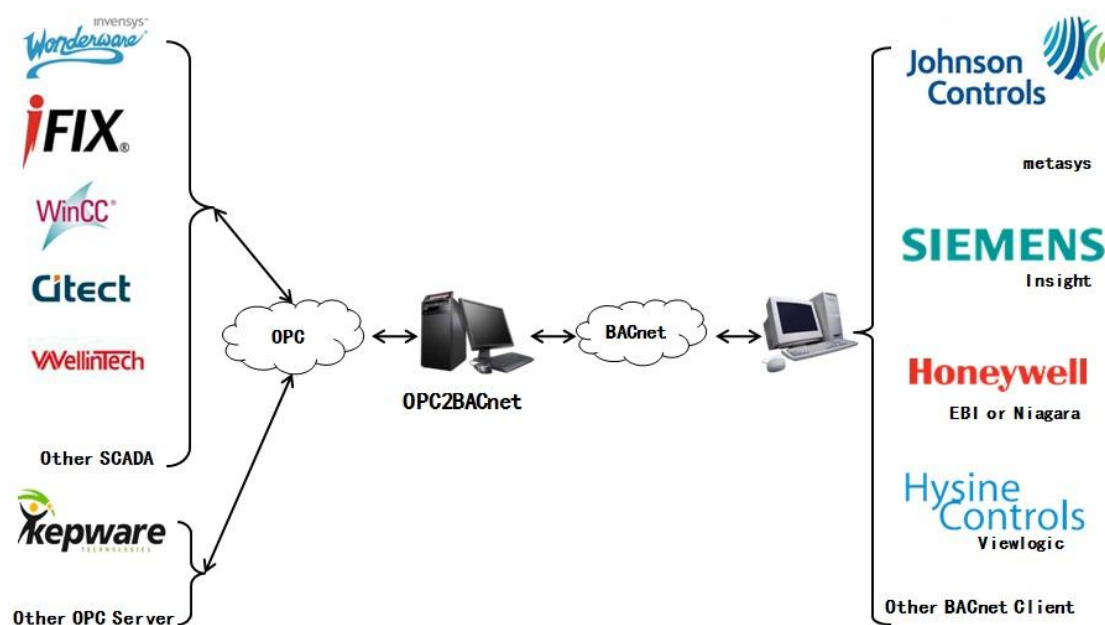


# OPC2BACnet

## User Manual



Shanghai Sunfull Automation Co., LTD

# Table of Contents

<b>1 Preface.....</b>	<b>1</b>
1.1 Disclaimer.....	1
1.2 Technical Support.....	1
1.3 Version History .....	1
<b>2 Overview .....</b>	<b>1</b>
2.1 Feature.....	1
2.2 Operation Platform .....	2
2.3 Application Fields.....	2
2.4 Supported registered type and quantity .....	2
<b>3 Configuration And Operation .....</b>	<b>3</b>
3.1OPCServer collection.....	3
3.2 Select target OPCServer .....	4
3.3 Creat group and tags .....	4
3.4 Collect BACnet Server .....	5
3.5 Configure BACnetIP .....	7
3.6 BACnet IP setting.....	8
3.7 BACnet Object Size Setting .....	9
3.8 Save file as drawing 9 Suffix is .otb .....	10
3.9 Import and Export tags .....	11
<b>4 BACnet Client testing .....</b>	<b>14</b>
<b>5 Visit by Web .....</b>	<b>16</b>
<b>6 USB key dongle.....</b>	<b>18</b>
<b>7 SFWatchDog.exe .....</b>	<b>18</b>
<b>8 Visual Basic Script .....</b>	<b>19</b>
<b>9 Language setting .....</b>	<b>20</b>

# 1 Preface

## 1.1 Disclaimer

All technical content within this document can be modified without notice. The content of the document content is a recurring audit.

For losses due to fire, earthquake, third party access or other accidents, or intentional or accidental abuse, misuse, or use under abnormal conditions repairs are charged to the user. Shanghai Sunfull Automation Co., Ltd will not be liable for accidental loss of use or inability to use this product, such as loss of business income. Shanghai Sunfull Automation CO.,LTD shall not be liable for consequences of improper use.

## 1.2 Technical Support

- Email: support@opcmaster.com
- TEL: 021-20252795
- website: <http://www.opcmaster.com>

## 1.3 Version History

Date	Version	Remark
2012.11.15	Nov 12 2012(Unicode)	English Version
2013.12.17	Dec 13 2013(Unicode)	Added Chinese Version

# 2 Overview

## 2.1 Feature

- OPC2BACnet solve most of BA system can't access OPC server. Some of software support OPC,but it is very expensive. After using OPC2BACnet, it will save cost of whole project. Software only support BACnet protocol.most of project use this

solution in building system.

- Operating principle: OPC2BACnet and OPCserver in Same PC, OPC2BACnet collect OPCServer transfer to BACnet IP slave, then configuration software of other company will monitor and control OPCserver by BACnet IP. It achieve system integration.
- Advantage: Easy to Configure and Operation. provide Visual Basic Script, Support review by Web and IPAD. Support Protocol conversation and support any language .

## **2. 2 Operation Platform**

- Support Windows XP/2000/2003/Win7/Win8;
- WEB with above IE8 version, Opera, Safari of apple, Google Chrome and firefox.

## **2. 3 Application Fields**

- To solve Johnson Control Metasys access OPCServer;
- To solve Alerton Bactalk BASsystem access OPCServer;
- To solve Simens insight access OPCServer;
- To solve Hysine viewlogic access OPCServer;
- To solve Automated Logic software access OPCServer;
- To Honeywell EBI or Niagara and also access OPCServer;
- .....

## **2.4 Supported registered type and quantity**



BACnet IP Server, Default port is 47808, device ID by user setting. Supported register type and quantity as below sheet. Remark: set up 256 points per register type, and support six register type , total 1536 points.

BACnet register type	Instance Number
AI (read only)	256 (0~255)
AO (readable and writable)	256 (0~255)
AV (readable and writable)	256 (0~255)
BI (only read)	256 (0~255)
BO (readable and writable)	256 (0~255)
BV (readable and writable)	256 (0~255)

### 3 Configuration And Operation

Click OPC2BACnet.exe

#### 3.1 OPCServer connection

Click  or select  New Server Connection..., click New server collection, select OPCserver from dialogue box as below Fig.1:

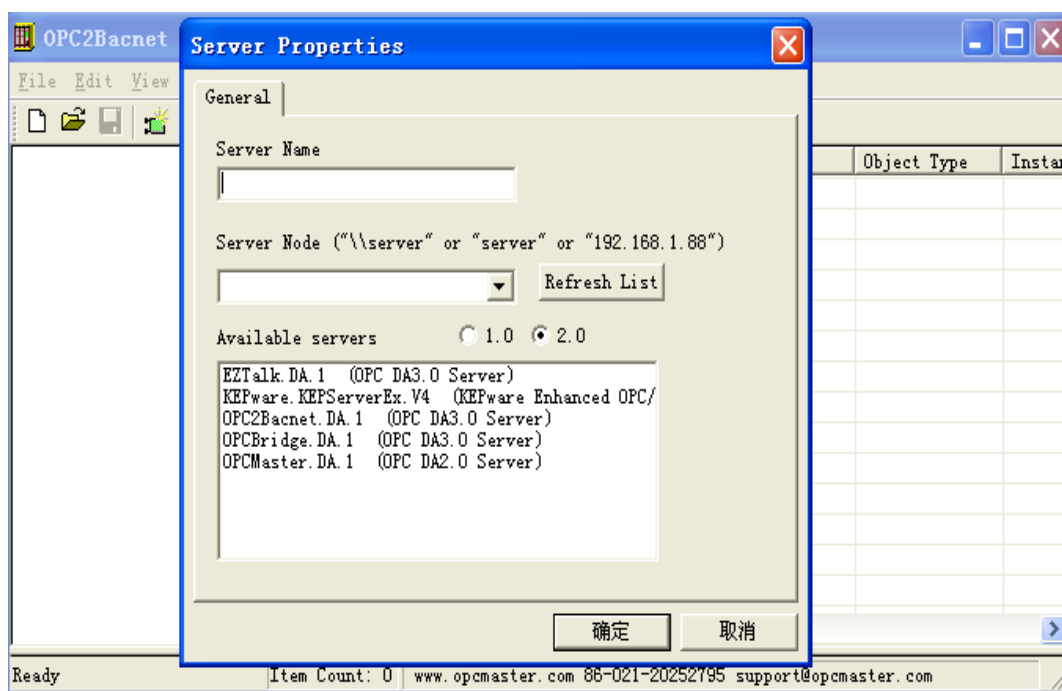


Fig.1 Select the server

### 3.2 Select target OPCServer

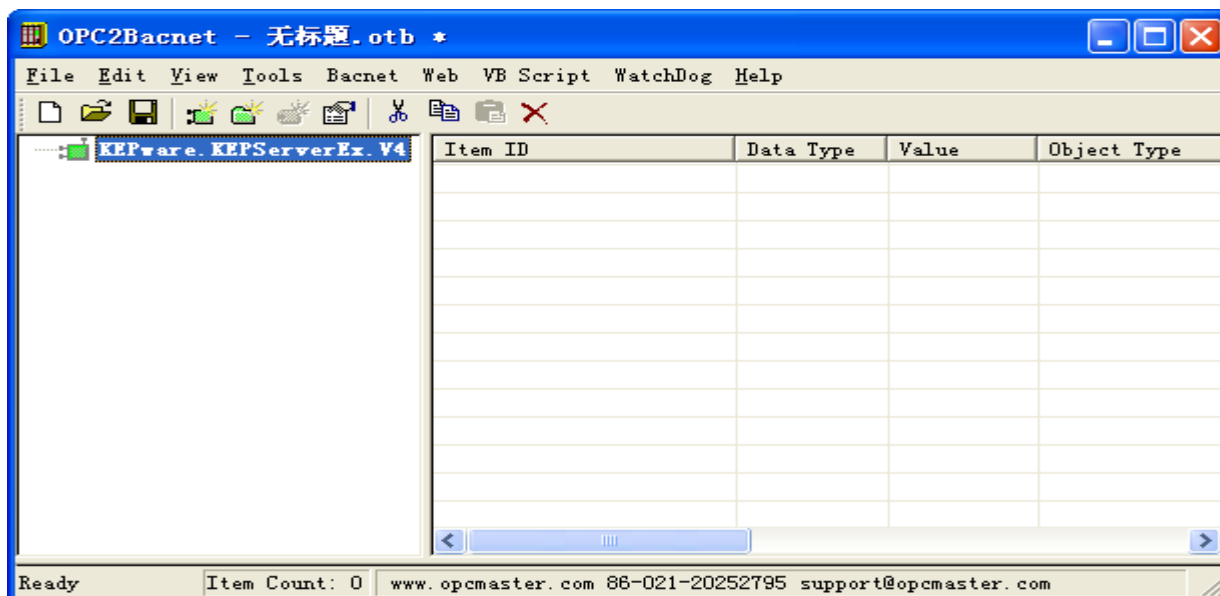


Fig.2 Connect the OPC server

### 3.3 Creat group and tags

Click , or select target OPCserver, right click new group



Group properties setting and click ok as below Fig 3:

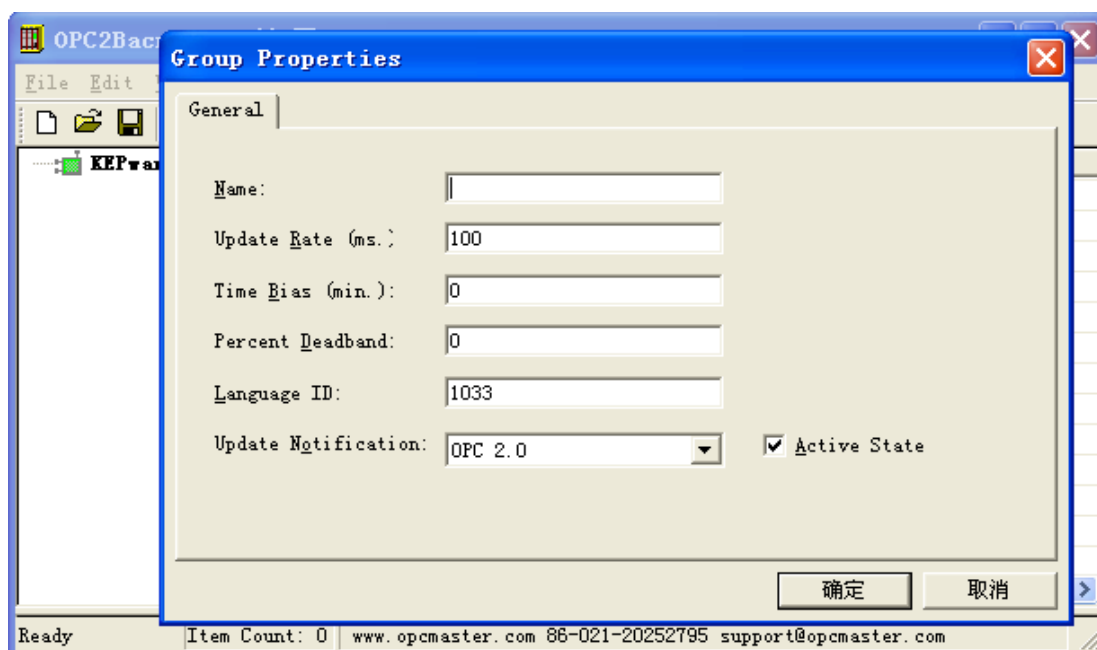


Fig.3 New group

Click , or right click new item , collect tags from dialogue box:

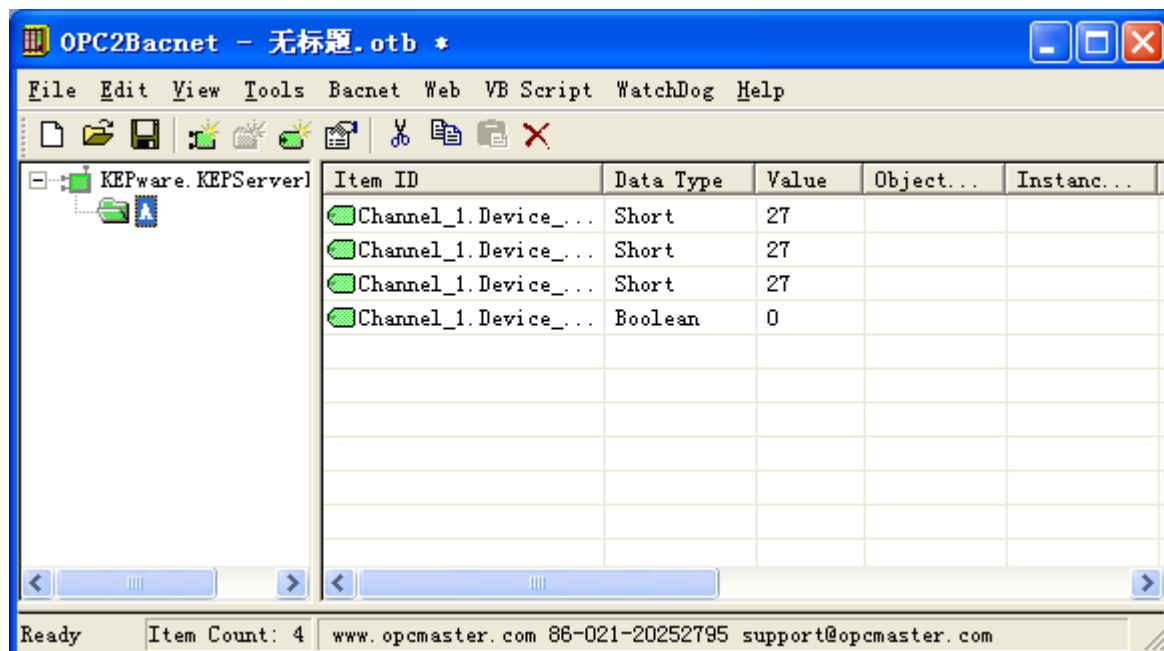
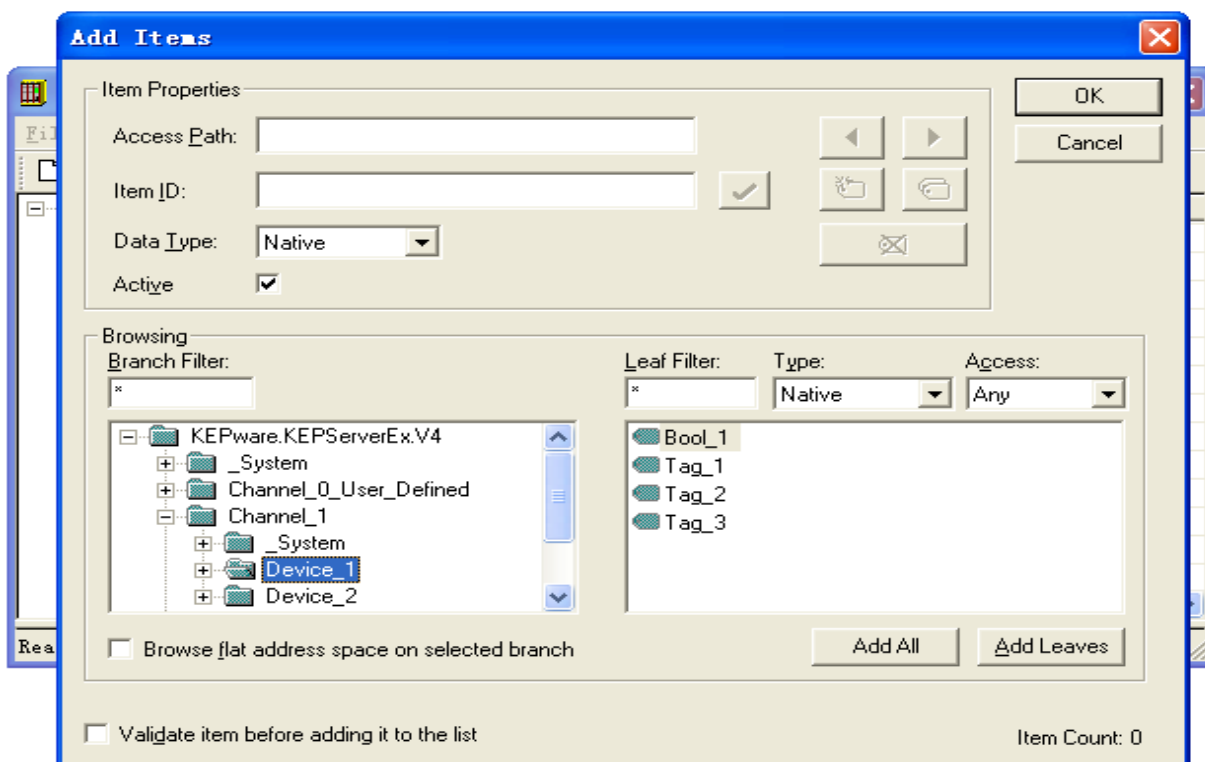
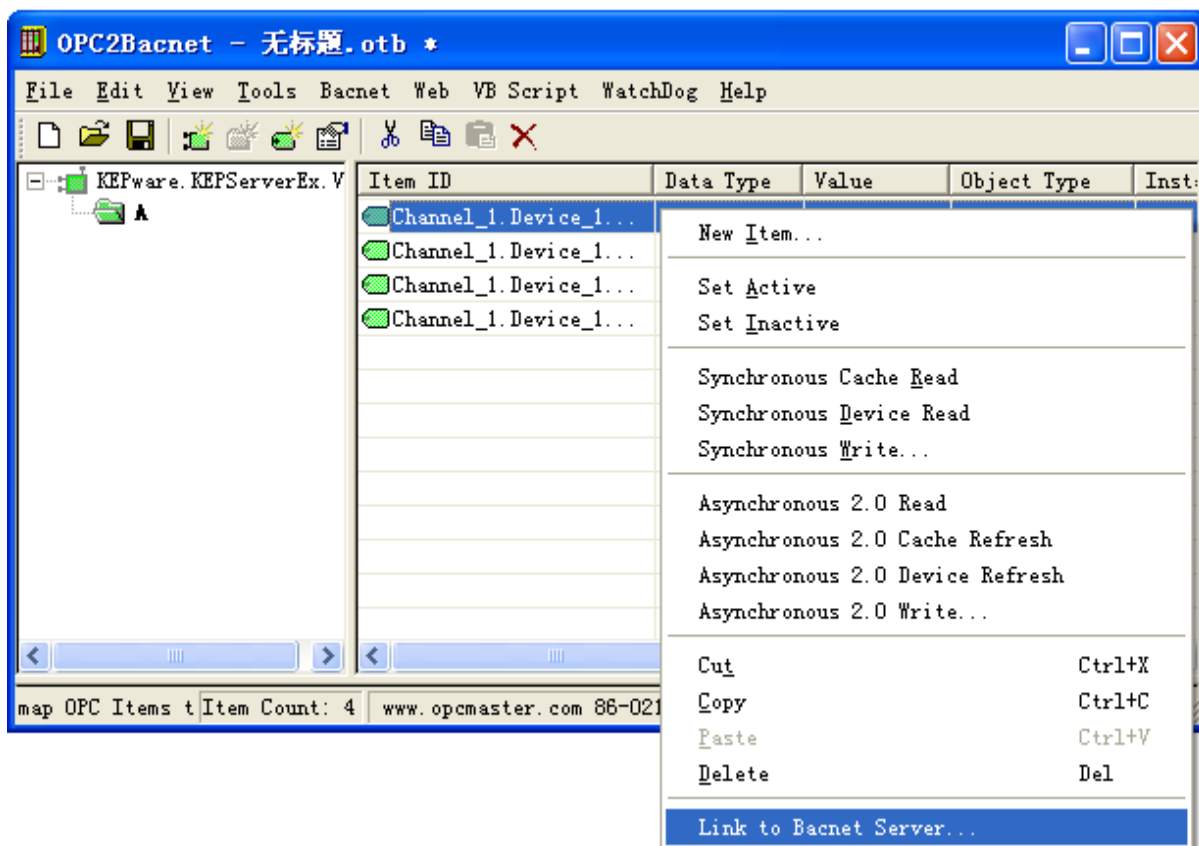


