

Connecting Rockwell (Allen-Bradley)

ControlLogix 5000 Series Ethernet

Communication Settings [PLC]

Two programs are required for ControlLogix PLC communication settings.

1. RSLinx – Software to connect PLC and PC with RSLogix5000 installed
(Ver.2.41.00 is used in this sample.)
2. RSLogix5000 – Ladder Software (Ver.7.00.00 is used in this sample.)

* Communication Settings on RSLogix5000

Please connect PLC and PC with RSLinx before creating a ladder. (Contact Rockwell Automation, Inc. for more details.)

1) Start up RSLogix5000.

Select [File] --> [New...].

Set the new project name, CPU type, base, and slot number.

The screenshot shows the 'New Controller' dialog box with the following fields and values:

- Vendor: Allen-Bradley
- Type: 1756-L1 ControlLogix5550 Controller
- Revision: 12
- ☐ Redundancy Enabled
- Name: Logix_ETH
- Description: (empty)
- Chassis Type: 1756-A4 4-Slot ControlLogix Chassis
- Slot: 0
- Create In: C:\RSLogix 5000\Projects

Buttons on the right: OK, Cancel, Help, and a Browse... button next to the 'Create In' field.

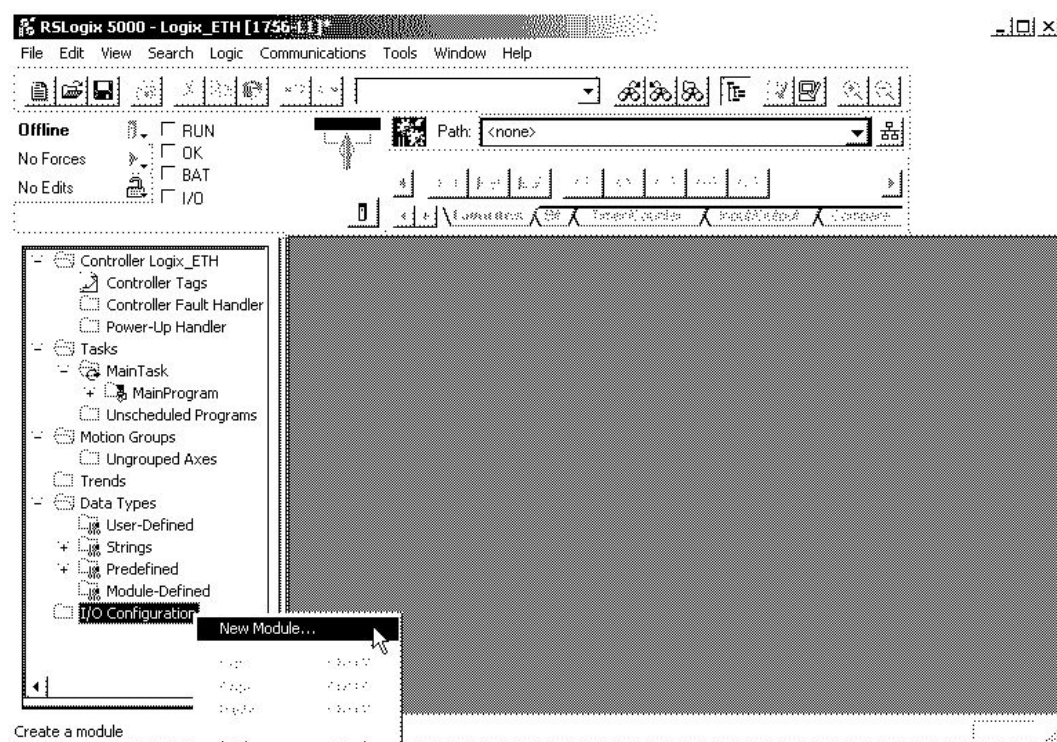
Setting Example)

Setting Item	Setting Detail	Remark
Type	1756-L1 ControlLogix5550 Controller	CPU Type
Name	Logix_ETH	Project Name (Arbitrary)
Description	(Blank)	Project Description (Arbitrary)
Chassis Type	1756-A4 4 Slot ControlLogix Chassis	Base Type
Slot	0	Slot with CPU set
Create In	D:/RSLogix 5000/Projects	Where Project saved in

2) Follow the procedures to set the Ethernet unit.

Set I/O configuration.

Right-Click [I/O configuration] --> click [New Module].



