



WebAccess Driver Configuration Manual

AB MicroLogix 1400

ABDrv.DLL

Driver date: 2015/3/30

English Version 1.1



Revision History

Date	Version	Author	Reviewer	Description
2018-10-29	1.0	Alger.Tan	ChiRen.Wei	Initial Release
2018-11-2	1.0	Alger.Tan	Neal.Chen	Update Error Code

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1. Introduction to AB MicroLogix ABMLGX Driver

WebAccess SCADA Node provides an ABMLGX driver to connect the AB MicroLogix PLC by using the ABMLGX protocol.

1.1 AB MicroLogix PLC Settings

To configure your PLC you will have to install two software: RSLinx which is the Allen-Bradley connection manager and RS Logix Micro for Micrologix series or RS Logix 5000 for CompactLogix and ControlLogix series.

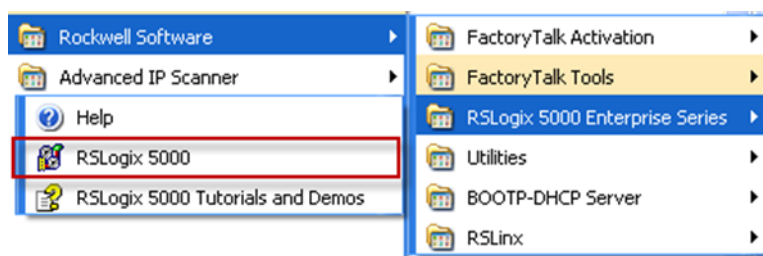


Figure 1.1 RSLogix 5000

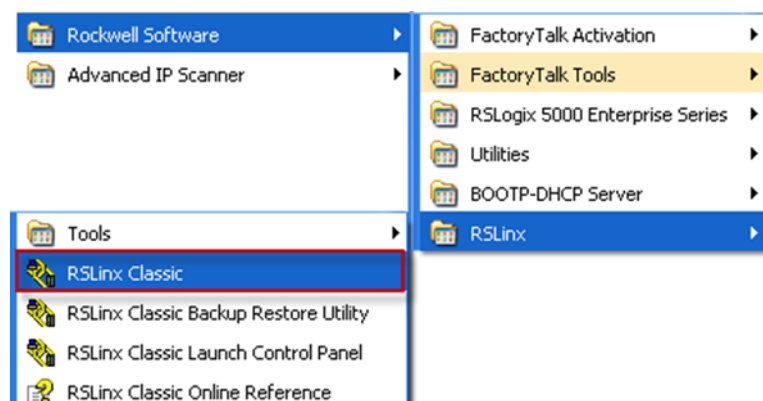


Figure 1.2 RSLinx

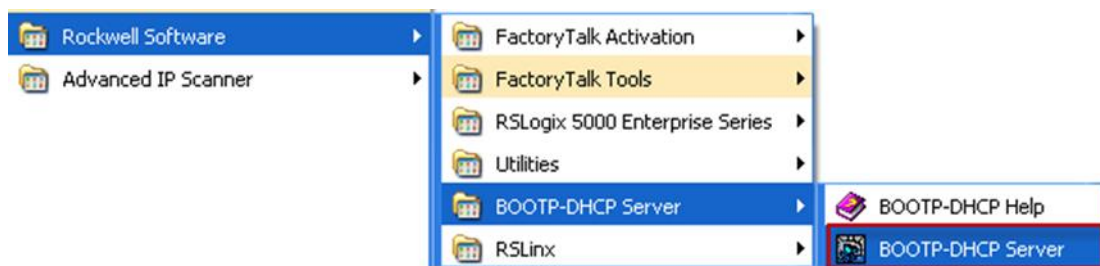


Figure 1.3 BOOTP-DHCP Server

Before connecting to the module if it has not been configured you need to set the IP address. Open the BOOTP server and make a new BOOTP request (Create a new relation)

