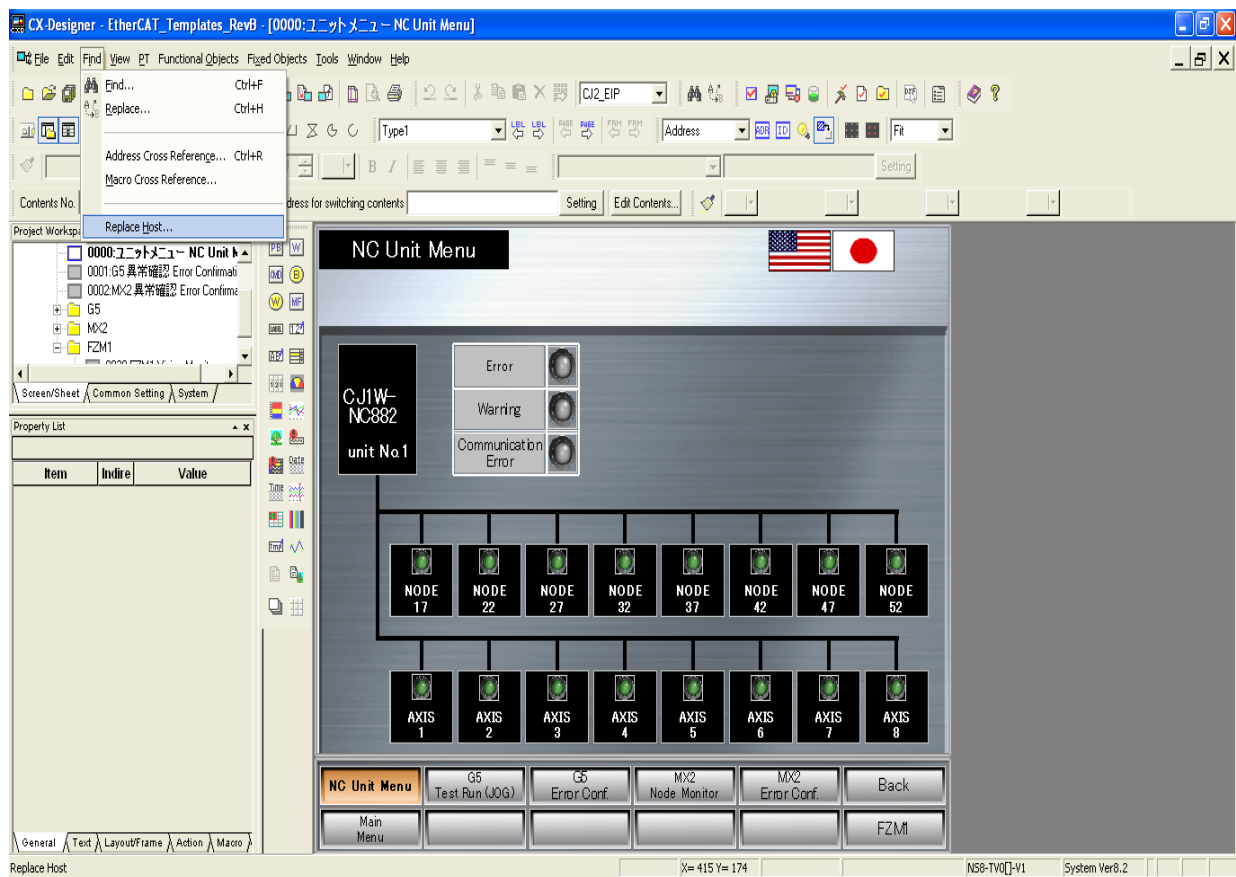


Omron NS-Series HMIs

EtherCAT Template Screens

Quick Start Guide



Section 1: Introduction

Purpose:

The NS-Series Operator Interface Terminals are an integral part of the total Omron architecture solution. Pre-made Template Screens, like these ones made for use with CJ2 controllers and EtherCAT modules, allow users to quickly implement features like network status monitoring and motion axis testing without any PLC code. This helps shorten system development and implementation time, and can be customized and used in the final product independent of the application itself.

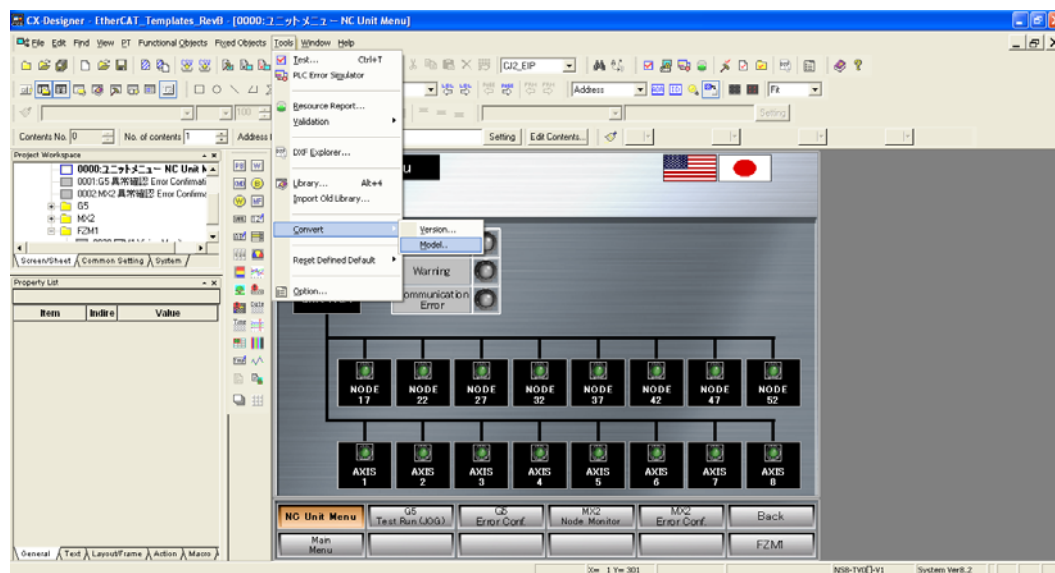
System Requirements:

NS-Series Operator Interface Terminal (8" or higher)
NS-Series Firmware (8.41 or higher)
CX-One Ver. 4.xx

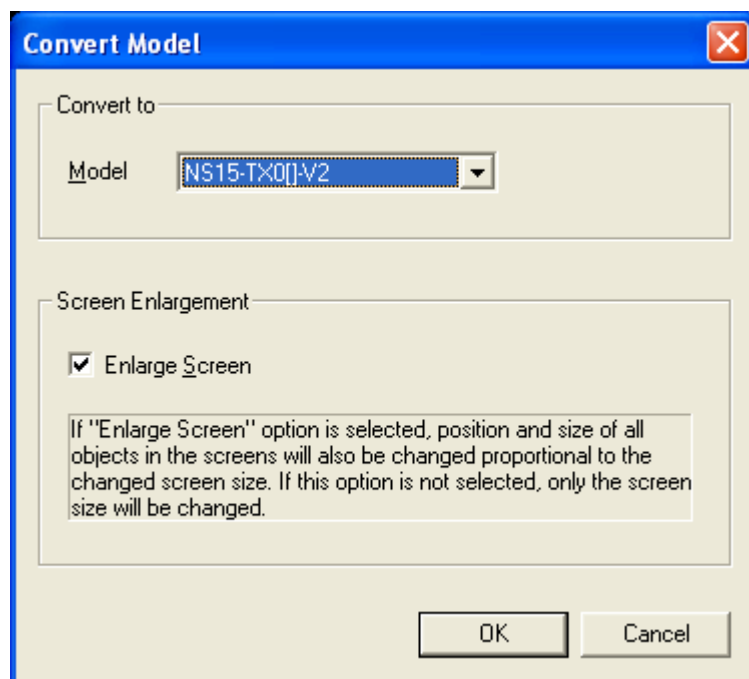
Section 2: Implementation Procedures

Setting up your NS-Series Terminal...

- Change the model (size) of the Template Screen project to match your terminal
- Go to “Tools → Convert → Model...”

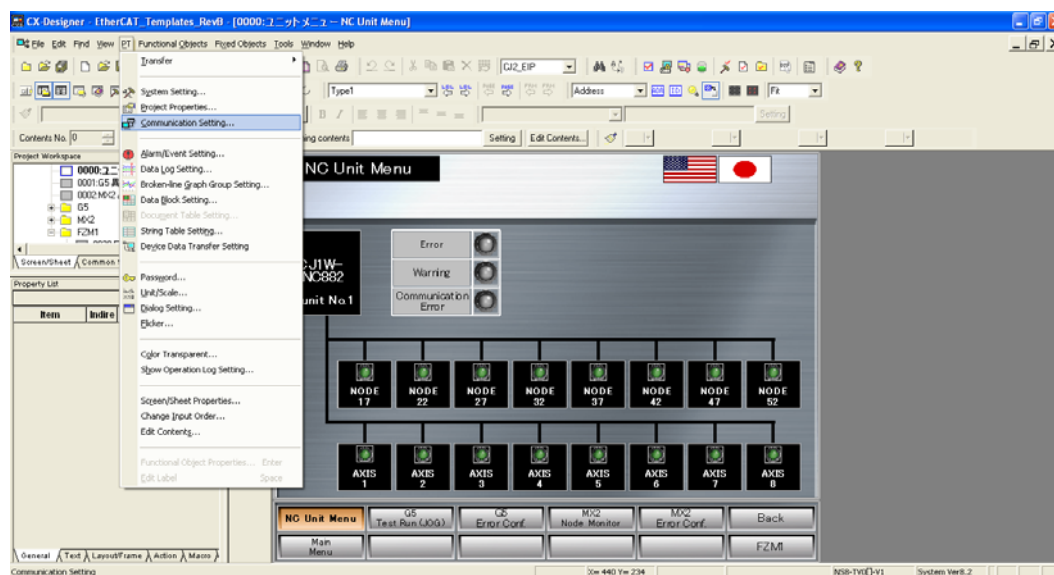


- Select the model of your NS-Series Terminal then select OK.

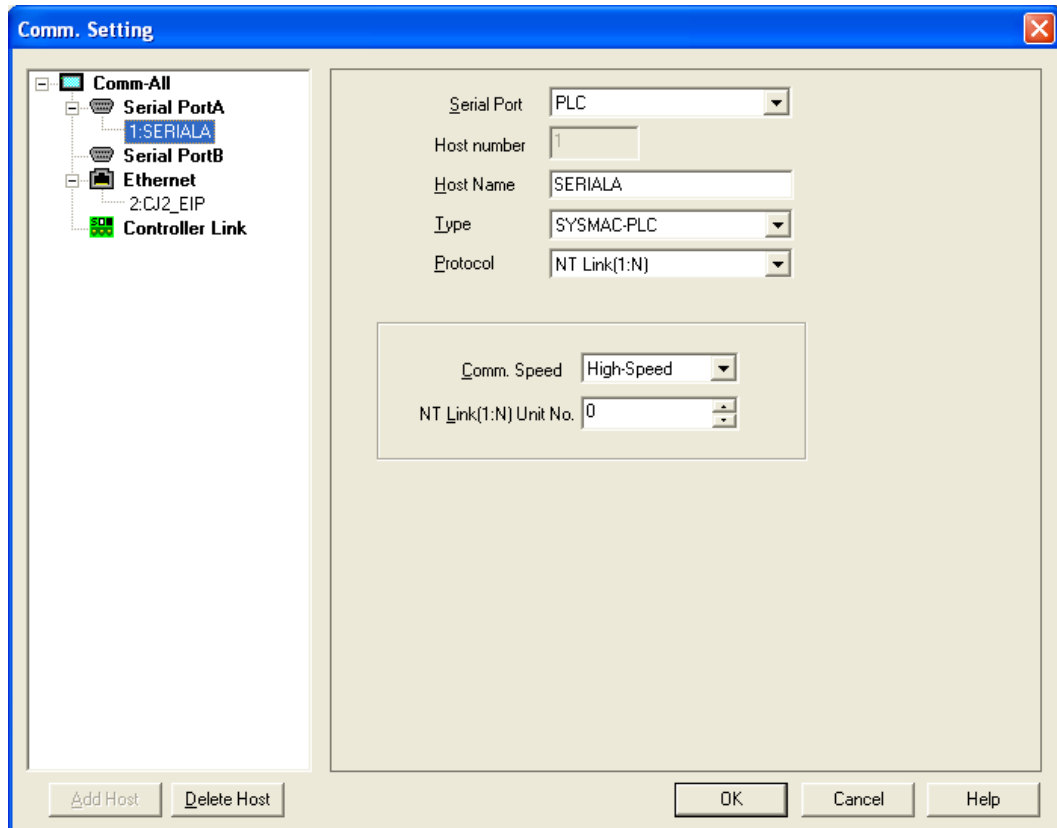


- After converting the model, save the templates as a new project.
- Change the communication settings to match your terminal. (Note: The “EtherCAT_Templates_RevB” project uses EtherNet/IP by default.)

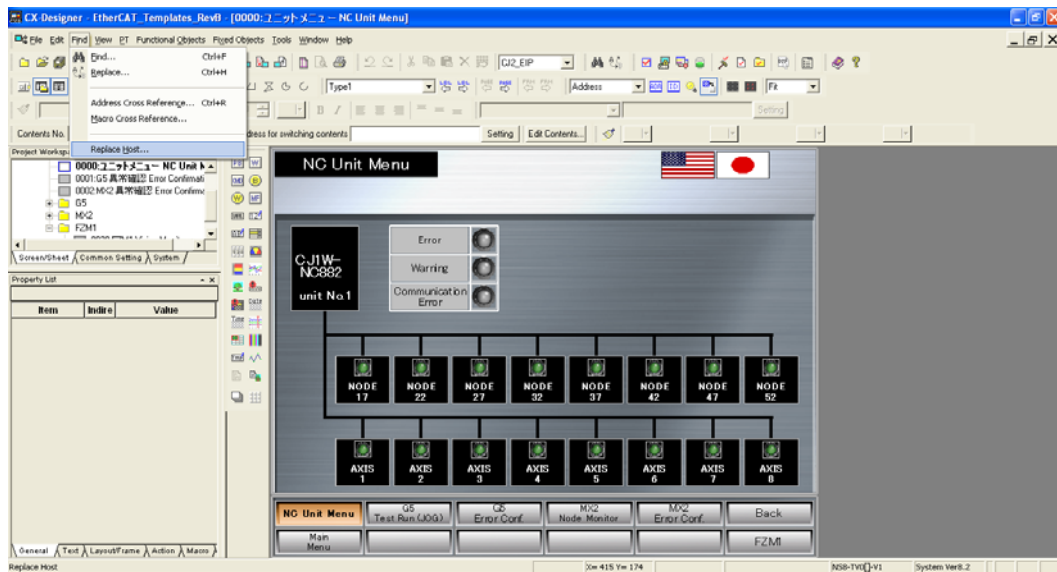
1. Select “PT → Communication Setting...”



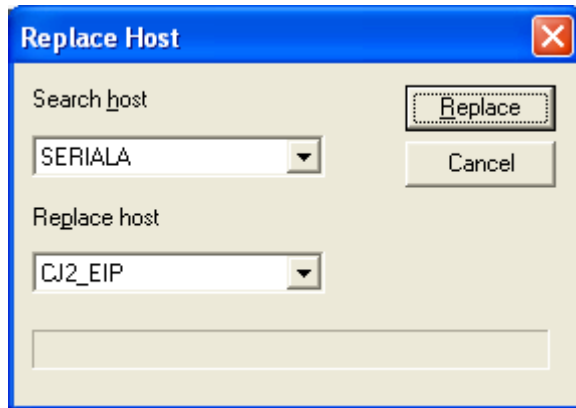
2. Right-click a communication channel and select to “Add...” a new Host, then adjust communication parameters as necessary and select OK.



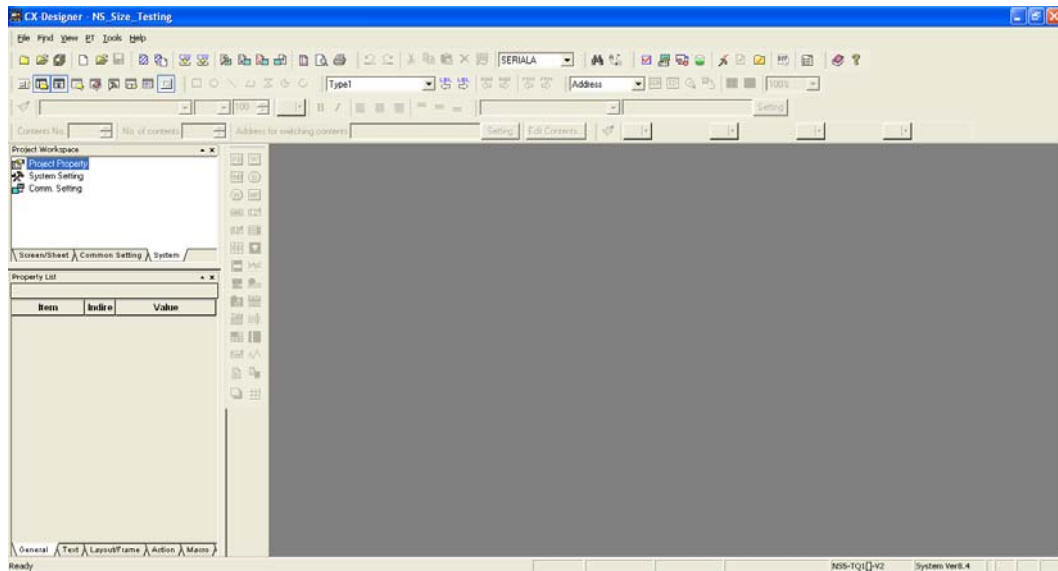
3. To convert all project objects to the correct communication Host, go to “Find → Replace Host...”



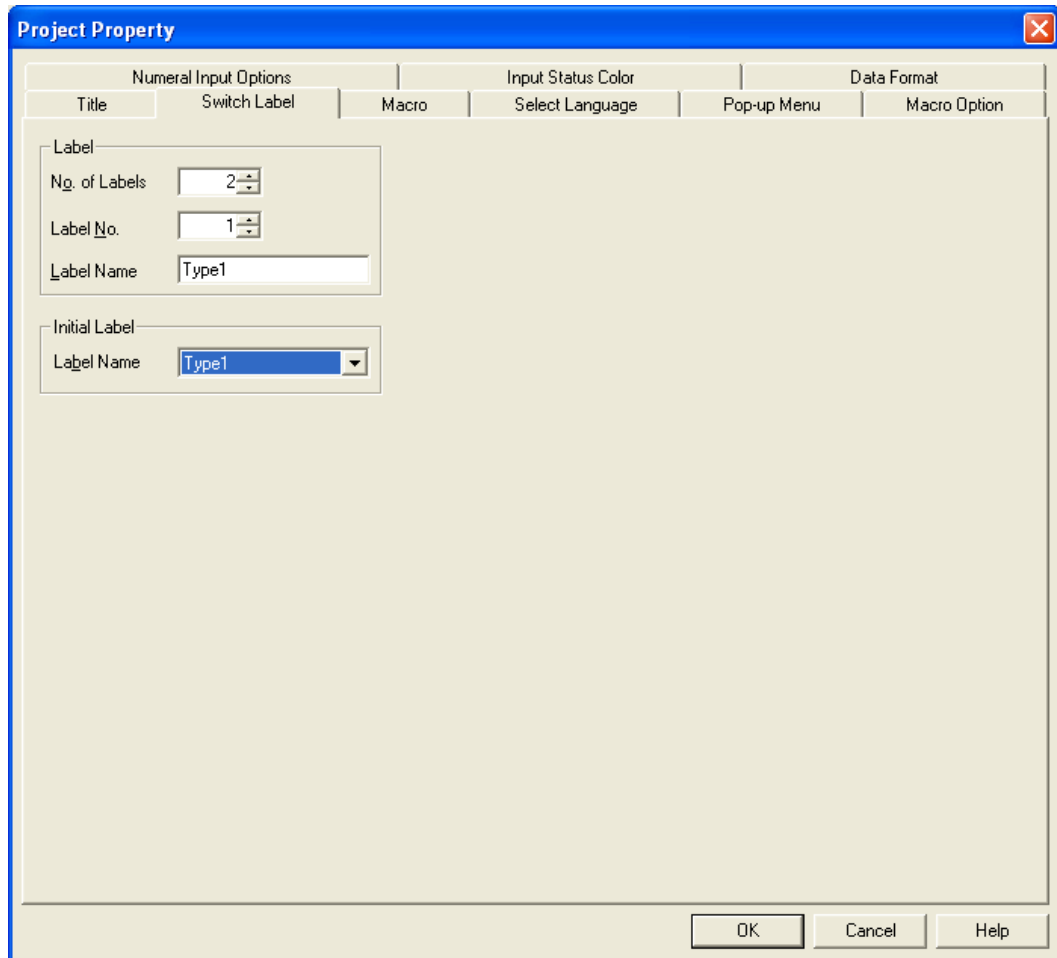
4. Select the “Search host” (original Host), and “Replace host” (correct Host), then select Replace.



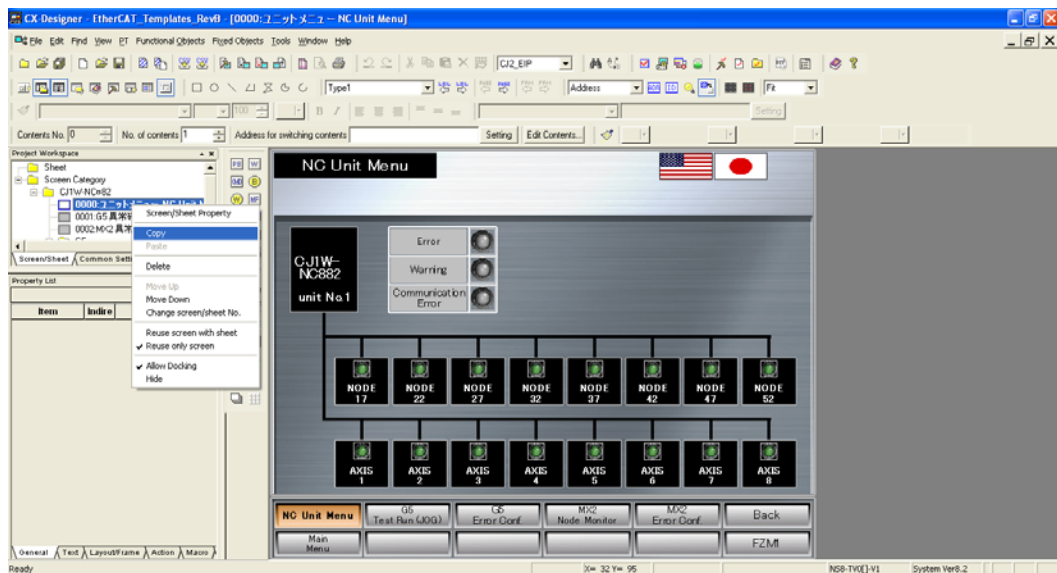
- **STOP:** From here, this CX-Designer Project can be transferred to your NS-Series terminal. After setting up your CJ Controller, these screens can be used immediately without CJ-Controller program code or further NS-Series adjustment.
- **(Optional)** Copy the Template Screens into your project.
 1. In your CX-Designer project, select “Project Property” from the System tab in the Project Workspace window.