3) Set the Ethernet unit type. Select [Ethernet Bridge] and click [OK].

* [1756 Ether Bridge] has to be selected to communicate.

Select Module Type

Type: 1756-ENET/B Major Revision: 2

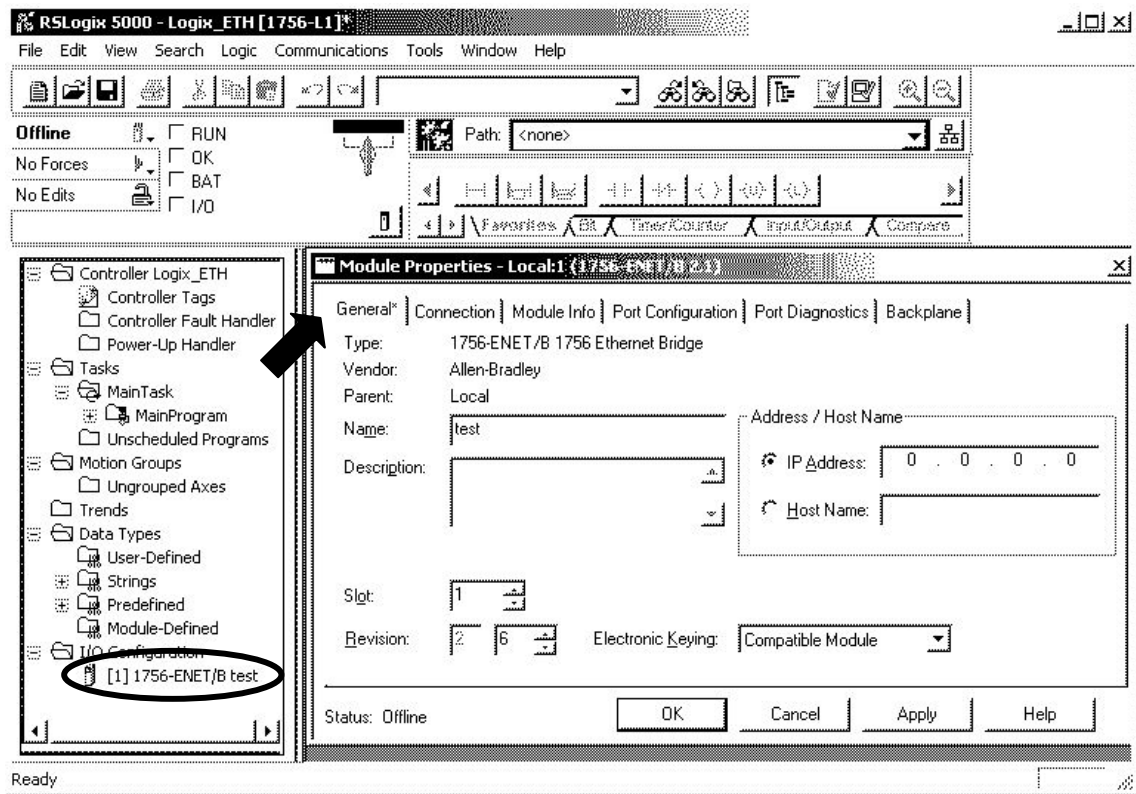
Type	Description
1756-ENET/B	1756 Ethernet Bridge
1756-EWEB/A	1756 10/100 Mbps Ethernet Bridge w/Enhanced Web Services
1756-HSC	1756 High Speed Counter
1756-HYD02	2 Axis Hydraulic Servo
1756-IA16	16 Point 79V-132V AC Input
1756-IA16I	16 Point 79V-132V AC Isolated Input
1756-IA8D	8 Point 79V-132V AC Diagnostic Input
1756-IB16	16 Point 10V-31.2V DC Input
1756-IB16D	16 Point 10V-30V DC Diagnostic Input
1756-IB16I	16 Point 10V-30V DC Isolated Input, Sink/Source
1756-IB32/A	32 Point 10V-31.2V DC Input
1756-IB32/B	32 Point 10V-31.2V DC Input

Show Vendor: All ☒ Other ☒ Specialty I/O

☒ Analog ☒ Digital ☒ Communication ☒ Motion ☒ Controller

4) Set the details of the Ethernet unit.

Click the [General] tab. Set [IP Address].

