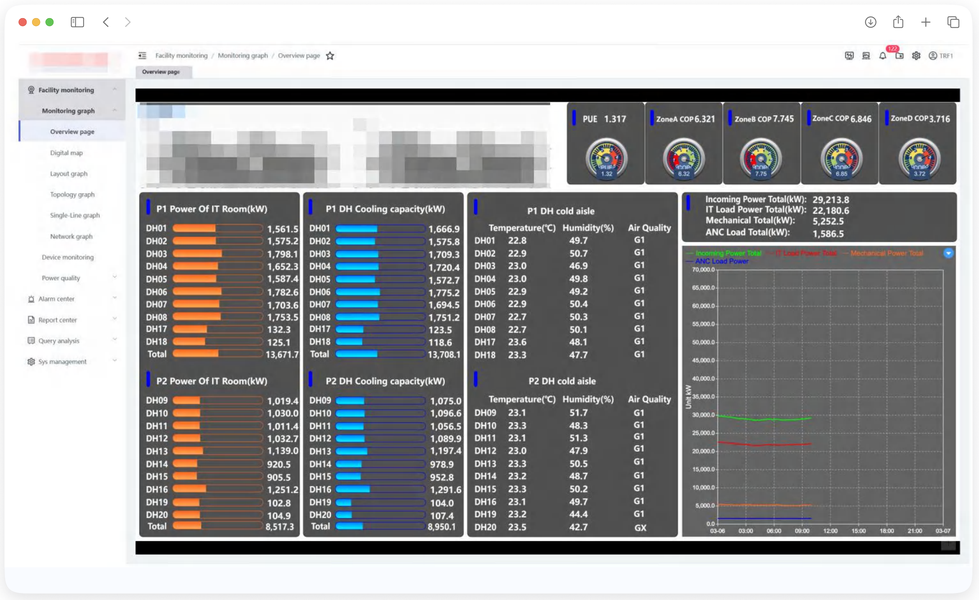
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Monitoring Interface



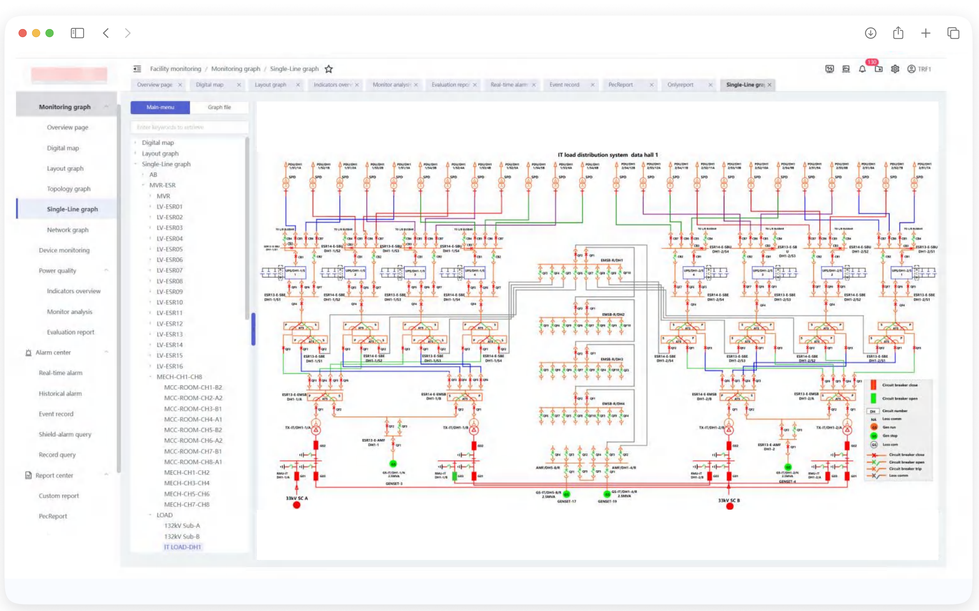
Data Overview

Supports comprehensive data display, including PUE (Power Usage Effectiveness), overall energy consumption, and alarm summary. It also supports 2.5D/3D visualization to enhance situational awareness and provide an intuitive interface for users.



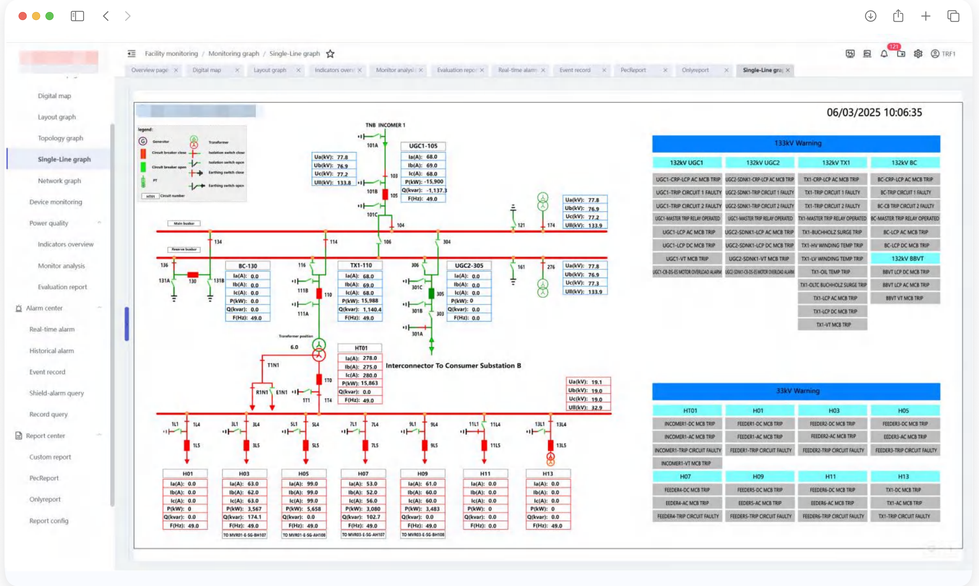
Module Interface

Provides building diagrams, floor plans, equipment layout diagrams, and device models. Supports floating data displays when hovering over specific locations, allowing users to quickly access key operational insights.



Equipment Monitoring Interface

Monitors the operational data and status of key equipment in real-time, including medium-voltage cabinets, transformers, UPS/HVDC, chillers, and precision air conditioning. Users can track the health and performance of critical infrastructure to ensure system stability.



