

Advantech SE Technical Share Document

Date	2019 / 10/ 03	Related Product	WOP-2000, WA-HT3000, WebAccess/HMI Runtime	
Category	<input type="checkbox"/> FAQ <input type="checkbox"/> SOP <input checked="" type="checkbox"/> Driver Tech Note			
Abstract	How to connect HMI and Mitsubishi FX3U-ENET module			
Keyword	WOP-2000 / WA-HT3000 / WebAccess/HMCI Runtime FX3U-ENET / FX3U-ENET-L			
Related OS	RTOS / WINCE / Windows			
Revision History				
Date	Version	Author	Reviewer	Description
2019/10/03	V1.0	Black Chang	Nick Liu	WA/HMI V2.1.9.31

■ Problem Description & Architecture:

How to connect HMI and Mitsubishi FX3U-ENET module

■ Brief Solution - Step by Step:

Mitsubishi FX3U-ENET-ADP

This Tech Note is the instruction about how to connect with FX3U-ENET/ENET-L and the setting notes while using the touch panel.

(Apply to FX3U-ENET/ENET-L communication protocol Series. In this document, the practical test machine is FX3U-ENET-L.)



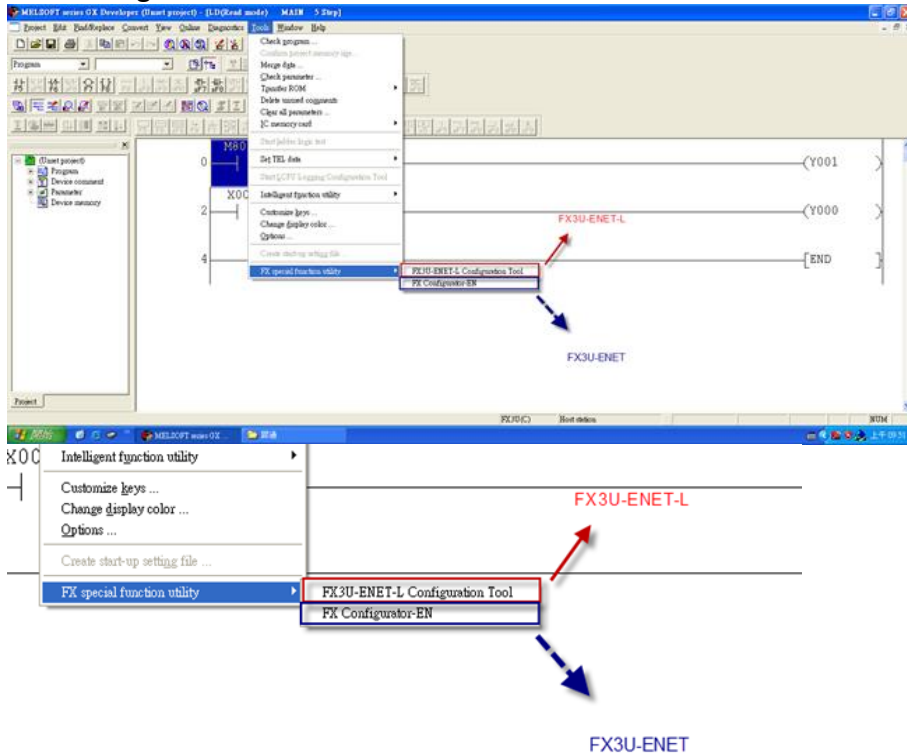
PLC setting

Mitsubishi -FX3U-ENET/ENET-L setting

1. FX3U-ENET controller setting:

Note: Need to install FX special function utility software

The setting software is different between ENET and ENET-L.



