Inovance

Inovance_Inovance AM600 Ethernet(TCP)

❖ 1 Introduction to Drive

Driver protocol	Inovance_Inovance AM600 Ethernet(TCP)
PLC Model number	Inovance AM600
website	https://www.inovance.com
communication mode	Ethernet
PLC interface	Ethernet
PLC port number	502
Online simulation	support
HMI Model	F1 / F2 / G2 full series (with network port)

Hardware wiring method:If PLC communicates directly with HMI without HUB or SWITCH, crossover cable is used;If the network communicates with the HMI through the HUB or SWITCH, use either a direct connection or a crossover cable.

A.Crossover cable wiring diagram

HMI Ethernet terminal RJ45		Controller terminal RJ45	
	1TX+ (Orange and white)	3RX+ (Green white)	
	2TX- (Orange)	6RX- (Green)	
	3RX+ (Green white)	1TX+ (Orange and white)	
	4BD4+ (Blue)	4BD4+ (Blue)	
	5BD4- (Blue and white)	5BD4- (Blue and white)	
	6RX- (Green)	2TX- (Orange)	
	7BD3+ (Brown white)	7BD3+ (Brown white)	
	8BD3- (Brown)	8BD3- (Brown)	

B.Wiring diagram of the direct cable

HMI Ethernet terminal RJ45		Ethernet HUB or Switch RJ45	
	1TX+ (Orange and white)	1RX+ (Orange and white)	
	2TX- (Orange)	2RX- (Orange)	
	3RX+ (Green white)	3TX+(Green white)	
	4BD4+ (Blue)	4BD4+ (Blue)	
	5BD4- (Blue and white)	5BD4-(Blue and white)	
	6RX- (Green)	6TX- (Green)	
	7BD3+ (Brown white)	7BD3+ (Brown white)	
	8BD3- (Brown)	8BD3- (Brown)	

❖ 2 HMI configure

➢ Configure communication connections

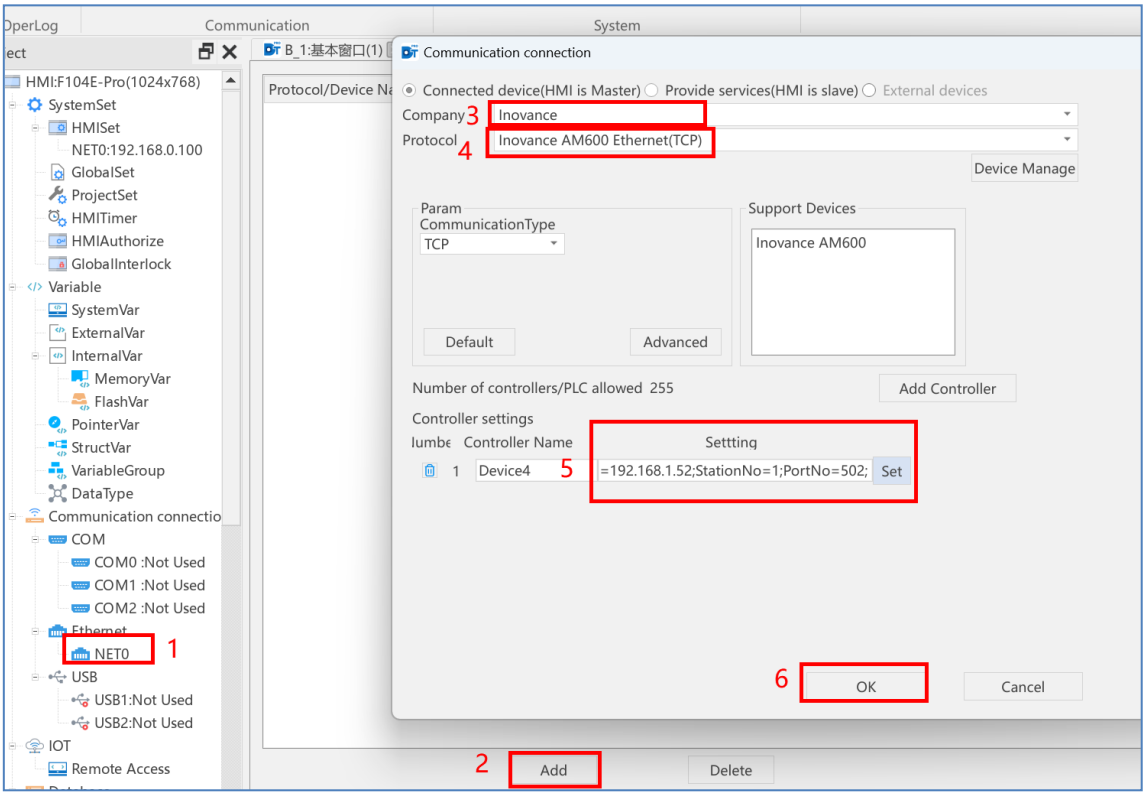

Figure1

(1)Project-Ethernet: Select the network port to add the driver

(2)Click the "Add" button;

(3)The input field after the word "Company" is to select the manufacturer; the input field after the word "Protocol" is to select the corresponding communication protocol. Here, you can

select the external controller brand Inovance (if there is no corresponding controller manufacturer, please refer to the manual << Device Manage>> for configuration);

(4)Select Inovance AM600 Ethernet (TCP) protocol for the communication protocol;

(5)To set the IP, station number, and port number of the controller, you can enter them directly or set them by clicking the "Set" button;

(6)Click OK to complete the configuration of the communication connection.

➢ Create variables

(1)Variable - ExternalVar Select the PLC where the variable is to be created

(2)Click Add on the right to create according to the desired data type

(3)Information filtering view, can be filtered by each data screening above

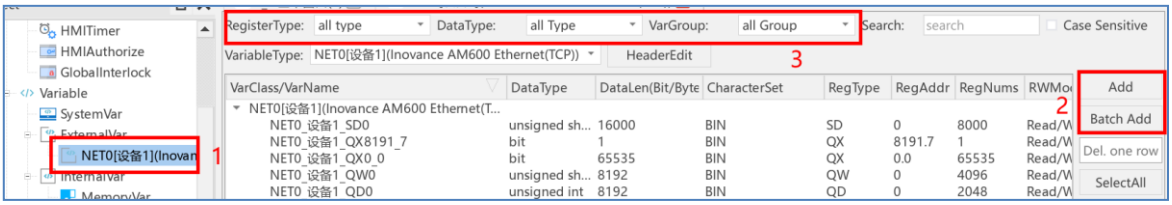

Figure2

❖ 3 External controller configuration

The software used in this manual is InoProShop.

1.Open InoProShop software, create a new project and select the corresponding device:

2.Click "Device"--->"Communication Settings" in the right list, select the corresponding gateway (you can add gateway and set the IP of corresponding PLC through the "Scan Network..." button), after the interface indicator shows green, click "Scan Network..." on the upper side. (you can add a gateway and set the IP of the corresponding PLC through the "Scan Network..." button next to the "Gateway" button), after the interface indicator shows green, click "Scan Network..." on the upper side, select the corresponding network path, and click the "Scan Network..." button. After the interface indicator shows green, click "Scan Network..." on the upper side, select the corresponding network path, and click OK for successful communication:

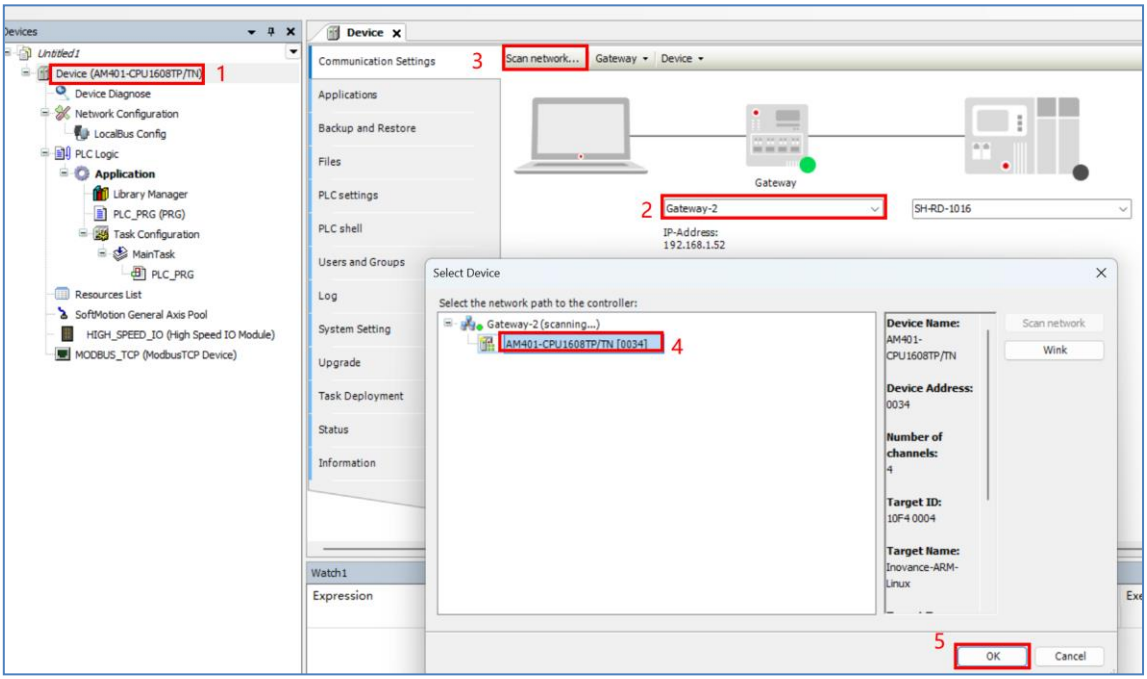

Figure3

3.Click "Device" ---->"System Setting" on the right side, you can read and write the IP of PLC network port.

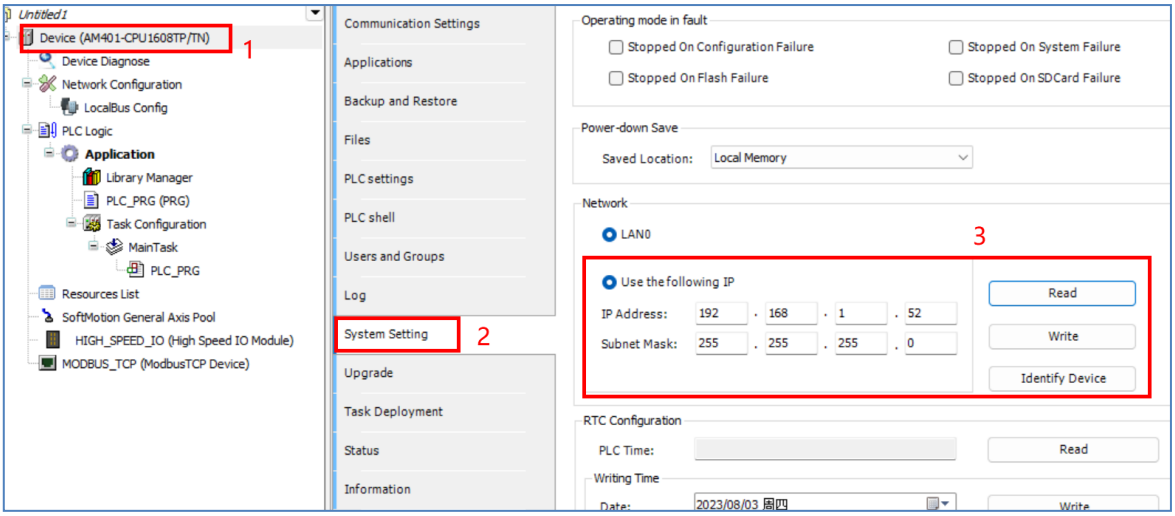

Figure4

4.Click "Online" ---->"Login", after logging in to PLC, then click "View" ---->"Monitor" to monitor the registers of PLC (to monitor the registers, enter "%+register name and address" in the expression of the monitoring table, for example, "%MB0", and enter to monitor the corresponding registers).

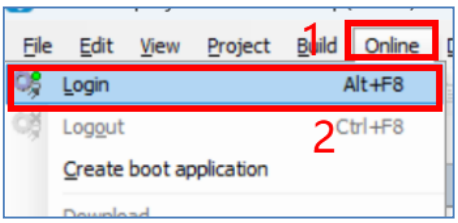

Figure5

❖ 4 Supported register type

Device	Bit Address	Word Address	Format	Notes
Internal auxiliary nodes	MX 0-131071.7	----	DDDDDD.D	
External Input Nodes	IX 0-8191.7	----	DDDD.D	
External Output Node	QX 0-8191.7	----	DDDD.D	
Special Data Registers	----	SD 0-7999	DDDD	
Internal Auxiliary Registers	----	MB 0-131071	DDDDDD	
Internal Auxiliary Registers	----	MW 0-65535	DDDDD	
Internal Auxiliary Registers	----	MD 0-32767	DDDDD	32-bit
Output Registers	----	QB 0-8191	DDDD	
Output Registers	----	QW 0-4095	DDDD	
Output Registers	----	QD 0-2047	DDDD	32-bit
Input Registers	----	IB 0-8191	DDDD	
Input Registers	----	IW 0-4095	DDDD	
Input Registers	----	ID 0-2047	DDDD	32-bit

❖ 5 Advanced parameters and error messages

Reference Manual - Communication Advanced Parameters and Error Information Table

❖ 6 Software Configuration

The following steps use the associated word variable as an example:

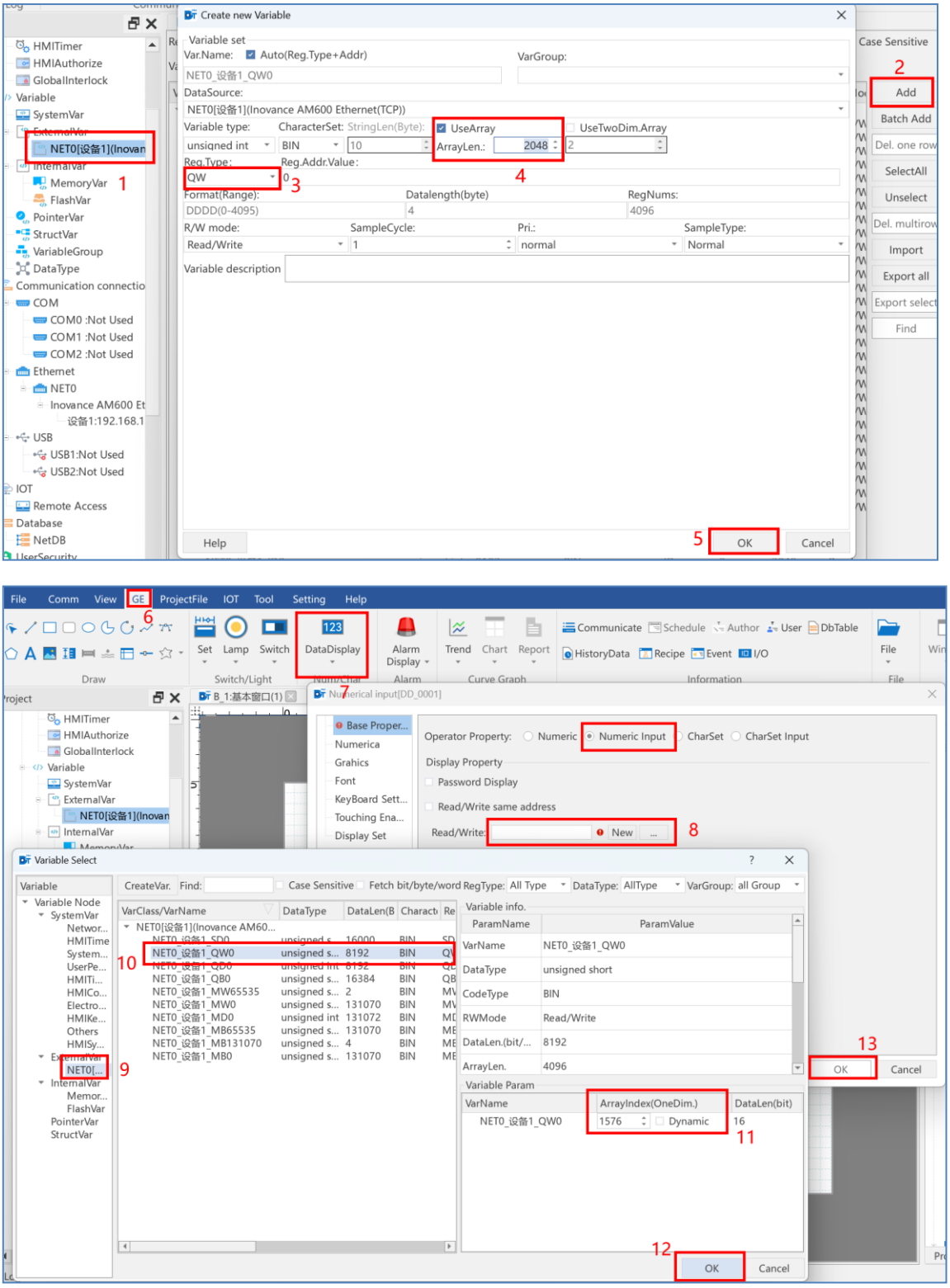

Figure6

1. Click "External Variables" and select the network port of Inovance AM600 Ethernet (TCP);
2. Click "Add" to bring up the Create New Variable window;
3. Select "Word Variable" as the register type;
4. Check "Array" and select the length of the array;
5. Click "OK" to complete the creation of variables;

6. Click "GE";
7. Select the "Data Display" component in the numeric input;
8. Bind the variable to a register or select a variable via the "..." option (you can also create a new variable here). Bind variables can be entered directly into the register or through the "..." selection of variables (you can also create new variables here, the same steps 2 ~ 5);
9. If you select the variable through the variable selection pop-up window, click the external variable and select the corresponding driver;
10. Select the register you want to bind;
11. Select the array subscript;
12. Click "OK" to complete the variable selection operation;
13. Click "OK" to complete the operation of associating word variables with numeric components;