Smart Manufacturing

IF-IMS Digital Factory Whitepaper

is eleven
IS Eleven Sdn. Bhd. (1260009-W)

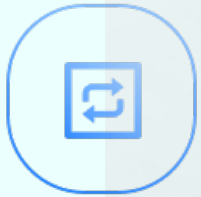
IfLoop

IS ELEVEN SDN BHD & Hangzhou YiXun Technology Co., Ltd

Digital Factory Value

Digital leverage of Value

Integration



Collaboration

Intelligentization

Process Standardisation	Efficiency Enhancement
Work Collaboration	Cost savings
Quality Compliance	Quality Assurance
Production Visualisation	Precise Decision-Making
Management Standardisation	Risk Management

Digital Factory Value

Transform to digitalisation manufacturing ready for future challenge

A digital platform can help medium and large enterprises in their transformation efforts, and it can also empower small and medium-sized businesses to quickly achieve standardized and lean production, allowing them to better meet the flexible and ever-changing demands of the market.

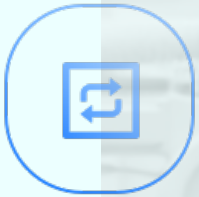
Who needs digital transformation?

Enterprises aiming to enhance their core competitiveness.

Digital Factory Value

Standardisation Of Process

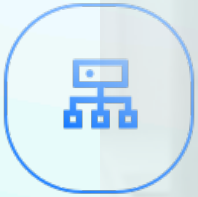
Production workflow



Inventory management process

Quality inspection standards

Defect handling process



Quality process flow

Equipment maintenance process

Digital Factory Value

Work collaboration

Drives process standardisation and reduces ineffective operations

Bases on our experience

Cost saving up to 27%

- Reduction in production costs
- Reduction in consumable costs
- Reduction in communication costs

Digital Factory Value

Quality assurance

- Adheres ISO Standards
- Enhancing brand's Confidence

Product Quality Improvement
- Reduce Product Recall Risk
- Reduce Product After-Sales Issues
- Effective Implementation Of Quality Standards

Process Capability Improvement
- Improve Product Design
- Accelerate The Production Process
- Increase Market Acceptance

Strict Defect Management
- Reduce Rework And Scrap
- Improve Yield Rate

Establish Quality Standards
- Reduce Liability Accidents
- Develop Company-Wide Quality Awareness

Convenient Management Tools
- Facilitate Analysis Of Quality Outcomes

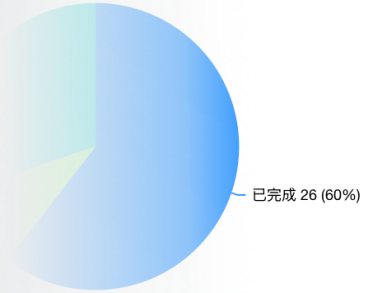
Digital Factory Value

Visual Management

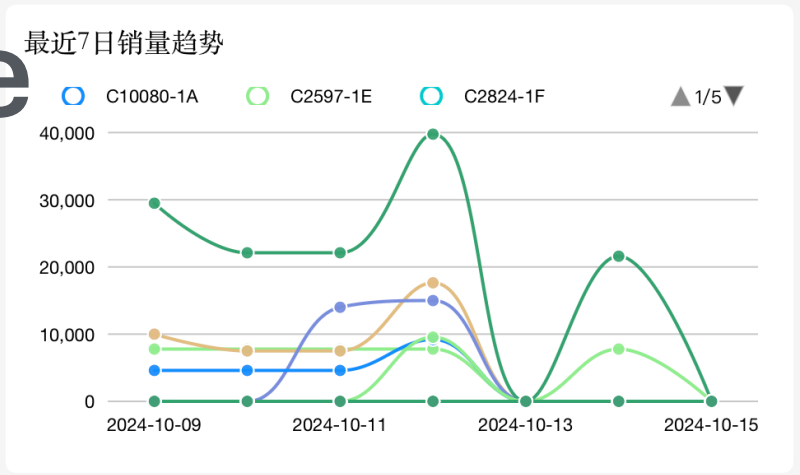
Precise Decision-making

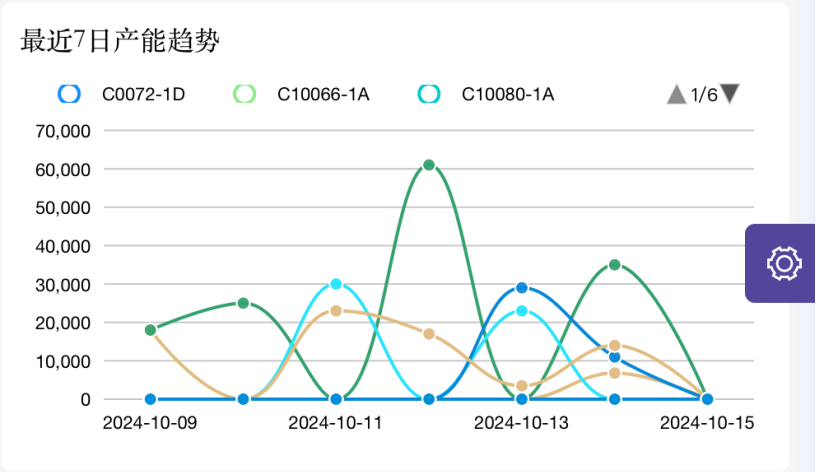
Data Visualisation on processes and operation, simplify the production control