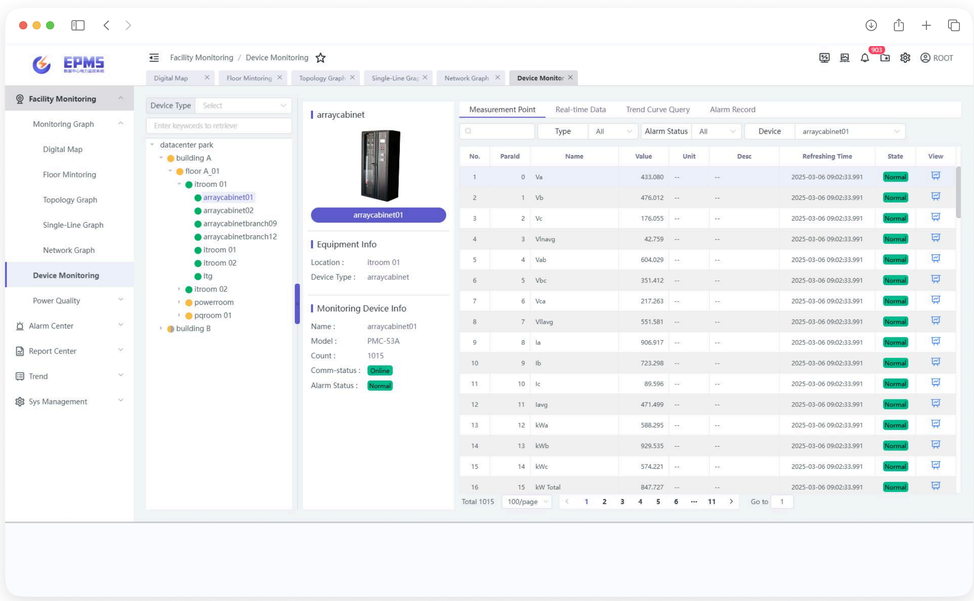
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Equipment Status Monitoring



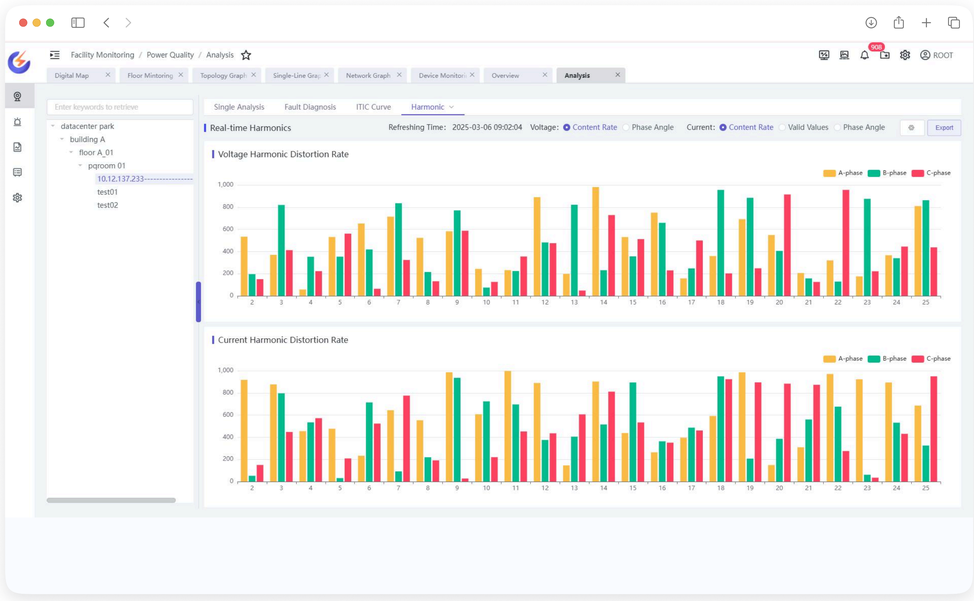
Power Monitoring

Real-time collection of power data, including voltage, current, frequency, and power. This data helps operators detect anomalies early and take preventive actions.



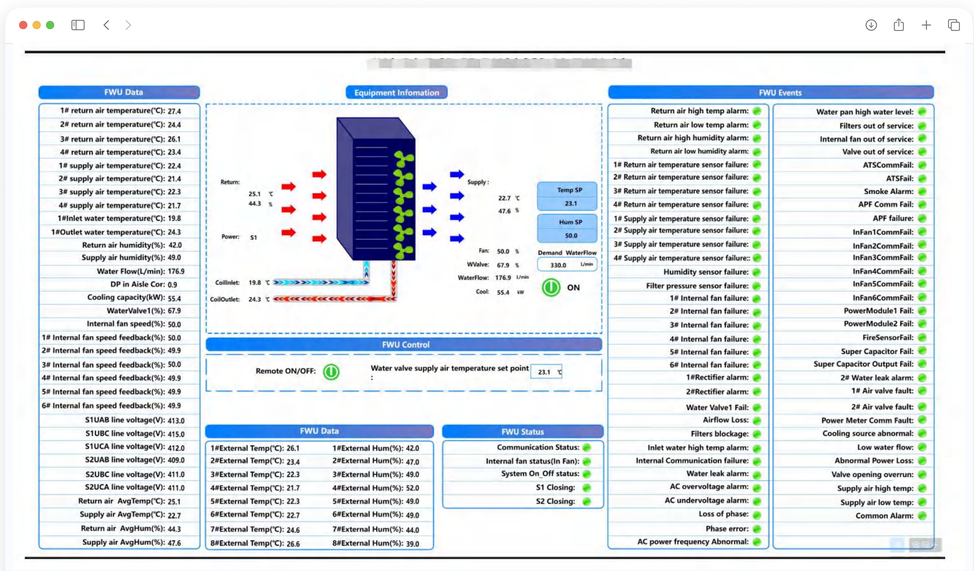
HVAC Monitoring

Monitors operational status and energy consumption of chillers, AHUs (Air Handling Units), and precision air conditioning units, ensuring optimal performance and efficiency.



Environmental Monitoring

Supports real-time monitoring of temperature, humidity, smoke detection, water leakage, and access control. Ensuring environmental parameters remain within safe thresholds is critical for preventing equipment failure and system downtime.



