容知日新
RONDS

RONDS SUPERCARE®

Equipment Predictive Maintenance System Introduction

Stock code：688768
www.ronds.com

What kind of system is needed for predictive maintenance?

01

Visualization

The early industrial software system is not well visualized. Without statistical analysis function, various results and data cannot be quickly presented. The new generation system should be able to achieve a comprehensive digital twinning of reality, and display the equipment structure, status and various statistical data while achieving a simple and beautiful view.

----Ahmed, Manager of a ME Oil Company

02

User Friendly

There are many users of the system, such as managers, diagnostic analysts, on-site O&M engineers. Different roles focus on different contents. The system should be user friendly, so that users at different levels can quickly grasp the system and quickly understand what they need to know.

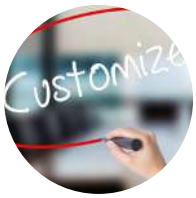
----Pound, O&M engineer of a SEA petrochemical Company

03

Smart

Predictive maintenance system is actually very professional, traditional system can not be used efficiently by many analysts because of its strong professionalism. So a good system should be very smart, it can quickly analyze machinary faults with AI intelligence and automatically give relevant conclusions and suggestions.

----Antonio, Mechanical Expert of a EU Food Company



04

Customized

Industrial scenarios are quite different and equipment types are diverse. Each enterprise has its own concept for O&M. Only a customized system that combines the actual needs of enterprises and experience accumulation can play its maximum effect.

----Johansson, Equipment Supervisor of a NA gas Company

05

Flexible & Compatible

To achieve intelligence, industrial enterprises own more and more software systems, then it causes serious information islands effects. In the future, the system of smart factory must be a large ecosystem, so the predictive maintenance system must be very flexible and compatible to access other systems or become an application of a large platform.

----Silva, IT Supervisor of a SA mining Company

06

Collaborative

Predictive maintenance and O&M business are inseparable. If the predictive maintenance system can cover the O&M business, it will be able to achieve an efficient business closed loop driven by accurate predictive maintenance data and achieve efficient cross department collaboration.

----Lee, Equipment Supervisor of a Chinese Steel Company

Ronds SuperCare®
Predictive Maintenance System

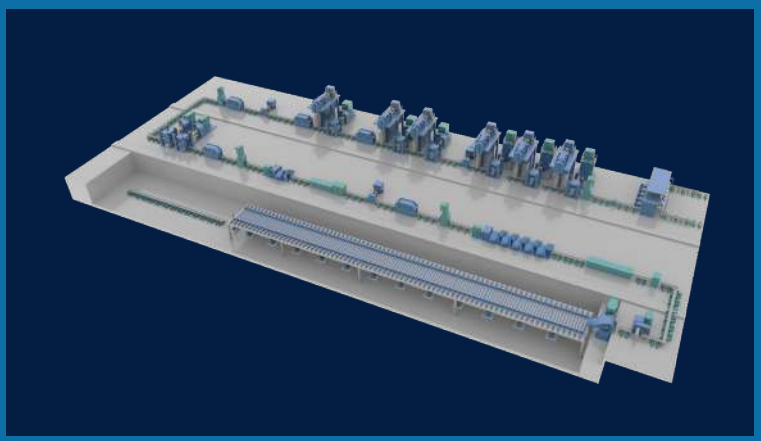
Ronds SuperCare® Predictive Maintenance System:

Ronds SuperCare enables 24/7 real-time monitoring of industrial equipment by utilizing status data. This is achieved through the integration of cutting-edge technologies such as big data, cloud computing, and AI. The system is capable of accurately predicting machinery faults and providing detailed diagnostic conclusions. Furthermore, it offers a comprehensive equipment operation and maintenance process, which facilitates a closed-loop PDCA cycle.

Ronds SuperCare® Predictive Maintenance APP:

Ronds mobile application provides functions similar to those of the PC system, enabling users to access real-time equipment status information from anywhere and any time.