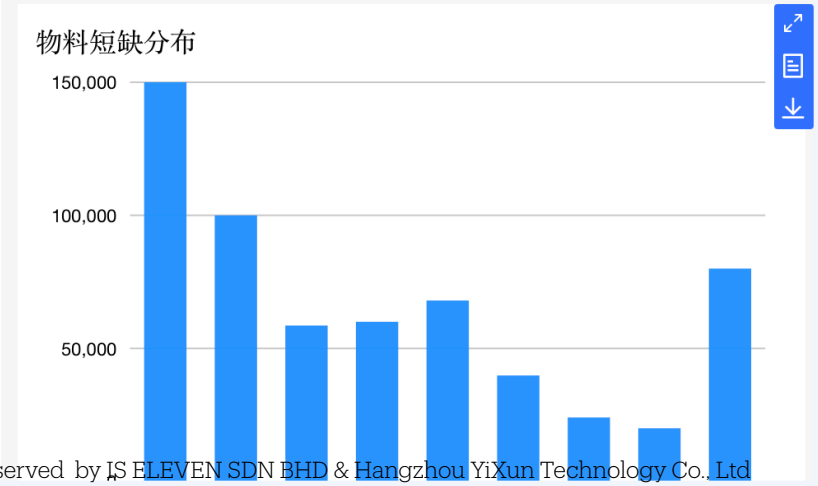
- Real-time monitoring of production progress
- Digital operational decision-making



未生产数量	计划交货日期
3,500	2024-08-31
60,000	2024-10-31
1,300	2025-10-01
5,000	2024-09-30
20,000	2024-10-31
40,000	2024-10-31
50,000	2024-09-30
29,200	2024-10-31
65,500	2024-10-31
15,800	2024-10-31
43,000	2024-10-31
9,000	2024-10-31
-1,700	2024-09-30
-1,500	2024-10-31







Product Introduction

DIGITIZATION

The Digital Factory Will Be an Intelligent Information Processing Center

Product Introduction

IF-IMS Digital Factory Platform Five Major Modules

Product Introduction

Increase Production Efficiency and Create Value

Purchasing and Material Procurement

Incoming Material Management

- Mobile Receipt and Return of Goods
- Inventory Management
- Incoming Material Inspection

Production Dispatching

- Production Scheduling
- Task Assignment and Receipt

Progress Management

- Electronic Production Operation Display Board
- Digitalization of Production Site

Process Control

- Sequence Control
- Defect Management
- Automatic Reporting
- Quality Analysis

Performance Management

- Inbound Inspection
- Full Lifecycle Management of Serial Numbers

Product Inventory

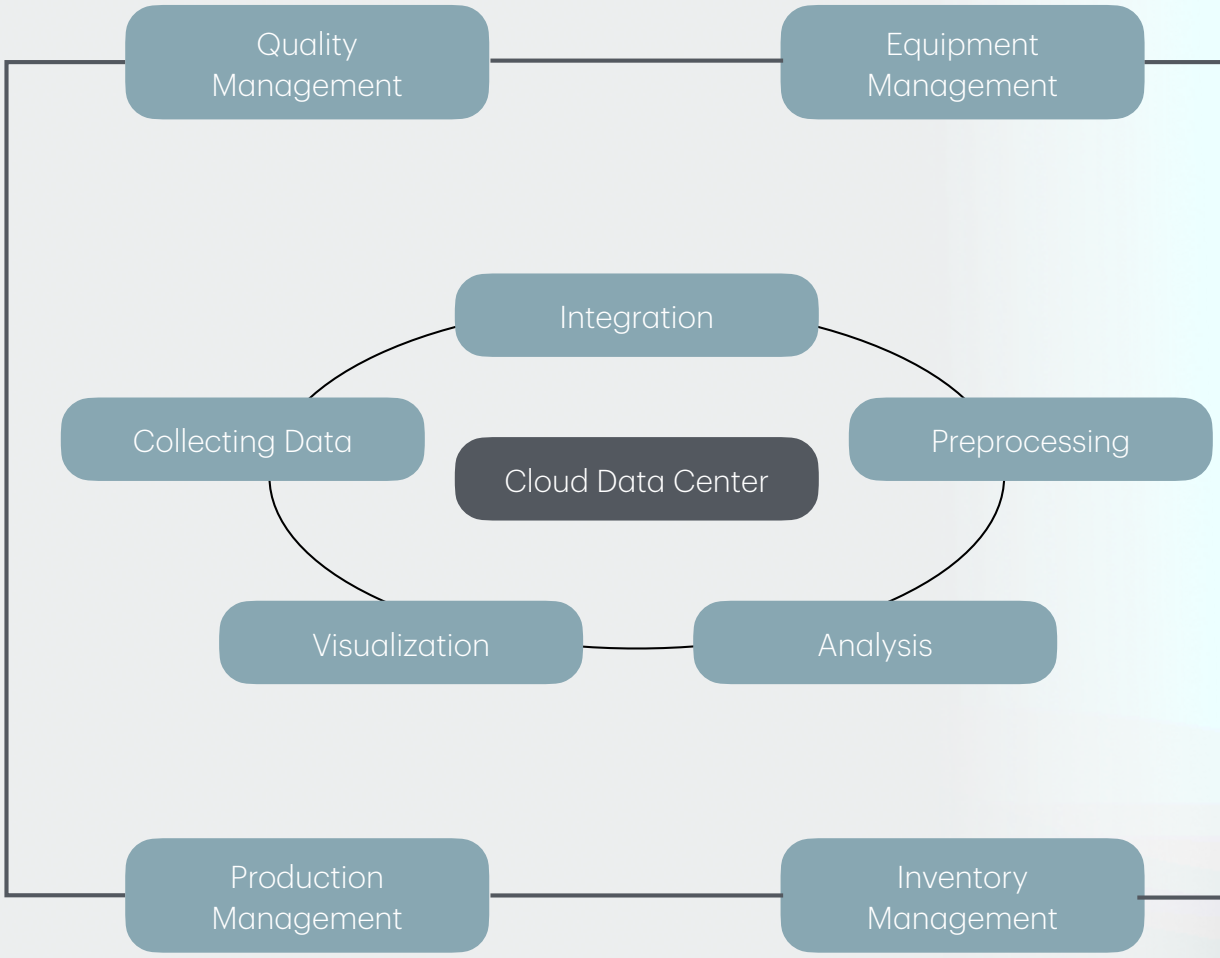
Achieving Digital Operations Through End-to-End Business Process Integration

Production Management + Equipment Management

Inventory Management

Quality Management

Product Introduction



The end-to-end integrated digital model brings

- Real-time monitoring of progress and data analysis
- Efficient and agile collaborative operation
- Quality control to ensure worry-free quality
- Management visibility based on precise decision-making criteria

Product Introduction

Digital Collaborative Operation Streamlining the Entire Process

Rapid Material Handling QR code makes inventory management easy

Inventory Management

Quality inspection and defect management triggered by business to automatically determine the results of quality testing

Quality Management

Order dispatch ensures smooth production scheduling

Production Dispatch

Automatically trigger processing tasks for each node through the system, enabling multidimensional cross-departmental collaboration. Based on workflow and messaging features, improve collaboration efficiency.

