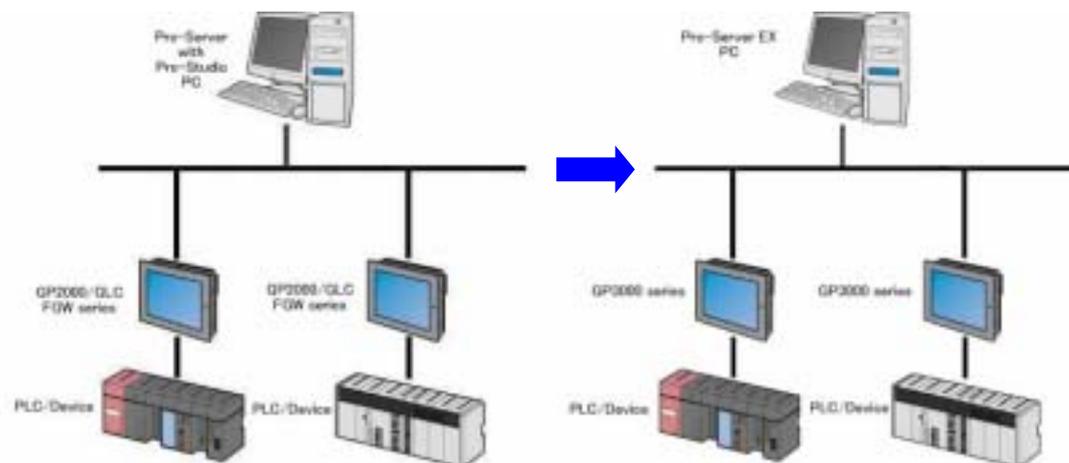


# Pro-Server EX Compatibility 1

Cautions and compatibility in case you replace the data sampling software from Pro-Server with Pro-Studio to Pro-Server EX, using with GP2000/77R Series, GLC Series, Factory Gateway Series (referred to as FGW) are introduced here.

## Chapter 1 Replacing software from Pro-Server with Pro-Studio to Pro-Server EX, using on GP2000/77R/GLC/FGW Series



### ■Chapter 1. Table of Contents ■

- 1.1 Network project file
- 1.2 Opening a network project file (\*.npj) for Pro-Server with Pro-Studio on Pro-Server EX
- 1.3 Cautions for opening a network project file (\*.npj) for Pro-Server with Pro-Studio on Pro-Server EX

### 1.1 Network project file

A network project file created via Pro-Server with Pro-Studio cannot be used on Pro-Server EX as it is because its file format is different. It is necessary to convert it to a file format of Pro-Server EX.

When you open a network project file that was created via Pro-Server with Pro-Studio, on Pro-Server EX, the converter will be automatically activated and change the file format. Even in this case, the network project file (\*.npj) will not be deleted, and a new file whose extension is \*.npx will be created.

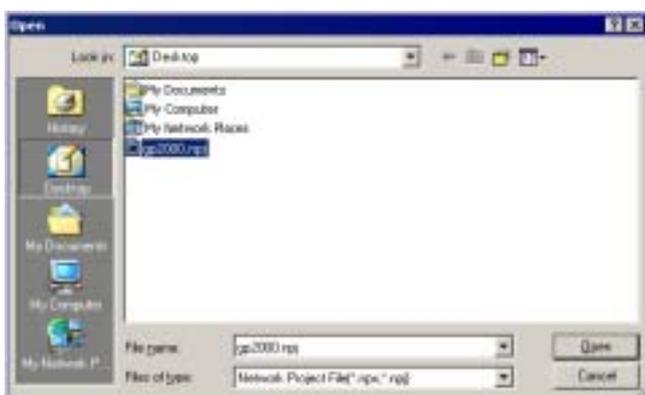
File extension	Created software
.npj	Network project file for Pro-Server with Pro-Studio
.npx	Network project file for Pro-Server EX

A network project file (\*.npx) for Pro-Server EX cannot be used on Pro-Server Ver. 4.X. The file format cannot be converted from \*.npx to \*.npj.