01
Visualization
Make everything at a glance



2.5D/3D (Optional) Structural modeling

- Plant modeling
- Production line modeling
- Equipment modeling

Real-time status display

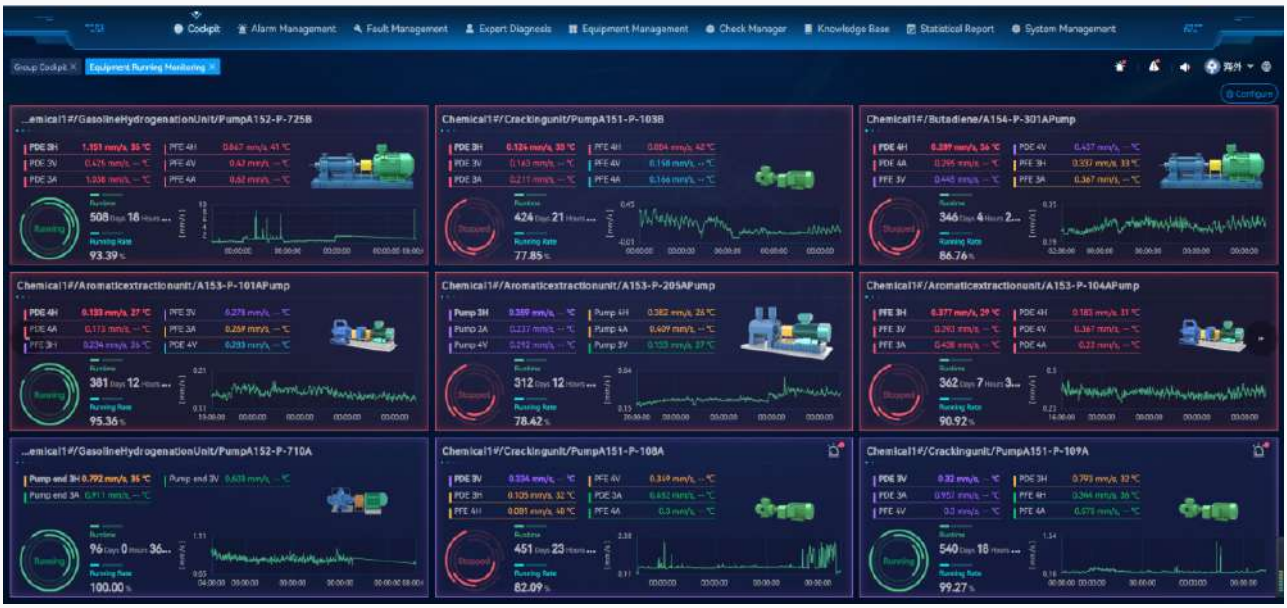
- Real-time data of measuring points
- Real-time status of startup and shutdown
- Real-time alarm and diagnostic information

Visual Designer

- Ronds system interface is highly customizable and can be modified according to the specific needs of customers. This includes options such as layout, display effects, and text. The interface can be easily personalized through a simple drag and drop operation, providing the user with the best possible display experience.

02
User friendly
For Operation & Maintenance Engineers

The equipment running monitoring page presents equipment in the form of equipment cards. Each card displays the name and value of the measuring point, operational information, and vibration trend. The cards are ranked based on the severity of faults, and the color of the card indicates the alarm level. By clicking on a card, users can access detailed information about the equipment on a separate page.



Faulty Components / Faulty Type	Motor	Pump	Fan	Screw Compressor	Gear
Bearing Damage	√	√	√	√	√
Poor Lubrication	√	√	√	√	√
Looseness	√	√	√	√	√
Imbalance	√	√	√		
Misalignment	√	√	√	√	√
Friction	√	√	√	√	√
Process/Load Change		√	√	√	
Gear Failure				√	√
Poor Meshing				√	√
Electrical Failure	√				

With a high coverage of equipment failure types, Ronds system provides O&M engineers with the necessary information to quickly identify equipment failures and solve problems in time.