Visual Dashboard

Transit control and other series of production management

Production Operation Management

Monitor Equipment Status Understand Equipment Condition

Equipment Management

Product Introduction

Comprehensive Quick Perations

Scan Operation

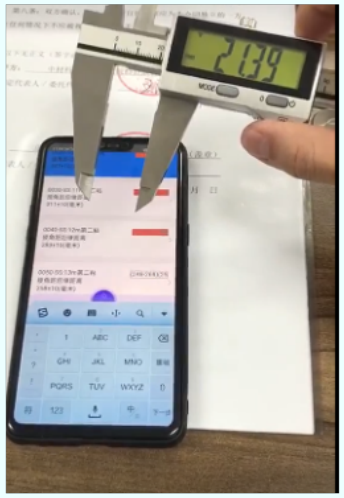
Automatically retrieve relevant information by scanning QR codes on materials, semi-finished products, and finished products.

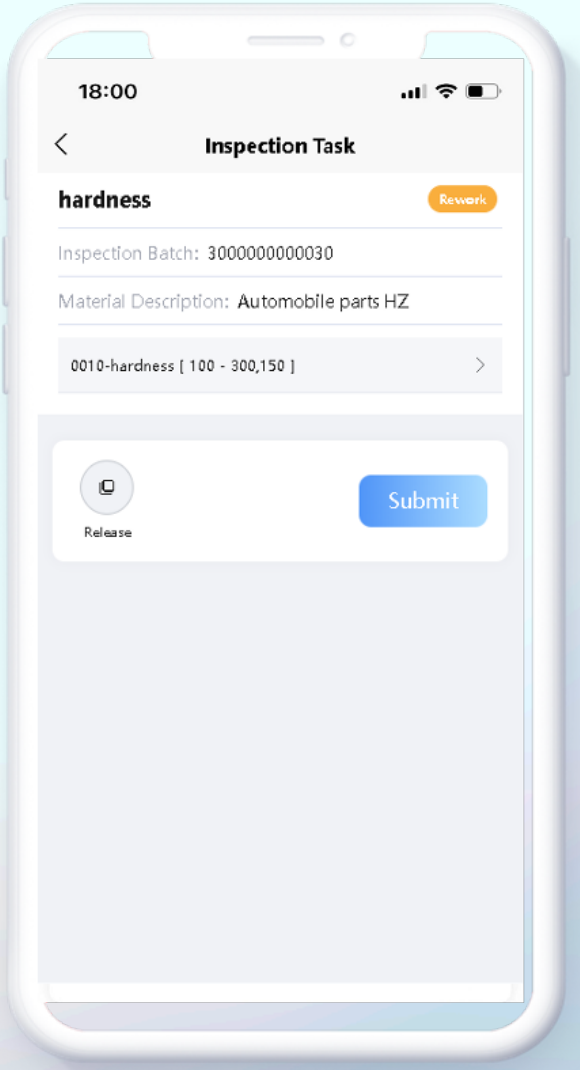
IoT Measurement

Establish an Internet of Things (IoT) connection with measuring tools through sensors to directly obtain test data, reducing the need for manual data entry

Simple Operation

Supports online signatures, voice input, photo taking, and screen recording operations





Product Introduction

Material Management Improve Material Management Capabilities

Integrate barcodes, mobile devices, dashboards, and ERP

Purchasing Receiving Inspection
Reduce incoming inventory waiting time and control the inflow of defective products

Production Dispatch
Reduce task waiting time

Production Material Issuing
Reduce material rxpiry and scrap losses

Production Processing
Production process management

Final Inspection
Improve quality inspection efficiency and yield rate

Finished Goods Inventory
Improve inventory efficiency and goods turnover

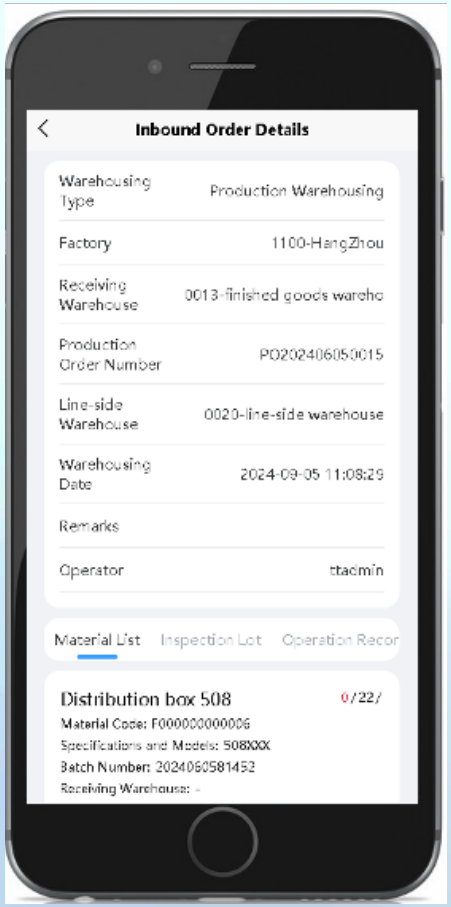
Order Fulfillment
Enhance shipping efficiency and prevent shipping errors

