OMRON

Programmable Terminal NB-series

Practices Guide
New Functionalities for
NB-Designer V1.50

NB3Q-TW01B
NB5Q-TW01B
NB7W-TW01B
NB10W-TW01B

Practices

Guide

sysmac
always in control

V462-E1-01

■ 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).

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  (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.

  (a) Usage in the manner other than its original purpose
  (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

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Table of Contents

1 Related Manuals

No.	Model	Title
V106	NB☐Q-TW01B NB☐W-TW01B	NB-series Programmable Terminals NB-Designer OPERATION MANUAL
V107	NB☐Q-TW01B NB☐W-TW01B	NB-series Programmable Terminals SETUP MANUAL
V108	NB☐Q-TW01B NB☐W-TW01B	NB-series Programmable Terminals HOST CONNECTION MANUAL
V109	NB☐Q-TW01B NB☐W-TW01B	NB-series Programmable Terminals STARTUP GUIDE

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
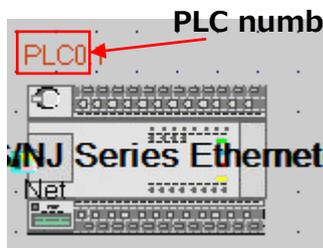3. Font replacement

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

Address	Description
LW9685	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.
LW 9686 to 9689	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.
LW9690	Enter the port number of connection destination.
LW9691	Set the node ID of connection destination. Enter the least significant byte of the IP address, i.e. the same value as LW9689.
LB9272	Change set values in the addresses above. To enable the settings, change this address to ON and then, reboot the NB unit.

PLC number (LW9685)

LW 9686 to 9689

LW9690

LW9691

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.
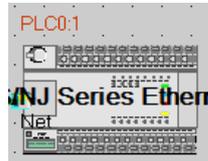
1.	Create a screen to rewrite the system memory with numerical entry objects and bit switches.	
2.	Enter 3 for LW9685 to change the host whose PLC number is 0. As previously described, 3 is to be entered for the Ethernet host whose number is the lowest. PLC numbers 0 to 2 are reserved for serial communication 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.	PLC No. (LW9685) 3 IP address (LW9686-9689) 192 . 168 . 250 . 5 Port No. (LW9690) 9600 Node ID (LW9691) 5 Enable Bit (LB9272)
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.	PLC No. (LW9685) 3 IP address (LW9686-9689) 192 . 168 . 250 . 5 Port No. (LW9690) 9600 Node ID (LW9691) 5 Enable Bit (LB9272)

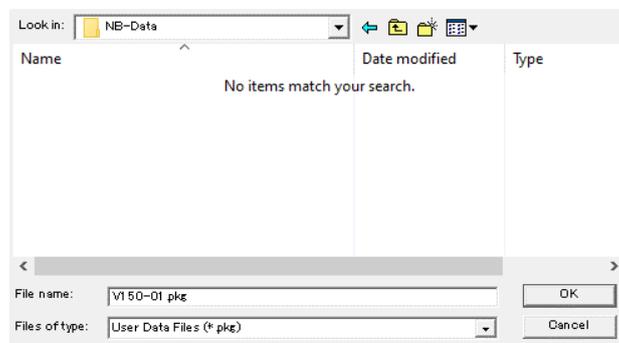## 4-2 Project Import and Export from NB-Designer Menu

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.
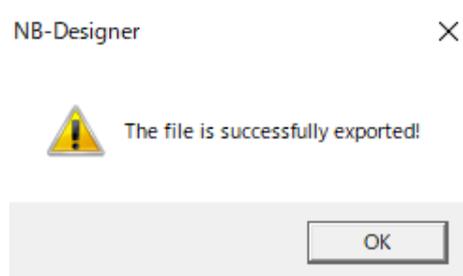
4-2-1 Example (Export)

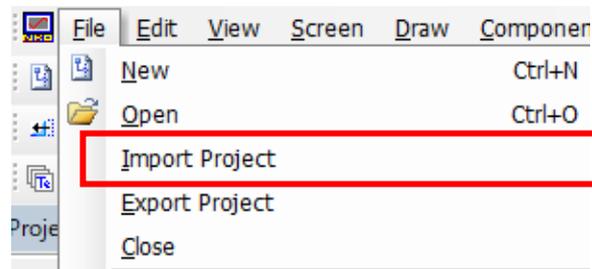|	
1. Start NB-Designer and select **File** - **Export Project**.	
2. Select an export destination for a .pkg file.	
3. The export operation will succeed if the project is ready to be appropriately compiled.	
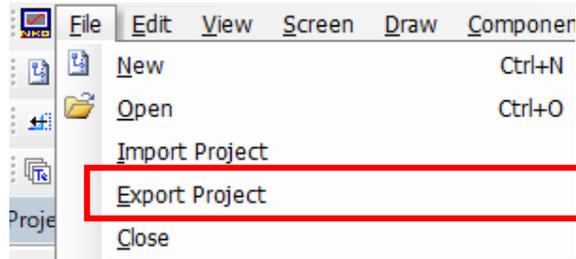
📑 Additional Information

