Introduction to Intelligent Charging Operations Management Platform

Content

General Introduction

The Intelligent Charging Operations Management Platform is a sophisticated management system leveraging technologies like cloud computing, big data, and the Internet of Things. This platform offers user-friendly services such as user registration, vehicle charging, and online payment, enhancing overall user experience and satisfaction. Simultaneously, the platform enables real-time monitoring of crucial data, including the operational status, usage patterns, and fault information of charging stations and charging piles. This functionality aids users in comprehending the charging stations' operations, promptly addressing faults, and ensuring the seamless operation of the charging infrastructure.

Operation Data Dashboard
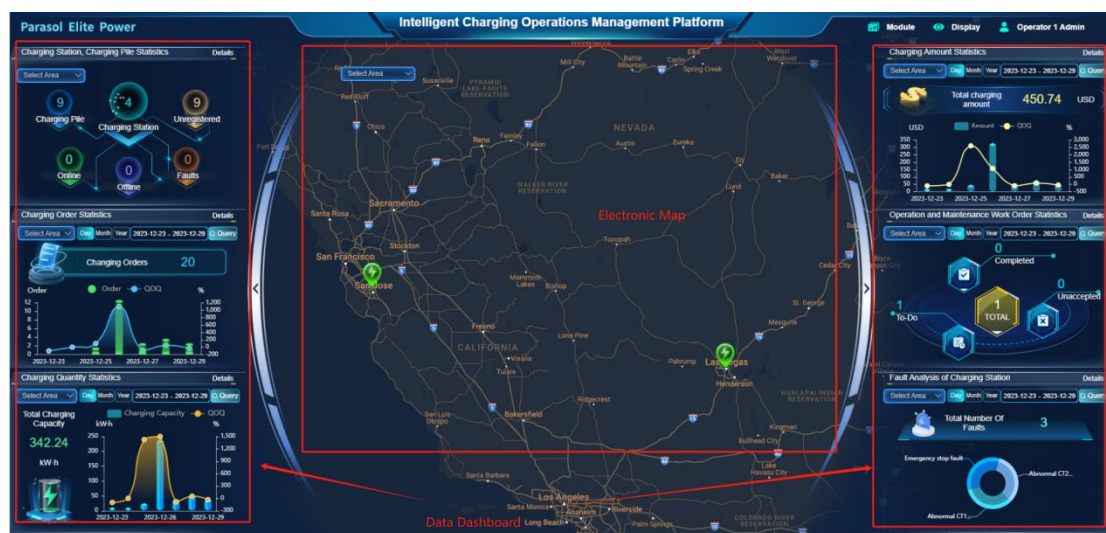
Electronic Map: Precisely mark the locations of charging stations on the digital map. Access detailed information about charging stations and individual charging piles for a comprehensive exploration of available charging infrastructure.

Data Dashboard: Perform statistical analysis on charging data, covering metrics related to charging stations and charging piles. This includes details on charging orders, summaries of charging volume, statistics on charging amounts, analysis on operation and maintenance work orders, and analysis of charging pile failures. This provides operators with a convenient and intuitive platform for a comprehensive understanding of charging station operations.

## 1. Statistics of Charging Stations and Charging Piles
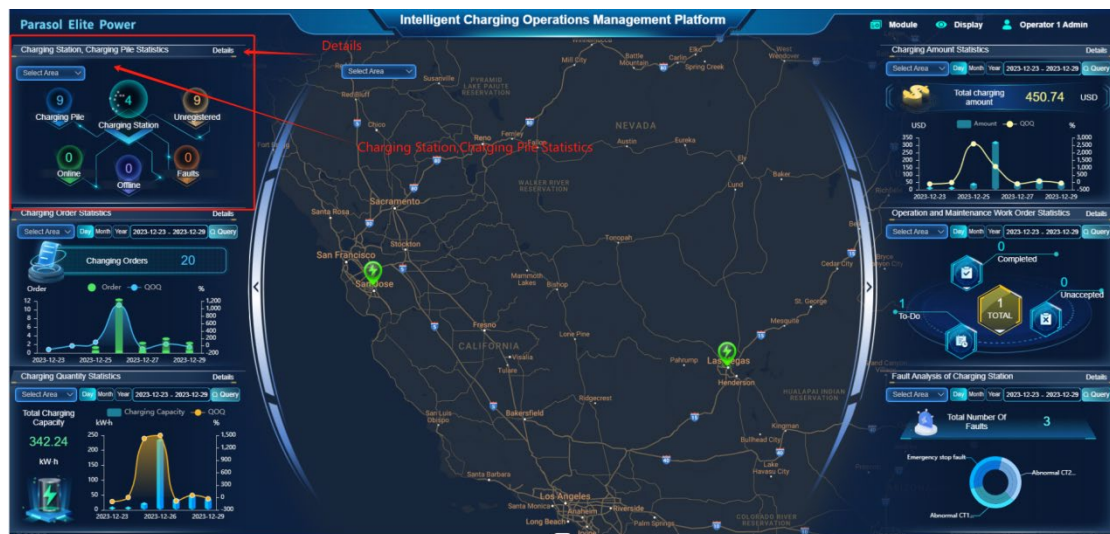
Count the number of charging stations and charging piles, including both online and offline quantities, fault occurrences, and unregistered units. Access detailed statistics on charging stations and charging piles by clicking on the "Details" option.