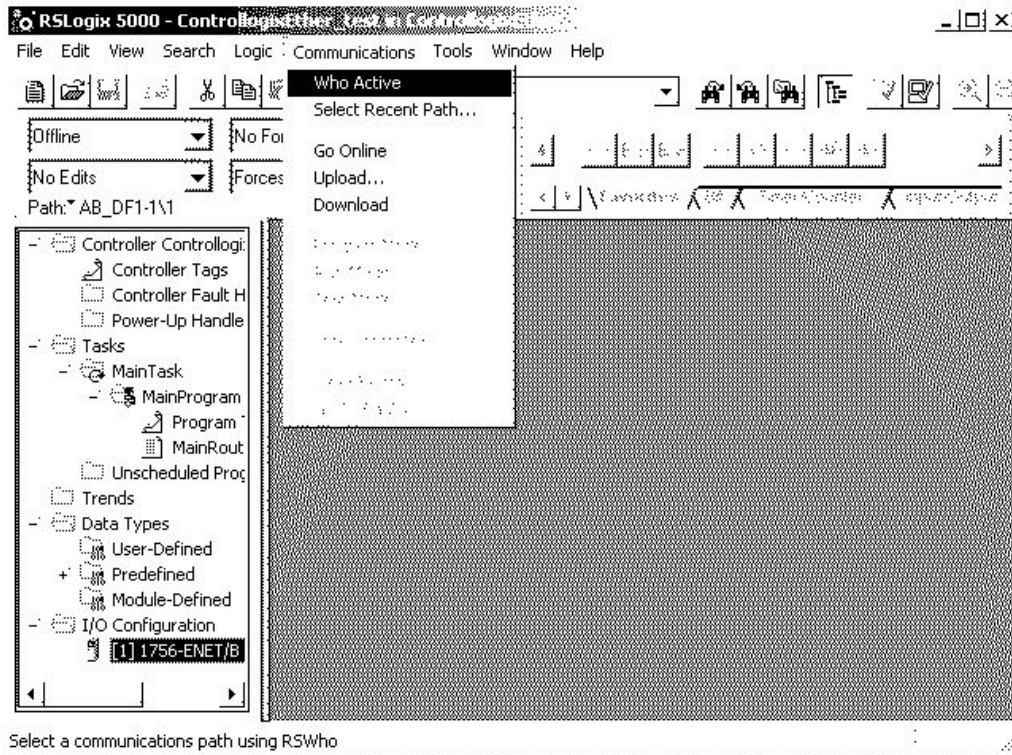


When the [Finish] button appears, click it.

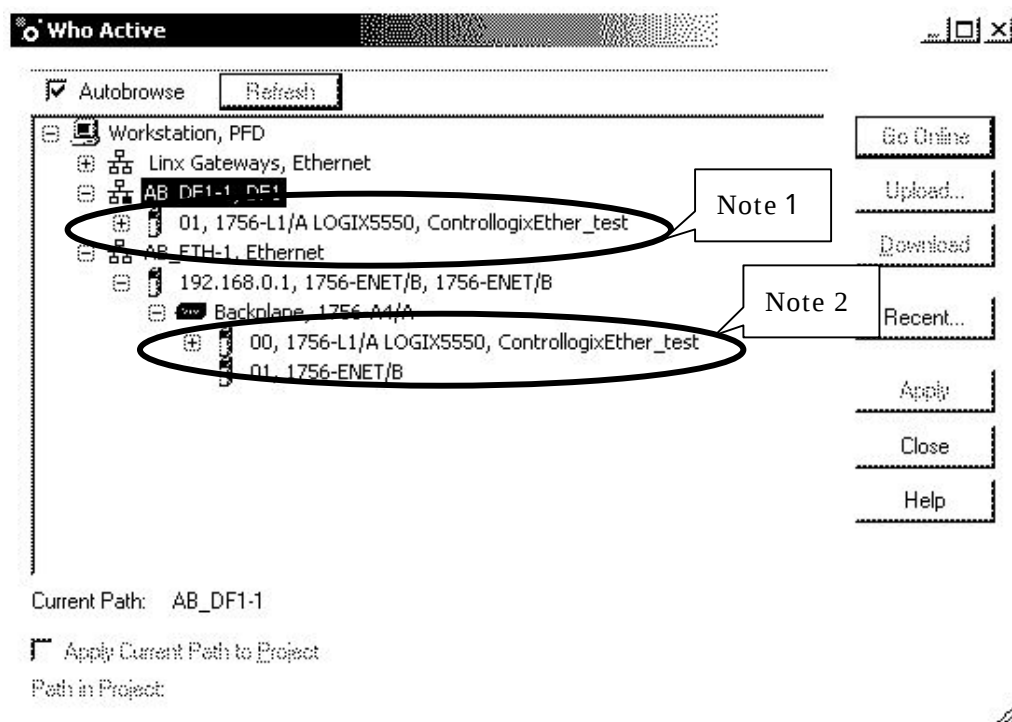
Setting Item	Setting Detail	Remark
Name	Logix_ETH	Module Name (Arbitrary)
Description	(Blank)	Module Description (Arbitrary)
Slot	1	Match the number to the slot with the module set.
Revision	6	Match the number to the minor version of Module. (side of the Ethernet module)
Address / Host Name	(Default Setting)	Set IP address of PLC.
Electronic Keying	Compatible Module	