Fig.4 New Tag

### 3.4 Collect BACnet Server

Double click target tag or right click link to BACnet Server:



Select Object type(AI/AV/AO,BI/BV/BO) and Object Instance



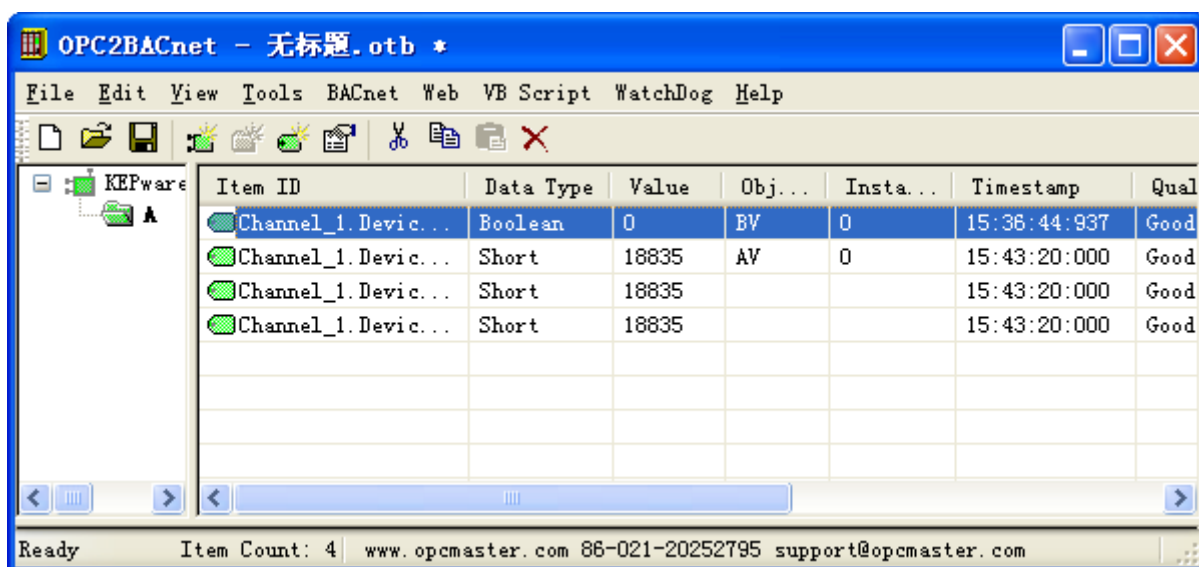




Fig.5 link BACnet server

Remark: Cancel link BACnet Register, Object instance set -1.

### 3.5 Configure BACnetIP



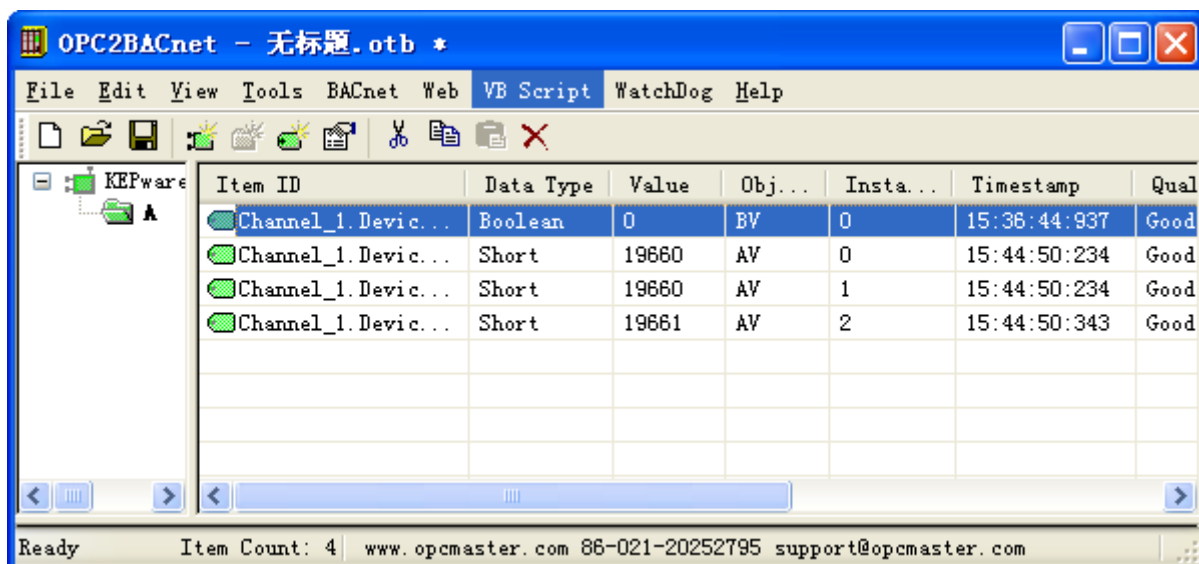
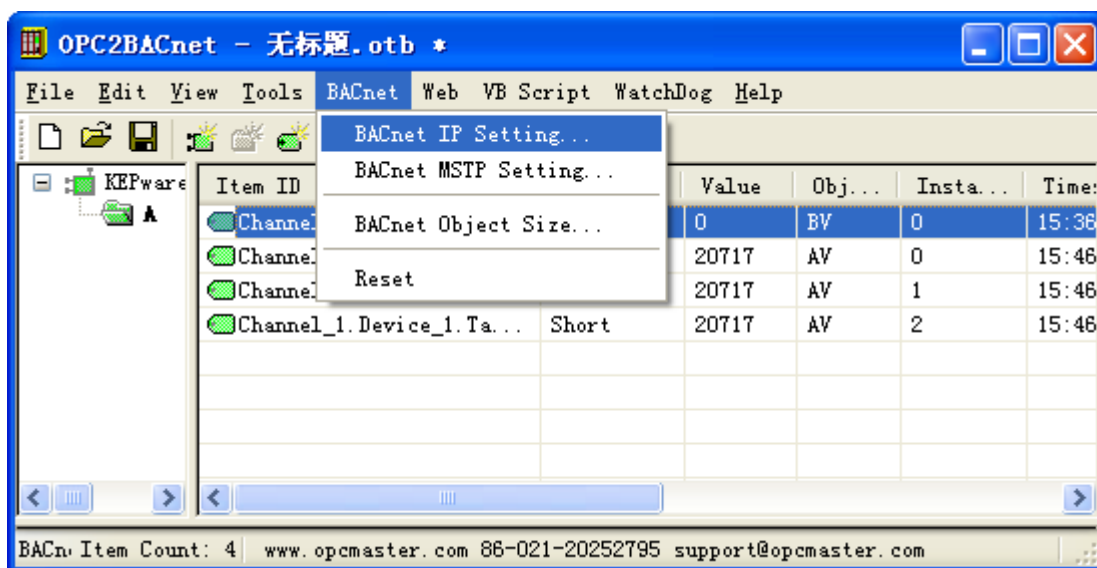


Fig.6 configuration completed

### 3.6 BACnet IP setting

Click BACnet Select BACnetIP Setting



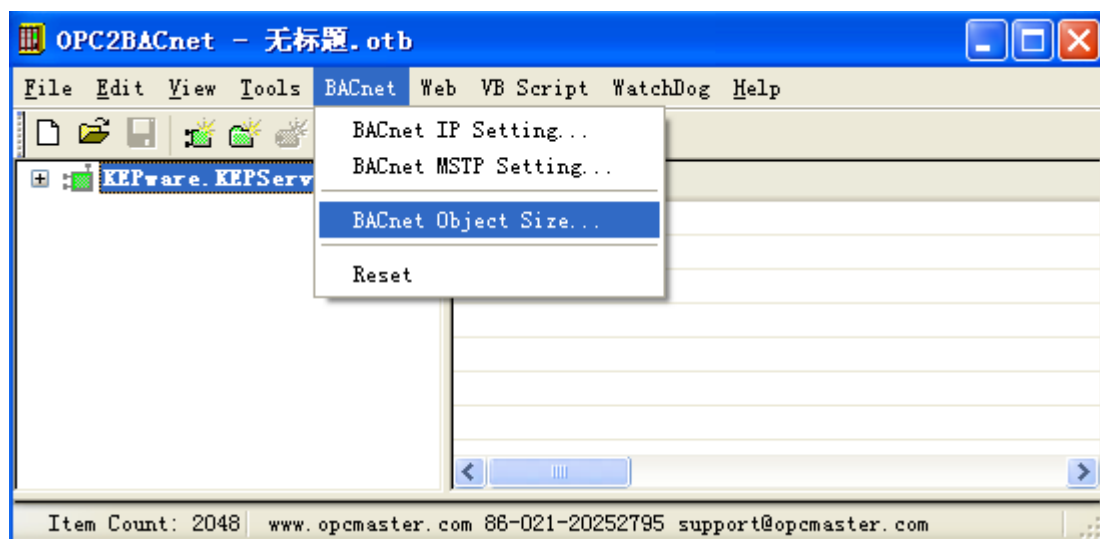
As below Fig.7, BACnet IP Server Setting, default port is 47808