2. FX3U-ENET parameter setting

2-1. Open software => select Module 0

2-2. Operational settings

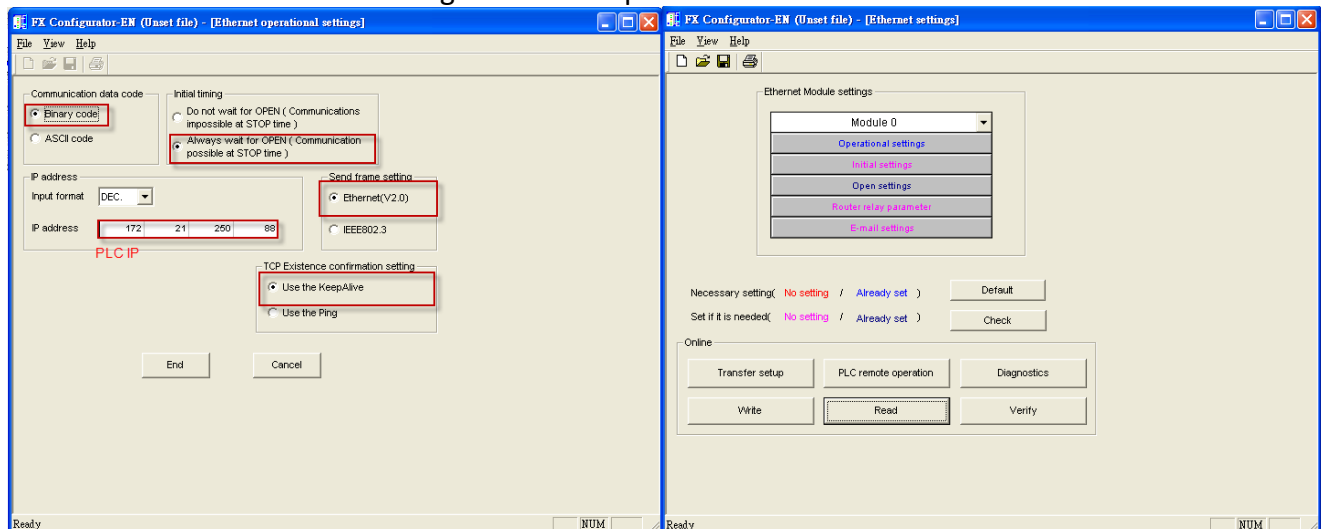
Communication data code: Binary code

Initial timing: Always wait for OPNE (Communication possible at STOP time)

IP address: XXX.XXX.XXX.XXX (ex: 172.21.250.88)

Send frame setting: Ethernet (v2.0)

TCP Existence confirmation setting: Use the KeepAlive



2-3. Open settings

Protocol: TCP

Open system: Un-passive

Fixed buffer: Send

Fixed buffer communication procedure: Procedure exist (MC)

Pairing open: Disable

Existence confirmation: NO confirm

Host station Port NO. (DEC): range is 1025 to 65534(ex: 5001~5004)

Procedure exist (MC) only can be set four groups (Ex: 5001~5004)

	Protocol	Open system	Fixed buffer	Fixed buffer communication procedure	Pairing open	Existence confirmation	Host station Port No. (DEC.)	Transmission target device IP address
1	TCP	Un-passive	Send	Procedure exist(MC)	Disable	No confirm	5001	
2	TCP	Un-passive	Send	Procedure exist(MC)	Disable	No confirm	5002	
3	TCP	Un-passive	Send	Procedure exist(MC)	Disable	No confirm	5003	
4	TCP	Un-passive	Send	Procedure exist(MC)	Disable	No confirm	5004	
5								
6								
7								
8								

End Cancel

2-4. Press the button “Write”

FX3U-ENET-L Configuration Tool (Unset file) - [Ethernet settings]

File View Help

Ethernet Module settings

Module None

Operational settings

Initial settings

Open settings

Fixed buffer parameters

B-man settings

Necessary setting(No setting / Already set) Default

Set if it is needed(No setting / Already set) Check

Online

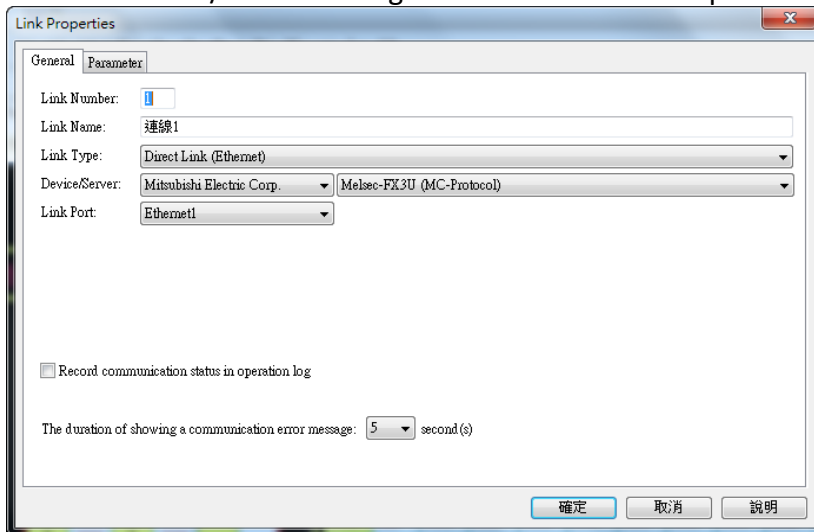
Transfer setup PLC remote operation Diagnostics

Write Read Verify

Ready FX3U-ENET-L NUM

HMI Setting

1. Select Device/Server Setting: Mitsubishi Electric Corp. --- Melsec-FX3U (MC-Protocol) setting

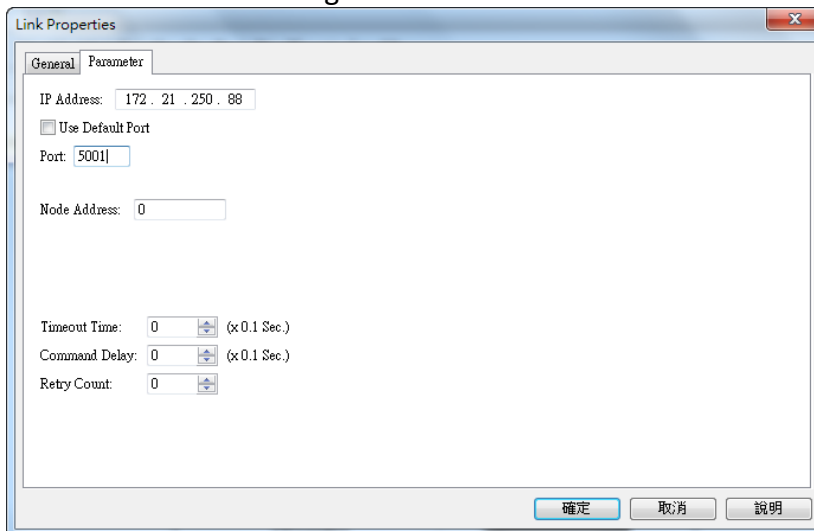


Link Properties dialog box, General tab. The dialog box has two tabs: General and Parameter. The General tab is active. It contains the following fields:

- Link Number: 1
- Link Name: 連線1
- Link Type: Direct Link (Ethernet)
- Device/Server: Mitsubishi Electric Corp. (selected), Melsec-FX3U (MC-Protocol)
- Link Port: Ethernet1
- ☐ Record communication status in operation log
- The duration of showing a communication error message: 5 second(s)

Buttons at the bottom: 確定 (OK), 取消 (Cancel), 說明 (Help).

2. Communication setting: IP address and Host station Port NO., please refer to PLC



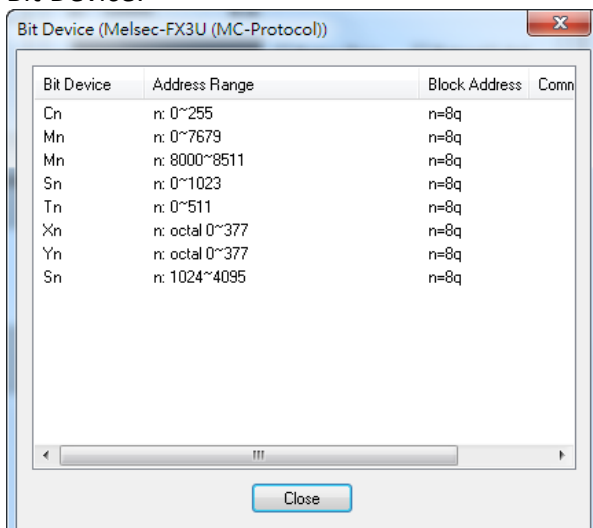
Link Properties dialog box, Parameter tab. The dialog box has two tabs: General and Parameter. The Parameter tab is active. It contains the following fields:

- IP Address: 172 . 21 . 250 . 88
- ☐ Use Default Port
- Port: 5001
- Node Address: 0
- Timeout Time: 0 (x 0.1 Sec.)
- Command Delay: 0 (x 0.1 Sec.)
- Retry Count: 0

Buttons at the bottom: 確定 (OK), 取消 (Cancel), 說明 (Help).

PLC Device List

Bit Device:

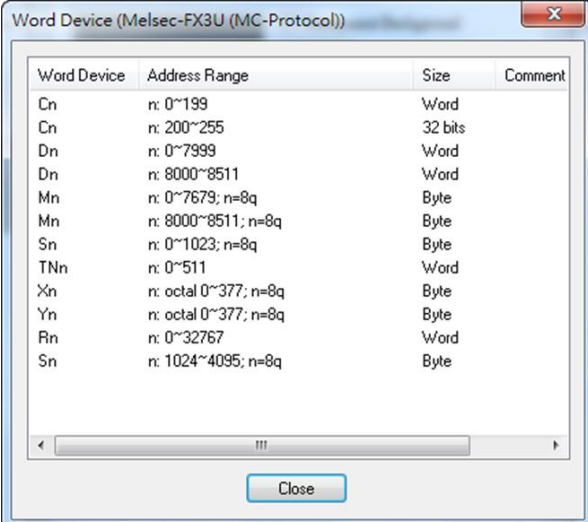


Bit Device (Melsec-FX3U (MC-Protocol)) dialog box. It displays a table of bit devices and their address ranges.

Bit Device	Address Range	Block Address	Comm
Cn	n: 0~255	n=8q	
Mn	n: 0~7679	n=8q	
Mn	n: 8000~8511	n=8q	
Sn	n: 0~1023	n=8q	
Tn	n: 0~511	n=8q	
Xn	n: octal 0~377	n=8q	
Yn	n: octal 0~377	n=8q	
Sn	n: 1024~4095	n=8q	

Buttons at the bottom: Close

Word Device:



Word Device (Melsec-FX3U (MC-Protocol))

Word Device	Address Range	Size	Comment
Cn	n: 0~199	Word	
Cn	n: 200~255	32 bits	
Dn	n: 0~7999	Word	
Dn	n: 8000~8511	Word	
Mn	n: 0~7679; n=8q	Byte	
Mn	n: 8000~8511; n=8q	Byte	
Sn	n: 0~1023; n=8q	Byte	
TNn	n: 0~511	Word	
Xn	n: octal 0~377; n=8q	Byte	
Yn	n: octal 0~377; n=8q	Byte	
Rn	n: 0~32767	Word	
Sn	n: 1024~4095; n=8q	Byte	

Close

■ Pin Definition (in case of serial connection):

■ Reference: