



Connecting to Mitsubishi FX3U PLC

Using FX3U-ENET-ADP and GX Works 2





Contents

Introduction 3

 Overview 3

 Intended Audience 3

 Required Software..... 4

GX Works 2 Set-up and Verification 5

 GX Works 2 PLC Parameters..... 5

TOP Server Configuration..... 8

 Add a New Channel 8

 Add a device..... 10

Summary 12

Contact Us 13



Introduction

Overview

The purpose of this guide is to demonstrate how to determine what TOP Server settings to use based on the controller GX Works 2.

Intended Audience

This guide is intended for TOP Server users who are using GX Works to configure their PLCs but may be new to connecting to their Mitsubishi Controllers from the TOP Server.



Required Software

For this example, you need GX Works 2 and Software Toolbox TOP Server Version 5.0 or higher with the Mitsubishi Driver Suite installed. The Mitsubishi Drivers can be selected during the installation through the 'Select Features' menu. Continue with the TOP Server installation using the default or any additional parameters required for this installation.

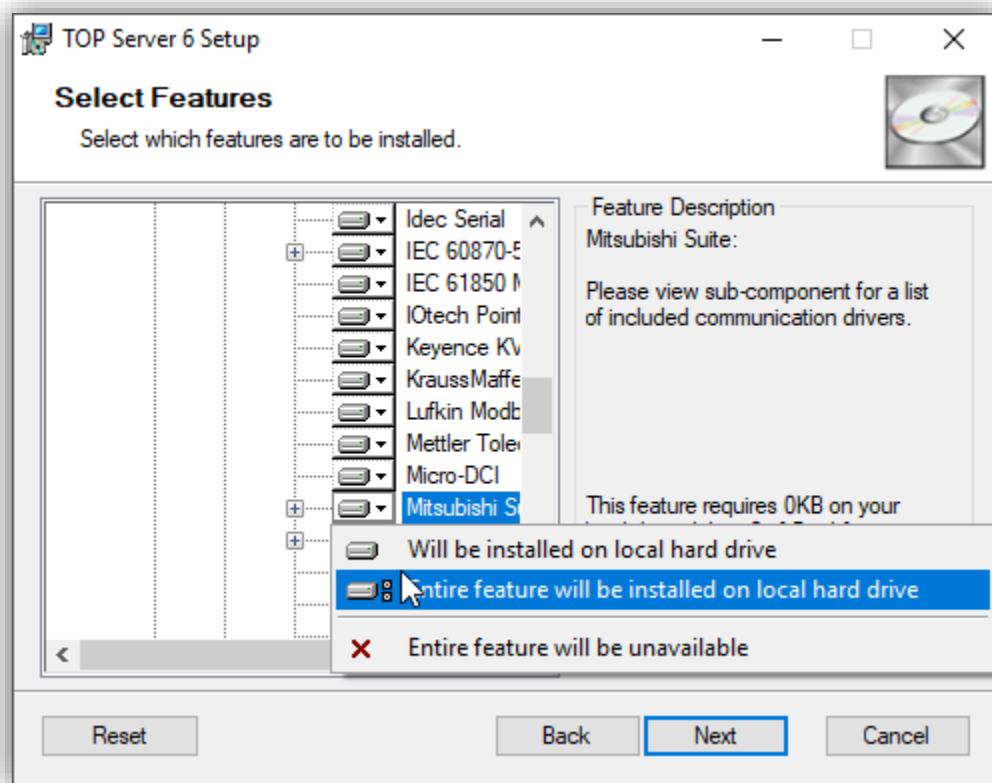


Image 1: Installing Mitsubishi Suite



GX Works 2 Set-up and Verification

GX Works 2 PLC Parameters

Double click “PLC Parameter”:

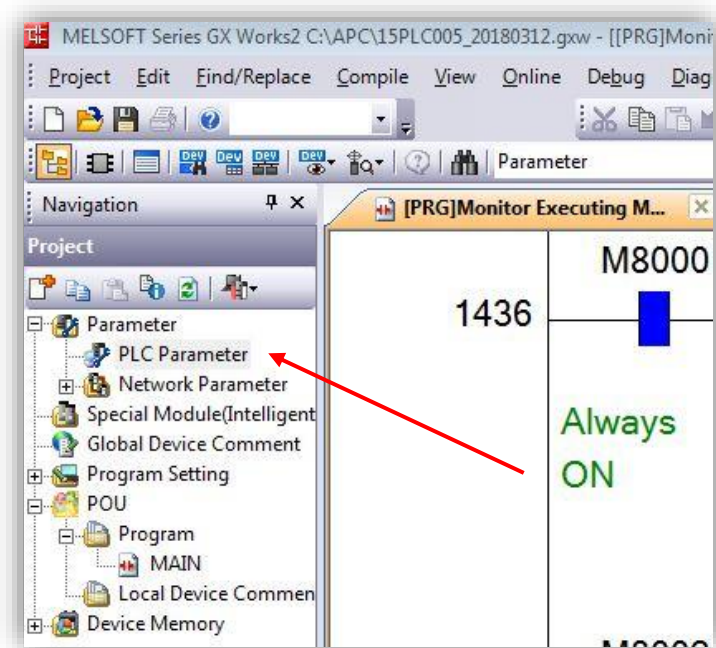


Image 2: MELSOFT Project



Clicking the PLC Parameters opens the following FX Parameter box:

Image 3: PLC Parameters

1. Click on the “Ethernet Port” tab.
2. Ensure “CH1” is selected in the upper left corner of the box. Note your IP address. If this is not configured, then enter an IP address appropriate for your network.
3. Enter a Subnet Mask (typically this is 255.255.255.0). You do not need to enter a gateway in all instances. If you’re not sure check with the network administrator.

IMPORTANT: In the area labeled “Communication Data Code” ensure that the “Binary Code” radio button is selected

4. Click on the “Open Setting” Button:



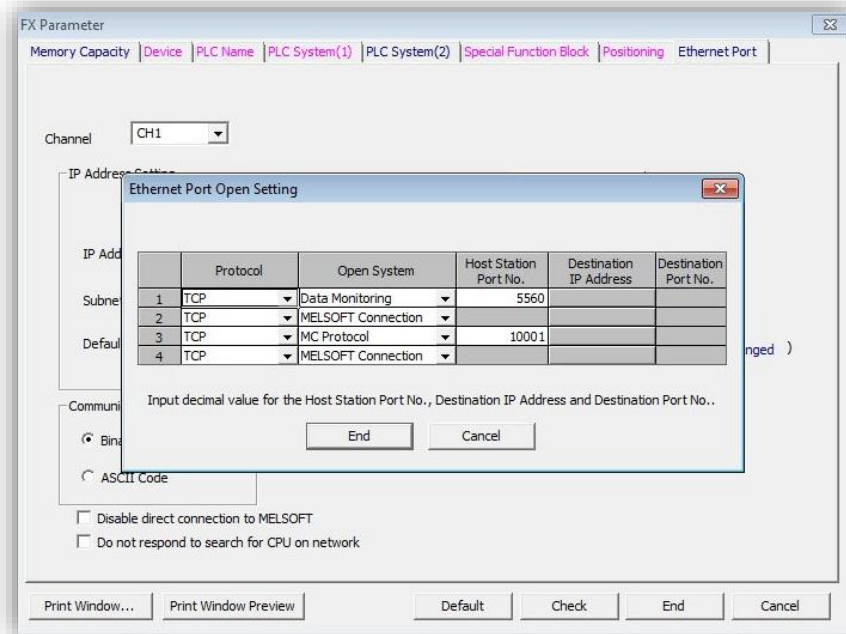


Image 4: Ethernet Port Setting

1. Set 1 of the channels open system type is set to “MC Protocol” with the protocol type is “TCP” and a host station port number in the appropriate range. (for the FX3U-ENET-ADP module this range is 1025 – 5548 or 5560 – 65534)

IMPORTANT: Make a note of the port number you set in this step.

2. When finished click the “End” button.

IMPORTANT: YOU MUST PERFORM THESE FOLLOWING STEPS BEFORE CONTINUING:

3. Save your GX Works 2 program.
4. Stop the FX3U processor (Go to Stop Mode)
5. Clear the processor memory.
6. Write program and parameter data to the PLC.
7. Return the PLC to run mode.
8. Cycle power to the PLC.



IMPORTANT: If you fail to follow these steps in this order the proper communication path for TOP Server will not be open and the FX3U will not accept the connection.

