

Easy! Smooth!

GP-577R Series→GP4000 Series

Replacement Guidebook

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Preface

This manual introduces the procedures to replace a GP-577RT/S unit with a unit in GP-4501T/TW.

Model in use	Recommended Substitution
GP-577RT/S	GP-4501T*1
	GP-4501TW*1

*1: A recommended substitution differs depending on a power supply type of the model you use.



GP4000 Series Model Number

GP4000 series model number partly differs depending on a specification. Before placing an order, please make sure of the model number.

А	2	GP-4200 series (3.5")
	3	GP-4300 series (5.7")
	4	GP-4400 series (7.5"/7.0W")
	5	GP-4500 series (10.4")
	6	GP-4600 series (12.1")
В	01	RS-232C/422/485
	03	RS-485 (isolation)
С	Т	TFT color LCD
	W	TFT color LCD (Wide Type)
D	А	Analog Resistive Film Touch Panel
	М	Matrix Resistive Film Touch Panel
E	А	AC Type Power Supply
	D	DC Type Power Supply
F	W	GP-4201TW/4301TW/4401WW/4501TW
	С	Coated model
	WC	Coated model of
		GP-4201TW/4301TW/4401WW/4501TW

 $\mathsf{PFXGP4} \underset{\scriptscriptstyle A}{\underline{*}} \underbrace{\mathbf{0}}_{\scriptscriptstyle B} \underbrace{*}_{\scriptscriptstyle C} \underbrace{*}_{\scriptscriptstyle D} \underbrace{*}_{\scriptscriptstyle E} \underbrace{*}_{\scriptscriptstyle F}$

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Chapter 1 Specification Comparison

1.1 Specifications of GP-577RT/S and GP-4501T

		GP-577RT/S	GP-4501T
Display	GP-577RT	TFT color LCD	
Туре	GP-577RS	STN color LCD	
Display Colors	GP-577RT	64 colors (RGB-4 levels)	UP!
Levels	GP-577RS	64 colors	16,384 colors (with blink)
Display	Resolution	VGA (640	×480 pixels)
Pane	l Cutout	302(M/) v 228(H)	259(W) x 201(H)
Dimens	ions (mm)	302(W) X 220(H)	→ <u>See 2.3</u>
External Dimensions (mm)		317(W) x 243(H) x 85(D)	272.5(W) x 214.5(H) x 57(D)
Touch Panel Type		Matrix	Analog/Matrix → <u>See 2.2.1</u>
Memory Application SRAM		2MB	UP! 32MB
		96KB	UP! 320KB
Backup Battery		Secondary Battery (Rechargeable Lithium battery)	NEW! Primary Battery (Replaceable Lithium battery) → <u>See 2.8</u>
Rated In	put Voltage	AC 100 to 240V/ DC 24V	
Serial	COM1	25 pin D-Sub (socket) RS-232C/422	9 pin D-Sub (plug) RS-232C → <u>See 2.5.1</u>
I/F	COM2	-	9 pin D-Sub (plug) RS-422/485 → <u>See 2.5.1</u>
Ethe	met I/F	-	INEW! IUDASE-1/ IUUBASE-1X

SD	Card I/F	-	NEW! 🗸
USB	Туре А		NEW! 🗸
I/F	Type mini B	-	→ <u>See 2.4</u>
Tool Connector I/F		v	-
Printer I/F		Centronic-compliant	NEW! USB (Type A)
		(parallel)	→ <u>See 2.6.2</u>
Auxilia	ary I/O I/F	v	- → <u>See 2.5.2</u>
Expans	ion Unit I/F	 ✓ 	- → <u>See 2.6.3</u>