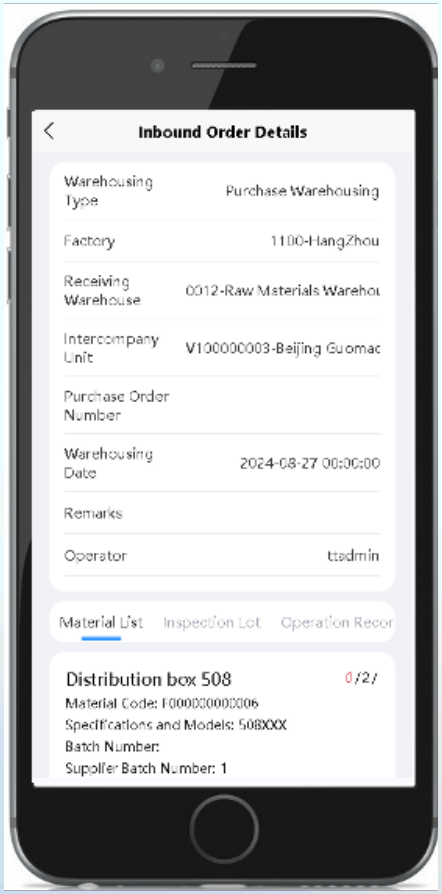
After-Sales Service
Improve after-sales service speed and quality

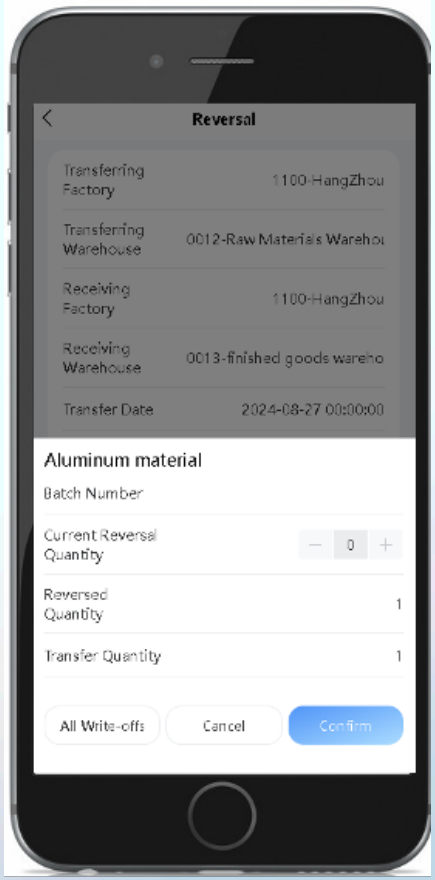
Product Introduction

Mobile Solution Enhances Timeliness of Material Handling

Material Receipt / Return ▶ Production Receipt ▶ Production Material Input ▶ Sales Shipment ▶ Factory Material Transfer

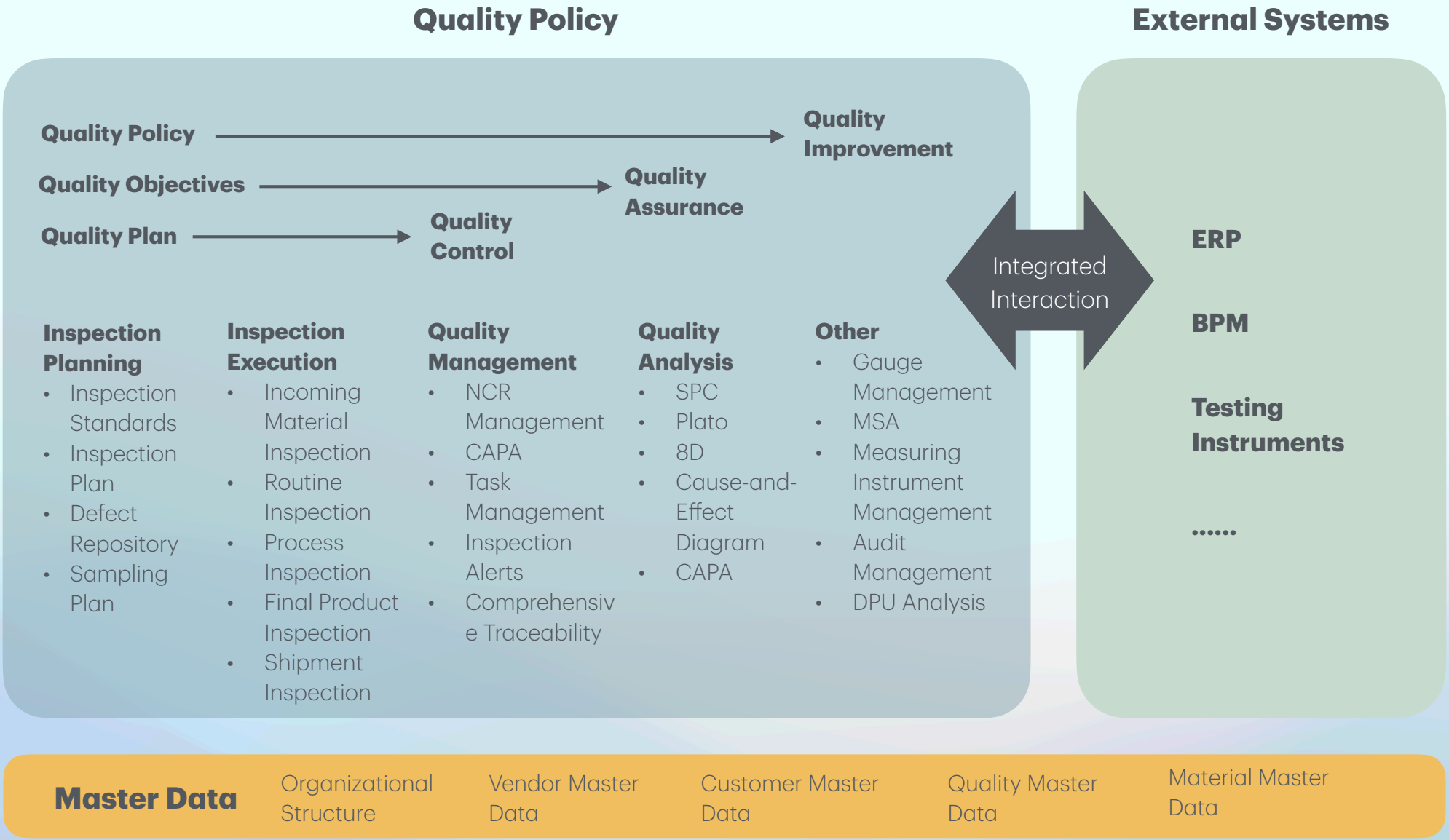






Product Introduction

Supporting the Establishment of the **Quality System** and Strengthening Quality System Implementation