02
User friendly
For professional diagnostic engineers

What analysis methods will you get?

Rapid Equipment Analysis

- Equipment multi trend
- Temperature multi trend
- Multi equipment trends

Indicator Analysis

- Sampling value trend analysis
- Index trend analysis
- Characteristic index analysis

Routine Analysis

- Measurement definition trend
- Time waveform
- Spectrum analysis
- Rotational speed analysis
- Process trend analysis

Precision Analysis

- Long time waveform
- Long time waveform trend
- Time waveform reprocessing
- Envelope demodulation
- Cepstral analysis
- Order analysis
- Envelope trend analysis
- Spectrum trend analysis
- Envelope frequency analysis

Special Equipment Analysis

- Wind turbine tower analysis tool
- Wind turbine blade analysis tool
- Reciprocating compressor analysis tool
- Oil analysis tool

…….

02
User friendly
For Managers

What statistics will you get ?

Supercare boasts a comprehensive library of statistical indicators that allows users to select the indicators they want to display in the cockpit and customize the display area and location.

In addition to the existing statistical indicators, the system also supports the development of customized reports to provide managers with the information they need to make informed decisions.

03
Smart
Intelligent alarm

Intelligent diagnosis depends on intelligent index

100+ Intelligent alarm index

Help different engineers to identify the root cause of the defect

Time Domain Index

- RMS
- Peak Value

Sampling Value Index

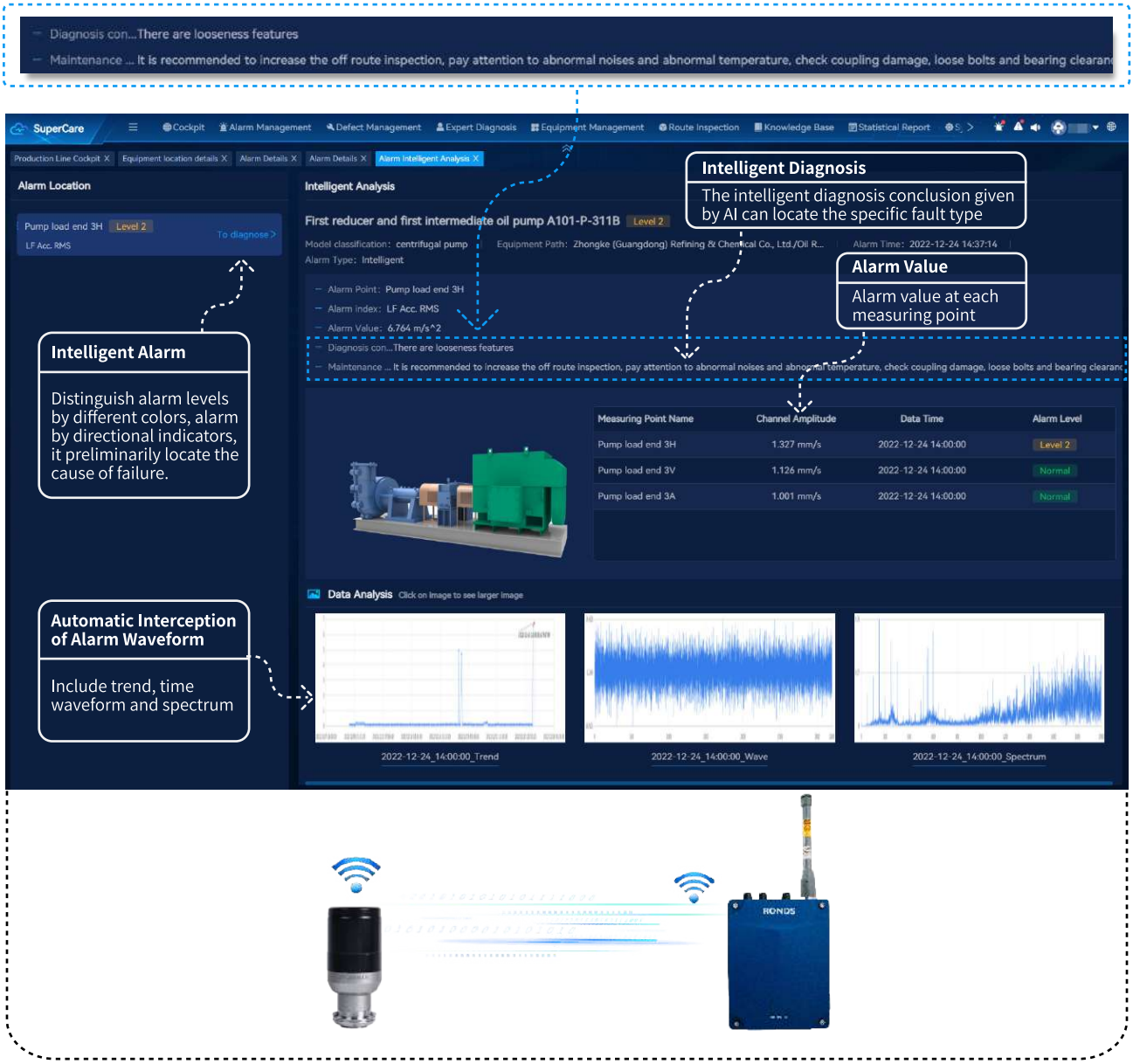
- High/Low frequency band energy
- High/Low frequency envelope energy
- Harmonic energy

