

Connecting Rockwell (Allen-Bradley) PLC

SLC500 Series (Ethernet)

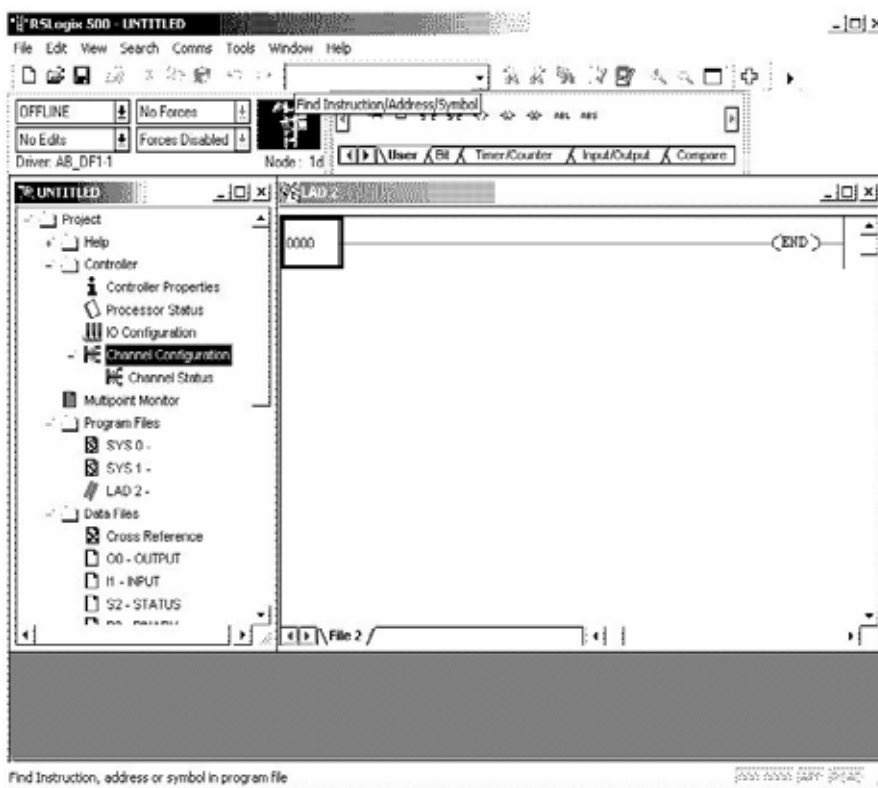
Communication Settings [PLC]

In the case of SLC500 PLC, 2 pieces of software are required for communication settings.

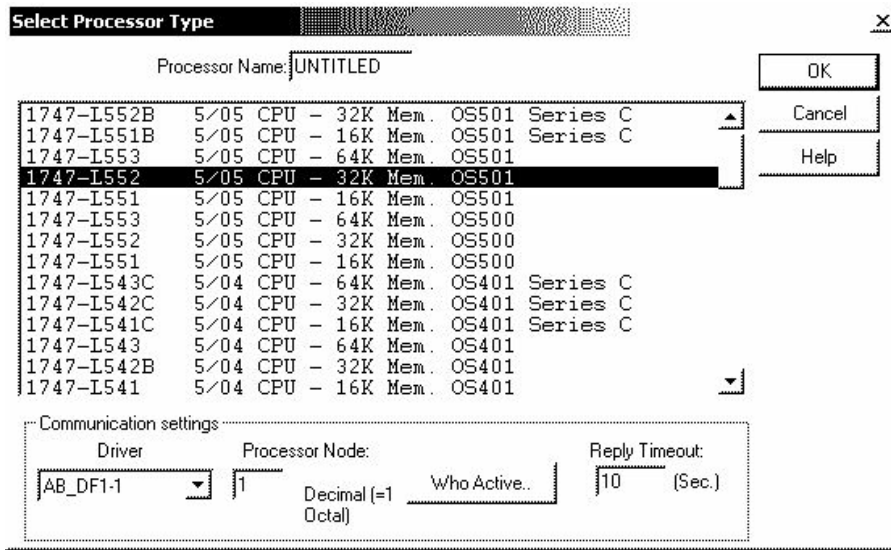
1. RSLinx-Software to connect PLC to PC with RSLogix500 installed
(In this sample, Ver.2.41.00 is used.)
2. RSLogix500-Ladder Software (In this sample, Ver.5.20.00 is used.)

* Before making communicate settings and creating a ladder program on RSLogix500, be sure to connect PC to PLC via RSLinx. (For details, ask Rockwell).

- (1) Start RSLogix500.
- (2) Click [Channel Configuration]



(3) Select CPU Type.



Select Processor Type

Processor Name: UNTITLED

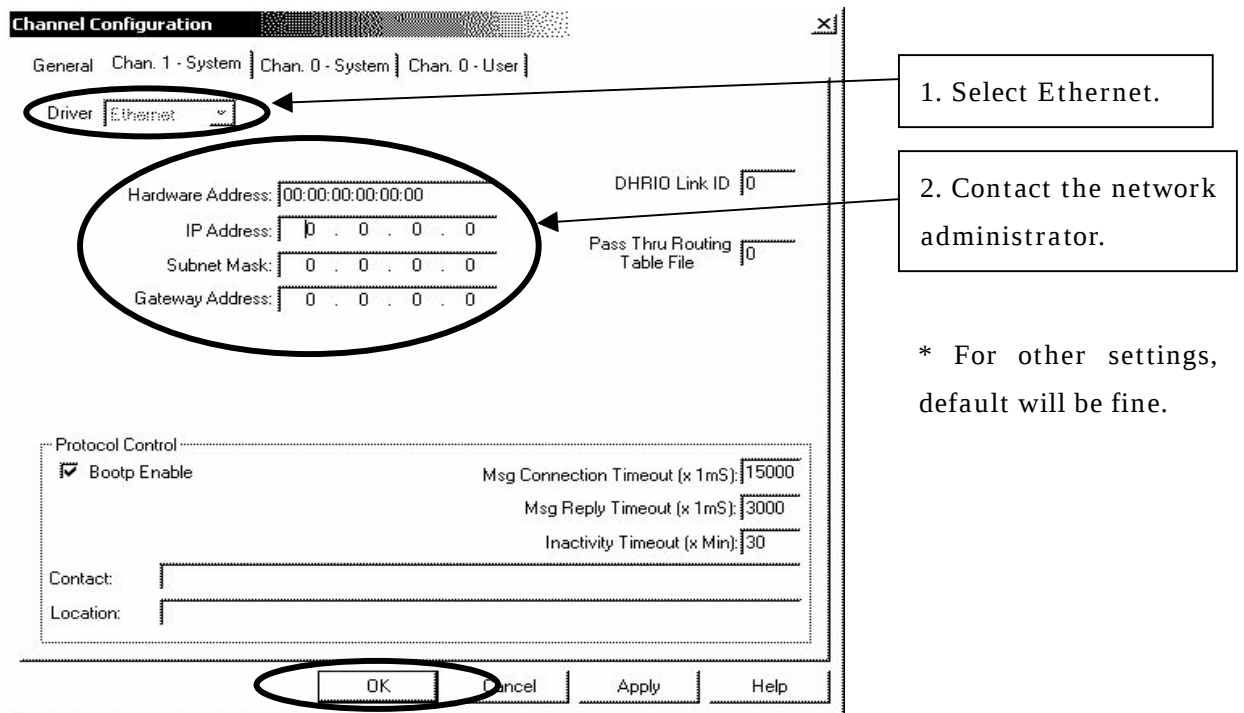
1747-I552B	5/05 CPU - 32K Mem.	OS501 Series C
1747-I551B	5/05 CPU - 16K Mem.	OS501 Series C
1747-I553	5/05 CPU - 64K Mem.	OS501
1747-I552	5/05 CPU - 32K Mem.	OS501
1747-I551	5/05 CPU - 16K Mem.	OS501
1747-I553	5/05 CPU - 64K Mem.	OS500
1747-I552	5/05 CPU - 32K Mem.	OS500
1747-I551	5/05 CPU - 16K Mem.	OS500
1747-I543C	5/04 CPU - 64K Mem.	OS401 Series C
1747-I542C	5/04 CPU - 32K Mem.	OS401 Series C
1747-I541C	5/04 CPU - 16K Mem.	OS401 Series C
1747-I543	5/04 CPU - 64K Mem.	OS401
1747-I542B	5/04 CPU - 32K Mem.	OS401
1747-I541	5/04 CPU - 16K Mem.	OS401

Communication settings

Driver: AB_DF1-1 Processor Node: 1 Reply Timeout: 10 (Sec.)

Decimal (=1 Octal) Who Active..

(4) The dialog box will appear. Click [Channel1] and make channel settings.



Channel Configuration

General Chan. 1 - System Chan. 0 - System Chan. 0 - User

Driver: Ethernet

Hardware Address: 00:00:00:00:00:00

IP Address: 0 . 0 . 0 . 0

Subnet Mask: 0 . 0 . 0 . 0

Gateway Address: 0 . 0 . 0 . 0

DHRIO Link ID: 0

Pass Thru Routing Table File: 0

Protocol Control

☒ Bootp Enable

Msg Connection Timeout (x 1mS): 15000

Msg Reply Timeout (x 1mS): 3000

Inactivity Timeout (x Min): 30

Contact:

Location:

OK Cancel Apply Help

1. Select Ethernet.

2. Contact the network administrator.

* For other settings, default will be fine.

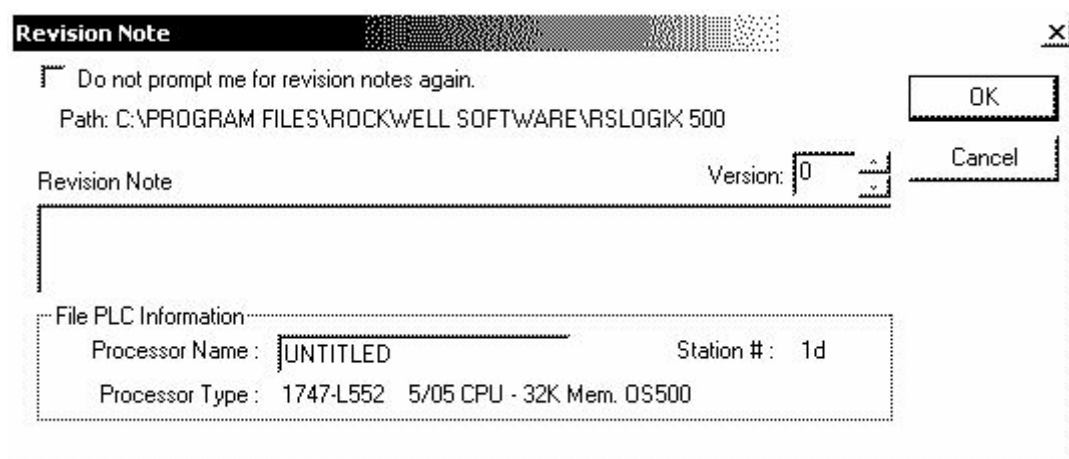
(5) After completing the settings, click the [OK] button.

(6) Download the driver settings.

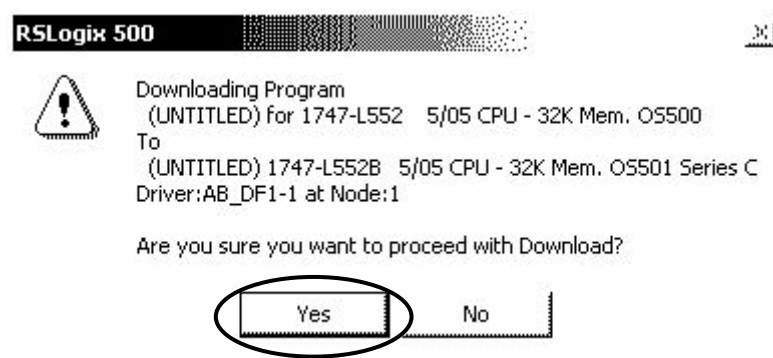
Click [OFFLINE] and select [Download...].



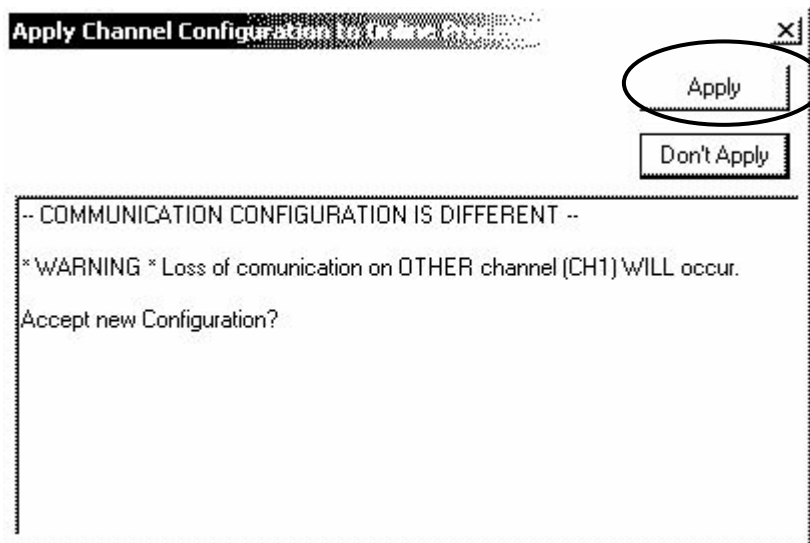
(7) The dialog box shown below will appear. Click the [OK] button.



(8) The warning dialog shown below will appear. Click the [Yes] button.

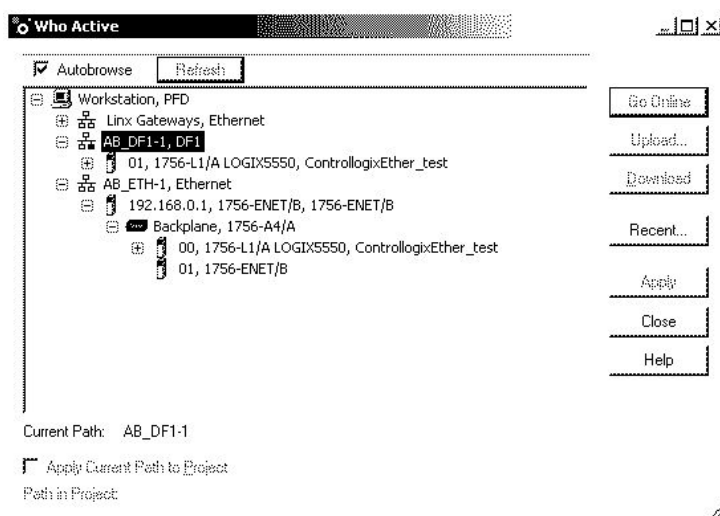


(9) The warning dialog, “Loss of communication on OTHER channel [CH1] WILL occur.” as shown below will appear. Click [Apply].



The settings of SLC500 Port are now completed.

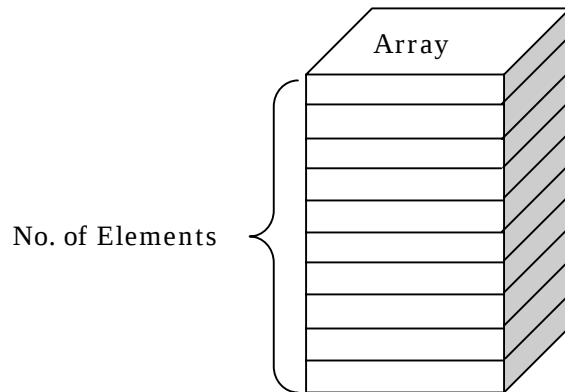
At the time of download, make sure that CPU is recognized on the RSLinx and then send the project.



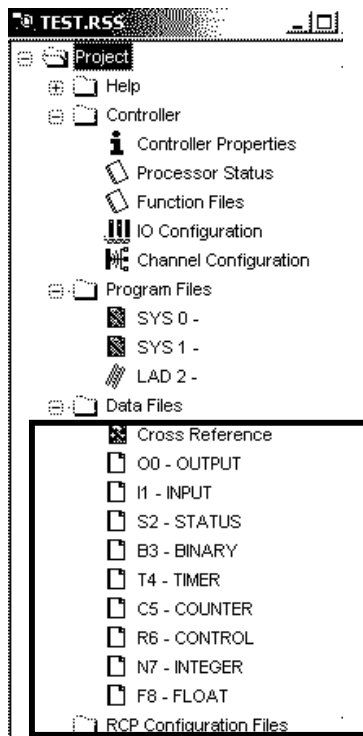
(RSLinx / Who Active Screen)