Product Introduction

Unified Quality Standards and Rules

Establish Unified Standards and Rules

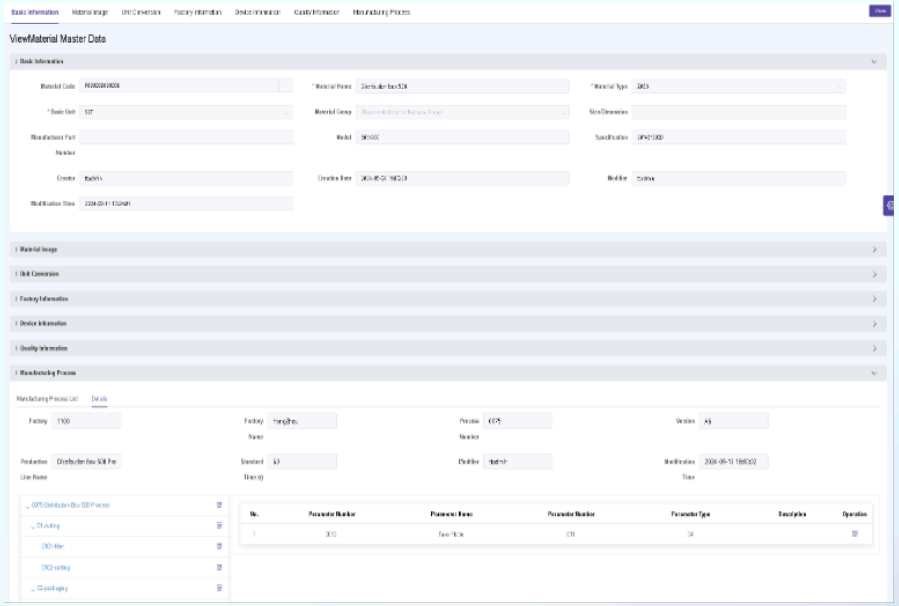
- Quality Inspection Process
- Evaluation Criteria
- Quality Standard
- Record-Keeping Rules

Automatic Triggering of Quality Inspection

Based on the scenario and rules, select the sampling scheme and sample size, implement evaluation criteria, and generate a quality report

Dynamically Generate Inspection

Record Items
Formed through data organization and system rule configuration



Product Introduction

Strict Quality Defect Control **Strictly Prevent Defective Products** From Entering Production and Storage

Based on inspection evaluation results, the system implements strict defect control, with online collaborative handling of defect anomalies. Production and storage processes are strictly controlled based on the defect handling status.

01 Defect Notification Form Creation

The system automatically triggers an NCR, or the inspector manually creates an NCR based on inspection judgment rules.

02 Defect Analysis

The quality engineer analyzes the cause based on defect information and determines the defect severity and type

03 measure determination

The process engineer quickly specifies defect handling based on a standardized maintenance plan template

04 defect handling

Maintenance personnel record the maintenance process online

05 result determination

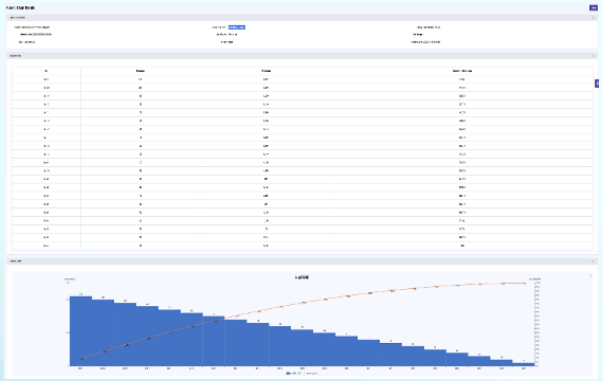
Inspection is based on the re-inspection results to determine whether the maintenance outcome is qualified

Product Introduction

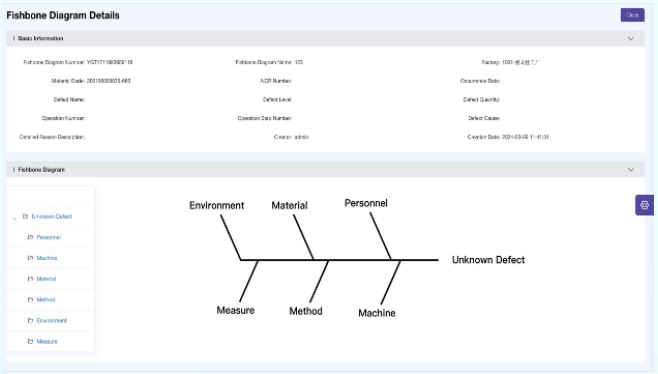
Professional Quality Analysis Tools

Pareto charts, fishbone diagrams, CAPA, SPC, GR&R, 8D reports, and other tools conduct objective statistical analysis based on actual quality data.