Display comprehensive information for the charging station, including its name, address, number of charging piles, online and offline quantities, fault occurrences, and unregistered units.

For the charging pile, provide detailed information such as its name, manufacturer, model, usage status, online status, rated power range, voltage range, charging method, and other relevant details.
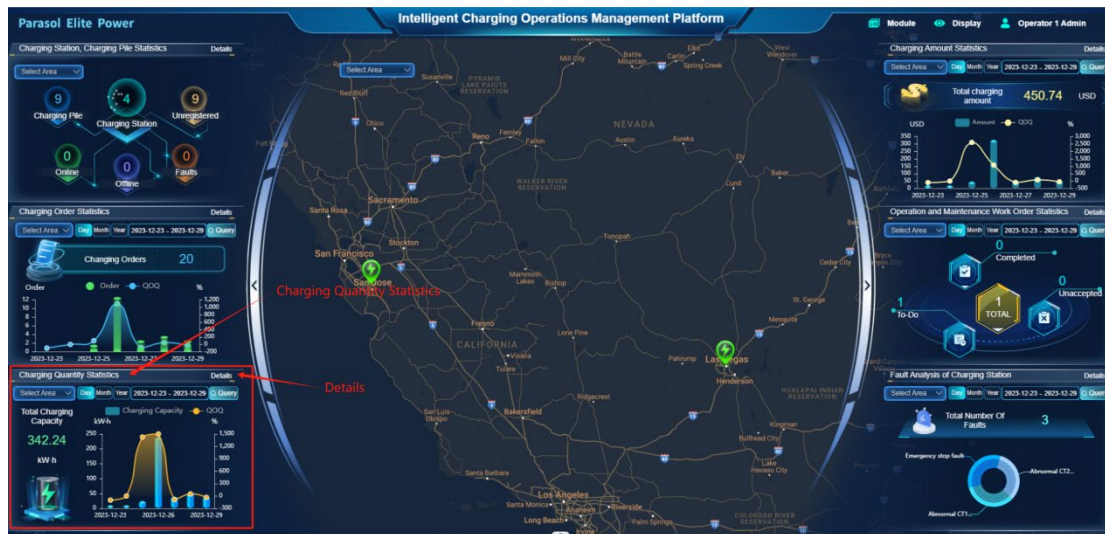
2. Charging Order Statistics
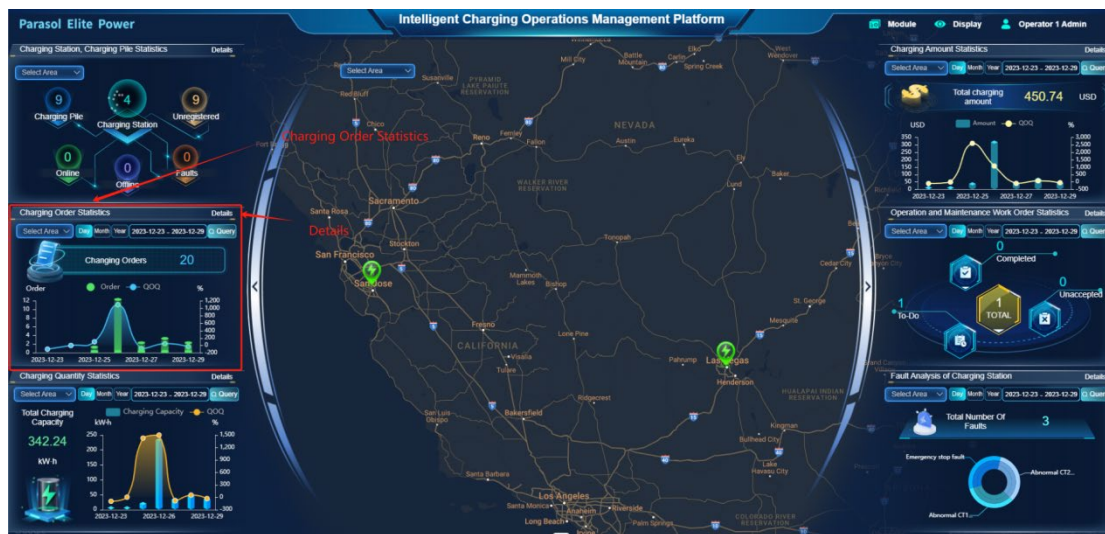
Count the daily, monthly, and annual charging orders based on the specified time range and conduct a month-on-month analysis. Click on "Details" to access in-depth statistics and details related to charging order statistics.

