

## Advantech AE Technical Share Document

<b>Date</b>	2015 / 09 / 17	<b>SR#</b>	
<b>Category</b>	■ FAQ □ SOP	<b>Related OS</b>	RTOS, WinXP, Win7
<b>Abstract</b>	Communication between WebOP and AB SLC PLC		
<b>Keyword</b>	SLC, DF1		
<b>Related Product</b>	WOP-2000, WOP-3000, Panel Express		

### ■ Problem Description:

This Tech note is to explicate how to connect AB SLC Series DF1 RS232 CPU port with WebOP HMI as well as the related communication parameter settings.

In this document, we use SLC 500 series as the example. Please see the picture below.



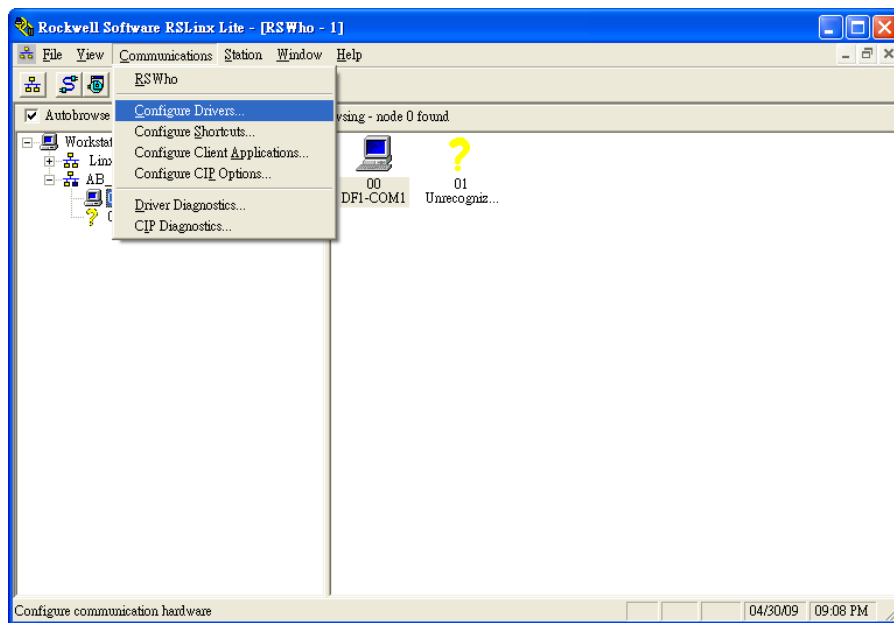
### ■ Brief Solution - Step by Step:

#### PLC Settings

##### 1. Rockwell Software Settings (RSLinx)

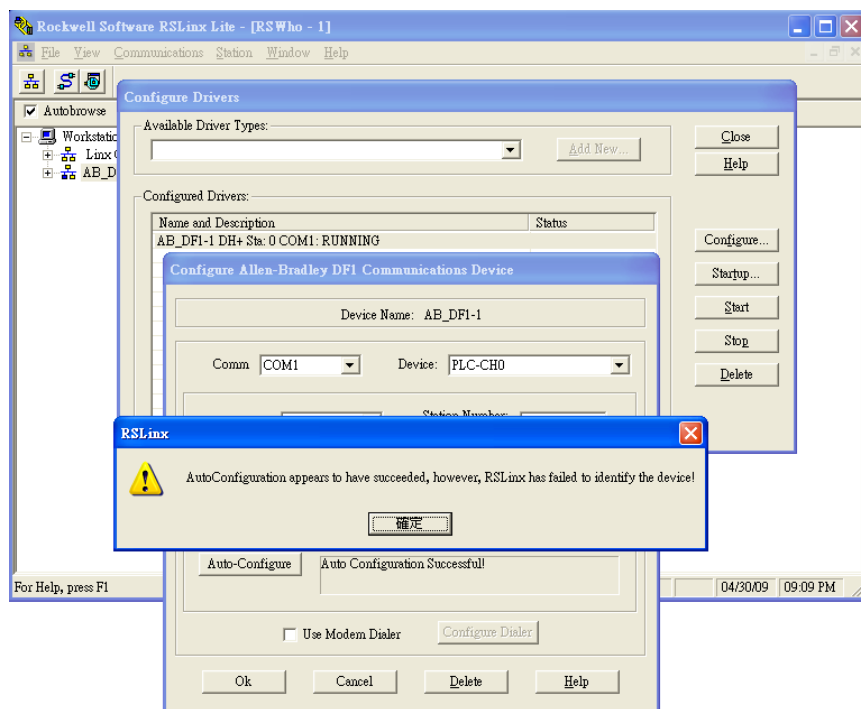
###### 1.1. Step 1

Please connect RS232 cable with DF1 RS232 port and run *RSLinx* Software. Please see the illustration below.