1.2 Specifications of GP577RT/S and GP-4501TW

		GP-577RT/S	GP-4501TW	
Display	GP-577RT	TFT color LCD		
Туре	GP-577RS	STN color LCD		
Display	GP-577RT	64 colors (RGB-4 levels)	UP!	
Levels	GP-577RS	64 colors	16,384 colors (with blink)	
Display	Resolution	VGA (640	×480 pixels)	
Pane Dimens	Panel Cutout 302(W) x 228(H) 301.5(W) x 227. Dimensions (mm) 301.5(W) x 227.		301.5(W) x 227.5(H)	
External Dimensions (mm)		317(W) x 243(H) x 85(D)	315(W) x 241(H) x 56(D)	
Touch Panel Type				
Touch I	Panel Type	Matrix	NEW! Analog → <u>See 2.2.2</u>	
Touch F	Panel Type Application	Matrix 2MB	NEW! Analog → <u>See 2.2.2</u> UP! 16MB	
Touch I Memory	Panel Type Application SRAM	Matrix 2MB 96KB	NEW! Analog → See 2.2.2 UP! 16MB UP! 128KB	
Touch I Memory Backu	Panel Type Application SRAM p Battery	Matrix 2MB 96KB Secondary Battery (Rechargeable Lithium battery)	NEW! Analog \rightarrow <u>See 2.2.2</u> UP! 16MB UP! 128KB NEW! Primary Battery (Replaceable Lithium battery) \rightarrow <u>See 2.8</u>	
Touch I Memory Backu Rated In	Panel Type Application SRAM p Battery	Matrix 2MB 96KB Secondary Battery (Rechargeable Lithium battery) AC 100 to 2	NEW! Analog → <u>See 2.2.2</u> UP! 16MB UP! 128KB NEW! Primary Battery (Replaceable Lithium battery) → <u>See 2.8</u> 240V/ DC 24V	
Touch I Memory Backu Rated In Serial	Panel Type Application SRAM p Battery put Voltage	Matrix 2MB 96KB Secondary Battery (Rechargeable Lithium battery) AC 100 to 2 25 pin D-Sub (socket) RS-232C/422	NEW! Analog \rightarrow <u>See 2.2.2</u> UP! 16MB UP! 128KB NEW! Primary Battery (Replaceable Lithium battery) \rightarrow <u>See 2.8</u> 240V/ DC 24V 9 pin D-Sub (plug) RS-232C \rightarrow <u>See 2.5.1</u>	
Touch I Memory Backu Rated In Serial I/F	Panel Type Application SRAM p Battery put Voltage COM1	Matrix 2MB 96KB Secondary Battery (Rechargeable Lithium battery) AC 100 to 2 25 pin D-Sub (socket) RS-232C/422 -	NEW! Analog → <u>See 2.2.2</u> UP! 16MB UP! 128KB NEW! Primary Battery (Replaceable Lithium battery) → <u>See 2.8</u> 240V/ DC 24V 9 pin D-Sub (plug) RS-232C → <u>See 2.5.1</u> 9 pin D-Sub (plug) RS-422/485 → <u>See 2.5.1</u>	
Touch I Memory Backu Rated In Serial I/F Ethe	Panel Type Application SRAM p Battery put Voltage COM1 COM2 rnet I/F	Matrix 2MB 96KB Secondary Battery (Rechargeable Lithium battery) AC 100 to 2 25 pin D-Sub (socket) RS-232C/422 - -	NEW! Analog \rightarrow See 2.2.2 UP! 16MB UP! 128KB NEW! Primary Battery (Replaceable Lithium battery) \rightarrow See 2.8 240V/ DC 24V 9 pin D-Sub (plug) RS-232C \rightarrow See 2.5.1 9 pin D-Sub (plug) RS-422/485 \rightarrow See 2.5.1 NEW! 10BASE-T/100BASE-TX	

USB	Туре А		NEW! 🗸
I/F	Type mini B	-	→ <u>See 2.4</u>
Tool Connector I/F		v	-
Printer I/F		Centronic-compliant	NEW! USB (Type A)
		(parallel)	→ <u>See 2.6.2</u>
Auxiliary I/O I/F		~	- → <u>See 2.5.2</u>
Expansion Unit I/F		 ✓ 	- → <u>See 2.6.3</u>

Chapter 2 Compatibility of Hardware

2.1 Locations of connector

Connector locations on GP-577RT/S and GP-4501T/TW are as follows;

GP-577RT/S



GP-4501T/TW



Interface names

	GP-577RT/S	GP-4501T	GP-4501TW
1	Power Input Terminal Block (AC/DC type)	Power Input Terminal Block (AC type)/ Power Connector (DC type)	Power Connector (DC type)
2		Serial I/F (COM1)	
3	-	Serial I/F	(COM2)
4	Tool Connector	-	
5	-	Ethern	et I/F
6	-	USB I/F ((Туре А)
7	-	USB I/F (Ty	pe mini B)
8	-	SD Ca	rd I/F
9	Auxiliary I/F (AUX)	-	
10	Printer I/F	-	

2.2 Touch Panel specifications

2.2.1 When replacing GP-577RT/S with GP-4501T

You can select the Matrix type (2-point touch input at the same time same as GP-577RT/S) or the Analog type (1-point touch input) for Touch Panel Type. For the Analog type, if you touch two points at the same time, only the first touched point is recognized, but the second touched one is not.

If you use the Analog type, change to 1-point touch input setting using the switch delay function of GP-Pro EX.

There's a model number difference between the Analog type and the Matrix type. For details, see <u>GP4000 Series Model Number</u>.

2.2.2 When replacing GP-577RT/S with GP-4501TW

GP-4501TW adopts the Analog type.

For the Analog type, even if you touch two points at the same time, it's recognized that the coordinates located between these two points are touched.

If you have used the 2-point touch input on GP-577RT/S, change to the 1-point touch input setting using the switch delay function of GP-Pro EX.

If you use the Matrix type that enables 2-point touch input at the same time, you can replace GP-577RT/S with GP-4501T.

There's a model number difference between the Analog type and the Matrix type. For details, see <u>GP4000 Series Model Number</u>.

2.3 Panel cutout dimensions (only when replacing with GP-4501T)

The size of GP-4501T gets smaller. The panel cutout dimensions of GP-4501T are different from those of GP-577RT/S. Attachment (model: CA4-ATM10-01) for installing GP-4501T is available and you can use it when replacing GP-577RT/S with GP-4501T.

For replacing the other models, there's no change in the panel cutout dimensions.

2.4 Transfer cable

To transfer screen data to GP-4501T/TW, use a USB transfer cable or Ethernet. The USB cables that can be used for GP-4501T/TW are as follows;

	Model	Connector Type	Connector on GP
Ontions	CA3-USBCB-01	Type A Type A	USB (Type A)
	ZC9USCBMB1	Type A Type mini B	USB (Type mini B)
Commercial Item	-		

Please note that the cables (GPW-CB02, GPW-CB03, GP430-CU02-M) for GP-577RT/S cannot be used for GP-4501T/TW.

2.5 Interface

2.5.1 Serial Interface

The pin assignment and the shape of plug/socket connector of GP-577RT/S are different from those of GP-4501T/TW.

