

IOBridge

Key Solutions for Equipment Automation

The IOBridge series has been a trusted solution for equipment automation and integration for over 20 years, delivering seamless communication and message transmission with an improved user-friendly API. BridgeX, a SECS communication driver, ensures reliable equipment connectivity with enhanced performance and a modern user experience. BridgeP simplifies and standardizes various PLC communications, making equipment control and integration more flexible and efficient.



BridgeP

Protocol for automating manufacturing equipment communications

Field-oriented Optimized service



What is BridgeP?

BridgeP serves as an Equipment Field Network Interface, allowing seamless communication with the equipment's fieldbus. It supports efficient status monitoring and enables automated control for enhanced performance.

**Over 30 years of expertise
in factory automation system operations**
Data analysis services crafted by experienced field professionals

Industry

Industrial Automation



- A Leading Provider of Total Factory Automation Solutions
- Delivering production automation services across diverse industries
- Offering a wide range of solutions and products for domestic and international markets
- Providing specialized solutions and products for the display, semiconductor, and general manufacturing industries

Enjoy!

Good UX Validation History
Management Spec Management



Ease of application	Scalability/Flexibility	Built-in communication testing tools
<ul style="list-style-type: none">• Instant communication enabled through• XML-based Map address configuration• Effortless Map address-to-XML conversion using dedicated tools <p>Customizable read intervals for different data groups</p> <p>Multi-block read/write with support for continuous transactions</p>	<ul style="list-style-type: none">• Simultaneous communication with multiple PLCs and field networks• Data branching for multiple host programs• Modular design for the easy addition of required drivers <p>Compatible with Windows and Linux platforms</p>	<ul style="list-style-type: none">• I/O Signal (BIT) read/write monitoring• I/O Data (WORD) read/write monitoring