Aggregate the total number of charging orders by charging station, within the specified time range and other conditions. Present the daily, monthly, and annual charging order quantities through a graphical representation. Detailed information for each charging order, including charging station, charging pile, charging gun, charging start time, charging end time, charging duration, charging amount, charging fee, payment method, order generation time, and other pertinent details, can be viewed by accessing the details section.

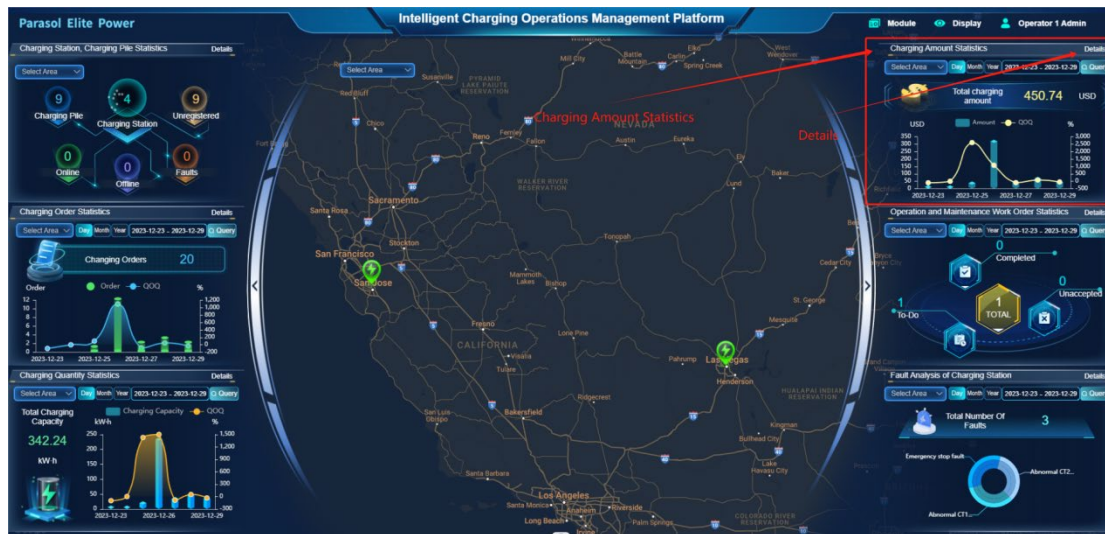## 3. Charging Quantity Statistics

Tally the daily, monthly, and annual charging capacity within the specified time range and perform a month-on-month analysis. Click on "Details" to access specific charging level statistics and detailed information.

Compute the total charging capacity based on the operating area, charging station, time range, and other specified conditions. Present the daily, monthly, and annual charging capacity through a graphical representation. For detailed insights into each charging session, including charging station, charging pile, charging gun, charging start time, charging end time, charging duration, and charging level, refer to the details section.

4. Charging Amount Statistics

Tally the daily, monthly, and annual charging amounts within the specified time range and conduct a month-on-month analysis. Click on "Details" to access specific charging amount statistics and detailed information.

Compute the total charging amount based on the operating area, charging station, time range, and other specified conditions. Display the daily, monthly, and annual charging amounts through a graphical representation. For detailed insights into each charging amount, including charging station, charging pile, charging gun, charging start time, charging end time, charging fee, and payment method, refer to the details section.

