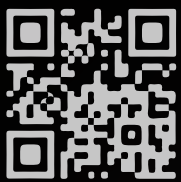

FATEK



fatek.com

FATEK AUTOMATION CORPORATION

M Series

Programmable Controller

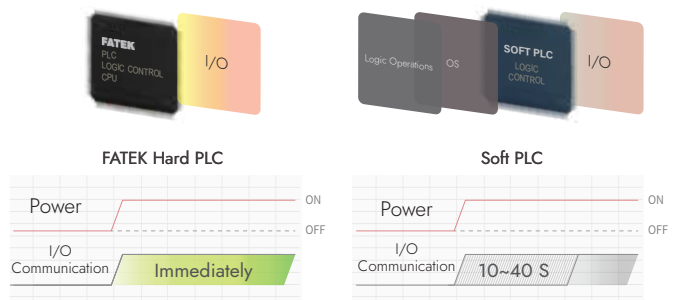
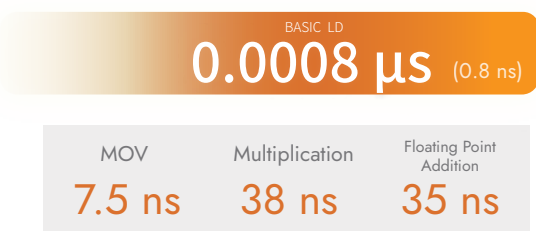




Engineered for high-speed and precise control

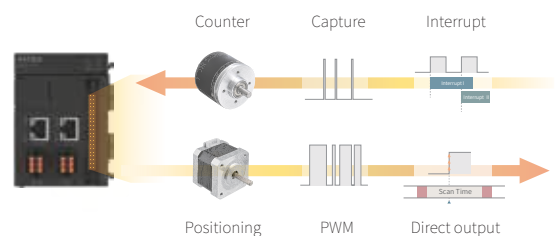
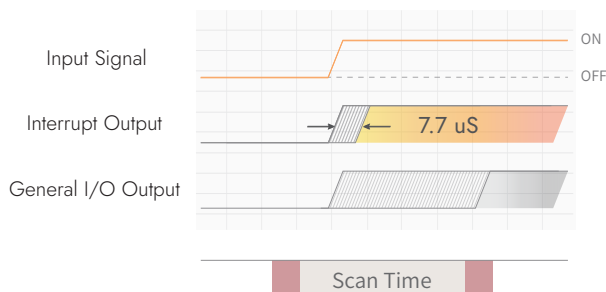
Ultimate speed leading ahead of the industry
 Innovatively developed high-performance processor and high-performance algorithm. Achieves ultimate up to 0.8ns for the command processing speed. Pushes the control performance to the unimaginable "ns" realm.

Ultimate Performance and Efficiency - Hard PLC
 High-performance hardware design for logic operations. Low power consumption and high stability system architecture without fans and heat sink. Without complicated and huge OS, PLC can immediately operate with no delay when power-on.



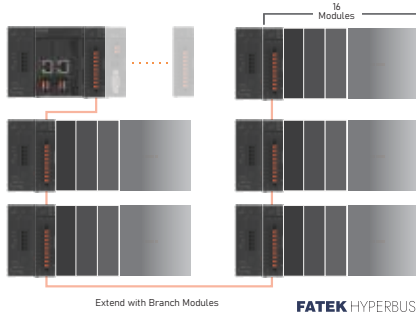
Ultra low delay interrupt response
 Achieves up to 7.7 uS interrupt response speed. With interrupt, the input response time will not be not affected by the length of the scan time. Ensure precise and immediate control needs in any situation.

High-density integrated I/O
 Built-in 16 sets of digital input and output points respectively. With up to 200KHz high-speed counter and pulse output. Support interrupt and capture input to ensure commands and signal capture are not affected by scan time when control immediacy is extremely required.



