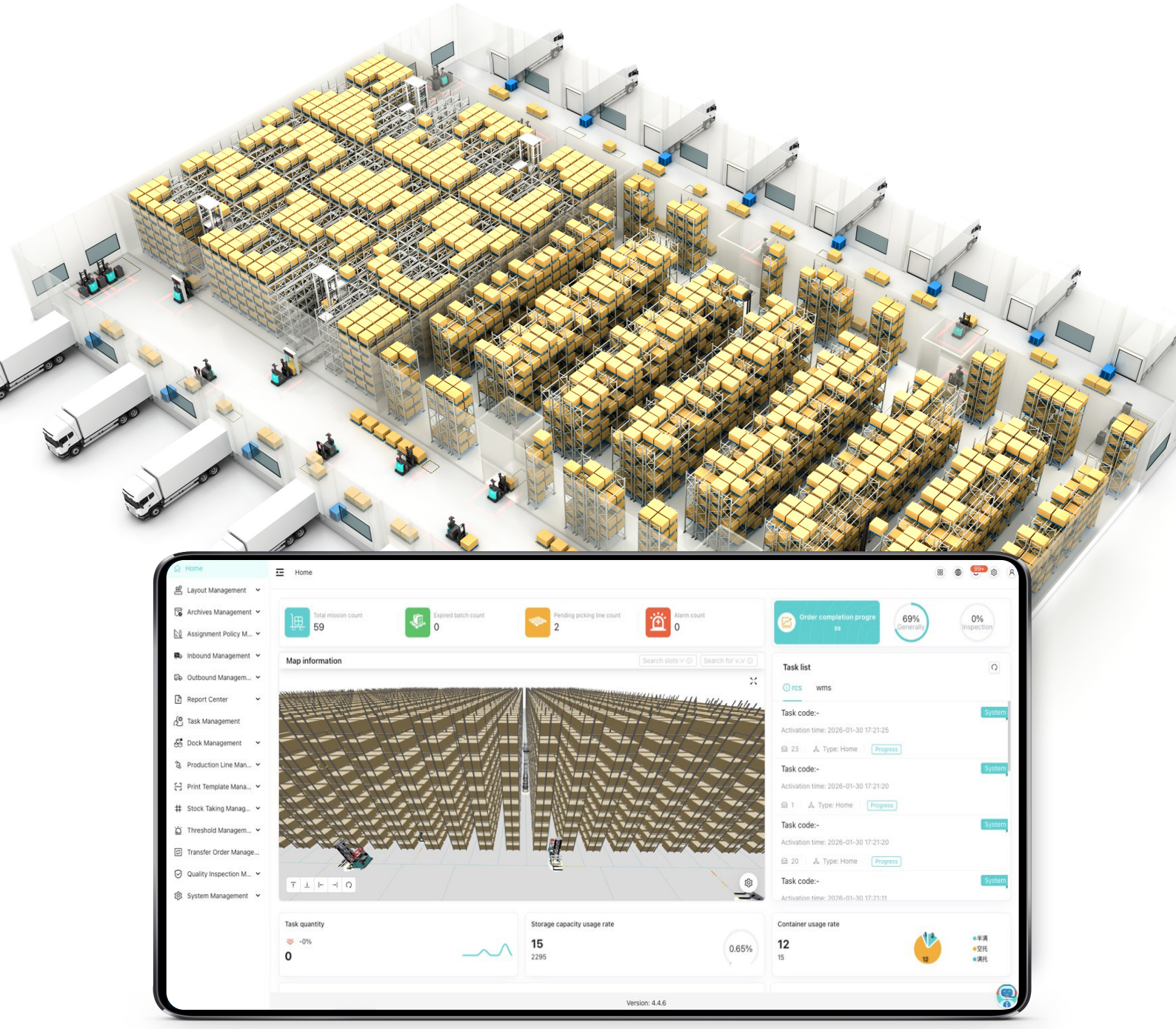
Multiway Robotics

www.mw-r.com

Multiway

Warehouse Management System-WMS



System Introduction

System Overview:Multiway Intelligent Warehouse Management System (MW WMS) is a digital core platform purpose-built for modern smart warehouses. By deeply integrating with automated equipment such as autonomous forklifts, the system enables end-to-end digital management and intelligent scheduling of warehouse inventory, inbound/outbound operations, and storage locations. It supports diverse warehouse layouts and racking configurations, driving warehouse operations toward full visibility, intelligent decision-making, and unmanned execution.

Seamless Unmanned Coordination for Precision Execution

Fully integrated with autonomous forklifts, MW WMS automates the entire workflow—from task dispatch and path planning to goods handling. Intelligent algorithms assign optimal storage locations based on material characteristics, and autonomous forklifts execute tasks with high accuracy, eliminating human errors and significantly improving operational precision and efficiency.

