iChen™ Cloud

Unlock Full Manufacturing Value

AIoT-Enabled Equipment Monitoring

Key Features

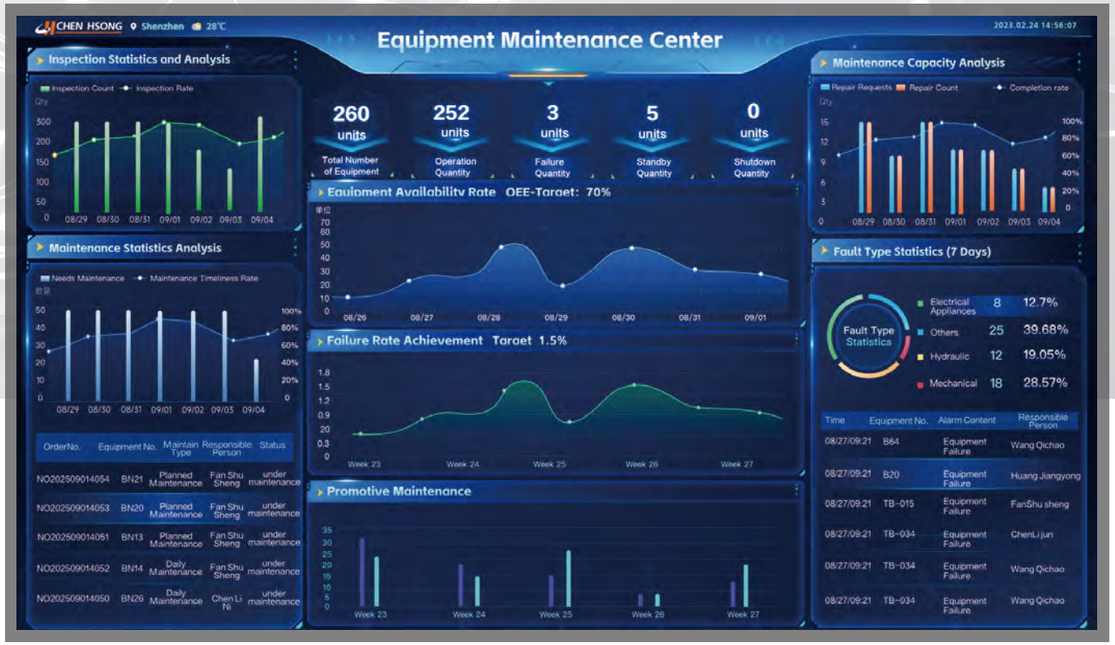
1 Equip every machine with a unique digital identity, seamlessly integrate it into the network, and build a transparent shop floor.

2 Data is automatically reported to the cloud, ensuring the office dashboard and production floor are in perfect sync for zero-delay decision-making.

3 Capture vast amounts of equipment data at millisecond speed to power the engine of continuous optimization.

4 Transcend geographical barriers. Our experts can diagnose and resolve issues remotely, dramatically improving operational efficiency.

Enterprise Asset Management



Key Features

1 We digitize the entire workflow from repair request, dispatch, and execution to acceptance and analysis. With mobile solutions, technicians receive tasks and log updates in real-time via handheld terminals, significantly boosting collaborative efficiency.

2 Leveraging real-time AIoT data, we help you evolve from reactive maintenance to predictive maintenance. The system automatically alerts you to potential failures and generates work orders, reducing unplanned downtime.

3 We provide core analytical reports on asset reliability (MTTR/MTBF), equipment OEE, and maintenance costs, delivering a solid data foundation for decisions regarding equipment upgrades, replacements, and investments.

4 Accurately track the maintenance history, spare parts consumption, and labor costs for each machine to calculate its total lifecycle cost. Optimize your spare parts inventory to reduce tied-up capital, achieving cost reduction and efficiency improvement.