5) Transfer the set details to the Ethernet unit.

Select [Communications] --> [Who Active].



6) Select the destination to download to.



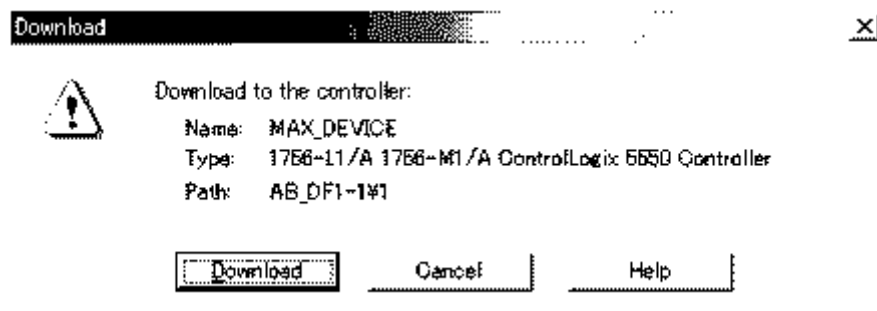
Select [Download] and transfer the settings.

Note 1)

If you download via serial port, select [AB_DF1-1,DF1] --> [1756-L1/A].

After selecting, the [Download] button will be available. Then click [Download].

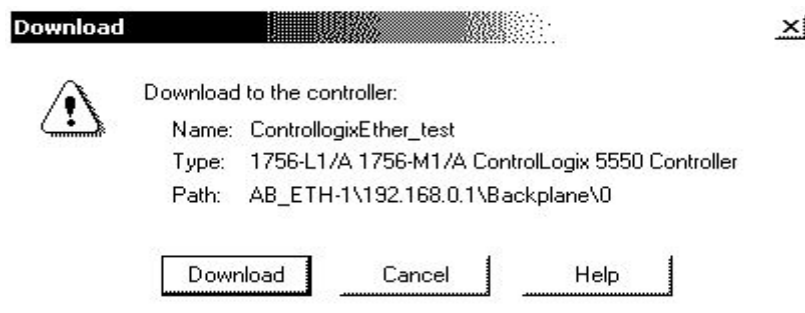
The following message box will appear when downloading via serial.



Note 2)

If you download via Ethernet port, select [AB_ETH-1,Ethernet] --> [1756-L1/A] in the tree view. After selecting, the [Download] button will be available. Then click [Download].

The following message box will appear when downloading via Ethernet.

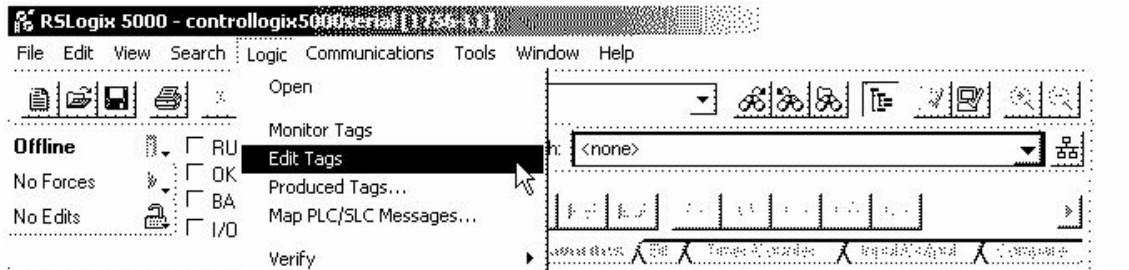


I/O Settings of PLC is completed.