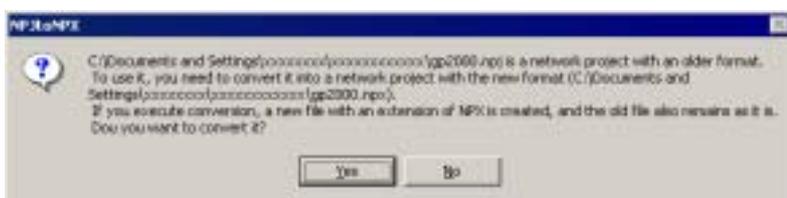
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## 1.2 Opening a network project file (\*.npj) for Pro-Server with Pro-Studio on Pro-Server EX

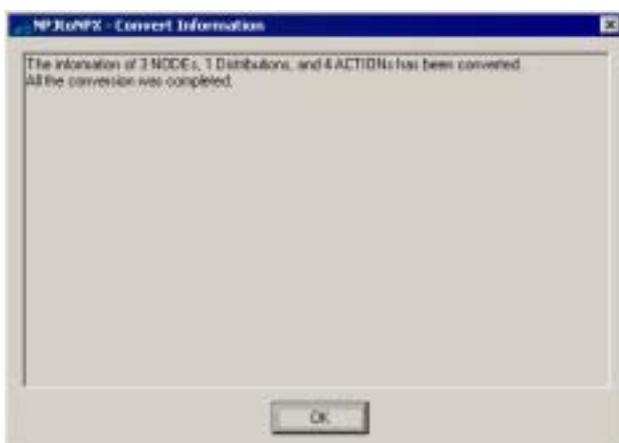
1. Start Pro-Server EX and open a network project file (\*.npj) for Pro-Server with Pro-Studio.



2. When the network project file (\*.npj) for Pro-Server with Pro-Studio opens, the following message appears. Click [Yes].



3. The network project file (\*.npj) for Pro-Server with Pro-Studio is automatically converted into the network project file (\*.npx) for Pro-Server EX. The convert information appears.

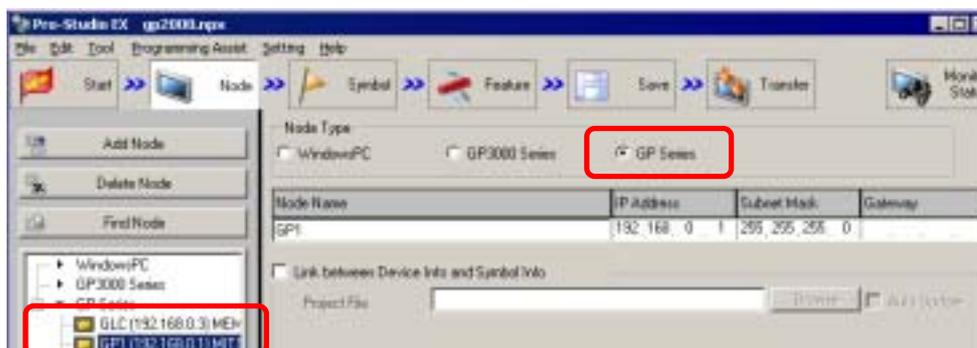


**Important**

- When using Pro-Server Ex with GP2000/77R/GLC/FGW Series, the following special protocols for Pro-Server with Pro-Studio are not supported.

MITSUBISHI MELSEC NET/10	Allen Bradley SLC5/05(ETHER)
OMRON CS1 (ETHER)	Allen Bradley SLC500 DH485
HITACHI Industrial Equipment System Co. HIDECH H (ETHER)	Allen Bradley PLC5 Data High way Plus
SIEMENS S7-200 via MPI	Allen Bradley Remote I/O
MODICON MODBUS Plus	

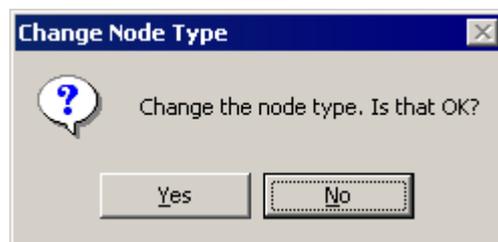
- When selecting the converted node, its node type is shown as [GP Series], which means GP2000/77R/GLC/FGW Series.



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**Important**

If you change the node type from [GP Series] to [Windows PC] or [GP 3000 Series] at this moment, information such as device/PLC information or symbol information will be deleted.



To change the GP node to GP 3000 Series, refer to "Chapter 2 Replacing GP Unit from GP2000/77R/GLC/FGW Series to GP3000 and using it on Pro-Server EX."

Changing data of Pro-Server with Pro-Studio to that of Pro-Server EX is now completed.  
For the cautions after changing the software, please refer to "1.3 Cautions for opening a network project file (\*.npj) for Pro-Server with Pro-Studio on Pro-Server EX" for the cautions after changing the software.

