Programmable Terminal NB Series

Practice Guide
Sysmac Studio Variable Table Import

NB3Q–TW01B
NB5Q–TW01B
NB7W–TW01B
NB10W–TW01B
Introduction

This guide provides reference information when designing NB screens. It does not provide safety information. Be sure to obtain the NB series Programmable Terminal User's Manuals, read and understand the safety points and other information required for use, and test sufficiently before actually using the equipment.

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  (b) Usage out of the conditions
  (c) Usage out of Note about Use in these conditions
  (d) Remodeling/repairing by anyone except Omron
  (e) Software program by anyone except Omron
(f) Causes which could not be foreseen by the level of science and technology at the time of shipment of the products.

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# Related Manuals

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<th>Title</th>
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<td>V106</td>
<td>NB□-Q-TW01B</td>
<td>NB series Programmable Terminals NB-Designer Operation Manual</td>
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<td>NB series Programmable Terminals Startup Guide Manual</td>
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2 Precautions

(1) When building an actual system, check the specifications of the component devices of the system, use within the ratings and specified performance, and implement safety measures such as safety circuits to minimize the possibility of an accident.

(2) For safe use of the system, obtain the manuals of the component devices of the system and check the information in each manual, including safety precautions, precautions for safe use.

(3) It is the responsibility of the customer to check all laws, regulations, and standards that the system must comply with.

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(5) The information in this guide is current as of June 2018. It is subject to change without notice because of product’s update.

Special information in this document is classified as follows:

- **Precautions for Safe Use**
  Describes precautions on what to do and what not to do to ensure safe usage of the product.

- **Precautions for Correct Use**
  Describes precautions on what to do and what not to do to ensure proper operation and performance.

- **Additional Information**
  Additional information to read as required.
  This information is provided to increase understanding or make operation easier.

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3 Variable Table Import

NB-Designer V1. 471 adds the function to import a Sysmac Studio variable table into a NB-Designer variable table.

3-1 Variable Table of NB

This function gives the variable name that used in NB-Designer to a PLC address. If you are using a variable on the PLC side, you can use the variable table function to assign the same variable name on the NB side as on the PLC side. It enables to create a screen without having to check the address and variable name. However, unlike the NS variable table, it does not support tag communication.

3-1-1 Variable Table Settings

1. Click [Project Database]-[Variable Table].

2. The variable table dialog box is displayed. Register the variable table here. Click [Add] at the bottom left.

3. Variable Setting dialog box is displayed. Set a variable name, an address corresponding to the variable, data type, and data format.
4. You can also import or export variables in CSV format.

5. To use variables that are registered in the variable table, check [Use Variable] in the properties of components (e.g. numeric values, buttons).

6. A list of variables registered in the pull-down menu in Area/Variable field appears. Choose any variable from the list.
3-2 Setting the Variable Table Import Function

3-2-1 Import Specification

(1) Variables to be imported are memory for CJ-series Units, such as DM and WR, when you create them in Sysmac Studio.
(2) Variables that are set to any of Input/Output/Publish Only in Network Publish setting for Sysmac Studio variable tables can be imported.
(3) This function can be used only when OMRON CJ /CS/ NJ Series Ethernet (UDP Slave) or OMRON NX1 Series Ethernet (UDP Slave) is set as a destination PLC. It is not available in serial connection or for connection only with PLC from other companies.
(4) Data types that can be imported are limited. The data types and storage formats which to be imported are listed in the table below.

<table>
<thead>
<tr>
<th>Sysmac Studio Data Type</th>
<th>NB-Designer Storage Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOOL</td>
<td>Bit</td>
</tr>
<tr>
<td>INT/UINT/WORD</td>
<td>Word</td>
</tr>
<tr>
<td>DINT/UDINT/DWORD/REAL</td>
<td>Dword</td>
</tr>
<tr>
<td>Others (including arrays, structures and unions)</td>
<td>Not imported</td>
</tr>
</tbody>
</table>

Precautions for Correct Use

Dword is not available as a new storage format with The NB-Designer variable table. If you open Variable Setting dialog box of the variable table and press [OK] for a variable whose storage format is imported as Dword, the storage format is changed to Bit or Word even if it is not edited. Be careful when you edit the data.

Variable Setting

Only Bit or Word can be selected. Dword should be changed. Select OK to confirm the edit.
3-2-2 Import Procedure

1. Create variables by Sysmac Studio.

2. Click [Tools]-[Export Global Variables]-[CX-Designer] to export variable information. The exported data is not saved as a file such as CSV. It is just pasted on a clipboard.

3. Select [Import Variable] from a right-click menu on the NB-Designer variable table.

4. The Sysmac Studio variable information is imported into NB-Designer.
3-2-3 Dialog box for variables not qualified to be imported

If you import a variable that is not qualified to be imported, the following three dialog boxes are displayed for confirmation. You can choose whether to continue or suspend importing.

1. If there are unsupported data type variables, the following dialog box is displayed. See 3-2-1 Import Specification for available data types.

   ![Dialog box for unsupported data type variables]

2. If there have already been variables with the same name and different settings, such as area and address, the following dialog box will be displayed.

   ![Dialog box for duplicated name variables]

3. When there is a variable that is not assigned to Sysmac Studio variables, the following dialogue box is displayed.

   ![Dialog box for variables without physical address]

If you select [Yes] in the three dialog boxes above, only the variables that satisfy the import condition will be imported, ignoring the unqualified variables.
If you select [Cancel], all variables will not be imported and the procedure will be cancelled.
Each dialog box is displayed once in a single import operation.
E.g.: The same dialog box does not appear more than once even if there are several variables with an unsupported data type.
# Revision History

<table>
<thead>
<tr>
<th>Revision Code</th>
<th>Date</th>
<th>Revised Content</th>
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<tbody>
<tr>
<td>01</td>
<td>June 2018</td>
<td>Original production</td>
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