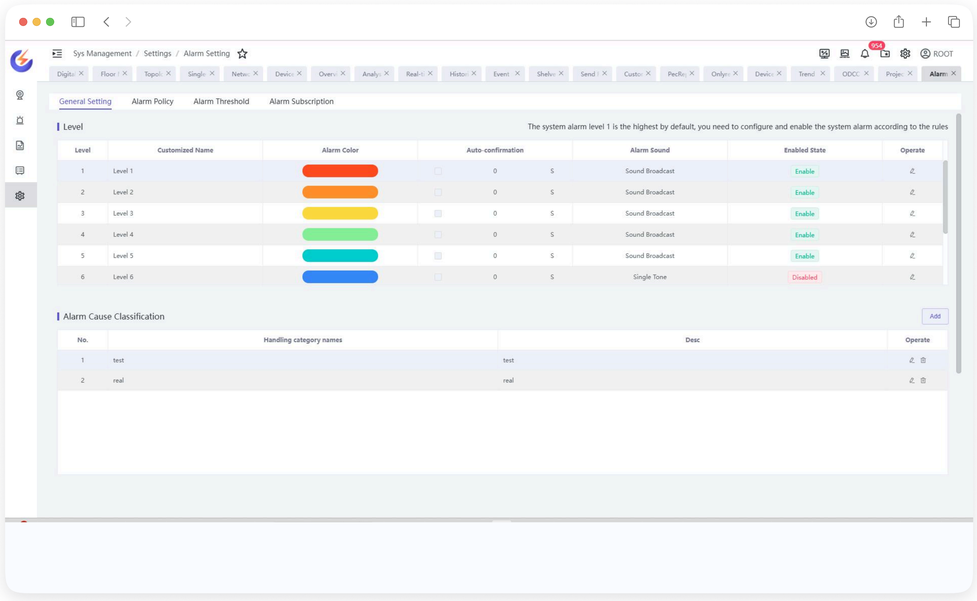
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Alarm Management



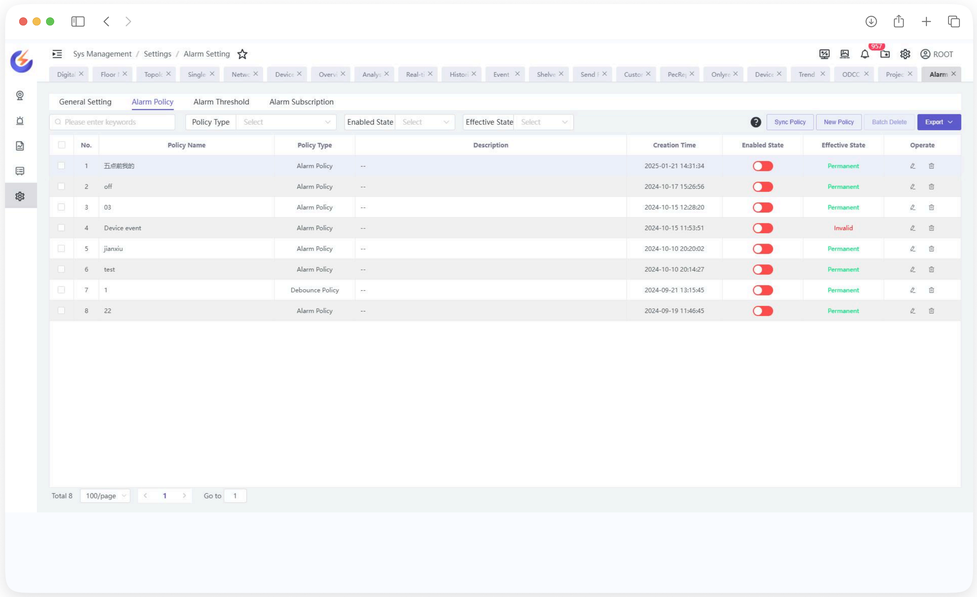
Real-Time Alarm Notifications

Provides multiple alarm modes, including sound and light alarms, SMS, phone calls, and email notifications to ensure timely fault detection and response.



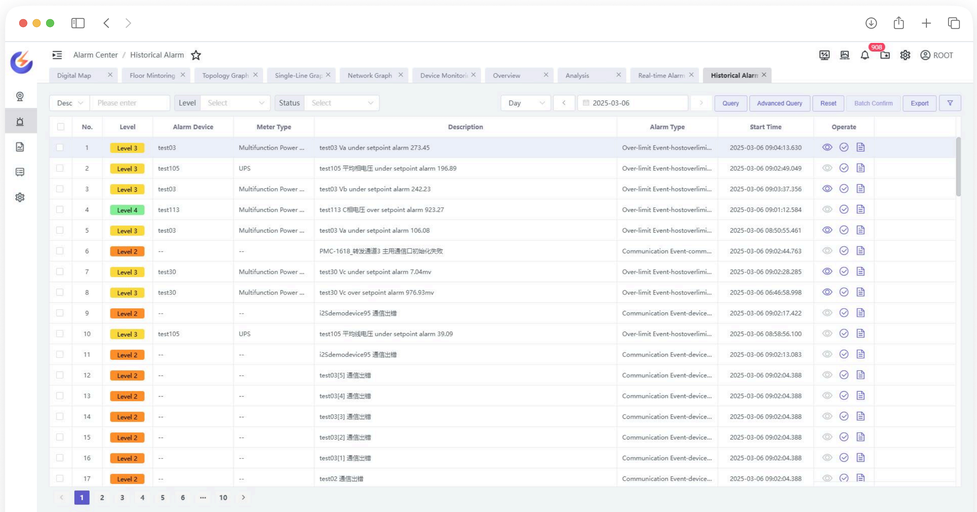
Multi-Level Alarm Management

Supports alarm classification into minor, general, and critical levels to ensure swift responses to critical issues. Operators can prioritize and categorize alarms to optimize response strategies.



