MelsecFX Master Communication Driver

This document has the specific information related to the driver configuration. For a generic explanation on Devices, Channels, Nodes and Points configuration, please refer to reference guide.

Contents

Section 1 – Summary Information

Communication Driver Name: MelsecFX

Implementation DLL: T.ProtocolDriver. MelsecFX.dll

Protocol: Melsec Q 1E frame

Interface: TCP/IP

Description: MelsecFX communication driver implements communication with Mitsubishi FX Series PLCs using Melsec Q 1E frame. It operates as a Master on TCP/IP networks. The communication blocks are dynamically created according the pooling cycle defined on the AccessType for each point.

PLC types supported: Mitsubishi FX Series PLCs and compatibles

Multi-threading: user defined

Max number of nodes: user defined

PC Hardware requirements: Standard PC Ethernet interface board

Supported Operands:

Operand	Read	Write	Data Type	Address size
D - Data register	✓	✓	Short	2 bytes
W - Link register	✓	✓	Short	2 bytes
R - File register	✓	✓	Short	2 bytes
TN – Timer Current value	✓	✓	Short	2 bytes
TS – Timer Contact	✓	✓	Bit	1 bit
TC – Timer Coil	✓	✓	Bit	1 bit
CN – Counter Current value	✓	✓	Short	2 bytes
CS – Counter Contact	✓	✓	Bit	1 bit
CC – Counter Coil	✓	✓	Bit	1 bit
X - Input relay	✓	✓	Bit	1 bit
Y - Output relay	✓	✓	Bit	1 bit
M - Internal relay	✓	✓	Bit	1 bit
B - Link relay	✓	✓	Bit	1 bit
F - Annunciator	✓	✓	Bit	1 bit

Table 1

Section 2 – Channel Configuration

Protocol Options

- **Maximum size of blocks:** Defines the maximum of addresses in a read block.

Settings

TCP/IP:

- **NodeConnections**: Defines the maximum number of parallel requests that will be sent to each node (asynchronous communication)

Section 3 – Node Configuration

Station Configuration

TCP/IP:

- Station syntax: <IP address> ; <Port number>

    Where : <IP address> = IP address of the slave device in the modbus network

        < Port number > = TCP port where the slave device is listening (default is 44818)

    Ex: 192.168.1.1 ; 5551

Section 4 – Point Configuration

The syntax for the MelsecFX communication points is: < Operand > <Address>

D   Data register

W   Link register

R   File register

TN   Timer Current value

TS   Timer Contact

TC   Timer Coil

CN   Counter Current value

CS   Counter Contact

CC   Counter Coil

X   Input relay

Y   Output relay

M   Internal relay

B   Link relay

F   Annunciator

Where :

Operand: represents the Device Memory :

Address: Address number

Section 5 – Troubleshoot

The status of the driver execution can be observed through the diagnostic tools, that are:

- Trace window

- Property Watch

- Module Information

The above tools indicate if the operations have succeeded or have failed where the status 0 (zero) means success. Negative values are internal error codes and positive values are protocol error codes.

Revision History

Revision	Description	Date
A	Initial Revision	August, 2014