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### 1.3 Cautions for opening a network project file (\*.npj) for Pro-Server with Pro-Studio on Pro-Server EX

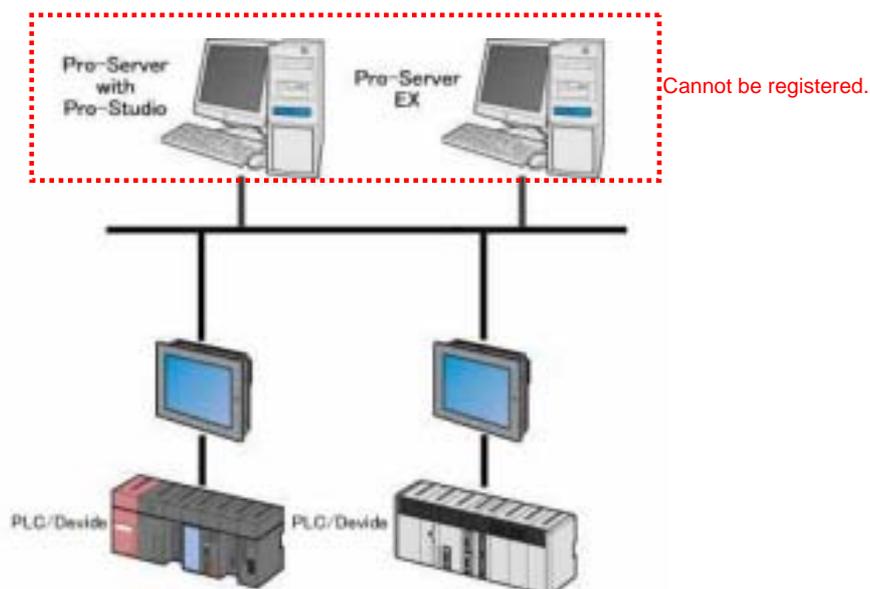
#### ■ Installation of Pro-Server EX and Pro-Server with Pro-Studio

You cannot install both Pro-Server EX and Pro-Server with Pro-Studio on the same PC. In case to install either one, please uninstall the other one.

For example, if you would like to install Pro-Server EX on a PC with Pro-Server with Pro-Studio already installed, uninstall Pro-Server with Pro-Studio before you install Pro-Server EX.

#### ■ Coexistence of Pro-Server EX and Pro-Server with Pro-Studio

For the system that has two or more PCs, a PC with Pro-Server with Pro-Studio installed and a PC with Pro-Server EX installed cannot be registered on the same network project file.



A node of Pro-Server EX and a node of Pro-Server with Pro-Studio cannot be registered on the same network project file.

■ **Using GP-Web and GP-Viewer**

Pro-Server EX does not support GP-Web and GP-Viewer.

■ **Using GP77R Series**

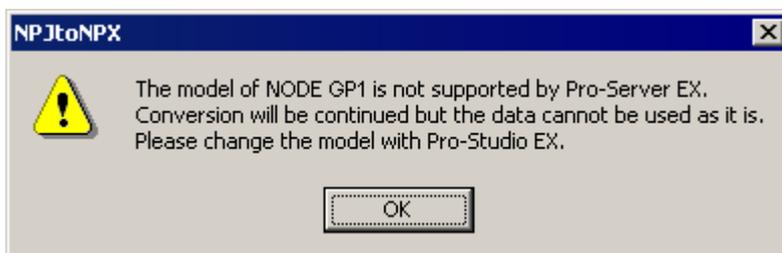
GP77R Series is supported by Pro-Server EX V1.10 and higher.

■ **Special Protocol**

Pro-Server EX does not support the following special protocols among the GP protocol types that Pro-Server with Pro-Studio supports.

mitsubishi MELSEC NET/10	Allen Bradley SLC5/05 (ETHER)
OMRON CS1 (ETHER)	Allen Bradley SLC500 DH485
HITACHI Industrial Equipment System Co. HIDECH (ETHER)	Allen Bradley PLC5 Data Highway Plus
SIEMENS S7-200 via MPI	Allen Bradley Remote I/O
MODICON MODBUS Plus	

When you open the file (\*.npj) for Pro-Server with Pro-Studio that uses a special protocol on Pro-Server EX, the following message appears.



**See** → Pro-Server with Pro-Studio Operation Manual “3.11.3 Special Protocol”

■ **Data View**

Pro-Server EX does not support Data View that is supported by Pro-Server with Pro-Studio.