TOP Server Configuration

Add a New Channel

1. Click the “New Channel” button on the menu bar.

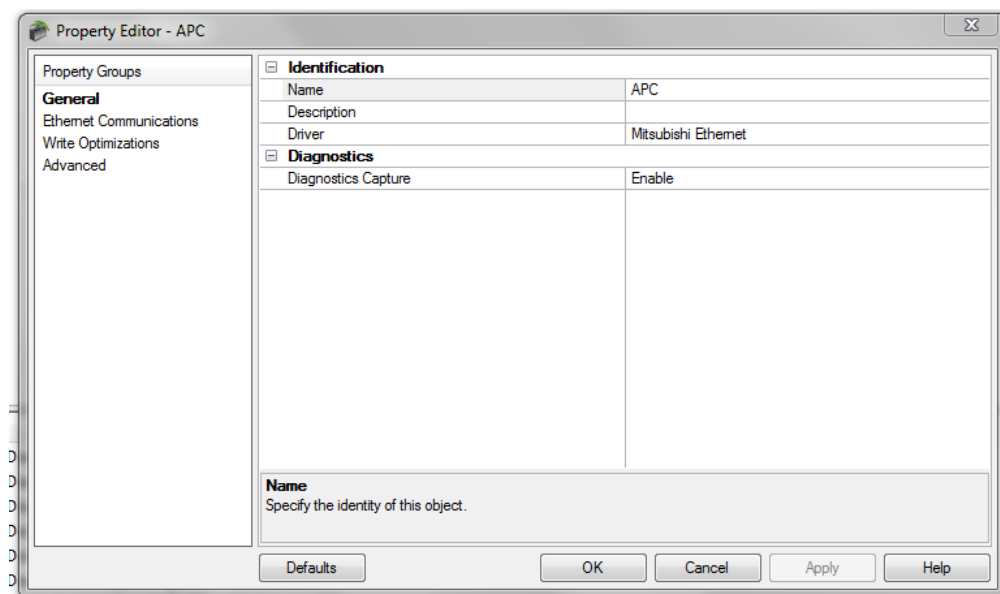


Image 5: Channel General Properties

2. Assign a channel name and the Mitsubishi Ethernet driver



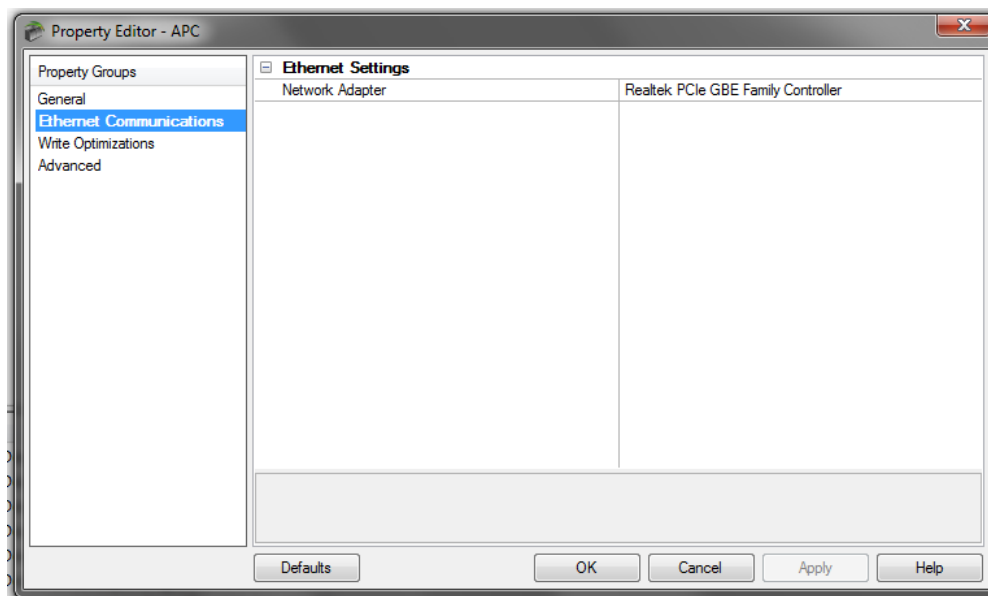


Image 6: Channel Network Interface

3. Select the network adapter that will be used to connect to the PLC network

