

*Think Automation and beyond...*



From HG2G-5T series and HG2G-V series to HG2J-7U series

# Replacement Manual



## Revision History

August 2022: First Edition  
February 2023: Second Edition

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## 2. Introduction

### 2.1 About this document

This document is a manual for replacing the HG2G-5T and HG2G-V series with the HG2J-7U series. Please read this document together with WindO/I-NV4 User's Manual (HG9Y-B1701).

### 2.2 Acronyms, general terms, and words used in this document

Item	Meaning
MICRO/I	A general term for IDEC operator interface.
WindO/I-NV4	A software for creating operator interfaces for MICRO/I.
External Device	A general term for a device, such as PLC, microcomputer, etc., that communicates with MICRO/I.

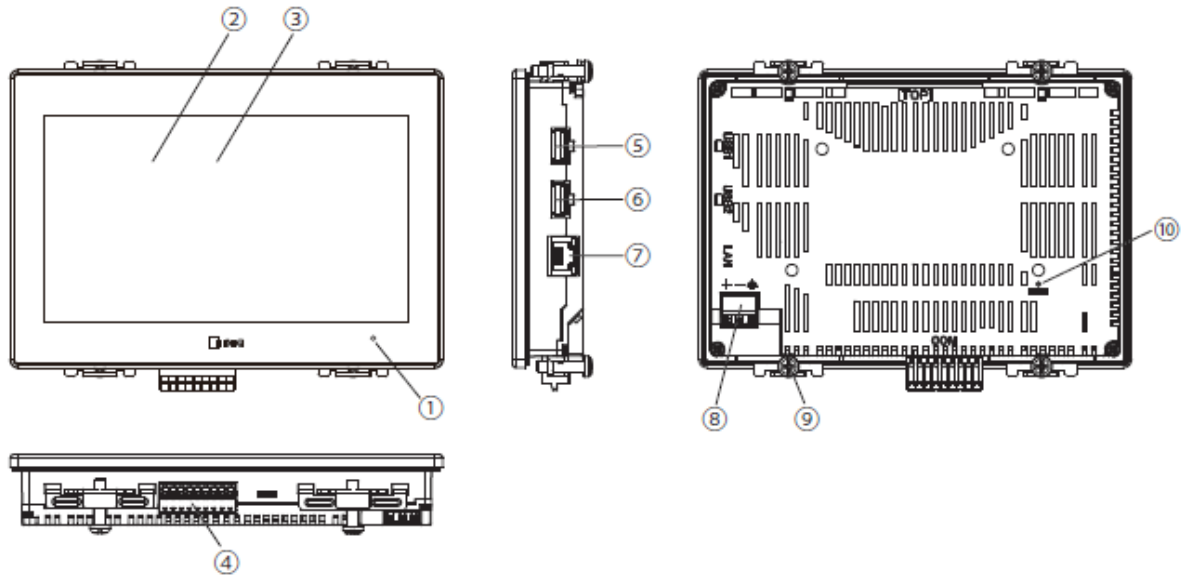
### 2.3 Replacing with HG2J-7U series

- Please use WindO/I-NV4 Ver. 2.2.0 or later for the HG2J-7U series.
- Due to the hardware replacement, there are restrictions and cautionary notes. Please refer to [4.1 Hardware comparison] in this document for more information.
- Click the **Change Product Series** button on WindO/I-NV4 then select the replacement product from the **Change Product Series** dialog to convert the product series of the project file. Please refer to [5.1 Converting product series of a project file] in this document for more information.
- Please test after converting the product series before putting it into operation.

### 3. Hardware

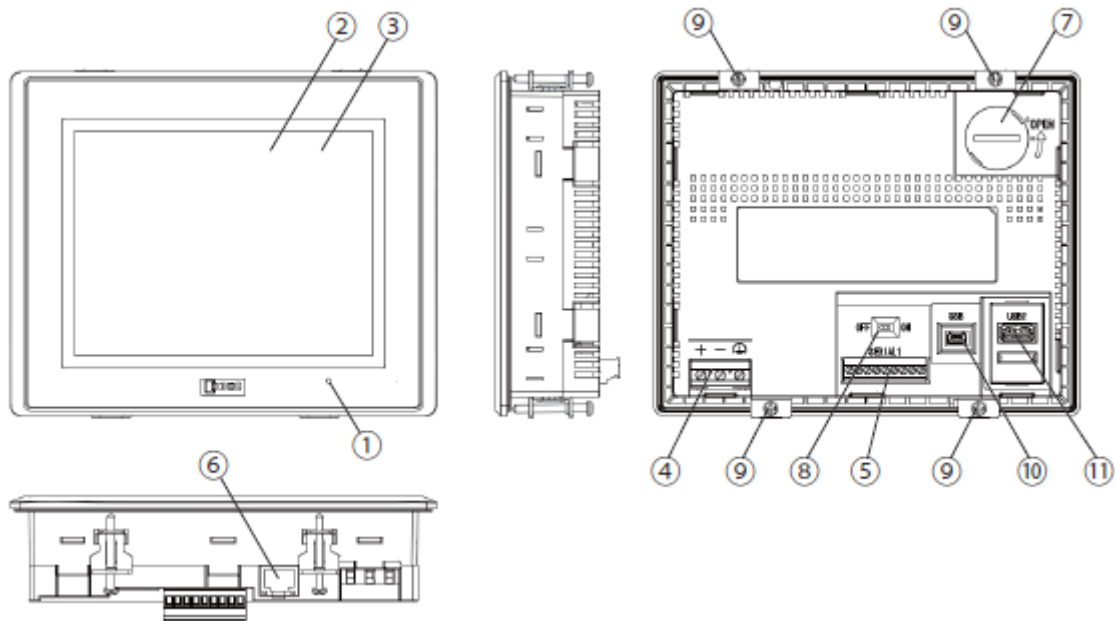
#### 3.1 Appearance

##### 3.1.1 HG2J-7U series (7 inch)



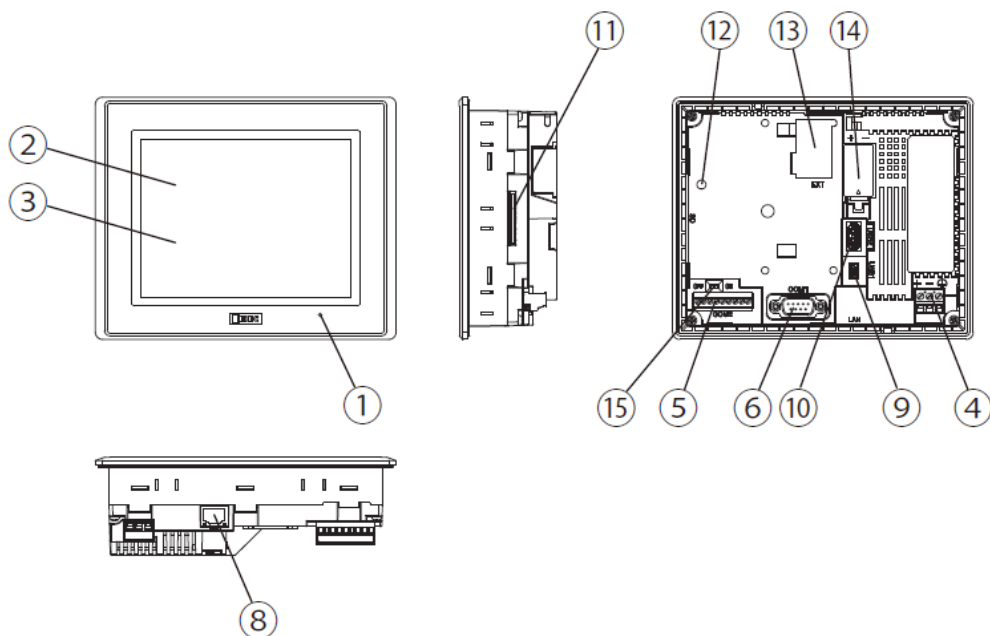
No.	Name
①	POWER LED
②	Display
③	Touch Panel
④	Serial Interface (COM)
⑤	USB Interface (USB1)
⑥	USB Interface (USB2)
⑦	Ethernet Interface (LAN)
⑧	Power Supply Terminal
⑨	Mounting Clip Position
⑩	RESET Switch

### 3.1.2 HG2G-5T series (5.7 inch)



No.	Name
①	POWER LED
②	Display
③	Touch Panel
④	Power Supply Terminal
⑤	Serial Interface (SERIAL 1)
⑥	Ethernet Interface (LAN)
⑦	Battery Cover
⑧	Terminating Resistor Selector Switch
⑨	Mounting Clip Position
⑩	USB Interface (USB)
⑪	USB Interface (USB2)

### 3.1.3 HG2G-V series (5.7 inch)



No.	Name
①	POWER LED
②	Display
③	Touch Panel
④	Power Supply Terminal
⑤	Serial Interface (COM2)
⑥	Serial Interface (COM1)
⑧	Ethernet Interface (LAN)
⑨	USB Interface (USB1)
⑩	USB Interface (USB2)
⑪	Memory Card Interface (SD)
⑫	SD Memory Card Access Lamp
⑬	Expansion Module Interface (EXT)
⑭	Battery Cover
⑮	Terminating Resistor Selector Switch



## 3.2 MICRO/I Specification

### 3.2.1 HG2G-5T series and HG2J-7U series comparison table

Type	Item	HG2G-5T series	HG2J-7U series
Display Specification	LCD Type	HG2G-5TN series : TFT Monochrome LCD (TN Type) HG2G-5TT series : TFT Color LCD (TN Type)	TFT Color LCD (TN Type)
	Effective Display Area	115.2(W)x86.4(H) mm	154.08(W)x85.92(H) mm
	Display Resolution	320(W)x240(H) dots	800(W)x480(H) dots
	Brightness of LCD only	HG2G-5TN series : 1100 cd/m <sup>2</sup> HG2G-5TT series : 500 cd/m <sup>2</sup>	500 cd/m <sup>2</sup> (Typ.) (*1)
	Backlight Life	100,000 Hours	50,000 Hours
Interface Specification	Number of Serial Ports	2 Ports	
	Serial Interface (COM)	Detachable Terminal Block 9-pin (1ch for RS232C, 1ch for RS422/485)	
	O/I Link Communication	Uses MICRO/I's serial interface RS422/485 to communicate	
	Ethernet (LAN)	Supported	
	USB Mini-B (USB1)	Supported	Not Supported
	USB Type A (USB1)	Not Supported	Supported
	USB Type A (USB2)	Supported	

(\*1) Since HG2J-7U series uses a touch panel with a highly transparent cover glass, the apparent brightness is brighter than that of the conventional model.

Type	Item	HG2G-5T series	HG2J-7U series
Interface Specification	Memory Card Interface (SD)	Not Supported	
	Expansion Module Interface (EXT)	Not Supported	
	Audio Interface	Not Supported	Supported (Supports USB Speaker)
	Video Interface	Not Supported	
	Rated Voltage	DC12V/DC24V	
General Specification	Operating Temperature	-20 to +60 °C	
	External Dimension	167.2(W)x134.7(H)x48.6(D) mm	186.0(W)x128.0(H)x34.3(D) mm
	Panel cut-out	153.0(W)x121.0(H) mm	176.6(W)x118.6(H) mm

### 3.2.2 HG2G-V series and HG2J-7U series comparison table

Type	Item	HG2G-5T series	HG2J-7U series
Display Specification	LCD Type	TFT Color LCD (TN Type)	TFT Color LCD (TN Type)
	Effective Display Area	115.2(W)x86.4(H) mm	154.08(W)x85.92(H) mm
	Display Resolution	640(W)x480(H) dots	800(W)x480(H) dots
	Brightness of LCD only	800 cd/m <sup>2</sup>	500 cd/m <sup>2</sup> (Typ.) (*1)
	Backlight life	100,000 Hours	50,000 Hours
Interface Specification	Number of serial ports	3 Ports	2 Ports
	Serial Interface	D-sub 9 pin (COM1) (RS232C or S422/485)	-
		Detachable Terminal Block 9-pin (COM2) (1ch for RS232C, 1ch for RS422/485)	Detachable Terminal Block 9-pin (COM2) (1ch for RS232C, 1ch for RS422/485)
	O/I Link Communication	Uses MICRO/I's serial interface RS422/485 to communicate	
	Ethernet (LAN)	Supported	
	USB Mini-B	Supported	Not Supported
	USB Type A (USB1)	Not Supported	Supported
	USB Type A (USB2)	Supported	
	Memory Card Interface (SD)	Supported	Not Supported
	Expansion Module Interface (EXT)	Supported	Not Supported

(\*1) Since HG2J-7U series uses a touch panel with a highly transparent cover glass, the apparent brightness is brighter than that of the conventional model.