**See** → Pro-Server with Pro-Studio Operation Manual “1.6 Overview of Data View”

■ **Symbols**

[No. of Data] of a symbol used on Pro-Server with Pro-Studio is converted as zero. Even if [No. of Data] of the symbol becomes “0 (zero)”, it is dealt as “1” when providing. Therefore, it is unnecessary to re-enter [No. of Data]. To set [No. of Data] to be 1 or more, setup on Pro-Studio EX.

■ Action

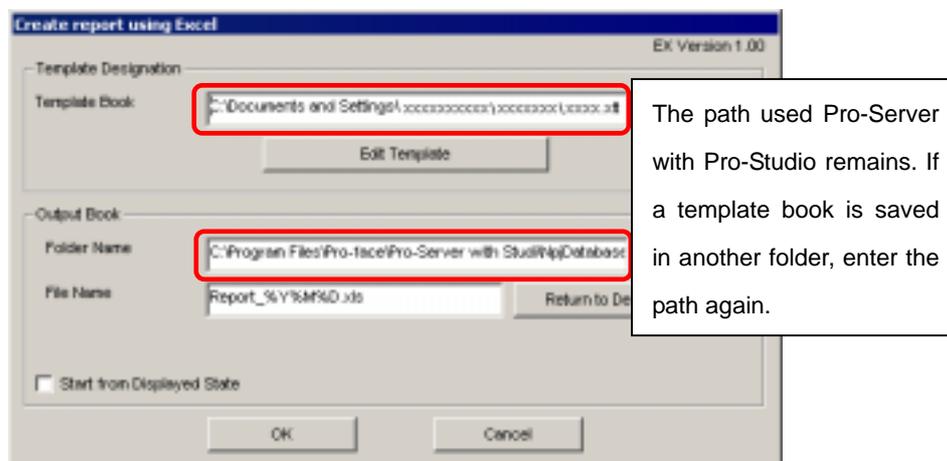
- Pro-Server EX does not support Alarm Log (with the Sound Alert feature) that is supported by Pro-Server with Pro-Studio.
- The "Create Report using Excel" action of Pro-Server with Pro-Studio creates distribution (data transfer) information automatically when creating the Excel's template that is the base of the report. However, the "Report using Excel" action of Pro-Server EX does not have the feature.

Therefore, it is possible to use a template created via Pro-Server with Pro-Studio and use the "Create Report using Excel" action. However, to create or edit a new template, distribution (data transfer) information is required to be set manually.

In Pro-Server EX, the "Create form using Excel" action is provided instead of the "Crate Report using Excel" action. To develop a new system using EXCEL, it is recommended to use the "Create form using Excel" action rather than the "Create Report using Excel" action.

- Even if a network project file for Pro-Server with Pro-Studio is opened on Pro-Server EX, the paths of a folder to save the file or a folder to save the template that are used for the action are not converted. After converting a network project file for Pro-Server with Pro-Studio, designate the folder path used for the action again.

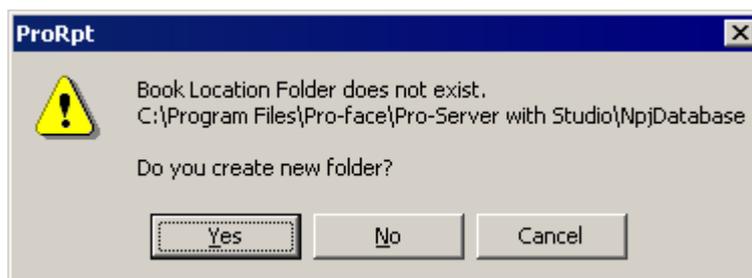
e.g.: Create Report using Excel



- When using the Writes Data To EXCEL Book action, the default settings of the file path on Pro-Server with Pro-Studio is as followed.

C:\Program Files\Pro-face\Pro-Server with Studio\NpjDatabase

Even if the template is not designated, Pro-Server EX does not have this default folder for Pro-Server with Pro-Studio so that the following error appears when you try to change the parameter settings. In this case, designate the existing folder again.



#### ■ Simple DLL Function

- The API feature is called "Simple DLL" on Pro-Server with Pro-Studio. On the other hand, it is called "Pro-Server EX API" on Pro-Server EX.
- Pro-Server with Pro-Studio does not discriminate between capital letters and small letters of node names and symbol names. However, Pro-Server EX discriminates. For example, "Node1" and "NODE1" are recognized as the same on Pro-Server with Pro-Studio, but they are dealt as different names on Pro-Server EX.