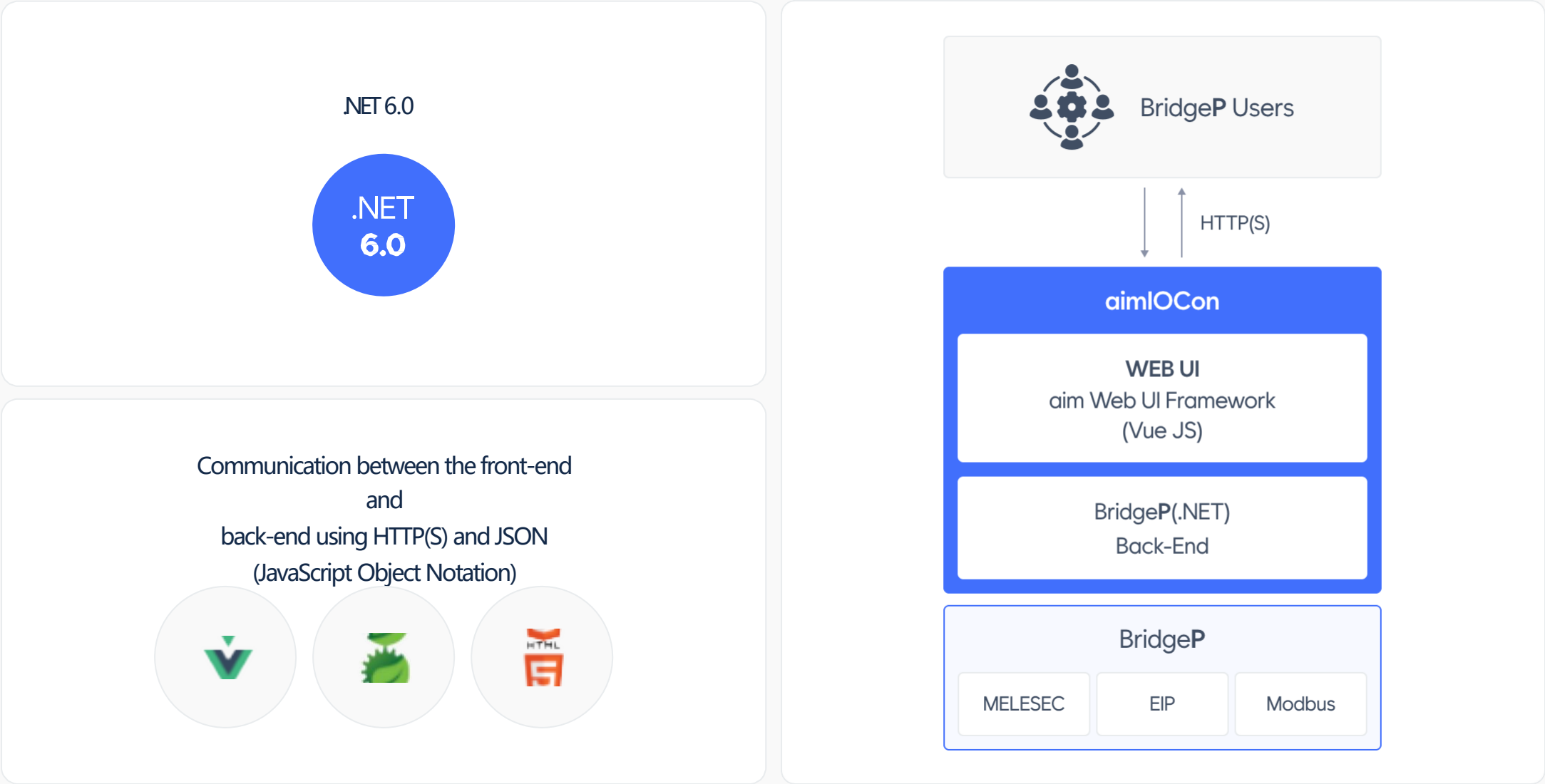
Product Configuration

Development Environment

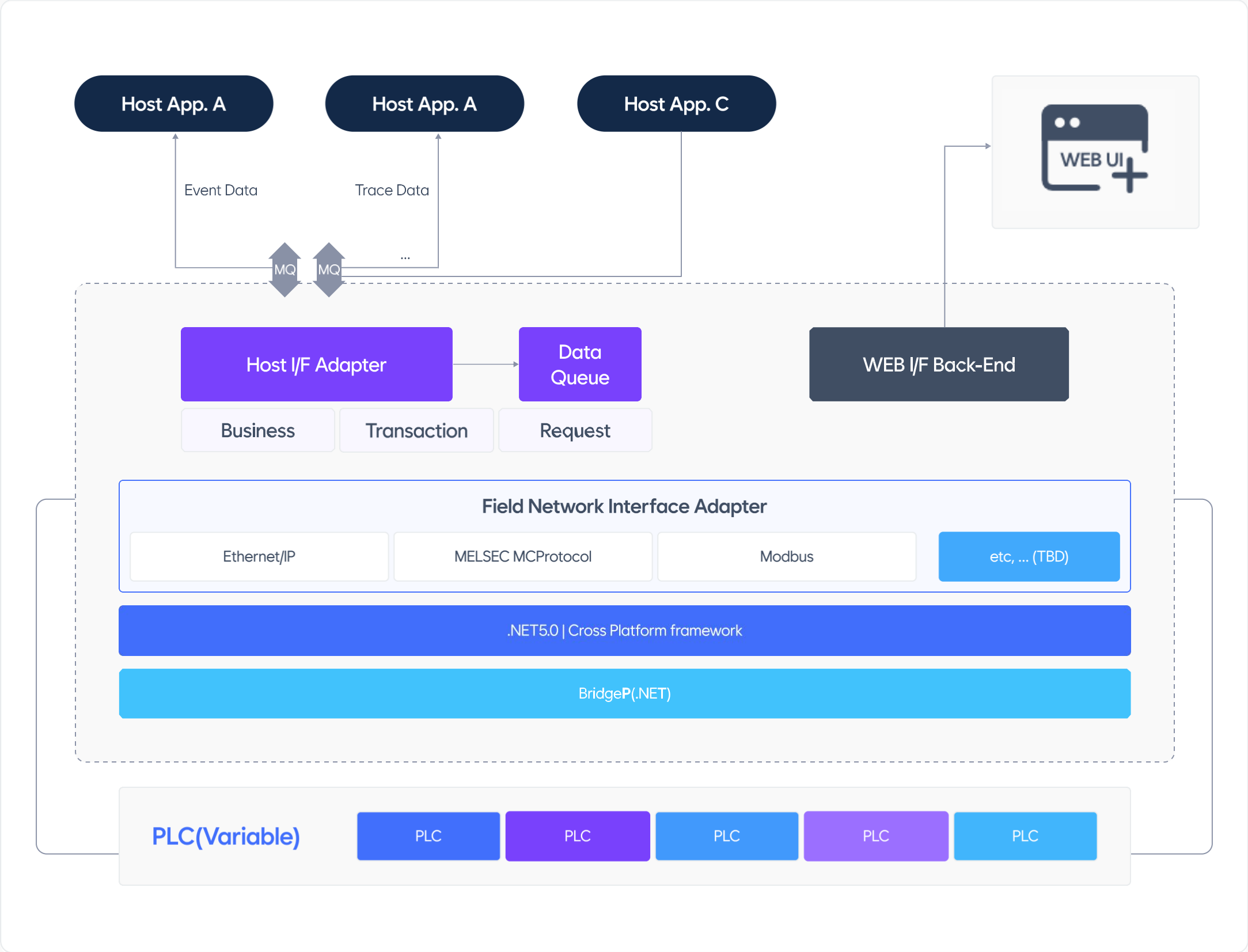
Web UI Framework

Vue JS(JavaScript) UI Framework	Spring Tool Suite, Maven	Comply with Html 5 standard + CSS3
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◆ Application Framework



Configuration Diagram



Field-oriented Optimized service

01 Deployment and history management

The screenshot displays the ioCON web interface. At the top, there is a navigation bar with tabs: Interface, Option, Diagnostics, Statistics, and Monitor. The 'Interface' tab is selected. Below the navigation bar, there is a 'Release Note' section with a table listing updates. The table has columns: No, Description, Grade, Target, and Version. Below the table, there is an 'Execute Control' section with checkboxes for EIP, MELSEC, Modbus, and RabbitMQ. The MELSEC and RabbitMQ checkboxes are checked. To the right of the checkboxes are 'Apply' and 'Restart' buttons.

No	Description	Grade	Target	Version
5	WEB UI	New	Common	1.0.0
7	Statistics function added	Feature	Common	1.0.0
5	Diagnostics function added	Feature	Common	1.0.0
4	(Modbus TCP/IP) is applied	New	Modbus	1.0.0
3	(MCProtocol/Ethernet) is applied	New	MELSEC	1.0.0
2	(EIP(Sysmac) Linux Driver) applied	New	EIP	1.0.0
1	.NET5.0 Porting	New	Common	1.0.0

Execute Control

☐ EIP ☒ MELSEC ☐ Modbus

☒ RabbitMQ

02 Easy-to-configure connection settings

CRUD Modal Configuration

The screenshot displays the ioCON web interface with two modals open. The 'Interface' modal is in the foreground, showing a list of interfaces: EIP, MELSEC, Modbus, and RabbitMQ. The 'EIP' interface is selected. The 'RabbitMQ' modal is also open, showing a table for configuration. The table has columns: Message Type, Host Name, and Host IP. The 'Message Type' column has a dropdown menu. The 'Host Name' column has a text input field. The 'Host IP' column has a text input field. The 'RabbitMQ' modal also has a 'Value' section with a dropdown menu and a 'Pass' input field. The 'Apply' button is visible in the bottom right corner of the 'RabbitMQ' modal.