Type	Item	HG2G-5T series	HG2J-7U series
Interface Specification	Audio Interface	Not Supported	Supported (Supports USB Speaker)
	Video Interface	Not Supported	
General Specification	Rated Voltage	DC24V	DC12V/DC24V
	Operating Temperature	-20 to +60 °C	
	External Dimension	167.2(W)x134.7(H)x54.4(D) mm	186.0(W)x128.0(H)x34.3(D) mm
	Panel Cut-out	153.0(W)x121.0(H) mm	176.6(W)x118.6(H) mm

## 4. Compatibility

This chapter briefly goes over important points for converting the product series of the project file. The HG2J-7U series is compatible with the HG2G-5T and HG2G-V series for functions that are not listed below.

### 4.1 Hardware comparison

#### 4.1.1 Summary

Specification	HG2G-5T, HG2G-V series	HG2J-7U series
External Dimension (mm)	HG2G-5T series : 167.2(W)x134.7(H)x48.6(D) HG2G-V series : 167.2(W)x134.7(H)x54.4(D)	186.0(W)x128.0(H)x34.3(D)
Panel Cut-Out	153.0(W)x121.0(H) mm	176.6(W)x118.6(H) mm
LCD Size	5.7 inch	7 inch
Screen Size (Aspect Ratio)	4 : 3	16 : 9
Dot Pitch (Aspect Ratio)	1 : 1	1.076 : 1 (*1)
Touch Panel	Analog Resistive Film	Projected Capacitive (*2)
Adjustment of the Touch Panel	Adjustable	No need for adjustment
Power Supply and Serial Interface terminal	Screw Fastened Type	Push-in Type
Startup Time	3 Seconds	13 Seconds
External Memory (*3)	HG2G-5T series : USB Memory (USB2) HG2G-V series : SD Card Slot (SD) USB Memory (USB1)	USB Memory (USB1) USB Memory (USB2)
Maintenance Communication	USB Mini-B Ethernet	Ethernet

(\*1) Please refer to [5.2.4 Dot Pitch] for details.

(\*2) Please use thin gloves when operating the touch panel with gloves.

(\*3) Please refer to [5.2.9 External Memory Functions] for details.

#### 4.1.2 Backup Data

The backup data is data that will not be erased even after the power is turned off. When the power is turned on, the data before the power shutdown can be used.

Item	HG2G-5T, HG2G-V series	HG2J-7U series
Calendar data retention period (Operating Temperature: 25°C)	1 year	20 days (Data is stored in the large capacity capacitor)
Log Data, HMI Keep Relays, HMI Keep Resistors retention period (Operating temperature: 25°C)	1 year	No limit (Data is stored in the non-volatile memory)
Approximate battery replacement period (Operating Temperature: 25°C)	5 years	Does not use the battery

## 4.2 Comparison of Functions

### 4.2.1 Summary

Item	HG2G-5T series	HG2G-V series	HG2J-7U series
Maximum Size of Project Data	5,439,488 Byte (Approx. 5 MB)	60,489,728 Byte (Approx. 58 MB)	25,165,824 Byte (Approx. 24 MB)
Pre-Loaded Fonts	Supported	Supported	Supported (*1)
Button Parts	Supported	Supported	Does not support <ul style="list-style-type: none"><li>• Selector Switch</li><li>• Potentiometer</li></ul>
Drawing Objects	Supported	Supported	Does not support <ul style="list-style-type: none"><li>• Fill</li></ul>
BACnet Communication	Not Supported	Supported	Not Supported
Printer Connection	Not Supported	Supported	Not Supported
Expansion Modules	Not Supported	Supported	Not Supported
Formatting of the External Memory	Supported	Supported	Not Supported (*2)

(\*1) The following changes have been made.

- Size is set by using point
- "16x16", "Bold", and "Shadow" are not supported

(\*2) Please use the format function of your computer. The external memory formatted with the conventional models can be used as well. The formatting function for the conventional models can be used from the **Online** tab.

#### 4.2.2 Maximum amount of data storage for each log functions

Function	HG2G-5T series	HG2G-V series	HG2J-7U series
Alarm Log	5520	11660	5520
Operation Log	3945	8330	3945
Data Log per Device Address	13808	29165	13808

The amount of data storage can be set in the **Data Storage Area Management** dialog box of WindO/I-NV4. Since the data storage area is shared among the log functions, not all log data can be set to their maximum.



## 5. Converting product series of a project file and afterward adjustments

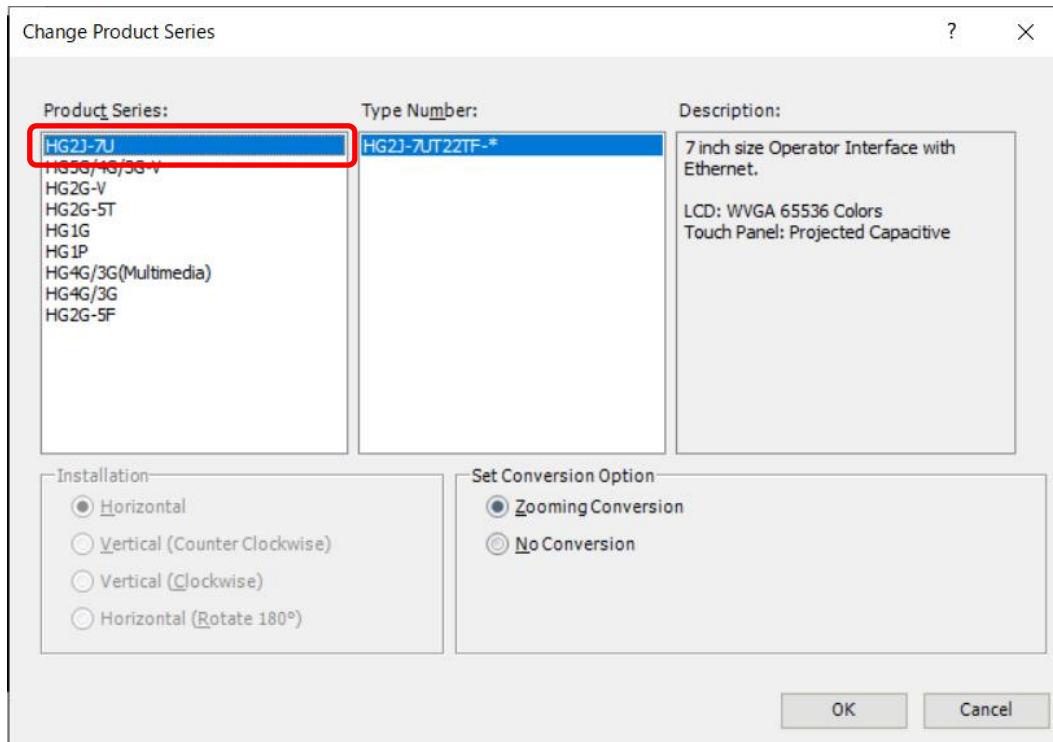
### 5.1 Converting product series of a project file

[Procedures]

1. Be sure to take a backup of the project file.
2. Launch WindO/I-NV4 with Ver. 2.2.0 or later.
3. Open the project file. (If the project file is not found, then please upload the file from MICRO/I.)
4. Click on the **Change Product Series** on the status bar, which is at the bottom of the WindO/I-NV4 window.



5. Select the "HG2J-7U" from the Product Series list.



6. Click the "OK" button.

## 5.2 Afterward adjustments

### 5.2.1 Serial port

[Summary]

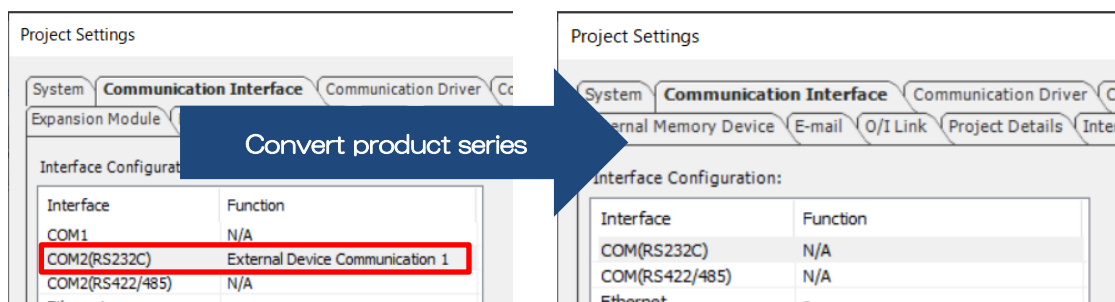
When a project file with the interface setting on the serial port COM2 (RS232C) is converted from HG2G-V series to HG2J-7U series, the COM2 (RS232C) settings are deleted. This triggers the deletion of both communication driver settings specified for COM2 (RS232C) and the corresponding device address in the project file.

To inherit the COM2 (RS232C) settings, move the COM2 (RS232C) settings to COM1 before converting the product series of a project file.

#### Example of COM2 (RS232C) settings not being inherited (COM2 setting was not moved to COM1 before the conversion)

Serial interface settings for HG2G-V series

Serial interface settings for HG2J-7U series

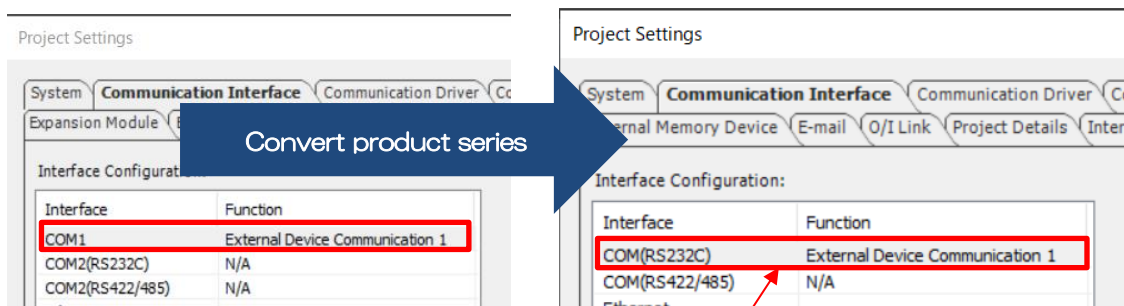


Fail (Settings are deleted)

#### Example of COM2 (RS232C) settings being inherited (COM2 settings was moved to COM1 before the conversion)

Serial interface settings for HG2G-V series

Serial interface settings for HG2J-7U series



Success (Settings are inherited)

[Important Note]

<Detail>

Assume a user moved COM2 (RS232C) settings to COM1 before the product series conversion to inherit COM2 (RS232C) settings of HG2G-V series to HG2J-7U series. If "RS422/485 2-wire" or "RS422/485 4-wire" is selected for the **Serial Interface** setting in **COM1** of the **Communication Interface** tab, which is in the **Project Settings** dialog, the corresponding settings will be deleted once the product series of the project file is converted.

### HG2G-V series Communication Interface settings

Project Settings

System **Communication Interface** Communication Driver Communication Driver Network User Communication Autorun Compatible W

Expansion Module External Memory Device E-mail Sub Host Communication O/I Link Project Details Font/Kanji Dictionary Data Printer

Interface Configuration:

Interface	Function
COM1	External Device Communication 1
COM2(RS232C)	N/A
COM2(RS422/485)	N/A
Ethernet	-
Protocol1	N/A
Protocol2	N/A
Protocol3	N/A
Protocol4	N/A
Protocol5	N/A
Protocol6	N/A
Protocol7	N/A
USB2(USB-A)	N/A

Interface Settings:

Function: External Device Communication 1

Baud Rate: 9600

Data Bits: 7

Stop Bits: 1

Parity: Even

Flow Control: None

Serial Interface: RS422/485 2-wire

Convert product series

### HG2J-7U series Communication Interface settings

Project Settings

System **Communication Interface** Communication Driver Communication Driver Network User Communication Autorun Compatible W

External Memory Device E-mail O/I Link Project Details Internal Clock

Interface Configuration:

Interface	Function
COM(RS232C)	N/A
COM(RS422/485)	N/A

Interface Settings:

Function: N/A

Settings are deleted (Not Inherited)

<Solution>

Select "RS232C" for the **Serial Interface** setting in the **Interface Settings** of COM1.

### HG2G-V series Communication Interface settings

The screenshot shows the 'Project Settings' window for the HG2G-V series. The 'Communication Interface' tab is active. On the left, the 'Interface Configuration' table lists COM1 as 'External Device Communication 1'. On the right, the 'Interface Settings' panel shows various parameters: Function (External Device Communication 1), Baud Rate (9600), Data Bits (7), Stop Bits (1), Parity (Even), Flow Control (None), and Serial Interface (RS232C). Red boxes highlight the COM1 row and the RS232C dropdown menu.

Interface	Function
COM1	External Device Communication 1
COM2(RS232C)	N/A
COM2(RS422/485)	N/A
Ethernet	-
Protocol1	N/A
Protocol2	N/A
Protocol3	N/A
Protocol4	N/A
Protocol5	N/A
Protocol6	N/A
Protocol7	N/A
USB2(USB-A)	N/A

Interface Settings:

- Function: External Device Communication 1
- Baud Rate: 9600
- Data Bits: 7
- Stop Bits: 1
- Parity: Even
- Flow Control: None
- Serial Interface: RS232C

Convert product series

### HG2J-7U series Communication Interface settings

The screenshot shows the 'Project Settings' window for the HG2J-7U series. The 'Communication Interface' tab is active. On the left, the 'Interface Configuration' table lists COM(RS232C) as 'External Device Communication 1'. On the right, the 'Interface Settings' panel shows parameters: Function (External Device Communication 1), Baud Rate (9600), Data Bits (7), Stop Bits (1), Parity (Even), and Flow Control (None). Red boxes highlight the COM(RS232C) row and the entire settings panel. Red arrows point from the text 'Settings are inherited' to the highlighted areas.

Interface	Function
COM(RS232C)	External Device Communication 1
COM(RS422/485)	N/A
Ethernet	-
Protocol1	N/A
Protocol2	N/A
Protocol3	N/A
Protocol4	N/A
Protocol5	N/A

Interface Settings:

- Function: External Device Communication 1
- Baud Rate: 9600
- Data Bits: 7
- Stop Bits: 1
- Parity: Even
- Flow Control: None

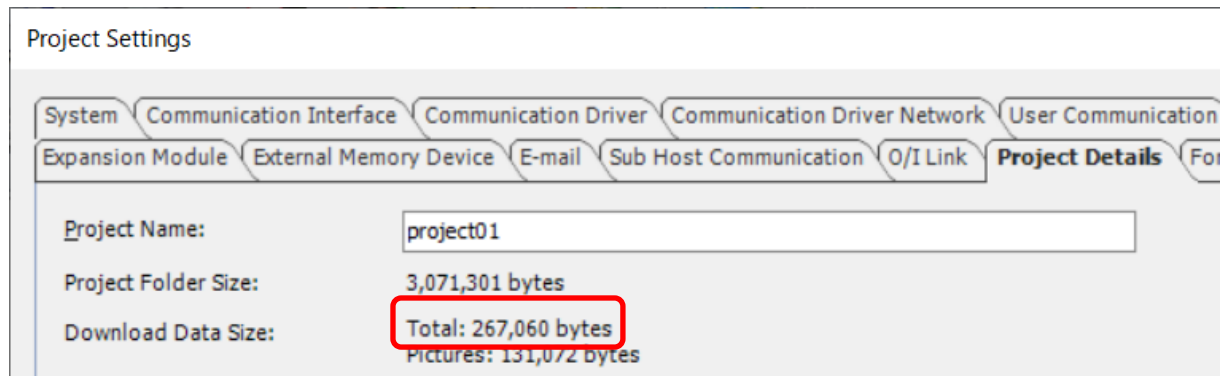
Settings are inherited

## 5.2.2 Project Data Size

[Summary]

When a project file for the HG2G-V series is converted to the HG2J-7U series, the project data size of the HG2J-7U series may exceed the maximum size. If the size of the project data exceeds the maximum size, it cannot be downloaded to the HG2J-7U series. Therefore, the size of the project data must be adjusted before the download. Please make adjustments such as saving the image file to the external memory to reduce and keep the project data size under the limit.

The size of the project data can be checked from the **Project Details** tab of the **Project Settings** dialog box.

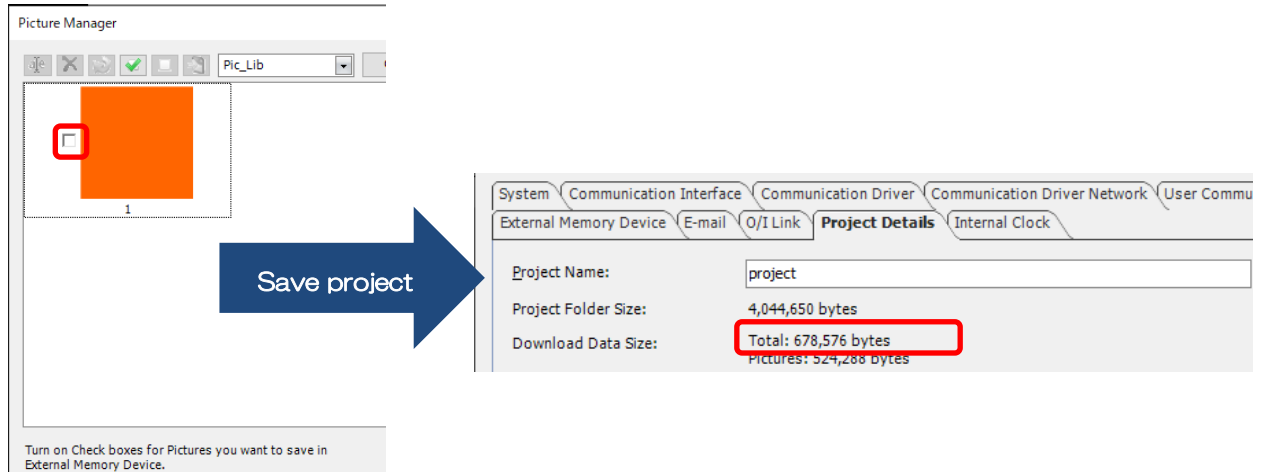


The screenshot shows the 'Project Settings' dialog box with the 'Project Details' tab selected. The 'Project Name' is 'project01'. The 'Project Folder Size' is 3,071,301 bytes. The 'Download Data Size' is highlighted with a red box, showing a total of 267,060 bytes, with a sub-total for 'Pictures' of 131,072 bytes.

Setting	Value
Project Name:	project01
Project Folder Size:	3,071,301 bytes
Download Data Size:	Total: 267,060 bytes Pictures: 131,072 bytes

(Example) Save the image data registered in the **Picture Manager** to external memory to reduce the size of the project.

### Saving image data to the Project file

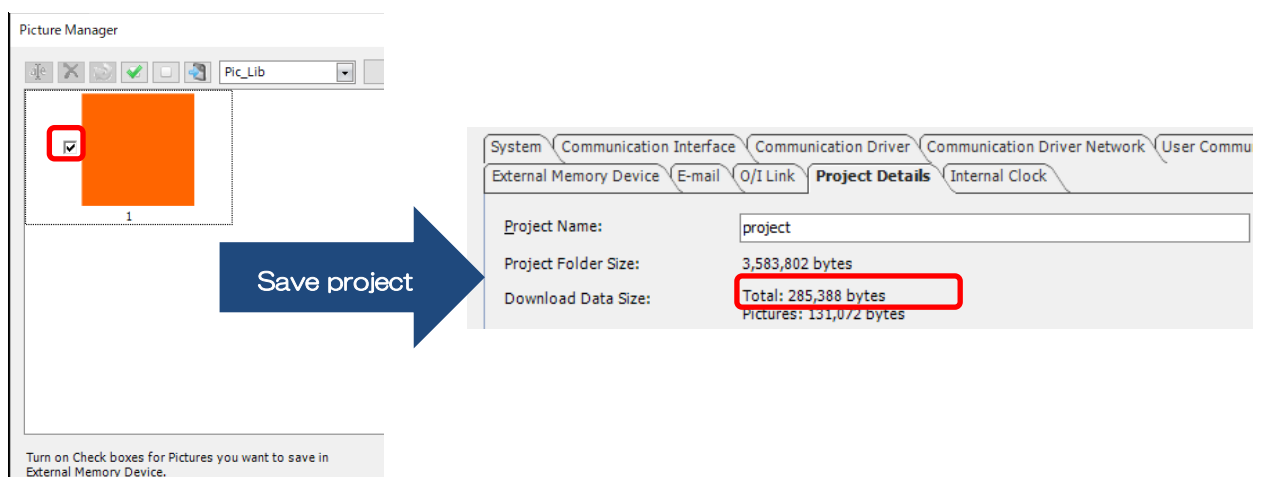


The screenshot shows the **Picture Manager** window with a single orange image selected. A blue arrow labeled "Save project" points to the **Project Details** window. In the **Project Details** window, the **Download Data Size** is highlighted with a red box, showing a total of 678,576 bytes, with 524,288 bytes for pictures.

System	Communication Interface	Communication Driver	Communication Driver Network	User Commu
External Memory Device	E-mail	O/I Link	<b>Project Details</b>	Internal Clock
Project Name:	project			
Project Folder Size:	4,044,650 bytes			
Download Data Size:	Total: 678,576 bytes Pictures: 524,288 bytes			

Turn on Check boxes for Pictures you want to save in External Memory Device.

### Saving image data to the external memory



The screenshot shows the **Picture Manager** window with a single orange image selected. A blue arrow labeled "Save project" points to the **Project Details** window. In the **Project Details** window, the **Download Data Size** is highlighted with a red box, showing a total of 285,388 bytes, with 131,072 bytes for pictures.

System	Communication Interface	Communication Driver	Communication Driver Network	User Commu
External Memory Device	E-mail	O/I Link	<b>Project Details</b>	Internal Clock
Project Name:	project			
Project Folder Size:	3,583,802 bytes			
Download Data Size:	Total: 285,388 bytes Pictures: 131,072 bytes			

Turn on Check boxes for Pictures you want to save in External Memory Device.

### 5.2.3 Screen Size

[Summary]

The HG2J-7U series screen size (aspect ratio) is different from that of the HG2G-5T and HG2G-V series. When the project file's product series is converted, the size of each drawing and part is automatically converted to the HG2J-7U series screen size.

Item	HG2G-5T, HG2G-V series	HG2J-7U series
Screen Size (aspect ratio)	4 : 3	16 : 9

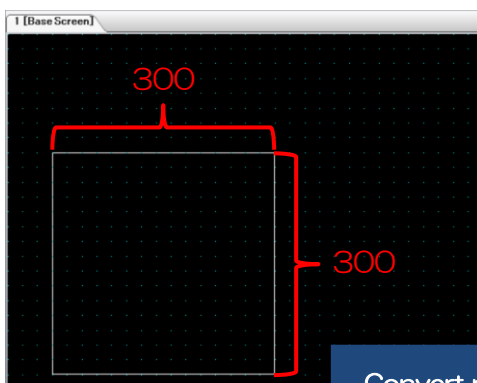
(Example) Rectangle (drawing) size conversion

Assume the followings:

- HG2G-V series project file is used for conversion
- HG2J-7U series project file is the target product series of the conversion
- The value of the "Width" and "Height" of the rectangle is set to 300
- "Zooming Conversion" is selected for the **Set Conversion Option**

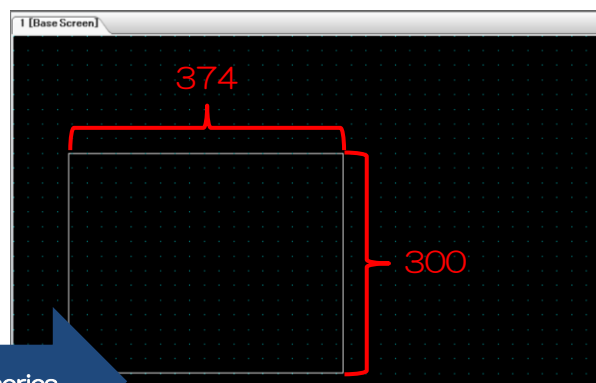
#### HG2G-V series

The rectangular width is 300



#### HG2J-7U series

The rectangular width is 374  
(The adjustment is made due to the difference in the screen's horizontal resolution)



Convert product series

## 5.2.4 Dot Pitch

[Summary]

The HG2J-7U series dot pitch (aspect ratio) is different from that of the HG2G-5T and HG2G-V series. Download the project file to MICRO/I and check the display for its appearance.

Item	HG2G-5T, HG2G-V series	HG2J-7U series
Dot Pitch (aspect ratio)	1 : 1	1.076 : 1

[Important Note]

<Detail>

The HG2J-7U series dot pitch width is slightly longer than that of the HG2G-5T and HG2G-V series, so the width of parts and drawings appear longer.

<Solution>

Adjust the width of the target parts or drawings on WindO/I-NV4 edit screen. Then download the project file to the HG2J-7U series and check the width. The dot pitch is not "1.076 : 1" on WindO/I-NV4 edit screen, so be sure to download and check the appearance on the MICRO/I.