**■ Device Cache**

As described below, operation when a device cache is reading differs between Pro-Server with Pro-Studio and Pro-Server EX.

	Using Cache Feature of Device Data
Pro-Server with Pro-Studio	When using API that has a device cache polling feature, devices to be cached are automatically registered in Pro-Server.
Pro-Server EX	When using API that has the device cache polling feature without device cache registered, it always become <u>Direct Read</u> on Pro-Server EX. To use the cache feature, you need to register devices to poll beforehand, and need to control the polling.

If you use an application, which has been created via Pro-Server with Pro-Studio, on Pro-Server EX without cache registration, communication or operation might be slower. In this case, register the device to read as a cached device on Pro-Server EX.



**See** → Pro-Server EX Reference Manual “28.4 Cache Registration of Frequently Used Devices”

In addition, Pro-Server EX has the Device Access Log feature to confirm which device is accessed. Please refer to “Pro-Server EX Reference Manual 28.5 Device Access Log for more details.

## ■ Security

You can administrate the operator which can control Pro-Server at the following level; "Administrator Mode", "Read/Write Mode", "Read only Mode", and "Disconnect Mode" on Pro-Server with Pro-Studio. However, Pro-Server EX does not support the feature.

On Pro-Server EX, you can set a password when saving a network project file in order to block unauthorized editing.

**See** → "Pro-Server EX Reference Manual 22. Enhancing Security"

## ■ Support of Multi-LAN Cards (Multi-IP Addresses)

When multiple IP addresses are allocated such as in case that one PC has multiple LAN cards, you need to select one IP address that Pro-Server uses on Pro-Server with Pro-Studio.

On Pro-Server EX, you do not need to select an IP address and all IP addressees can be used.

■ OPC

The OPC feature is supported by Pro-Server EX Ver. 1.20 and higher.

You can use the OPC client, which has been operated on Pro-Server with Pro-Studio, on Pro-Server EX, however, you need to change the Program ID.

Program ID for OPC Client of Pro-Server with Pro-Studio	Program ID for OPC Client of Pro-Server EX
digital.opcpro.1	Pro-face.OPCEx.1

Pro-Server EX Ver. 1.20 and higher conform to OPC DA(Data Access) Ver. 3.0 and Ver. 2.05A.

•Interface supported by OPCEx

Data Access Server I/F	DA1.0	DA2.0	DA3.0	OPCEx
<b>OPC Server Object</b>				
IUnknown	Required	Required	Required	○
IOPCServer	Required	Required	Required	○
IOPCCommon	N/A	Required	Required	○
IConnectionPointContainer	N/A	Required	Required	○
IOPCItemProperties	N/A	Required	N/A	○
IOPCBrowse	N/A	N/A	Required	○
IOPCServerPublicGroups	Optional	Optional	N/A	×
IOPCBrowseServerAddressSpace	Optional	Optional	N/A	○
IOPCItemIO	N/A	N/A	Required	○
IProFaceShutdown	N/A	N/A	N/A	○
<b>OPC Group Object</b>				
IUnknown	Required	Required	Required	○
IOPCItemMgt	Required	Required	Required	○
IOPCGroupStateMgt	Required	Required	Required	○
IOPCGroupStateMgt2	N/A	N/A	Required	○
IOPCPublicGroupStateMgt	Optional	Optional	N/A	×
IOPCSyncIO	Required	Required	Required	○
IOPCSyncIO2	N/A	N/A	Required	○
IOPCAsyncIO2	N/A	Required	Required	○
IOPCAsyncIO3	N/A	N/A	Required	○

IOPCItemDeadbandMgt	N/A	N/A	Required	○
IOPCItemSamplingMgt	N/A	N/A	Optional	×
IConnectionPointContainer	N/A	Required	Required	○
IOPCAsyncIO	Required	Optional	N/A	×
IDataObject	Required	Optional	N/A	×
EnumOPCItemAttributes				
IEnumOPCItemAttributes	Required	Required	Required	○
Client Side Interface				
IOPCDataCallback	N/A	Required	Required	○
IOPCShutdown	N/A	Required	Required	○

### ■ Distributing Character String

When distributing a value of a character string in a device, if the number of distribution data (the number of strings) is not an integral multiplication of 2 for 16-bit device or not an integral multiplication of 4 for 32-bit device, it is distributed internally as a number of strings of integral multiplication of 2 or that of 4 on Pro-Server with Pro-Studio.