## 1.2. Step 2

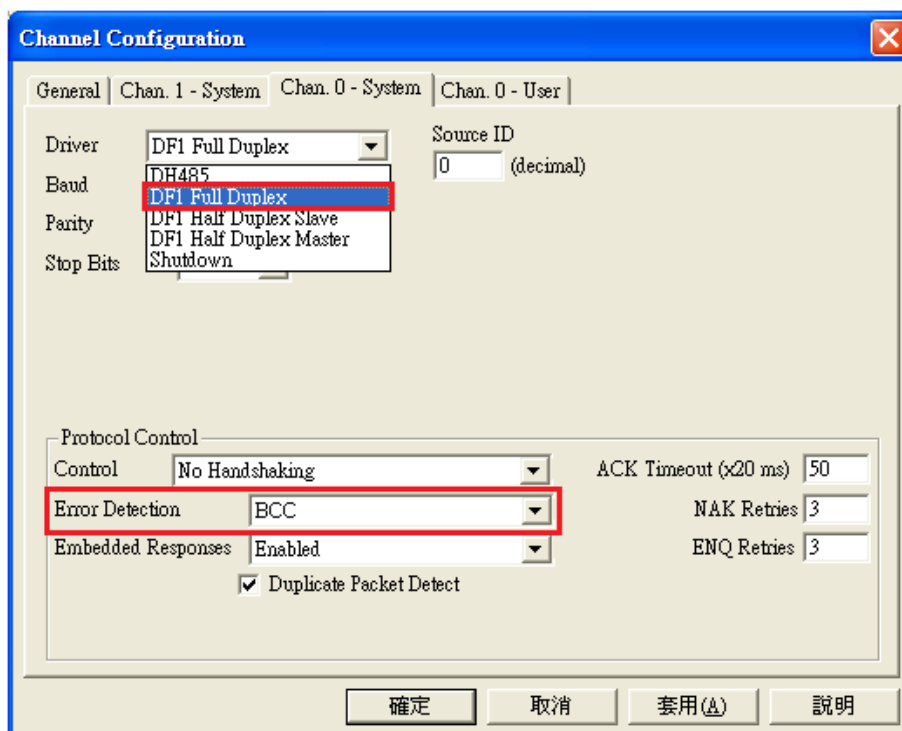
Select *Auto-Configure* option to detect DF1 port automatically. Please see the illustration below.



## 1.3. Step 3

Parameter setting is 19200, 8, none, node: 1. Driver = DF1 Full Duplex.

Error Detection = BCC

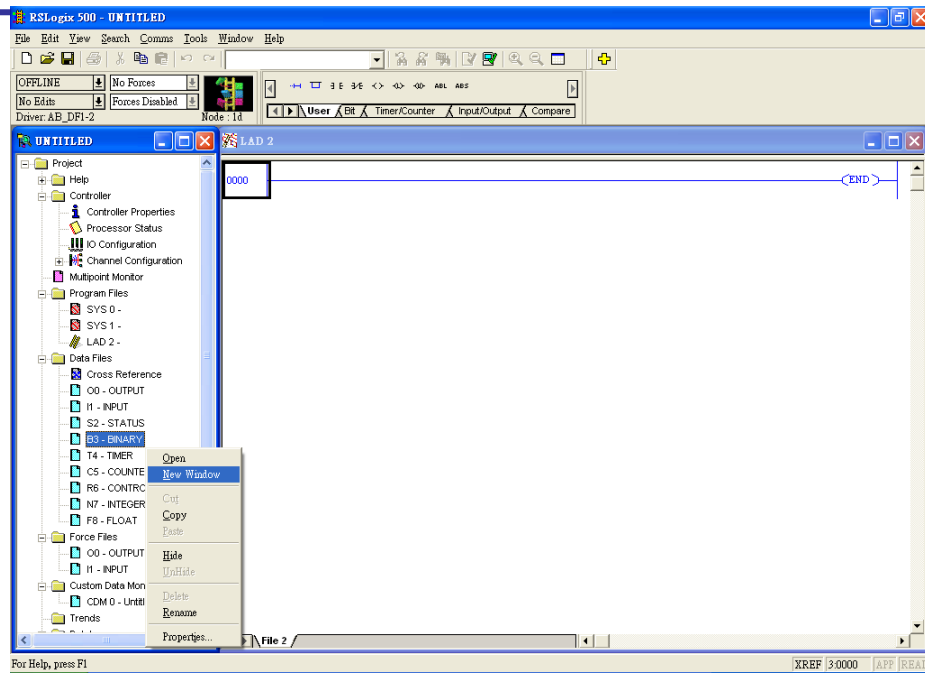


## 2. Activate Data Files

You have to activate the "Data Files" in RSLogix 500 software before HMI and controller connection. Please follow the step below.

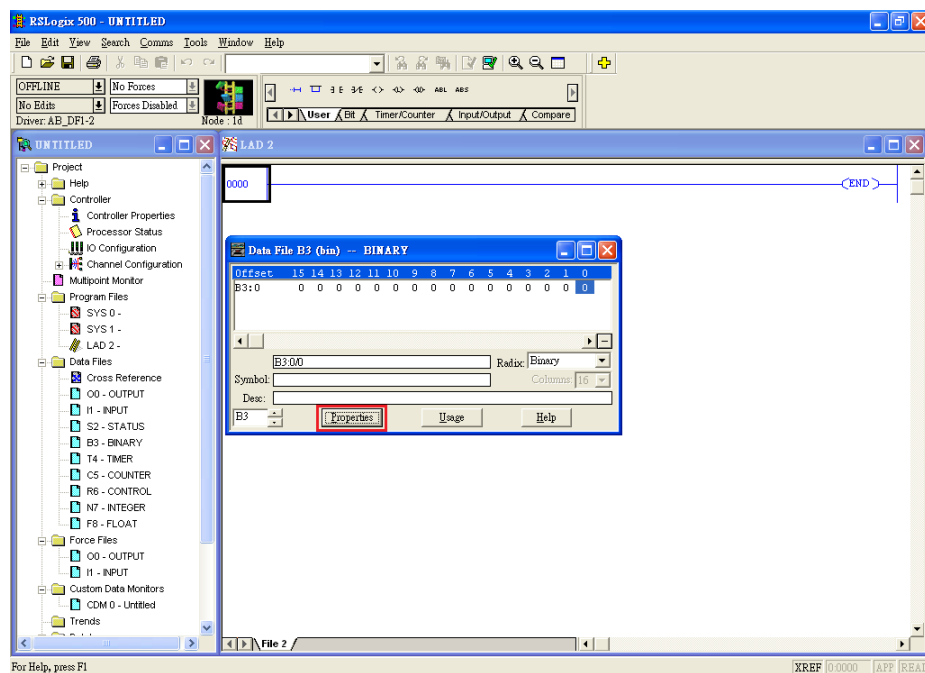
### 2.1. Step 1

Run RSLogix 500 and select associate CPU model. Then, right click the data file to be activated and select "New Window". Please see the illustration below.



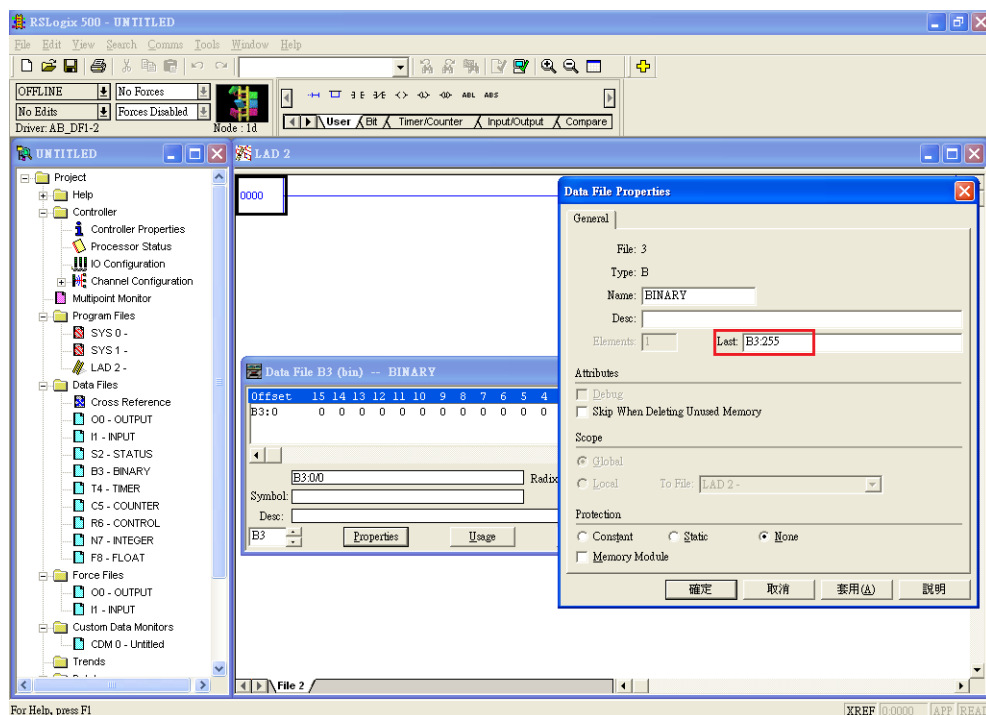
## 2.2. Step 2

Click “Properties” button in data file dialog box. Please see the illustration below.