5. Operation and Maintenance Work Order Statistics
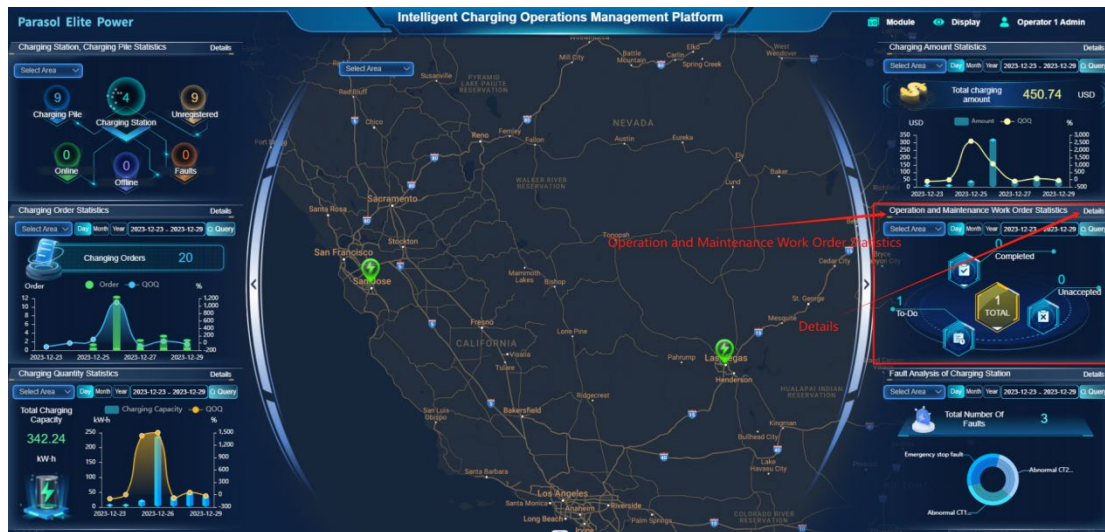
Tabulate the total number of operation and maintenance work orders, completed , pending, and outstanding quantities within the specified time range. Click on "Details" to access statistical details regarding the operation and maintenance work orders.

Calculate the overall number of operation and maintenance work orders, including the count of completed, pending, and outstanding orders. Break down this information by operating area, charging station, time range, and other specified conditions. For a more detailed view of each operation and maintenance task, access information such as the faulty charging pile, associated charging station, fault description, repair person, repair time, work order status change time, repair process, and other pertinent details by clicking on the "Details" option.

6. Fault Analysis of Charging Pile
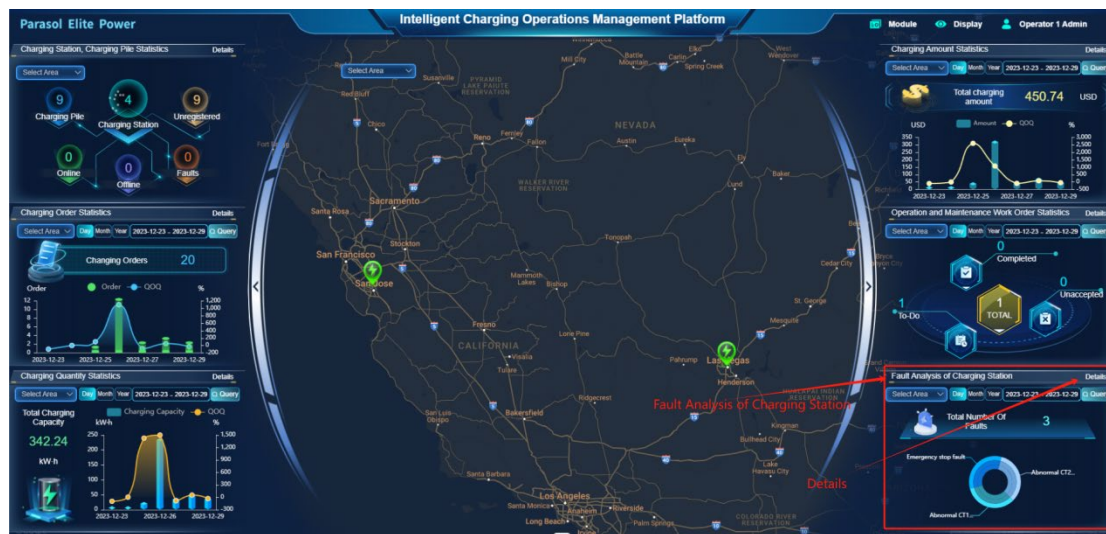
Tabulate the overall number of faults occurring in the charging pile within the specified time range and analyze the proportion of various fault causes. Click on "Details" to access detailed fault analysis information for the charging pile.

Calculate the total number of faults in charging stations, categorizing them based on operating areas, charging stations, time ranges, and other specified conditions. Analyze and present the proportion of various fault causes in a pie chart. For detailed information on each fault, including the cause of the fault, time of occurrence, charging station name, charging pile name, and other relevant details, refer to the details section.

