BACnetScan

User Manual

Shanghai Sunfull Automation Co., LTD

目录

1 Preface

1.1 Disclaimer

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1.2 Technical Support

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- website：http://www.opcmaster.com or http://www.bacnetchina.com

2 Overview

BACnetScan was developed by Shanghai Sunfull Automation Co., LTD, It is a BACnet client scan software,easy to operate and quick scan speed from machine.

- Support BACnet Ethernet, BACnet IP and BACnet MSTP.

- Support read and write present value property, export EXCEL etc.

- Supoort Chinese and English Language.

3 Configuration And Operation

Open BACnetScan.exe, click BACnet from list we can see BACnet Ethernet ,BACnet IP and BACnet MS/TP. As below figure 3.1.
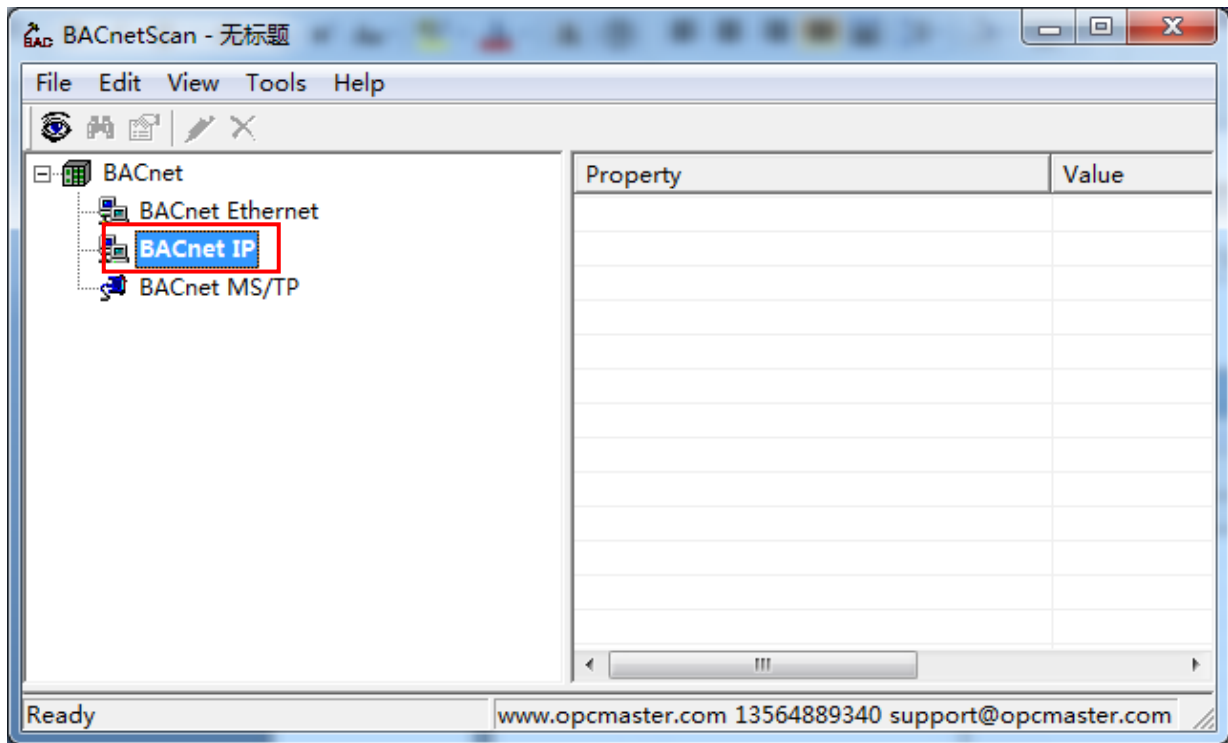
Figure 3.1 open BACnetScan

3.1 Language Settings

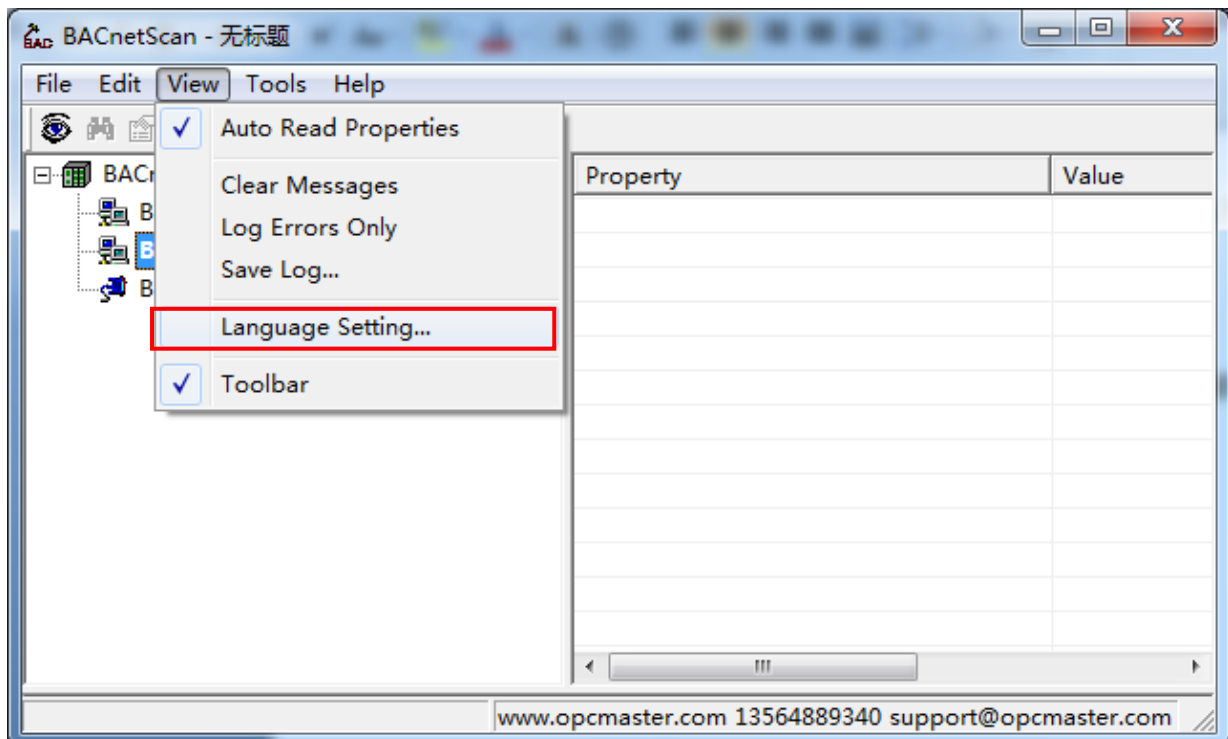Click "View" menu, select Language Setting, as below Figure 3.1.1.

Figure 3.1.1 Language Setting
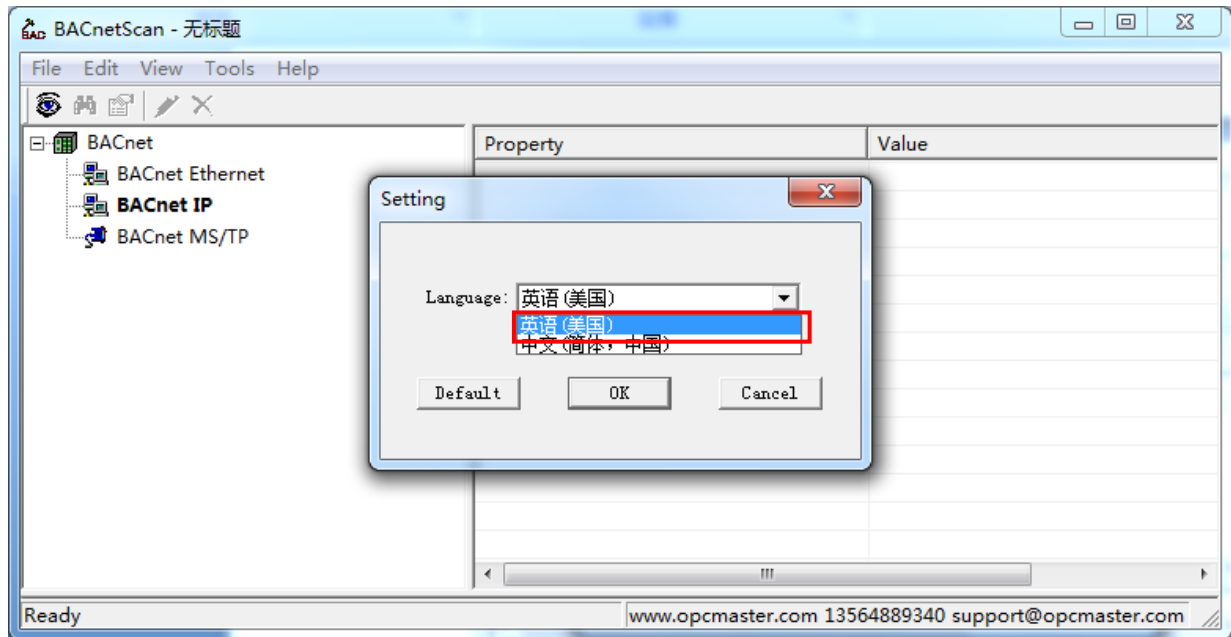
Select language as below Figure 3.1.2.

Figure 3.1.2 Select Language

3.2 Scanning BACnet IP

3.2.1 BACnet IP Settings

If the machine or Server support BACnet IP, We will be on BACnet IP Settings before scanning, click Tools select BACnet IP Setting. As below Figure 3.2.1.
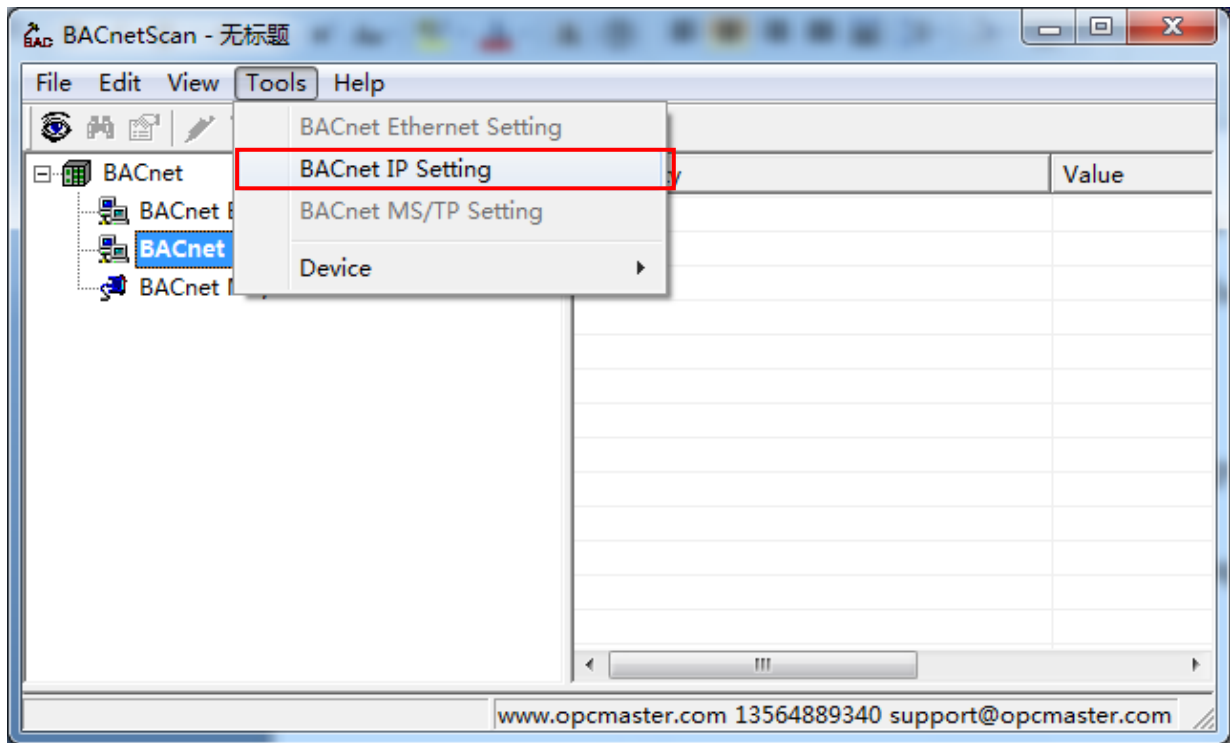
Figure 3.2.1 BACnet IP Setting

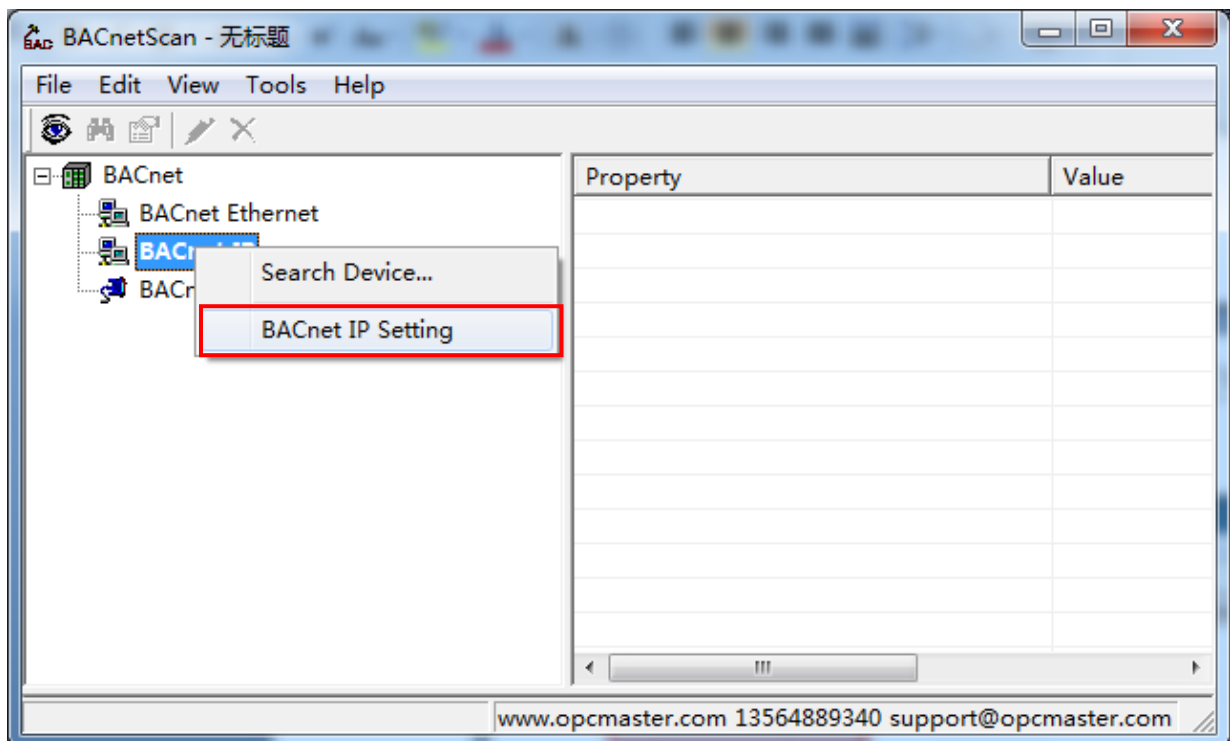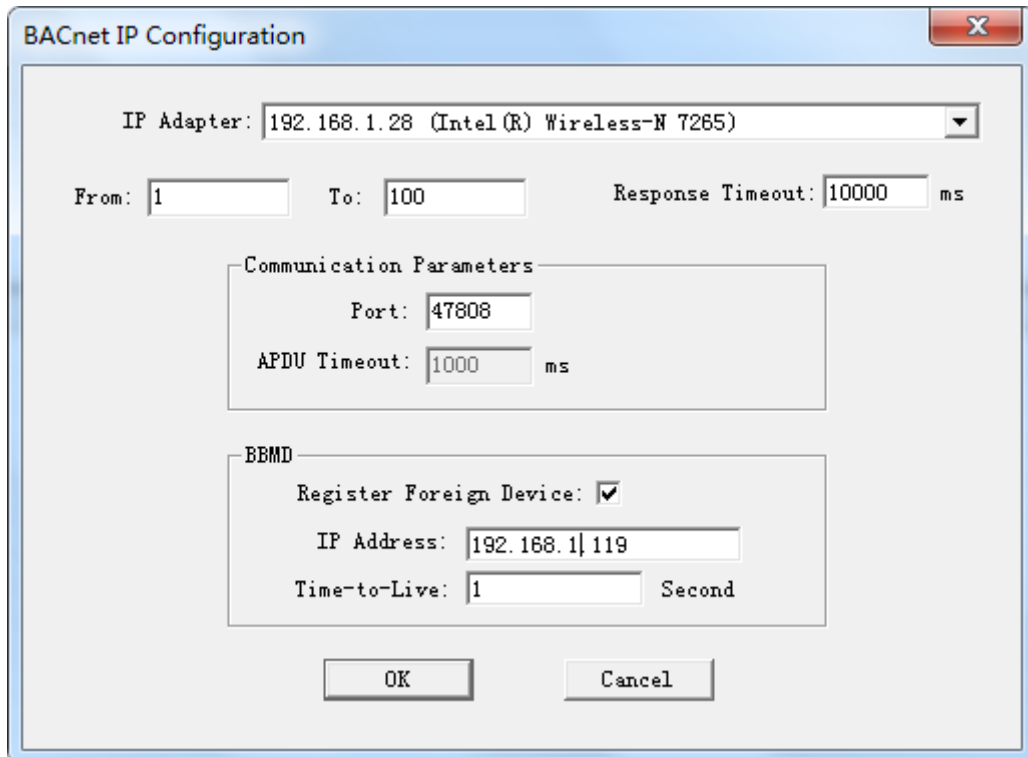Or right click BACnet IP and select BACnet IP Setting. As below Figure 3.2.2.

Figure 3.2.2 BACnet IP Setting

Dialogue box Network Communication Configuration as below Figure 3.2.3.We can see the BACnet IP configuration interface and modify on it. The default wait time is 10000

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milliseconds, if the device response is slow, the user should set the response to the waiting time for a bit longer .

As the below figure, you can search instancenumber from 1 to 100.The scope of instancenuber is setted by yourself.

When the IP address of BACnet gateway is 192.168.2.88, Select "Register Foreign Device" and input IP address 192.168.1.119, you search the gataway from 1 network segment.

Figure 3.2.3 Network Communication Configuration

3.2.2 Search BACnet IP

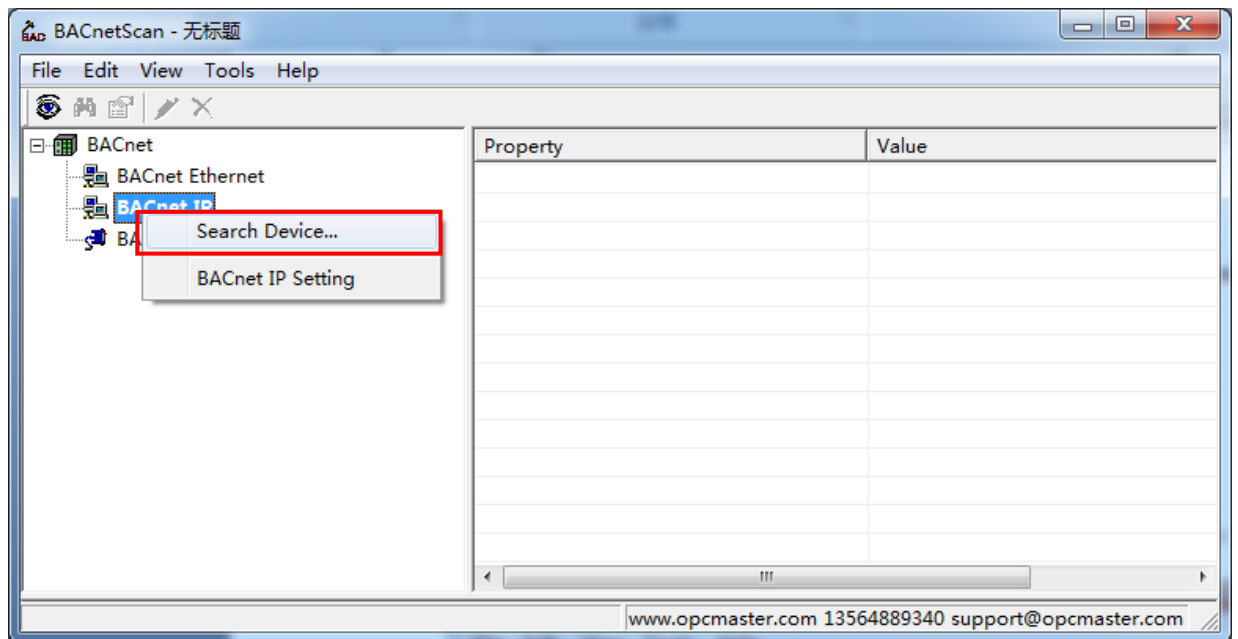Right click BACnet IP and select "Search Device…" or click button. As below Figure 3.2.4.

Figure 3.2.4 Search Device

Searched BACnet Device 548625 in same Network segment as below Figuer 3.2.5.
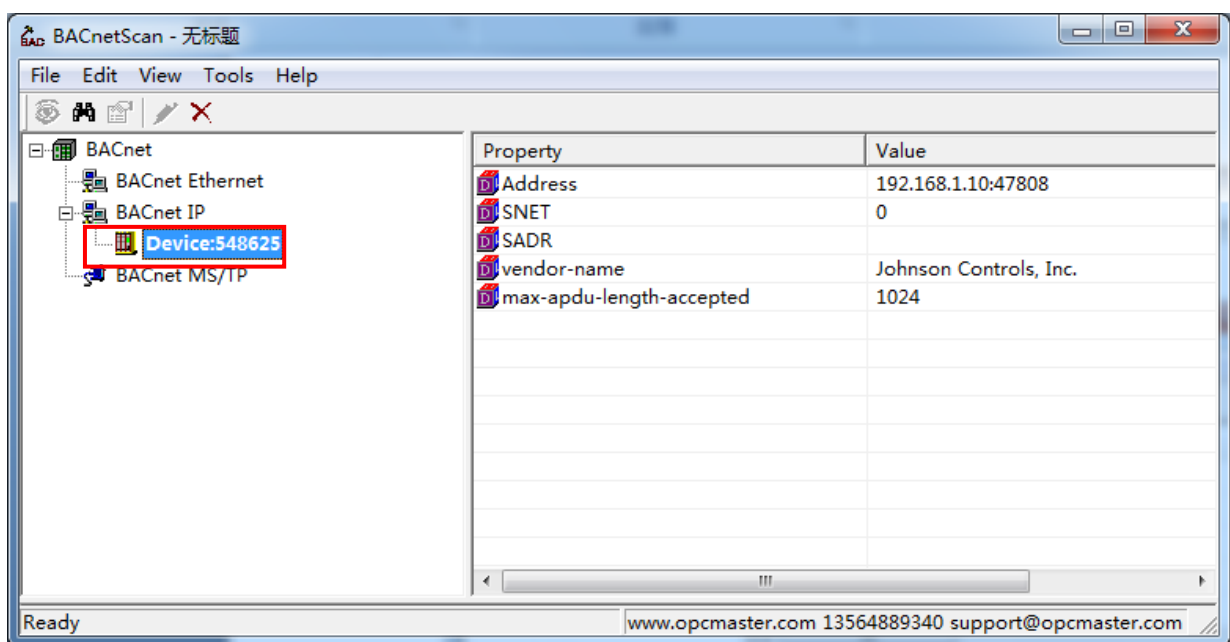

Figure 3.2.5 Search device

3.2.3 Search Object

Click Device ,property and valve on the right, right click Search Object or click button
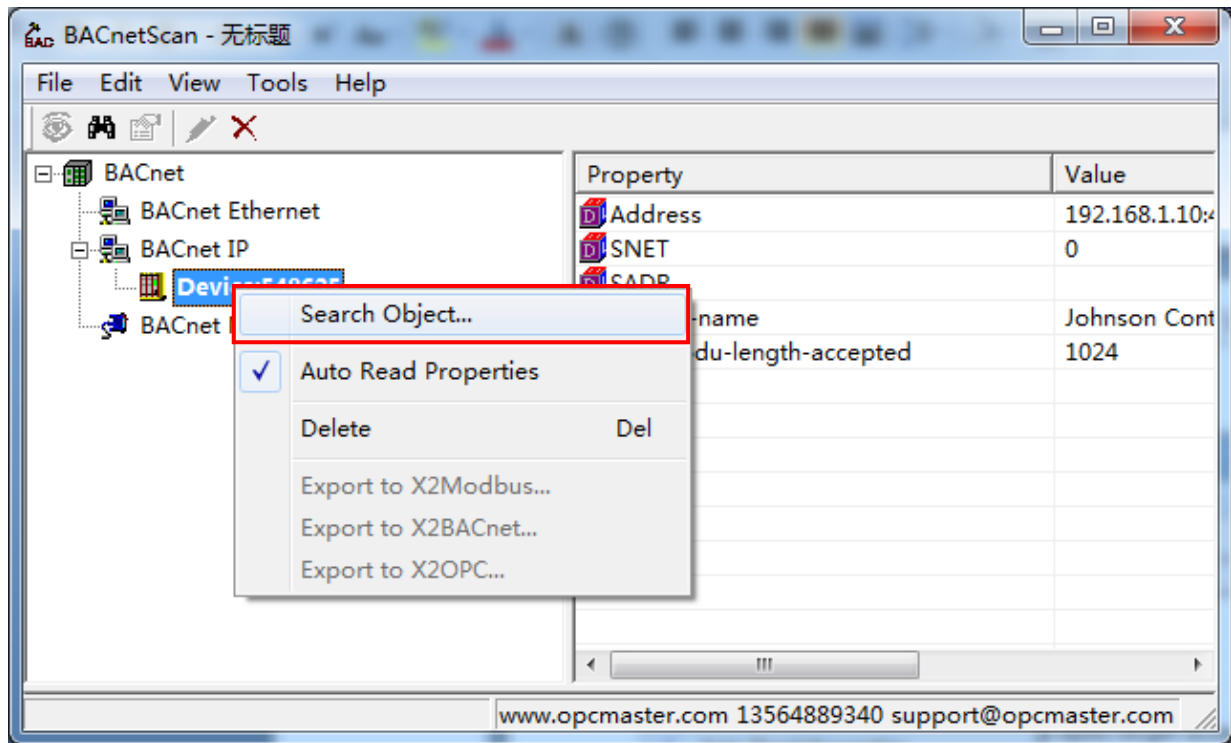
 ,as below Figure 3.2.6.

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Figure 3.2.6 Search Object

Pay attention to check the " Auto Read properties" said at the time of scanning point, automatically read all attributes of the point also.

3.2.4 Read Properties

After research objects, the user will read or write the object, select object and right click Read Properties or click "" as below Figure 3.2.7.
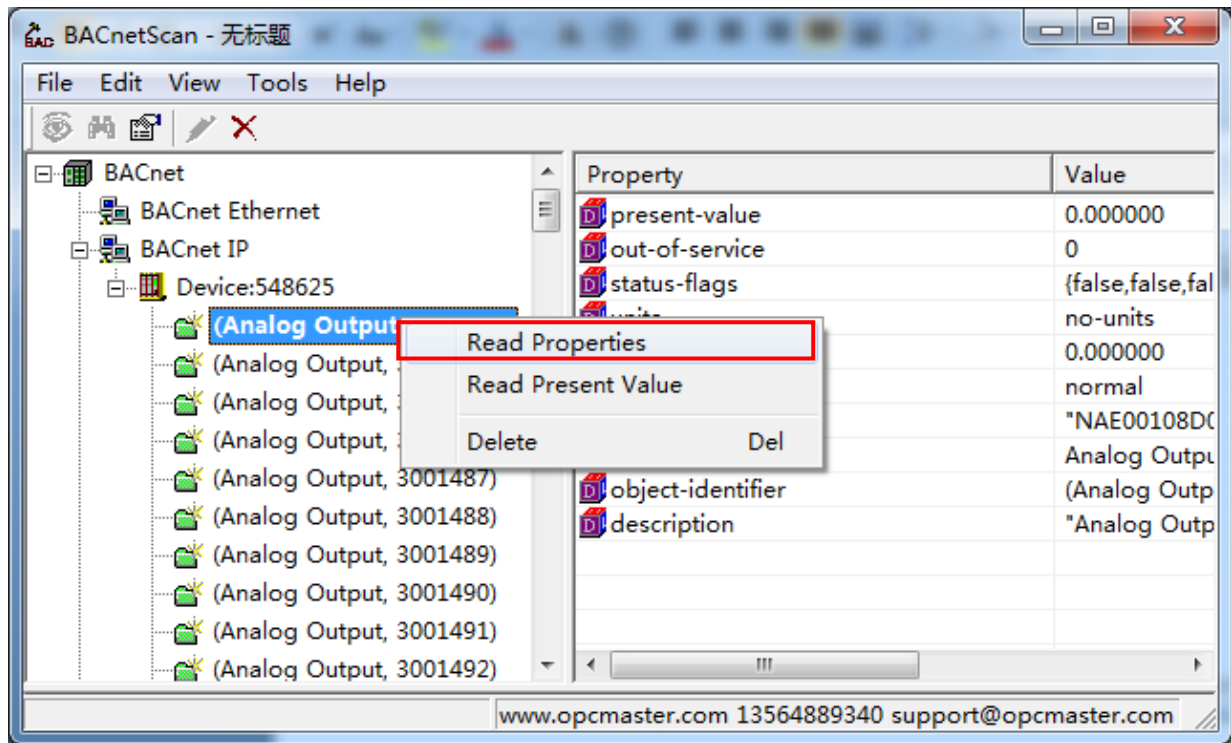
Figure 3.2.7 Read Properties

After the operation to complete. We can see the current value as below Figure 3.2.8.
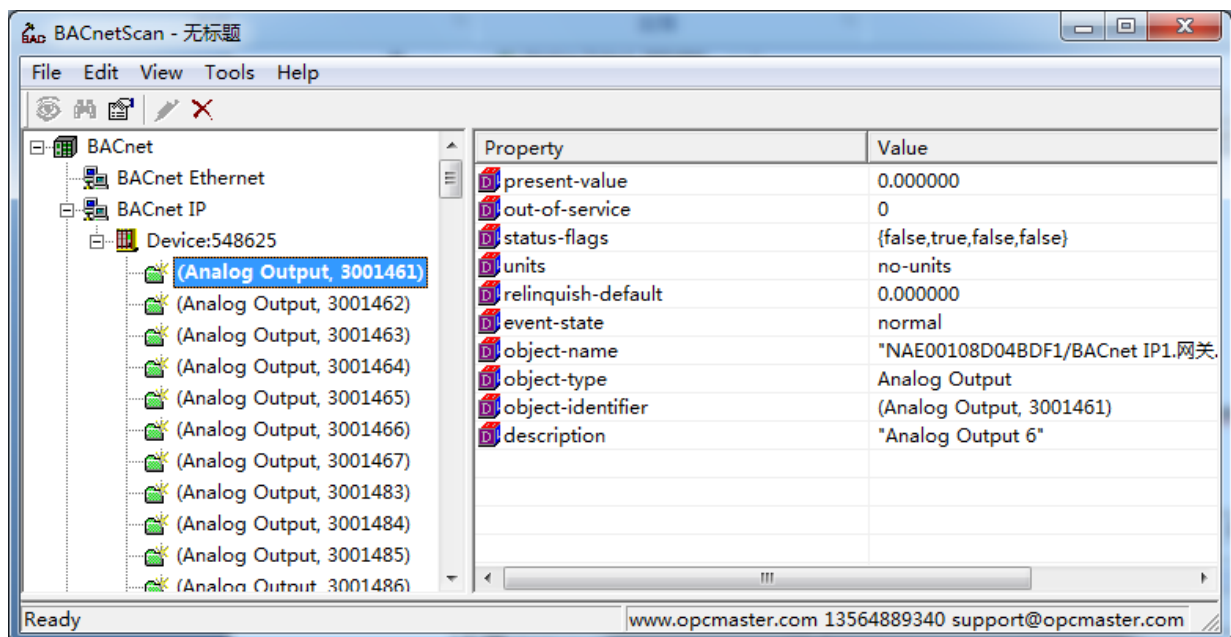

Figure 3.2.8 Read present value

Pay attention to "Read Present Value" menu refers to read only the current value of this attribute values.

3.2.5 Write Present Value

Analog Value, Analog Output, the Binary Value, the Binary Output Value and Multi, Multi - state - the state Output the six types of object support write operations.

Write value to Analog Output,3001483.Present value is 0, written to the value of 1 ,click set.see as below Figure 3.2.9 and Figure 3.2.10,present value changed as below Figure 3.2.11.
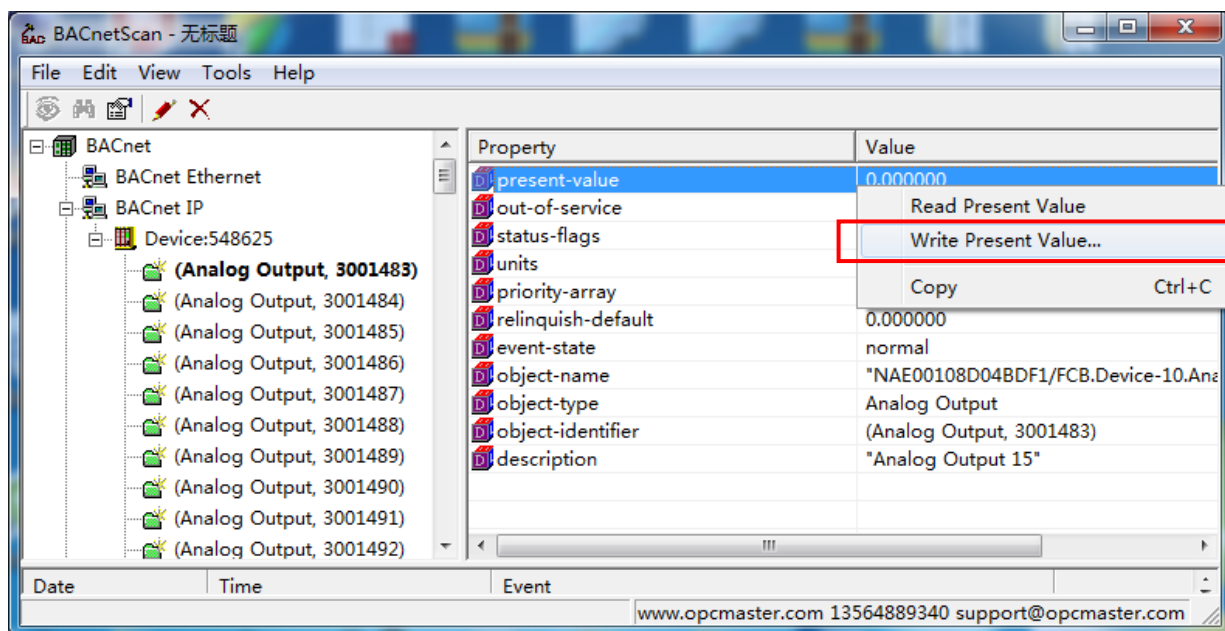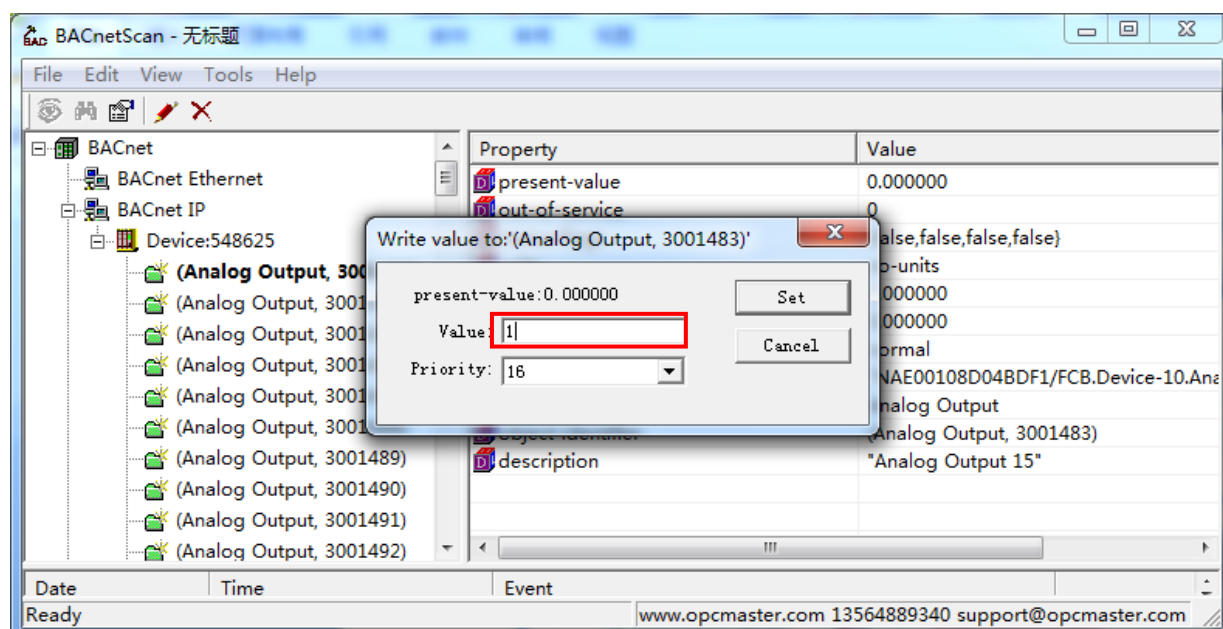

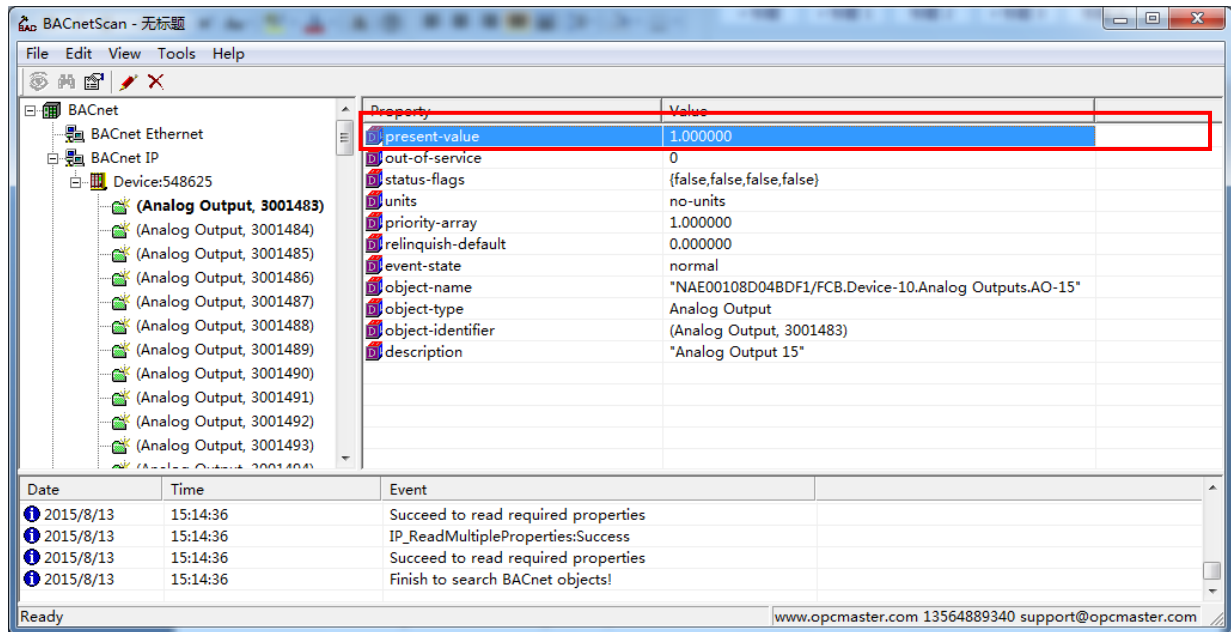Figure 3.2.9 Write Present Value

Figure 3.2.10 Write value

Figure 3.2.11 present-value change to 1.00

3.3 Scanning BACnet Ethernet

BACnet Ethernet as BACnet IP. Currently supported BACnet Ethernet equipment is less, the more likely to encounter a edgerton controller, operation mode and BACnet IP are similar, there is no need to do.

3.4 Scanning BACnetMS/TP

Serial port on the computer by RS232 to RS485 module connected to the scene of the DDC. If there is no serial port on a computer, you can use the USB turn serial port to connect RS232 to RS485 module.

3.4.1 BACnetMS/TP Settings

When the machine support BACnetMS/TP protocol, click Tools select BACnet MS/TP Setting as below Figure 3.4.1.
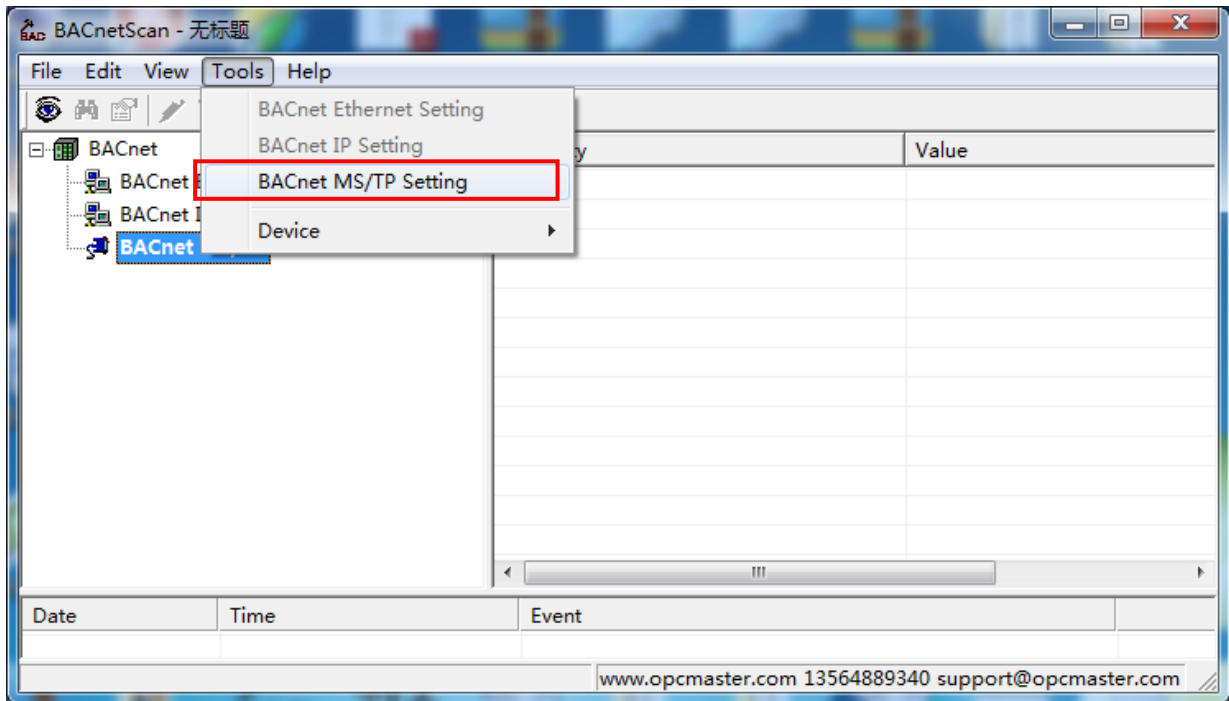
Figure 3.4.1 BACnet MS/TP Setting

Or right click BACnet IP and select BACnet IP Setting. As below Figure 3.4.2.
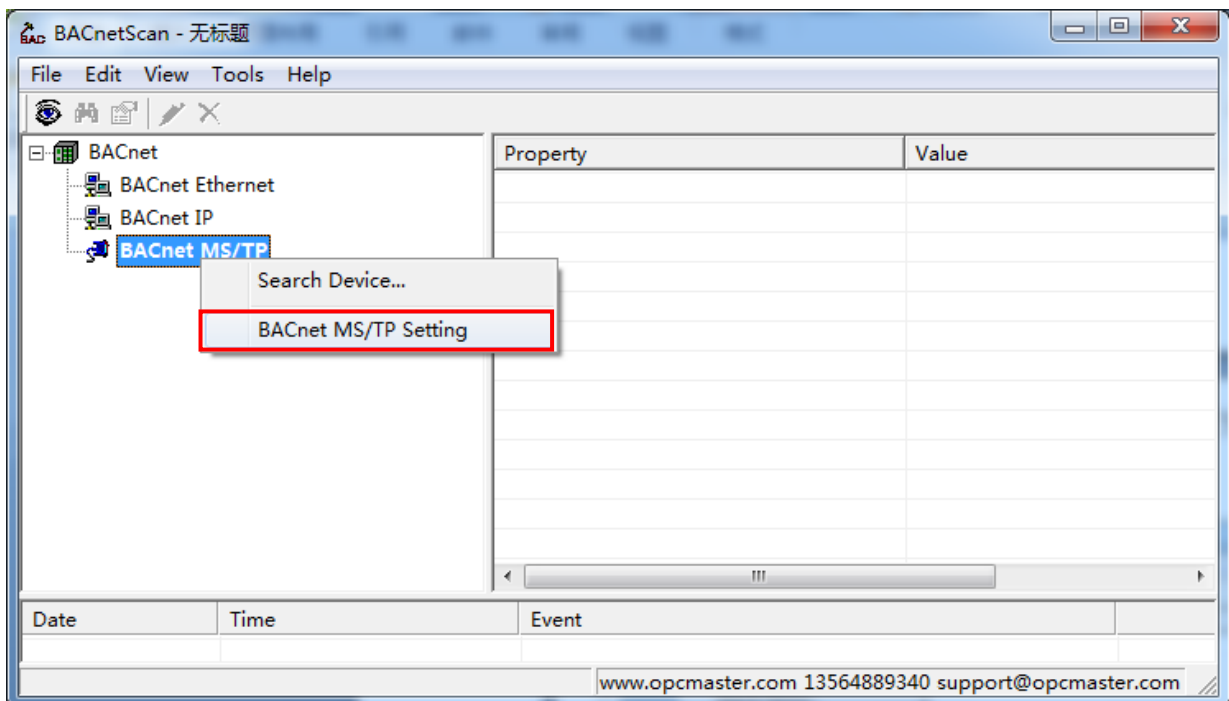

Figure 3.4.2 BACnet MS/TP Setting

In the pop up dialog box set communication parameters, MAC address cannot conflict

with the device MAC address, the default MAC address is 127, response latency defaults to 60000 milliseconds. Baud rate is 38400 by default, according to the actual situation, set up by the user. Request timeout refers to the response time, the default timeout for 50 milliseconds As below Figure 3.4.3.
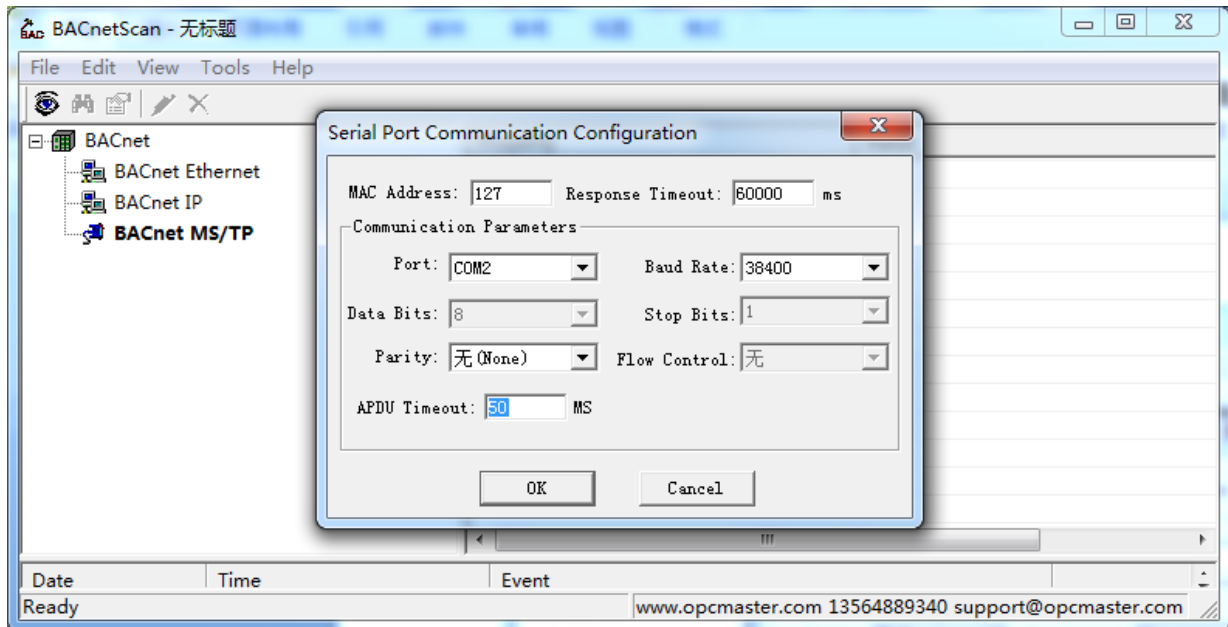

Figure 3.4.3 Serial Port Communication Cofiguration

3.4.2 Search BACnetMS/TP

Double-click" BACnet MS/TP "nodes, or click the " 👁 " , and right click the mouse to click the" search equipment..." Menu, you can also scan the RS485 bus BACent MS/TP equipment. As below Figure 3.4.4.
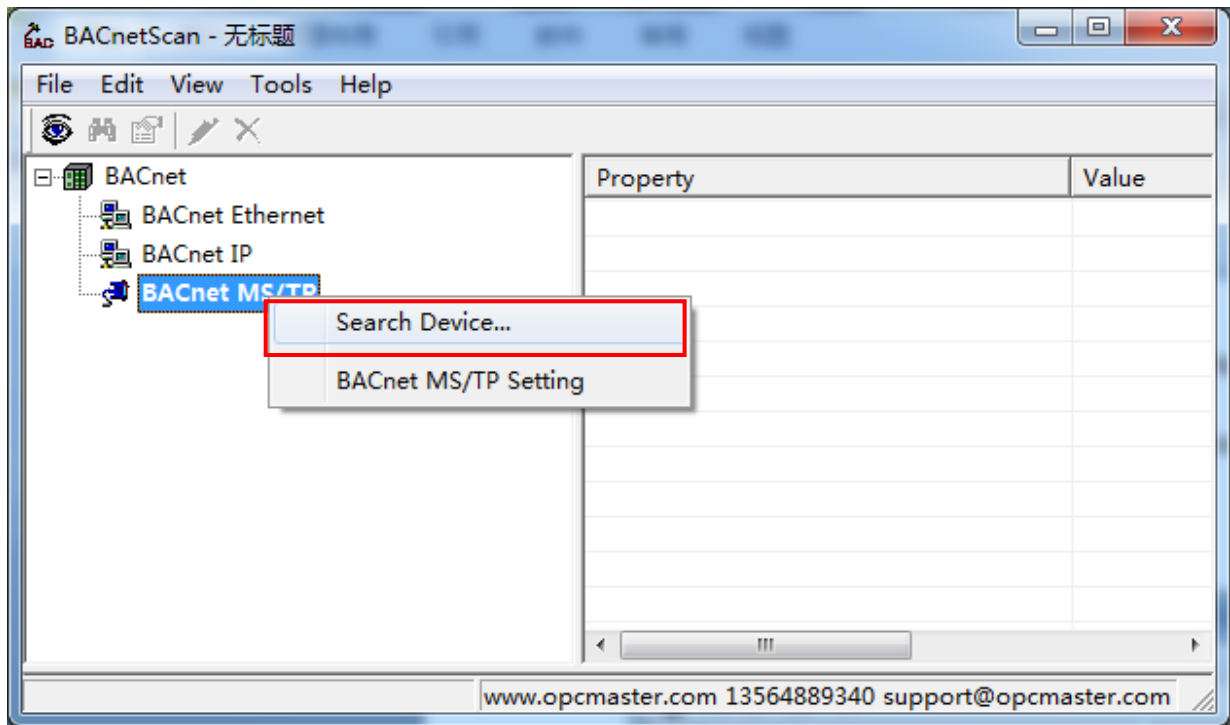
Figure 3.4.4 Search Device

Search to the equipment Number within the same network segment (Device Instance Number) for 10 BACnet MS/TP equipment, models for IOM3731 is Johnson. As below Figure 3.4.5.
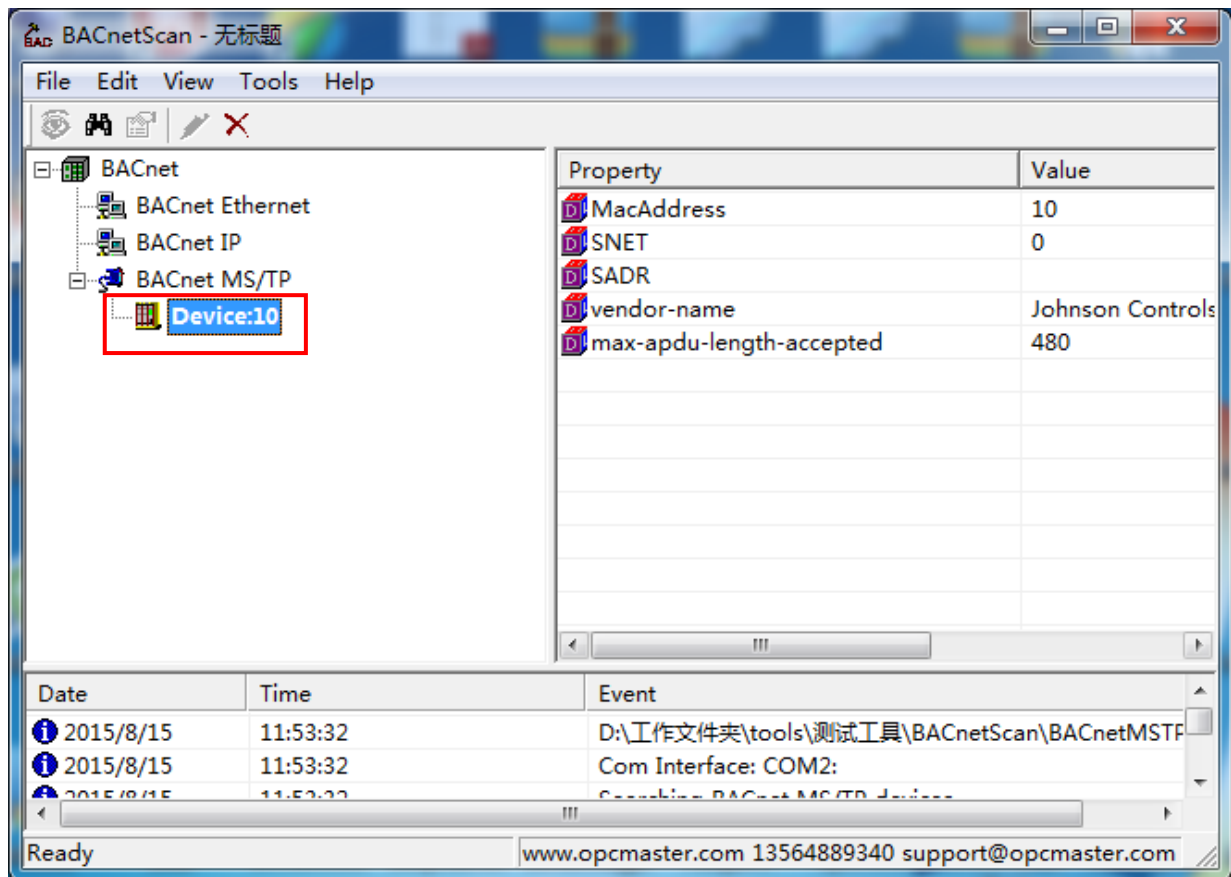
Figure 3.4.5 Searched Device 10

3.4.3 Search Object

Double-click " ", or click the toolbar button" " ,and right-click the mouse pop-up context menu click on" search..." .As below Figure 3.4.6.
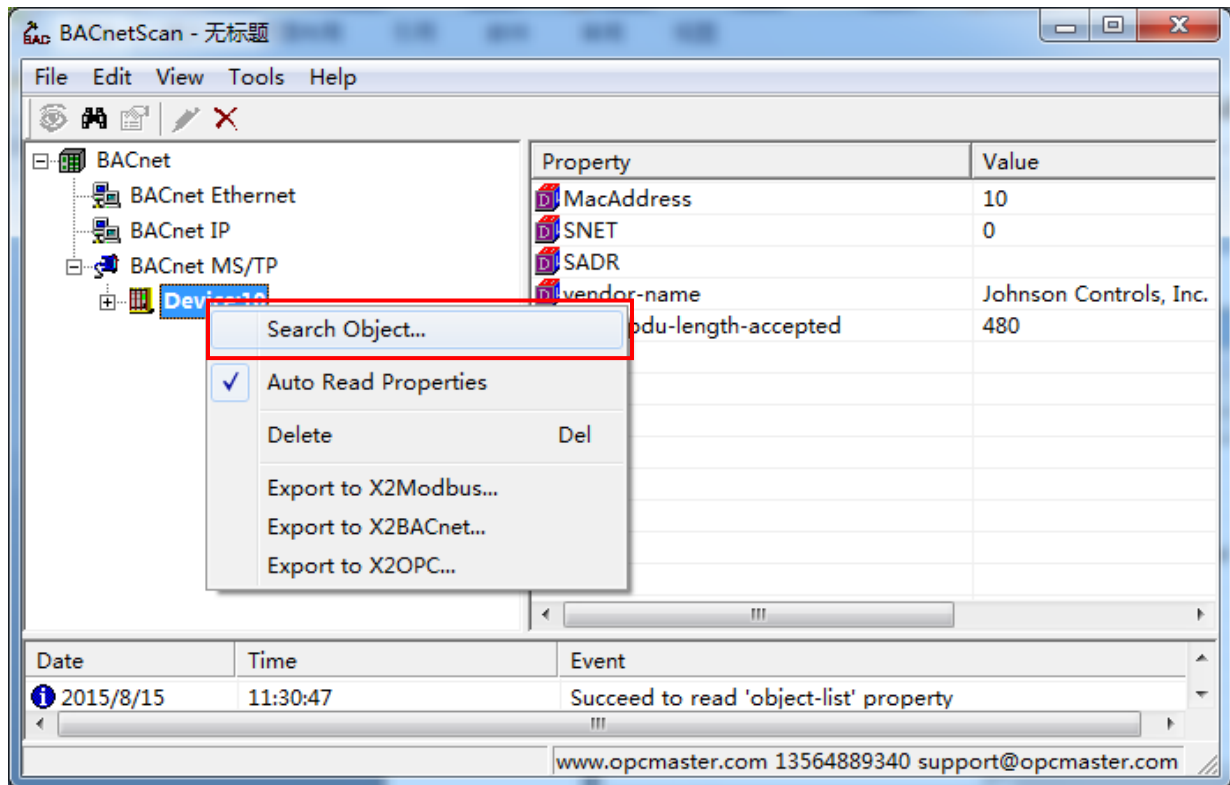
Figure 3.4.6 Search Object

Pay attention to check the " Auto Read properties" said at the time of scanning point, automatically read all attributes of the point also.

3.4.4 Read Properties

After research objects, the user will read or write the object, select object and right click Read Properties or click "⬚" as below Figure 3.4.7.
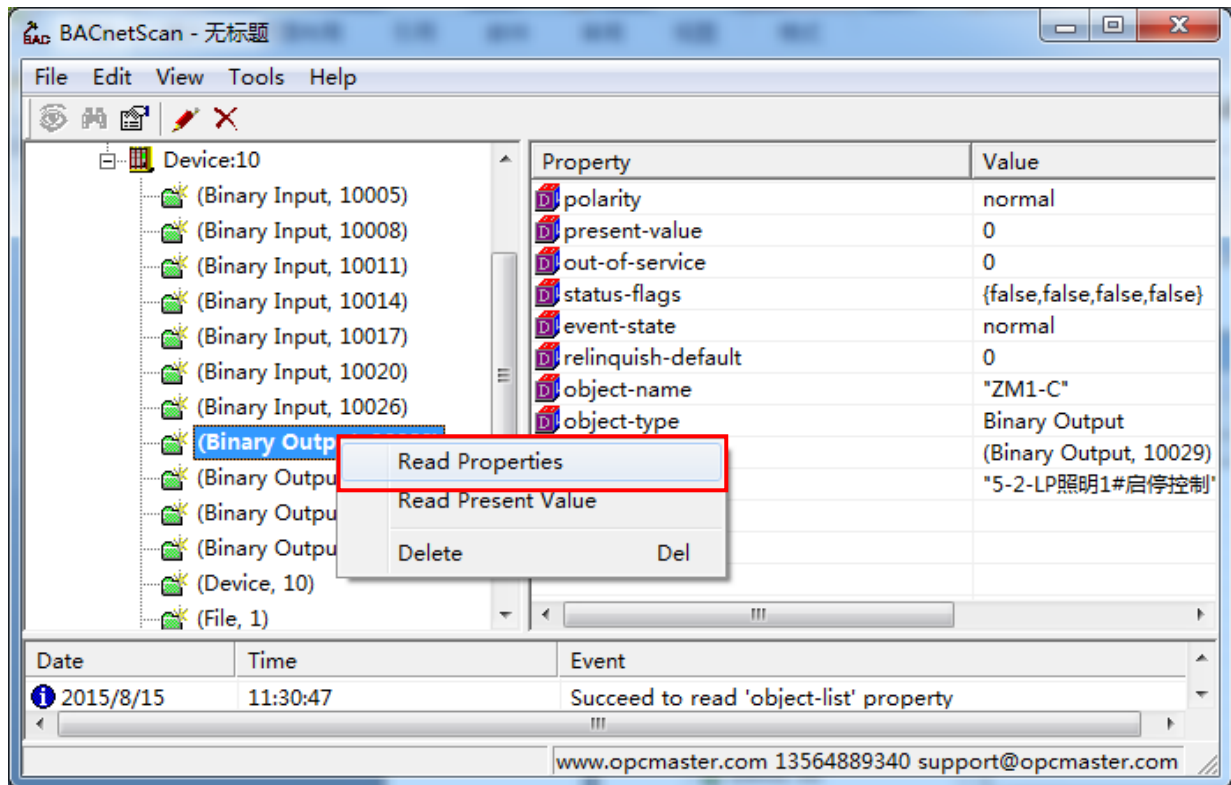
Figure 3.4.7 Read Properties