To know the details about them, see [<u>4.2 Shapes of COM ports</u>] and [<u>4.3 Signals of</u> <u>COM ports</u>].

Because of it, the existing PLC connection cables cannot be used as they are. If you use the existing connection cables, see [4.5 Cable Diagram at the time of replacement].

2.5.2 Auxiliary I/O Interface (AUX)

GP-4501T/TW is not equipped with Auxiliary I/O Feature. External Reset Input and 3 Outputs (RUN Output, System Alarm Output, and External Buzzer Output) that can be used for GP-577RT/S cannot be used.

2.5.3 CF Card Interface

(only when using "Multi Unit" (GP077-MLTS11, GP077-MLTE41)) GP-4501T/TW is not equipped with a CF card slot. But a SD card slot and a USB interface are installed. In order to use the GP-577RT/S data saved in the CF card and the functions using the CF card with using Multi Unit (GP077-MLTS11, GP077-MLTE41), use a SD card or a USB flash drive instead.

* When using a SD card with GP-4501T/TW, please verify it supports the following specifications:

	File format	Maximum capacity
SD	FAT16	2GB
SDHC	FAT32	32GB

For the GP-PRO/PBIII's "CF Card output folder" setting, if project file is converted on GP-Pro EX, the setting will automatically change to the one that uses a SD card. To change the setting of the output destination folder, see [5.1 Changing the setting of the external media to use].

(The sound output function of the Multi Unit (GP077-MLTS11, GP077-MLTE41) cannot be used for GP-4501T/TW.)

2.6 Peripheral units and option units

2.6.1 Barcode reader connection

GP-4501T/TW is not equipped with a tool port. A barcode reader that used to be connected to the tool port on GP-577RT/S cannot be used. However, GP-4501T/TW allows you to connect a barcode reader on its USB interface (Type A) or its serial interface.

For the models GP-4501T/TW supports, see [OtasukePro!]

(http://www.pro-face.com/otasuke/qa/3000/0056_connect_e.html).

2.6.2 Printer connection

GP-4501T/TW is not equipped with Centronics (parallel) Interface for a printer though GP-577RT/S is equipped with it. If the printer for GP-577RT/S is used for GP-4501T/TW, a converter that converts USB I/Fon GP-4501T/TW to Centronics I/F is required. And GP-4501T/TW allows you to connect a printer on its USB port. For the models GP-4501T/TW supports, see [OtasukePro!] (http://www.pro-face.com/otasuke/qa/3000/0056_connect_e.html).

2.6.3 Expansion Unit

GP-4501T/TW is not equipped with an expansion unit interface. The expansion unit (each kind of unit like CC-LINK Unit) for GP-577RT/S cannot be used.

2.6.4 Front Maintenance Unit

The front maintenance unit for GP-577RT/S (GP077-CFFM10) cannot be used for GP-4501T/TW.

2.6.5 Isolation Unit

The isolation unit for GP-577RT/S (CA2-ISOALL232-01, CA2-ISOALL422-01) cannot be used for GP-4501T/TW. You can use the RS-232C isolation unit for GP-4501T/TW (CA3-ISO232-01) instead.

2.7 Power Connector

2.7.1 AC power supply type

The power connector on GP-4501T (AC type) has the same terminal block as GP-577RT/S (AC type), but the FG location is different.

GP-4501TW has a DC power supply type only. When replacing GP-577RT/S (AC type) with GP-4501TW, changing to DC power supply is required.

2.7.2 DC power supply type

The power connector on GP-4501T/TW (DC type) is a spring lock type. If you replace GP-577RT/S (DC type) with GP-4501T/TW (DC type), change the power cable.

2.8 Backup Battery

Unlike GP-577RT/S, GP-4501T/TW does not use rechargeable secondary batteries but replaceable primary ones. (For both a rechargeable type and a replaceable one, contents to be backed up are the same.)

When the time for replacement of backup batteries approaches, the message to urge you to replace the battery, "RAAA053: Running out of power in the backup battery. Please change the battery." appears. When the message appears, replace the battery referring to the GP4000 series hardware manual.

Replaceable Battery Model	
PFXZCBBT1	

2.9 Power Consumption

The power consumption of GP-577RT/S is different from that of GP-4501T/TW.

	АС Туре	DC Туре
GP-577RT/S	50VA or less (AC100V)	50W or less
	44VA or less (AC100V)	
GP-45011	58VA or less (AC240V)	17W or less
GP-4501TW	-	

For the detailed electric specifications, see the hardware manual.

2.10 Materials/Colors of the body

The materials and the colors of GP-577RT/S and GP-4501T/TW are as follows;

	Color	Material
GP-577RT/S	Dark Gray	Resin
GP-4501T/TW	Light Gray	Resin with glass

Chapter 3 Replacement Procedure

3.1 Work Flow



*1: This step is required if screen data is saved only in the GP unit, not in any other device.

3.2 Preparation

Requirements for	PC in which GP-PRO/PBIII for Windows V2.1 or later is
receiving screen data	installed. *2
from GP-577RT/S *1	Transfer cable (The following three types of cables are
	available)
	GPW-CB02 (D-sub 9-pin to the PC)
	GPW-CB03 (USB to the PC *3)
	 GP430-CU02-M or GPW-SET (D-sub 25-pin to the PC)
Requirements for	PC in which GP-Pro EX Ver.3.01 or later is installed
converting screen	Transfer cable (The following three types of cables are
data of GP-577RT/S	available)
and transferring the	 A USB transfer cable (model: CA3-USBCB-01)
converted data to	 A USB data-transfer cable (model: ZC9USCBMB1)
GP-4501T/TW	 A commercial USB cable (USB Type A/mini B)
	* Possible to send/receive a screen with a SD card, a USB
	storage device, or via Ethernet.

