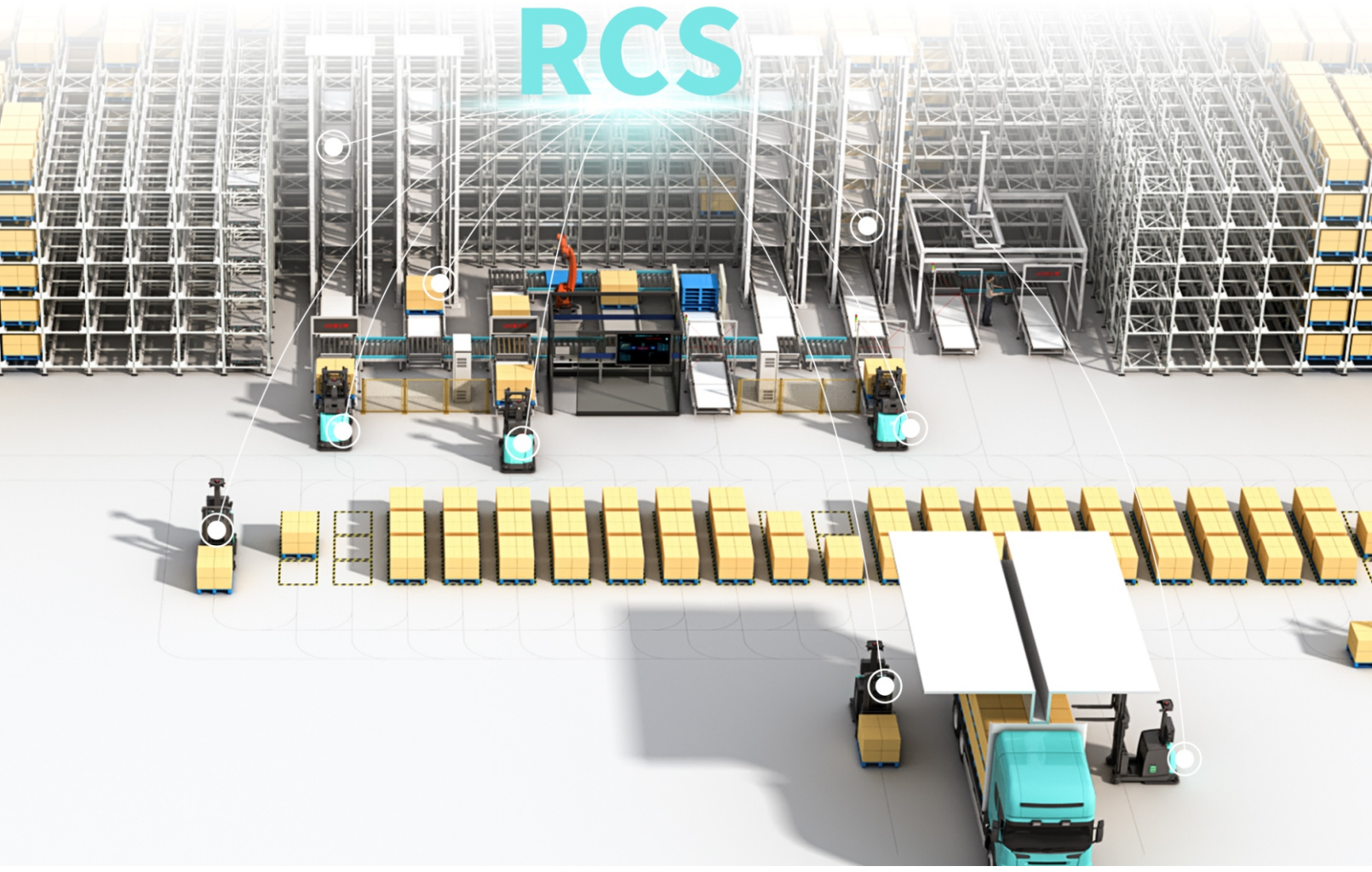
Multiway Robotics



Dispatching System RCS

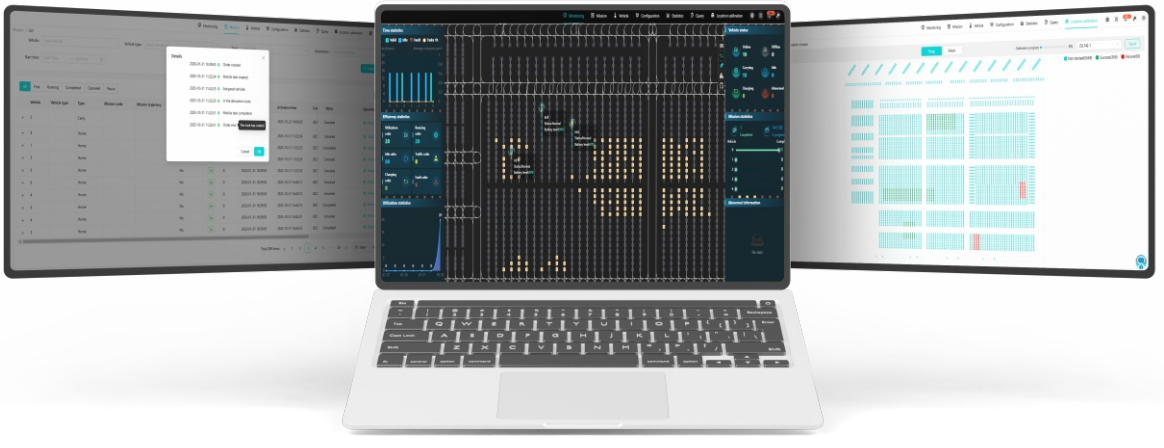
Multiway Robotics Co., Ltd.

Introduction to RCS System

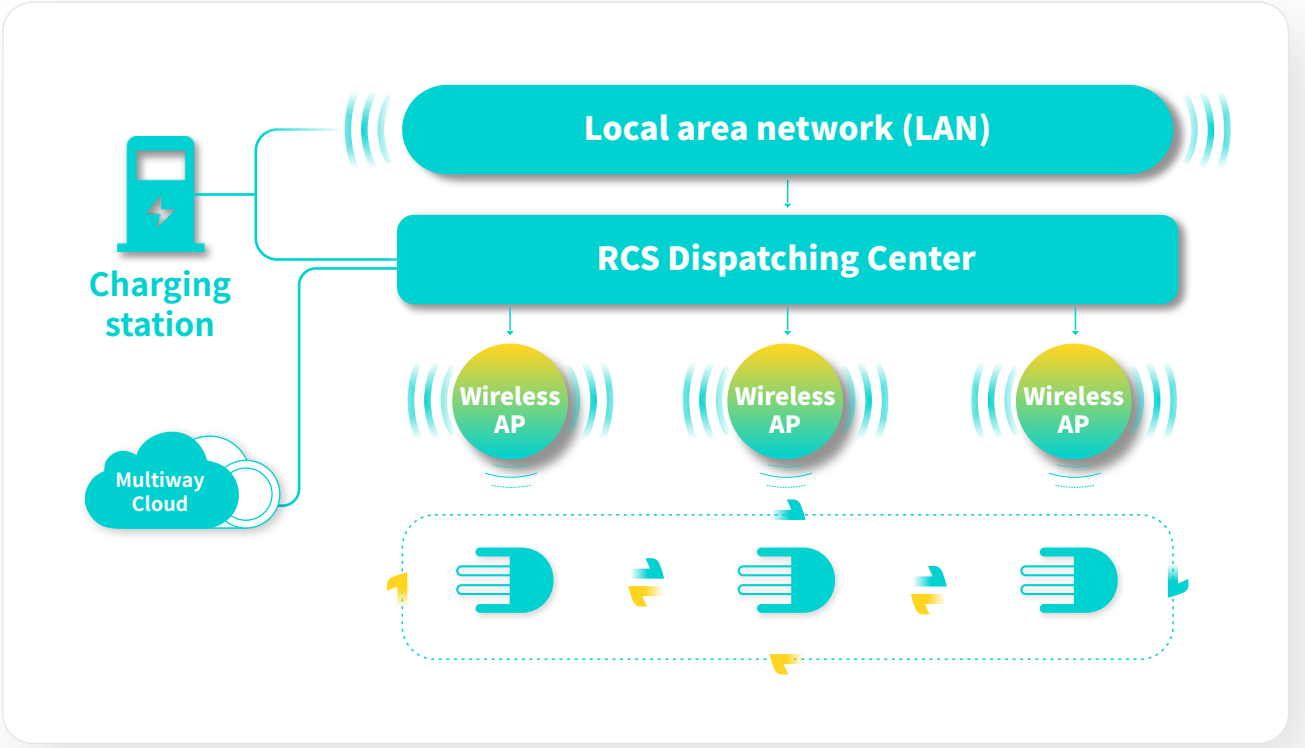
The Multiway Robotics Dispatching System can simultaneously **support the cooperative operation of hundreds of vehicles of different models on the same site**. It can quickly design optimal routes and optimal navigation route planning, thus completing tasks in the shortest time and ensuring the highest efficiency.