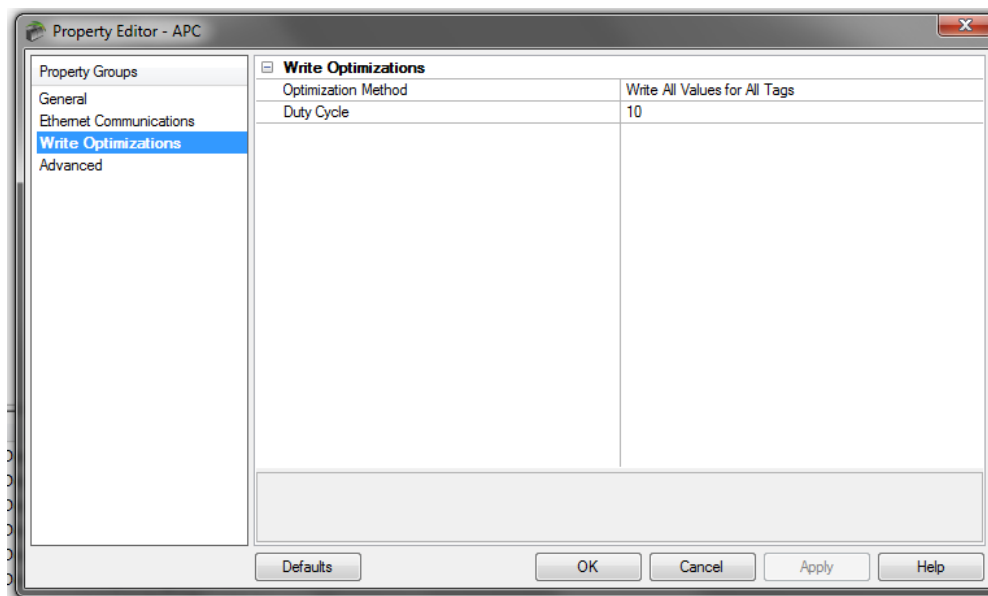


Image 7: Channel Write Optimizations

4. Leave the Write Optimizations settings as the default values.



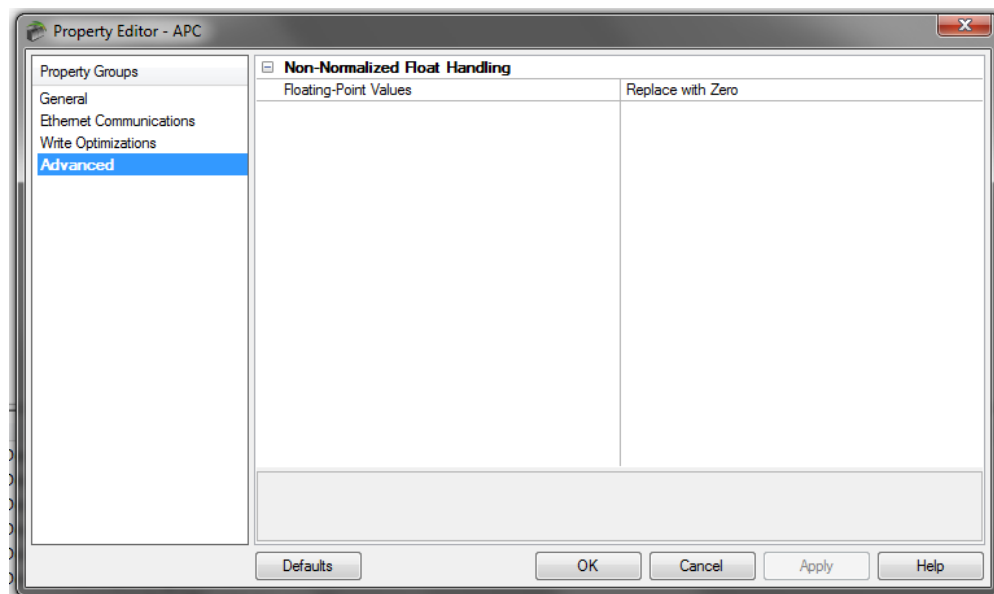


Image 8: Advanced Channel Settings

5. Leave the advanced settings as the default.

Add a device

Right click on the Channel and select "New Device"



