Rockwell (Allen-Bradley)

SLC500 Series (Serial) PLC Connection

Communication Setting Sample

GP Setup		PLC Setup	
Communication Rate	19200bps	Baud Rate	19200bps
Data Length	8bits	———	
Stop Bit	1bit	———	
Parity	Even	Parity	Even
Control	ER Control	———	
Communication Format	RS-232C	———	
———		Communication Driver	DF1 HALF-DUPLEX SLAVE *1
———		Duplicate Packet Detection	DISABLE *1
———		Error Detection	BCC *1
———		Control Line	NO HANDSHAKING *1
Unit No.（DH　GP）*2	0	Station Address	0

*1 Will not operate with any other settings.

*2 Setup the Station Address and the GP Unit No. (DH GP) address to the same value (address set as decimal values). It is unnecessary to setup the DH PLC address.

Copyright 2003 Digital Electronics Corporation All Rights Reserved

Communication Settings [PLC]

Two programs are required for SLC500 PLC communication settings.

1. RSLinx – Software to connect PLC and PC with RSLogix500 installed
   (Ver.2.41.00 is used in this sample.)
2. RSLogix500 – Ladder Software
   (Ver.5.20.00 is used in this sample.)

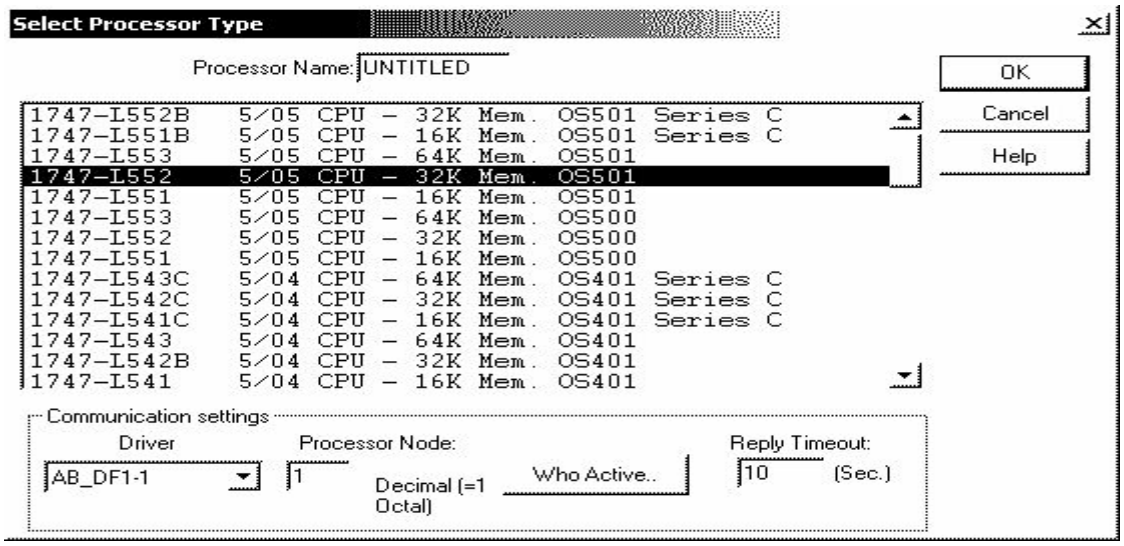
* Communication Settings on RSLogix500

Please connect PLC and PC with RSLinx before creating a ladder.

(Contact Rockwell Automation, Inc. for more details.)

1) Start up RSLogix500.

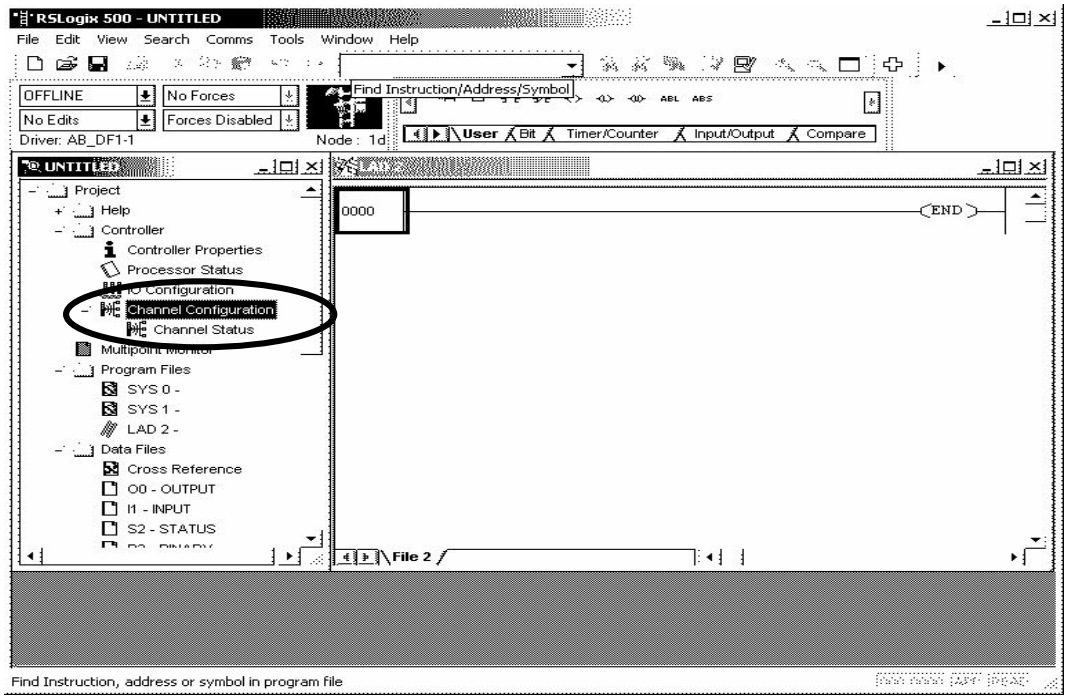
2) Select the CPU type.



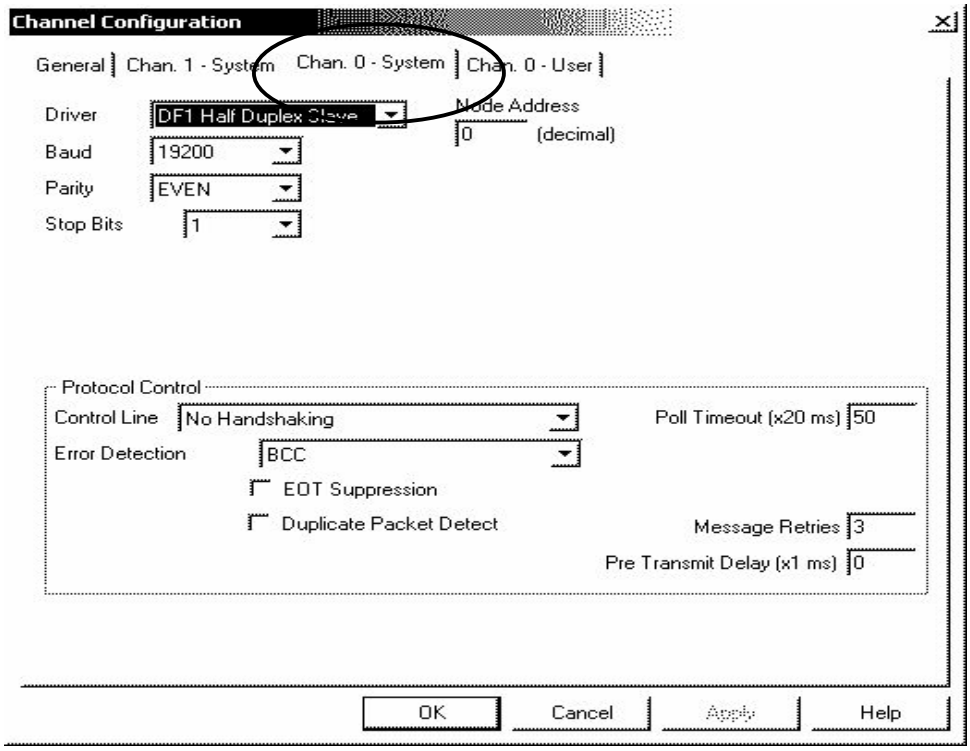
Communication Settings can be left by default.

Copyright 2003 Digital Electronics Corporation All Rights Reserved

3) Click [Channel Configuration].



4) A dialog box will appear. Then double-click the [Channel 0] tab and set the channel.



Copyright 2003 Digital Electronics Corporation All Rights Reserved

Setting Item	Setting Detail	Remark
Baud Rate	19200bps	
Parity	Even	
Communication Driver	DF1 Half-Duplex	
Duplicate Packet Detection	Disable	System cannot be operated with other settings.
Error Detection	BCC	System cannot be operated with other settings.
Control Line	No Handshaking	System cannot be operated with other settings.
Station Address	0 to 255	Set with the same address as DH GP Address of GP.

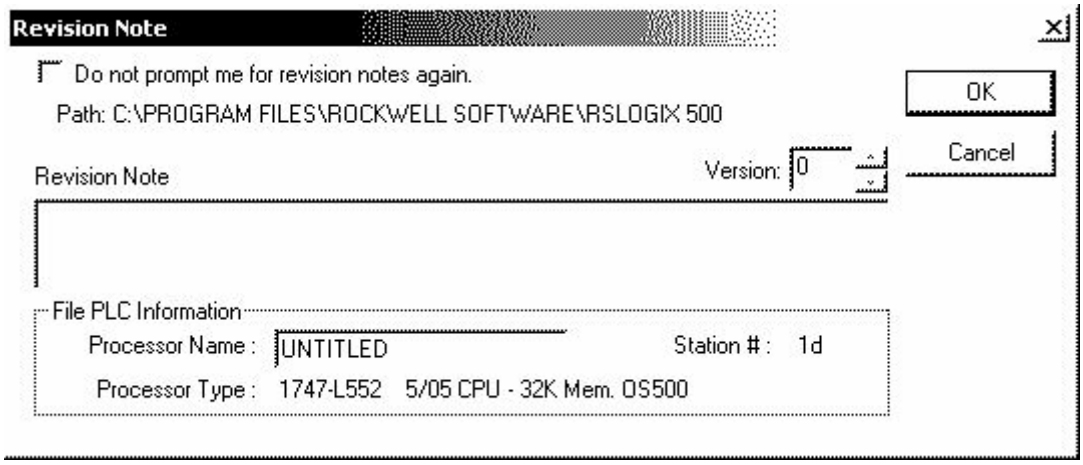
* Other settings can be left by default.

5) Click the [OK] button after complete the settings.

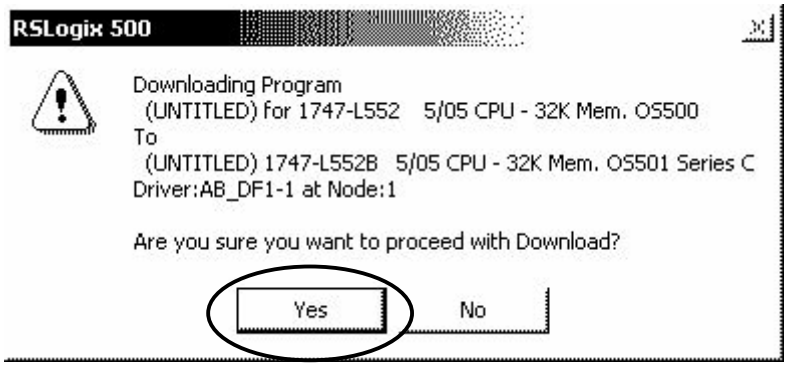
6) Download the driver settings. Click [OFFLINE] and select [Download…].

Copyright 2003 Digital Electronics Corporation All Rights Reserved

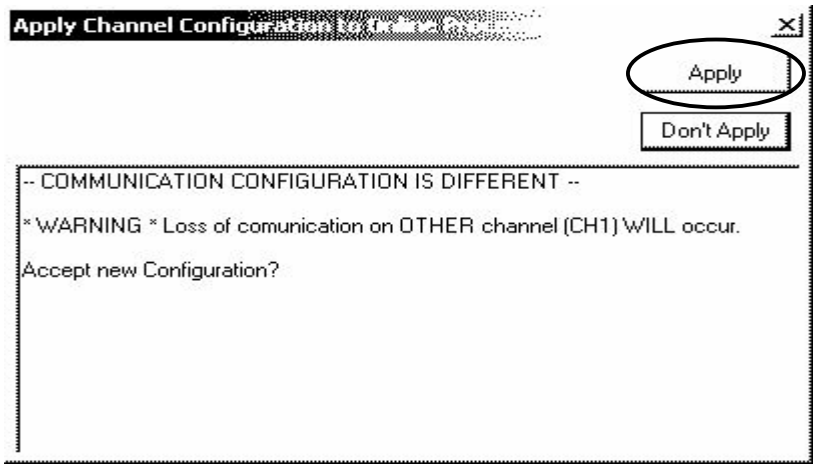
7) The dialog box as below will be displayed, and then click the [OK] button.



8) The following alert dialog box will appear, and then click [Yes].



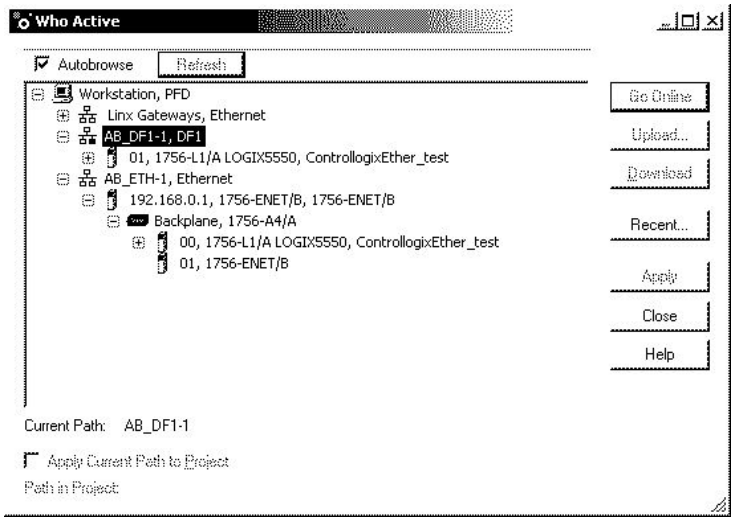
9) The below dialog box warning "Loss of communication on CURRENT channel (CH0) will occur." will be displayed, and then click [Apply].



The port settings for SLC500 are completed.

Copyright 2003 Digital Electronics Corporation All Rights Reserved

Confirm that RSLogix recognizes SLC500 Series before downloading the project file.

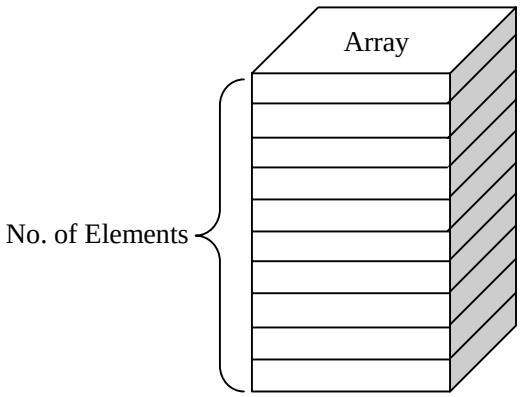


（RSLinx / Who Active screen）

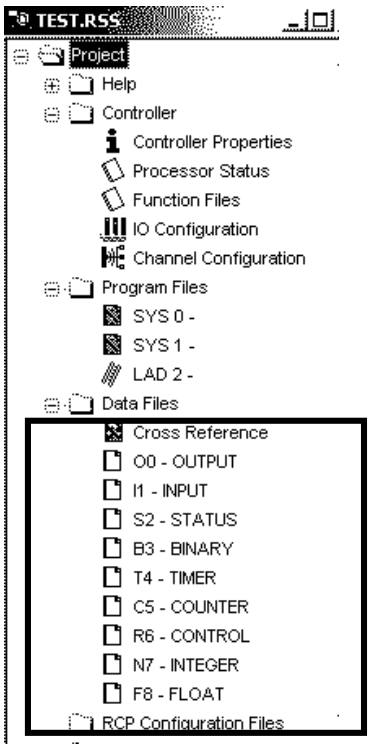
Copyright 2003 Digital Electronics Corporation All Rights Reserved

Assigning Addresses

With Rockwell PLC, the required arrays and number of elements are assigned on RSLogix500. If you connect it to GP/GLC without assigning here, a host communication error will occur.

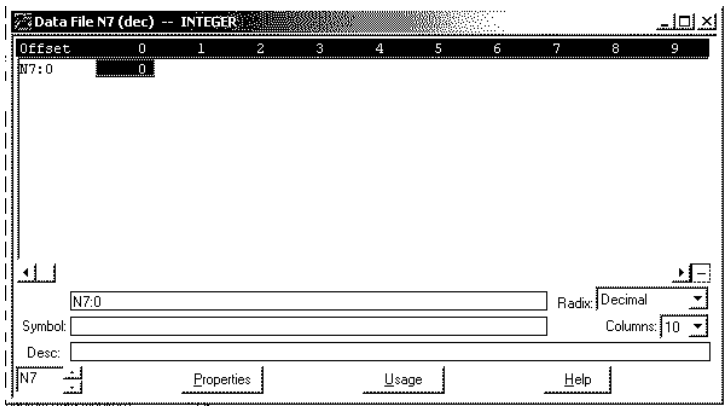


[File Type]

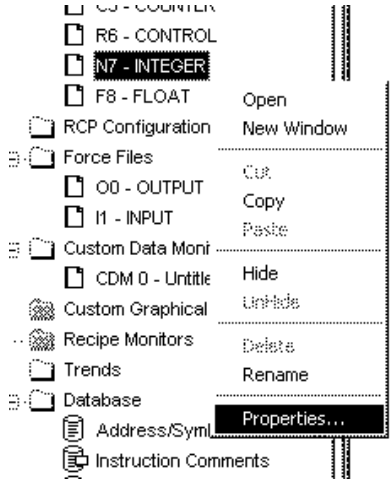


The project file has array types and array numbers as left.

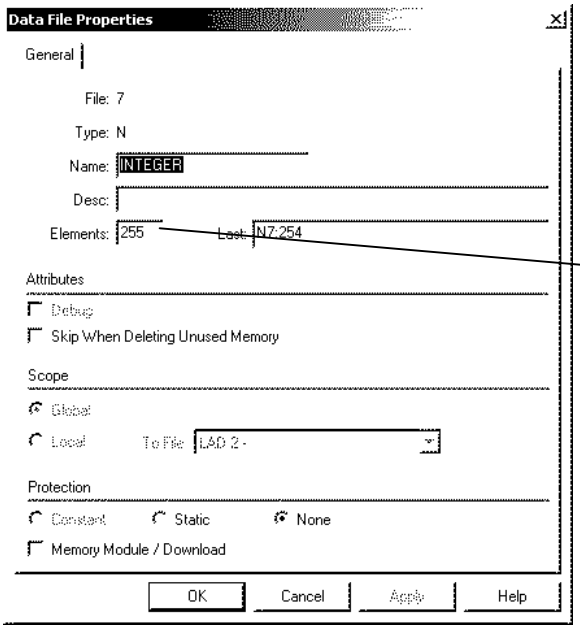
Copyright 2003 Digital Electronics Corporation All Rights Reserved



Only one element exists by default. Because N array to which the system start address is assigned needs 20 elements, it is necessary to increase elements.



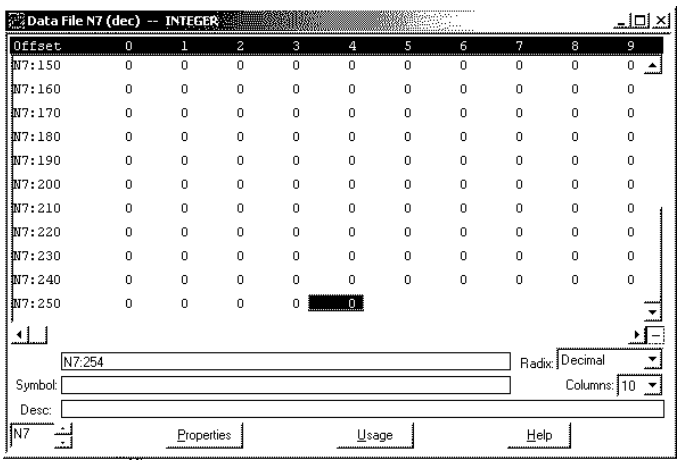
To increase these elements, start setting as left.



Enter the number of required elements.

* N7 needs at least 20 elements to assign the system start address.

