# Centralized Robot Operation Management

## Robot Management System

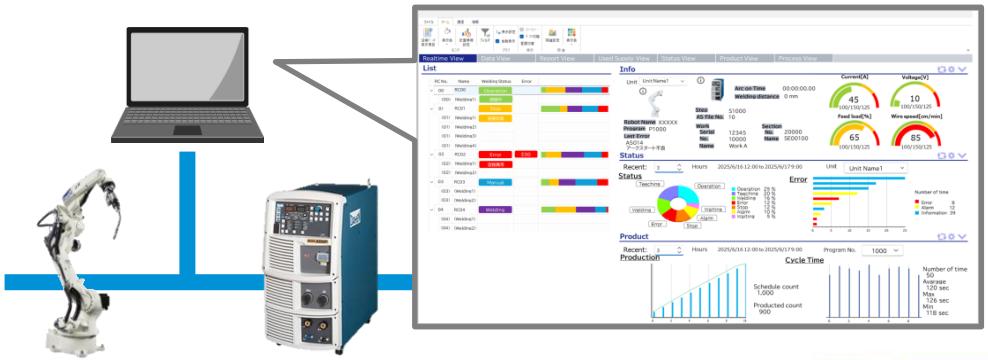
International Robot Exhibition 2025

# Challenges in Production Sites

## Customer Concerns

- Unable to identify causes of abnormalities or stoppages
- Want to track maintenance schedules
- Want to avoid large-scale IT investments

## Supporting Challenge Resolution by Managing Both Robots and Welding

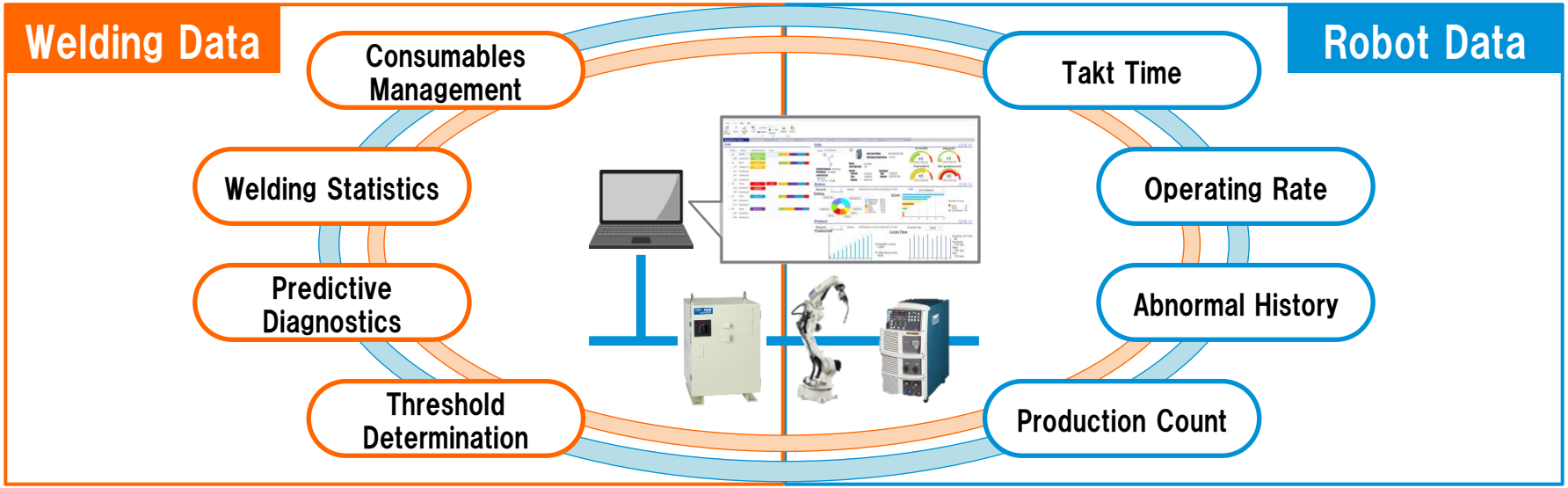


# Features

## Collect and visualize various robot and welding data

## Three features support problem-solving

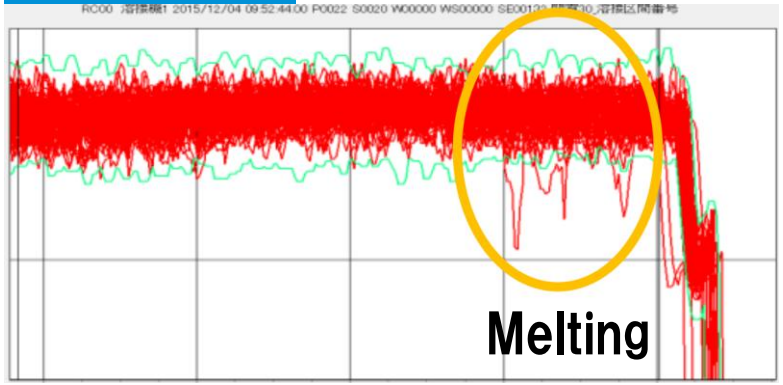
### ① Data Analysis Support　② Diagnostic function　③ Easy Implementation