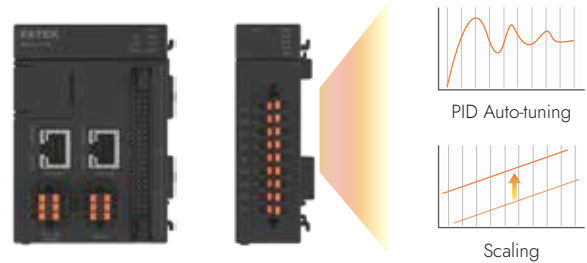
Powerful control over scale and extensibility

Control scale run up to 2048 DIO and 256 AIO.
 Up to 64 expansion modules of various types can be added.
 FHB transmission technology can transfer data instantly without delay when monitoring large amounts of controlling data gathered from plentiful modules.



Distributed computing on modules

Each extension module has an independent MCU that can perform complex real-time computing tasks. Communication analysis, auto-tuning and various post-processing can be executed directly on the module. Improve system efficiency and significantly reduce CPU loading with a distributed architecture.



Built-in advanced motion control functions

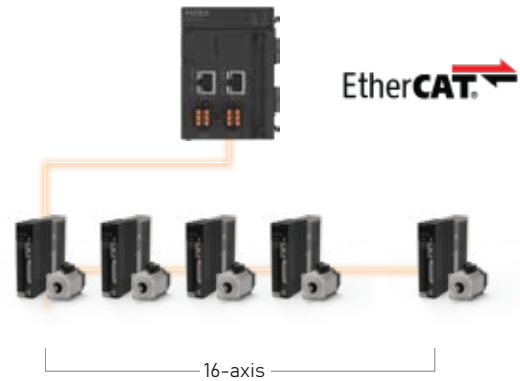
Independent motion control CPU

Motion control operates independently of the PLC logic program. Even if the execution of complex high-speed and high-precision motion control requirements will not be affected by the program scan time or other interrupt tasks. It can ensure the best control accuracy and stability



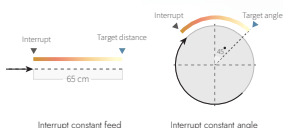
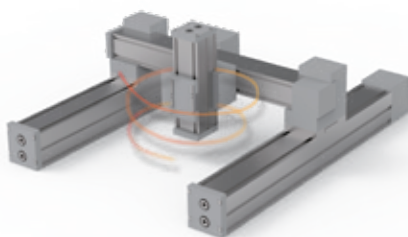
16-axis synchronous motion control

Control up to 16-axis servo driver simultaneously without the need of expanding any motion control module or linking several CPUs. Perform high-precision multi-axis time-synchronized cooperative control. Each axis can be used to carry out the advanced motion-sync control.



Advanced interpolation function

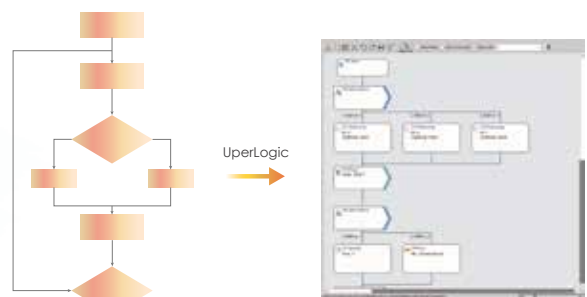
Built-in linear, circular and helical interpolation functions, and support drawing out continuous point arc between two motion points. The two motion trajectories can be connected with each other by auxiliary circles which smoother transitions and reduced mechanical vibration.



Interrupt constant feed/angle
 Can be applied to edge grinding machines, edge banding machines, feeding mechanisms, etc.

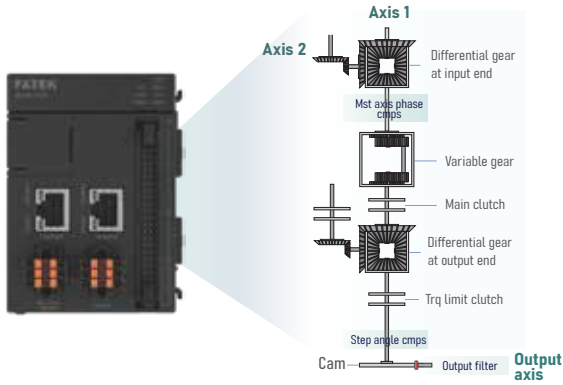
Easy and intuitive motion control

Plan the motion control tasks with the highly visualized Motion Flow. Complex motion control processes and requirements can be easily implemented through an intuitive graphical process-Motion flow, that requires no programming at all.