End-to-End Digital Twin for Transparent Visibility

Coupled with a 3D visualized warehouse interface, the system provides real-time mirroring of warehouse dynamics—inventory status, vehicle positions, and task progress are all instantly visible. This breaks the “black box” of traditional warehousing, enabling fully transparent asset and process management.

Real-Time Inventory Synchronization for Perfect Ledger-Physical Alignment

Leveraging IoT and seamless system integration, MW WMS automatically captures material data, supporting batch tracking and category-based control. It syncs seamlessly with internal enterprise systems (e.g., ERP), ensuring real-time consistency between physical inventory and accounting records—eliminating manual discrepancies.

Intelligent Resource Allocation for Dual Optimization of Space & Efficiency

Flexible inbound/outbound strategies and intelligent traffic flow planning maximize warehouse space utilization. The system centrally coordinates autonomous forklifts, storage slots, and orders to ensure smooth operations and enhance overall throughput.

Multi-Terminal Digital Control for Anytime, Anywhere Management

Supports PC, tablet, and PDA access, enabling managers to monitor warehouse activities, issue commands, and adjust strategies in real time—delivering mobile, agile, and digital warehouse management.

System Functions

Visualization Display

2D intuitive view

3D digital twin

Task Management

Task monitoring

Task template

System Management

User management

Role management

Permission management

Layout Management

Warehouse management

Zone management

Slot management

Path management

Slot group management

User zone management

Master Data Management

Container management

Container type management

Customer management

Supplier management

Multi-unit management

Material management

Material type management

Strategy Management

Slot allocation strategy

Inventory allocation strategy

Mode Configuration

Order-based / order-free mode

Barcode management mode

Quality inspection mode

Batch mode

Dynamic slot search strategy

Barcode Management

Print template configuration

Export template configuration