Historical Alarm Logs

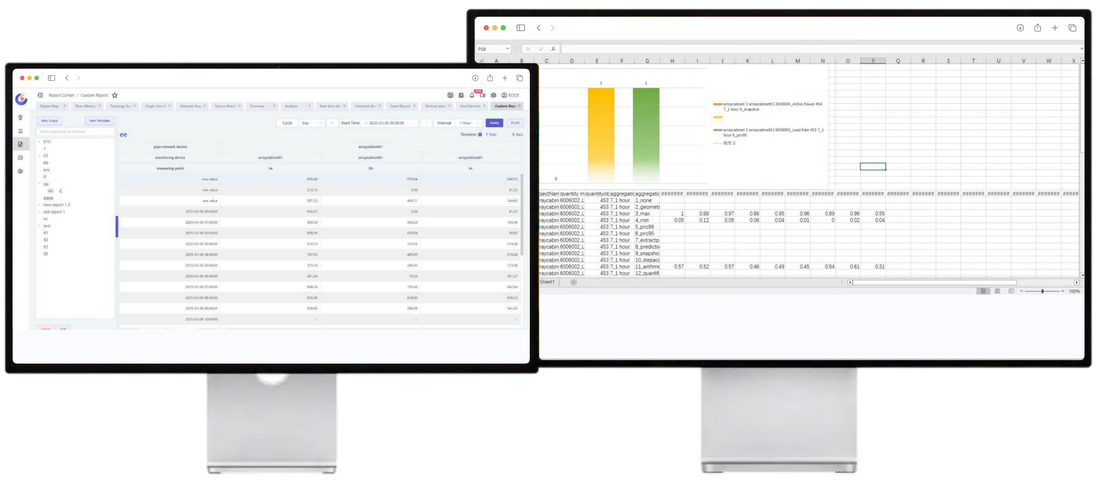
Maintains records of past alarms for analysis and compliance purposes, aiding in trend analysis and future improvements.



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Data Analysis And Reporting



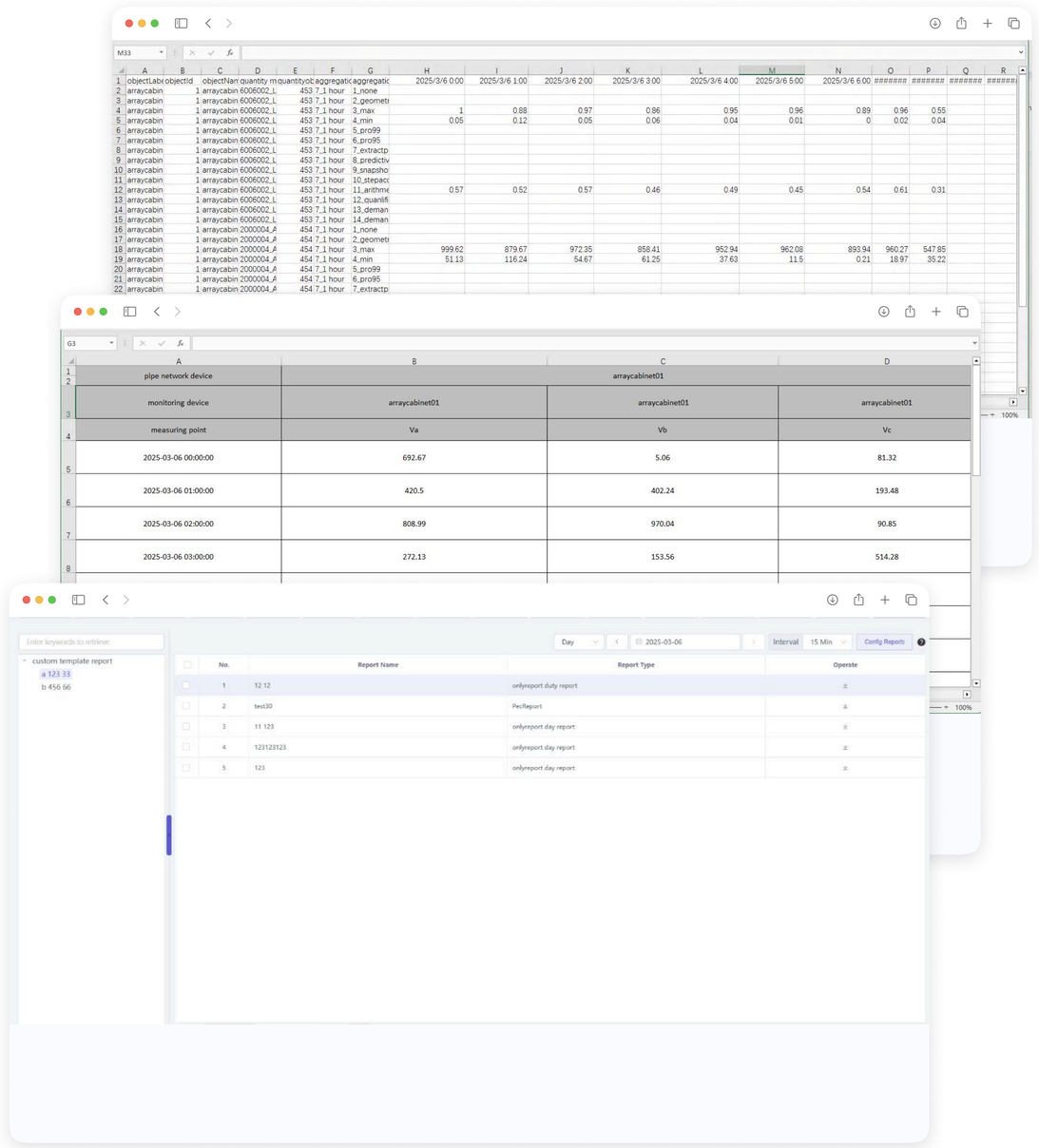


Standardized Reports

Supports energy consumption analysis, equipment status analysis, and alarm trend analysis, generating industrycom-pliant assessment reports that help operators make informed decisions.