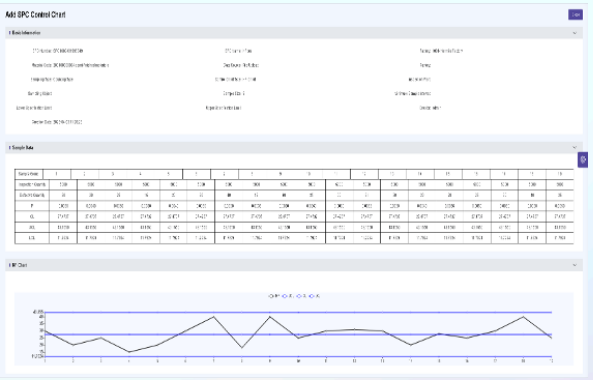
Pareto Diagram



Fishbone Diagram



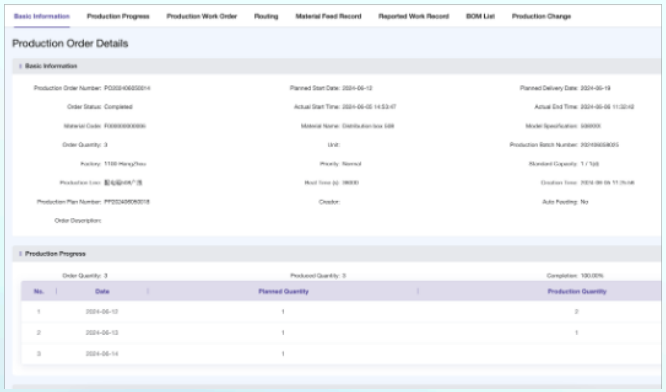
SPC Diagram



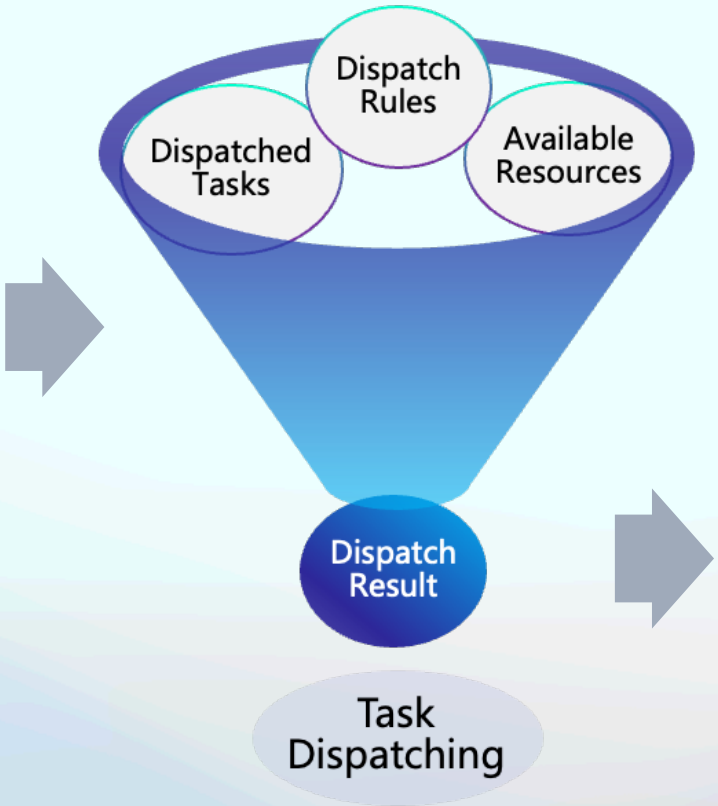
Product Introduction

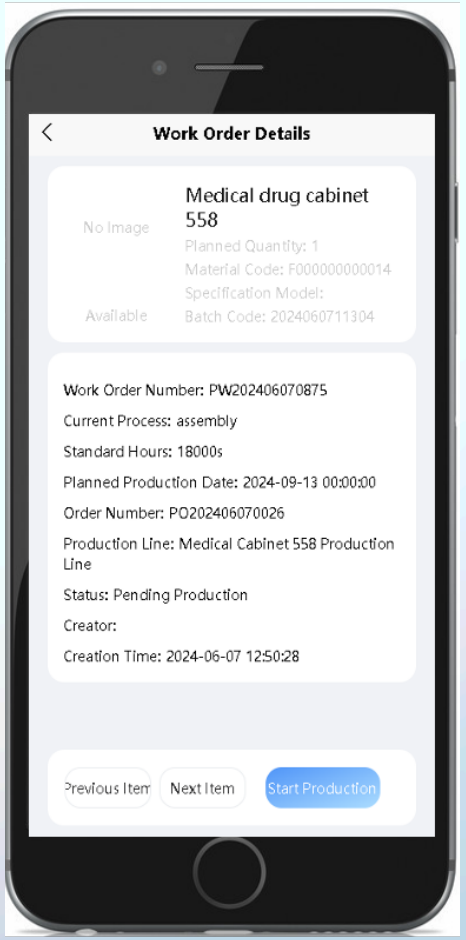
Production Management Task Scheduling is More Agile

Through automatic order dispatching, resources can be integrated and optimized based on capacity, order status, workshop teams, equipment status, and other conditions to develop a dispatch execution plan.