Interface

EIP

MELSEC

Modbus

RabbitMQ

✓ Select an interface

✓ View settings

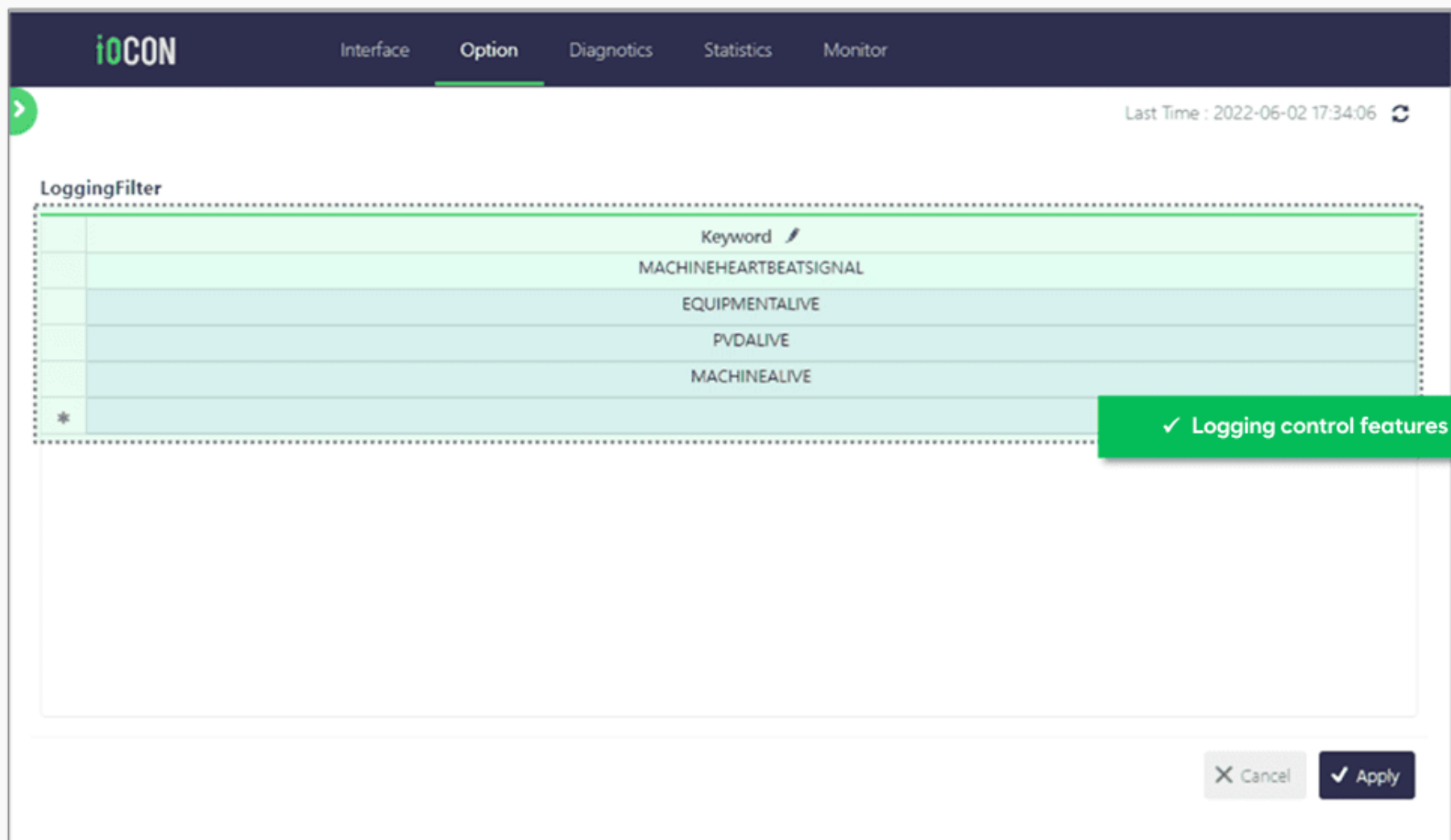
✓ Edit settings

✓ Apply settings

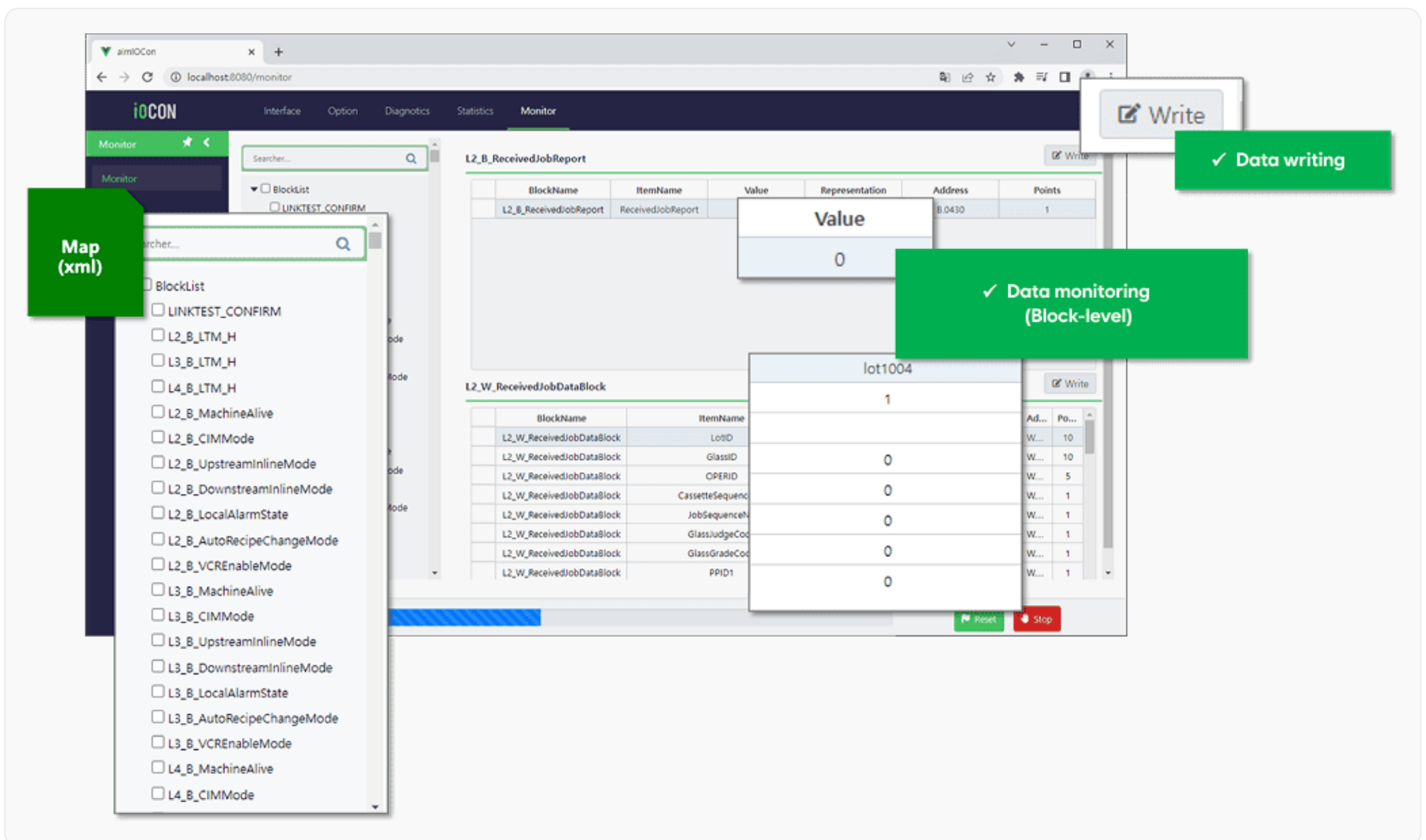