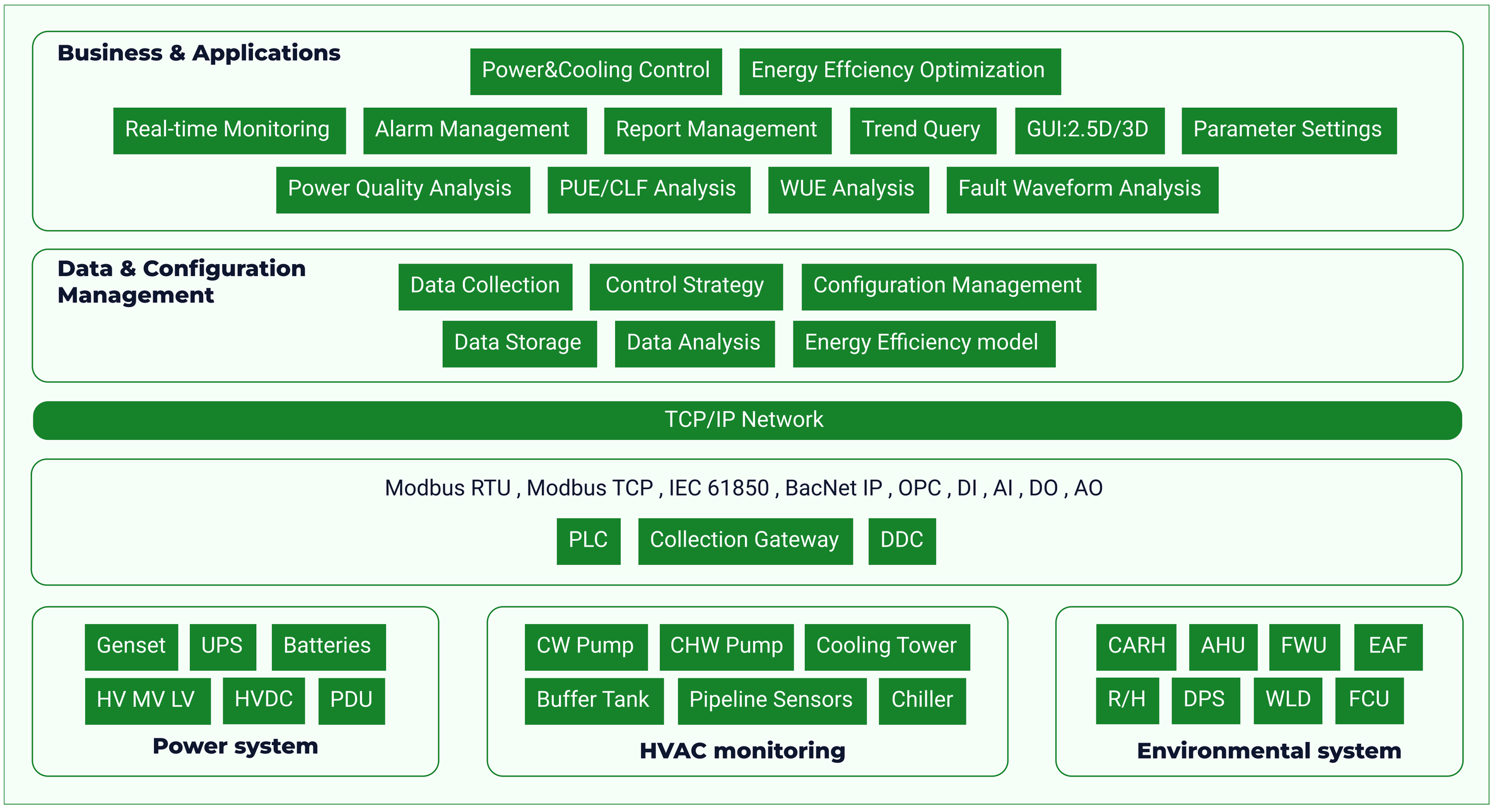
Historical Data Review

Supports data storage and retrospective analysis, which can gain trend insights and optimize the operational strategies of equipment. Analyzing historical data patterns enables more accurate forecasting and helps in formulating more reasonable maintenance plans.



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System Architecture



Standardized Architecture

Adopts a standardized structure where key devices (such as power quality monitoring devices, UPS, and AHUs) connect to the device network via Ethernet, while other devices are integrated via serial gateways. This ensures a reliable and scalable infrastructure for future expansions.

Unified Device Network Management

Provides building diagrams, floor plans, equipment layout diagrams, and device models. Supports floating data displays when hovering over specific locations, allowing users to quickly access key operational insights.

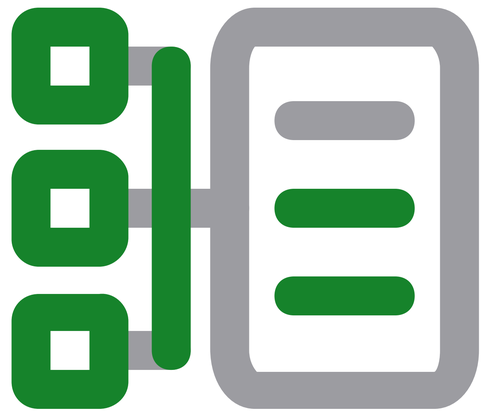
Integrated Data Acquisition

Devices and sensors are connected to a unified data acquisition unit according to their respective areas, ensuring high precision and efficiency in data collection. This approach reduces data silos and enables comprehensive analytics.

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Efficient Data Acquisition

Supports multi-protocol access (Modbus TCP, IEC 61850, HTTP) to optimize data collection efficiency and interoperability.



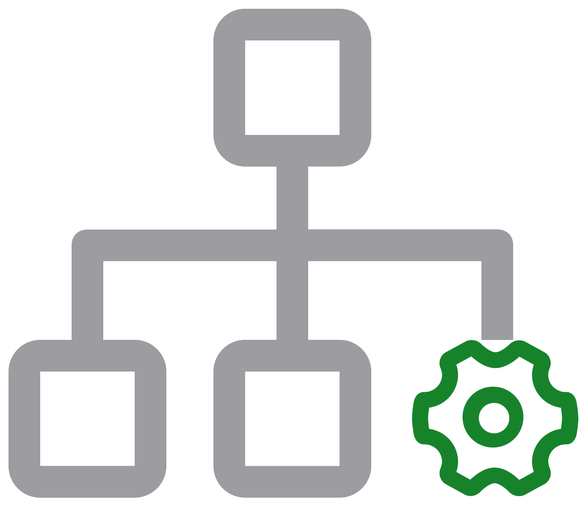


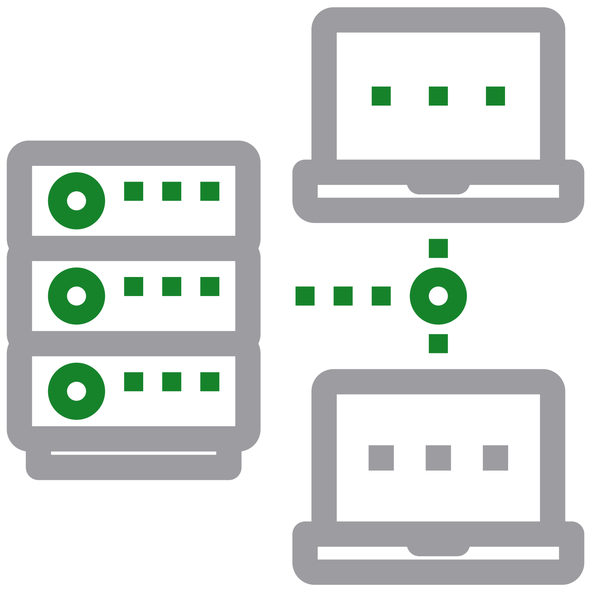
Cross-Platform Support

Compatible with Windows and Linux systems, providing flexible deployment options for different IT environments.

Lightweight Architecture

Based on a B/S architecture, enabling web-based access for remote monitoring and management. This eliminates the need for heavy client-side installations and simplifies system maintenance.





Scalability and Integration

The system is designed to be easily integrated with third-party platforms, enabling seamless interoperability with existing infrastructure.

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Application Scenarios

Data Centers

Ensures the stable operation of critical equipment, preventing power failures that could lead to data loss or service interruptions. By maintaining real-time monitoring, the system enhances operational reliability.

Industrial Manufacturing

Provides equipment energy management to reduce operational costs and improve production efficiency. Real-time data insights help in predictive maintenance and failure prevention.

HVAC Management

Integrate the operation of chillers and air conditioning systems to enhance energy efficiency, reduce unnecessary power consumption, and maintain environmental comfort.

Power Distribution Networks

Ensures stable power supply and reduces grid failure risks, improving overall power system reliability and reducing downtime.

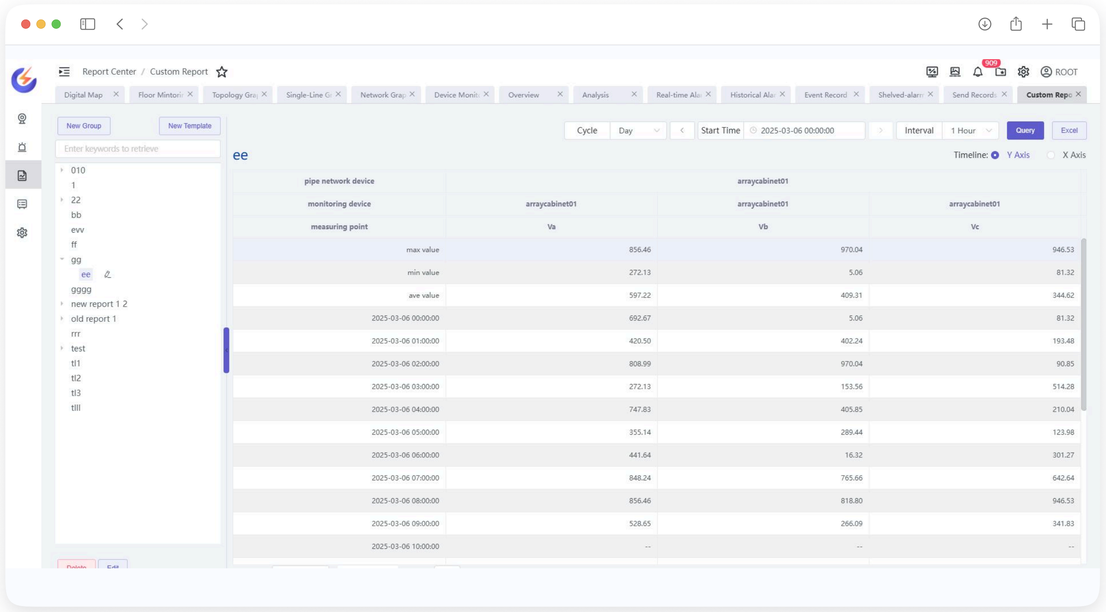
Environmental Monitoring

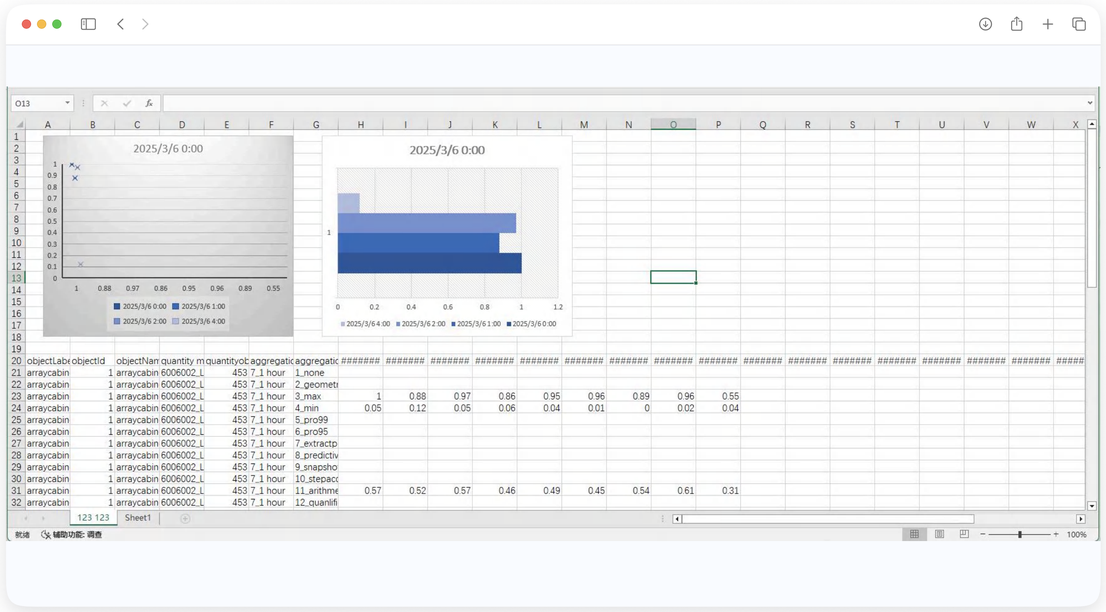
Real-time monitoring of temperature, humidity, water leakage, and smoke detection to enhance safety measures. Proactive alerts allow facilities to mitigate potential hazards before they escalate.