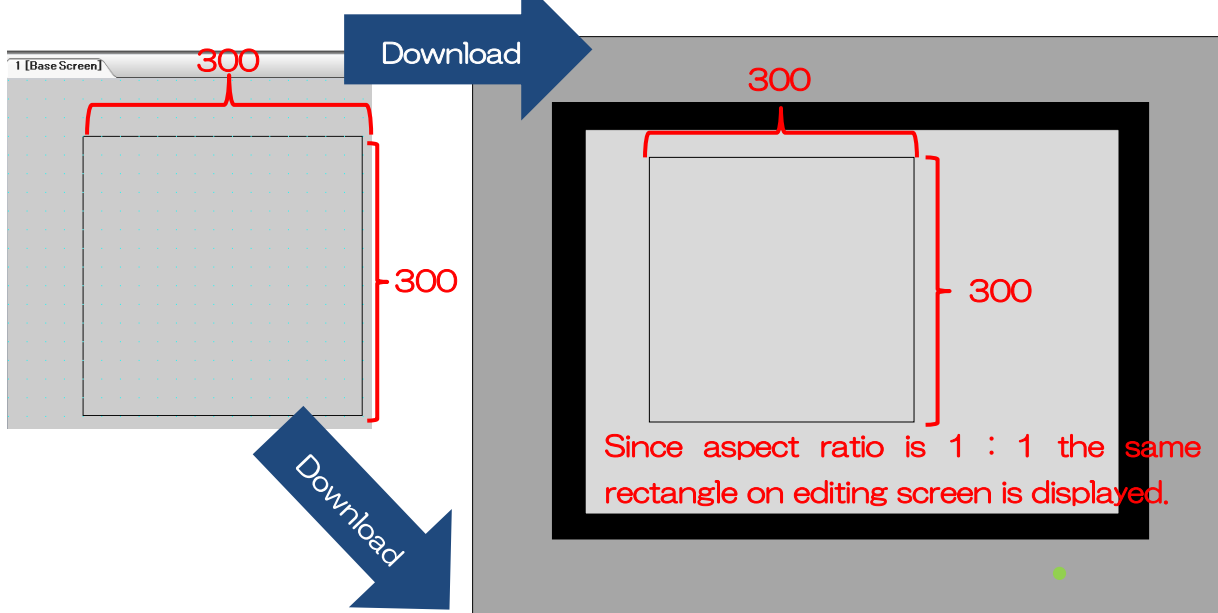
(Example) Display square with rectangular drawing.

Assume the followings:

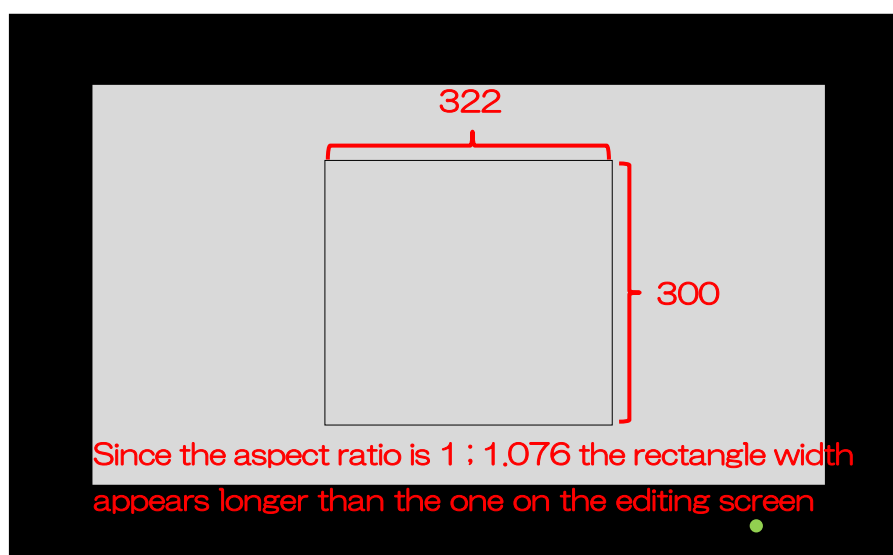
- HG2G-V series project file is used for conversion
- HG2J-7U series project file is the target product series of the conversion
- The value of the "Width" and "Height" of the rectangle is set to 300
- "No Conversion" is selected for the **Set Conversion Option**

Editing screen of WindO/I-NV4

HG2G-V series



HG2J-7U series



To display a square on the HG2J-7U series, the user must set the width to 279.  
( $300 / 1.076 \doteq 279$ )

### 5.2.5 Startup time

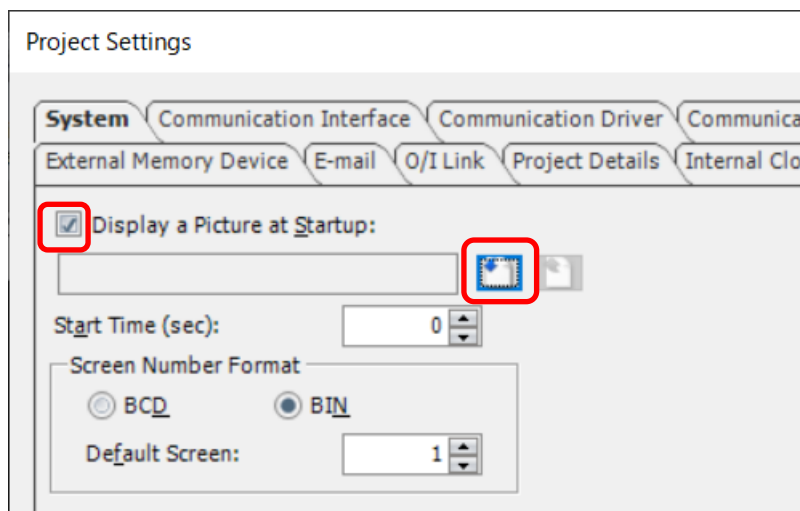
[Summary]

The HG2J-7U series has a longer startup time than the HG2G-5T and HG2G-V series.

Item	HG2G-5T, HG2G-V series	HG2J-7U series
Startup Time	3 seconds	13 seconds

Please design the application system so that there will not be a problem even if the startup of the display is delayed by 10 seconds. The black screen is displayed by default during the startup. Users may display an alternative image by using the "Display a Picture at Startup" function.

"Display a Picture at Startup" can be found in the **System** tab of the **Project Settings** dialog box in WindO/I-NV4. Please set the checkbox to ON and import the image of choice to be displayed.



[Restriction]

The maximum image size that can be used is 800 x 480 dots and 1,160,000 bytes.

## 5.2.6 Pre-Loaded Fonts

[Summary]

The pre-loaded font's settings of the HG2J-7U series are different from those of the HG2G-5T and HG2G-V series. Please modify the project file so that the font size becomes appropriate.

Pre-loaded Fonts settings	HG2G-5T, HG2G-V series	HG2J-7U series
Size	Magnification	Point
Line Spacing Adjustment	Not Supported	Supported (*1)
Stroke (*2)	Supported	Not Supported
Size : 16x16 (*3)	Supported	Not Supported
Bold	Supported	Not Supported
Shadow	Supported	Not Supported

---

(\*1) The line spacing is automatically adjusted to match the narrower line spacing of HG2G-5T series when converting product series to HG2J-7U series. Manual adjustment is also possible after the conversion.

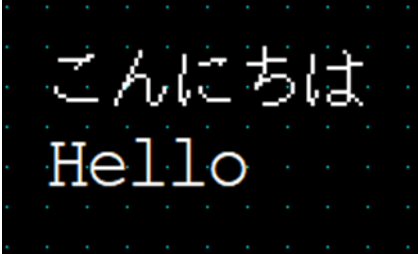
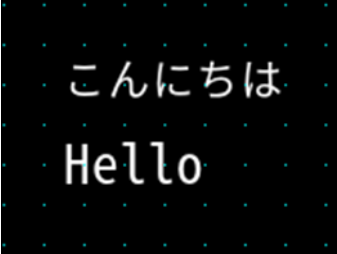
(\*2) If the "Stroke" font is used in the project file and the project file gets converted to HG2J-7U series, then the font gets replaced with the pre-loaded font "Western".

(\*3) "16x16" can only be set on the following parts of the HG2G-5T and HG2G-V series:

- Numerical Input
- Character Input
- Numerical Display
- Calendar

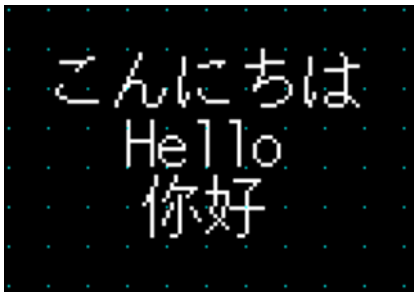

(Example 1) Magnification and Point

Following is an example of converting the product series of a project file. The project file uses pre-loaded fonts and uses "Magnification" and "Point" for their size setting.

Before converting product series (HG2G-5T, HG2G-V series)	After converting product series (HG2J-7U series)
Text Part 1 Font : Japanese, Magnification : 2x2 Text Part 2 Font : Stroke, Size : 20	Text Part 1 Font : Japanese, Size : 21 Text Part 2 Font : Western, Size : 27
(Image on the editing screen)  A screenshot of an editing screen showing two lines of text on a black background with a light blue grid. The first line is the Japanese text 'こんにちは' (Konichiwa) in a white, pixelated font. The second line is the English text 'Hello' in a white, pixelated font.	 A screenshot of an editing screen showing two lines of text on a black background with a light blue grid. The first line is the Japanese text 'こんにちは' (Konichiwa) in a white, pixelated font. The second line is the English text 'Hello' in a white, pixelated font.

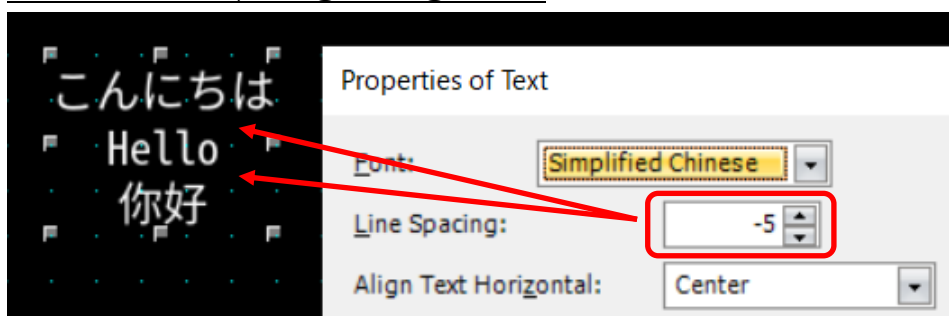
(Example 2) Space between lines

Following is an example of converting the product series of a project file. The project file has multiple lines of text that use the pre-loaded font.

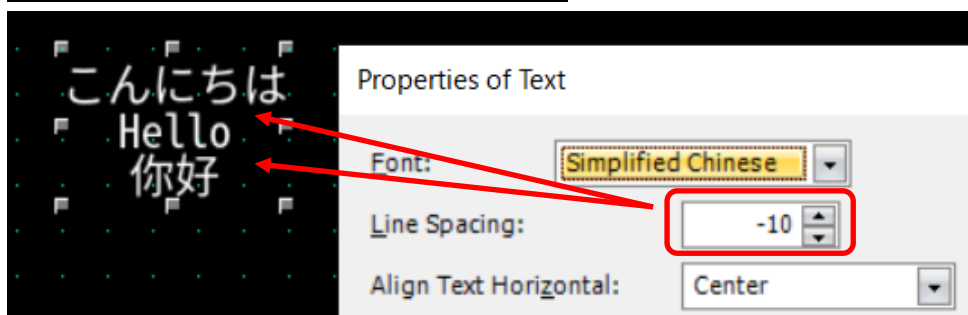
Before converting product series (HG2G-5T, HG2G-V series)	After converting product series (HG2J-7U series)
Text Part 1 Font : Simplified Chinese, 3 lines of text strings	Text Part 1 Font : Simplified Chinese, 3 lines of text strings
(Image on the editing screen) 	

After converting the product series of a project file, manual adjustment of the text line spacing can be made from the **Properties** dialog of the Drawings and Parts.