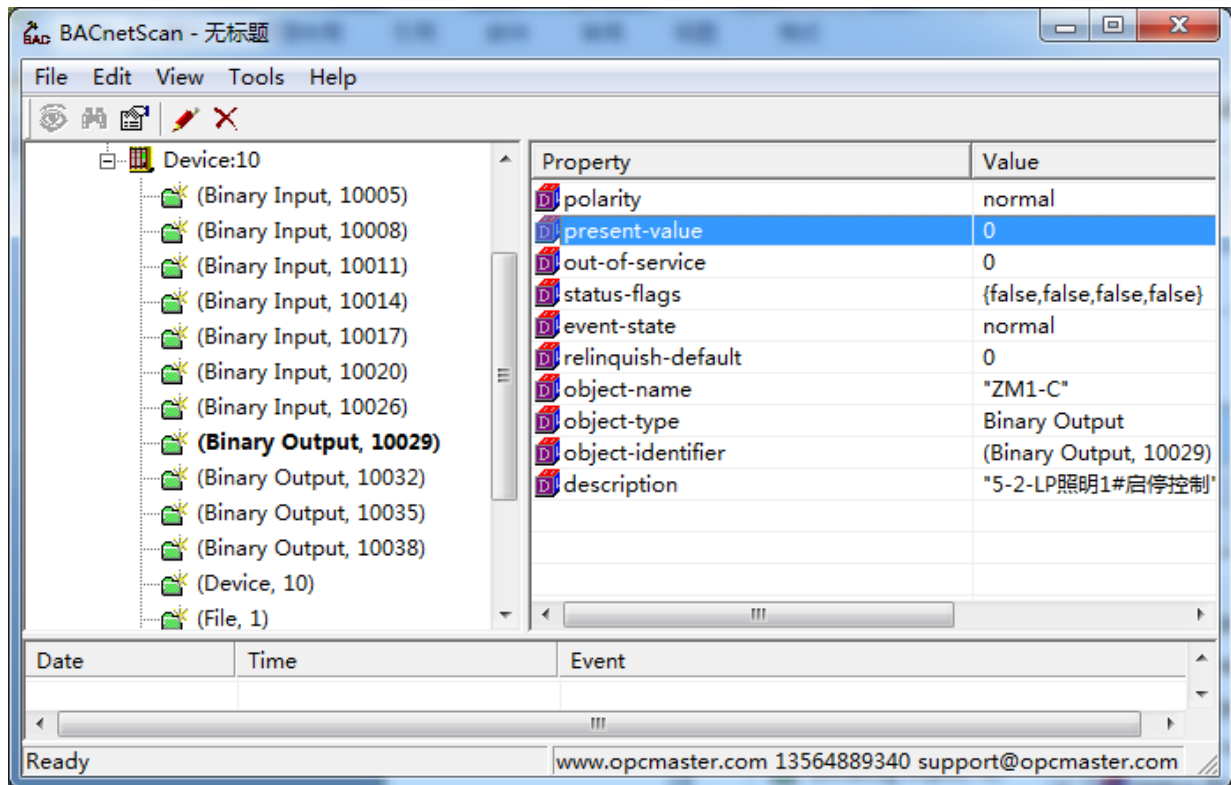Pay attention to "Read Present Value" menu refers to read only the current value of this attribute values.

Figure 3.4.8 Object Property

3.4.5 Write Present Value

Analog Value, Analog Output, the Binary Value, the Binary Output Value and Multi, Multi - state - the state Output the six types of object support write operations.

Write value to Binary Output,10029.Present value is 0, written to the value of 1 ,click set.see as below Figure 3.4.9, present value changed as below Figure 3.4.10.
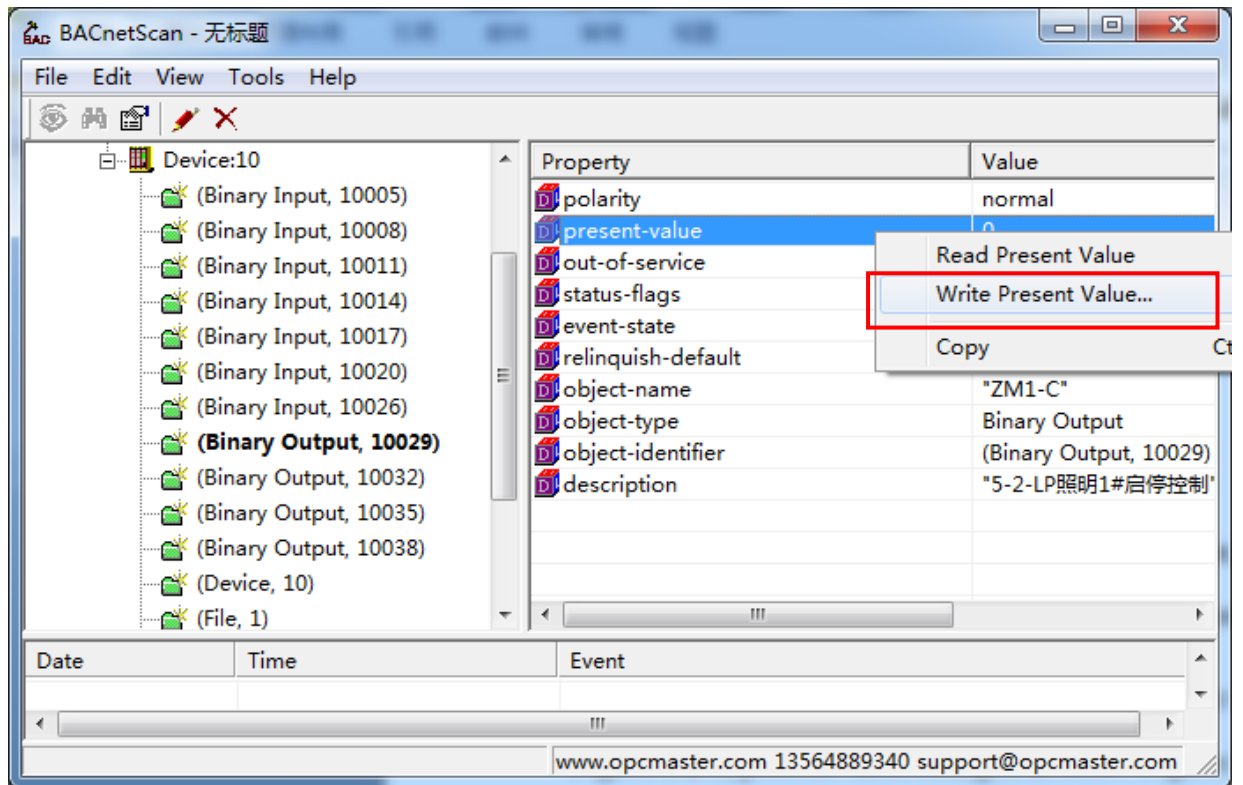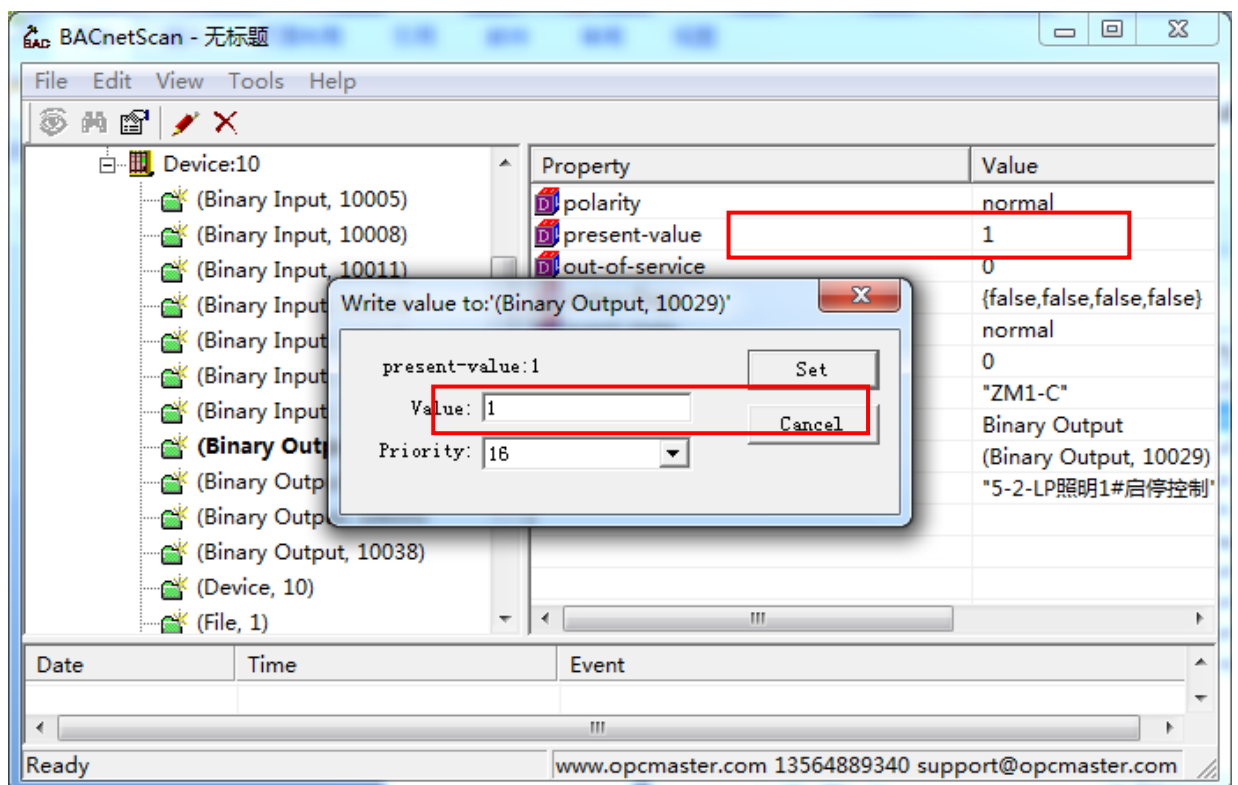
Figure 3.4.9 Write Present Value

Figure 3.4.10 present-value change to 1.00

3.4.6 Modify Object ID

For BACnet MS/TP equipment, MAC address must assure the only (usually by dial the

code switch). Configuration software using the device's station number is the device ID DDC, also requires only, Shanghai sunfull gateway can change device ID on the DDC by BACnetScan. Advice is to put the device ID of DDC modified into and MAC address is consistent, BACnetScan methods to modify the device ID function is as follows.