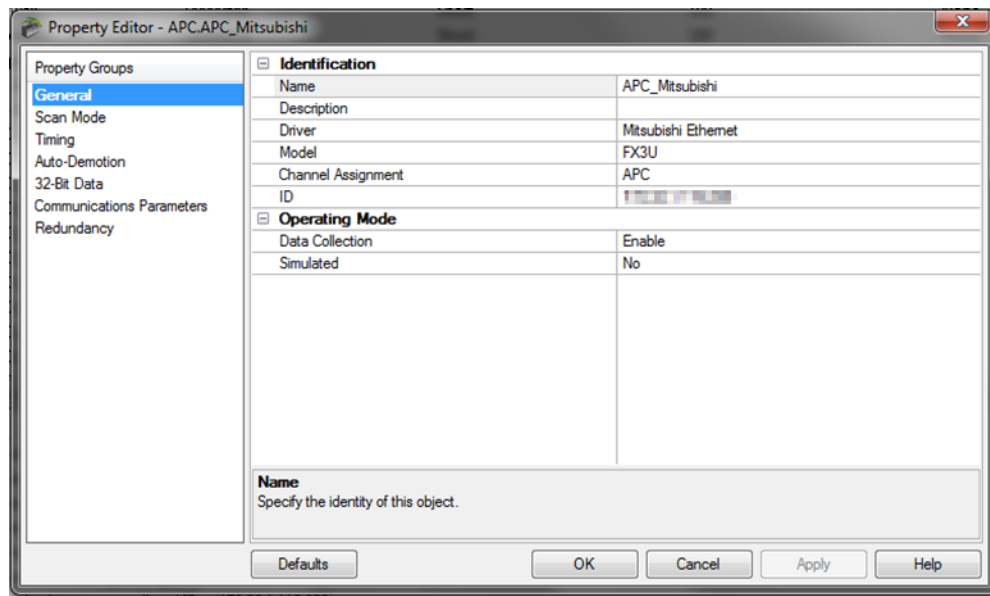


Image 9: General Device Properties

1. Assign a device name.
2. Select the FX3U PLC model from the dropdown list.
3. Enter the IP Address of the PLC followed by a colon (:) and then the number 255 for the Device ID.

XXX.XXX.XXX.XXX:255

IMPORTANT: The number 255 represents the local computer that the TOP Server is installed on. If that number is anything else the TOP Server installation WILL NOT connect to your PLC.

Communication Parameters



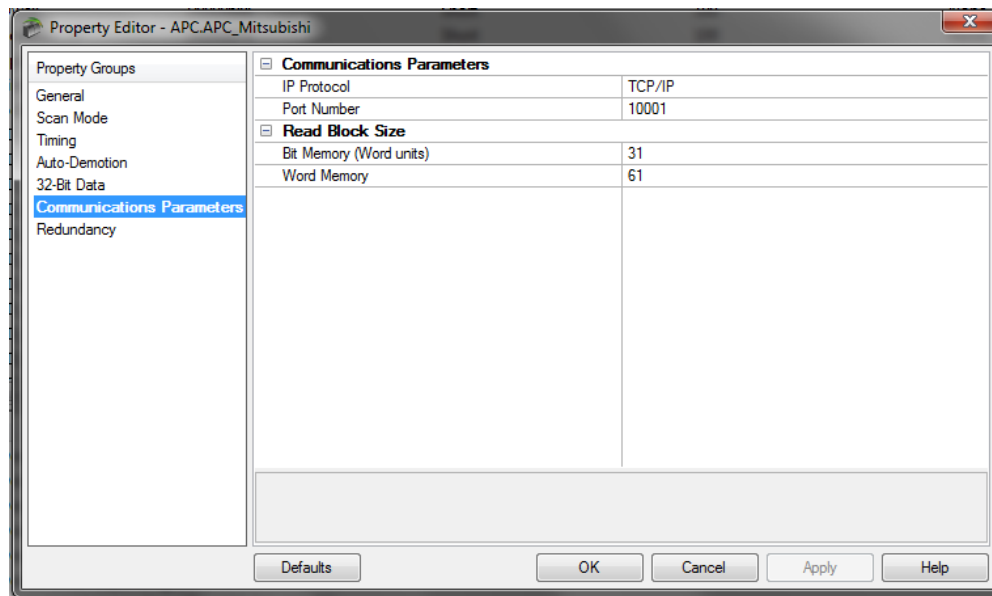


Image 10: Device Communication Parameters

1. Select TCP/IP Protocol
2. Set the Port Number to be the same as the MC Protocol box in GX Works 2
3. Use default settings for the Read block size

Scan Mode, Timing, Auto-Demotion, 32-Bit Data and Redundancy settings can initially be left at their default settings and adjusted later to suit network and application needs.

Summary

This guide has demonstrated the basic steps for connecting to a FX3U-ENET-ADP from the TOP Server Mitsubishi Ethernet driver.

If you do not have TOP Server but would like to evaluate what TOP Server can offer in terms of robust, reliable device data acquisition, you can download a free two hour demonstration of TOP Server at <http://www.softwaretoolbox.com/topserver>. This





demonstration version is fully functional, only requiring that you restart it at the end of the two hour demonstration period.

If you have further questions or need assistance, our experienced staff is here to assist you. We can be contacted in the methods outlined below.

Contact Us

If you have any questions or are seeking further information and help:

Online Support: <http://support.softwaretoolbox.com>

Email Support: support@softwaretoolbox.com

Phone Support: +1 (704) 849-2773

Fax: +1 (704) 849-6388

Mailing Address: Software Toolbox, Inc. 148A East Charles Street, Matthews, NC, 28105 USA