*1: This step is required if screen data is saved only in the GP unit, not in any other device

*2: Please use the same version or later as or than that of the software used during creating screens on GP-577RT/S.

If you don't know the version, we recommend you to use the newest version. The newest version is GP-PRO/PBIII for Windows C-Package03 (SP2) V7.29. Those who have GP-PRO/PBIII for Windows C-Package03 V7.0 can download it from our web site called [OtasukePro!]

(http://www.pro-face.com/otasuke/download/update/).

*3: GPW-CB03 is supported by GP-PRO/PBIII for Windows C-Package02 (SP2) V6.23 or later. You need to install a driver from [Download] on our Web site called [OtasukePro!] (<u>http://www.pro-face.com/otasuke/download/driver/</u>)

3.3 Receive screen data from GP-577RT/S

This section explains, as an example, how to receive screen data from GP-577RT/S using a transfer cable, GPW-CB02 or GPW-CB03. If you have backed up screen data, this step is unnecessary; skip to the next section [3.4 Convert screen data with the Project Converter].

(1) Connect a transfer cable to the GP-577RT/S unit.



(2) Start up GP-PRO/PBIII for Windows and click the [Transfer] icon on the Project Manager (Specify a desired project file.)



(3) On the [Transfer] window, select the [Setup] menu and click [Transfer Settings...].



(4) In the Communication Port field, select [COM], specify the COM port to which the cable is connected, and click [OK].

Transfer Settings	
- Send Information ✓ Upload Information ✓ GP System Screen ✓ Fijing Data(CF card) ✓ Data Trans Func CSV Data(CF card)	Communications Bot Comm Port COM1 ▼ Retry Count 3 ★ Baud Rate 38400 ▼ (bps)
Transfer Method Image: Send All Screens Image: Automatically Send Linanged Screens Image: Send User Selected Screens	Ethernet IP Address 0. 0. 0. 0 Port 8000 Ethernet: Auto Acquistion
Transfer Mode Transfer Mode Transfer and a transfer are made simultaneou Tit is transferred after preparation for a transfer is finished. Setup Automatic Setup Goutomatic Setup Force System Setup Force Syste	C Memory Loader
System Sc Setup CFG file : C _English C _Japanese C _Selection C:\PR0GRA~1\Proface\PR0PBW/~1.02\pi OK	rot Browse Cancel Help



(5) Select the [Transfer] menu and click [Receive...].



(6) Specify the location to save the received screen data at and the project file name and save them.

In case there is no Upload Information

"Upload Information" is necessary to receive screen data from GP-577RT/S. It needs to be included in screen data when transferring screen data to the display unit beforehand. The Upload Information is sent to the display unit by default, however, you may check off the box of Upload Information to prevent screen reception by a third party.



Vertical Section ✓ Upload Information ✓ GP System Screen ✓ Filing Data(CF card) ✓ Data Trans Func CSV Data(CF card)

You can check in the following way if the Upload Information has been sent or not.

- 1. Enter into the GP's Offline mode
- 2. If there are 2 asterisk (*) marks in the Main menu as shown below, the Upload Information has been sent.



If not, there is no "Upload Information" sent. In this case, a message, which indicates there is no "Upload Information", appears and you cannot receive the data.

3.4 Convert screen data with the Project Converter

Convert a project file (*.prw) for GP-577RT/S with the GP-Pro EX's Project Converter.

(1) Click the [Start] button, select [All Programs] (or [Programs])-> [Pro-face]-> [GP-Pro EX *.**]->[Project Converter].

(For this part, [*.**], the version of the software you use is displayed.)

	💼 Pro-face 🔹 🕨	🛅 GP-Pro EX 1.10 🔹 🕨	🛅 Manual (Help) 🛛 🕨
	🥭 Internet Explorer		🝰 GP-Pro EX
	Microsoft Excel		🍓 Project Converter
	W Microsoft Word		📄 Readme
	🙆 Microsoft Outlook		😭 TransferTool
	🖪 Microsoft PowerPoint		👩 Uninstall
	🇐 Outlook Express		
	🎕 Windows Movie Maker		
All Programs 👂	📕 Adobe Reader 8		
	Log Off 🚺 Shut Dov	vn	
省 start 🌖			

(2) The Project Converter starts up and the [Project Converter] dialog box opens. Select [Project File (*.PRW)] in the [Data Type].

🗟 Project C	onverter	×
Data Type	Project File(*.PRW)	
Convert-From		Browse
Convert-To		Browse

(3) Click the [Browse...] button and select a project file (e.g.: "Project system A.prw"). Click [Open], and the file will be set in [Convert-From].

🚭 Project Converter		
Data Type	Project File(*.PRW)	
Convert-From		Browse
Convert-To		Browse

	-			
Open			? 🛛]
Look jn: 🔂 databas	e	• 🗢 🖻	- * 🖩	
Product system A				
File <u>n</u> ame: Product	t system A		<u>O</u> pen	1
Files of type: Project	Files (*.prw)	•	Cancel	
	-			
😂 Project Convert	er			
Data Type Project	File(*.PRW)	•		
Convert-From C:\Pro	gram Files\Pro-face\ProPB	Win\datab	Browse	
Convert-To			Browse	

(4) In [Convert-To], designate a GP-Pro EX's project file (*.prx). Click the [Browse...] button and enter a new [File Name] (e.g.: "Product system A.prx"). Click [Save], and a new project file will be set to [Convert-To].

😵 Project C	onverter	
Data Type	Project File(*.PRW)	
Convert-From	C:\Program Files\Pro-face\ProPBWin\datab	Browse
Convert-To		Browse

Save As			? 🛛
Save jn: 📴) Database	•	🗈 💣 🎟 •
File <u>n</u> ame:	Product system A		<u>S</u> ave
Save as <u>t</u> ype:	PRX Files (*.prx)	-	- Cancel
		J	
🔀 Project Co	onverter		
Data Type	Project File(*.PRW)	•	
Convert-From	C:\Program Files\Pro-fac	ce\ProPBWin\datab	Browse
Convert-To	C:\Program Files\Pro-fac	ce\GP-Pro EX\Datab	Browse

NOTE

When a convert-to file exists, the window that confirms whether or not to overwrite the file is displayed.

Save As	
⚠	C:\Program Files\Pro-face\GP-Pro EX\Database\Product system A.prx already exists. Do you want to replace it?
	Yes No

(5) Click [Convert] and start the conversion.

😂 Project C	onverter	
Data Type	Project File(*.PRW)	
Convert-From	C:\Program Files\Pro-face\ProPBWin\datab	Browse
Convert-To	C:\Program Files\Pro-face\GP-Pro EX\Datab	Browse
	Option	
	Close	<u>H</u> elp

(6) If you are asked about the [Convert-To] type as shown below, select [GP-4501T] on the pull-down menu. Click [OK].



😓 Project Converter 🛛 🔀				
Data Type	Project File(*.PRW)			
Convert-From	C:\Program Files\Pro-face\ProPBWin\datab	Browse		
Convert-To	C:\Program Files\Pro-face\GP-Pro EX\Datab	Browse		
	Option			
Option Converted Popup Keypad Edit(Text Landscape) Converted Popup Keypad Edit(Dec Portrait) Converted Popup Keypad Edit(Hex Portrait) Converted B00001 Converted B00002 Converted B00003 Converted B08999 Converted W00001 Converted System settings				

If an error message is displayed during conversion...

If an error message is displayed during conversion, refer to [Project Converter Error Message]

(<u>http://www.pro-face.com/otasuke/qa/gp3000/replace/soft/conv/project_con</u> <u>verter_error.html</u>) on our Web site called [OtasukePro!] for the cause and the solution.

NOTE

If the following dialog box appears, CF Card Ouput Folder setting is required. Please refer to <u>Convert GP-PRO/PBIII for Windows' "Destination CF Card</u>

FO	<u>der'</u>	<u>.</u> .

?	A CF card output folder is set in the project. Do you want to convert the CF card data In the data in CF card folder, when not performing conversion, the library call of an image screen(CF) is not generated correctly.
	Yes No Cancel

(7) After conversion, the [Save convert information] dialog box appears. If you click [Save], you can save the conversion information in a CSV file format.

Save convert information.
Save in: 🞯 Desktop 💽 🖛 🛍 📸 📰 -
My Documents
My Network Places
File <u>n</u> ame: Save
Save as type: CSV Files (*.csv)

NOTE Because the differences made at the time of conversion from GP-Pro/PBIII for Windows are described in the saved file, the project file (*.prx) after conversion can be checked and modified according to the conversion information.

(8) Click [Close] to close the [Project Converter] dialog box.

If you double click the project file (*.prx) after conversion, GP-Pro EX will start and the file will open.

Convert GP-PRO/PBIII for Windows "Destination CF Card Folder"

If you convert a project file (*.prw) with a destination CF card folder designated in the step 6, the Question dialog box asking whether or not to designate the destination CF card folder for the convert destination appears again.

Question			\mathbf{X}
٢	A CF card output folder is set in the project. Do you want to convert the CF card data In the data in CF card folder, when not performing conv	version, the library cal	II of an image screen(CF) is not generated correctly.
	Yes	No Canc	el

Select a folder (e.g.: "Database") and click [OK].

If you click the [Make New Folder] button, you can create a new folder at any location.

Br	owse For Folder	? 🗙
2	Select a destination CF card folder.	
	🖃 🚞 Pro-face	~
	🖃 🧰 GP-Pro EX 1.10	
	🛅 backup	
	🗉 🛅 CML	
	🛅 Database	
	E FONT	
	🛅 Fonts	
	🗉 🧰 IODriver	
	i ja	
	🗀 Keymap	~
ſ	Make New Folder	

IMPORTANT

- In the [Question] dialog box, be sure to select [Yes] and specify the destination folder. If you select [No], images will not be called correctly.
- GP-4501T/TW is not equipped with a CF card slot. If you create a destination folder in the step above, the CF card setting will automatically change to the SD card setting.

For checking or changing the destination folder setting, see [5.1 Changing the setting of the external media to use].

3.5 Change the Display Unit Type (only when replacing with GP-4501TW)

Open the project file (*.prx) on GP-Pro EX that is converted in the Chapter 3.4 and change the display unit type to GP-4501TW.

- (1) Open the converted project file (*.prx) on GP-Pro EX.
- (2) Click GP-Pro EX's [System Settings]->[Display] and there change the Display Unit to GP-4501TW.
- (3) Click [Project]->[Save] or [Save As] to save the change.

