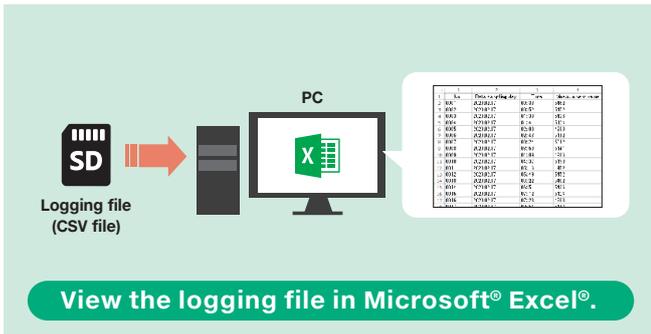# Firmware upgrade for the FX5UJ CPU module

Upgraded function 1 — Logging function
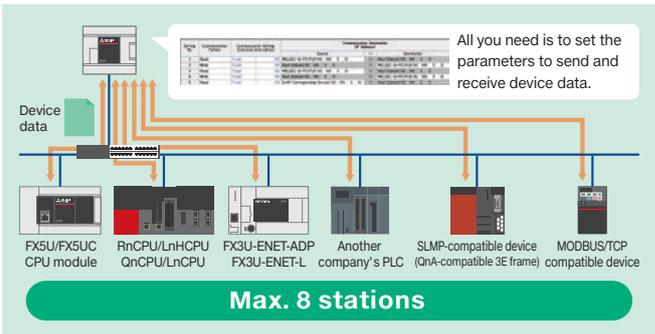
The data logging function now supports a CSV file format. Use this function to collect device data. All you need is to set the parameters.

SD

Logging file (CSV file)

PC

View the logging file in Microsoft® Excel®.

New functions
- File operation instructions
- Unicode character string operation instructions

New functions of firmware version 1.030 and later

Upgraded function 2 — Simple CPU communication function

Simple-CPU-communication compatibility has been expanded to include a wider range of models, including the models of other manufacturers.

All you need is to set the parameters to send and receive device data.

Device data

FX5U/FX5UC CPU module

RnCPU/LnHCPU QnCPU/LnCPU

FX3U-ENET-ADP FX3U-ENET-L

Another company's PLC

SLMP-compatible device (QnA-compatible 3E frame)

MODBUS/TCP compatible device

Max. 8 stations

- FTP client function
- 1E frame of SLMP
- Scan time clear function
- High-speed pulse I/O module

Refer to "Added and Enhanced Functions" in MELSEC iQ-F FX5 User's Manual (Application) for detailed information about the added functions.

FX5UJ usage examples

Build a simple multiple-axis control system with FX5UJ

Issue

Not enough **positioning axes or high-speed counter channels** are available on FX5UJ. Is there a way to add more axes and channels without having to replace the current CPU module?

The upgraded version will do.

Add a high-speed pulse I/O module to increase the number of double-axis and high-speed double channel. Added axes and channels operate on the same programs as the ones for built-in positioning and high-speed counter.

High-speed pulse I/O module

FX5-16ET/ES-H
FX5-16ET/ESS-H

A greater number of positioning axes

3-axis*
200 kpps

2-axis
200 kpps

Max. 4 modules

Max. 11 axes

More high-speed counter channels

4 ch 100 kHz
+
4 ch 10 kHz

2 ch
200 kHz

Max. 4 modules

Max. 16 channels

Enables the simultaneous use of positioning and high-speed counter

200 kHz — Rotary encoder

200 kpps — Servo amplifier

2 axes + 2 channels when used in combination

*: Only supports the transistor output type

CC-Link IE TSN master/local module
FX5-CCLGN-MS now supports 100 Mbps.

Supported with firmware version 1.010 and later

New

The firmware update of FX5-CCLGN-MS includes the support for 100-Mbps devices.

FX5-CCLGN-MS
CC-Link IE TSN
Master/local module

Improvement

Before	After

☑ On the older version with a single-speed 1 Gbps...

The data transfer rate of 1 Gbps needed to be converted to 100 Mbps when communicating with 100-Mbps devices, such as cameras, sensors, and inverters (FR-E800).

Conversion switches are expensive.
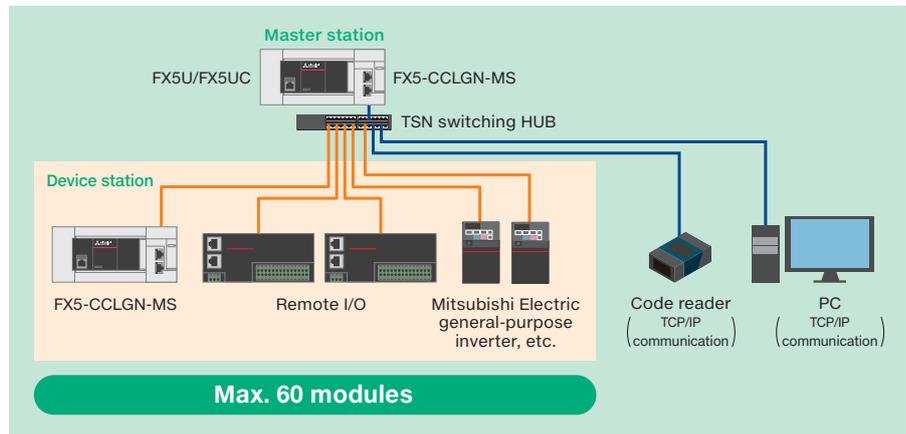
UP

☑ Improved communication function

When configured with only 100-Mbps devices, communication is now possible without speed conversion using conversion switches.

Less expensive solution for system configuration

What is FX5-CCLGN-MS?

FX5-CCLGN-MS is an intelligent function module intended for connecting the FX5U/FX5UC CPU module as a master or local station of the CC-Link IE TSN. FX5-CCLGN-MS, when used as a master station, is suitable for use for a medium-scale system with a maximum of 60 device stations.

Master station
FX5U/FX5UC   FX5-CCLGN-MS
TSN switching HUB
Device station
FX5-CCLGN-MS   Remote I/O   Mitsubishi Electric general-purpose inverter, etc.   Code reader (TCP/IP communication)   PC (TCP/IP communication)

Max. 60 modules

CC-Link IE TSN

This is an Ethernet-based open integrated network that seamlessly connects the network of systems from the information system to the production site. CC-Link IE TSN enables coexistence of information communication with the IT system and real-time cyclic communication.

MITSUBISHI ELECTRIC CORPORATION
Please contact your nearest Mitsubishi Electric representative for more information.