Currently, Multiway Robotics Dispatching System has been deployed in **1000+** real projects in the fields of **automotive, food, pharmaceutical distribution, new energy, cold chain, etc.**, with more than a hundred units deployed at the site of several leading enterprise customers.

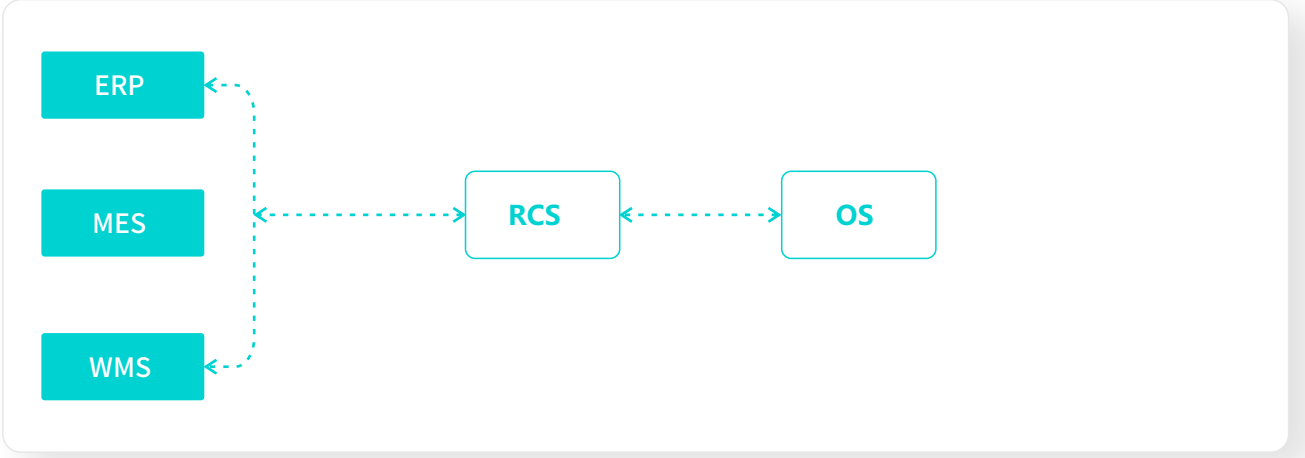
- Real-time construction of the environment
- Optimal path planning
- Dispatching of intelligent traffic control
- Monitoring and management of equipment
- Principle of proximity
- Intelligent task sequencing
- Self-charging management
- Dynamic avoidance in multi-vehicle conditions
- Slot calibration
- Integration with external systems
- Integration with proprietary equipment
- Supports VDA5050 protocol