Business functions

Click on the first icon of the 'module' at the top right corner to open the business function system menu.
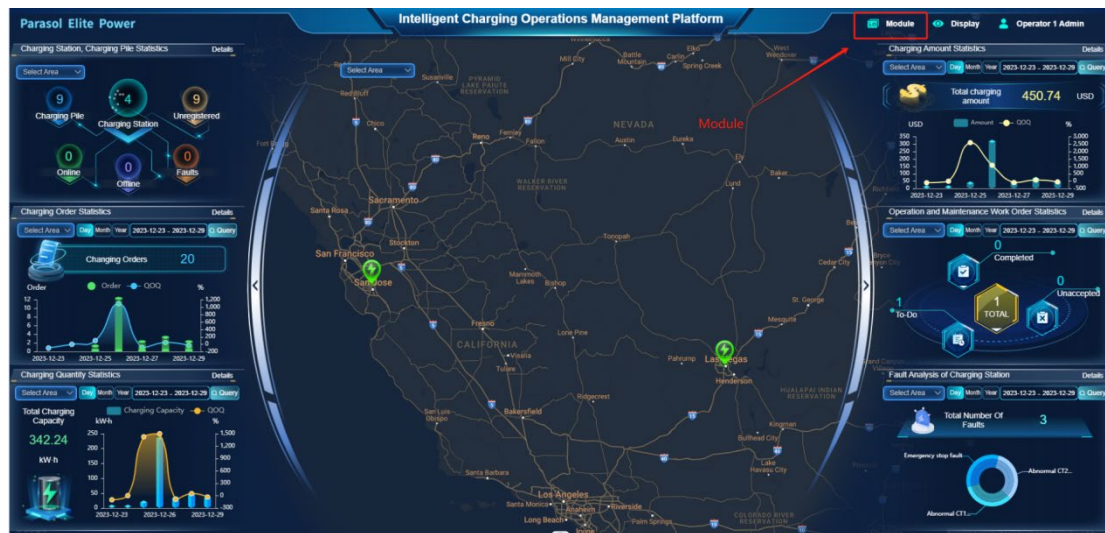
1. Operations Area Management

Operator Area Management: Overseeing operational area details for charging stations. Organizing charging stations into operational areas to enhance management efficiency for operators.

2. Charging Station Management

Supervising charging station information, facilitating the establishment of charging stations within operational areas, and configuring map coordinates for each station. Customers can utilize the app's charging navigation feature to easily discover stations and navigate to them.

3. Charging Pile Management

Supervising charging piles within charging stations. This feature allows the viewing of charging pile information organized by operational areas and charging stations. It supports the bulk import of charging pile details and enables the management of charging gun information for each charging pile.
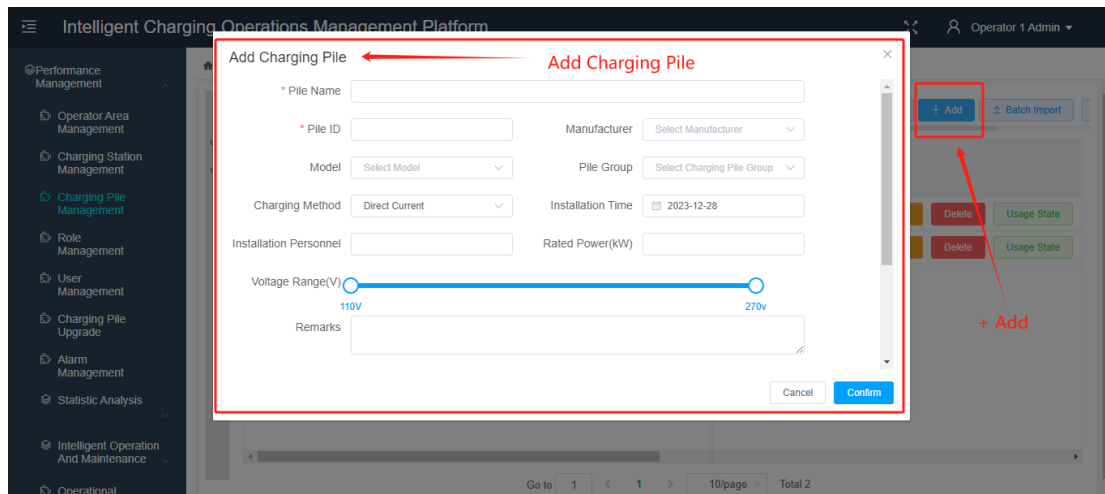
Click on "+Add" to open the new charging pile page and input the necessary charging pile information.