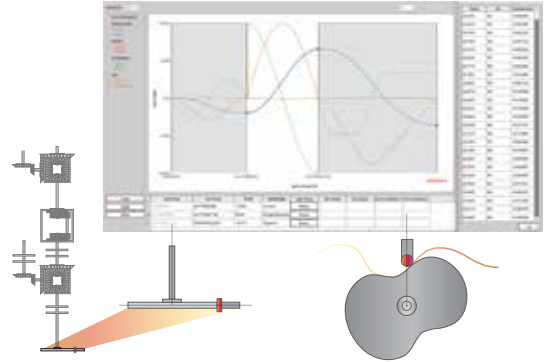
Motion-sync control

Synchronous axis control can be completed with PLC, without the need for mechanical structures such as transmission gears, clutches and shafts. Provides the flexibility to adjust synchronization parameters in a timely manner in addition to reducing mechanical parts and maintenance costs.



Electronic cam

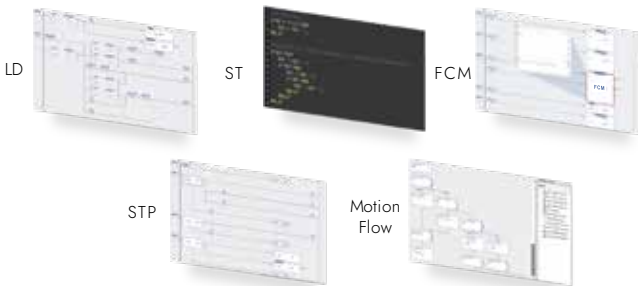
Support electronic cam function on the output axis of motion-sync control. Executes fly shear/rotary knife action without physical cam mechanism. Easily meet complex machine application requirements such as packaging and cutting.



UperLogic *Powerful and approachable*

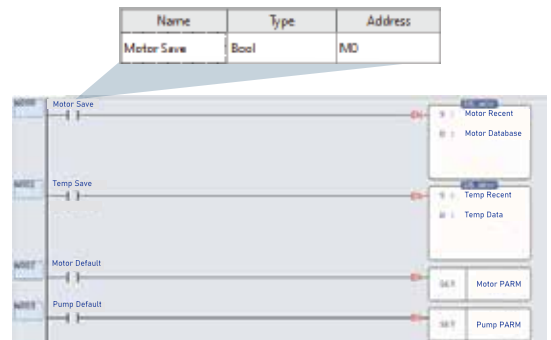
Multi-language editing

Support LD / ST / FCM / STP / MF editing languages. Multiple languages can be mixed and matched in the same project. The most suitable language could be selected for project development according to different applications.



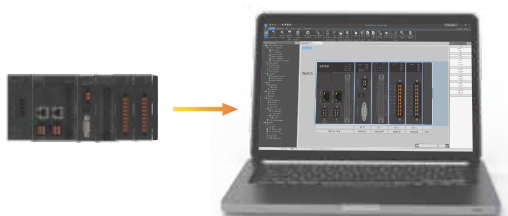
PLC TAG

Directly define the object, function and register address by name, no longer have to worry about not being able to identify the purpose represented by the register address for each item. Easily manage and import/export tag settings through the tag database.



Automatic system composition scanning

Once connected to the PLC, it will automatically scan the system composition. There is no more need to go to the field or open the control cabinet to check the configuration, and no need to manually enter the module model name to get complete information.



Module parameter setting

Set and calibrate the module by clicking on the module icon on device view, and support advanced settings such as alarm, upper and lower limits, and offsets. Quick setup without the need of hardware jumpers or registers and ladder settings.