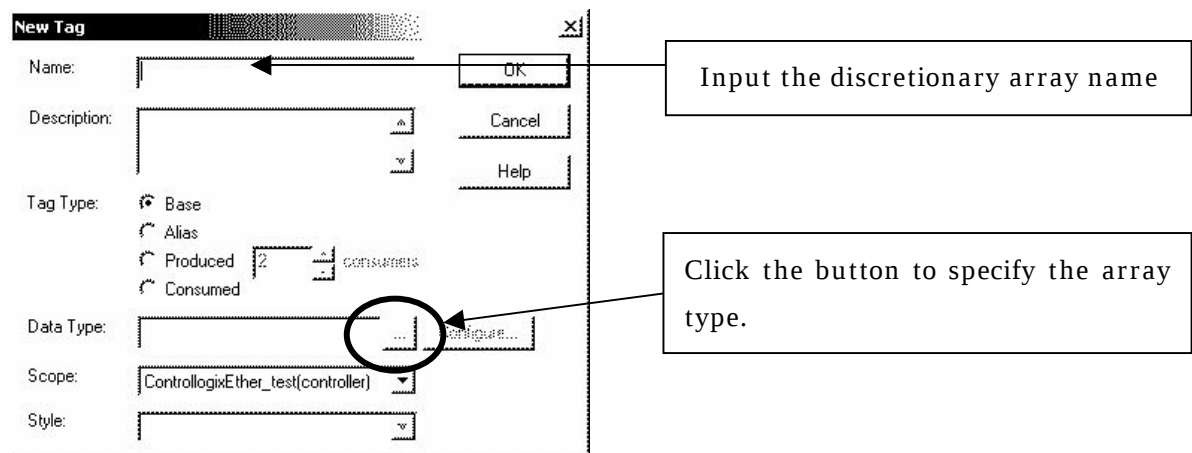
Assigning Devices

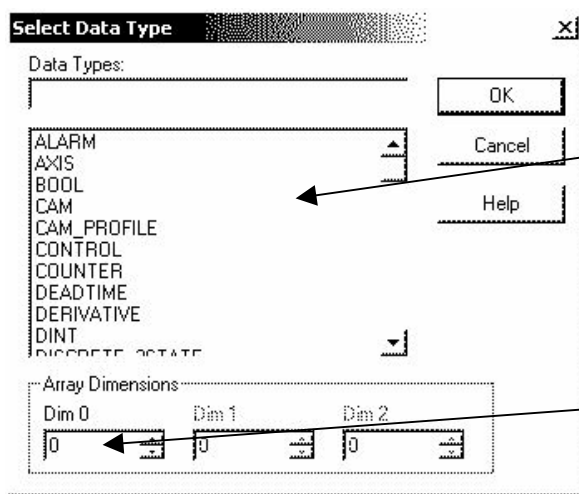
With Rockwell PLC, the required arrays and number of elements are assigned on RSLogix5000. If you connect it with GP/GLC without allocating here, a host communication error will occur.

Select [Logic] to create arrays and the number of elements.



A bar to set arrays will appear. Then right- click [Edit Tag Properties].