Assigning addresses

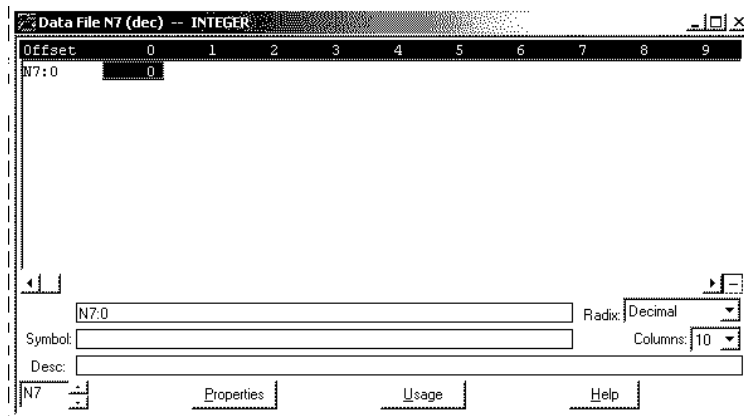
For Rockwell PLC, required number of elements should be assigned on RSLogix500. If the PLC is connected to GP/GLC without assigning them, the host communication error, “02:10 Out of Address Range Error” will occur.



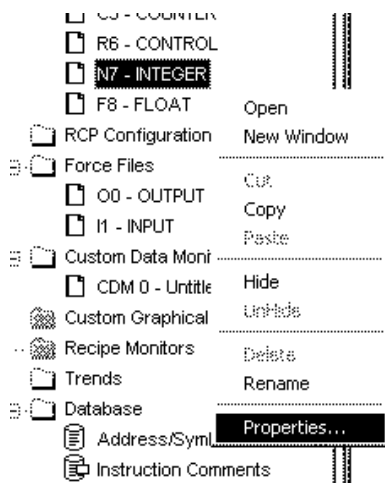
[File Type with settings completed]



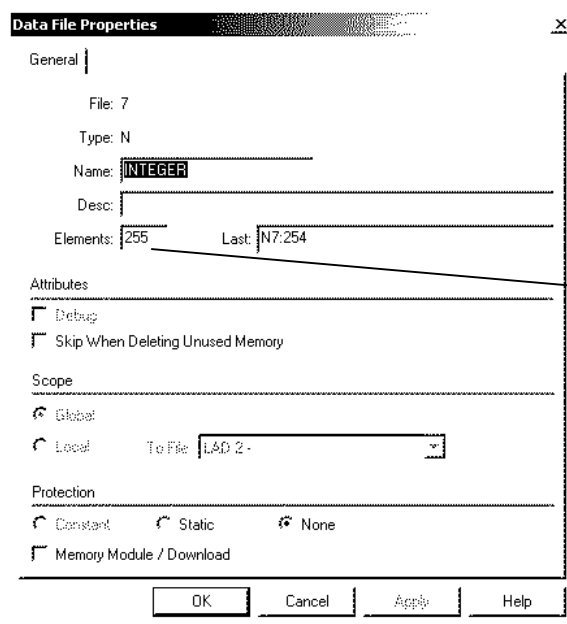
As shown left, the array type and number are available for projects.



At default, only one element exists. Especially for N array where system start addresses are assigned, 20 elements are required. It's necessary to increase the number of elements.



To increase it, start settings from the place shown on the left.



Enter the number of required elements.

*For N7, as system start addresses are assigned, get at least 20 elements available.

