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.

```
Replace Host

Search host
SERIALA

Replace host
CJ2_EIP
```

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

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

![Project Property Window](image)

![Screen/Sheet Project Workspace](image)
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.
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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