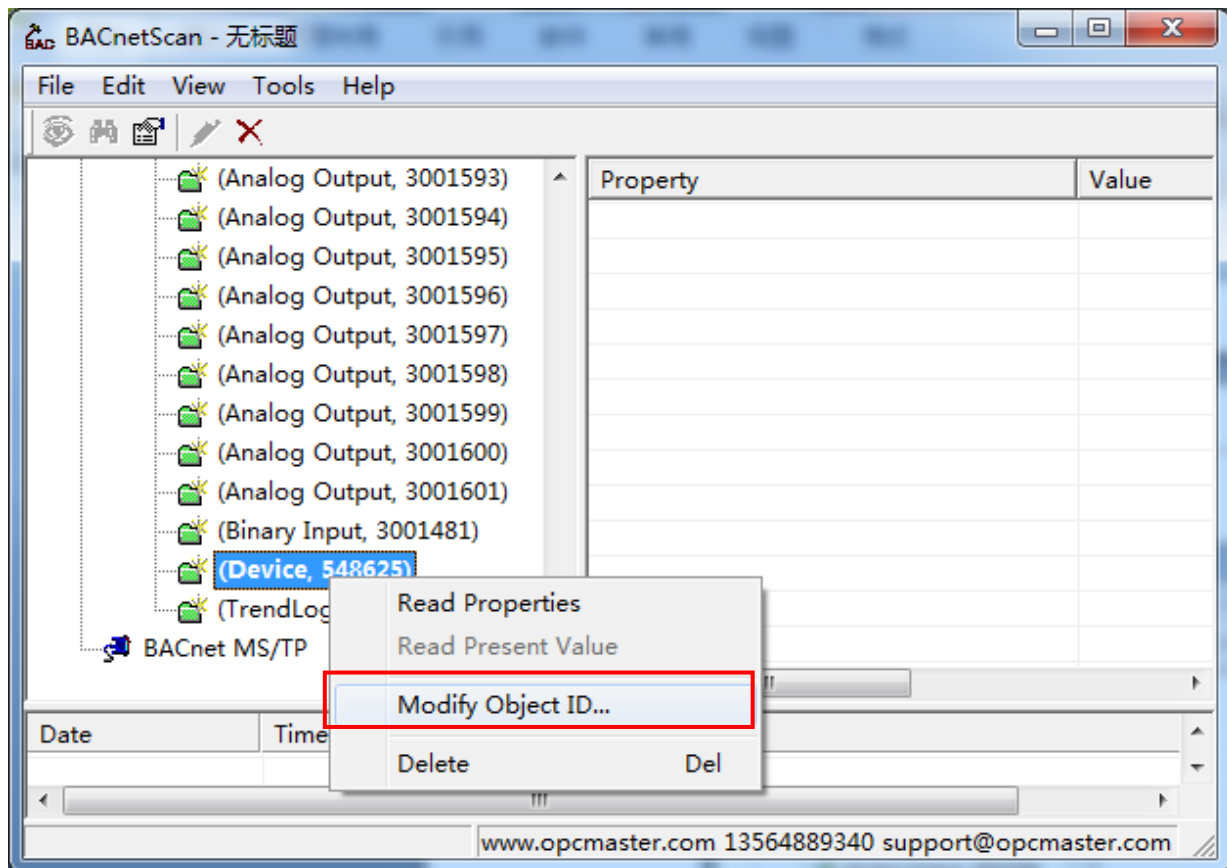Frist, BACnetScan scanning equipment. As below Figure 3.4.11.

Figure 3.4.11 Modify Object ID

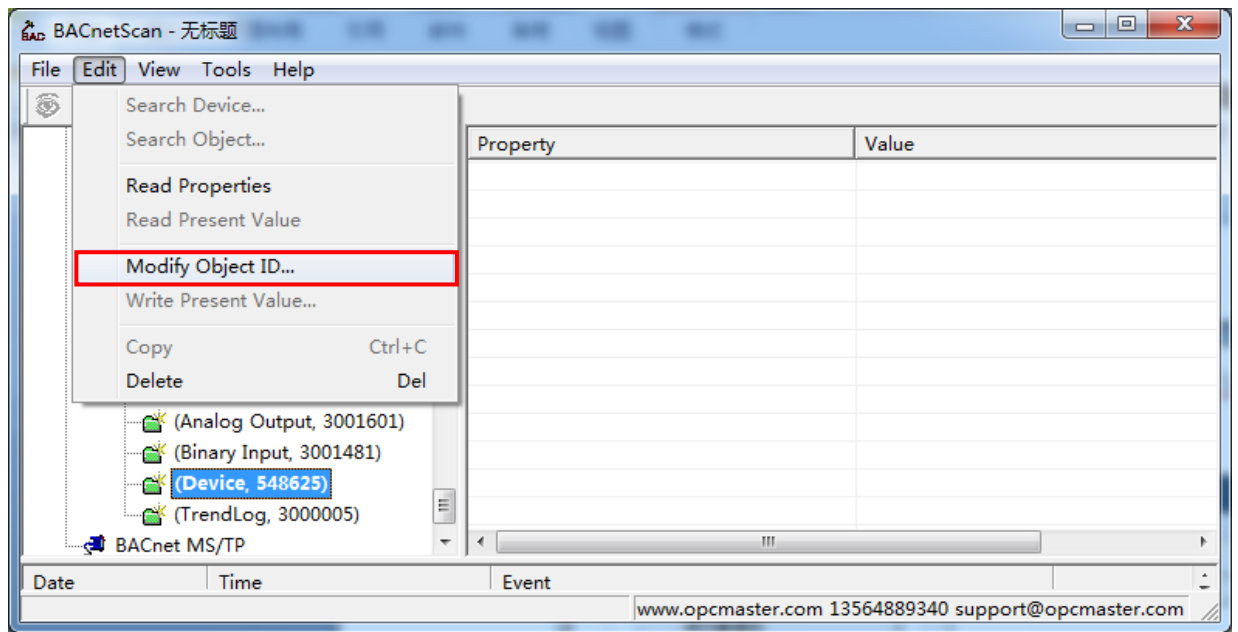Or click Edit select Modify Object ID as below Figure 3.4.12.

Figure 3.4.12 Modify Object ID

Find the device object, right click the mouse to click the modified Object ID..., as below Figure 3.4.13.
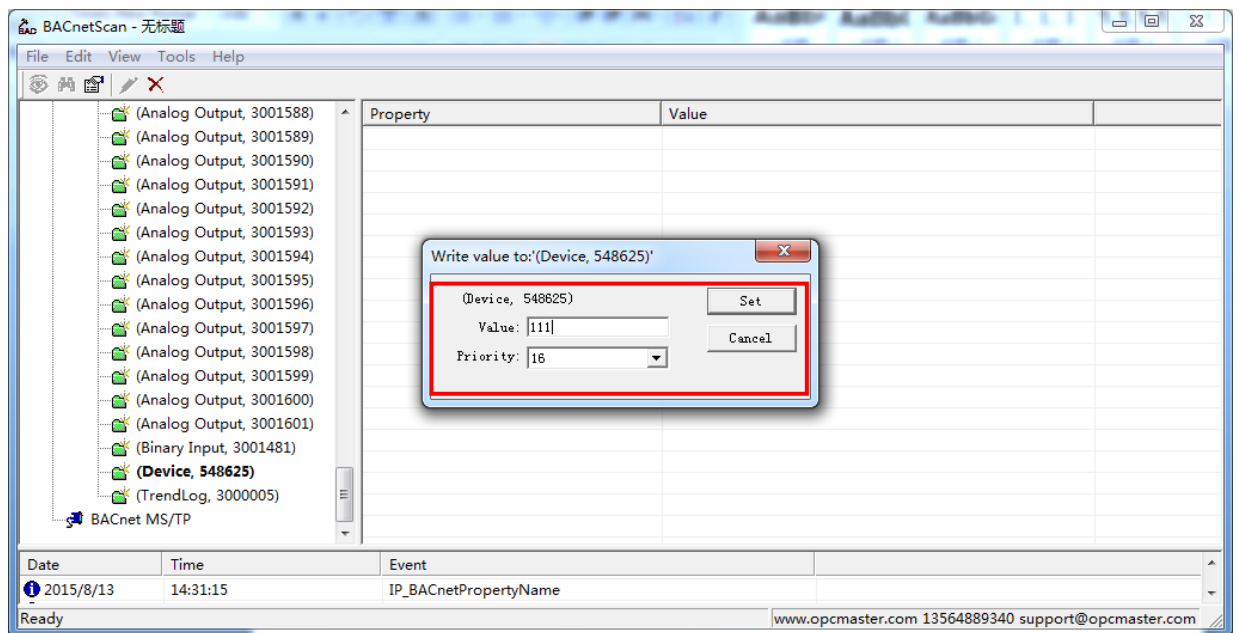

Figure 3.4.13 Modify Object ID

In the pop up dialog to modify the ID number of the current equipment, if the modification is successful, the following message window will prompt change device ID.

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3.5 Export to EXCEL

Export to EXCEL from all object we researched. Or the user can Export all object to X2Modbus, X2BACnet and X2OPC, easy to edit , as below Figure 3.5.1.
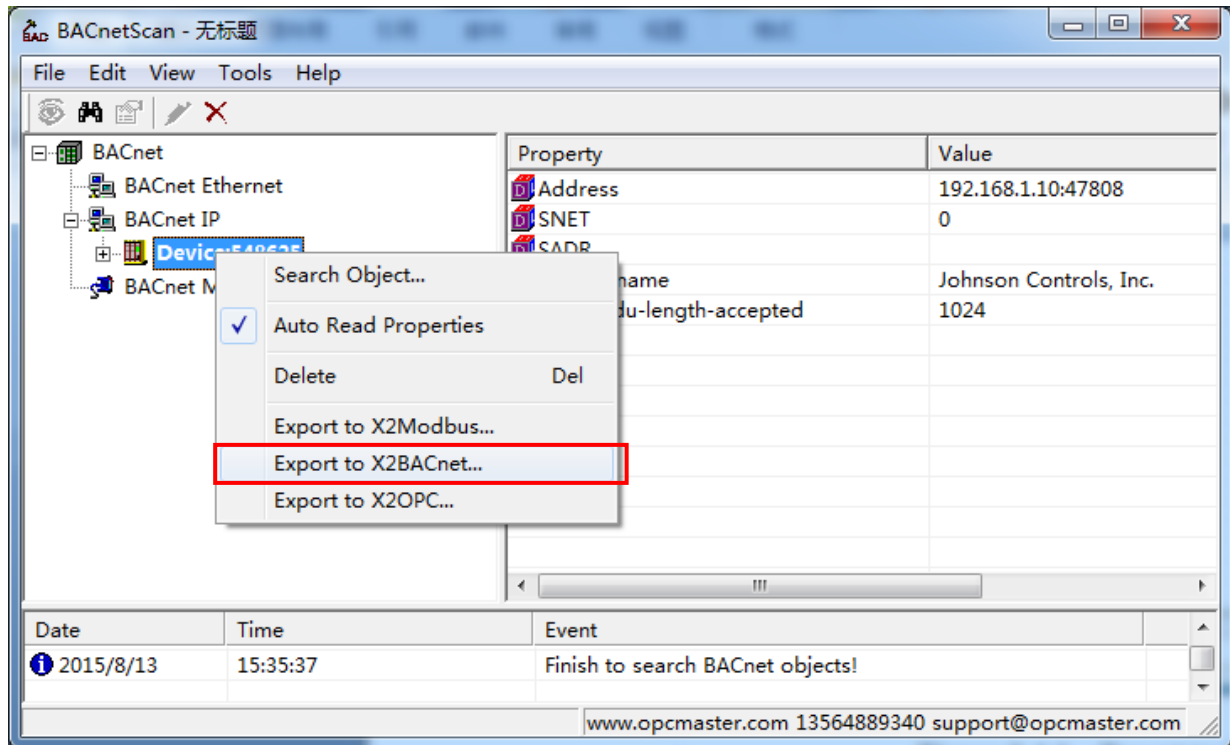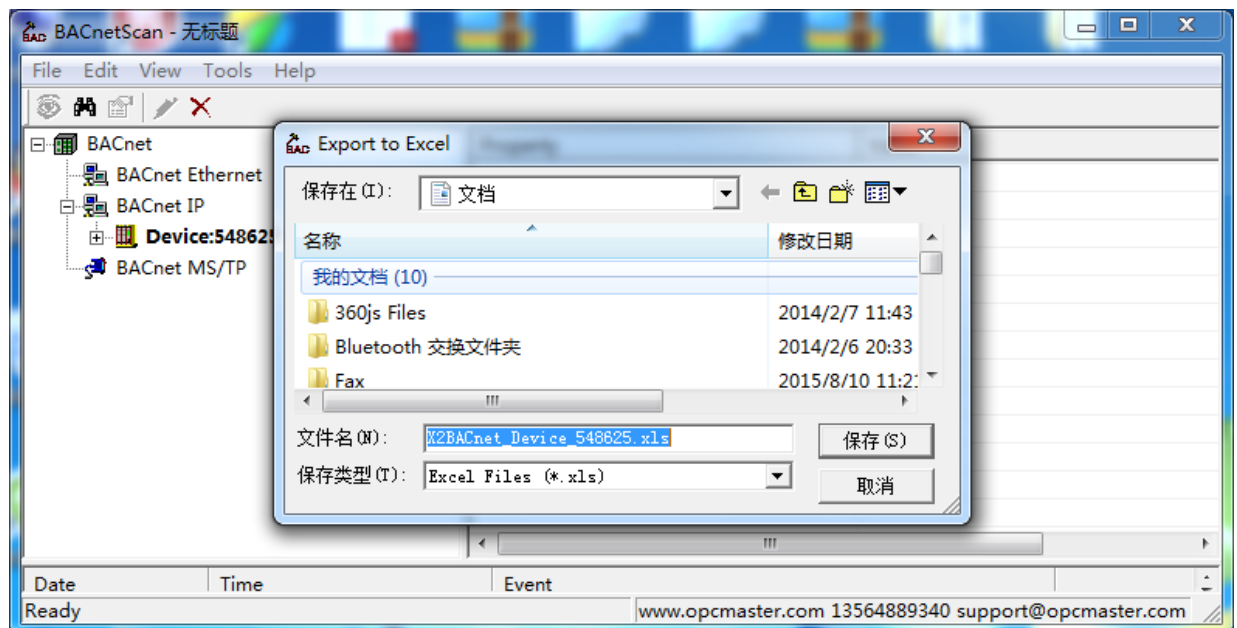