That is; For 16-bit device, the result is the same whether the number of data is 1 or 2.

For 32-bit device, the result is the same whether the number of data is 1, 2, 3, or 4.

Pro-Server EX deals a character string by designated number of data, not by integral multiplication of the number of data according to the bit length of the device. Therefore, the results of distribution character strings that are not integral multiplication are not the same. To have the same result, set the number of the string to be an integral multiplication according to the bit length of the device on Pro-Server EX.

The above description applies to the distribution to enable actions. For a character string, set the number of the string to be an integral multiplication.

## ■ GLC Symbols

When a network project file that GLS Series has been set in is opened on Pro-Server EX, the variables of GLC Series are as follows.

Symbols on Pro-Server EX		
	#INTERNAL:[Node Name]	A symbol of the PLC device or of the LS area is registered.
	#INTERNAL:[Node Name] _GLC_SYS	A system variable of the GLC is registered.
	#INTERNAL:[Node Name] _GLC	A variable, which has been created by a user, of the GLC is registered.

## Timer Variables on Pro-Server EX

Timer variables are imported as a group symbol, as shown below.

e.g.: The timer variable name is "Timer".

G	Symbol	Data Type	Consecutive	Device Address	
-	Timer				
	ET	32Bit(UnSigned)		~GLC#49	1
	PT	32Bit(UnSigned)		~GLC#50	1
	Q	32Bit(UnSigned)		~GLC#70	1
	TI	32Bit(UnSigned)		~GLC#71	1

## Counter Variables on Pro-Server EX

Counter variables are imported as a group symbol, as shown below.

e.g.: The counter variable name is "CountProducts".

G	Symbol	Data Type	Consecutive	Device Address	
-	CountProducts				
	CV	32Bit(UnSigned)		~GLC#39	1
	PV	32Bit(UnSigned)		~GLC#40	1
	Q	32Bit(UnSigned)		~GLC#59	1
	QD	32Bit(UnSigned)		~GLC#60	1
	QU	32Bit(UnSigned)		~GLC#61	1
	R	32Bit(UnSigned)		~GLC#62	1
	UP	32Bit(UnSigned)		~GLC#63	1

### Array Variables on Pro-Server EX

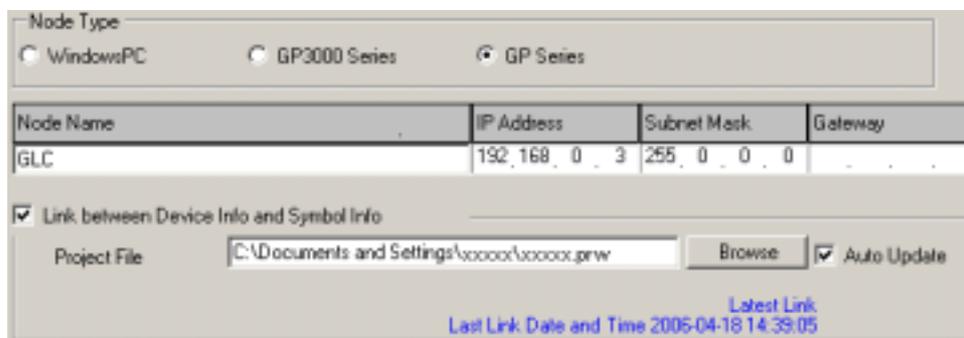
Array variables are imported as a group symbol, as shown below.

e.g.: The array variable name is "Temperature" / the number of the arrays is "5".

G	Symbol	Data Type	Consecutive	Device Address	
	Temperature[0]	32Bit(UnSigned)		~GLC#44	1
	Temperature[1]	32Bit(UnSigned)		~GLC#45	1
	Temperature[2]	32Bit(UnSigned)		~GLC#46	1
	Temperature[3]	32Bit(UnSigned)		~GLC#47	1
	Temperature[4]	32Bit(UnSigned)		~GLC#48	1

Symbols of GLC variables cannot be edited via Pro-Server EX. To edit them, open a project file (\*.prw) for GP-PRO/PB3 for Windows.

Keep the [Link between Device Info and Symbol Info] and [Auto Update] boxes checked via node on Pro-Server EX. When a project file (\*.prw) for GP-PRO/PB3 for Windows is changed, symbols are automatically imported.



Concluded