Digital

Digital Input



M16X

Input: 16 points
24VDC Input
Push-in terminal blocks

Digital Output



M16Y T/J/R

Output: 16 points
T: SINK(NPN) J: SOURCE (PNP)
R: RELAY
Push-in terminal blocks

Digital Input & Output



M1616XY T/J

Input: 16 points Output: 16 points
24VDC Input
T: SINK(NPN) J: SOURCE (PNP)
40 pins box header connector

Analog

Analog Input



M04AD

Input: 4 points Voltage/ Current
Resolution: 1/16383
Precision: $\pm 0.1\%$
Push-in terminal blocks

High Resolution Analog Input



M04ADR

Input: 4 points Voltage/ Current
Resolution: 1/160000
Precision: $\pm 0.1\%$
Push-in terminal blocks

Analog Output



M04DA

Output: 4 points Voltage/ Current
Resolution: 1/16383
Precision: $\pm 0.2\%$
Push-in terminal blocks

Analog Input & Output



M0202AH

Input: 2 points Voltage/ Current
Resolution: 1/16383
Precision: $\pm 0.1\%$ / $\pm 0.2\%$
Push-in terminal blocks

High Resolution Analog Output



M04DAR

Output: 4 points Voltage/ Current
Resolution: 1/54000
Precision: $\pm 0.05\%$
Push-in terminal blocks

Temperature

Temperature Input



M04TC

Input: 4 points
Thermocouple: K, J, E, T, R, B, N, S
Resolution: 0.1°C
Precision: $\pm 0.5\%$
Push-in terminal blocks

High Precision Temperature Input



M04TCR

Input: 4 points
Thermocouple: K, J, E, T, R, B, N, S
Resolution: 0.1°C
Precision: $\pm 0.2\%$
Push-in terminal blocks

Mixed Temperature Input



M0202TH

Input: 2 points
Thermocouple: K, J, E, T, R, B, N, S
Resolution: 0.1°C
Precision: $\pm 0.2\%$
Push-in terminal blocks

Input: 2 points
RTD: Pt100/JPt100: (-200-800°C)
Pt1000/JPt1000: (-200-600°C)
Pt100/1000($\alpha=0.00385$)
JPt100/1000($\alpha=0.003916$)
Resolution: 0.1°C
Precision: $\pm 0.5\%$

Load cell

Load cell input



M02LC

Input: 2 points
Resolution: 24 bits
Precision: $\pm 0.5\%$
Push-in terminal blocks

High Precision Load cell Input



M02LCR

Input: 2 points
Resolution: 24 bits
Precision: $\pm 0.01\%$
Push-in terminal blocks

Communication

Communication Expansion

High-speed*



MHCM25

1 port RS485 + 1 port RS232
Speed and interface:
RS485 - Max. 230400 bps
Push-in terminal blocks
RS232 - Max. 115200 bps
D-Sub 9-Pin



MHCM55

2 ports RS485
Speed and interface:
RS485 - Max. 230400 bps
Push-in terminal blocks



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FATEK

The Brand You Can Rely On

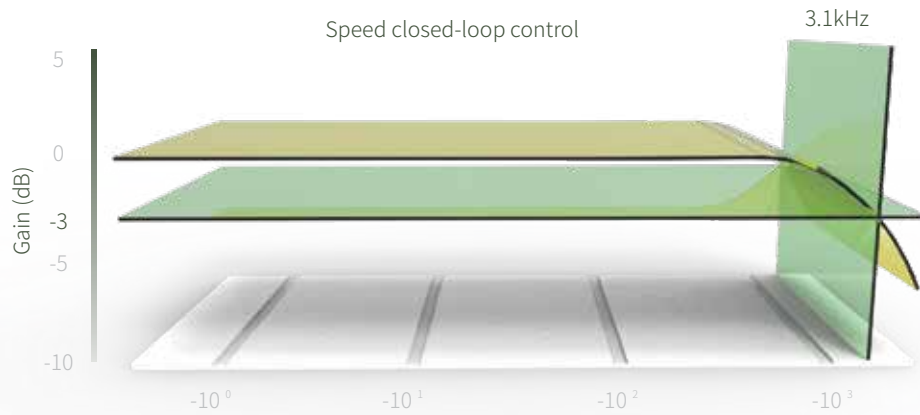
SC3 SERIES

ETHERCAT SERVO



3.1 kHz Frequency Response

- ▶ Higher responsiveness and shorter settling time
- ▶ Improve machine production efficiency