Figure 3.5.1 Export to EXCEL

Figure 3.5.2 Export to EXCEL

Figure 3.5.3 Open the EXCEL

Also note that point of each attribute value can replicate, convenient user to edit . As below Figure 3.5.4.
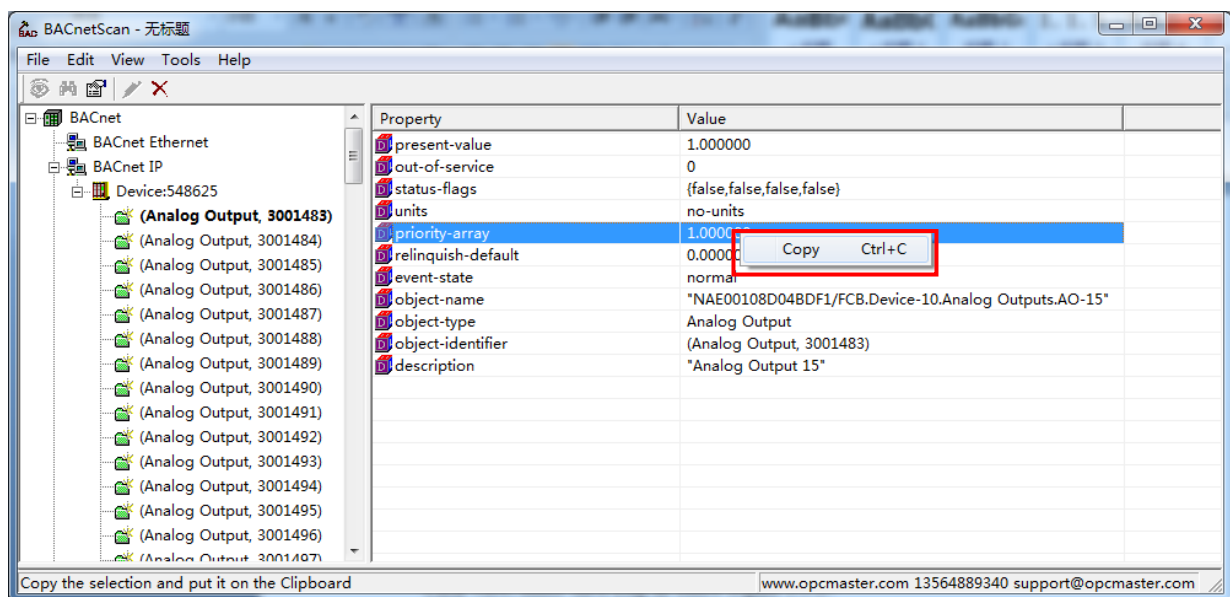

Figure 3.5.4 Copy Object Property

3.6 Save logs

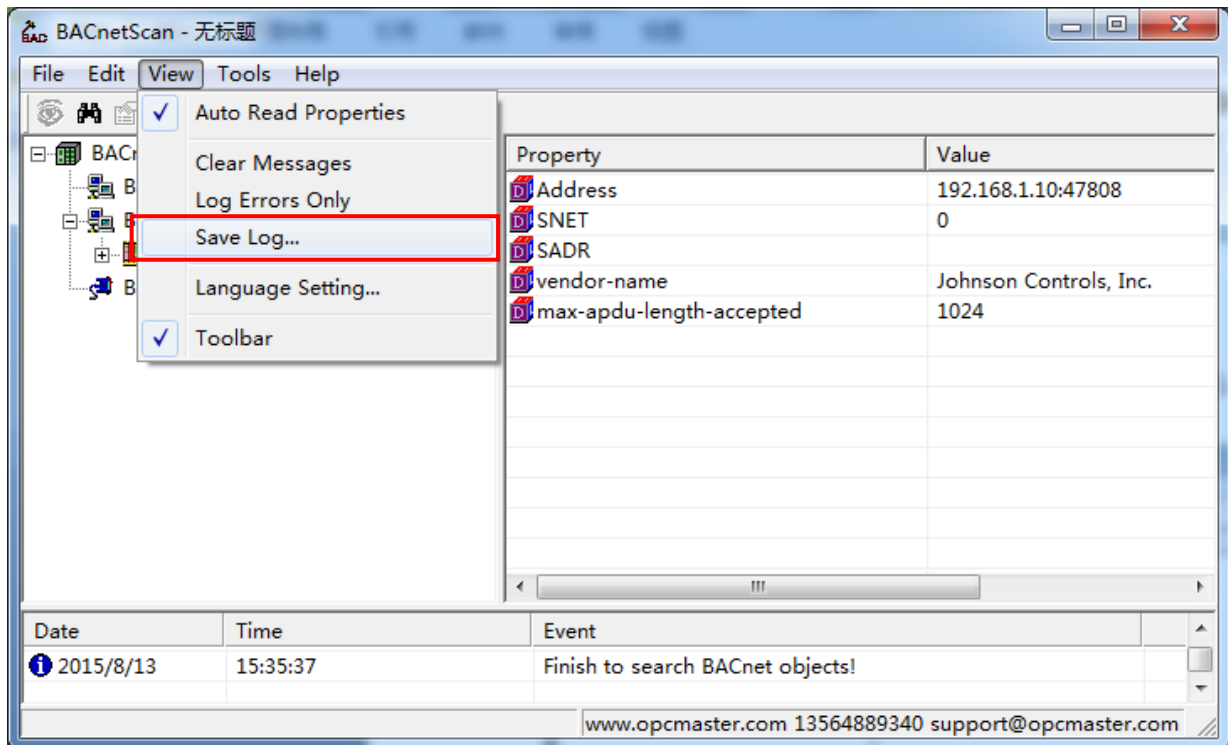Click View, select Save Log, as below Figure 3.6.1.

Figure 3.6.1 Select Save Log

Or in the information window for the right mouse button pop-up shortcut menu, click the "save log..." ,as below Figure 3.6.2.
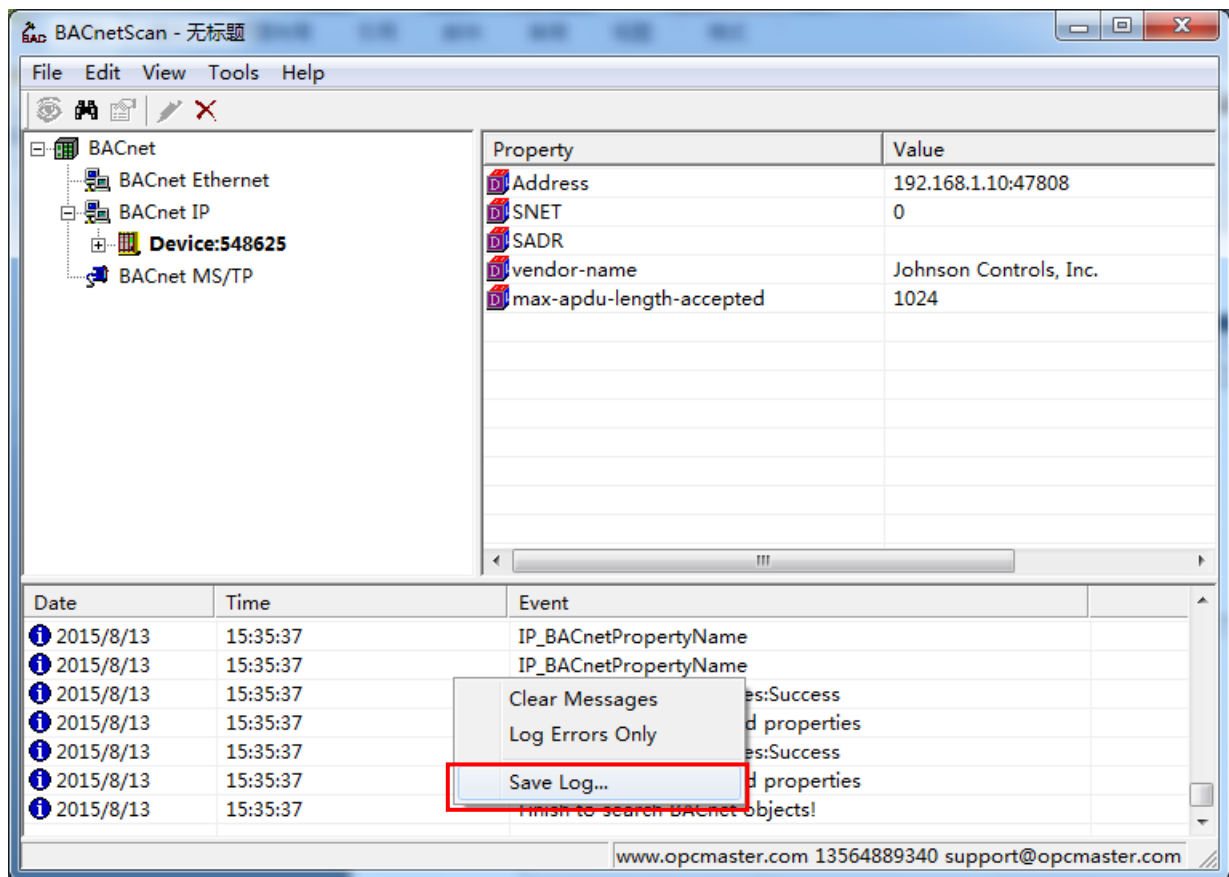
Figure 3.6.1 Select Save Log

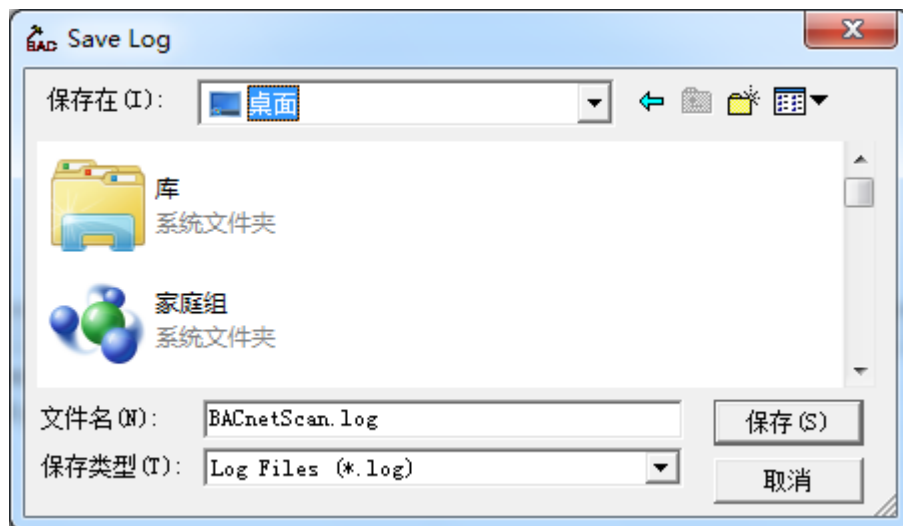Save the log file, the default name for BACnetScan log. As below Figure 3.6.3.

Figure 3.6.3 Save Log

4 Common problems

4.1 Connot serach BACnet IP

Due to some BACnetIP device does not support all radio, such as Johnson NAE. BACnetScan also does not support all broadcasting search, it will lead to more than one problem is that when the PC is so, may produce less than BACnetIP search equipment. If you encounter this problem, the communication parameter Settings, select the correct so you can solve the problem. In addition when using BACnetScan ensure computer firewall closed.

4.2 Search to a BACnet IP device, but can't sweep equipment under the point

In general is still running on the computer the other BACnet IP software, UDP port 47808 occupied lead to can't BACnetScan scanning equipment. If you encounter this problem, please close other software can solve .

4.3 After using BACnetScan, BACnetIP software on the PC is not normal

Due to the UDP port 47808 is occupied by a BACnetScan, please close BACnetScan can solve.