# Data Analysis Support

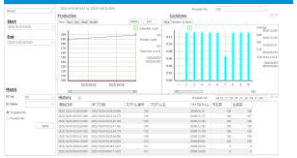
## Records various data at intervals as short as 0.1 milliseconds
## ▶Accurately identify stoppage factors with more realistic data

**Welding Waveform**



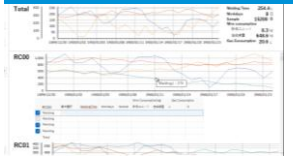

**Operational History**

**Production Status**



**Welding Statistics**

**Consumable Management**



High-Precision Data for
Detect abnormalities

Easily obtain accurate information
Contributes to investigating stoppage causes

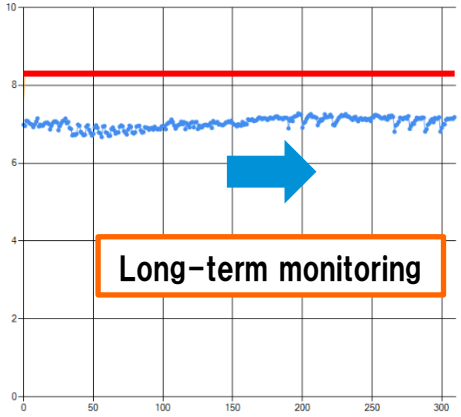
# Diagnostic Function

## Analyze and diagnose welding machines in addition to robots
## Reduce contact tip costs by 20%※

※ Based on our research

### Robot

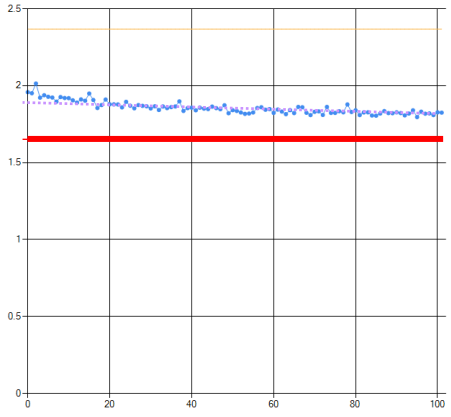
Notification of gear reducer maintenance timing



Downtime Reduction

### Welding Machine

Notification of Optimal Chip Replacement Timing



Predictive Replacement

Reduced Running Costs

# Easy Setup

## No dedicated hardware required

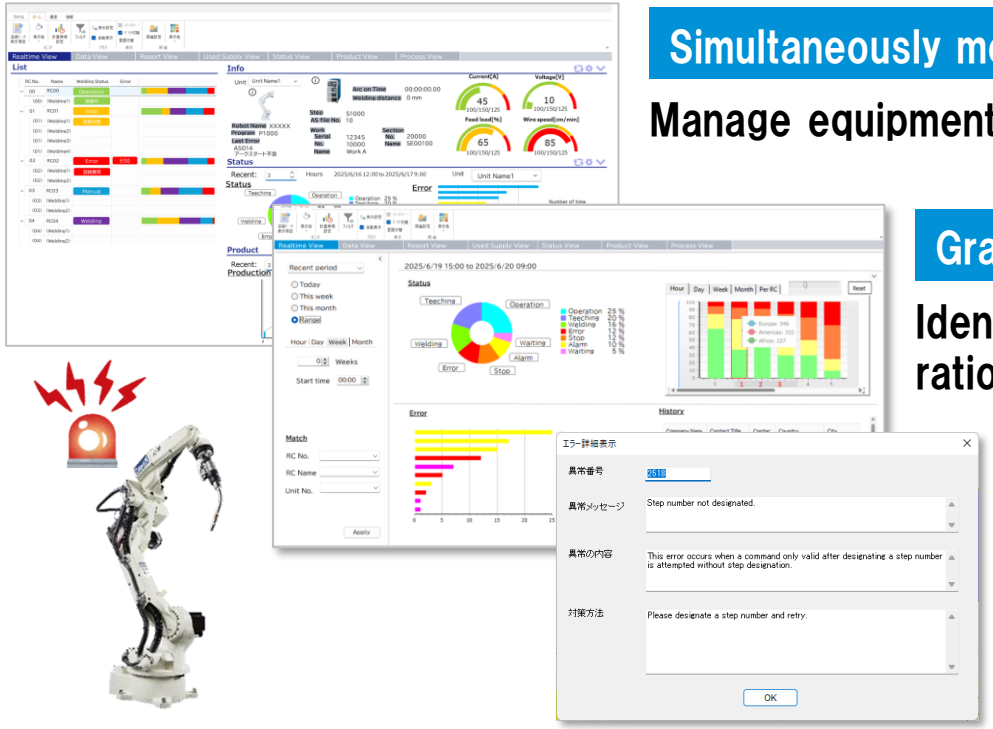
## Install on your PC and start using it immediately