When the line spacing setting is "-5"



When the line spacing setting is "-10"



(Example 3) Size : 16x16, Bold, Shadow

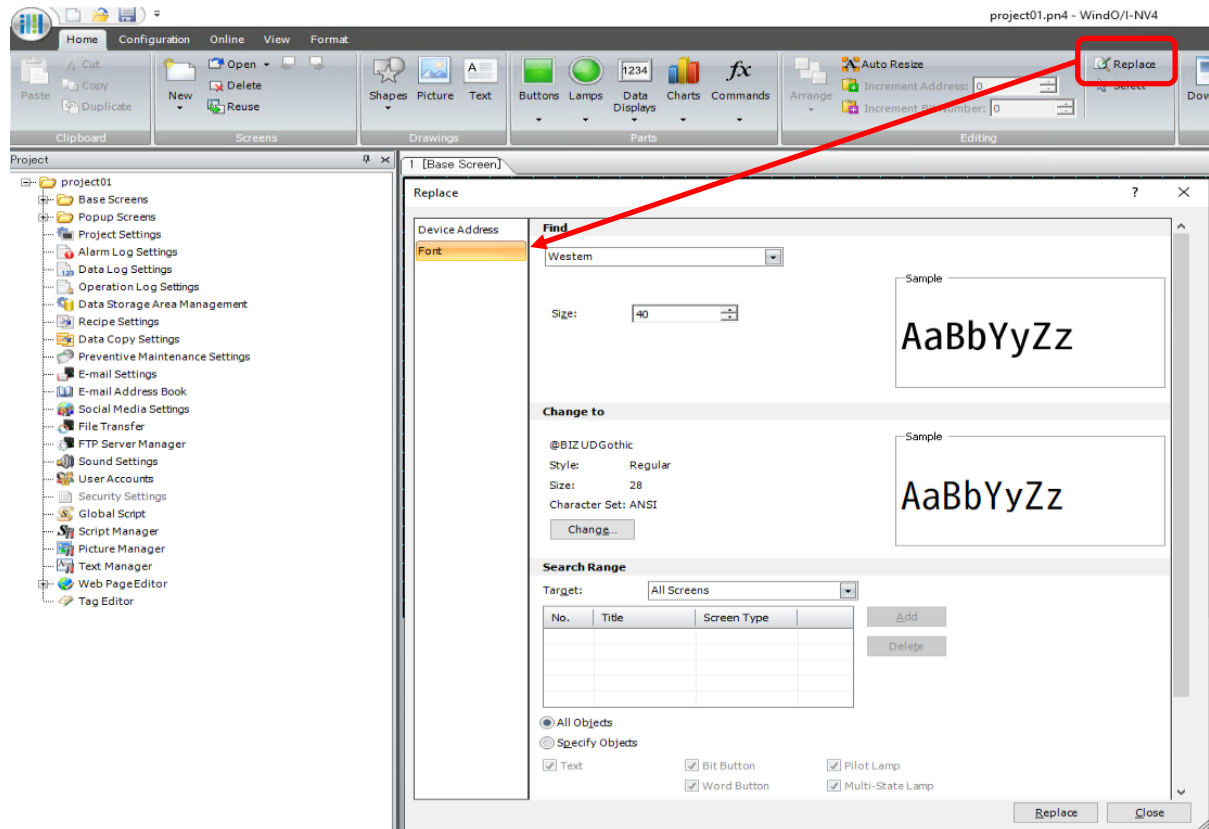
Following is an example of converting the product series of a project file. The project file uses "16x16", "Bold", and "Shadow" for the text.

Before converting product series (HG2G-5T, HG2G-V series)	After converting product series (HG2J-7U series)
Calendar Part 1 Font : Japanese, Size : 16x16 Text Part 2 Font : Japanese, Style : Bold Text Part 3 Font : Western, Style : Shadow, Shadow Color : 20 (Red)	Calendar Part 1 Font : Japanese, Size : 11 Text Part 2 Font : Japanese Text Part 3 Font : Western
(Image on the editing screen)  A screenshot of an editing screen with a black background and a light blue dotted grid. At the top, the date "2022/07/01" is displayed in a white box with a thin black border. Below the date, the Japanese text "こんばんは" is written in a large, white, pixelated font. At the bottom, the English text "Good Evening" is written in a white, pixelated font with a red shadow effect.	 A screenshot of an editing screen with a black background and a light blue dotted grid. At the top, the date "2022/07/01" is displayed in a white box with a thin black border. Below the date, the Japanese text "こんばんは" is written in a smaller, white, pixelated font. At the bottom, the English text "Good Evening" is written in a white, pixelated font without a shadow effect.

### 5.2.6.1. Font Size Adjustment

By using the font replacement function, fonts can be replaced with the Windows font in a batch.

(Example) Replacing the pre-loaded font (Western) with a Windows font (@BIZ UD Gothic)



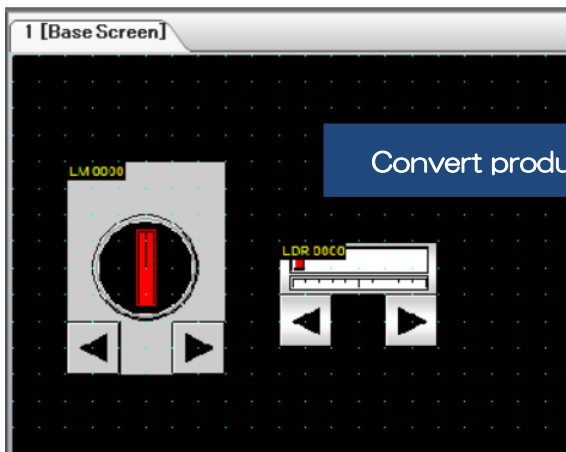
## 5.2.7 Selector Switch and Potentiometer

[Summary]

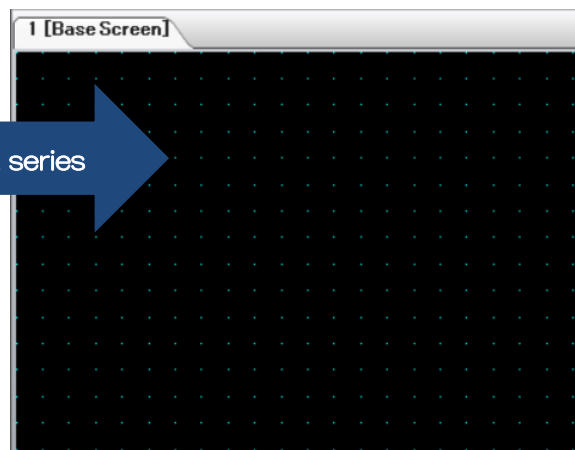
“Selector Switch” and “Potentiometer” are not available for the HG2J-7U series. Selector Switch and Potentiometer are deleted when the project file is converted to the HG2J-7U series.

Please recreate a similar part by combining parts.

HG2G-V series



HG2J-7U series



Convert product series



## 5.2.8 "Fill" drawing

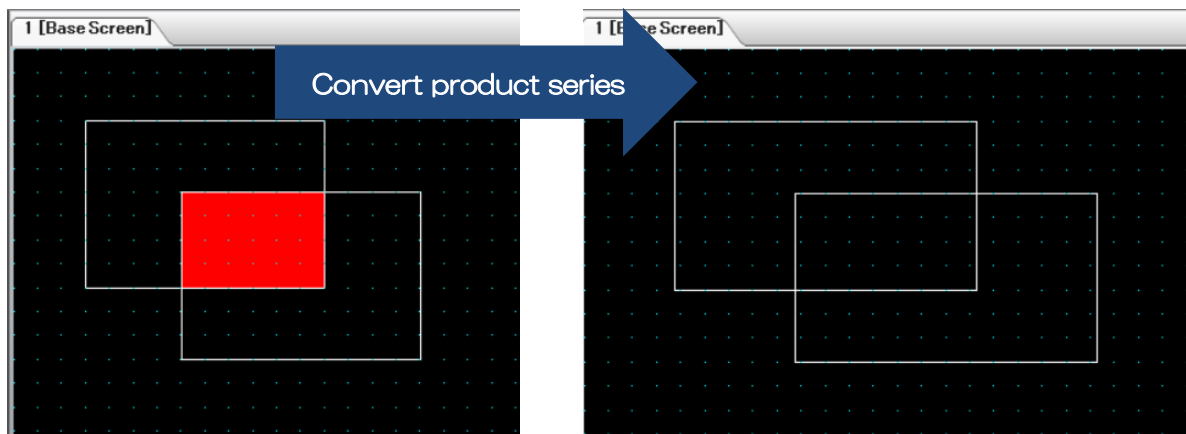
[Summary]

The "Fill" drawing is not available for the HG2J-7U series. "Fill" drawings are deleted when the project file is converted to the HG2J-7U series.

Please recreate a similar part by combining basic shapes.

HG2G-V series

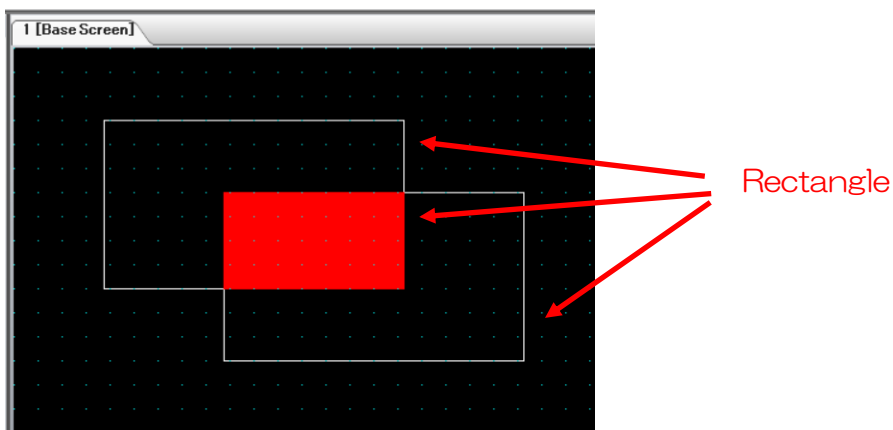
HG2J-7U series



(Example 1) Change the color of the overlapping rectangle area to "red"

Open **Properties of Rectangle** dialog box, and set the followings. Then adjust the size and place it on the overlapping area.

- Foreground Color : 020 (Red)
- Pattern : Fore 100%



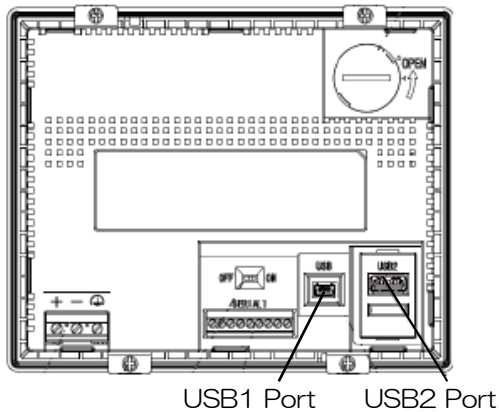
## 5.2.9 External Memory Functions

[Summary]

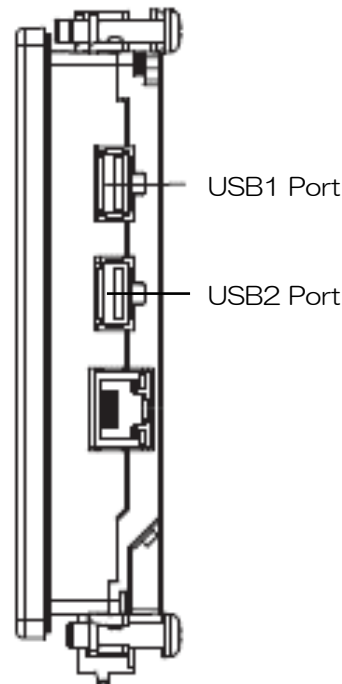
The SD card slot is not supported for the HG2J-7U series. If an SD card was used for the HG2G-V series or a USB memory was used for the HG2G-5T series, please insert a USB memory into the USB1 port of the HG2J-7U series to use the external memory function.

External Memory	HG2G-V series	HG2G-5T series	HG2J-7U series
SD Card Slot	Supported	Not Supported	Not Supported
USB Port	Supported (*1)	Supported	Supported (*2)

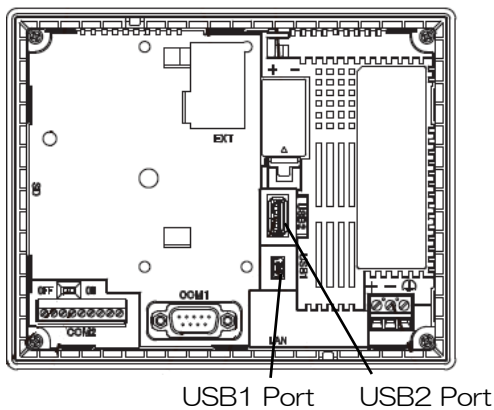
Back of HG2G-5T series



Side of HG2J-7U series



Back of HG2G-V series



(\*1) If the USB2 port of the HG2G-V series was used, insert a USB memory into the USB2 port of the HG2J-7U series.

(\*2) For information on the external memory functions supported by the USB1 port, please refer to "WindO/I-NV4 User's Manual Chapter 31 External Memory Devices 1.2 What Can Be Done Using an External Memory Device".

### 5.2.10 External Memory File Names

[Summary]

In the HG2J-7U series, file names and folder names cannot contain double-byte characters or the following characters. Therefore, when a product series of the project is converted to the HG2J-7U series, the file name and folder name settings may be deleted or changed. Please set the file and folder names used in the project file again.

Item	HG2G-5T, HG2G-V series	HG2J-7U series
Restricted Characters	" * / : < > ? ¥	" # \$ & ' ( ) * / : ; < > ? ¥ `   ~ Two consecutive periods

<Handling of unavailable characters when converting product series>

If HG2G-5T or HG2G-V series project file contains file or folder names with characters that cannot be used in the HG2J-7U series, the project file is processed in the following ways.