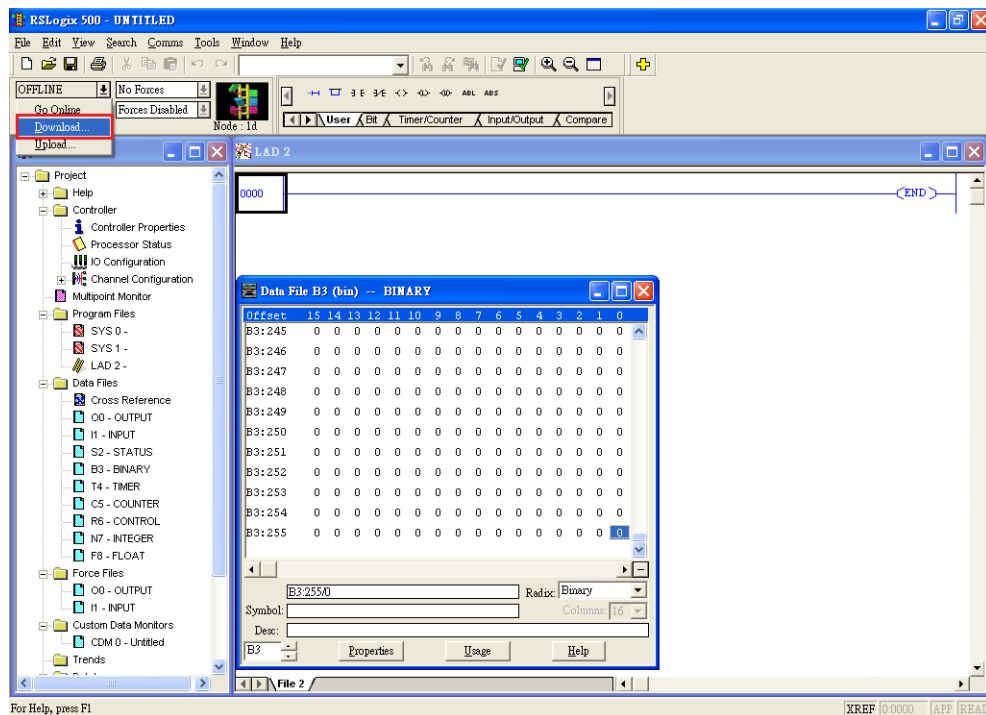
## 2.3. Step 3

In “Data File Properties” dialog box, enter B3: 255 in the “Last Column”. Please see the illustration below.

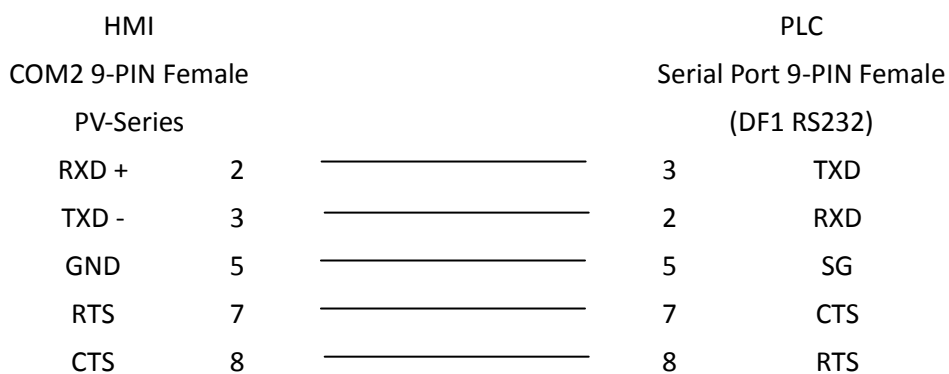
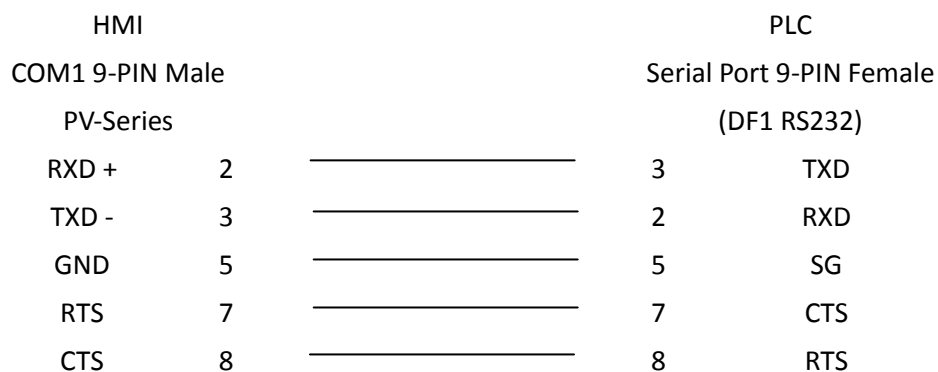