3.6 Transfer the screen data to GP-4501T/TW

Transfer the project file after conversion to GP-4501T/TW. You can transfer data to GP-4501T/TW via;

- A USB transfer cable (model: CA3-USBCB-01)
- A USB data transfer cable (model: ZC9USCBMB1)
- A commercial USB cable (USB Type A/mini B)
- A SD card/A USB storage device
- Ethernet

But, this section explains, as an example, how to transfer screen data with a USB transfer cable (model: CA3-USBCB-01).



(1) Connect your PC and GP-4501T/TW with a USB transfer cable (model: CA3-USBCB-01).

If the driver of the cable has not been installed on you PC yet, a dialog box will appear. Please follow the instructions.

NOTE				
The "Hardware Installation" dialog box as shown below may appear during				
installing the USB driver depending on the security level of Windows® XP.				
Click [Continue Anyway] to start installing the driver. When installation is				
completed, click [Finish].				
Hardware Installation Image: State of the software you are installing for this hardware: USB Link Cable (has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me who this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing. Image: Continue Anyway STOP Installation				
 If the following symptoms appear on Microsoft Windows® 7, go to updating "USB Data Transfer Driver" on [OtasukePro!] for download (<u>http://www.pro-face.com/otasuke/download/update/proex/proex/v260/g pproex_usb_transfer.htm</u>). An error occurs when GP-Pro EX or Transfer Tool is installed An error occurs when data is transferred via a USB transfer cable (model: CA3-USBCB-01). 				

(2) Trun on the power of GP-4501T/TW. The "Initial Start Mode" screen will appear on the display unit. After transferring a project file once, this screen will not appear again.



(3) On the GP-Pro EX's State Toolbar, click the [Transfer Project] icon to open the Transfer Tool.

at Transfer Tool			
File (F) Transfer (T) Settings (S) Help (H)			
Send Project	Project Information	0	Select Project
Receive Project	Project File Name [Unitiled2.pn] [Display Unit Model : Comment [] Date [12/3/2010.3:34 PM]	*	
Display Unit Information	Designer [kenichiroo]		
CF Card Connection	Password for send and re	ceive	
📄 \leftrightarrow 😹 Memory Loader	Transfer Information	00	Transfer Settings
Send Web site	Device [US8]		
	[Automatic]		
	Transfer system [Automatic]		
	-		Close

To transfer a different project file, click the [Select Project] button and select a project file.

(4) Make sure that the [Device] in the "Transfer Settings Information" is set to [USB]. If not, click the [Transfer Setting] button to open the "Transfer Setting" dialog box. Select [USB] in the Communication Port Settings field and click [OK].

Transfer Setti	ngs
Tamsfer Settings	Site Settings
Communication	Port Settings
USB	
C LAN	
C Modem	
С СОМ	

(5) Click [Send Project] to start transfer.

When the following dialog box appears, click [Yes]. This dialog box doesn't appear when the same project file is sent again.

🔊 USB			×
?	Transferring all pro Is that OK?	jects will be ex	ecuted.
	Yes	No	I

(6) The following dialog box appears during transfer and you can check the communication status. (The display unit enters the Transferring mode and communication with the device such as a PLC is terminated.)

e.! Send Project			SID X	
Display Unit USE(A to A)	Status Transferri,	UBDA to Al Converting parameter divide. Parameter of an off stop Parameter of an off stop Parameter of an off stop Parameter of the stop of the stop Parameter of the stop of the stop Parameter of the stop of the stop One of the stop of the stop of the stop One of the stop of the stop of the stop One of the stop of the stop of the stop One of the stop of the stop of the stop of the Darting to the stop of the stop of the stop of the stop of the stop of the stop of the stop of the stop of the stop of the stop of the stop of the stop of the Stop of the stop of the stop of the stop of the stop of the Stop of the stop of the stop of the stop of the stop of the Stop of the stop of the stop of the stop of the stop of the Stop of the stop of the stop of the stop of the stop of the Stop of the stop of the stop of the stop of the stop of the Stop of the stop of the stop of the stop of the stop of the Stop of the stop of the stop of the stop of the stop of the Stop of the stop of the Stop of the stop of the Stop of the stop of the Stop of the stop of the sto		Display Screen Data Transfer Data Transfer Data Transfer
) 10x	Please do NOI turn off the machine until complete,

(7) When transfer is completed, the status displayed in the dialog box will change from [Transferring] to [Complete Transfer]. Click [Close] to close the dialog box.

Contradio Course	Status	0.00
058	Transfer compl	Connecting to display unit. Starting partmood check. Personad check complete. Oreck postect. Starting to Brandle Rimmen. Transferring Rauntime complete. Starting to Brandle Rimmen. Transferring Rauntime complete. Starting to Brandle River. Did not send the V/D Diver. Did not send the V/D Diver. Did not send the V/D Diver. Did not send the V/D Diver. Starting to brandle River. Starting to brandle River. S

The display unit will be reset and a screen of the transferred project file will be displayed.

- (8) Close the Transfer Tool.
- (9) Click the [X] mark on top right of the screen or [Project]->[Exit] to close GP-Pro EX.

3.7 Differences of software

3.7.1 Differences after conversion

Check the differences of screen data after conversion from GP-PRO/PBIII to GP-Pro EX. For the details of each item, refer to our website.

http://www.pro-face.com/otasuke/qa/gp3000/replace/soft/conv/care/3/

Differences of Software

1	Touch Panel Type
2	Compatibility of Bit Switch
3	Compatibility of Alarm
4	Compatibility of Trend Graph
5	Compatibility of K tag (Input Order)
6	Compatibility of K tag (difference of Writing)
7	Compatibility of K tag (Indirect Setting)
8	Compatibility of N tag
0	Precautions for using the switch for [History Data Display] of Trend Graph
7	on the window
10	About window display on a momentary switch during momentary
	operation
11	About the performance when a display area of the system window is
	overlapping
12	Change of Tag Process
13	About the display when a fixed Draw is placed on a Part
14	Compatibility of Text
15	Compatibility of Fill
16	Compatibility of CF Card Data
17	Precautions for conversion when filing data is saved in a CF card
18	Precautions for setting "Color Settings" to [256 Colors without blinking]
19	Precautions for loading a part with "L Tag (Library Display)"
20	Compatibility of MRK files and CPW files
21	Compatibility of V Tag/v tag and Video Screen
22	Compatibility of Extended SIO Script
23	Compatibility of Sound Data
24	Compatibility of Device Monitor

25	Compatibility of Ladder Monitor
26	Compatibility of J Tag and R Tag
27	Converting Screen Data of DOS
28	Compatibility of Standard Font
20	D Script starts right after screen change or power on.
29	(Compatibility of D Script Trigger Condition)
30	The position shifts when loading a window screen (Compatibility of U Tag)
31	Precautions for using Screen Level Change
32	Compatibility of H tag

Chapter 4 Communication with Device/PLC

4.1 Driver list

More connectable drivers will be added.

For the devices/PLC each driver supports, see [Connectable Devices] (<u>http://www.pro-face.com/product/soft/gpproex/driver/driver.html</u>).

4.2 Shapes of COM ports

	GP-577RT/S	GP-4501T/TW
	D-Sub 25 pin (socket)	D-Sub 9 pin (plug)
	RS-232C/422	RS-232C
COM1		5 5 1 0 0 0 0 0 0 0 0 0 0 0 0 0
		D-Sub 9 pin (plug) RS-422/485
COM2	-	5 5 5 5 5 5 5 5 5 5 5 5 5 5

NOTE

For the COM ports of GP-577RT/S and GP-4501T/TW, the pin assignment and the shape of plug/socket connector are different. Because of it, the existing PLC connection cables cannot be used as they are. If you use the existing connection cables, see [4.5 Cable Diagram at the time of replacemet].

4.3 Signals of COM ports

4.3.1 Signals of COM1

For GP-577RT/S

RS-232C or RS-422 (socket)

Pin Assignments		Pin #	Signal Name	Condition	
			1	FG	Frame ground
(D-Sub 25pin female)		2	SD	Send data (RS-232C)	
`		,	3	RD	Receive data (RS-232C)
	SIO		4	RS	Request send (RS-232C)
			5	CS	Clear send (RS-232C)
	ി		6	DR	Data Set Ready (RS-232C)
1	\underline{e}		7	SG	Signal ground
			8	CD	Carrier detect (RS-232C)
			9	TRMX	Termination (RS-422)
		14	10	RDA	Receive data A (RS-422)
	00		11	SDA	Send data A (RS-422)
	o o		12	NC	No connection (Reserved)
			13	NC	No connection (Reserved)
	00		14	VCC	5V±5% output 0.25A
	0		15	SDB	Send data B (RS-422)
	l o o	25	16	RDB	Receive data B (RS-422)
		25	17	RI	Ring Indicate (RS-232C)
	ا (ما		18	CSB	Clear send B (RS-422)
13			19	ERB	Enable receive B (RS-422)
	(\circ)		20	ER	Enable receive (RS-232C)
`			21	CSA	Clear send A (RS-422)
			22	ERA	Enable receive A (RS-422)
			23	NC	No connection (Reserved)
			24	NC	No connection (Reserved)
			25	NC	No connection (Reserved)

For GP-4501T/TW

RS-232C (plug)

Pin Connection		Pin	R\$-232C			
			No.	Signal Name	Direction	Meaning
			1	CD	Input	Carrier Detect
	\odot]	2	RD(RXD)	Input	Receive Data
5	\bigcirc	9	3	SD(TXD)	Output	Send Data
	000		4	ER(DTR)	Output	Data Terminal Ready
1	õ	6	5	SG	-	Signal Ground
	Ø		6	DR(DSR)	Input	Data Set Ready
			7	RS(RTS)	Output	Request to Send
(Gl	(GP unit side)		8	CS(CTS)	Input	Send possible
			9	CI(RI)/VCC	Input/-	Called Status Display +5∨±5% Output 0.25A ^{*1}
			Shell	FG	-	Frame Ground (Common with SG)

*1: RI and VICC of Pin 9 are switched on the software.

VCC Output is not protected from overcurrent.

Please follow the current rating to avoid false operation or breakdown.

4.3.2 Signals of COM2

For GP-577RT/S

None

For GP-4501T/TW

RS-422/485 (plug)

Pi	Pin Connection		RS-422/RS-485			
			Signal Name	Direction	Meaning	
		1	RDA	Input	Receive Data A (+)	
	\odot	2	RDB	Input	Receive Data B (-)	
5	9	3	SDA	Output	Send Data A (+)	
	000	4	ERA	Output	Data Terminal Ready A (+)	
1	6	5	SG	-	Signal Ground	
	l 🛛 J	6	CSB	Input	Send Possible B (-)	
100	D unit side)	7	SDB	Output	Send Data B (-)	
(6	P unit side)	8	CSA	Input	Send Possible A (+)	
		9	ERB	Output	Data Terminal Ready B (-)	
		Shell	FG	-	Frame Ground (Common with SG)	

4.4 Multilink Connection

For GP-4501T/TW, some communication drivers do not support multi-link connection (n:1) via RS-422.