Network Architecture



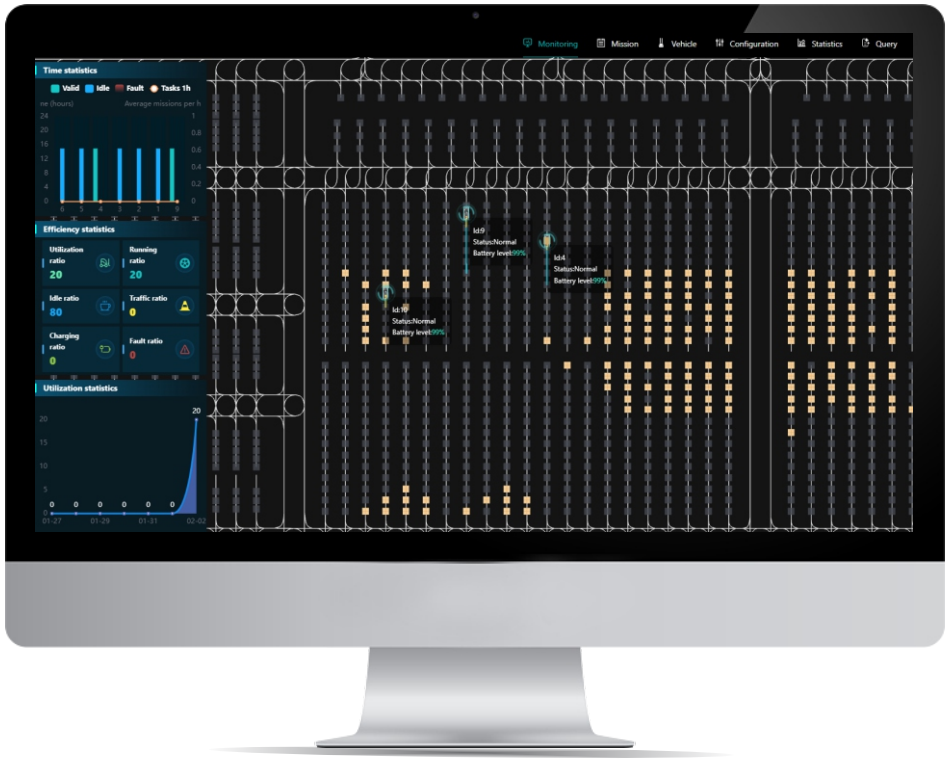
System Interfacing Logic



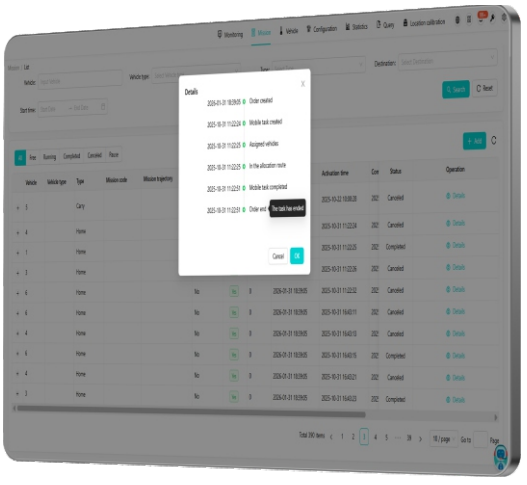
System Function

Dynamic monitoring

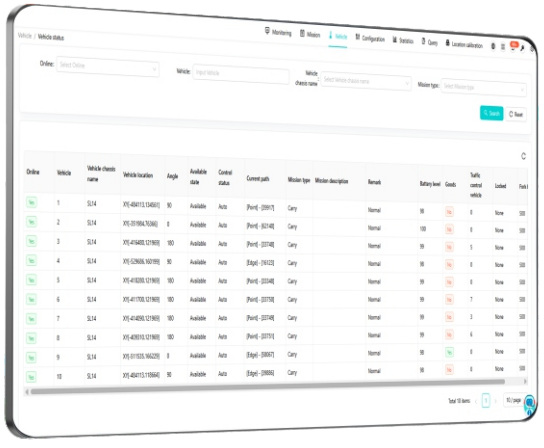
- Web-based system information access and remote monitoring are available
- Real-time display of operational maps (Support 3D digital twin)
- Real-time display of vehicle position, status, battery level, etc.
- Real-time display of vehicle task statistics
- Real-time display of vehicle anomalies/alerts
- Supports quick dispatch of templated tasks
- Support for configuring parameters in the backstage
- Different users or user groups can set operation privileges



Task management



- Monitor task execution status in real time
- Create tasks to assign vehicles to transport goods to a target point
- Create recurring tasks
- Manually cancel and complete tasks in the management task status
- Supports creating templated tasks

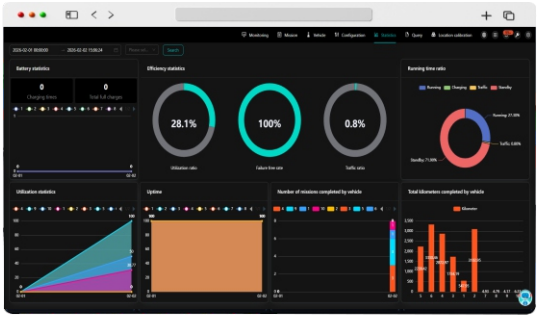


Vehicle management

- Monitor vehicle operating status in real time
- Configure vehicle information
- Configure simulation vehicles to simulate the operation of real vehicles
- Supports area-based configuration to enable vehicles to execute tasks by designated zones