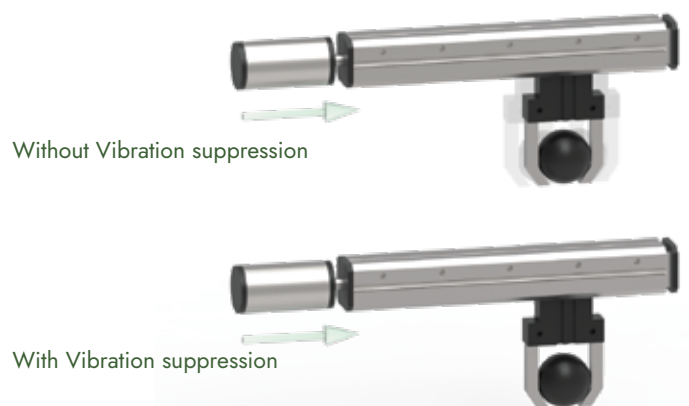
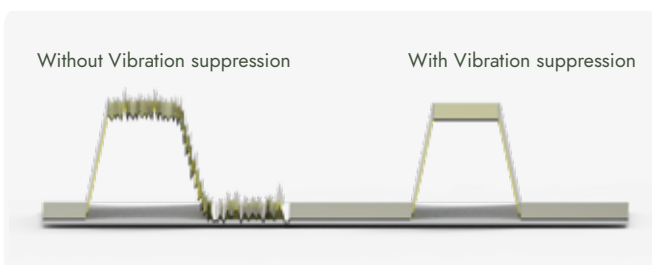
23/17 bit Absolute/Incremental Encoder



- ▶ Single turn resolution up to 8388608 p/r
- ▶ Achieve more precise and smooth processing tasks
- ▶ Position information can be saved when power off
- ▶ 17 Bit is available

Vibration suppression

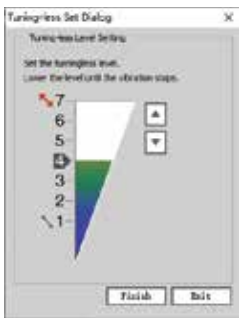
- ▶ Built-in 5 notch filters
- ▶ Effectively suppress the mechanical end vibration



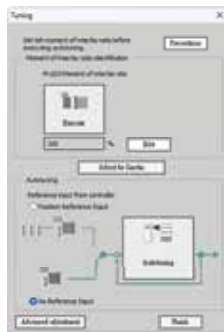
ProTuner



- ▶ FATEK Dark Novelty Style
- ▶ Intuitive Operation
- ▶ Multi-language



Tuning-less level



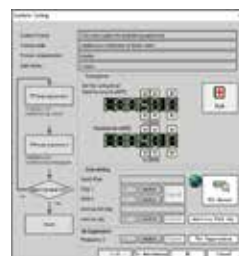
Autotuning



System Monitor



Estimating the Moment of Inertia



Vibration Suppression

100 W - 7.5 KW

FULL LINE SUPPORT

23/17 Bit

Absolute / Incremental

Brake / Without Brake

AC220/380V

IP 67

EtherCAT[®]

SERVO DRIVER

SC303A



100W 200W 400W

SC306A



750W 1KW

SC308/10A



1.5KW 2KW

SC315A



2KW 3KW 4KW 5KW

SC328A



7.5KW

SERVO MOTOR

HIGH INERTIA M71



40 MM 100W



60 MM 400W 200W



80 MM 750KW



180 MM 2KW

MIDDLE INERTIA M51



130 MM 1KW 1.5KW 2KW



180 MM 3KW 4KW 5KW 7.5KW



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FATEK AUTOMATION CORPORATION