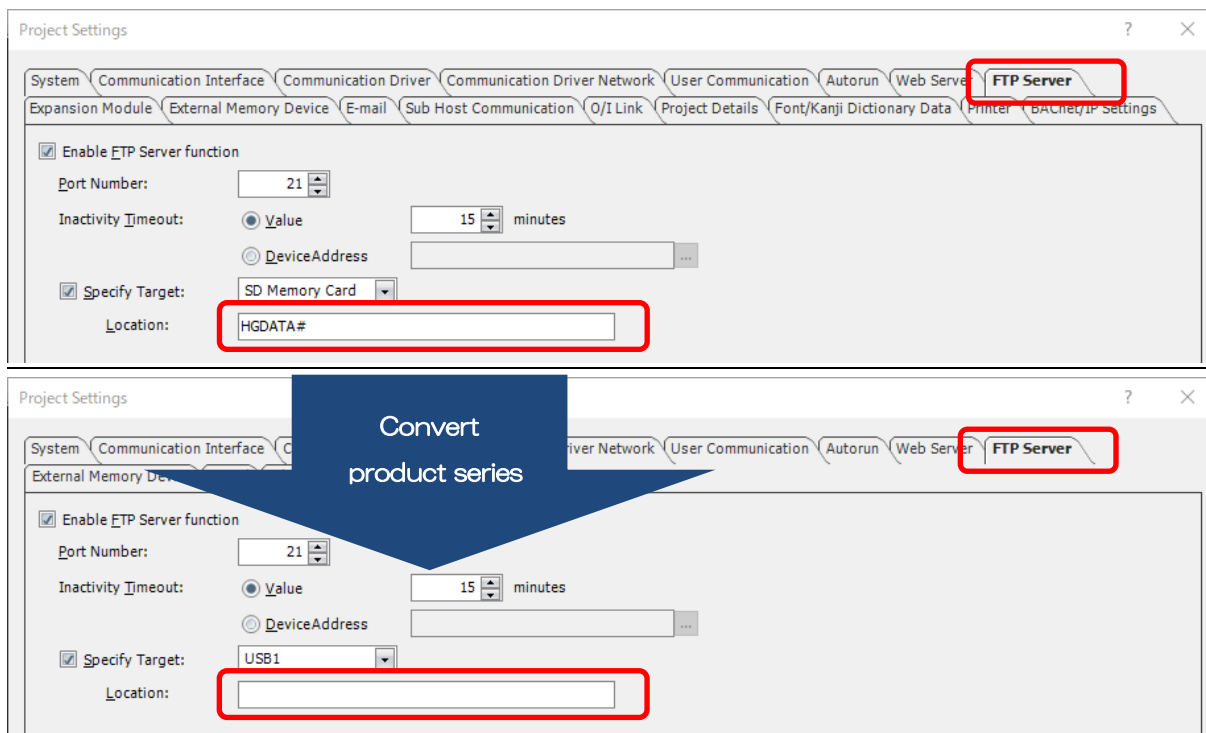
- ① The path becomes blank
- ② The file or folder name changes to a default value
- ③ The file name becomes "Picture\*" (\* is a number that does not overlap with other images).
- ④ The name changes to the strings set on the **External Memory Device Folder** setting in the **External Memory Device** tab of the **Project Settings** dialog box.
- ⑤ No change is made. However, the download is not possible without deleting unavailable characters.

Dialog Box	Tab	Parts	Change
Project Settings	FTP Server	Enable FTP Server function -> Location	①
	External Memory Device	External Memory Device Folder	②
Alarm Log Settings	External Memory Device	Batch -> File Name	②
		Real Time -> File Name	②
Operation Log Settings	External Memory Device	Batch -> File Name	②
		Real Time -> File Name	②

Dialog Box	Tab	Parts	Change
Data Log Settings	External Memory Device	Batch -> File Name	②
		Real Time -> File Name	②
		Real Time -> Save the Data Log data and display it on Line Chart or Data Log Display	②
Recipe Settings	Block	File Name	②
Picture Manager	-	File Name	③
File Transfer	General	Source -> Location -> Fixed	④
		Destination -> Location -> Fixed	④
Key Button	General	Download Project Source -> Location	④
		Upload Project Destination -> Location	④
		Download PLC Program Source -> Location	④
		Upload PLC Program Destination -> Location	④
		Copy Files Source -> Location	④
		Copy Files Destination -> Location	④
Web Page Editor	-	File Name of the .page File	⑥
		File Name in the "image", "lamp", "switch", and "video" Folders	⑤

(Example) FTP Server access destination

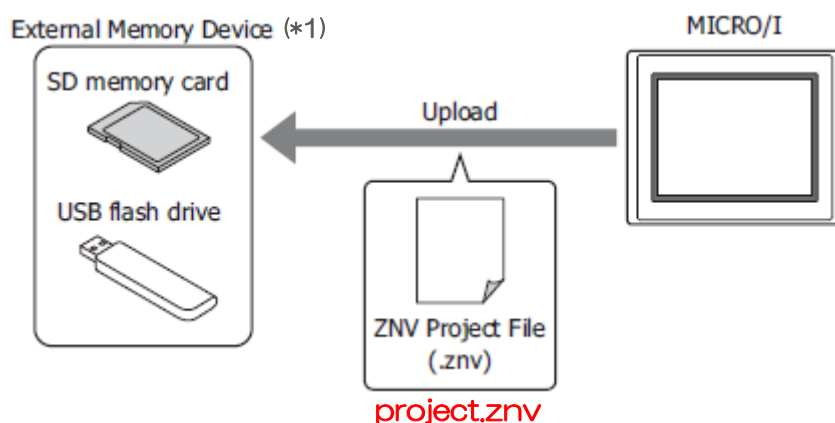
If "HGDATA#" was set for the **Location** in the **FTP Server** tab of the **Project Settings** dialog box, the folder path is cleared when the product series is converted to the HG2J-7U series. Please reassign character strings that do not include characters like #. For example, "HGDATA".



### 5.2.11 Project File Name in External Memory

[Summary]

When MICRO/I project data is uploaded to external memory using the data transfer function of the Key Button (including Multi-Button and Multi-Command) or USB Autorun, the project file name becomes project.znv.



Item	HG2G-5T, HG2G-V series	HG2J-7U series
Project File Name	project name + .znv	project.znv (*2)

(\*1) HG2J-7U series is USB memory only.

(\*2) When uploading a project file to the computer using WindO/I-NV4 or Data File Manager, the project name becomes "project name" + .znv.

## 5.2.12 User Name for Security

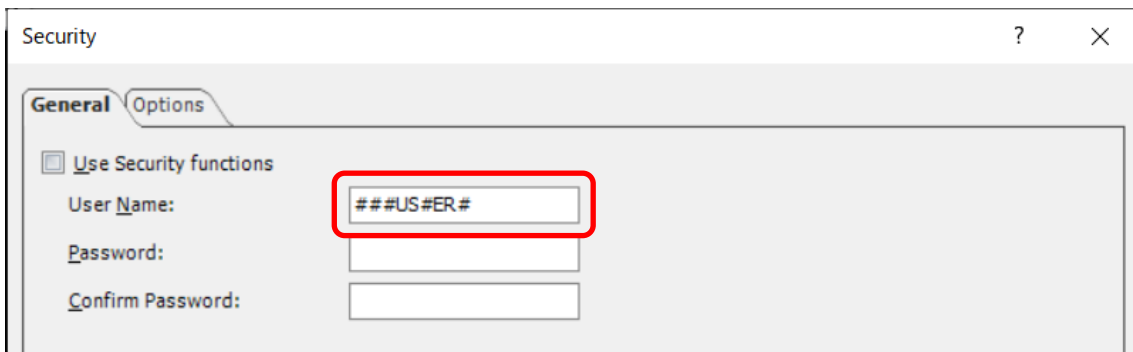
[Summary]

In the HG2J-7U series, it is not possible to set “#” as the first character of “User Name” in the **General** tab of the **Security** dialog. When a project file is converted to the HG2J-7U series, all leading “#” characters will be deleted. The “#” at other positions will not be changed.

If “#” is used as the leading letter(s) of the user name, please check for the change that was made to the user name after the product series conversion.

(Example) Converting an HG2G-5T series project with a user name that contains “#” to the HG2J-7U series project file.

### HG2G-5T series



Security

General Options

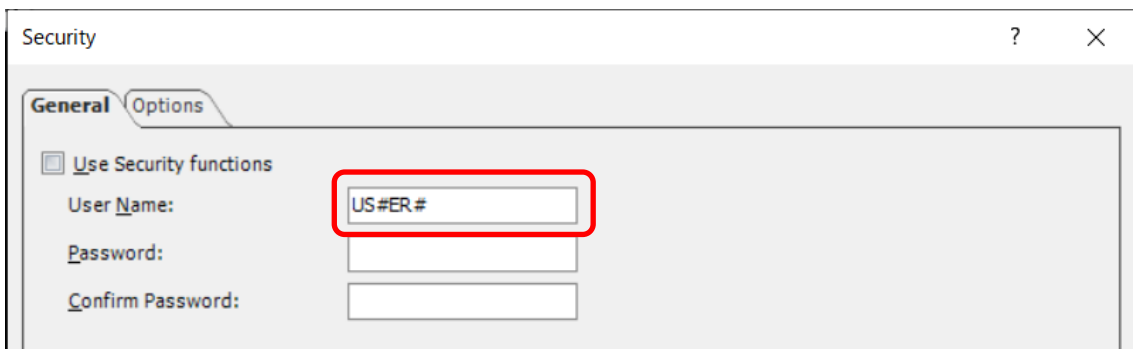
Use Security functions

User Name: ###USER#

Password:

Confirm Password:

### HG2J-7U series



Security

General Options

Use Security functions

User Name: USER#

Password:

Confirm Password:

### **5.2.13 Communication Driver**

[Summary]

When a project file that uses a communication driver for HG2G-5T or HG2G-V series is converted to HG2J-7U series, the settings of the communication driver not supported by HG2J-7U series are deleted. If the project file uses a communication driver that is not supported by the HG2J-7U series, please consider using a different communication driver before converting the product series.

Please refer to the "WindO/I-NV4 External Device Setup Manual" for the latest information.



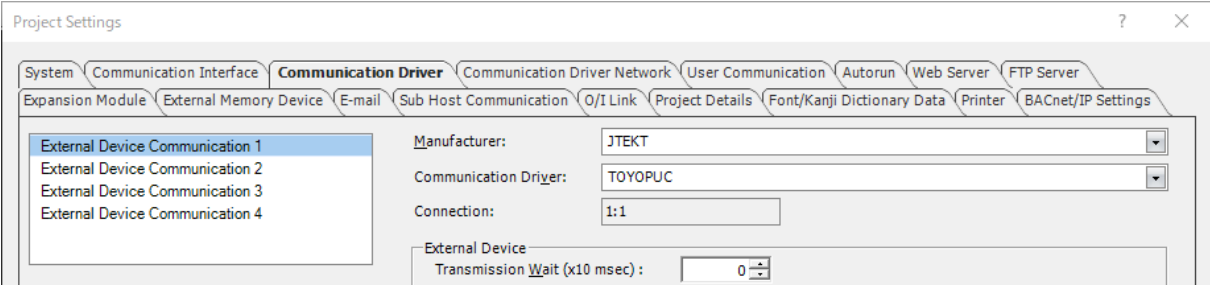
Manufacturer	HG2G-5T, HG2G-V series	HG2J-7U series
IDEAC	Supported	Supported (*1)
DM Link	Supported	Supported
Modbus	Supported	Supported
Mitsubishi Electric	Supported	Supported
OMRON	Supported	Supported
Shibaura-Machine	Supported	Supported
Allen-Bradley	Supported	Supported
ABB	Supported	Supported
JTEKT	Supported	Not Supported
SIEMENS	Supported	Supported
Keyence	Supported	Supported
Hitachi	Supported	Not Supported
Hitachi Industrial Equipment Systems	Supported	Not Supported
GE Fanuc Automation	Supported	Not Supported
Panasonic	Supported	Supported
YASKAWA Electric	Supported	Supported
KOYO ELECTRONICS INDUSTRIES	Supported	Not Supported
FANUC	Supported	Not Supported
Yokogawa Electric	Supported	Not Supported
Fuji Electric	Supported	Supported (*2)
Toshiba	Supported	Not Supported
LSIS	Supported	Not Supported
Vigor Electric	Supported	Not Supported
Emerson Electric	Supported	Not Supported

(\*1) HG2J-7U series supports only FC6A and FT1A.

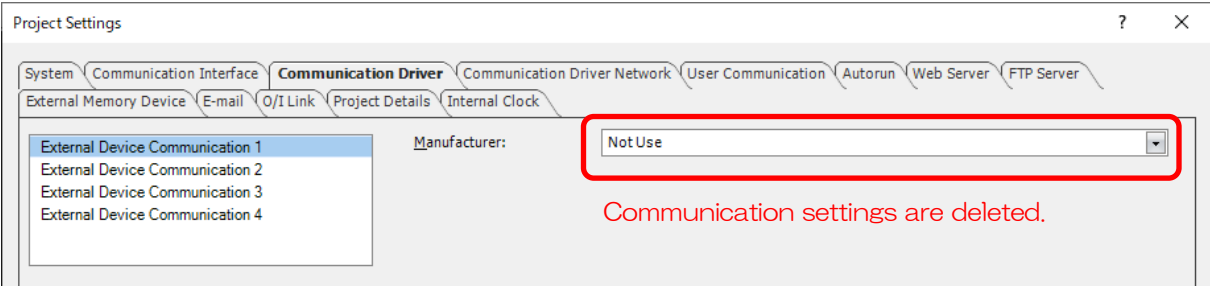
(\*2) HG2J-7U series supports only MICREX-SX and MICREX-SX(Ethernet).