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Manufacturing Execution System

Quality Management System

Key Features

1. Seamlessly bridging planning and execution, our system intelligently dispatches resources (Man, Machine, Material, Method, Environment) to ensure production orders are completed efficiently and on time.
2. Establish a complete digital thread from raw materials to finished products. Enable second-level traceability of the product genealogy to pinpoint the root cause of issues and enhance quality standards.
3. Gain unprecedented insight into your operations. Our system provides real time tracking of production, machine status, and quality, eliminating the "black box" and enabling truly data-driven decisions.
4. Automatically collect and analyze key data such as OEE, capacity, and labor hours to expose waste and bottlenecks, providing a precise basis for continuous improvement.

Key Features

1. Digitize inspection standards and SOPs, making them directly accessible at every workstation to ensure standardized and consistent operations.
2. Manage the full quality loop, from incoming inspection (IQC) and in-process production (IPQC/SPC) to final product inspection (FQC) and customer feedback (CSR).
3. Initiate Nonconformity Report (NCR) processes online, which automatically notify responsible departments and track improvement actions (such as 8D and CAPA) through to problem closure.
4. Accurately quantify internal and external failure costs (e.g., scrap, rework, complaints), making quality losses visible to drive data-driven improvement decisions.

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Energy Management System

Key Features

1 Automatically calculate carbon emission data and generate compliance reports, providing the essential data cornerstone for your company's green and sustainable development.

2 Monitor the energy consumption (electricity, water, gas, heat) of your entire plant, individual workshops, and down to key equipment in real-time, leaving no detail hidden.

3 Automatically start up or shut down equipment based on real-time load. Identify and alert against energy waste such as idling and standby modes to uncover savings potential, directly lowering operational costs.

4 Achieve granular accounting of energy use at the product, team, and process level. This turns energy costing from an ambiguity into a clear tool for data-driven performance management.

Warehouse Management System & Warehouse Control System

Key Features

Task Management vs Real-Time Dispatch

WMS (Warehouse Management System)：Generates advanced task orders (e.g., receiving, shipping, counting) and optimizes the overall operational path.

WCS (Warehouse Control System)：Receives tasks, breaks them down, prioritizes them, and assigns them in real-time to the most suitable equipment for execution.

Inventory Visibility vs Asset Visibility

WMS (Warehouse Management System)：Manages with precision which SKU is in which storage location, and the exact quantity. (Information Dimension)

WCS (Warehouse Control System)：Monitors in real-time which equipment is at which location, and its status (e.g., busy, idle, fault). (Physical Dimension)

Process Optimization vs Motion Optimization

WMS (Warehouse Management System)：Optimizes warehouse layout and storage strategies by analyzing historical data.

WCS (Warehouse Control System)：Maximizes equipment utilization by optimizing the sequence and paths of equipment movements, reducing waiting times and empty travel.

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Advanced Planning and Scheduling

Key Features

1 It replaces tedious and error-prone manual scheduling with automated algorithmic calculation, liberating planners from a heavy burden of repetitive tasks.

2 Utilize a visual scheduling Gantt chart to foresee capacity or material bottlenecks in advance, providing proactive alerts for managerial decision-making.

3 Upon receiving a new order, instantly run a CTP (Capable to Promise) simulation to provide your sales team with a scientific and reliable response.

4 It supports What-If scenario analysis, allowing you to effortlessly evaluate the potential outcomes of different decision options and facilitate scientific decision-making.

Data Platform

Key Features

1 Converge multidimensional data from equipment, systems, and personnel to break down information silos and build a unified factory data lake.

2 We cleanse, integrate, and model massive volumes of raw data, transforming disorganized information into clean, usable, and actionable data assets.

3 It provides unified, high-performance data services and computing power to support all your upper-layer applications (e.g., reporting, visualization, AI analytics).

4 Leveraging big data analytics and machine learning, we unlock the hidden value in your data to empower advanced applications such as predictive maintenance and intelligent scheduling.