Copyright 2003 Digital Electronics Corporation All Rights Reserved

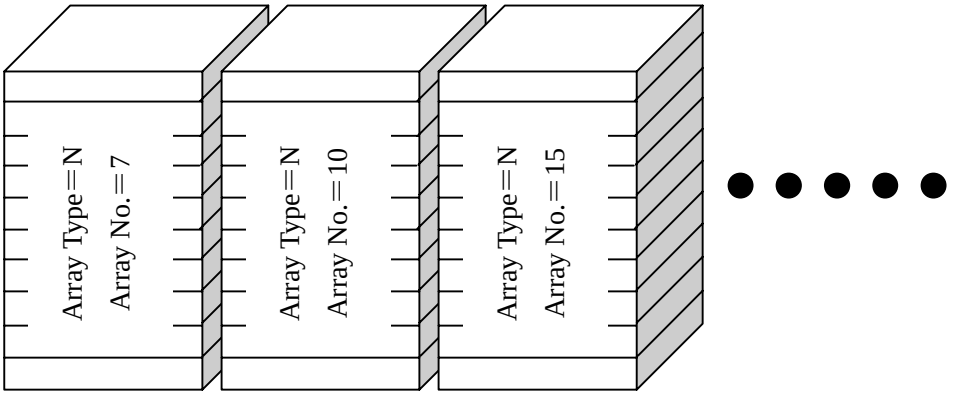


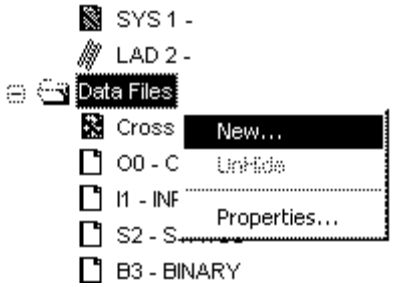
As you can see left, 255 elements have been created in N7.

[Creating New Array]

It is possible to create multiple arrays with Rockwell PLC.

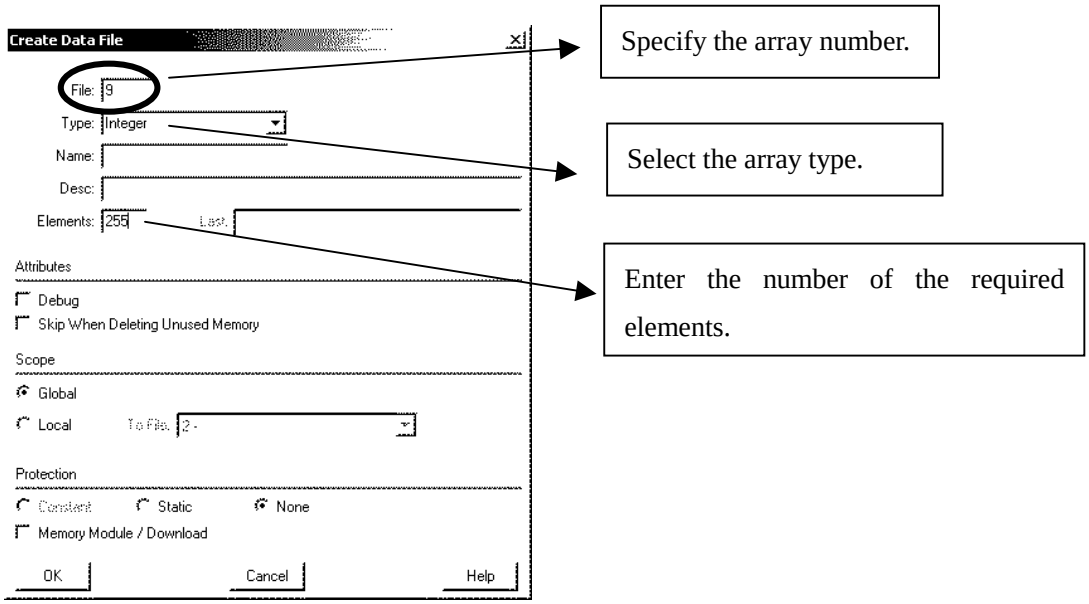
e.g.)

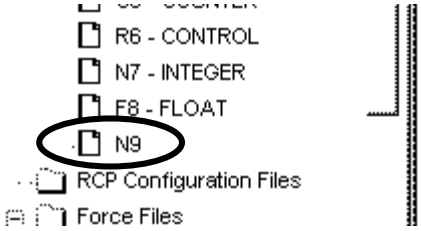




To start creating new arrays, follow as left.

Copyright 2003 Digital Electronics Corporation All Rights Reserved





N9 has been newly created with 255 elements.

Following this way, create arrays and elements towards each array type.

Duplication of array numbers following array type is not allowed. For example, you cannot create such as N15, B15.

Copyright 2003 Digital Electronics Corporation All Rights Reserved