Fig.7 BACnetIP configuration

### 3.7 BACnet Object Size Setting

Click Menu BACnet, Select BACnet Object Size,



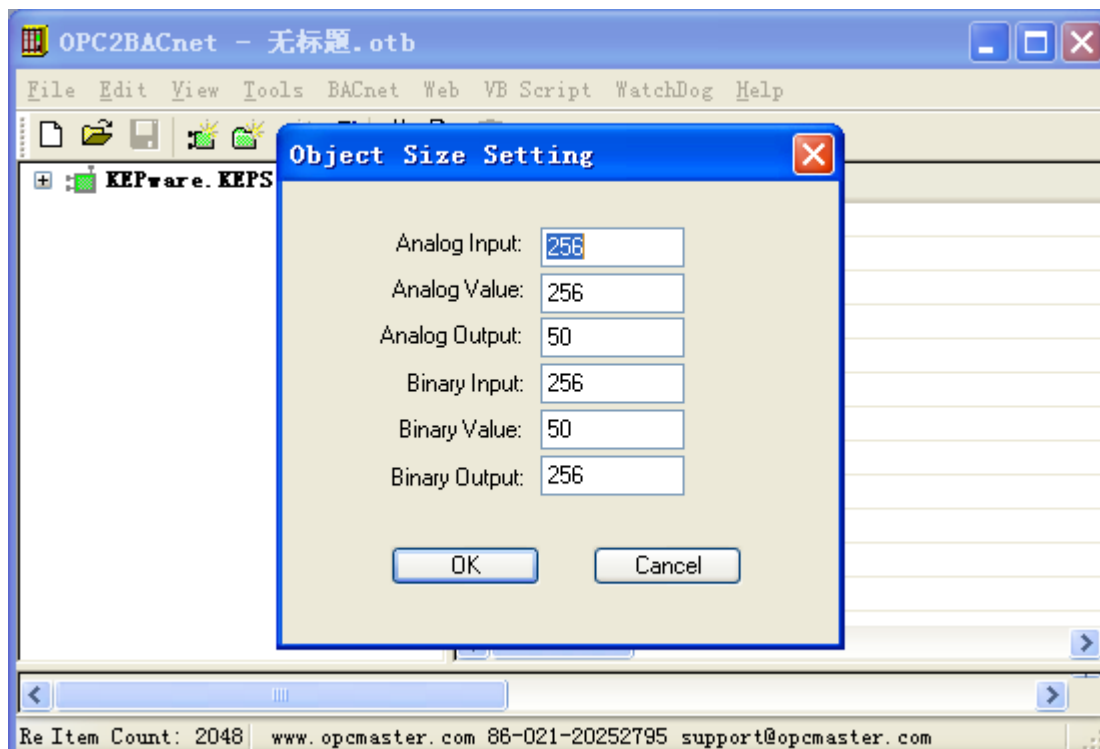


Fig.8 Number of object size Settings

### 3.8 Save file as Fig.9 Suffix is .otb

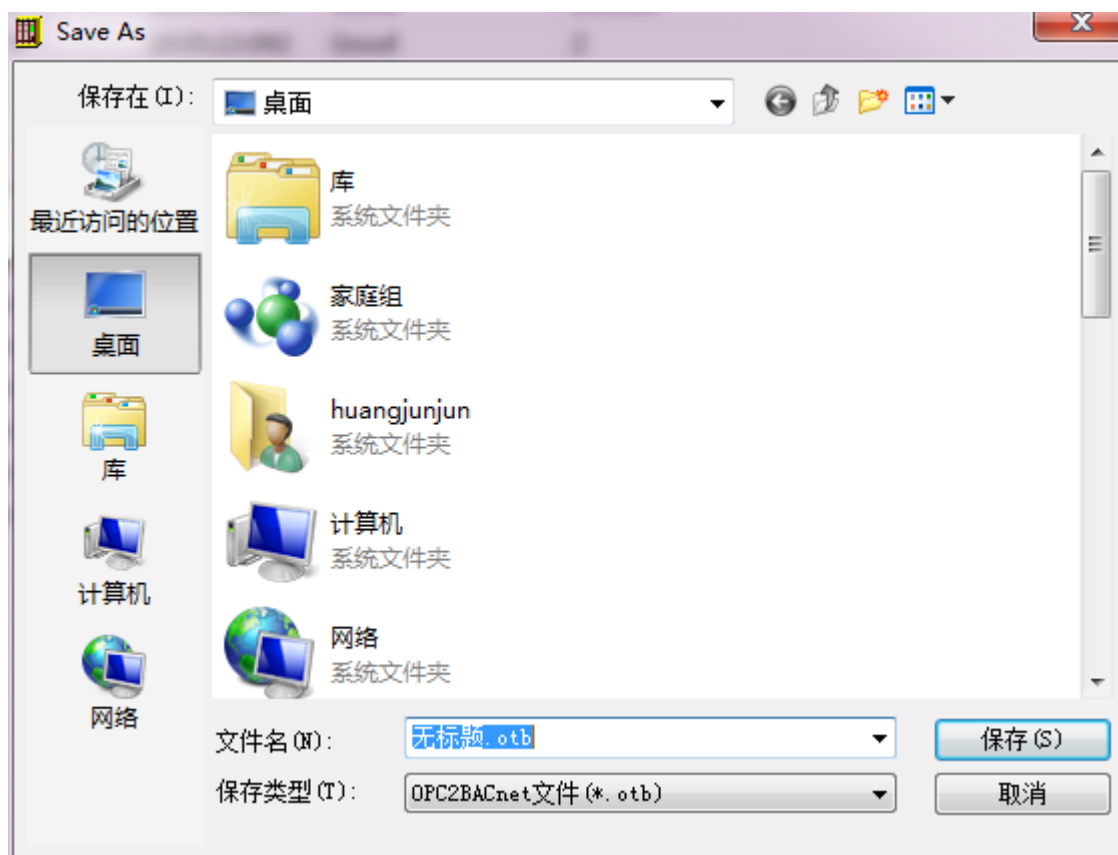


Fig.9 Save Project

### 3.9 Import and Export tags

Export file to XLS, We will edit from EXCEL, and Import to OPC2BACnet.

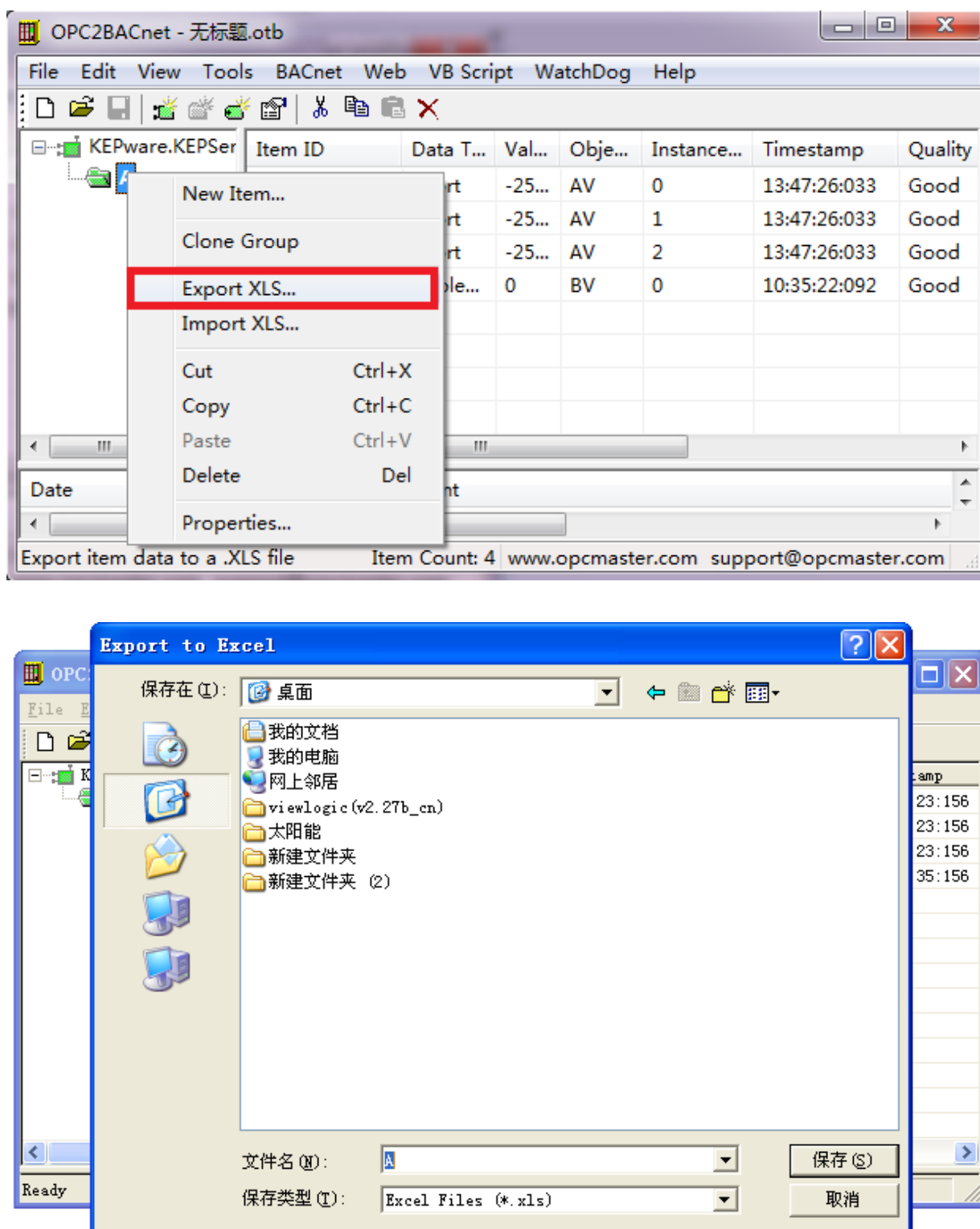


Fig.10 Export tags

A.xls [兼容模式] - Microsoft Excel

开始 插入 页面布局 公式 数据 审阅 视图

剪贴板 字体 对齐方式 数字 样式 插入 删除 格式 单元格 编辑

A2 1

	A	B	C	D	E	F	G	H	I	J
1	ID	Name	DataType	ObjectType	ObjectInst	Description				
2	1	Channel_1	Boolean	5	0					
3	2	Channel_1	Short	2	0					
4	3	Channel_1	Short	2	1					
5	4	Channel_1	Short	2	2					

Sheet1

就绪 100%

A.xls [兼容模式] - Microsoft Excel

开始 插入 页面布局 公式 数据 审阅 视图

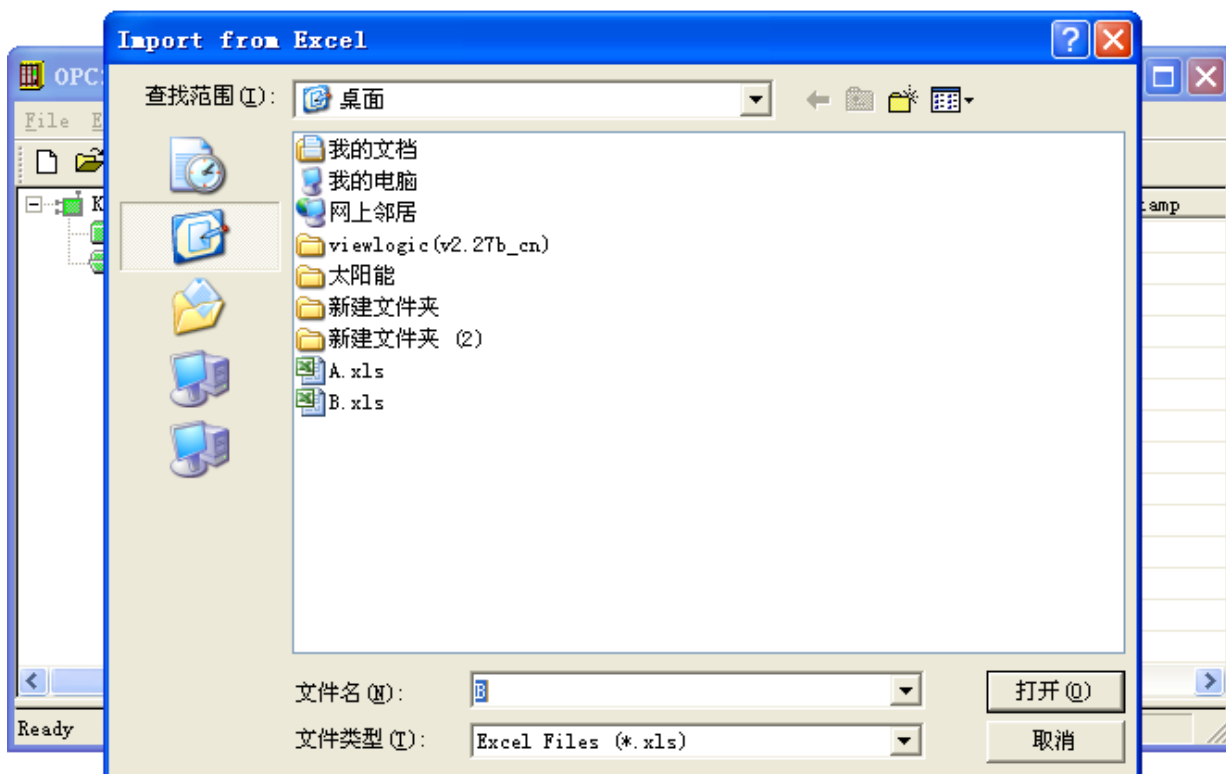
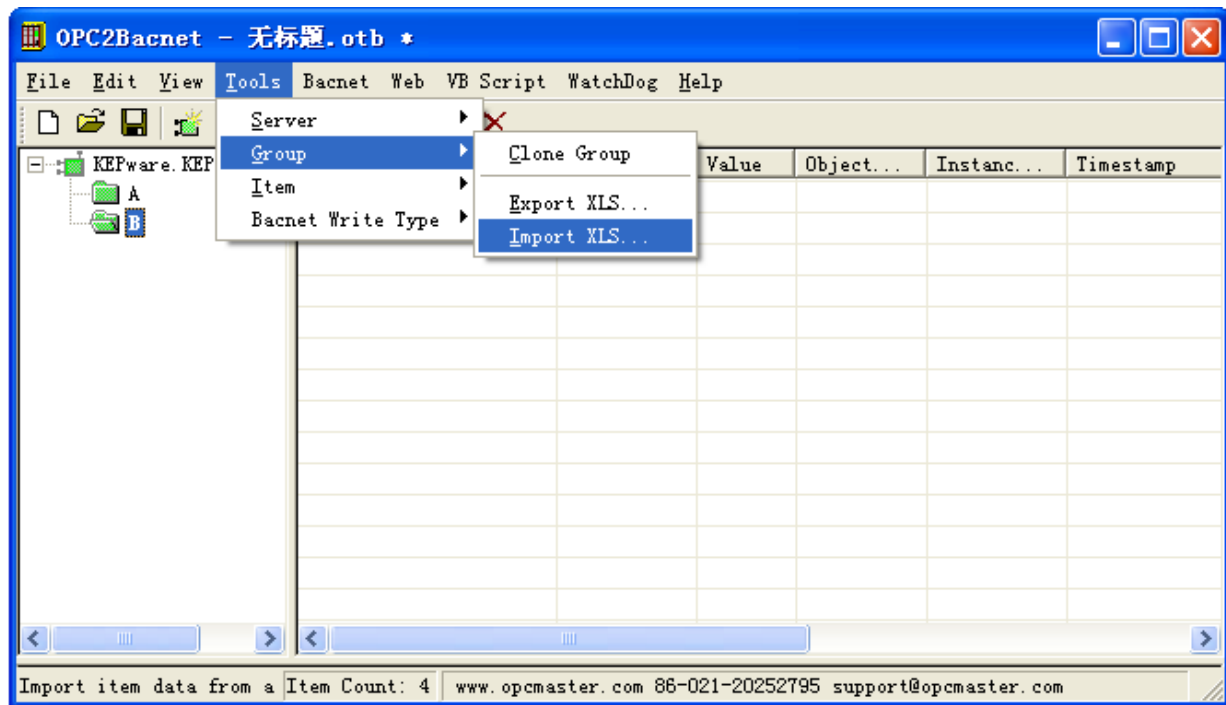
剪贴板 字体 对齐方式 数字 样式 插入 删除 格式 单元格 编辑

E2 5

	A	B	C	D	E	F	G	H	I	J
1	ID	Name	DataType	ObjectType	ObjectInst	Description				
2	1	Channel_1	Boolean	4	5					
3	2	Channel_1	Short	2	0					
4	3	Channel_1	Short	2	1					
5	4	Channel_1	Short	2	2					

Sheet1

输入 100%



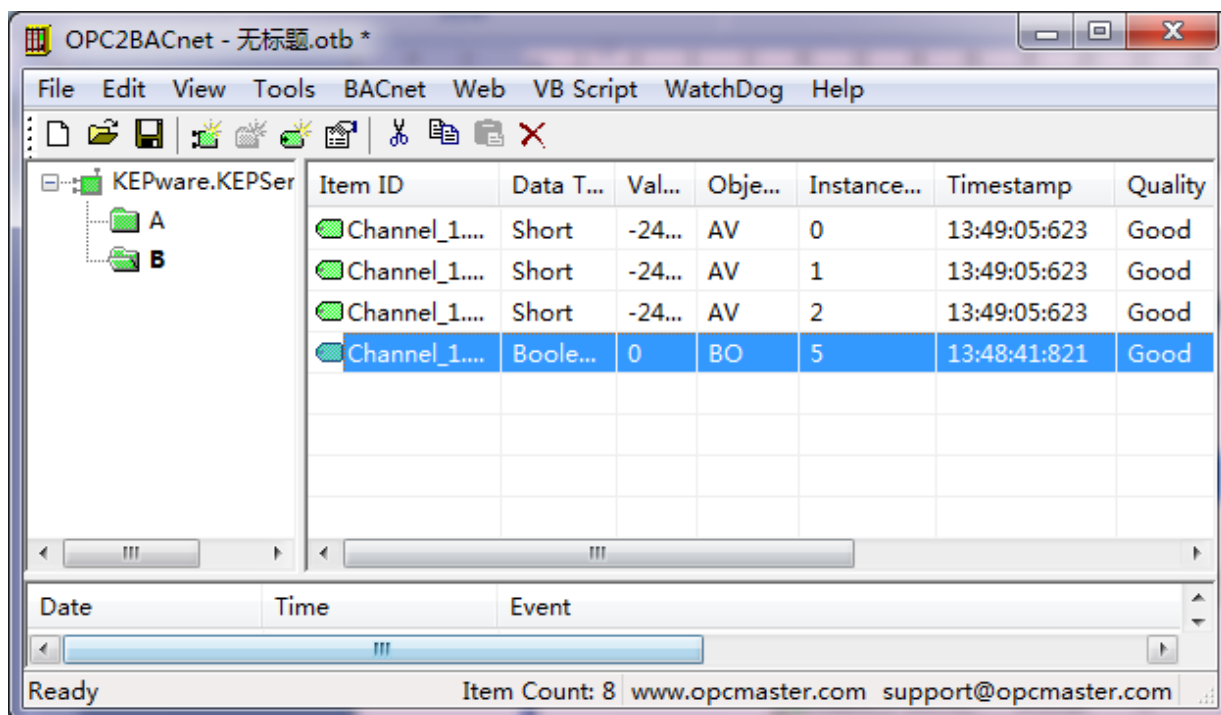


Fig.11 import tags

## 4 BACnet Client testing

Testing condition:

Computer A(IP Address:192.168.1.44) and Computer B( BACnet Client IP address:192.168.1.23)

Computer B: BACnet Scan will be installed.