## 2.4. Step 4

Press OK and you will see B3:0 to B3:255 are activated. Now, you can select “Download...” to write data to PLC. Please see the illustration below.



### 3. Connection Diagram



## HMI Settings

### 1. General

Select *Device/Server*: Allen Bradley, SLC 5/03, 5/04.

General Parameter

Link Number: 1

Link Name: AB DF1 Link

Link Type: Direct Link (COM)

Device/Server: Allen Bradley SLC 5/03, 5/04

Link Port: COM1 (AB DF1 Link) ☐ Sub-links

☐ Record communication status in operation log

The duration of showing a communication error message: 5 second(s)

### 2. Parameter

Communication parameters must be identical with PLC's settings.

General Parameter

Transmission

Baud Rate: 9600

Data Bits: 8

Parity: None

Stop Bits: 1

Others

Panel Address: 0

PLC Address: 2

Timeout Time: 0 (x 0.1 Sec.)

Command Delay: 0 (x 0.1 Sec.)

Retry Count: 0

## PLC Memory Address

### 1. Bit Device

Bit Device	Address Range	Block Address	Comment
O:e.s/b	e: 0~30; s: 0~255; b: 0~15	N/A	
I:e.s/b	e: 0~30; s: 0~255; b: 0~15	N/A	
Sf:n/b	n: 0~31; f: 2; b: 0~15	b=0	
Bf:n/b	n: 0~255; f: 3, 9~255; b: 0~15	b=0	
Tf:n/b	n: 0~255; f: 4, 9~255; b: 0~15	b=0	
Tf:n.PRE/b	n: 0~255; f: 4, 9~255; b: 0~15	b=0	
Tf:n.ACC/b	n: 0~255; f: 4, 9~255; b: 0~15	b=0	
Tf:n.EN	n: 0~255; f: 4, 9~255	N/A	
Tf:n.TT	n: 0~255; f: 4, 9~255	N/A	
Tf:n.DN	n: 0~255; f: 4, 9~255	N/A	
Cf:n/b	n: 0~255; f: 5, 9~255; b: 0~15	b=0	
Cf:n.PRE/b	n: 0~255; f: 5, 9~255; b: 0~15	b=0	
Cf:n.ACC/b	n: 0~255; f: 5, 9~255; b: 0~15	b=0	
Cf:n.CU	n: 0~255; f: 5, 9~255	N/A	
Cf:n.CD	n: 0~255; f: 5, 9~255	N/A	

### 2. Word Device

Word Device	Address Range	Size	Comment
O:e.s	e: 0~30; s: 0~255	Word	
I:e.s	e: 0~30; s: 0~255	Word	
Sf:n	n: 0~31; f: 2	Word	
Bf:n	n: 0~255; f: 3, 9~255	Word	
Tf:n	n: 0~255; f: 4, 9~255	Word	
Tf:n.PRE	n: 0~255; f: 4, 9~255	Word	
Tf:n.ACC	n: 0~255; f: 4, 9~255	Word	
Cf:n	n: 0~255; f: 5, 9~255	Word	
Cf:n.PRE	n: 0~255; f: 5, 9~255	Word	
Cf:n.ACC	n: 0~255; f: 5, 9~255	Word	
Rf:n	n: 0~255; f: 6, 9~255	Word	
Rf:n.LEN	n: 0~255; f: 6, 9~255	Word	
Rf:n.POS	n: 0~255; f: 6, 9~255	Word	
Nf:n	n: 0~255; f: 7, 9~255	Word	
Ff:n	n: 0~255; f: 8, 9~255	Word	



■ **Reference:**

N/A