4. Charging Cycle Comparison Analysis
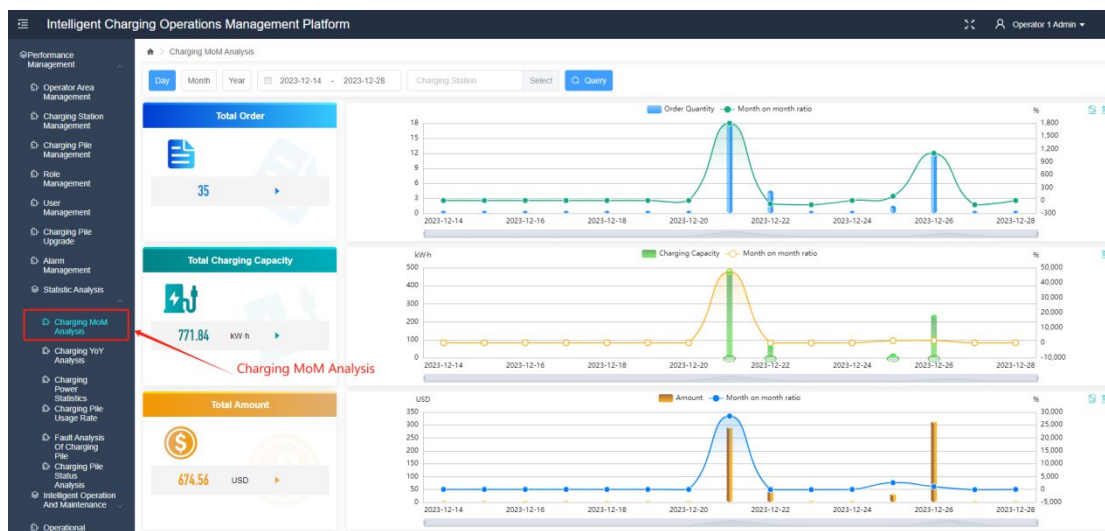
Enables data statistics and month-on-month analysis of charging orders, charging volume, and charging amount, incorporating various query conditions such as time range and charging stations.

5. Year-on-year Analysis of Charging
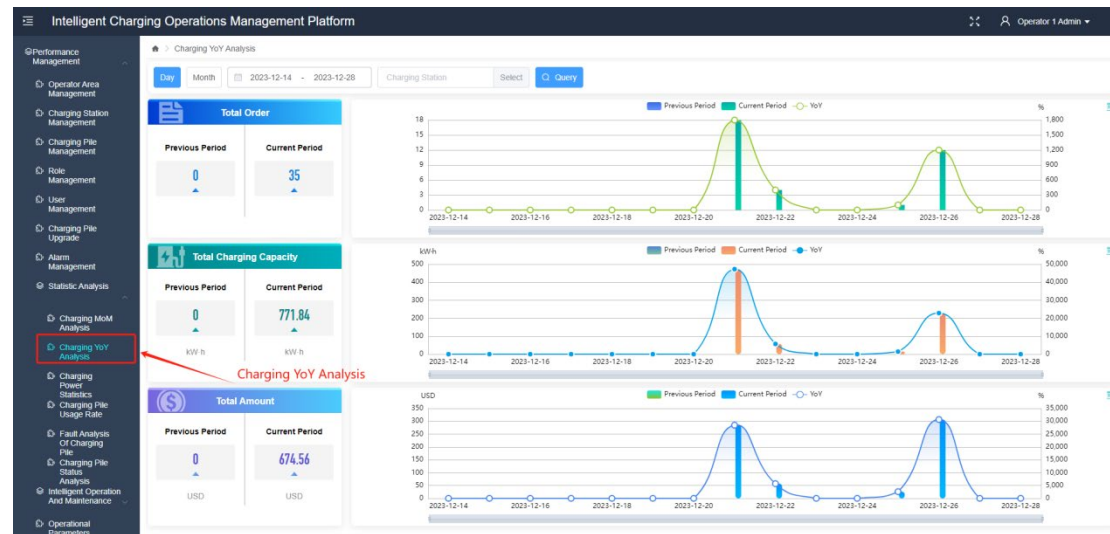
Facilitates data statistics and year-on-year analysis of charging orders, charging volume, and charging amount, accommodating different query conditions such as time range and charging stations.