Computer A:OPC2BACnet software will be installed



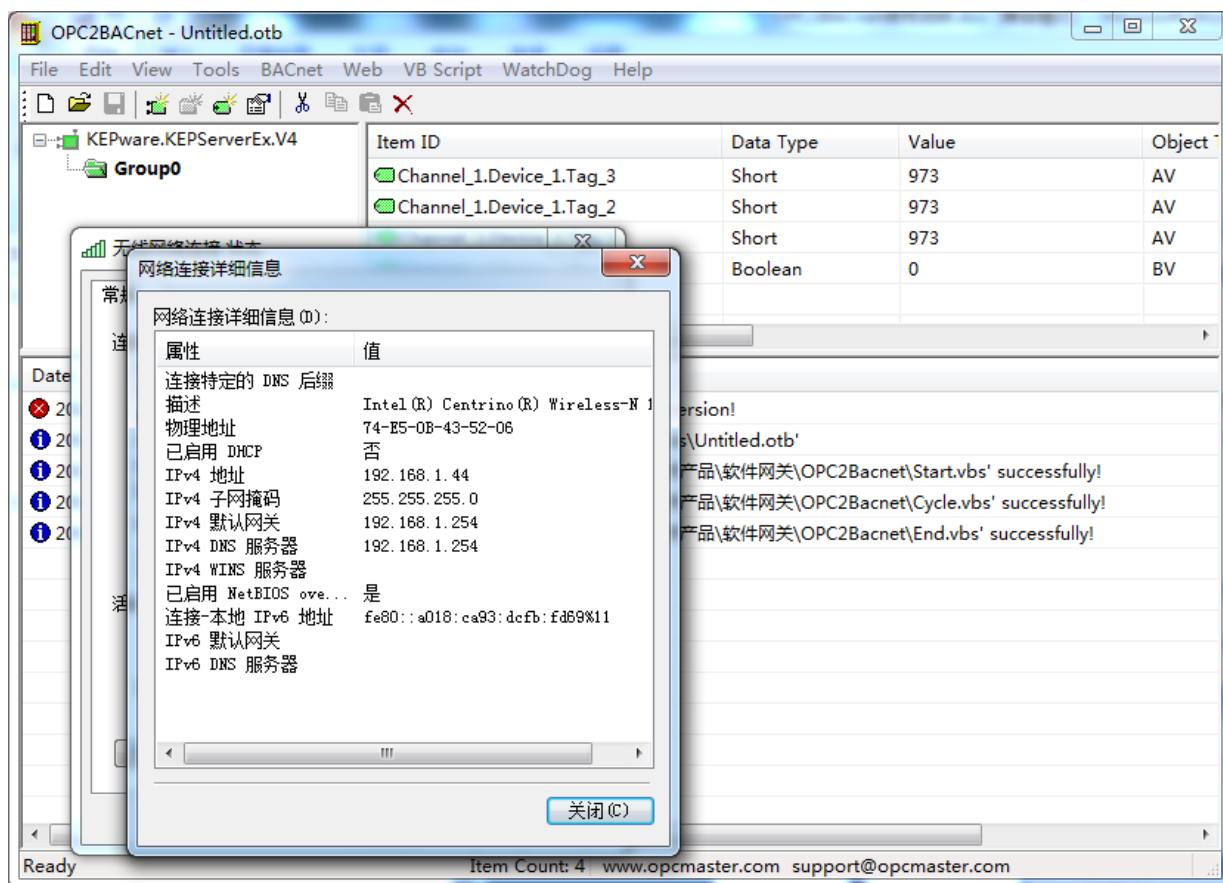
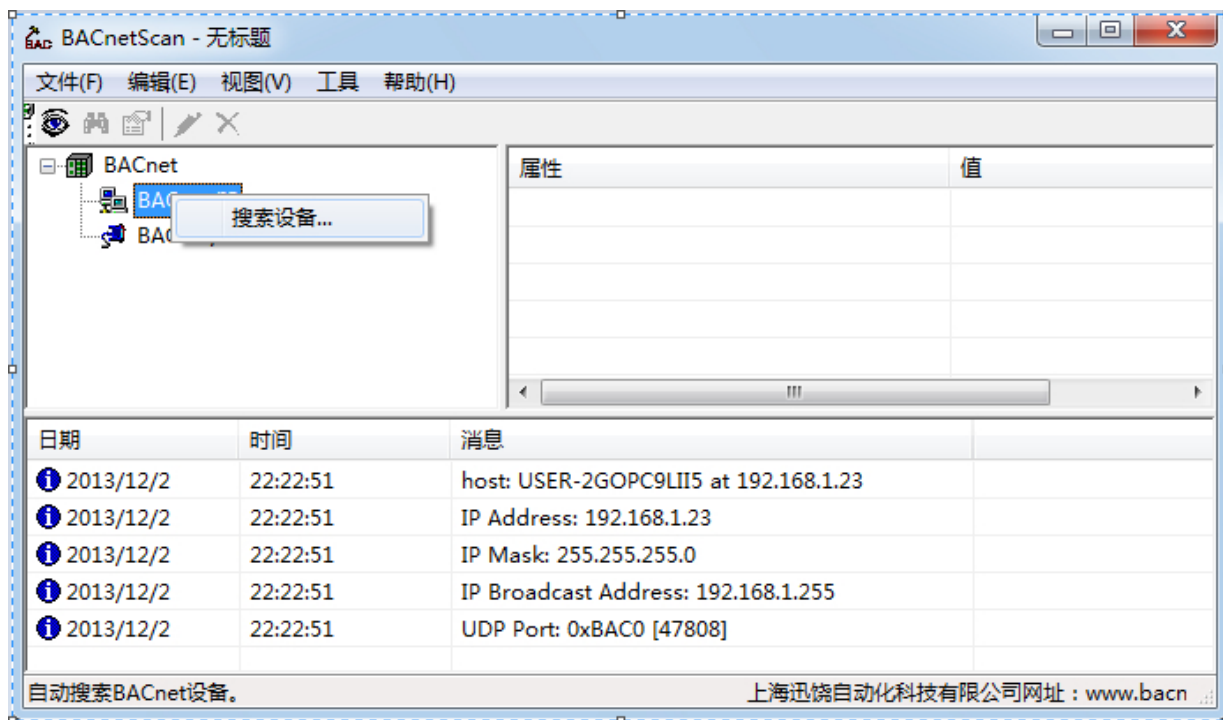


Fig.12 Computer A

Computer B : we installed BACnetScan. And we scanned devices.



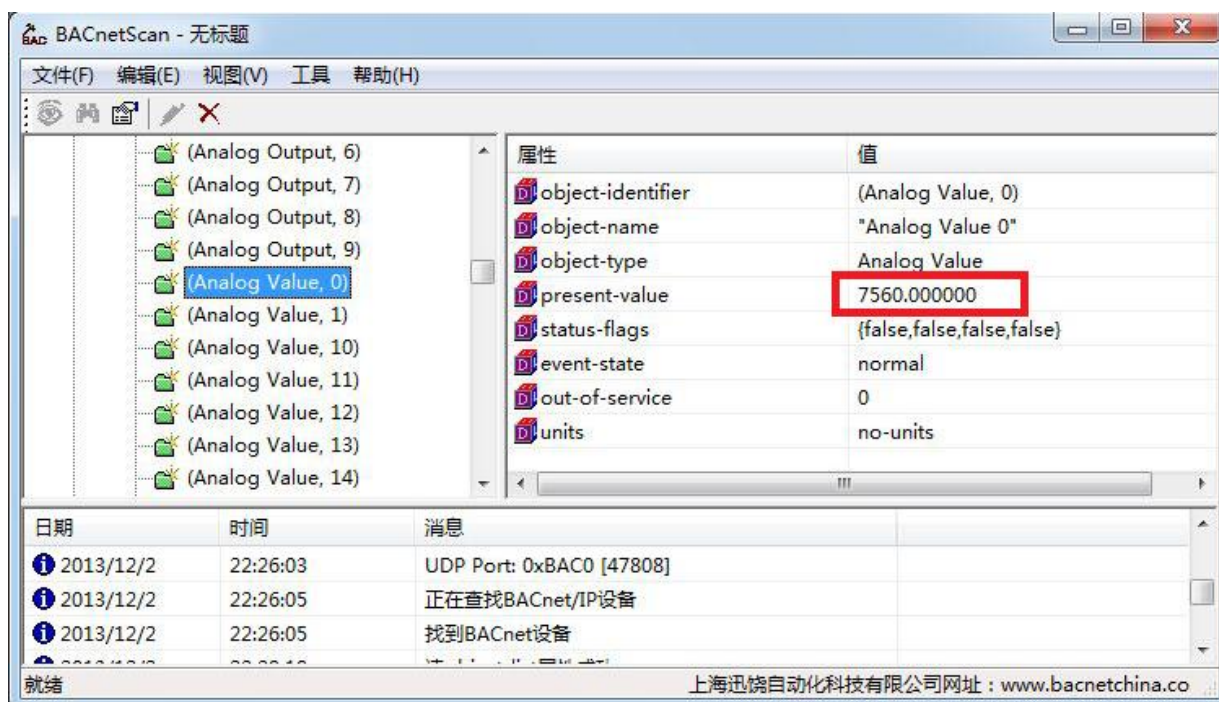
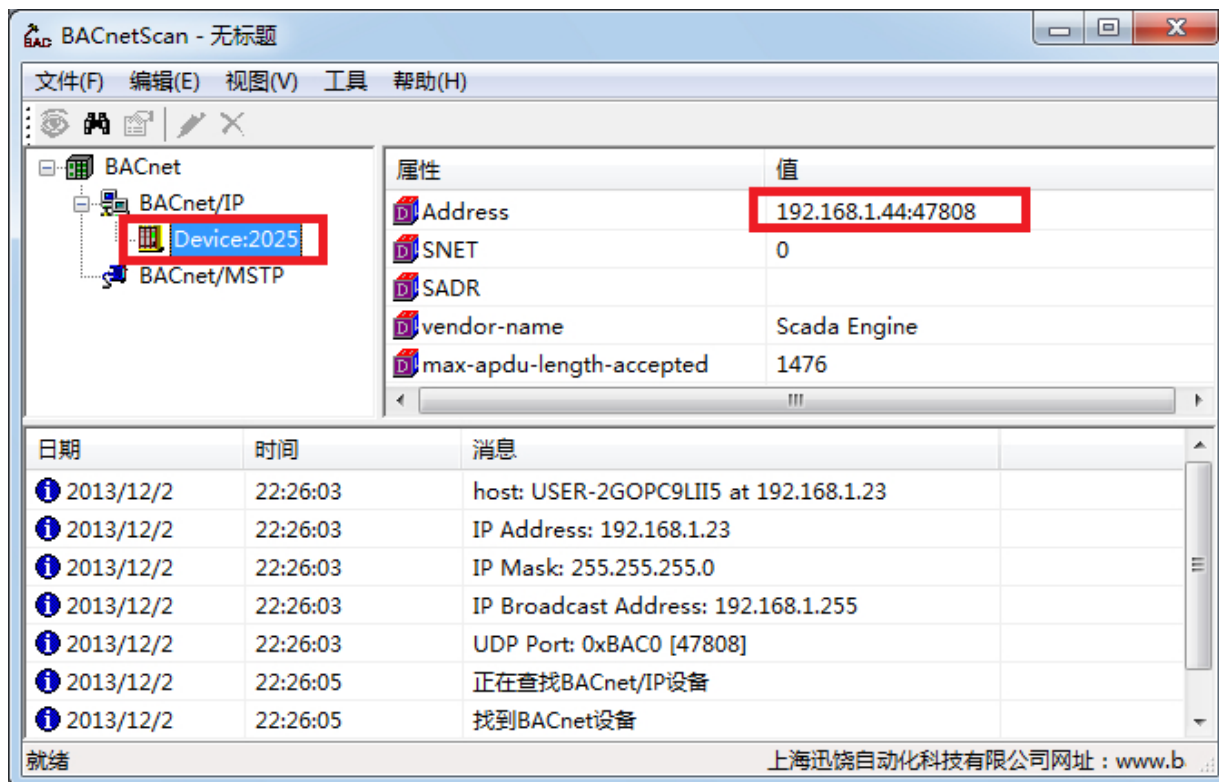