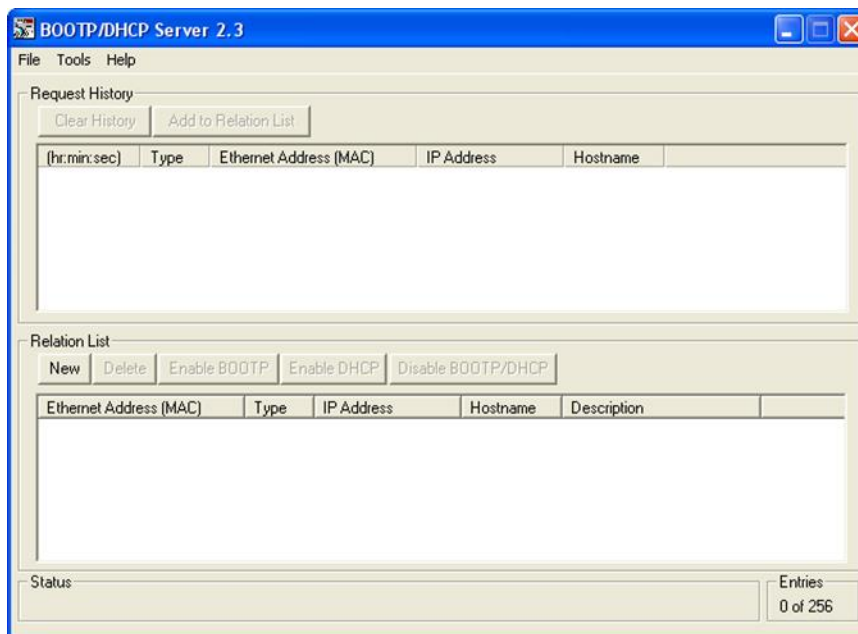


Figure 1.4 BOOTP-DHCP Server Interface

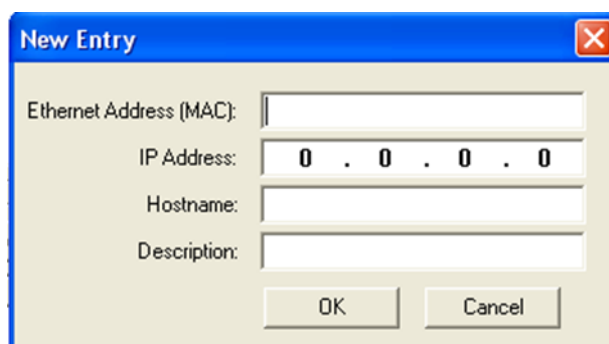


Figure 1.5 Setup DHCP

The MAC address of your PLC should be written on the hardware. Type the mac address and choose an IP address to set it to the PLC.

Now Open RSLinx to define the communication between the PLC and Allen-Bradley software.

Add a new driver of Ethernet/IP type.

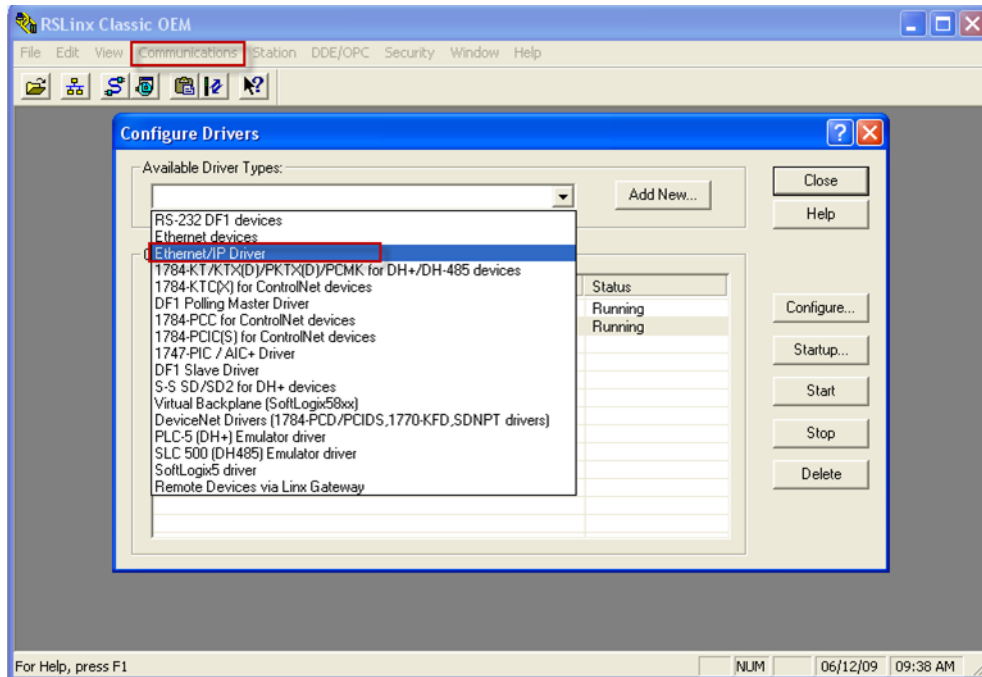


Figure 1.6 Setup Ethernet/IP Driver

Enter the IP address of the PLC

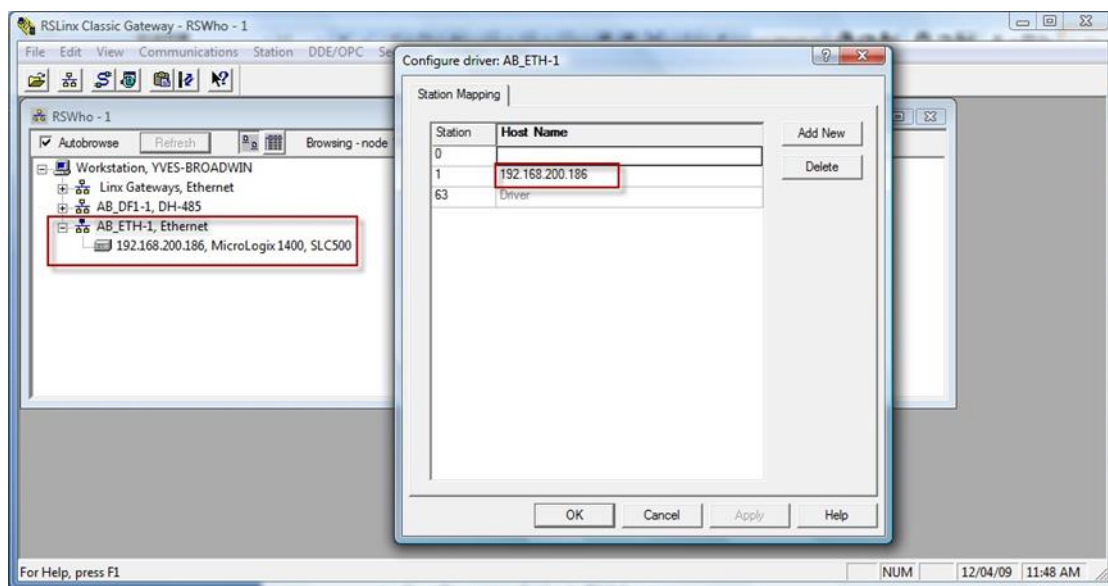


Figure 1.7 Setup AB_ETH-1 IP Address

2. Configure AB MicroLogix PLC connection by using ABMLGX

The steps, in summary, are:

1. Start Internet Explorer **Web Browser**.
2. Enter IP address of the **Project Node**.

3. Use **WebAccess Configuration**.
4. Open or Create a **Project**.
5. Configure a **SCADA node** (the PC that will connect to the automation hardware).
6. Configure a **Comport** for the SCADA Node that is a **TCPIP type Comport**.

Note - It is recommended to select a Comport number greater than 2 so that it does not conflict with a Serial comport that you may want to use later.

2.1 TCPIP Comport Properties

The TCPIP Comport is usually associated with an Ethernet Network Interface Card on the SCADA Node PC. Any TCPIP compatible medium is supported as long as it complies with Microsoft TCPIP protocol stack. The user should give the setting of comport number, scan time, timeout, retry count, auto recover time & scan devices in parallel by the actual connection requirements.