Characteristic Value Index

- Bearing inner race index
- Bearing cage index
- Lubrication index

Derived from 13000+ real fault cases ensuring algorithm reliability

03
Smart
Intelligent diagnosis



Intelligent Collection

- Multiple collection strategies
- Automatic selection of the best waveform
- Ultra long time waveform

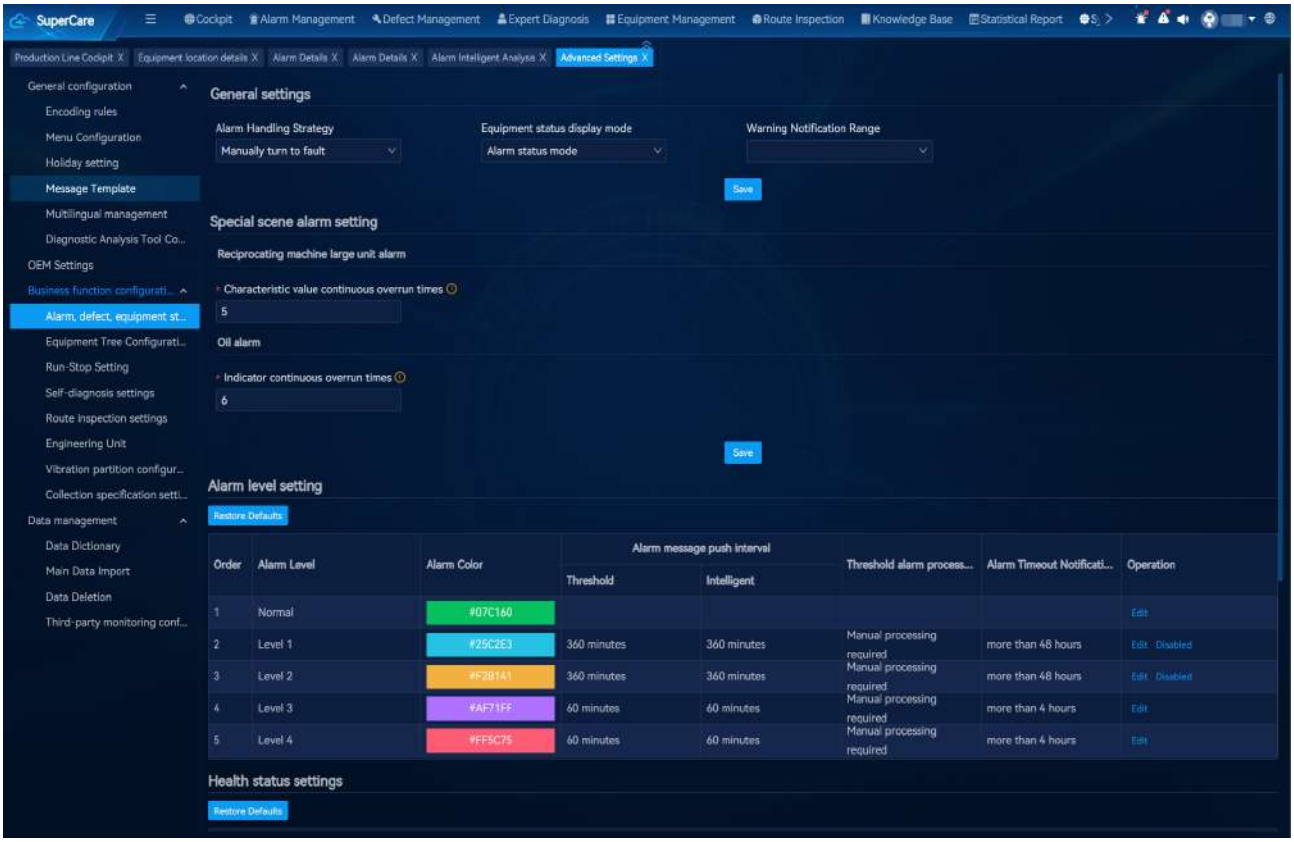
Edging Computing

- Automatic identification of working conditions
- Automatic adjustment of alarm threshold
- False signal filtering
- More than 20 intelligent indicators

Intelligent Transmission

- Additional data collection triggered by alarm
- Priority transmission of alarm waveform

04
Customized
Diversified setting functions



What can be customized?

Page layout | Function name | Alarm strategy | Alarm color | Measurement unit | User Rights