(Example) When JTEKT's communication driver is used in the HG2G-V series and the project file is converted to the HG2J-7U series

### Communication driver settings for HG2G-V series



### Communication driver settings for HG2J-7U series

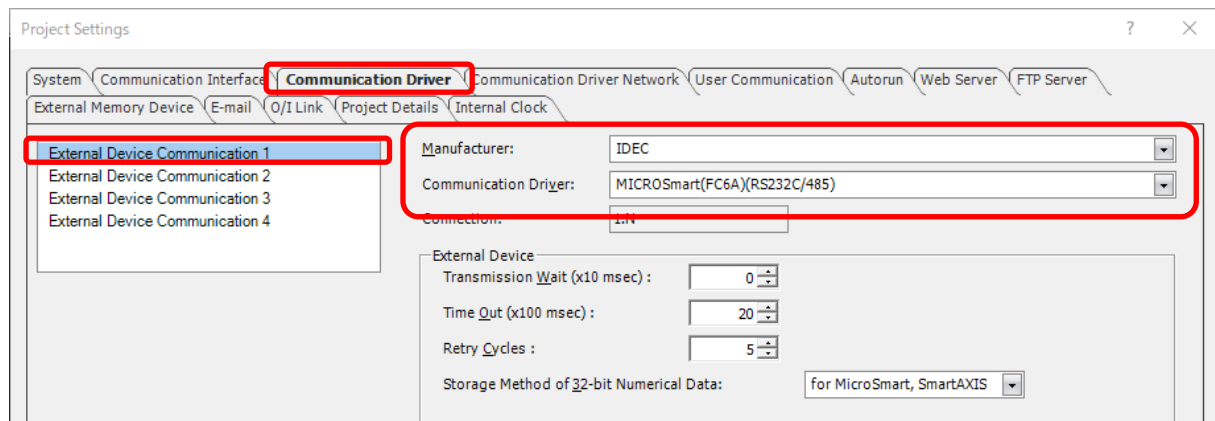


### 5.2.14 Sub host Communication

[Summary]

Sub host communication is not available for the HG2J-7U series. Please communicate with external devices using one of External Device Communication 1 through 4 in the communication driver.

Communication driver settings can be modified from the **Communication Driver** tab of the **Project Settings** dialog box. Select one of External Device Communication 1 to 4 and set the manufacturer and communication driver.



### 5.2.15 Multi Master of SIEMENS PPI Driver

[Summary]

SIEMENS PPI communication is limited to 1 : 1 communication.

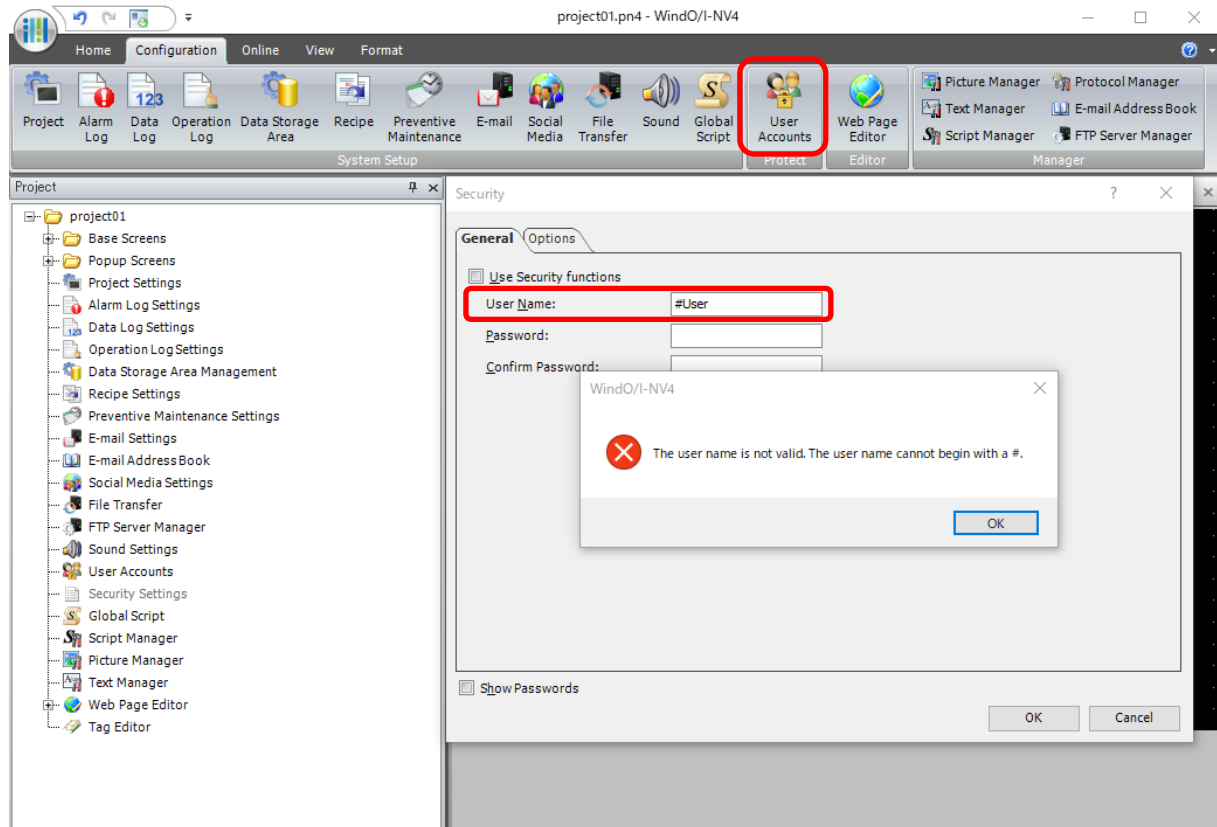
Communication Driver	HG2G-5T, HG2G-V series	HG2J-7U series
PPI Communication	N : 1 Communication (N HMI, 1 PLC)	1 : 1 Communication (1 HMI, 1 PLC)

## 5.2.16 User Name When Using FTP Server Function

[Summary]

Do not set # as the prefix of the user name in the HG2J-7U series. If the user name starts with #, the MICRO/I FTP server cannot be accessed.

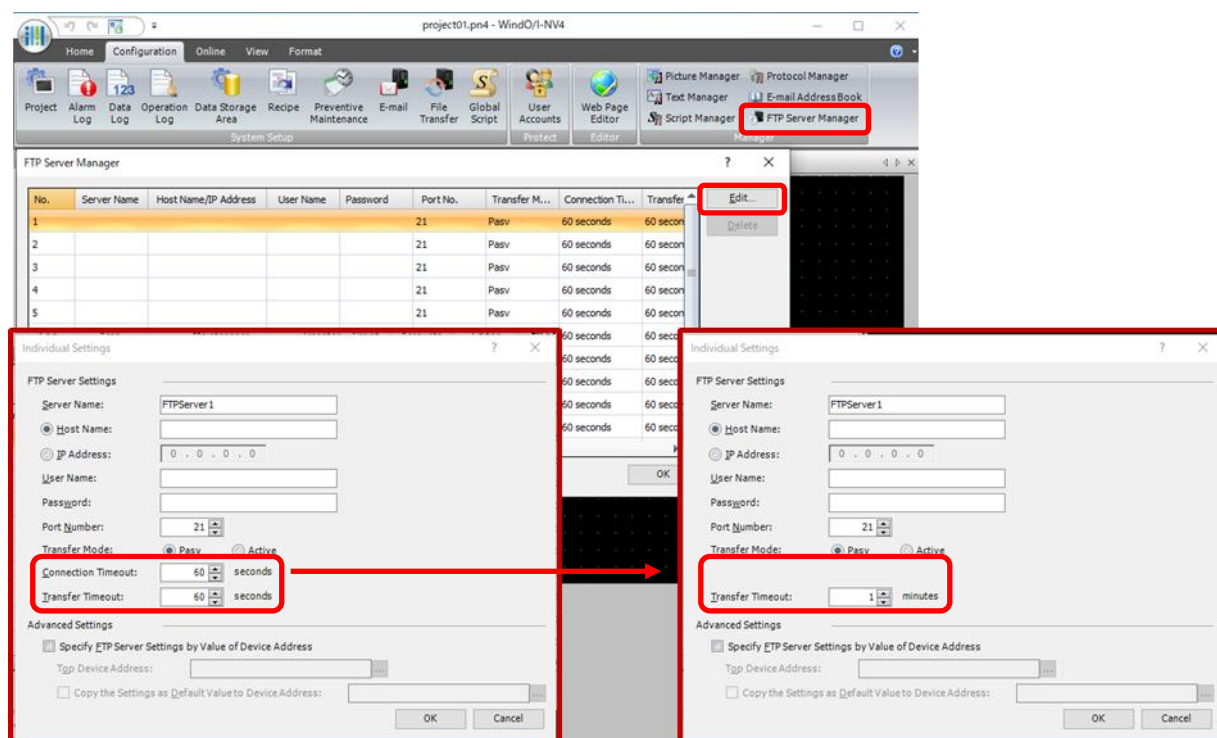
The user name of MICRO/I can be reassigned from the **Security** dialog under **User Accounts**.



## 5.2.17 Timeout of FTP Communication

[Summary]

The connection timeout and transfer timeout for the FTP communication has been changed. If FTP communication does not work, please review the communication settings of MICRO/I or the communicating partner device.



### Connection timeout setting

Item	HG2G-5T, HG2G-V series	HG2J-7U series
Connection Timeout	10 - 300 seconds	10 seconds (*1)

### Transfer timeout setting

Item	HG2G-5T, HG2G-V series	HG2J-7U series
Transfer Timeout	10 - 300 seconds	1 - 60 minutes

(\*1) Connection timeout cannot be changed for the HG2J-7U series.

[Important Note]

<Detail>

When a product series of a project is converted, the transfer timeout value is rounded up.

Before converting product series (HG2G-5T, HG2G-V series)	After converting product series (HG2J-7U series)
10 - 60 seconds	1 minute
61 - 120 seconds	2 minutes
121 - 180 seconds	3 minutes

<Solution>

If necessary, please reassign the transfer timeout.

### 5.3 Download Project File

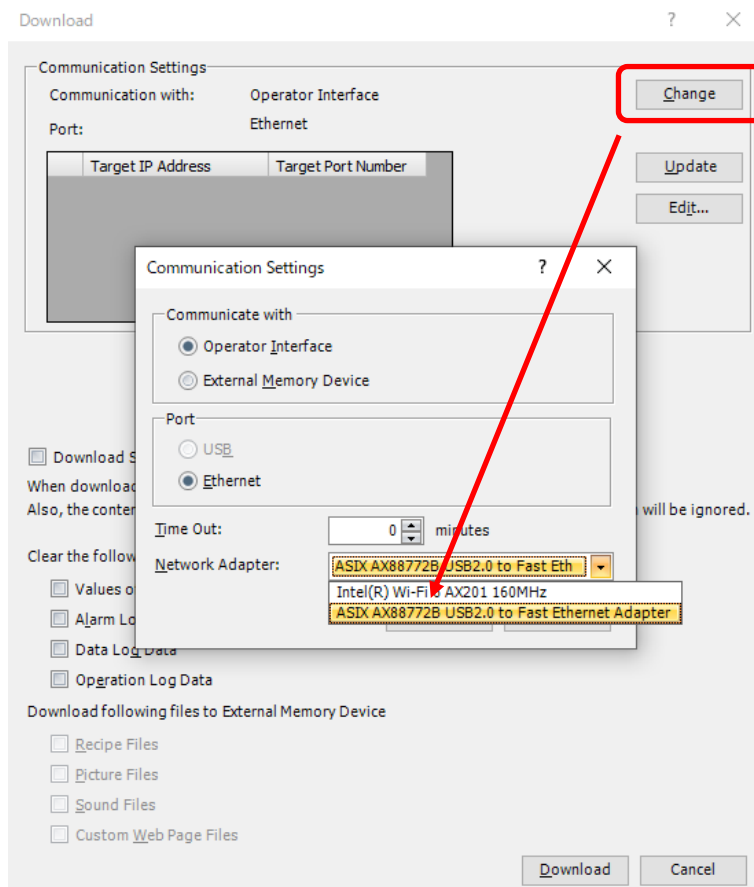
[Summary]

The HG2J-7U series does not have a USB-B port. Please use Ethernet instead for the download. The HG2J-7U series IP address can be found by using the IP search function of the WindO/I-NV4.