Offset	0	1	2	3	4	5	6	7	8	9
N7:150	0	0	0	0	0	0	0	0	0	0
N7:160	0	0	0	0	0	0	0	0	0	0
N7:170	0	0	0	0	0	0	0	0	0	0
N7:180	0	0	0	0	0	0	0	0	0	0
N7:190	0	0	0	0	0	0	0	0	0	0
N7:200	0	0	0	0	0	0	0	0	0	0
N7:210	0	0	0	0	0	0	0	0	0	0
N7:220	0	0	0	0	0	0	0	0	0	0
N7:230	0	0	0	0	0	0	0	0	0	0
N7:240	0	0	0	0	0	0	0	0	0	0
N7:250	0	0	0	0	0	0	0	0	0	0

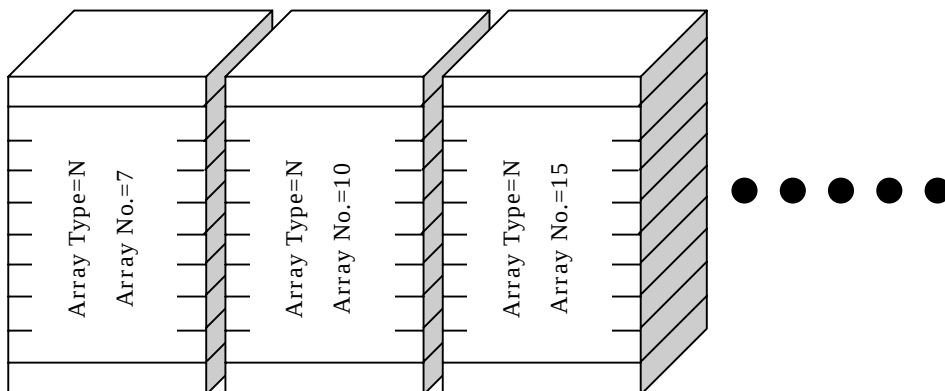
N7:254
 Symbol:
 Desc:
 Radix: Decimal
 Columns: 10
 N7 Properties Usage Help

As you see, 255 elements have been created in N7.

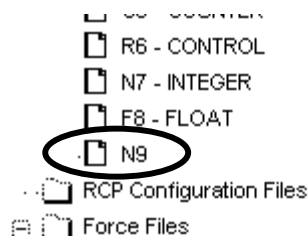
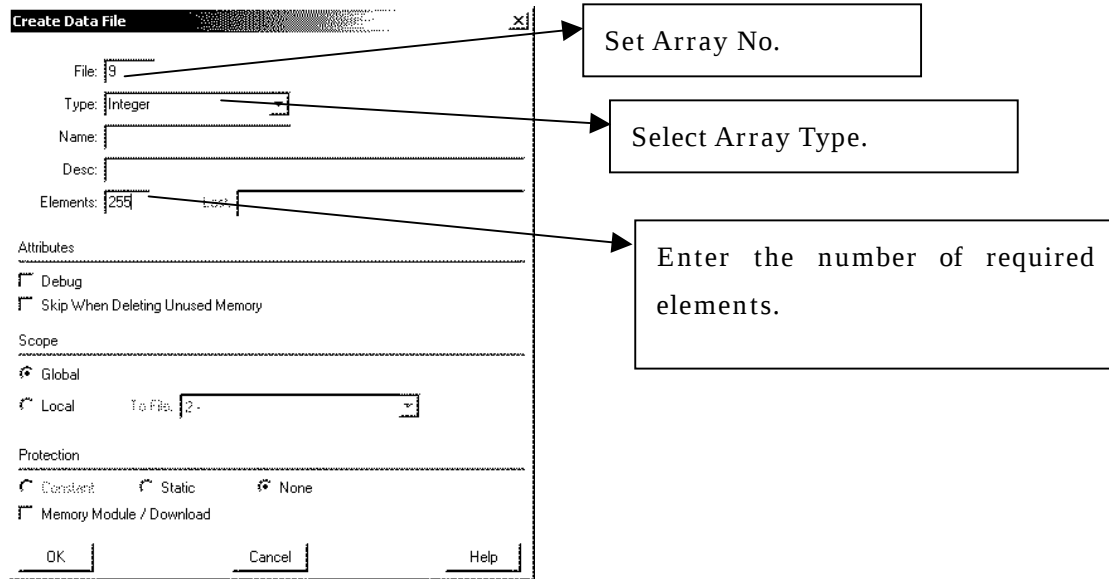
[Creating a new array]

For Rockwell PLC, it's possible to create multiple arrays.

Ex.)



Start to create a new array from the place shown on the left.



The array called N9 which has 255 elements has been newly created.

Following this method, create required multiple arrays and numbers of elements for each array type.

The array number following the array type must not be duplicated. For example, creating arrays like N15, B15.. is not allowed.