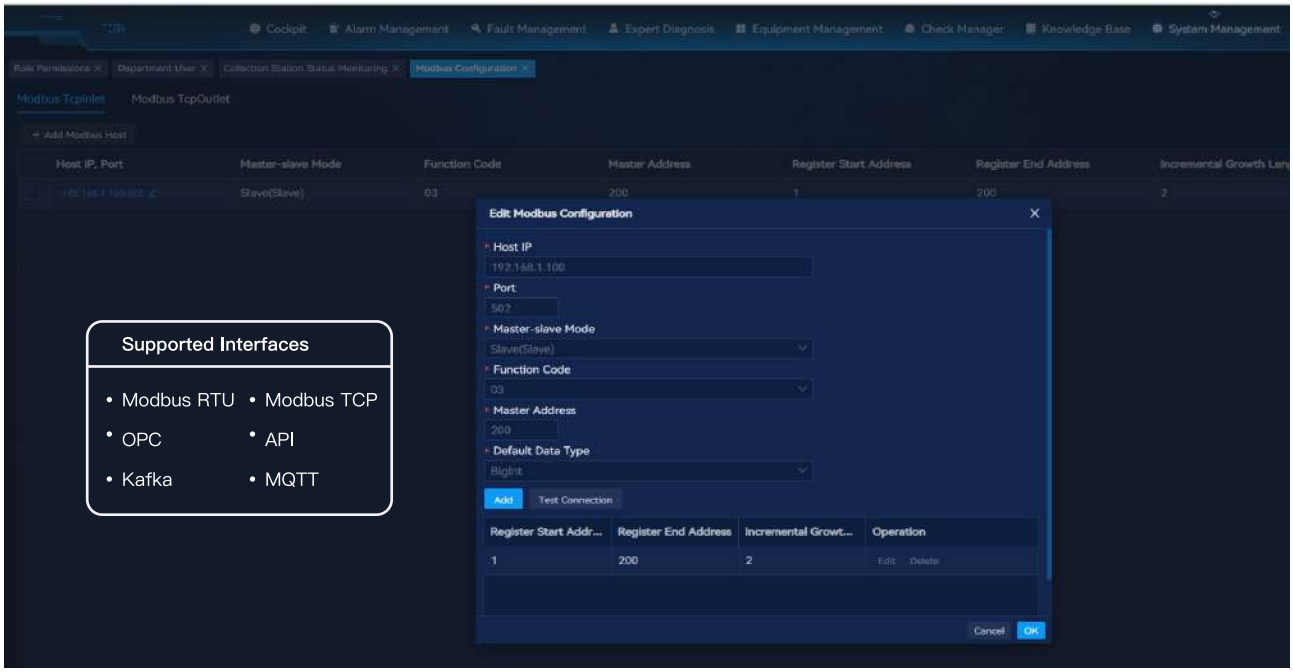
High Level*

Equipment model | Statistical report | Route inspection | Algorithm | .....

What benefit can be gained from customized setting?

- Suitable page layout for different enterprises
- Appropriate alarm and algorithm strategy
- Reasonable and efficient business process
- Convenient for O&M engineers to use and manage the system