To perform a decompilation, click **PT Property** and open the **PT Extended Property** tab. Then check the **Allow Decompilation** box to enter a password.
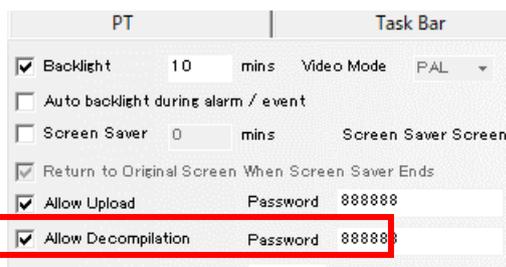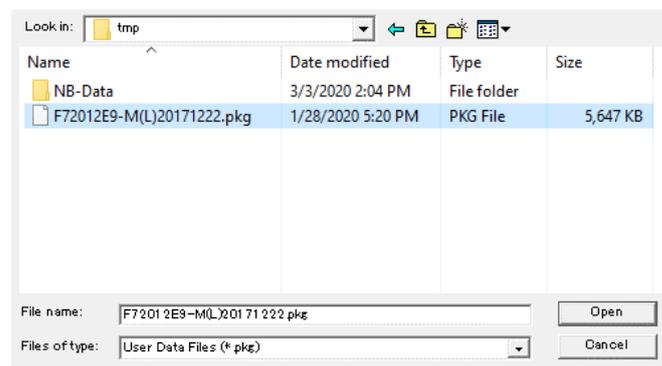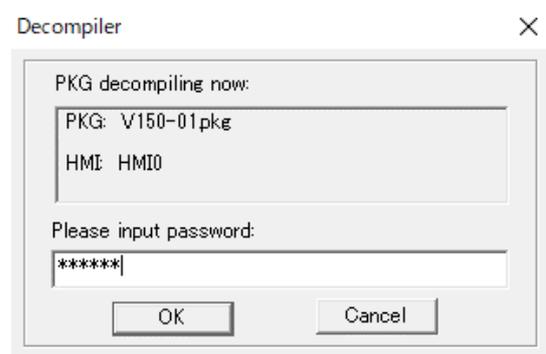
4-2-2　Example (Import)

**1.** Start NB-Designer and select **File** - **Import Project**.

File	Edit	View	Screen	Draw	Componen
New					Ctrl+N
Open					Ctrl+O
Import Project					
Export Project					
Close					

2. Select a .pkg file to import.

Look in:	tmp			
Name	Date modified	Type	Size
NB-Data	3/3/2020 2:04 PM	File folder	
F72012E9-M(L)20171222.pkg	1/28/2020 5:20 PM	PKG File	5,647 KB

File name: F72012E9-M(L)20171222.pkg　　Open
Files of type: User Data Files (*.pkg)　　Cancel

3. Enter the password for decompilation.

Decompiler ✕

PKG decompiling now:

PKG: V150-01.pkg

HMI: HMI0

Please input password:

******

OK　　Cancel

4. If the password is correct, the decompilation succeeds and then, a project will be unpacked.
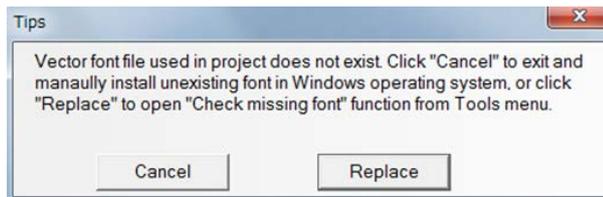
Decompiler ✕

ⓘ Decompilation success

OK
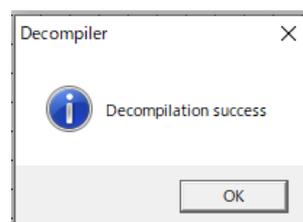
4-3 Font Replacement

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.
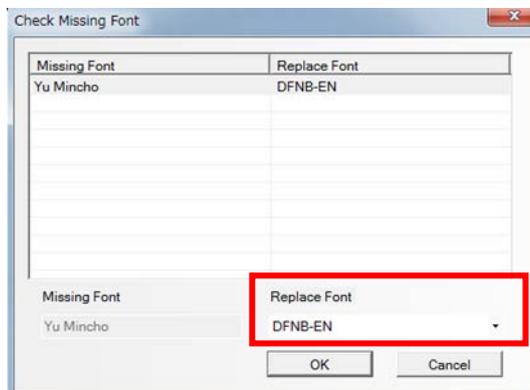In V1.50 or higher, you can replace missing fonts with any fonts.

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.	
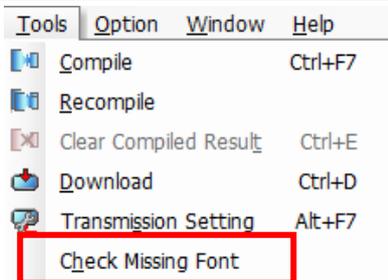
📑 Additional Information

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

Revision Code	Date	Revision Description and Page
01	March 2020	First edition

Authorized Distributor:

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