Pro-face[®] Let's Connect to PLC! Rockwell (Allen-Bradley) SLC500 series

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]

*#*R5Logix 500 - LINTITLED	_[[[] ×]
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- Data Files	
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(3) Select CPU Type.

Select Processor 1	Гуре					<u>×</u>
Pr	ocessor Name	UNTITLED				OK
1747-L552B	5/05 CE	PU - 32K 1	Mem. 08501	Series C	<u> </u>	Cancel
1747-L551B 1747-L553	5/05 CE	PU = 16K I PU = 64K I	Mem. 05501 Mem. 05501	Series C		Help
1747-L553 1747-L553 1747-L552 1747-L551 1747-L543C 1747-L542C 1747-L542C 1747-L543 1747-L543 1747-L543	5/05 CE 5/05 CE 5/05 CE 5/04 CE 5/04 CE 5/04 CE 5/04 CE 5/04 CE 5/04 CE	$\begin{array}{l} {}^{9}\mathrm{U} \ - \ 16\mathrm{K} \] \\ {}^{9}\mathrm{U} \ - \ 64\mathrm{K} \] \\ {}^{9}\mathrm{U} \ - \ 32\mathrm{K} \] \\ {}^{9}\mathrm{U} \ - \ 64\mathrm{K} \] \\ {}^{9}\mathrm{U} \ - \ 64\mathrm{K} \] \\ {}^{9}\mathrm{U} \ - \ 32\mathrm{K} \] \\ {}^{9}\mathrm{U} \] \] \] \] \] \] \] \] \] \ $	Mem. OS501 Mem. OS500 Mem. OS500 Mem. OS401 Mem. OS401 Mem. OS401 Mem. OS401 Mem. OS401 Mem. OS401	Series C Series C Series C	<u> </u>	
Communication se	ettings Proc	essor Node:	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	Reply Tir	meout:	
AB_DF1-1	⊥ 1	Decimal (=1 Octal)	Who Active		(Sec.)	

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

annel Configuration		<u>ل</u> ا	
General Chan. 1 - System Chan. 0 - System	1 Chan. 0 - User		1. Select Ethernet.
Hardware Address: 00:00:00:00:00 IP Address: 0 . 0 Subnet Mask: 0 . 0	DHRIO . 0 . 0 . 0 . 0 Pass Thru 1 Table F	Link ID 0	2. Contact the network administrator.
Gateway Address: 0 . 0	. 0 . 0		* For other settings, default will be fine.
V Bootp Enable	Msg Connection Timeout Msg Reply Timeout Inactivity Timeou	(x 1mS): 15000 (x 1mS): 3000 t (x Min): 30	
Contact: Contact: Location:			
	Apply		

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



(6) Download the driver settings.

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

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

Revision Note									×
T Do not prompt me f	or revision not	es ag	gain.						v 1
Path: C:\PROGRAM	FILES\ROCK ¹	WEL	L SOFTWAR	E\RSLOGIX	(500				<u> </u>
Revision Note					Version:	0	- -	Car	ncel
1									
File PLC Information Processor Name :					Station # :	1d			

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

RSLogix	500
	Downloading Program (UNTITLED) for 1747-L552 5/05 CPU - 32K Mem. OS500 To (UNTITLED) 1747-L552B 5/05 CPU - 32K Mem. OS501 Series C Driver:AB_DF1-1 at Node:1
	Are you sure you want to proceed with Download?

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

Apply Channel Configuration (Apply Don't Apply - COMMUNICATION CONFIGURATION IS DIFFERENT --* WARNING * Loss of comunication on OTHER channel (CH1) WILL occur. Accept new Configuration?

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.

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n-face°

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.





👰 Data File N	7 (dec)	INTEGE	R							<u>_ ×</u>
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 i
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					÷
<u>.</u>										ند الل
N7:25	54							Radi	x Decima	al 🔽
Symbol:									Colum	ns: 10 🔻
Desc:										
N7 -		Proper	ties		Usa	ge		Hel	Р	

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.





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.