ZENIT

Drive your imagination

P5 & *U7* *SERIES*

Human Machine Interface

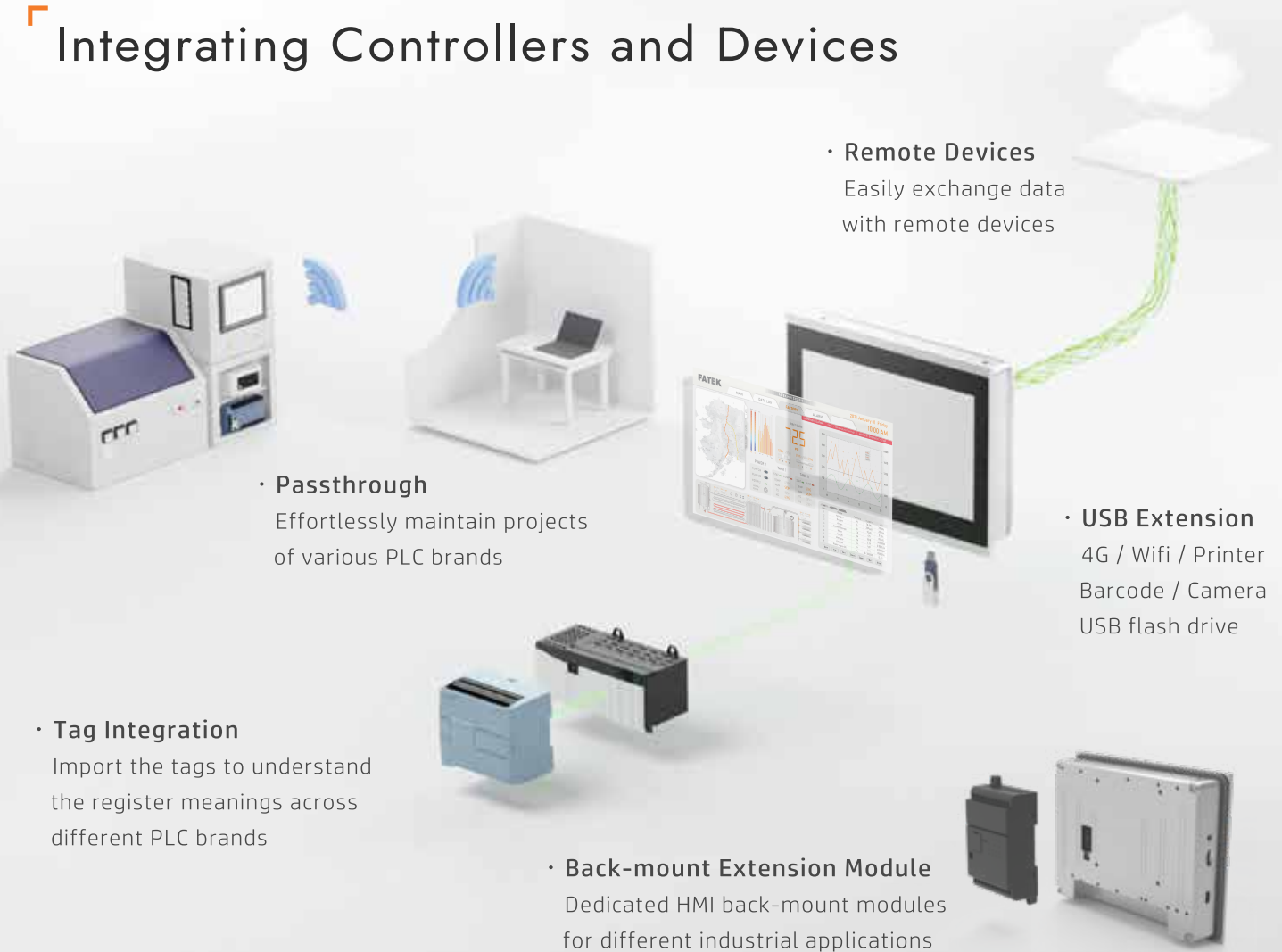


NEXT Level *SOLUTION*

Create *Infinite* Possibilities



Integrating Controllers and Devices



Support Hundreds of *PLC Drivers*

SIEMENS

MITSUBISHI
ELECTRIC

Allen-Bradley

Schneider
Electric

BECKHOFF

OMRON

Modbus

MQTT

OPC UA

Panasonic

Lenze

LS

YASKAWA

Honeywell

KEYENCE

FATEK

DELTA

HITACHI

Koyo

And More...