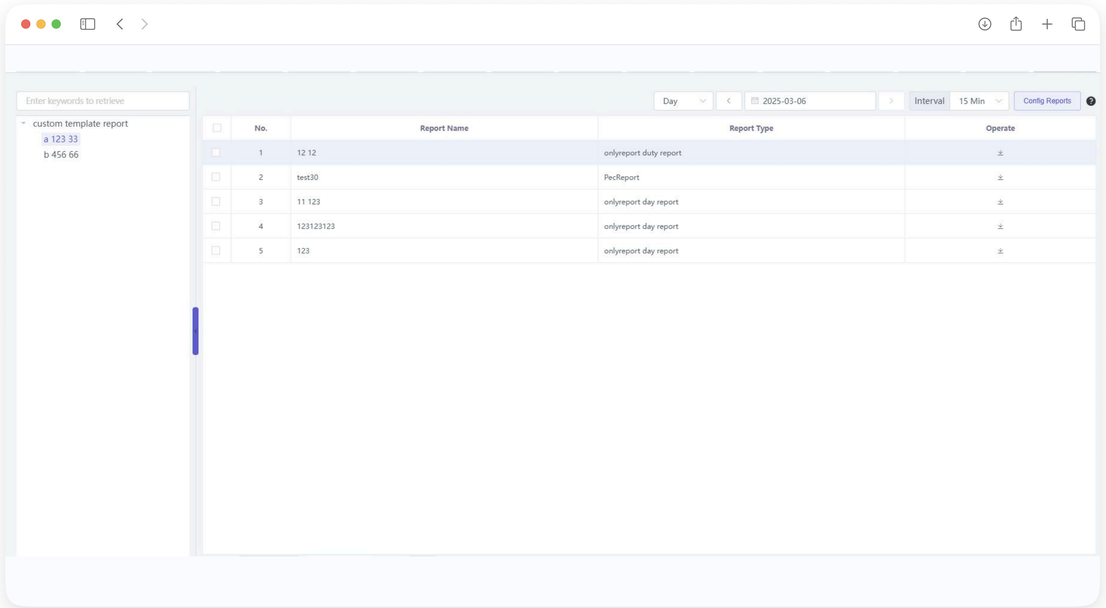


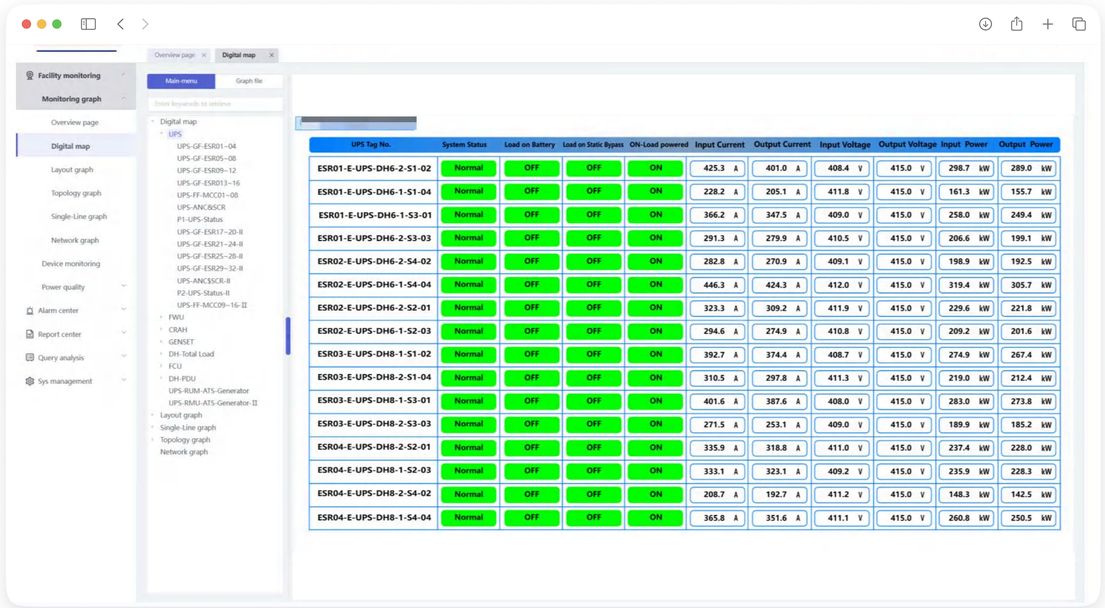
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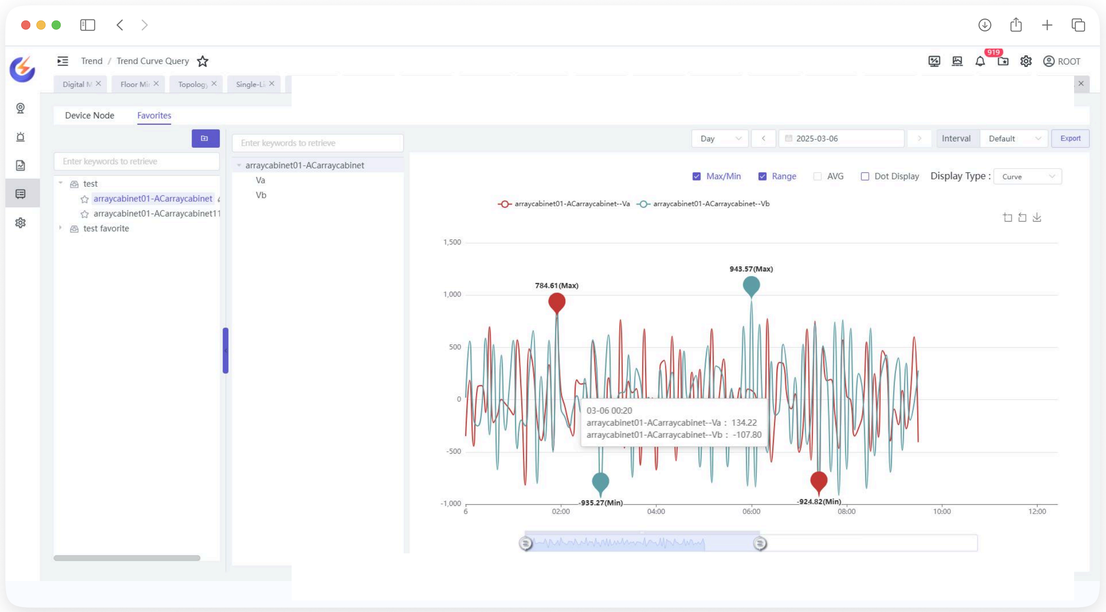
Precise Monitoring Intelligent Analysis