✓ Intuitive interface

✓ Manage applied data

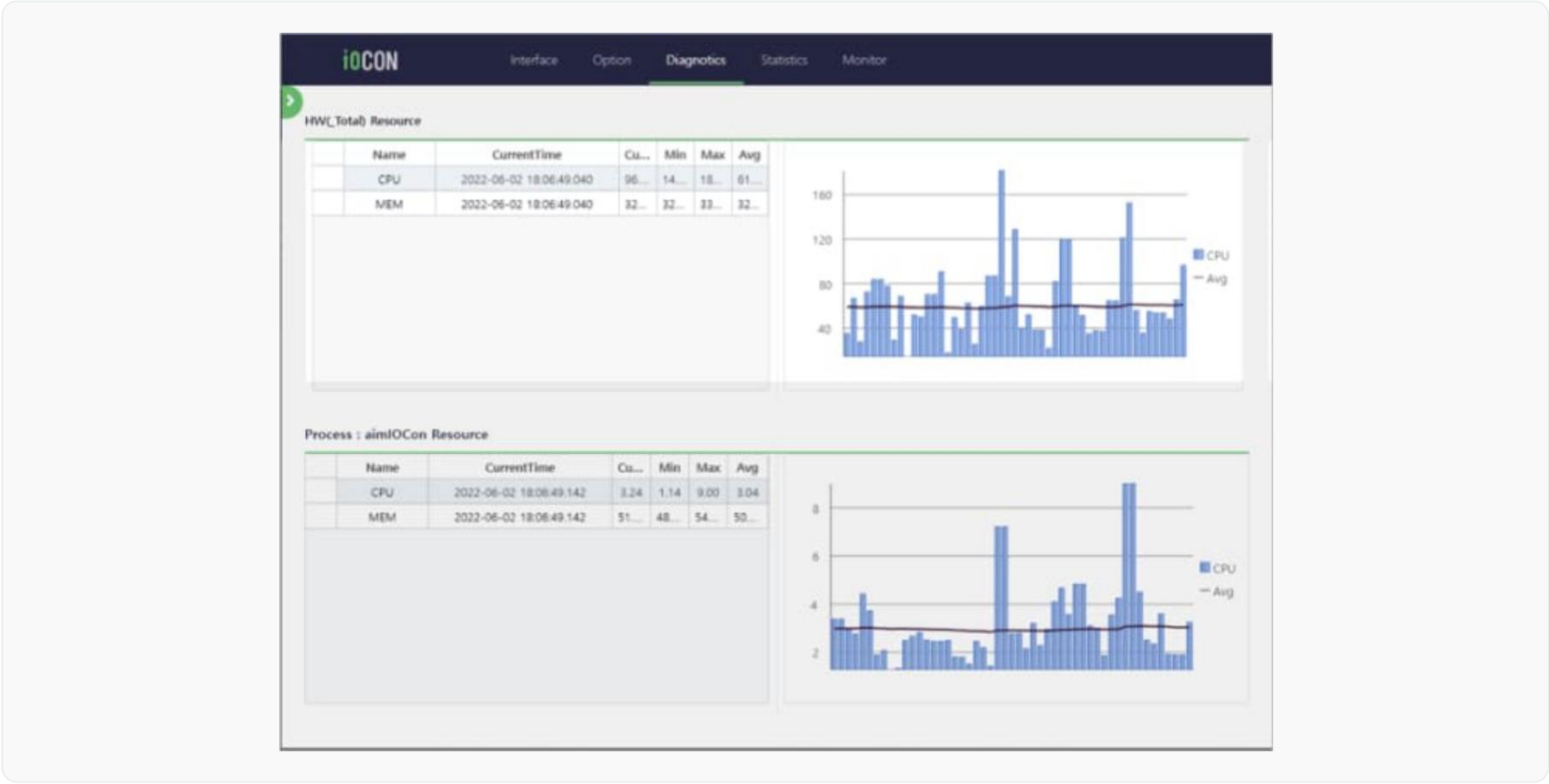
03 Real-time option adjustments tailored to different operating environments



