Programmable Terminal NB-series

Practices Guide
New Functionalities for NB-Designer V1.50

NB3Q-TW01B
NB5Q-TW01B
NB7W-TW01B
NB10W-TW01B
**Introduction**

This guide describes reference information to create NB screens. It does not provide safety information.

Be sure to obtain the manuals for NB-series Programmable Terminals, read and understand the safety points and other information required for use, and test sufficiently before actual use of the equipment.
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(c) Applications in a harsh condition or environment (e.g. outdoor facilities, facilities with potential of chemical contamination or electromagnetic interference, facilities with vibration or impact, facilities on continual operation for a long period).

(d) Applications under conditions or environment which are not described in the catalogs

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   (a) Free repairing of the malfunctioning Omron products (except electronic/mechanical components) at Omron maintenance service sites.

   (b) Free replacement of the malfunctioning Omron products with the same number of substitutes.

- Exceptions: This warranty does not cover malfunctions caused by any of the followings.

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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.

   (g) Causes outside Omron or Omron products, including force majeure such as disasters
● Limitation of Liability
The warranty described in this Terms and Conditions Agreements is a whole and sole
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Omron and its distributors are not liable for any damages arisen from or relating to Omron
products.

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Customers of Omron products shall comply with all applicable laws and regulations of other
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technical documents or in providing such products and/or documents to a non-resident.
Omron products and/or technical documents may not be provided to customers if they
violate the laws and regulations.
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## 1 Related Manuals

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<thead>
<tr>
<th>No.</th>
<th>Model</th>
<th>Title</th>
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<tbody>
<tr>
<td>V106</td>
<td>NB:Q-TW01B</td>
<td>NB-series Programmable Terminals NB-Designer OPERATION MANUAL</td>
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<td>NB:W-TW01B</td>
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<td>V107</td>
<td>NB:Q-TW01B</td>
<td>NB-series Programmable Terminals SETUP MANUAL</td>
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<td>V108</td>
<td>NB:Q-TW01B</td>
<td>NB-series Programmable Terminals HOST CONNECTION MANUAL</td>
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<td>V109</td>
<td>NB:Q-TW01B</td>
<td>NB-series Programmable Terminals STARTUP GUIDE</td>
</tr>
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<td>NB:W-TW01B</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 customer’s responsibility to check all laws, regulations, and standards that the system must comply with.

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(5) The information in this document is current as of March 2020. The information contained in this document is subject to change without notice due to improvements.

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 proper operation and performance.

- 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 New Functionalities for NB-Designer
V1.50

3-1 Overview
This guide provides information about the following features newly added in NB-Designer V1.50:

1. Connection destination setting change
2. Project import and export from/to NB-Designer
3. Font replacement
4 How to Use New Functionalities

4-1 Connection Destination Setting Change

Configuration to communicate with an Omron Ethernet host is possible in a specific system memory. A screen for entering values into the system memory enables to change the setting without using NB-Designer.

You only can change the communication setting in the NB unit, not the setting of the connection destination unit itself.

4-1-1 Related System Memory

<table>
<thead>
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<th>Address</th>
<th>Description</th>
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<tr>
<td>LW9685</td>
<td>Enter the number of PLC to connect. The number must start with 3 and ascending number, not a PLC number as it is. For example, if 3 is assigned to this address, the Ethernet host that has the lowest PLC number is selected. If 4 is assigned, the host whose PLC number is the second lowest is selected. After the PLC number is set to this address, the information about the target host, such as current IP address, is automatically set to LW9686 and higher address.</td>
</tr>
<tr>
<td>LW 9686 to 9689</td>
<td>Enter the IP address of connection destination. LW9686 is the most significant byte of the IP address. Ascending addresses represents the lower bytes in sequence. For example, IP address 192.168.250.0 is set as: 192 is LW9686, 168 is LW9687, 250 is LW9688, and 1 is LW9689.</td>
</tr>
<tr>
<td>LW9690</td>
<td>Enter the port number of connection destination.</td>
</tr>
<tr>
<td>LW9691</td>
<td>Set the node ID of connection destination. Enter the least significant byte of the IP address, i.e. the same value as LW9689.</td>
</tr>
<tr>
<td>LB9272</td>
<td>Change set values in the addresses above. To enable the settings, change this address to ON and then, reboot the NB unit.</td>
</tr>
</tbody>
</table>
4-1-2 Creating Sample Screen and Setting Objects

This section provides an example to change communication settings of a project whose settings are as shown below. Refer to “NB-series Programmable Terminals NB-Designer OPERATION MANUAL” (V106) for details about screen creation.

1. Create a screen to rewrite the system memory with numerical entry objects and bit switches.

2. Enter 3 for LW9685 to change the host whose PLC number is 0. As previously described, 3 is to be entered for the Ethernet host whose number is the lowest. PLC numbers 0 to 2 are reserved for serial communication hosts and not allowed to use.

3. After entering 3 for the PLC No.0 then confirming it, the IP address, port number, and node ID set to the host are displayed.
4. Change values as you want. In this case, change the IP address from 192.168.250.1 to 192.168.250.5. When you change the least significant byte of the IP address, you must also change the node ID.

5. Change the system memory LB9272, which updates values, to ON to save the setting after editing values. Reboot the NB unit to enable the saved setting.
Project Import and Export from NB-Designer Menu

When you upload a project from the NB unit, a .pkg file is generated. It was necessary to decompile the .pkg file in NB-Manager to open the project. In versions of 1.50 or higher, the NB-Designer menu allow you to export or import a project to/from a .pkg file.

4-2-1 Example (Export)

1. Start NB-Designer and select File - Export Project.

2. Select an export destination for a .pkg file.

3. The export operation will succeed if the project is ready to be appropriately compiled.

Additional Information

To perform a decompilation, click PT Property and open the PT Extended Property tab. Then check the Allow Decompilation box to enter a password.
1. Start NB-Designer and select **File - Import Project**.

2. Select a .pkg file to import.

3. Enter the password for decompilation.

4. If the password is correct, the decompilation succeeds and then, a project will be unpacked.
4-3 Font Replacement

When a project written with Windows fonts was opened on another PC, fonts not installed on the PC (missing fonts) were automatically replaced with default fonts. In V1.50 or higher, you can replace missing fonts with any fonts.

4 - 3 - 1 Sample Setting

The font replacement procedure is shown below.

1. When you open a project including a missing font, the dialog that requires confirmation for replacing the font appears.

2. If you press Replace button in the dialog, the dialog that allow you to select a replacement candidate font is displayed. Select any font. If you do not replace the font, press the Cancel button. The font is replaced with the default font.

3. You can display the dialog in Step 1 again after you have selected Cancel. Click Tools - Check Missing Font. After compilation, the font is replaced with the default font.

Additional Information

It is possible to prevent from replacement with the default font by installing the missing font in Windows.

Additional Information

If you do not replace the missing font, the missing font is replaced with the font that is on the top of the font list in the pull-down menu before compilation. After compilation, the font is replaced with the default font.
# Revision History

<table>
<thead>
<tr>
<th>Revision Code</th>
<th>Date</th>
<th>Revision Description and Page</th>
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<td>March 2020</td>
<td>First edition</td>
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