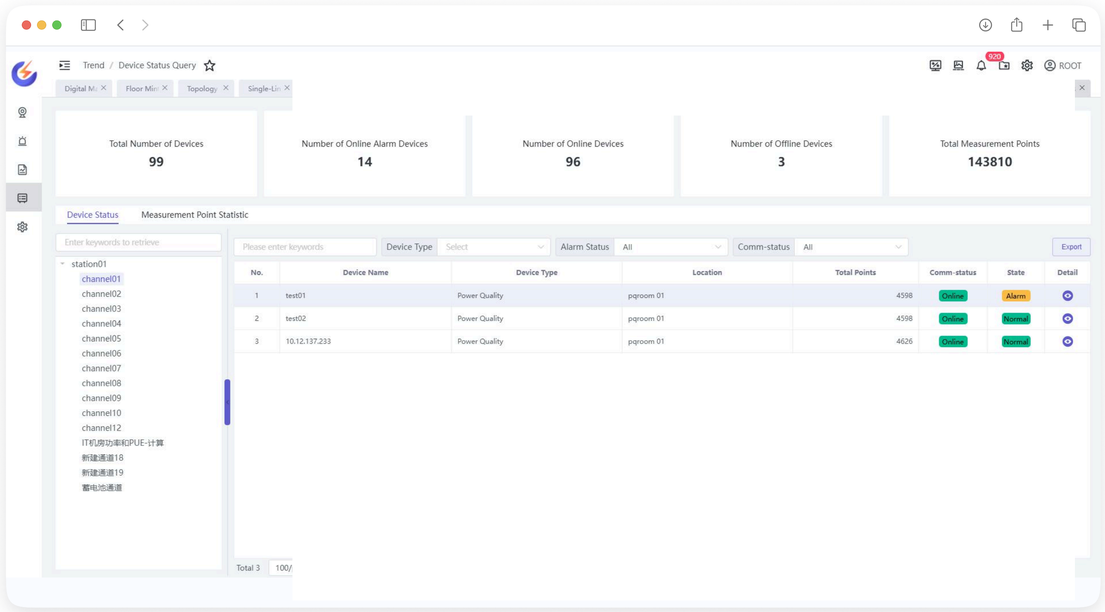


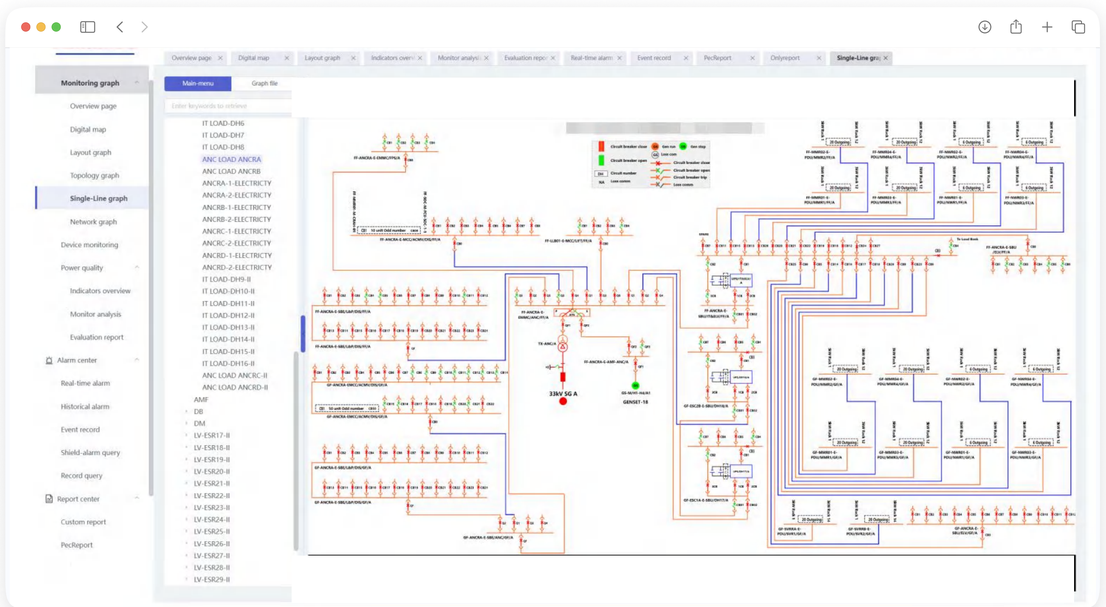


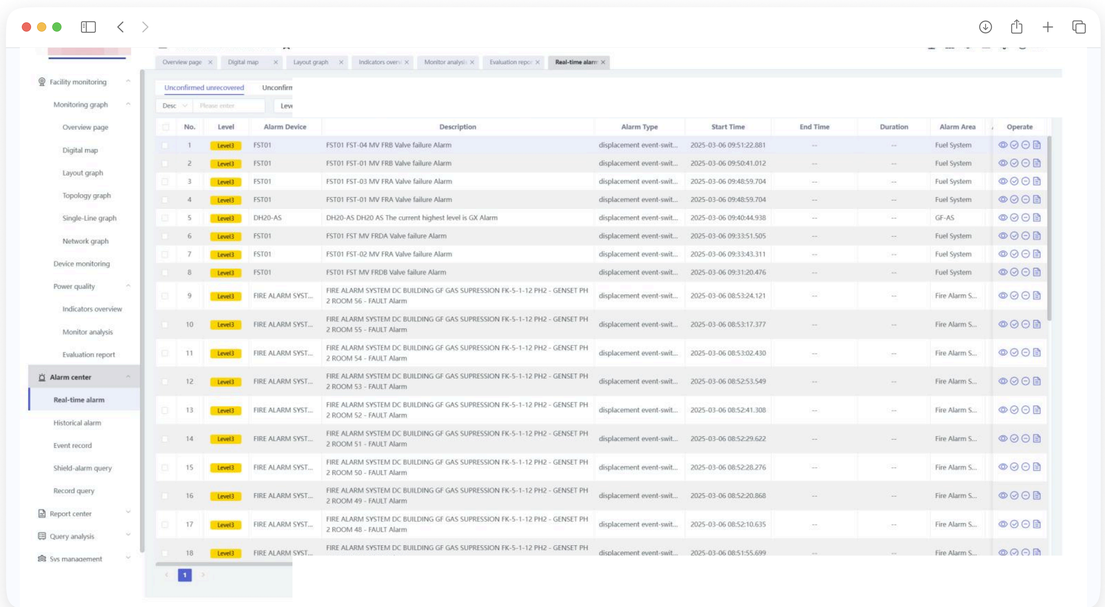












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