- No space concerns
- Works seamlessly with existing systems

**Simple and low-cost implementation**

# Welding Robot Centralized Management System Demonstration

## Intuitively track everything from overall operational status to detailed error displays




### Simultaneously monitor the status of up to 32 robots

Manage equipment operational status in bulk

### Grasp operational history

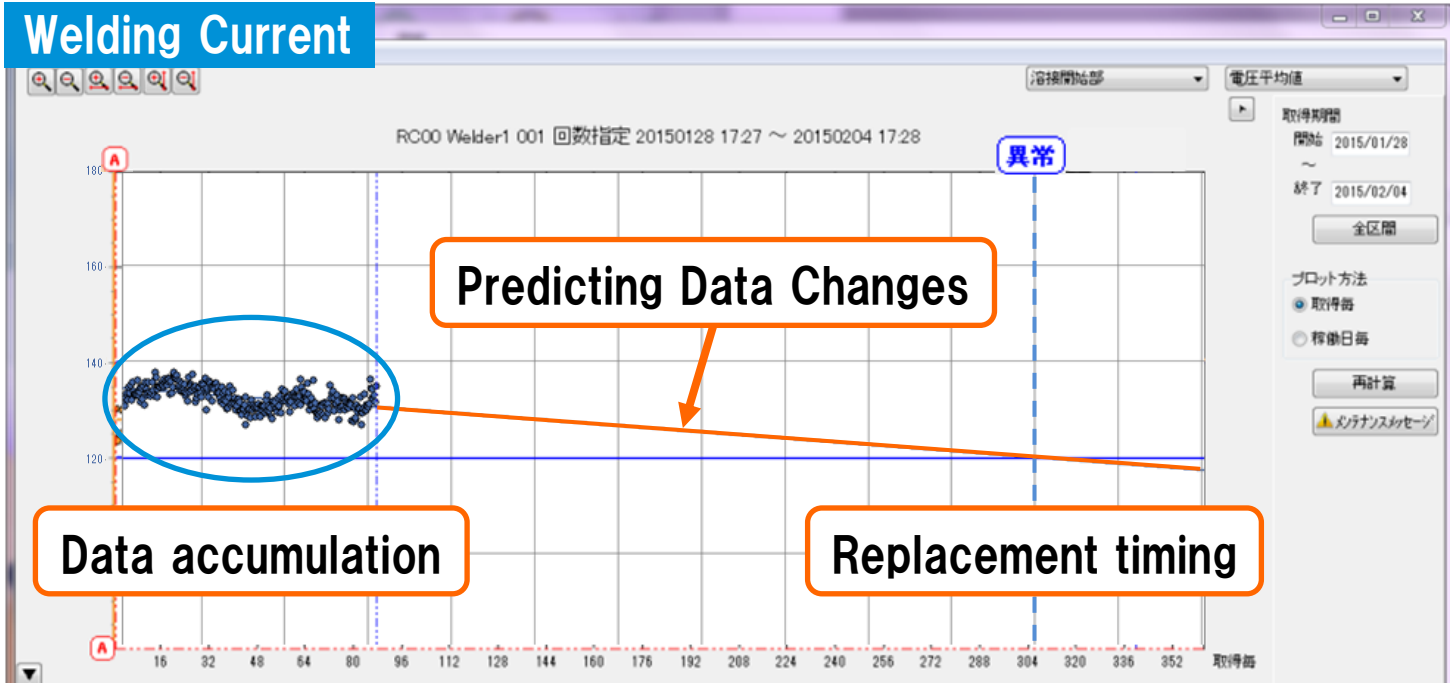
Identify issues from time-series operation ratios and error histories Identify issues

### Display detailed error information

Display detailed error messages to and verify solutions

# Welding Robot Centralized Management System Demonstration

## Predict welding condition trends and replace the welding tip before defects occur




※ Depending on the customer's welding environment, predicting welding condition changes may be difficult.

# The Welding Robot Centralized Management System to improve your production efficiency.

DAIHEN