Connecting Various Systems and Platforms

MQTT

Publisher / Subscriber
Broker

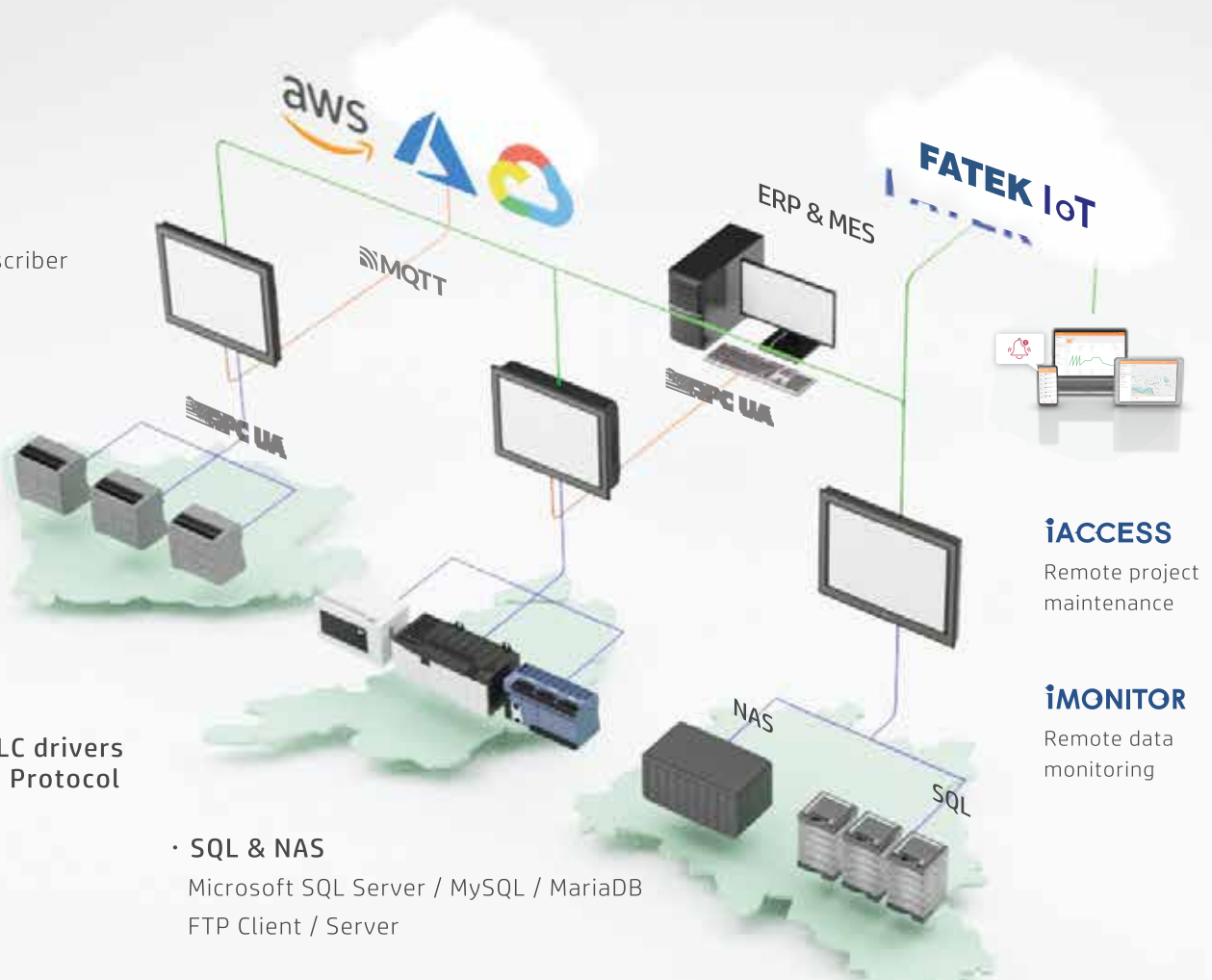
OPC UA

Server / Client

Multi-brand PLC drivers & Self-defined Protocol

SQL & NAS

Microsoft SQL Server / MySQL / MariaDB
FTP Client / Server

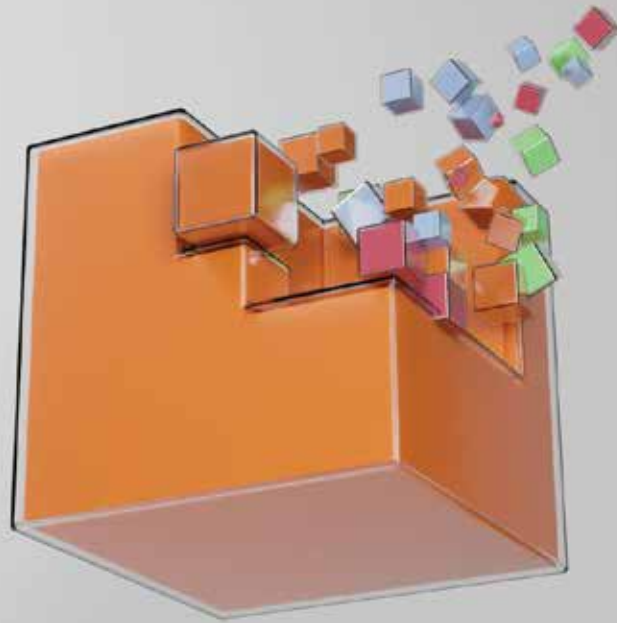


iACCESS

Remote project
maintenance

iMONITOR

Remote data
monitoring



FvDesigner
Dedicated Software

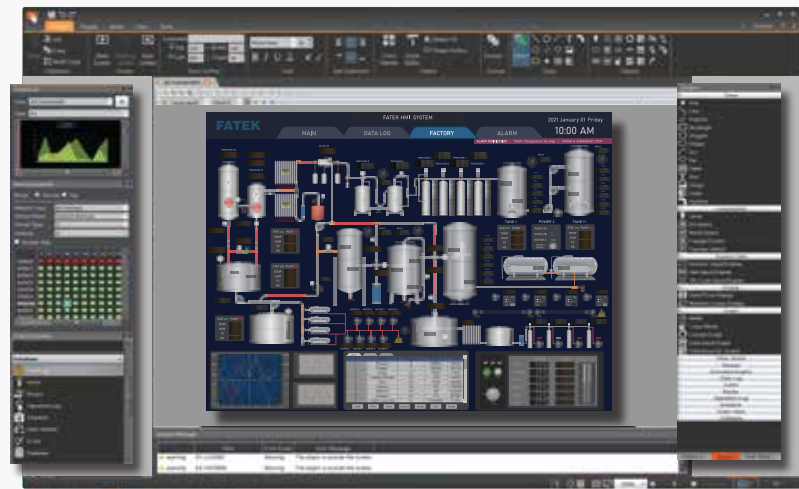
Easy to Plan
Rich Resources

FvDesigner

- SCRIPT
- LOG
- RECIPE
- TRANSFER
- MQTT
- SERVER
- ALARM
- SECURITY
- SCHEDULE
- OPERATION
- RESOURCE



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Industry solutions

Reliable security protection



P5 SERIES

Full Line Support

ETHERNET & SERIAL



P5043 B

P5070 B

P5101 B

P5120 B

P5150 B

U7 SERIES

The Ultimate Choice



U7070NA



DUAL ETHERNET

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