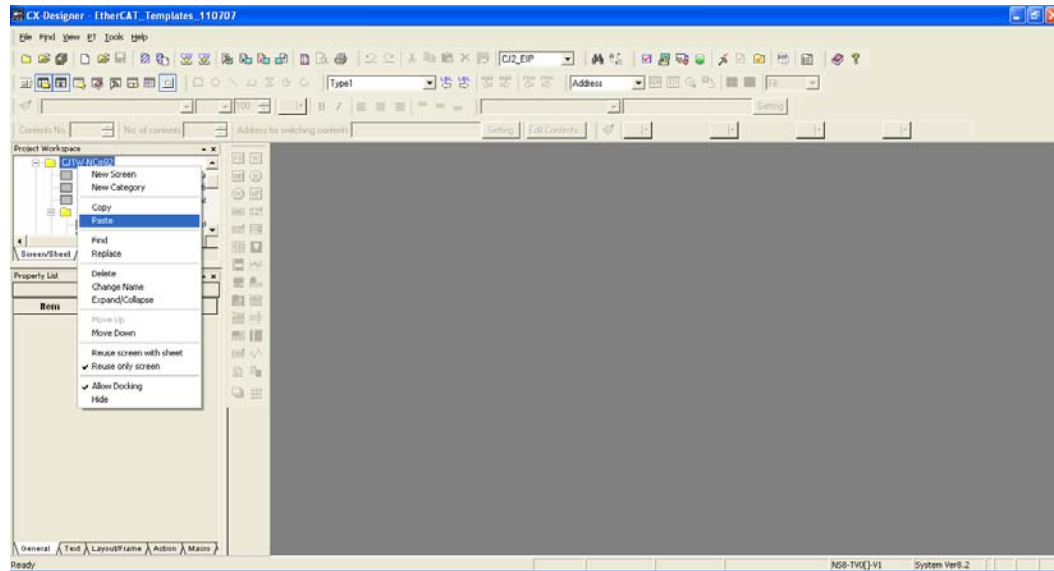
- Adjust the Switch Label settings as shown below, then select OK.



- In the Screen/Sheet Project Workspace window, select the Template Screen(s) which you want to copy, then right-click and select "Copy".



4. In the CX-Designer instance with your individual project, select the Screen Category folder, then right-click and select “Paste”.