05
Flexible&Compatible
Diversified Interfaces and Redevelopment

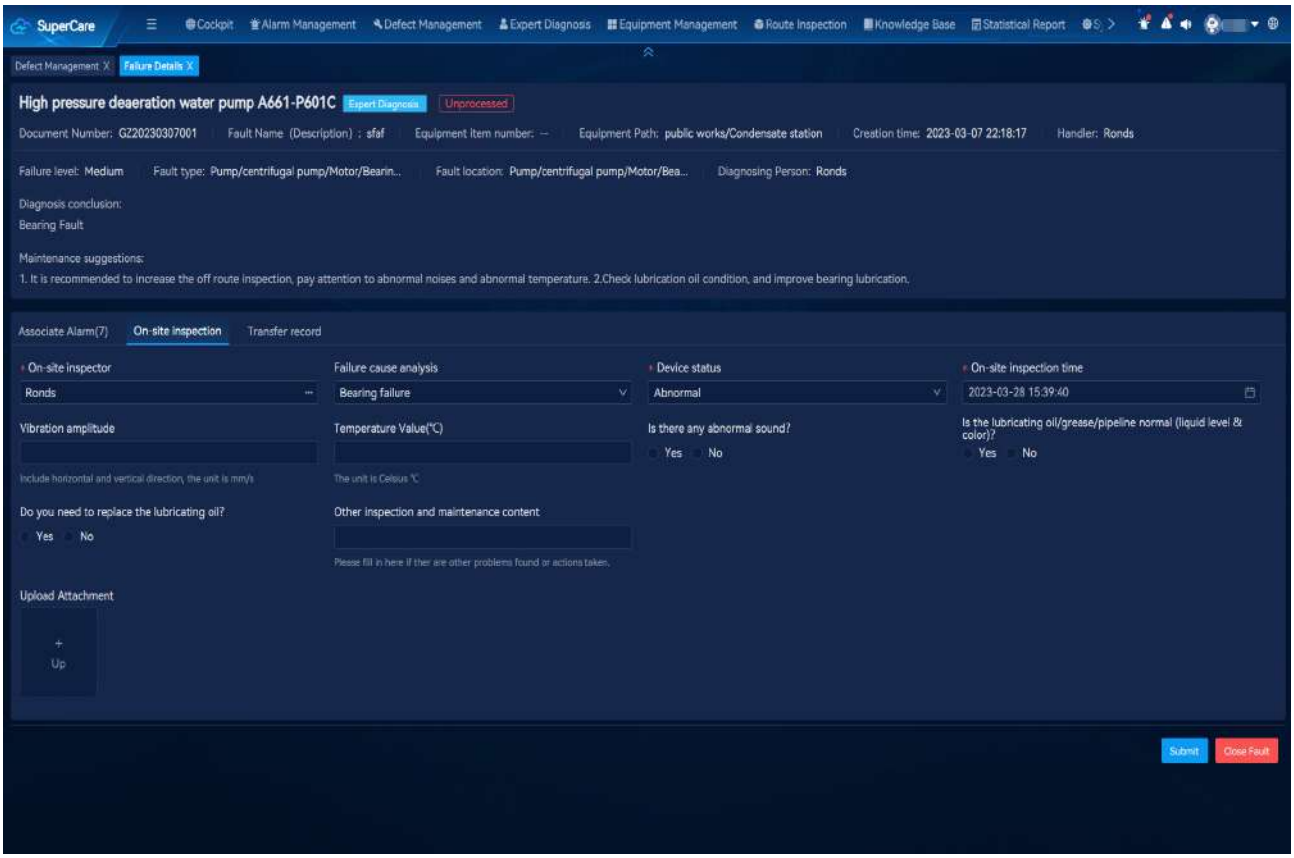


Ronds system offers a variety of data interfaces, such as OPC, API, and Kafka, which enable flexible upward or downward compatibility and access to diverse system data, including machinery, electricity, hydraulics, video, and robots.

Flexible Redevelopment

Ronds platform adopts a micro service architecture with separate front-end and back-end components. The business center offers a range of business components that support enterprises in developing intelligent applications tailored to their specific requirement.

06
Collaborative
Use real data for equipment maintenance



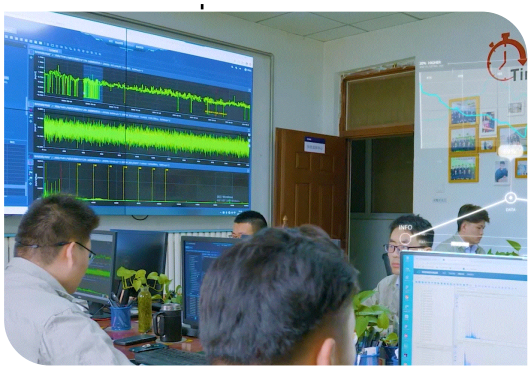
SuperCare can establish efficient and scientifically business processes and accurately predict equipment failures by accumulating and utilizing data assets.

Field inspection

Fault Conclusion

Check result

Remote Diagnosis



Typical Customers

Ronds is a leading provider of industrial solutions across over ten industries in China, serving a wide range of top enterprises. Some of our typical customers include:

Petrochemical		Steel	Mining	Power	Cement
SINOPEC	Linde	POSCO	CHN ENERGY	CHN ENERGY	CONCH
LG	LANXESS	BAOWU	Vale	SPIC	CNBM
TATA CHEMICALS	ExxonMobil	HBIS	JAMG		
CNPC	INDORAMA	ANSTEEL	BHP BILLITON	Huaneng	CR CEMENT
PTT	PETRONAS	ARCELORMITTAL			
YPF	CNOOC				

Ronds products have been exported to more than 35 countries and regions worldwide.

About Ronds

Make Industry Better

Predict the failure of industrial machines
Realize intelligent operation & maintenance

Ronds is a high-tech enterprise that offers predictive maintenance products and services for industrial equipment.

Ronds possesses complete independent intellectual property rights in predictive maintenance, including hardware, big data platforms, AI algorithms, software APP, and fault diagnosis technology.

Ronds' products and services have been applied to over 20 industries in more than 35 countries and regions, including petrochemicals, electric power, metallurgy, cement, mining, rail transit, municipal, water treatment, ports, and other industries.

Ronds was founded in Hefei, Anhui, China in 2007 and was listed on the Shanghai Stock Exchange on July 26, 2021 (Stock code: 688768).

Headquarter
Anhui Ronds Science & Technology Incorporated Company

Add: #59, branch road of biomedical park, high-tech district, Hefei, Anhui, China
Tel: +86-551-65312373
Email: ying.xie@ronds.com.cn