Fig .13 Scan from Computer B BACnet Client

## 5 Visit by Web

Real Time Data Acquisition by visit OPCserver from Web,PC ,IPAD or Smart phone.click Web and select Sunfull Web Server.

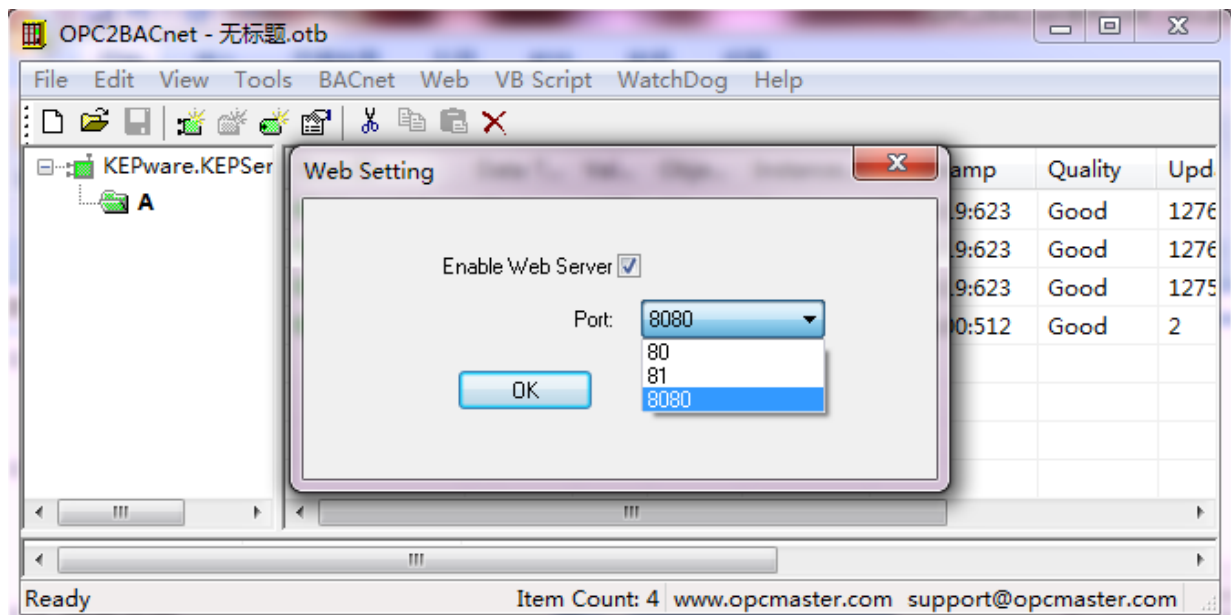
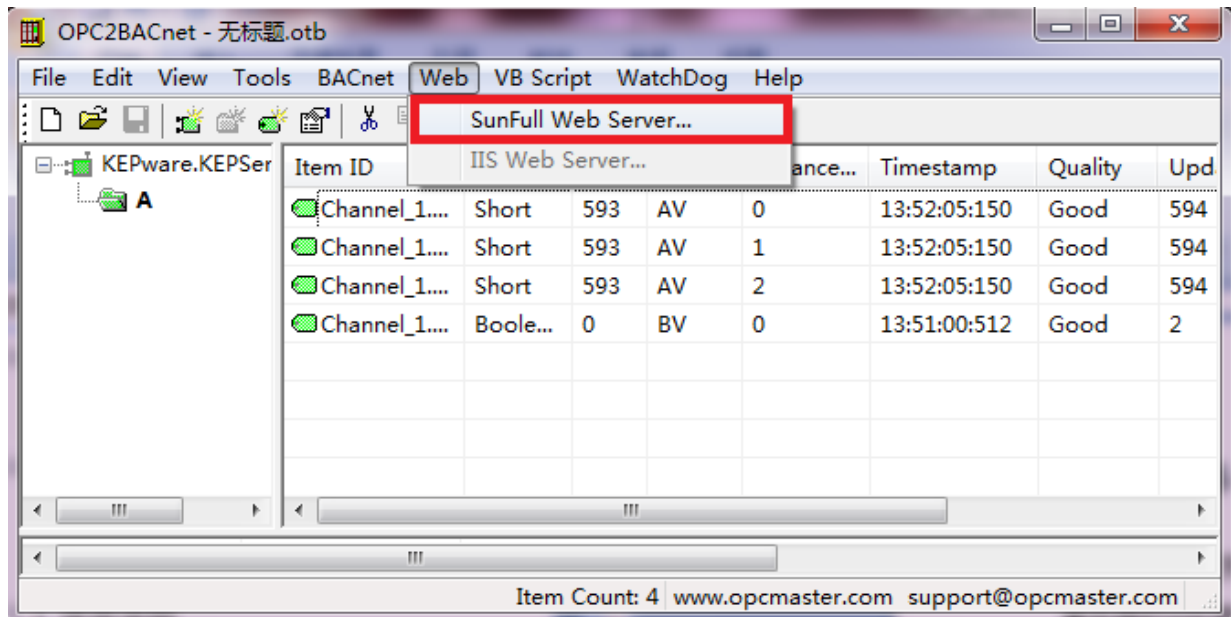




Fig.14 visit by Web

## 6 USB key dongle

OPC2BACnet software is 30minutes trial version, authorize version is USB key dongle and license version.

## 7 SFWatchDog.exe

SFWatchDog.exe help OPC2BACnet.exe closed unexpectedly and restart. Click Watchdog, select Checking Interval setting. And save it .

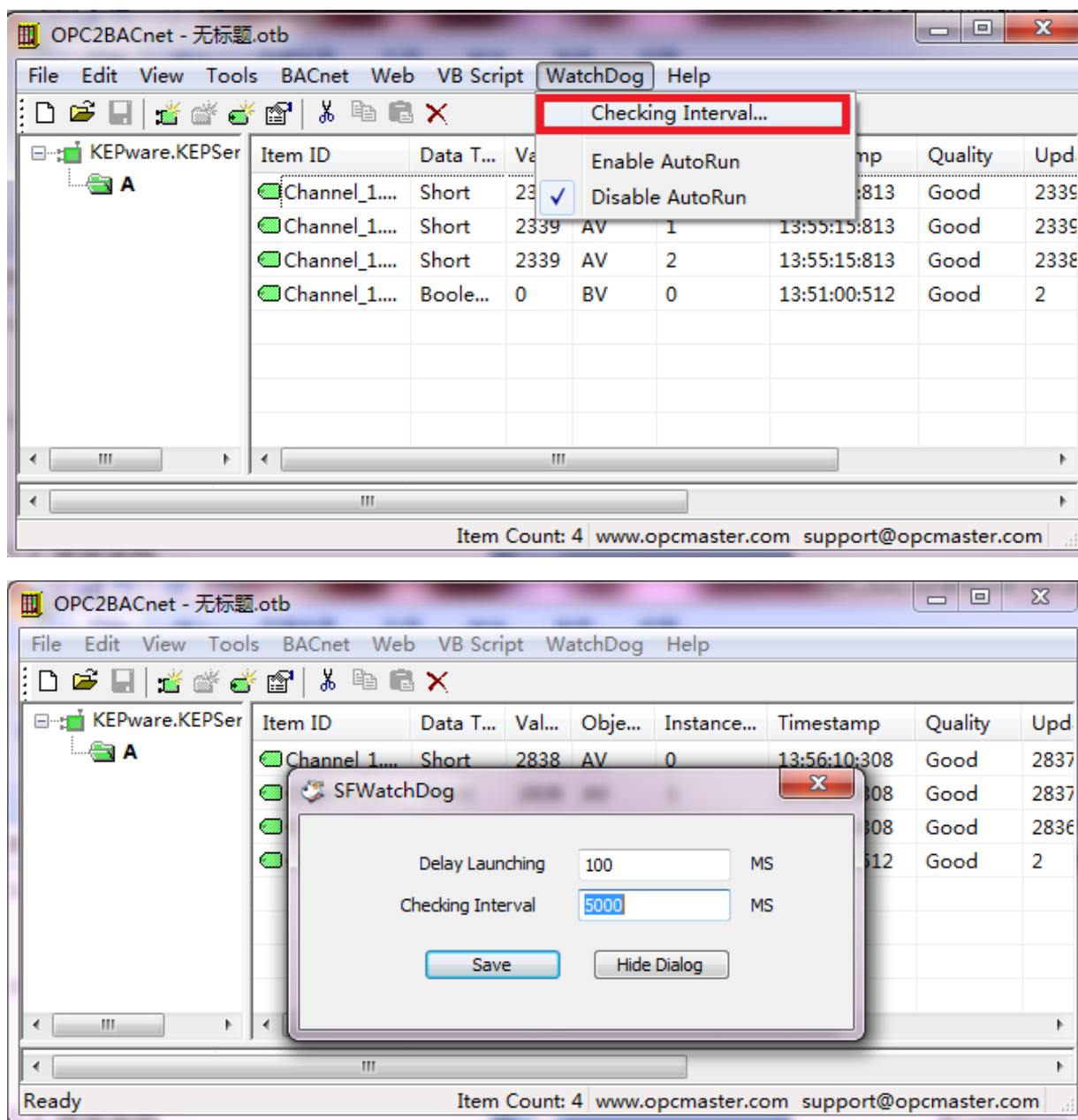


Fig.15 SFWatchDog setting

## 8 Visual Basic Script

Visual BasicScript provide second development by user, script implement had on start application, on cycle and on End application, unit is ms.