[Procedures]

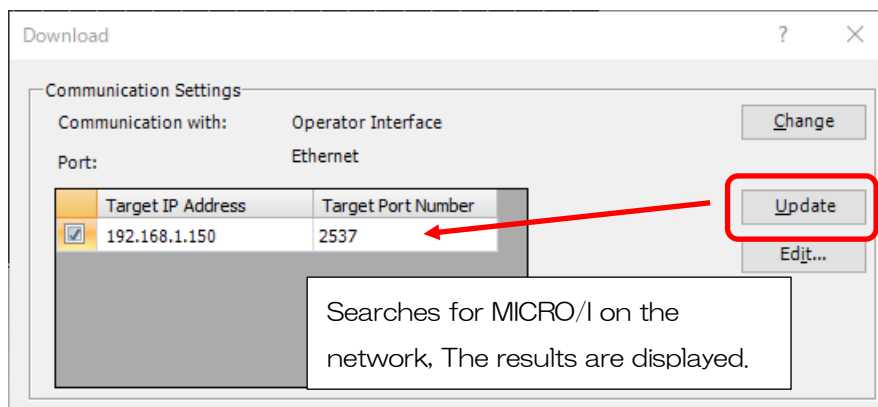
1. Connect MICRO/I to the computer with an Ethernet cable.
2. From the WindO/I-NV4 ribbon select **Online**. Then click the **Download** button to open the **Download** dialog.
3. From the **Network Adapter** in the **Communication Settings** dialog box, select the network adapter for the communication.

The network adapter can be checked in Windows at the following location.  
**Control Panel > Network and Sharing Center > Change adapter settings.**





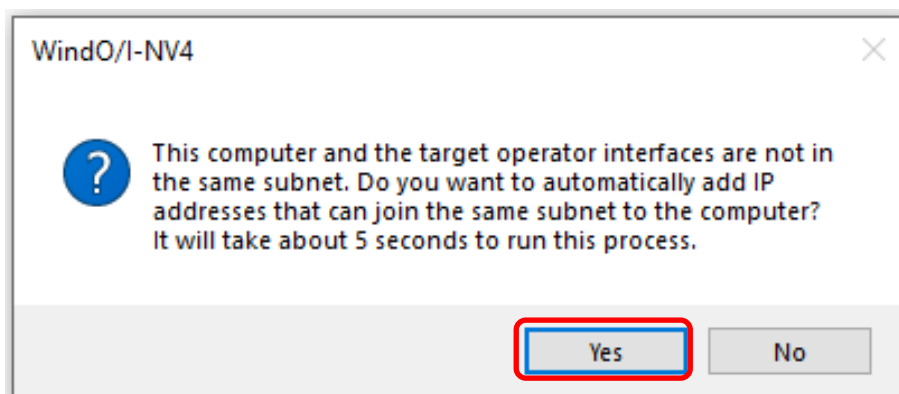
4. Press "OK" to return to the **Download** dialog and press the "Update" button.



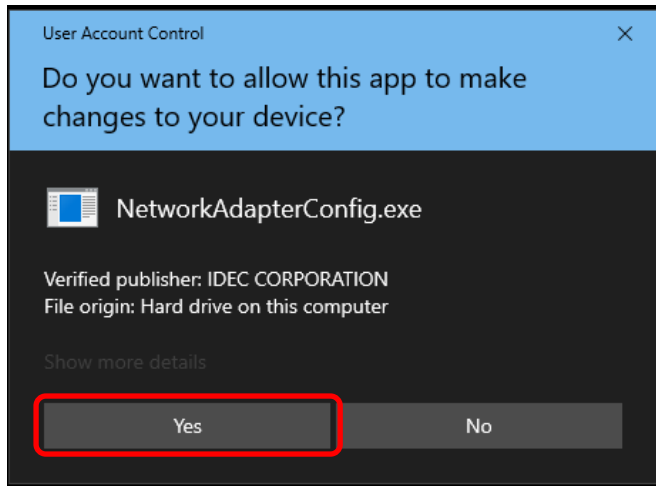
5. Make sure the check box for the download target's **Destination IP address** is ON. Then click the "Download" button to proceed download.

Steps 6 and later steps are for cases where the IP addresses of the computer and the MICRO/I do not exist in the same subnet when the "Download" button is clicked. If the IP addresses of the computer and the MICRO/I exist on the same subnet, the download will start. (The check box is OFF in the default configuration.)

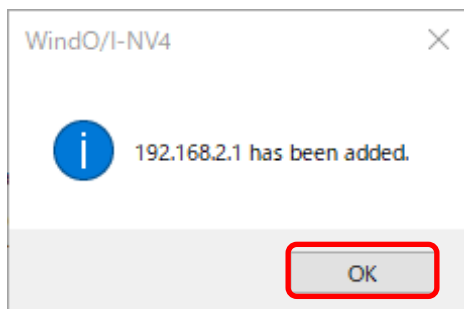
6. Press "Yes" when the following dialog box.



7. When **User Account Control** dialog box is displayed, press “Yes”.



8. Finally, the added IP address is displayed. Press “OK” to start the download.



[Restriction]

The HG2J-7U series has a USB-A port, but it cannot be used for downloading.

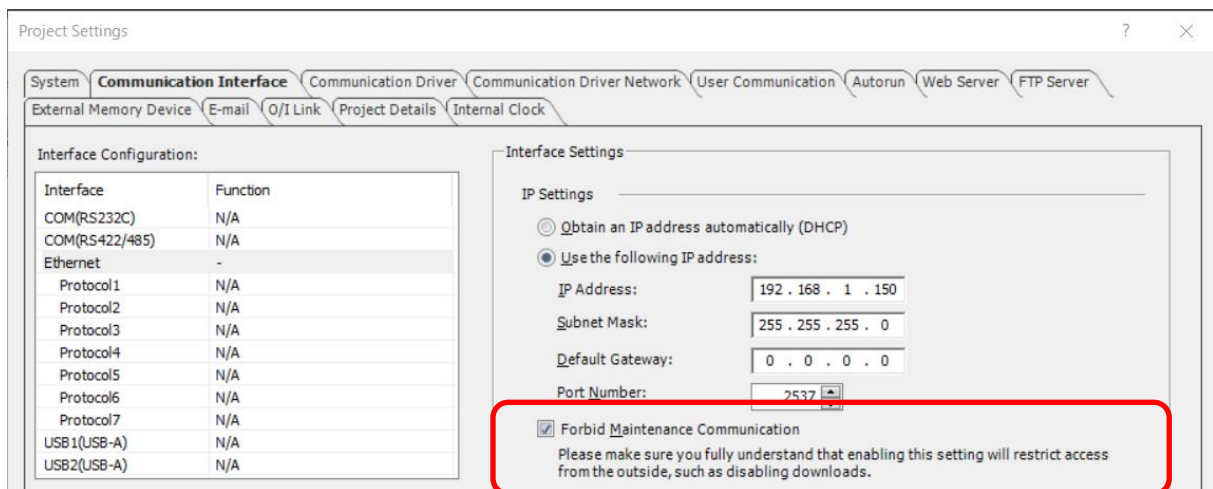
[Important Note]

<Detail>

If the **Forbid Maintenance Communication** check box in the **Interface Settings**, which is located under **Ethernet** of the **Communication Interface** tab in the **Project Settings** dialog, is ON, the user cannot download. (The default setting for the check box is OFF.)

<Solution>

Change the check box to OFF and save the project file. Download the project file with MICRO/I in boot mode.

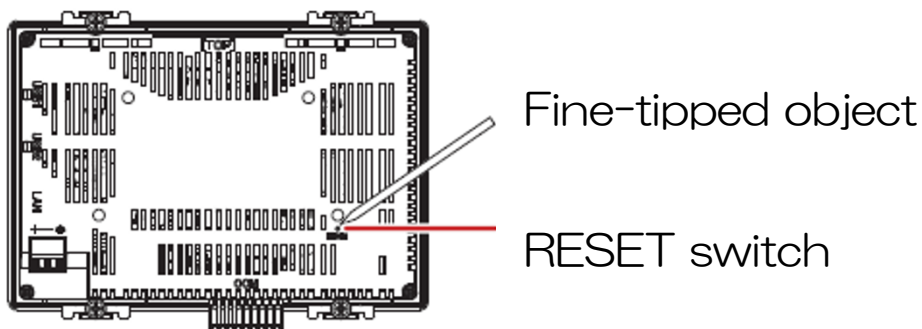


### Downloading project file in boot mode

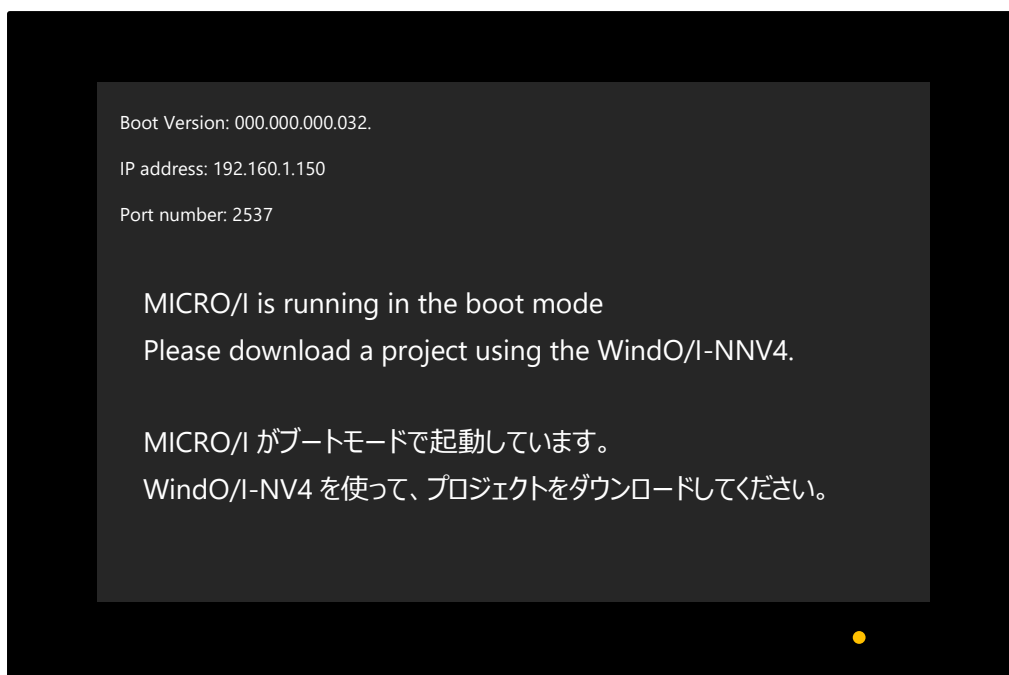
If the project file download does not work, please try downloading the project file in boot mode.

[Procedures]

1. Press the RESET switch on the back of the HG2J-7U series with a fine-tipped object for more than 3 seconds.

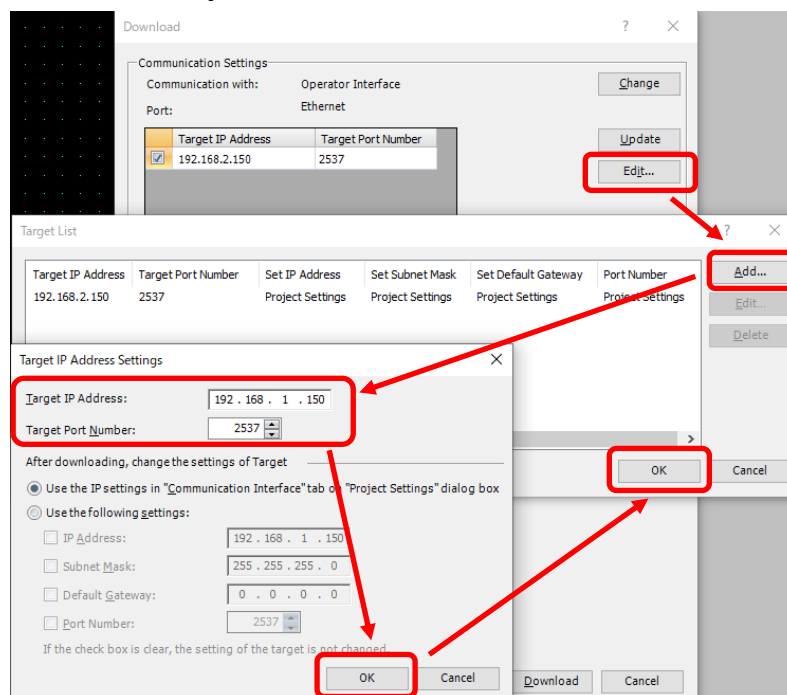


2. The buzzer consecutively beeps 5 times with the last one beeping the longest of all. The LED on the bottom of the screen turns orange and the screen changes to the boot mode screen.



### 3. Download project using WindO/I-NNV4.

- Since the MICRO/I in the boot mode cannot be searched using the IP address search function, the user needs to set 192.168.1.150 (IP address) and 2537 (port number) that are displayed on the screen of MICRO/I.
- To download a project file to the MICRO/I in boot mode, the computer and MICRO/I must be directly connected via Ethernet cable.



<MEMO>

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Specifications and other descriptions in this manual are subject to change without notice.  
Information in this manual is current as of February, 2023.

B-2378(1)