6. Charging Power Statistics
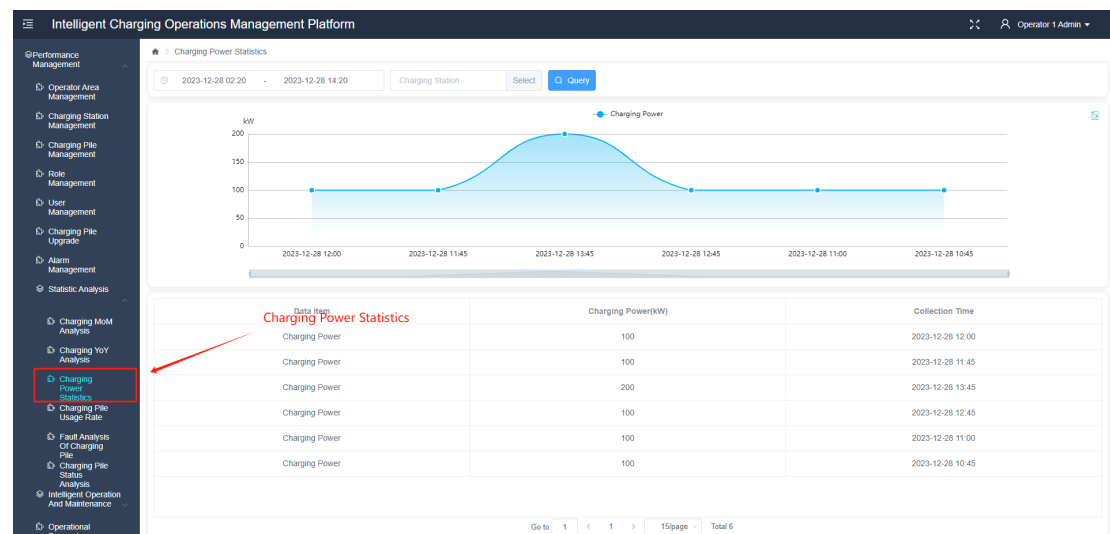
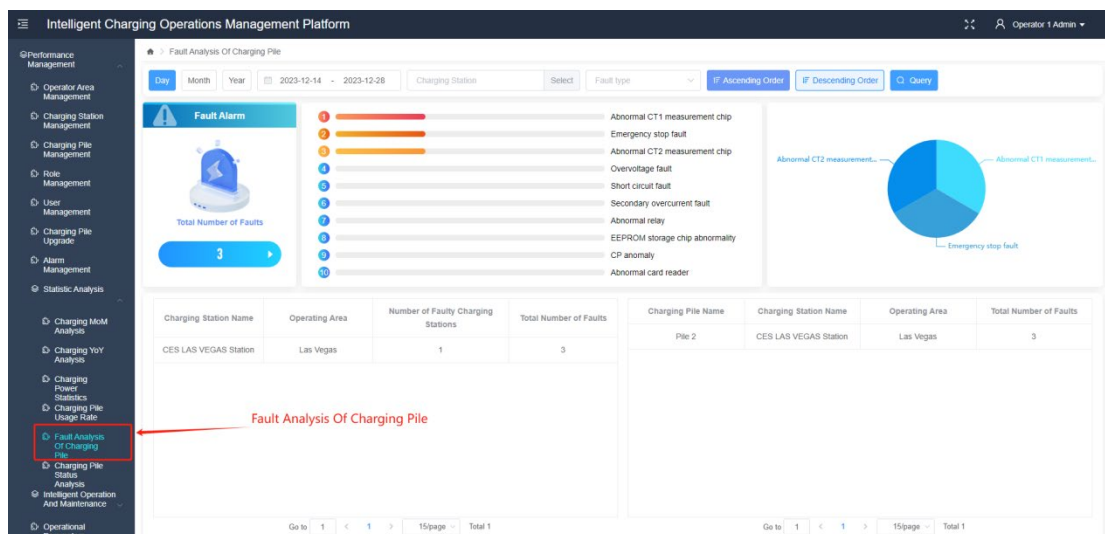Facilitates real-time statistics and visualization of the charging power at charging stations.

### 7. Charging Station Usage Rate
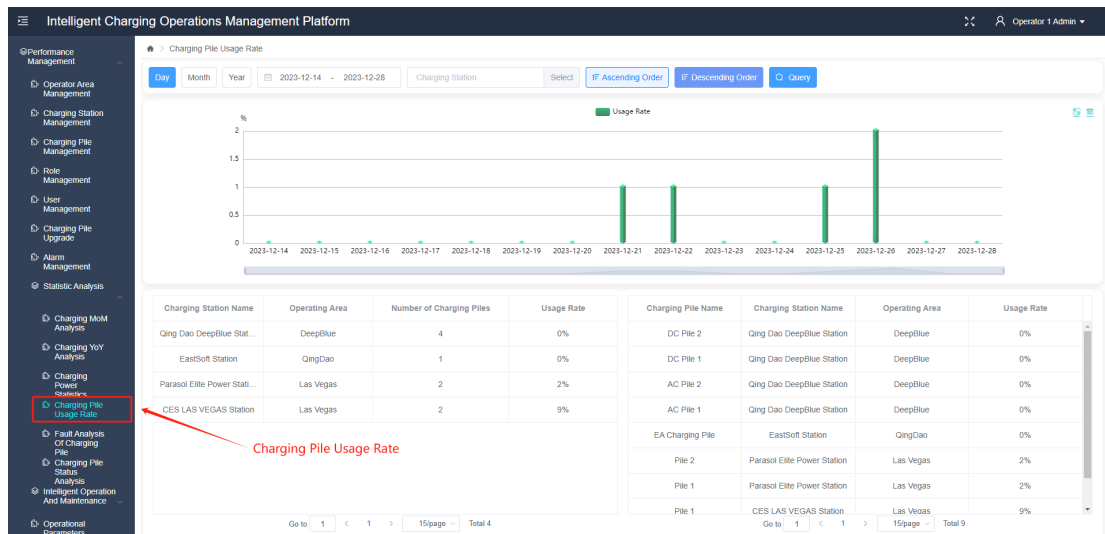
统计充电桩的使用情况，并按充电站与充电桩进行排名。

Analyzing the utilization of charging stations and ranking them based on both the charging station and individual charging piles.