Production Order

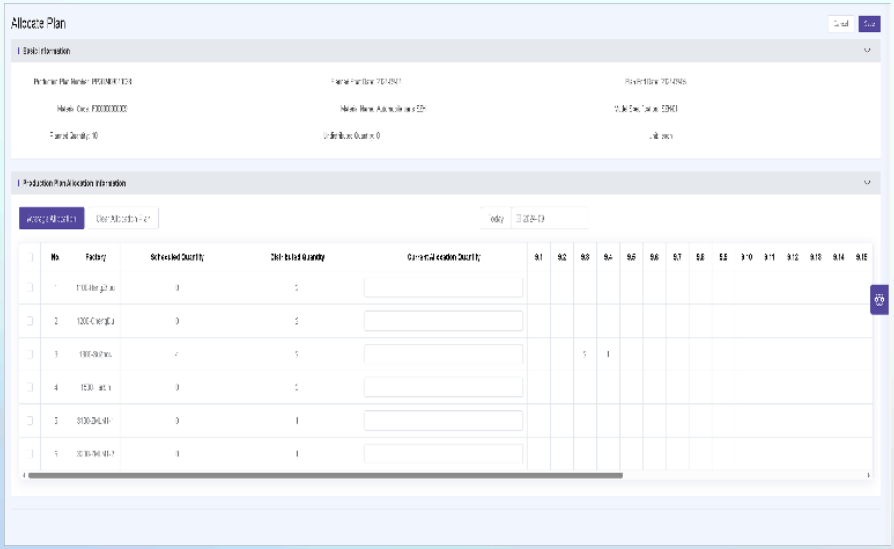


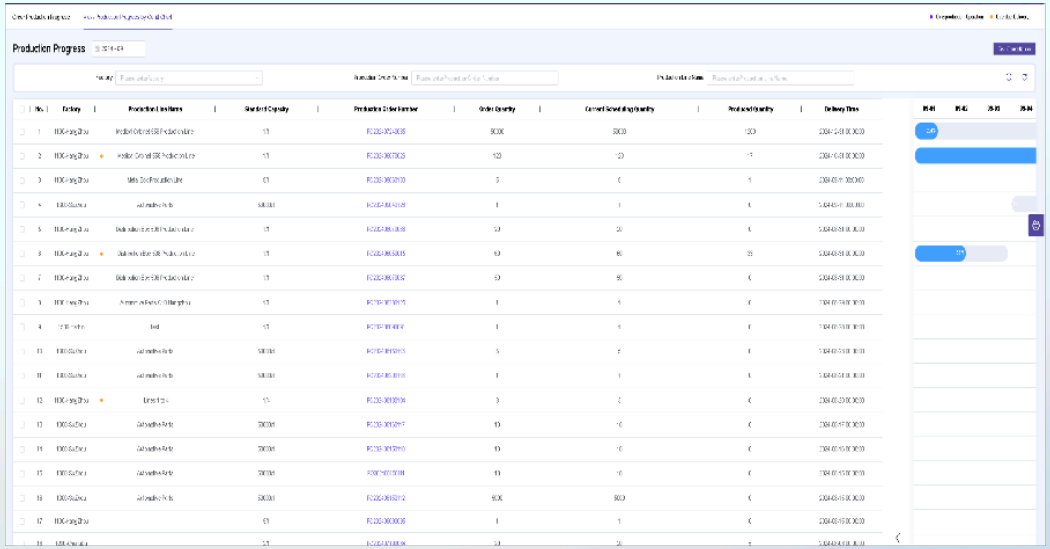


Product Introduction

Production Management

- Smarter, more flexible, and able to respond to production scheduling at any time
- Complete production change operations such as [insert order, urgent order, supplementary order, additional order, and cancellation] with one click
- Automated scheduling is the main method, while supporting the priority principle of manual scheduling
- Automatically generate daily production work orders for each process and operation step
- The headquarters can have real-time insight into the scheduling and production progress at each factory