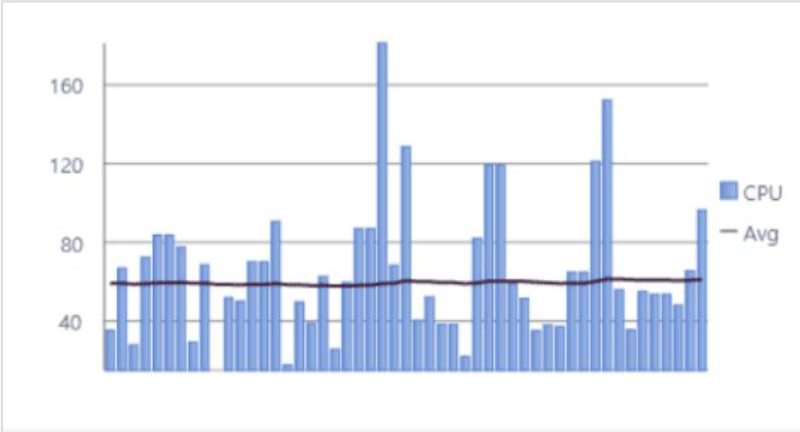
04 Block-level monitoring based on address mapping, ideal for testing during setup



05 Diagnostics to analyze hardware and process resource usage



Name	CurrentTime	Cu...	Min	Max	Avg
CPU	2022-06-02 18:06:49.040	96....	14....	18....	61....
MEM	2022-06-02 18:06:49.040	32....	32....	33....	32....



Grid

- Data updated every second
- Current: Current value
- Min, Max, Avg: Statistics for the last 30 minutes

Graph

- Data from last 30 minutes
- Column: Current
- Line = Avg

06 Support for operational checks and analysis to pinpoint areas for communication improvement

Statistics Dashboard

- Provides statistics for the last 30 minutes
- Read: Read operations
- Write: Write operations
- Transaction: Group operations



The screenshot shows the 'Statistics' tab in the iOCON interface. It displays three sections: 'Read', 'Write', and 'Transaction'. Each section contains a table with operation metrics.

Read

Name	CurrentTime	Min (ms)	Max (ms)	Avg (ms)	Count
L2_B_LTM_H	2022-06-02 18:07:18.571	3	64	4.259681093394078	439
L3_B_LTM_H	2022-06-02 18:07:18.574	3	64.5	4.94874715261959	439
L4_B_LTM_H	2022-06-02 18:07:18.577	3	64	4.055808656036446	439

Write

Name	CurrentTime	Min (ms)	Max (ms)	Avg (ms)	Count
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Transaction

Name	CurrentTime	Min (ms)	Max (ms)	Avg (ms)	Count
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