8. Fault Analysis of Charging Pile

Conducting statistical analysis on issues within charging stations, categorizing them by fault type, charging station, and charging pile. Additionally, evaluating the distribution of different fault types.

9. Analysis of Charging Pile Status
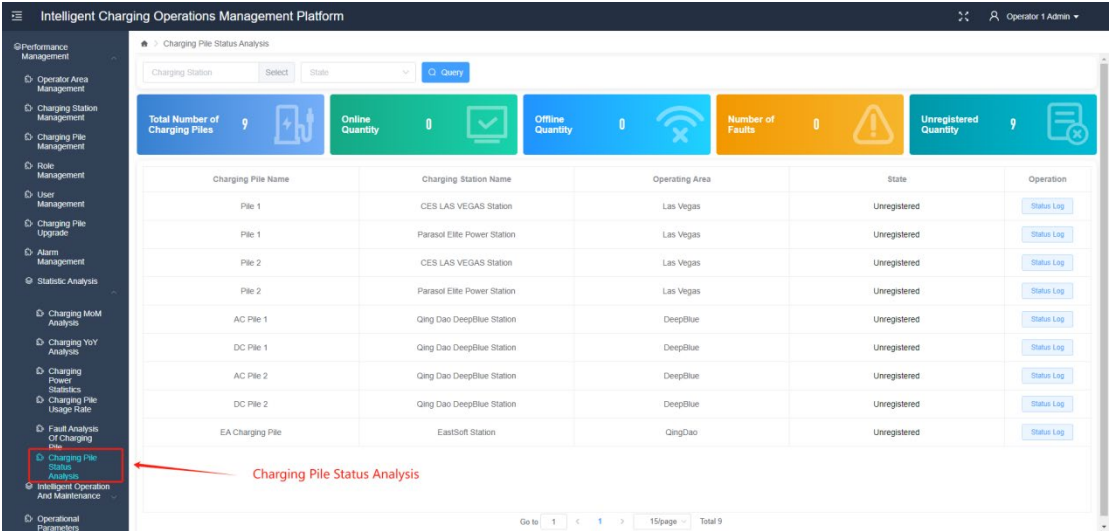
Evaluating the status of charging stations, including statistics on online, offline, and faulty devices. Users can access detailed information regarding the status of each charging station.

10. Alarm Management
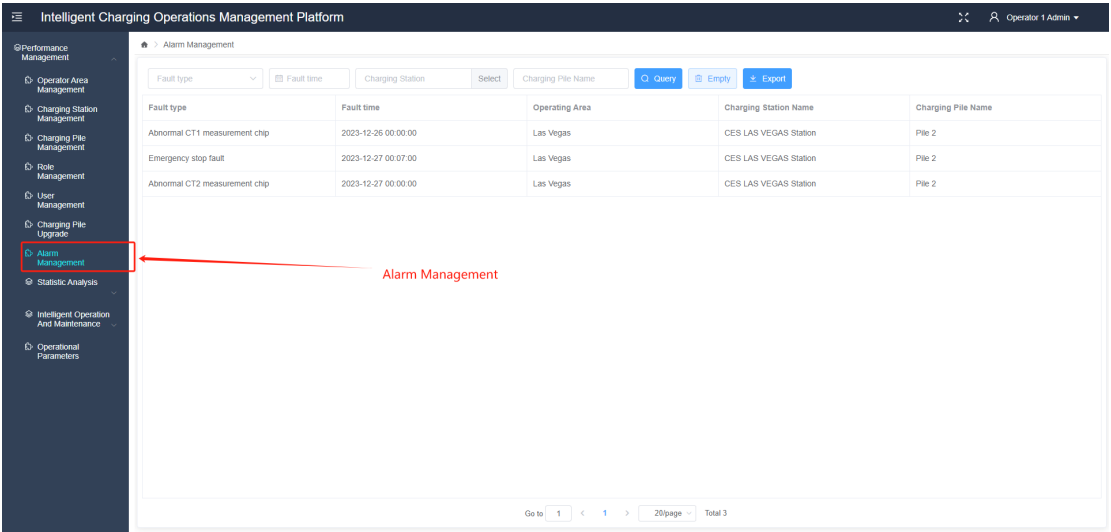
Review the fault alarm information reported by the charging pile.

11. Fault Report

Operations and Maintenance Work Order Management: Facilitating the manual creation of maintenance work orders and supporting operations and maintenance personnel in claiming and handling orders.

12. Work Order Statistics

Conducting statistical analysis on maintenance work orders, which involves tallying the number of various types of work orders by personnel and ranking them.