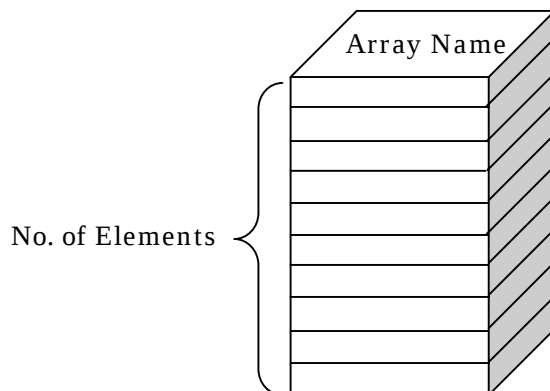




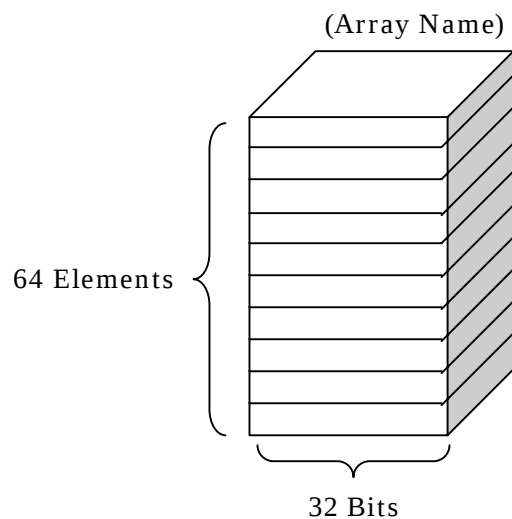
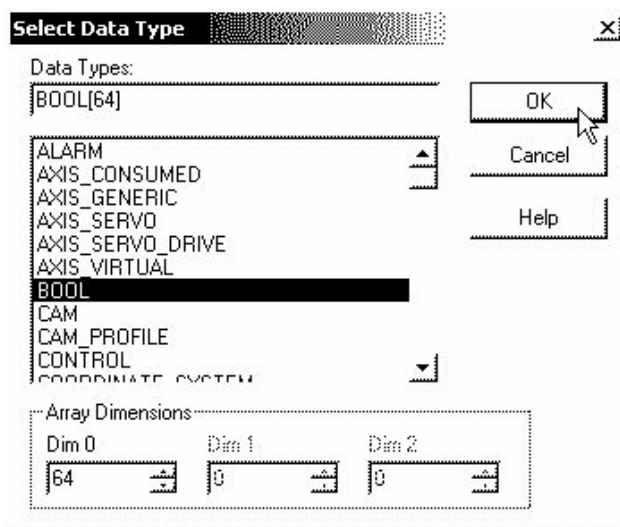
Select BOOL, SINT, INT, DINT, OR REAL for the array type.

Specify the number of elements.
* Dimension 1 and Dimension 2 are not supported by GP-PRO PB/III. Do not use them.

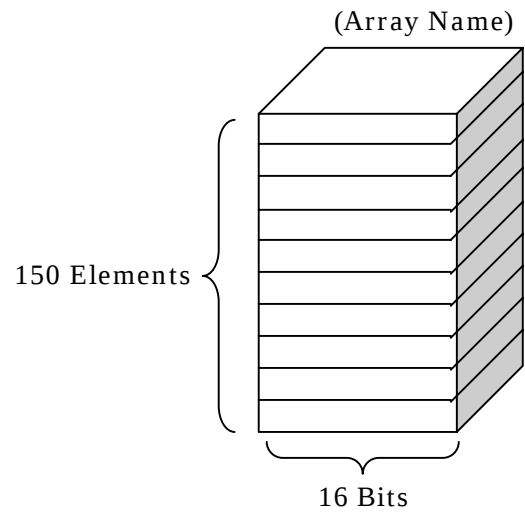
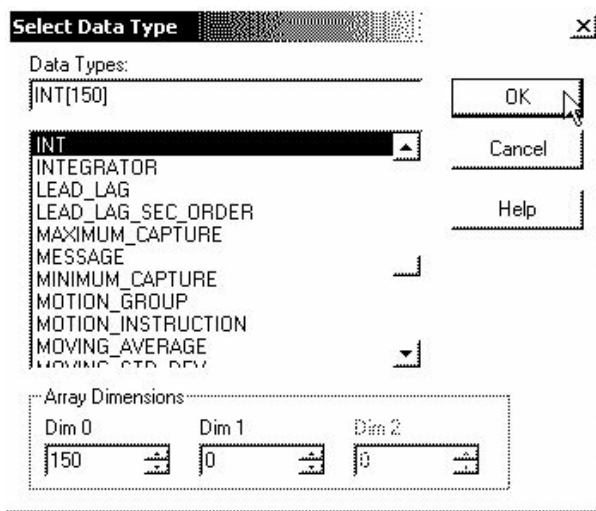
By the above settings, the following array will be made.