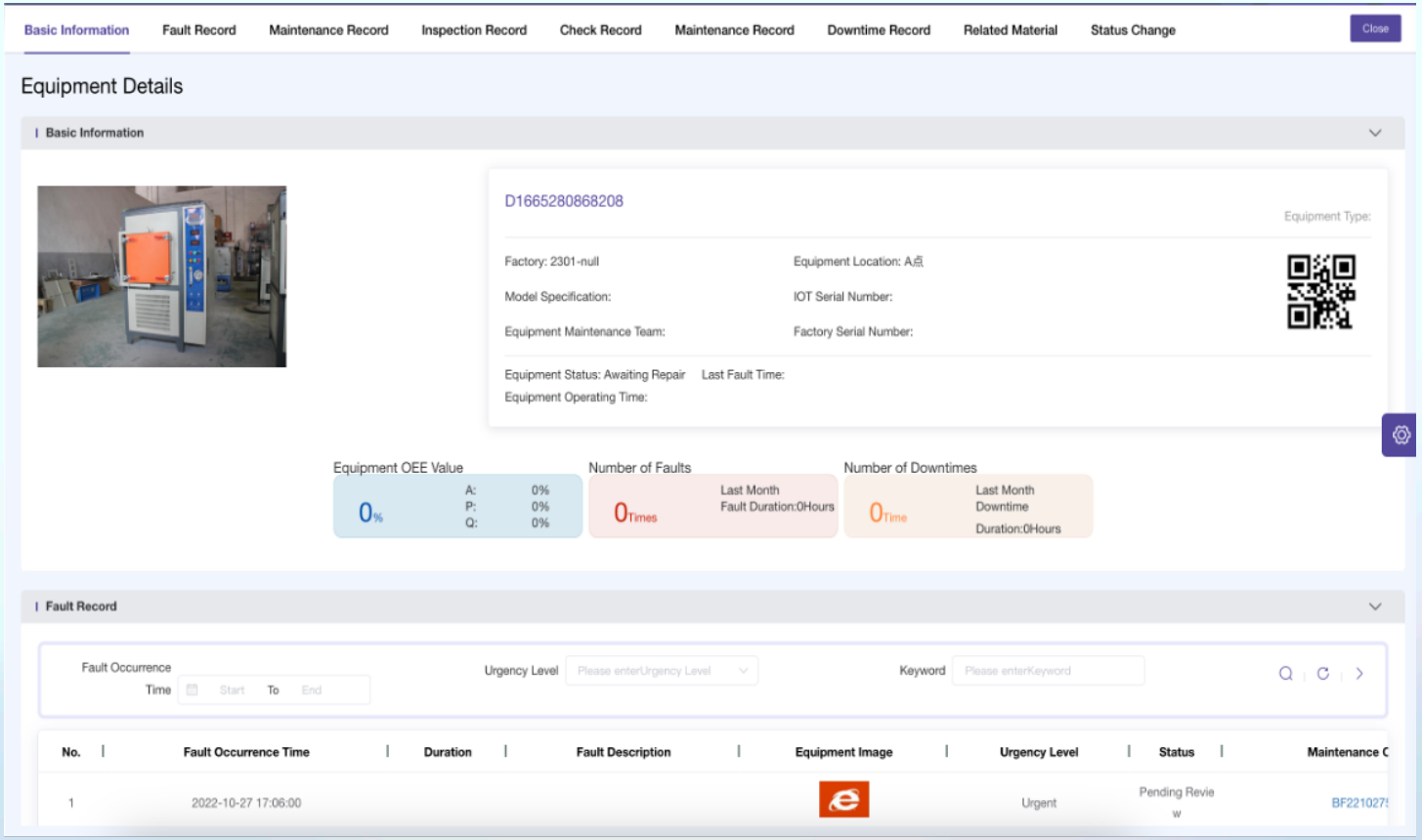




Product Introduction

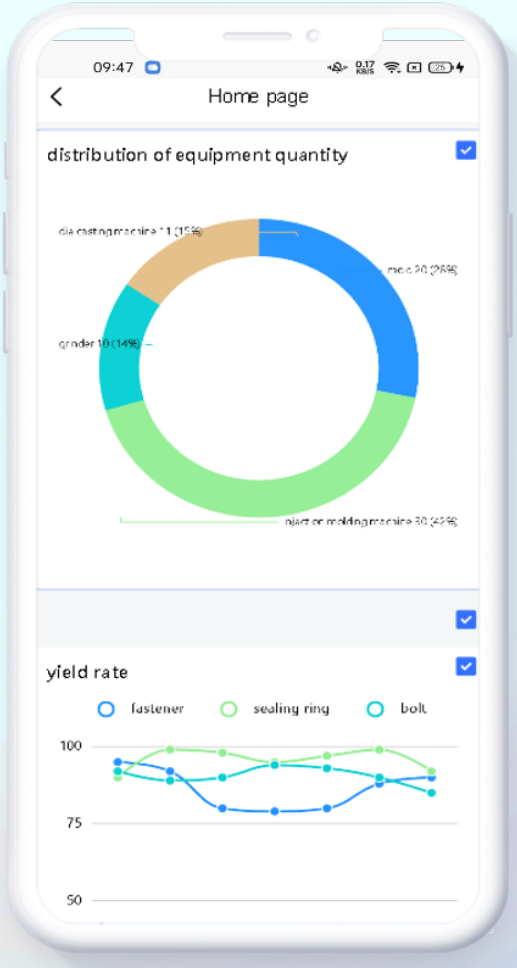
Equipment Management Improve Equipment Resource Assurance Capability

- More Efficient Human-Machine Collaboration
- IoT-Integrated Equipment Management
- Equipment Capacity Monitoring and Analysis
- Equipment Lifecycle Management



Product Introduction

Real-time On-Site Status for **precise Decision-Making**



Reporting on multi-platforms

Product Introduction

Businesses that Have Successfully Pioneered Digital Factory Solutions Have Already Reaped Substantial Rewards

Case 1

A multinational manufacturing company has transformed and upgraded its lean manufacturing to smart manufacturing through digital factory construction, significantly optimizing production efficiency and labor costs. For example, through real-time production process management optimization, the production efficiency was improved by 30%-40%.

Case 2

A globally renowned precision equipment manufacturing company's domestic factory reduced inventory by 10% by implementing a digital inventory management system that integrates procurement, inventory management, production, and logistics, thereby streamlining material and information flows.

Case 3

A well-known blade manufacturing company has optimized production quality and inspection processes through the construction of a digital factory, significantly improving production and quality management while saving considerable production and quality costs.

Implementation of Digital Factories

SaaS Product Implementation Methodology Based on Best Business Practices

Stage	1 Best Practice Import and Solution	2 System Implementation	3 User Authentication	4 System Go-Live
Milestone	**Solution Confirmation**	**System Establishment Completed**	**System Go-Live**	**Project Acceptance and Handover to Operations**
On-Site	• **Project Kickoff and Best Practices Introduction** • **Business Status Review** • **Solution Communication**		• **User Verification** • **End-User Training**	
Remote	• **Develop Project Management Plan** • **Configuration List Collection** • **Requirement Gap Collection and Analysis** • **Solution Confirmation**	• **System Configuration** • **Middleware Interface Development** • **System Testing** • **Remote Management of Configuration and Middleware Development**	• **Deployment Preparation** • **User Manual**	• **Go-Live Switch** • **Project Acceptance** • **Implementation and Handover to Operations**

Implementation of Digital Factories

Solutions High Adaptability

Assessing and aligning the current situation is the first and most crucial step towards best business practices. A highly adaptable solution is essential for successful implementation during an enterprise's digital transformation process.

Master Data

Unified organization of master data from materials, equipment, personnel to workshops and factories

Business Processes

Review the current status of processes, standardize procedures, align system functionalities and process implementation, meet on-site execution requirements, and achieve digital operational management

Equipment Process

Assess the current status of equipment and production lines, collect information on IoT models and protocols supported by the equipment, and develop IoT scenarios

Implementation of Digital Factories

Strong Technological Foundation

The digital technology foundation is an important infrastructure for enhancing the platform's digital capabilities.

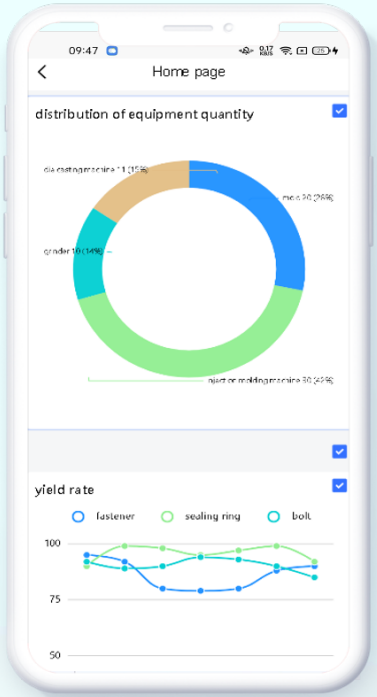
SaaS Architecture
SaaS platform implementation reduces project implementation cycle and risk

Subscription-based Service
Providing SaaS subscription services, with continuous product iteration and upgrades, reduces the cost of system optimization and development for enterprises in the later stages

Internationalization
Based on a system platform that supports internationalization, it assists enterprises in expanding their overseas business

Agile Implementation
Develop industry-specific solutions and implementation templates, enabling phased, flexible, and rapid project execution

Dedicated to Empowering Enterprises for Digital Transformation



Contact Us now.

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