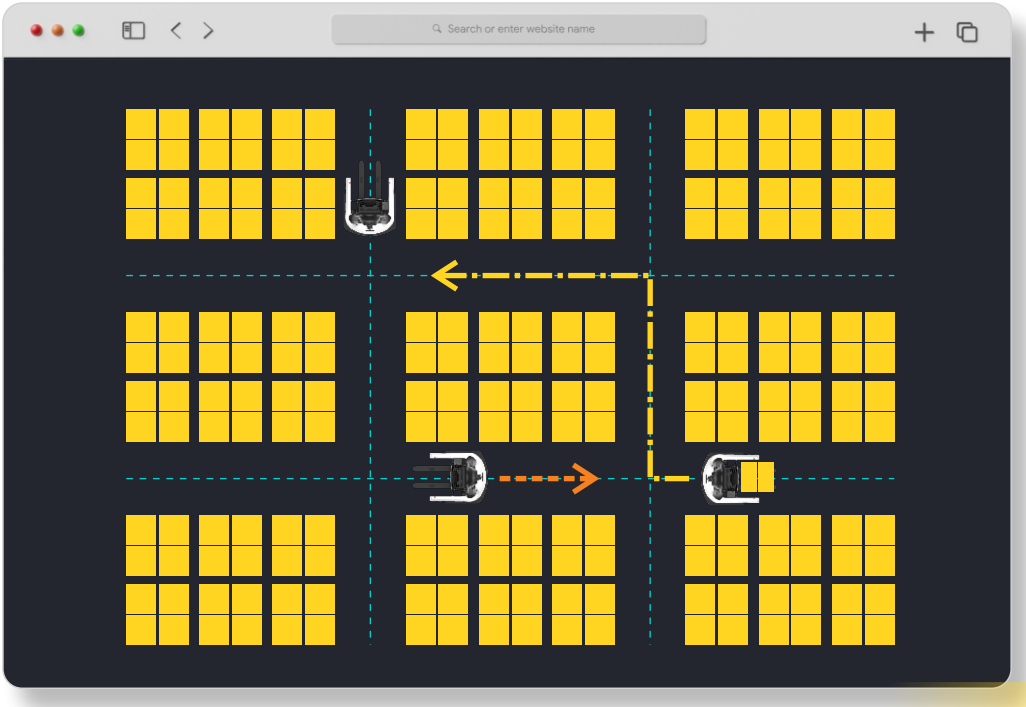
Report statistics

- Record running track, traffic control time, failure rate, etc.
- Record running tasks and automatically generate task logs
- Data analysis (efficiency, mileage, utilization, etc.), support for graphs and data export
- Report system failures, generate events, and query logs



Traffic control

- Optimize routes for traffic control in real time
- Adjust the vehicle running profile to reduce traffic pipes and avoid collisions in real time
- According to the robot meeting/following status, task priority, adjust the traffic control issuing mechanism in real time
- According to road conditions, adjust and dynamically avoid in real time
- Traffic control handling of multiple cars on different floors calling the same elevator at the same time
- Vehicle-road collaboration is available
- Supports obstacle avoidance at the system level
- Supports intelligent vehicle traffic management

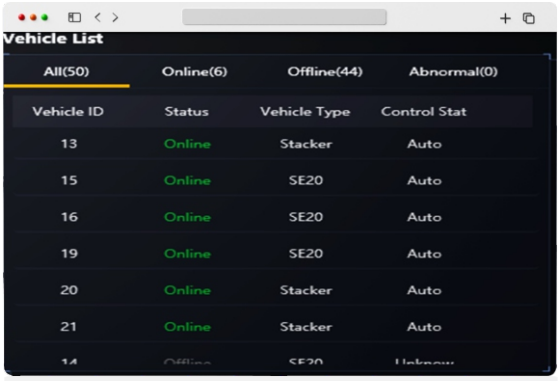


Traffic control mechanism

- Space collision detection
- Control of route issuance
- Block group protection
- Restrictions on roadway operations
- Event interaction mechanism
- Dynamic avoidance algorithm