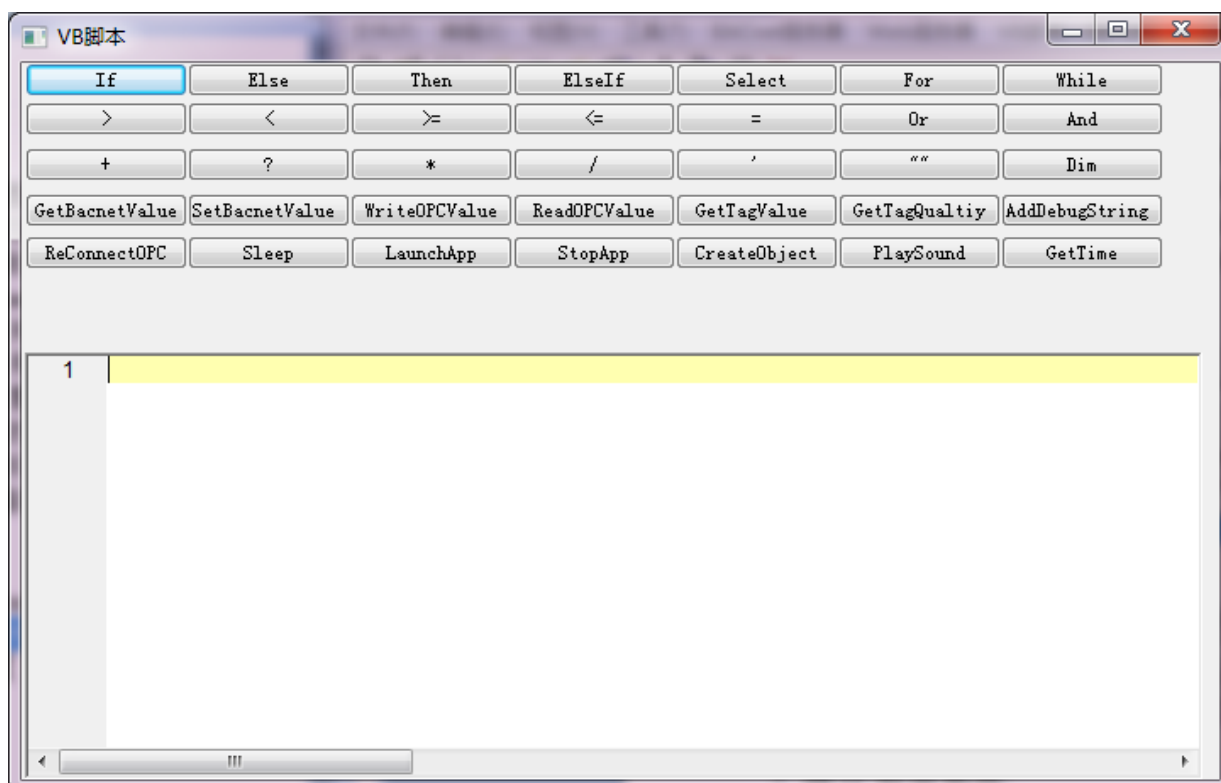
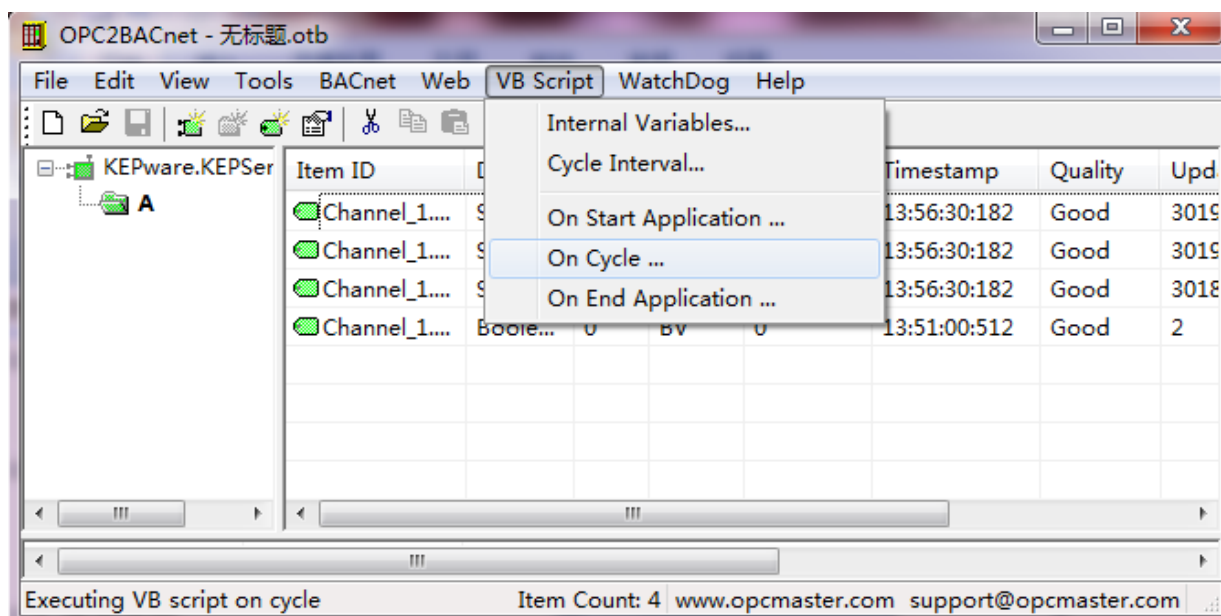


Fig.16 VB script

## 9 Language setting

Currently, the software support Chinese and English Language. Default language same as Operation system. And we click View ,Select Language Setting, we select other language from dialogue box.



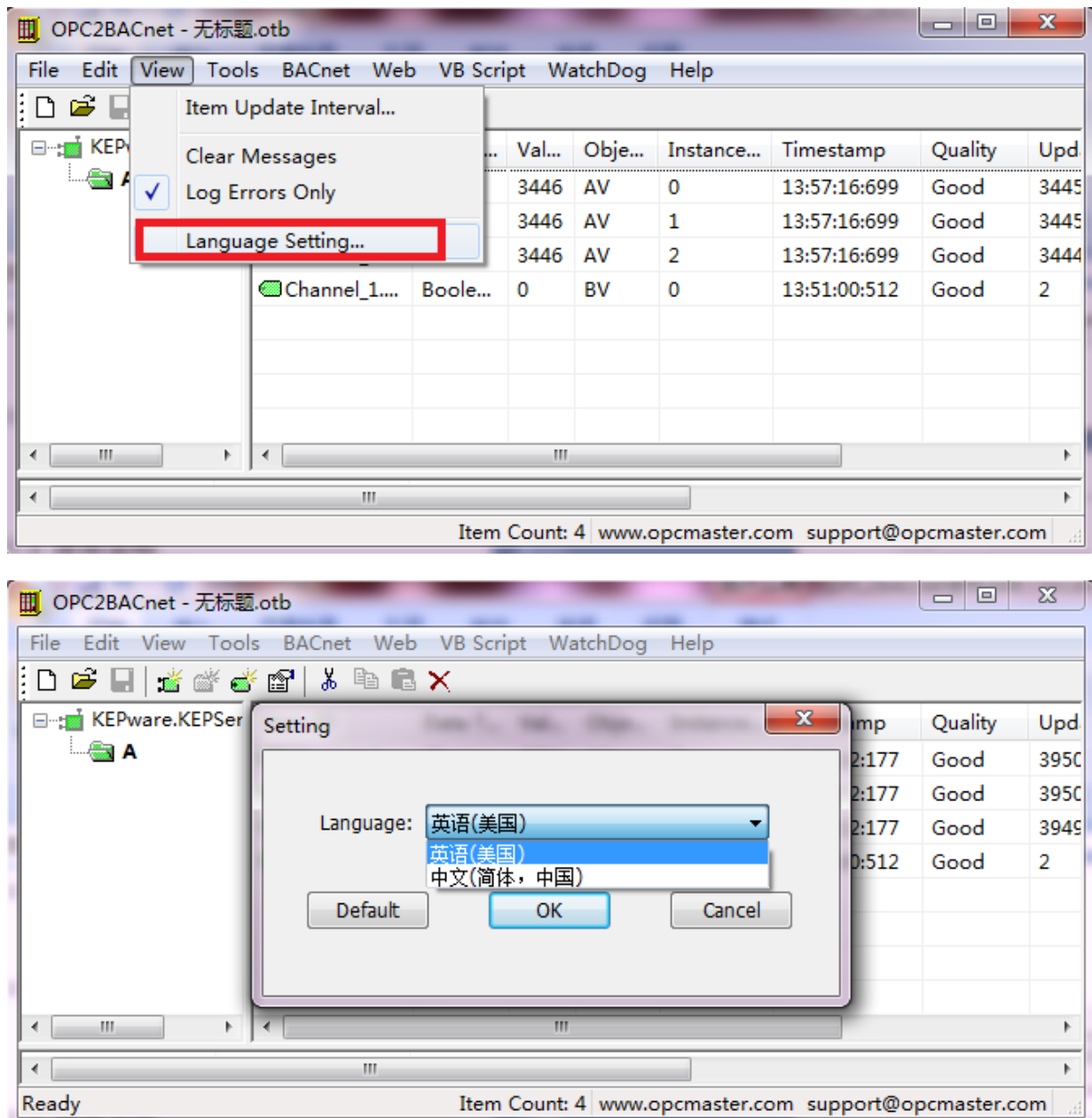


Fig.17 Setting language