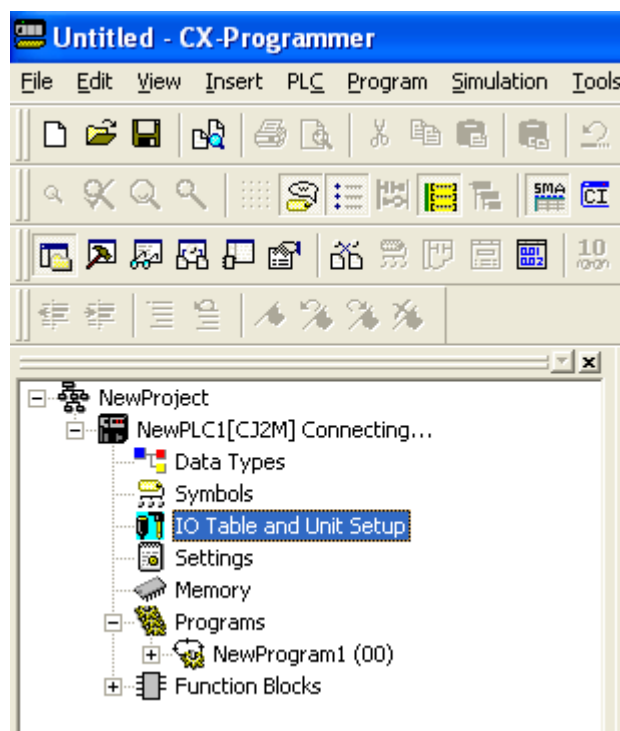


5. Note: May require communication settings change.

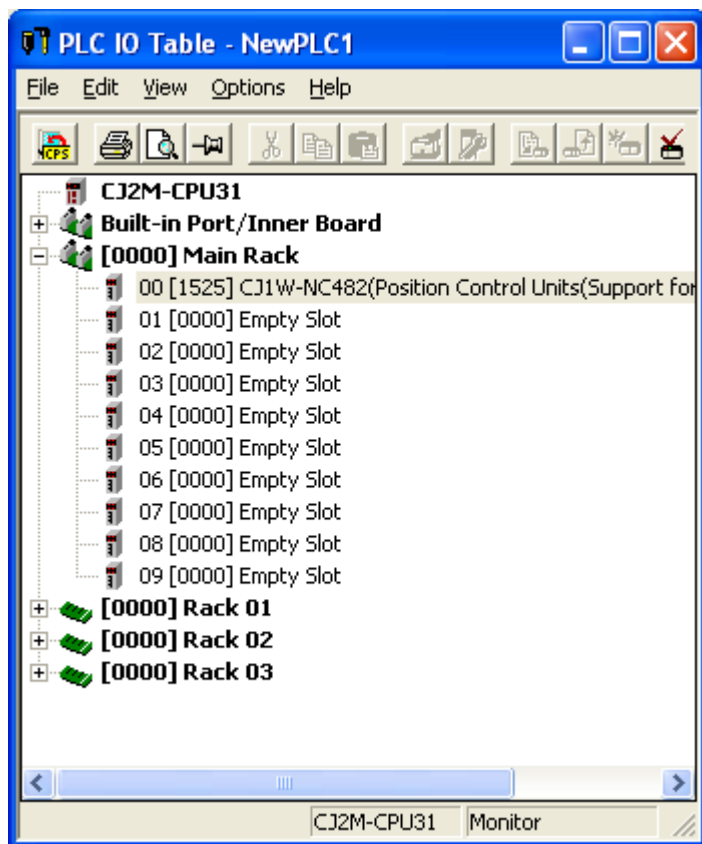
3. Setting up a CJ-Series Controller

- Assuming CX-Programmer is communicating properly to your PLC, adjust the CJ-Series NC EtherCAT module I/O Map.

1. In the Workspace window, select and double-click “IO Table and Setup”.



2. Select the CJ1W-NC4□□ EtherCAT module, and double-click it.



3. In the CJ1W-NC4□□ EtherCAT module Parameters, select “Operation Memory Area Allocation Setting” and adjust the Set Values as described on the following page.

New Unit[Unit Model: CJ1W-NC482 Unit No.1]

File Edit NC Unit Network Tool Help

Unit No.01 New Unit(CJ1W-NC482)

- Parameter
 - Common Parameter
 - Axis Parameter
 - Memory Operation Param
- Memory Operation
 - Condition Data
 - Sequence Data
 - Task1
 - Task2
 - Task3
 - Task4
- Network Setting(Blank:65)
 - #01_New Slave[R88D-KN]
 - #02_New Slave[R88D-KN]
 - #17_New Slave[GX-MD16]

Parameter Type: **Operation Memory Area Allocation Setting**

Parameter Name	Unit	Set Value
Manual Operation Command Memory Area Selection		DM Area
First Word of Manual Operation Command Memory Area		10000
Direct Operation Command Memory Area Selection		DM Area
First Word of Direct Operation Command Memory Area		10100
Memory Operation Command Memory Area Selection		DM Area
First Word of Memory Operation Command Memory Area		10400
Axis Status Memory Area Selection		DM Area
First Word of Axis Status Memory Area		10200
Memory Operation Status Memory Area Selection		DM Area
First Word of Memory Operation Status Memory Area		10500
Expanded Monitor Memory Area Selection		DM Area
First Word of Expanded Monitor Memory Area		10600
Remote I/O Communications Status Memory Area Selection		CIO Area
First Word of Remote I/O Communications Status Memory Area		3980
Remote I/O Output Memory Area Selection		CIO Area
First Word of Remote I/O Output Memory Area		3800
Remote I/O Input Memory Area Selection		CIO Area
First Word of Remote I/O Input Memory Area		3900

Help

Select the allocation area of the manual operation command output memory area.
Occupying words: maximum axis No. x 2 words

<Range>
 #0000: No setting
 #0080: CIO area
 #00B1: WR area
 #00B2: HR area
 #0082: DM area
 #0050 to 6C: EM area(#0050 + EM bank No)

<Default> #0000: No setting

<Parameter Type> #0100

<Start Address> 1 word

Help is displayed by pressing F1 key. CJ2M-CPU31 On-line PCU Control C

Memory Area Allocations:

<G5 Parameter Relay Area>

Manual Operation Command Memory Area:	DM10000 ~ DM10015
Direct Operation Command Memory Area:	DM10100 ~ DM10195
Axis Status Memory Area:	DM10200 ~ DM10303
Memory Operation Command Memory Area:	DM10400 ~ DM10411
Memory Operation Status Memory Area:	DM10500 ~ DM10523
Expanded Monitor Memory Area:	DM10600 ~ DM10727

<MX2 Remote Status and I/O Area>

Remote I/O Status Relay Area:	CIO 3980ch ~ 3999ch
Remote I/O Output Relay Area:	CIO 3800ch ~ 3863ch
Remote I/O Input Relay Area:	CIO 3900ch ~ 3963ch

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