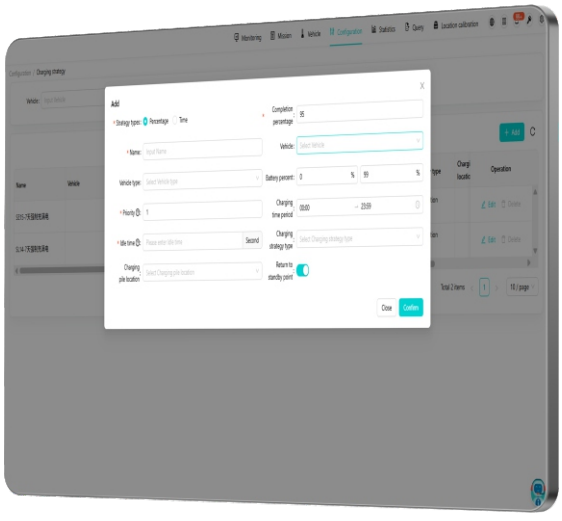
Equipment management

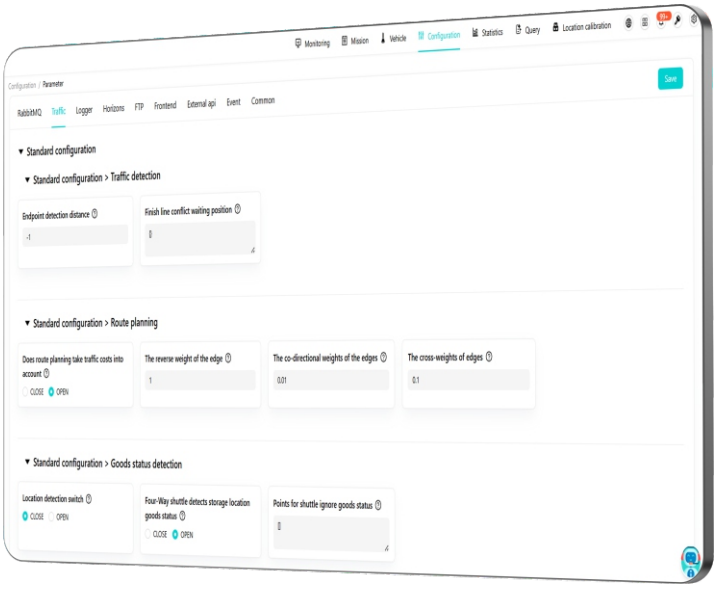
- Self-check the communication status of robot components in real time
- Monitor multiple robot batteries for low battery warning and recharging in real time
- Monitor robot position, obstacle avoidance, motion and other information in real time
- Real-time monitor the communication status of various modules docking in the system
- Remote one-touch parking is available
- Remote OTA upgrade without manual intervention
- Supports integration with proprietary devices (e.g., automatic doors, elevators, etc.)



System configuration

- Event configuration: configure notification, interaction events with WCS
- Charging configuration: configure automatic vehicle charging strategy
- Standby point configuration: configure the vehicle to automatically return to the designated standby point
- Map configuration: map upload, map activation
- Model configuration: model information configuration
- Station configuration: charging point, standby point, storage point, etc.





Multiway Robotics

Multiway Robotics is committed to "Empowering the World with Billions of Robots" and takes "To create a new and efficient operating mode" as its mission, continuously driving the advancement of global productivity.

Global Presence: The headquarters is located in Shenzhen, China, with production facilities in Zhejiang Wuzhen. Multiway has also established subsidiaries in the United States, Germany, Japan, South Korea, and more, extending business, operations, and services to 40+ countries and regions worldwide.

Our Expertise: Focusing on advanced robotics and AI technology, Multiway Robotics is committed to delivering cutting-edge Smart Intralogistics Solution to our customers. Multiway offers a comprehensive, integrated innovation delivery platform and solutions, ranging from core sensors and algorithms to self-developed unmanned forklifts and upper-level control systems. Hardware products include a full range of unmanned forklifts and four-way shuttle, while software systems encompass WMS, RCS, WCS, on-site management systems, and various visual solutions.

Software WMS, RCS, WCS, Multiway Horizons, Simulation

Hardware: AGV forklifts, AGV Tugger, AMR & Four-way Shuttle

After successfully delivering numerous benchmark projects in industries such as factories, warehousing, and logistics, Multiway has become a trusted and ongoing collaborative partner for many industry-leading customers.

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