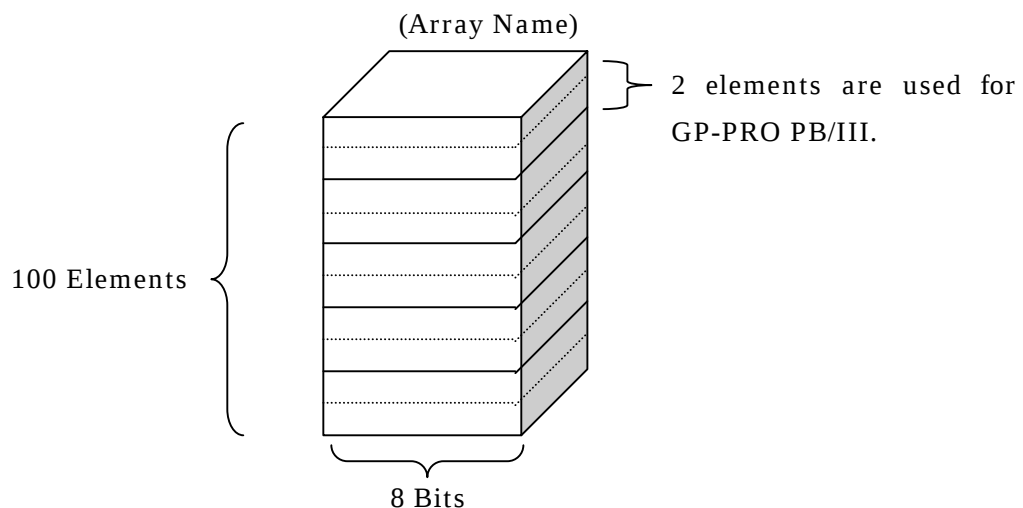
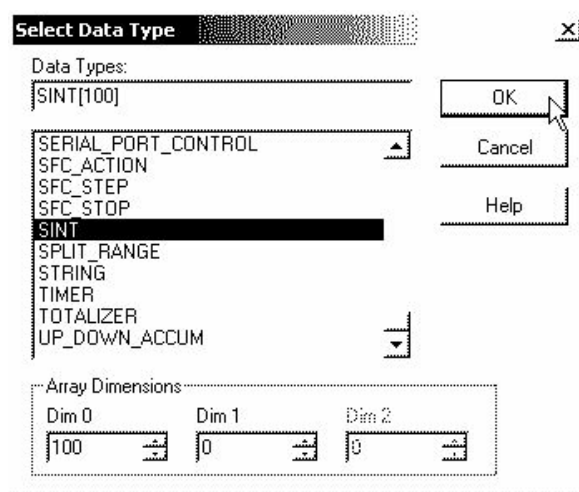
[e.g.; Specifying BOOL]



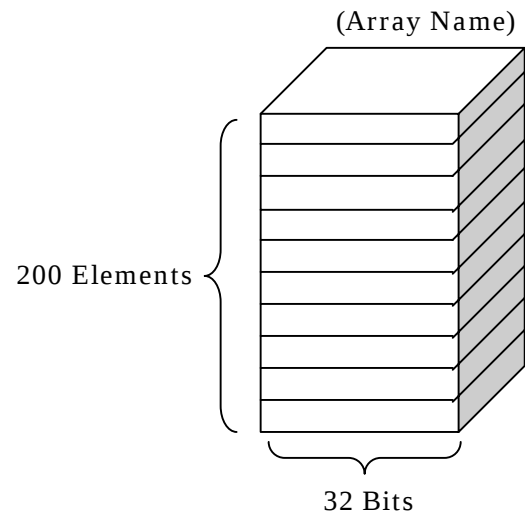
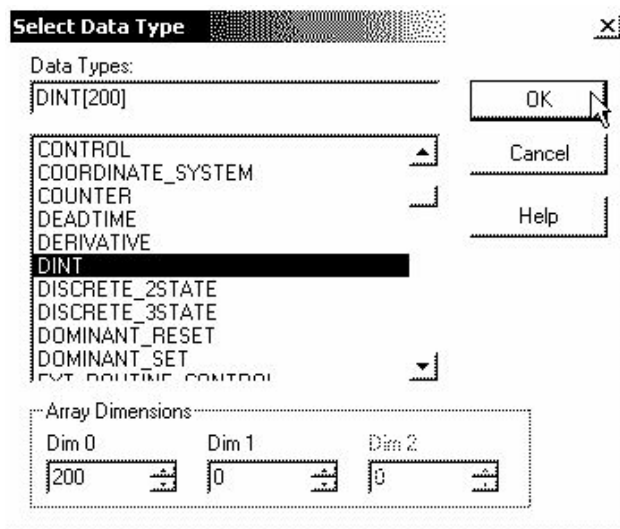
[e.g.; Specifying INT]



[e.g.; Specifying SINT]



[e.g.; Specifying DINT]



[e.g.; Specifying REAL (Floating Point)]