When converting the project file with the setting of the communication driver that does not support multi-link connection (n:1) via RS-422, the connection is automatically converted to (1:1).

For the communication drivers that support serial multi-link, see [Which drivers support serial multilink communication?]

(<u>http://www.pro-face.com/otasuke/files/manual/gpproex/new/device/com_mlnk.ht</u> <u>m</u>).

4.5 Cable Diagram at the time of replacement

The connection cable for GP-577RT/S can be used for GP-4501T/TW. But please note that there are precautions and restrictions as described below.

IMPORTANT
Please check the connection configurations GP-4501T/TW supports with GP-Pro
EX Device/PLC Connection Manual before using a connection cable.
(http://www.pro-face.com/otasuke/files/manual/gpproex/new/device/index.ht
<u>m</u>).
 The Siemens MPI connection cable cannot be used.
Please refer to the above-mentioned GP-Pro EX Device/PLC Connection Manual

and prepare a connection cable for GP-4501T/TW newly.

4.5.1 When using a RS-232C connection cable

GP-577RT/S System Configuration (connecting to COM1)



GP-4501T/TW System Configuration (connecting to COM1)



To replace GP-577RT/S with GP-4501T/TW, prepare the following item.

Product Name	Model
RS-232C 9-pin/25-pin Conversion Cable (20cm)	CA3-CBLCBT232-01

4.5.2 When using a RS-422 connection cable

GP-577RT/S System Configuration (connecting to COM1)



GP-4501T/TW System Configuration (connecting to COM2)



IMPORTANT

Before connecting to GP-4501T/TW, be sure to change the port setting to [COM2] on Device/PLC Setting of GP-Pro EX. Please check the communication setting with GP-Pro EX Device/PLC Connection Manual just in case. (http://www.pro-face.com/otasuke/files/manual/gpproex/new/device/index.ht m)

To replace GP-577RT/S with GP-4501T/TW, prepare the following item.

Product Name	Model
RS-422 9-pin/25-pin Conversion Cable (20cm)	PFXZCBCBCVR41

NOTE

When using a terminal block adapter (GP070-CN10-O), we recommend you to replace it with a terminal block conversion adapter (PFXZCBADTM1) for GP-4501T/TW.



Chapter 5 Appendix

5.1 Changing the setting of the external media to use

If a CF card is used for GP-PRO/PBIII, after GP-577RT/S is replaced with GP-4501T/TW with the Project Converter of GP-Pro EX, "a CF card" is automatically replaced with "a SD card" for the external media setting.

(1) After conversion of the project file data, at GP-Pro EX Error Check, if the message, "The project contains features that require a SD card. However, the selected display does not support SD cards so these features will not run." appears,

Error C	heck		
♥ ♥	V 🛛	8	
Level	Error N	ur Scree	n-Le Summany
Warning	1506	· ·····	A feature that requires the SD card is enabled. However, as the current model does not support the SD card, this feature will not work
Error			No Error

<Cause>

The model without a SD card slot has the setting that uses a SD card.

->Solution 1

- (2) To use a USB flash drive instead of a SD card ->Solution 1
- (3) To check or change the SD card's data output destination folder setting

-><u>Solution 2</u>

[Solution]

1. Change the SD Card setting to the USB storage setting following the steps below.

<Procedure>

- i. Click [Project]->[Information]->[Destination Folder].
- ii. Uncheck "Enable SD Card" and check "Enable USB Storage.

SD Card Destination
Enable SD Card
SD Card Folder
C:\Program Files\Pro-face\GP-Pro EX Browse
USB Storage Destination
✓ Enable USB Storage
USB Storage Folder
C:\Program Files\Pro-face\GP-Pro EX Browse

iii. Click the [Browse] button and specify a destination folder.

SD Card Destination	
Enable SD Card	
SD Card Folder	
C:\Program Files\Pro-face\GP-Pro EX	Browse
USB Storage Destination	
Enable USB Storage	
 Enable USB Storage USB Storage Folder 	

- iv. Click [OK] to confirm the setting.
- v. Click [Project]->[Save] to save changes.
- vi. Check each function that uses the CF card and replace the setting of [SD Card] with the one of [USB Storage].

NOTE

- To see how the tags or the parts of GP-PRO/PBIII for Windows are replaced on GP-Pro EX, refer to [OtasukePro!] "Feature Comparison between GP-PRO/PBIII and GP-Pro EX" (http://www.pro-face.com/otasuke/qa/gp3000/replace/soft/conv/care/3/co mpare.htm)
 - To check each function setting of GP-Pro EX, refer to GP-Pro EX Reference Manual.
- 2. Check and change the destination folder setting following the steps below.
 - i. Click [Project]->[Information]->[Destination Folder].
 - ii. The current setting is displayed.

SD Card Destination
Enable SD Card
SD Card Folder
C:\Program Files\Pro-face\GP-Pro EX Browse
USB Storage Destination
Enable USB Storage
USB Storage Folder

- iii. After changing it, click [OK] to confirm the setting.
- iv. Click [Project]->[Save] to save changes.