Procurement Management

Purchase order

Delivery note

Subcontracting order

Production Management

Production order

Material requisition

Additional material request

Material return

Finished goods receipt

Sales Management

Shipping order

Return order

Reporting Management

Batch inventory report

Inventory aging report

Inventory traceability report

Cycle count report

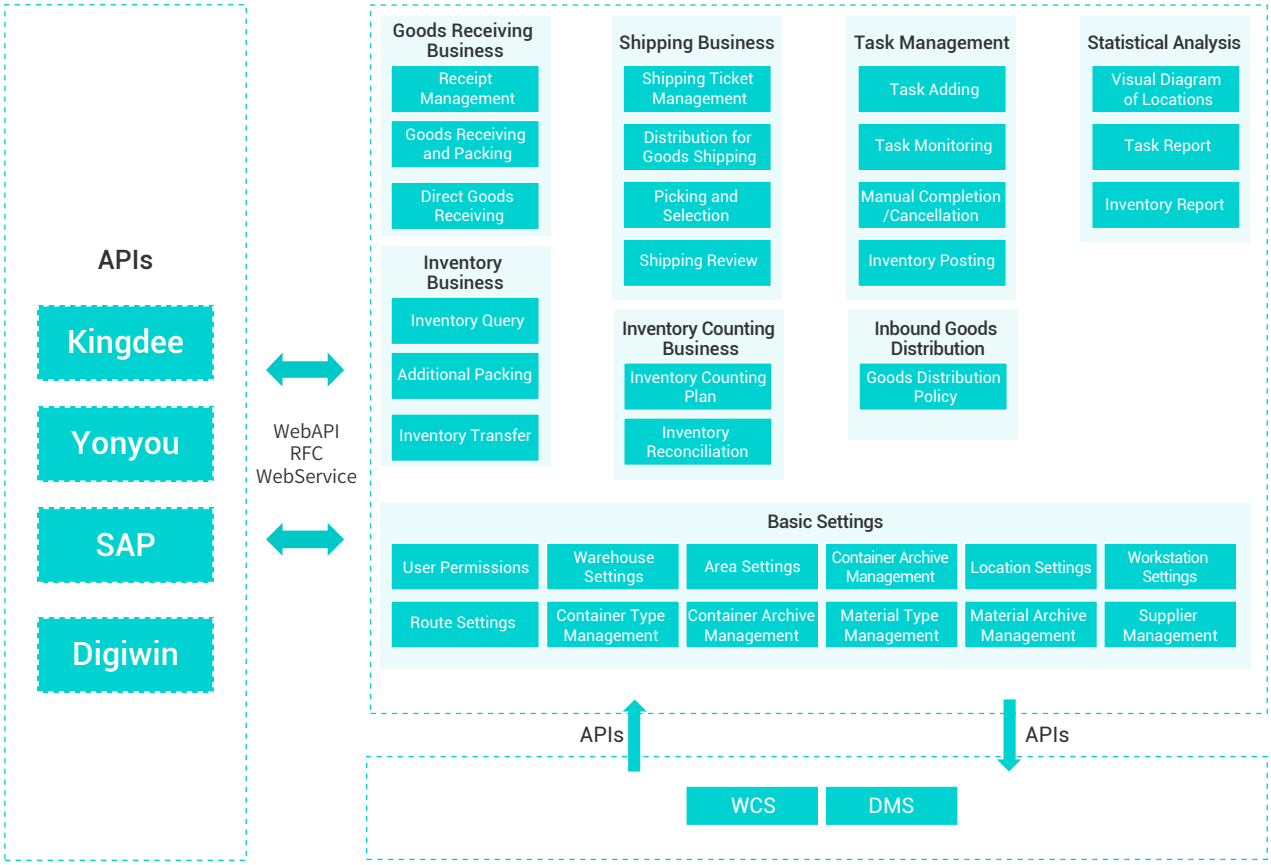
Other Business

Stock transfer

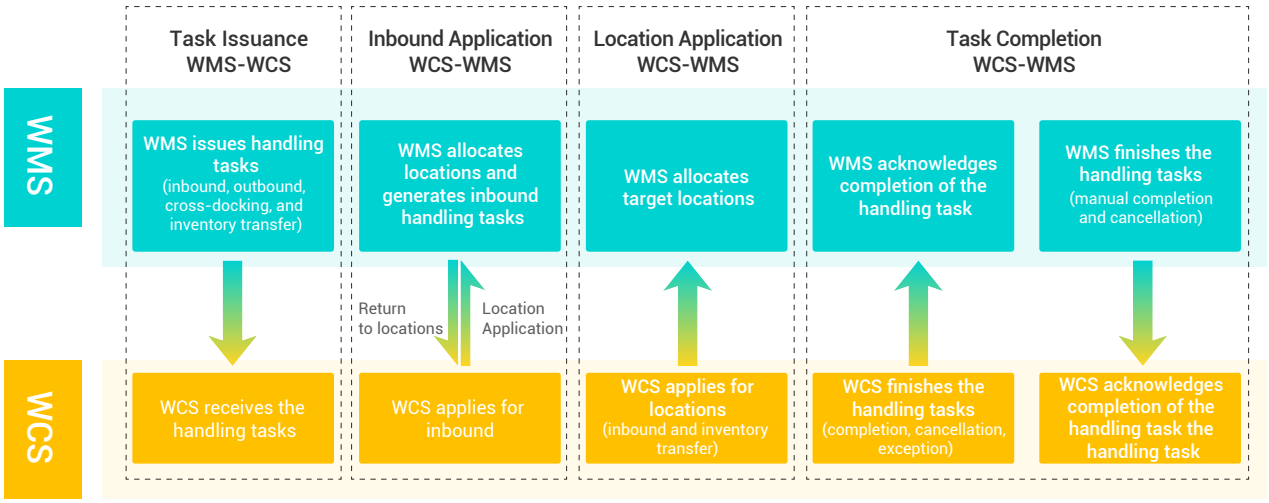
Inventory count

Alert management

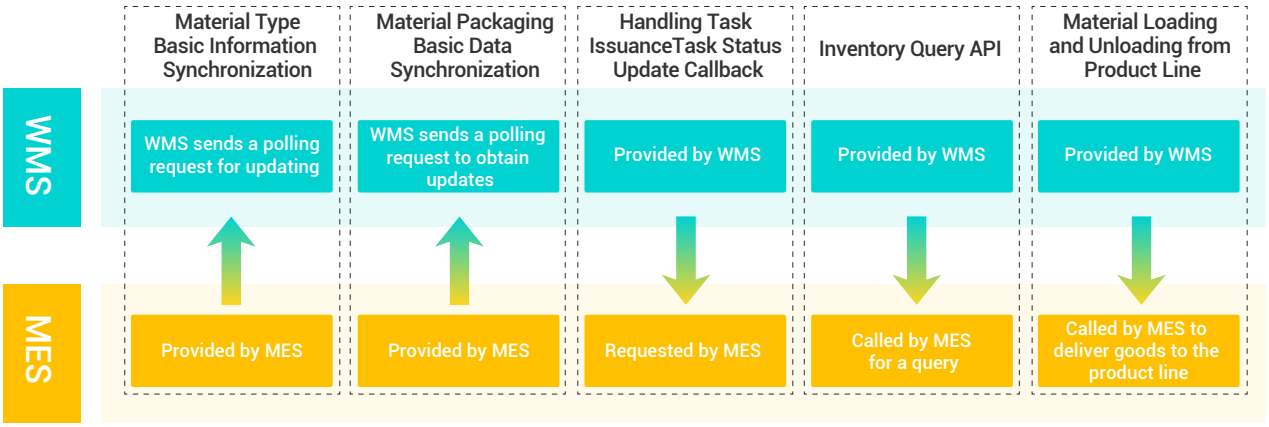
Overall Function Architecture



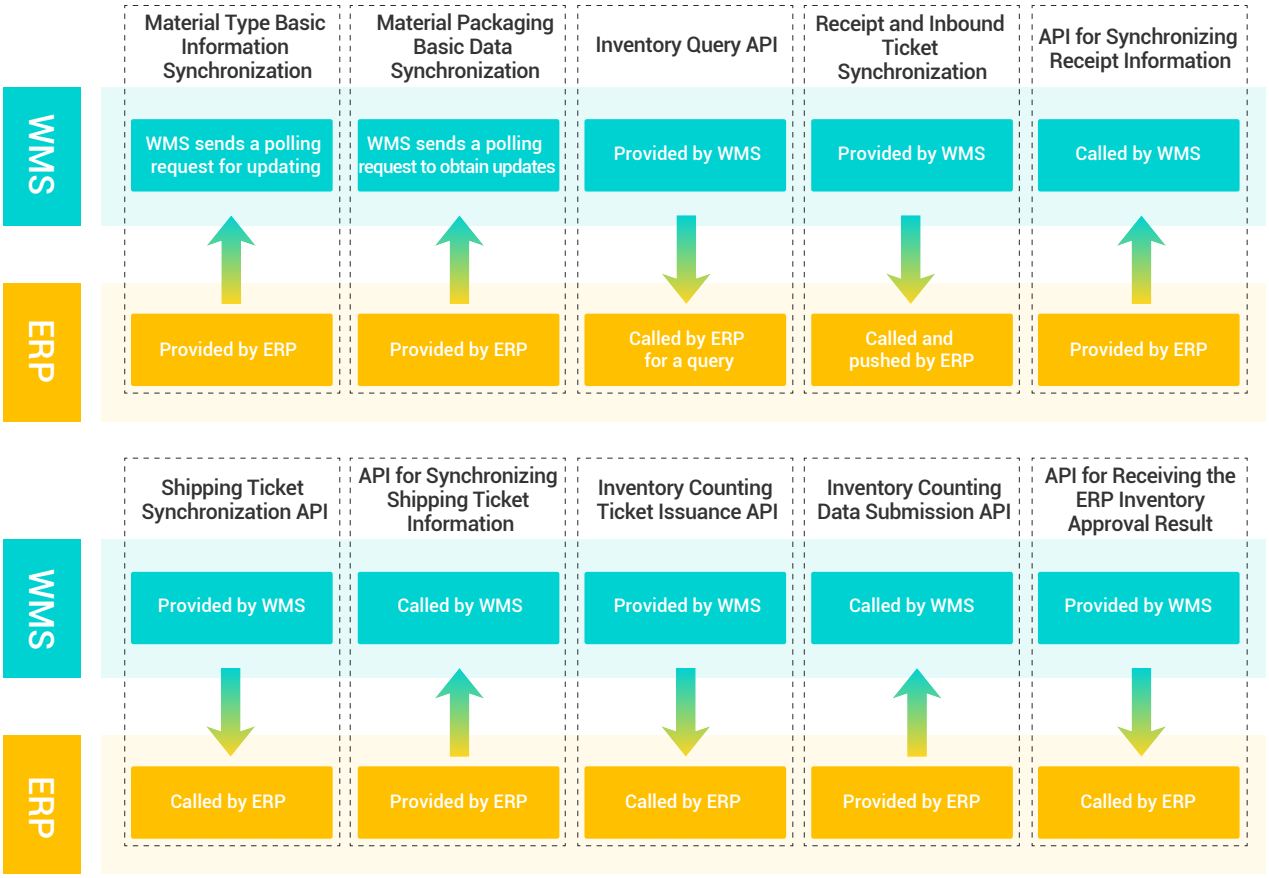
Integration Between WCS and WMS (Web APIs)



Integration Between MES and WMS (Web APIs)



Integration Between ERP and WMS (Web APIs)



Multiway Robotics

Multiway Robotics, a leading intelligent intralogistics solution provider, is dedicated to improve intralogistics efficiency, ensure work safety and reduce labor operational cost.

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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