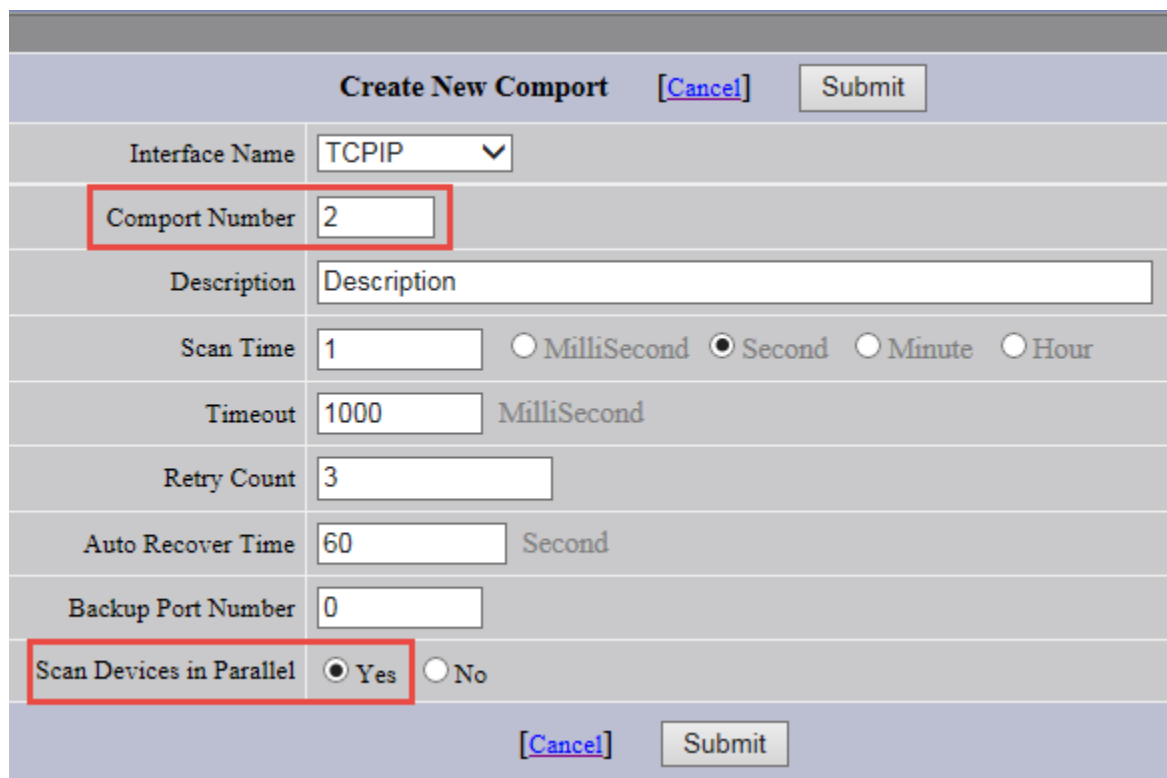


Figure 2.1 TCPIP Comport properties

2.2 Device Setting

The user needs to set the device name, unit number, device type and the IP address and port number by the AB MicroLogix PLC setting. The default port number of the EtherNet/IP protocol is “**44818**”.

Create New Device		[Cancel]	Submit
Device Name	MicroLogix		
Description	AB MicroLogix PLC		
Unit Number	2		
Device Type	ABMLGX ▼		
Primary	IP Address	172.18.1.25	
	Port Number	44818	
	Device Address	if other than Unit Number	
Secondary	IP Address		
	Port Number		
	Device Address		

Figure 2.2 ABMLGX device properties

2.3 Tag property

In the WebAccess SCADA, there are two data types for the discrete and analog and tags. The below screenshots are the samples for the tag property setting for the AB MicroLogix PLC.

Discrete tag property

Tag Type	Point (discrete)
Alarm	No Alarm ▼
Tag Name	I00
Description	Input
Scan Type	Constant Scan ▼
Address	I:000/00
Conversion Code	Unsigned Integer ▼
Start Bit	0
Length	1
Signal Reverse	<input type="radio"/> Yes <input checked="" type="radio"/> No
Log Data	<input type="radio"/> Yes <input checked="" type="radio"/> No
Data Log Dead Band	3 %
Write Action Log	<input checked="" type="radio"/> Yes <input type="radio"/> No
Read Only	<input type="radio"/> Yes <input checked="" type="radio"/> No
Keep Previous Value	<input type="radio"/> Yes <input checked="" type="radio"/> No

Figure 2.3 The discrete tag property

Analog array tag property

Parameter	N ▼ Point (analog)
Alarm	No Alarm ▼
Tag Name	N7
Description	Integer File
Scan Type	Constant Scan ▼
Address	N7:0
Conversion Code	Unsigned Integer ▼
Start Bit	0
Length	16
Signal Reverse	<input type="radio"/> Yes <input checked="" type="radio"/> No
Scaling Type	No Scale ▼
Scaling factor 1	0
Scaling factor 2	0
Log Data	<input type="radio"/> Yes <input checked="" type="radio"/> No
Data Log Dead Band	3 %

Figure 2.4 The analog tag property

2.4 Parameter List

Parameter	Date Type	Description	Address format
B	Analog	Binary File	B3:0
CACC	Analog	Counter ACC	C5:0.ACC
D	Analog	BCD File	D9:0
F	Analog	Floating Number File	F8:0
L	Analog	Long File	L9:0
N	Analog	Integer File	N7:0
S	Analog	Status File	S:0
TACC	Analog	Timer ACC	T4:0.ACC
I	Discrete	Input	I:000/00
O	Discrete	Output	O:000/00
SD	Discrete	Status file / Discrete	S:0/0

3. Error Code

8000 + Error Code(from Response)

8100 Response Data is not complete