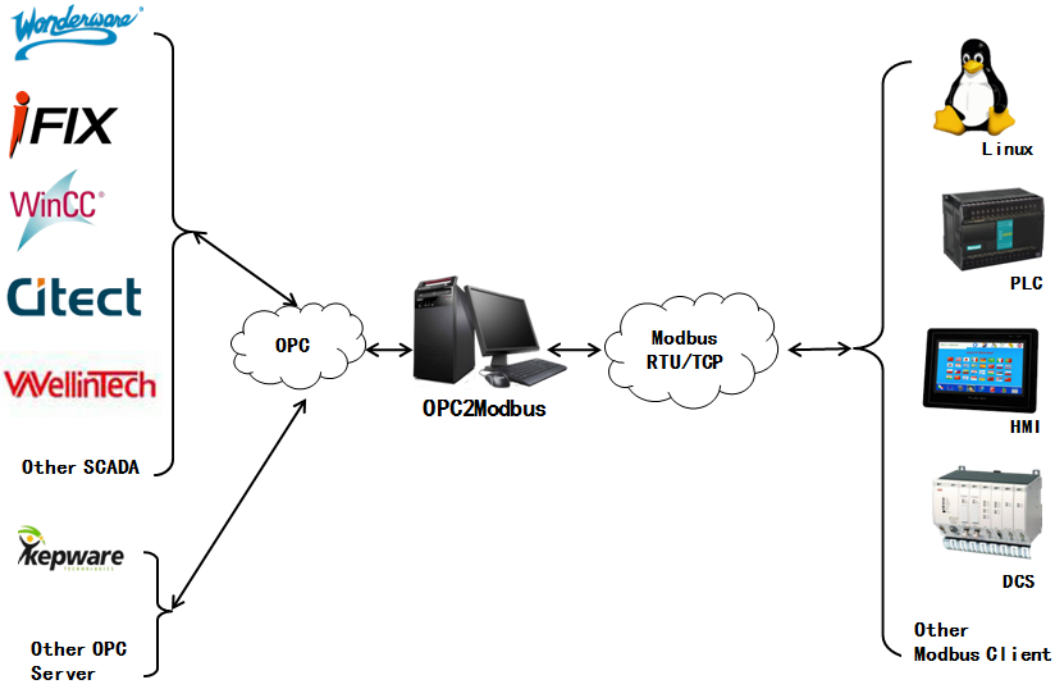
OPC2Modbus

User Manual



Shanghai Sunfull Automation Co., LTD

Table of Contents

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
2012.10.15	Oct 12 2012(Unicode)	English Version
2013.12.16	Dec 13 2013(Unicode)	Added Chinese Version

2 Overview

2.1 Feature

- OPC2Modbus Software solve DCOM configuaration when remote access OPC Server（Disadvantage of Remote access OPCServer： unstable communicaton,not easy to configure DCOM,Not easy to operate）.After Install OPC Bridge and OPCServer in same PC, we will transfer OPC server to Modbus Server. Other PC will access Modbus Server, it achieve SCADA(to read and to write OPCServer).
- HMI with Linux system access OPCServer in PC by Modbus protocol.

  Advantage： Easy to operate and configure. When exit program, save time log automatic. The software make the OPCServer running when OPCserver closed unexpectedly. Support English and Chinese language in order to operate conveniently.

2.2 Operation Platform

- Support Windows XP/2000/2003/Win 7/Win8,

2.3 Application Fields

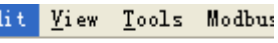
- To Solve HMI touch panel access OPCServer.
- To solve PLC without Windows system access OPCServer.,for example Linux OS computer, PLC, DCS etc.
- To solve configuration software remote access OPCserver. .such as Citect、IFIX、RSVIEW、WINCC、Kingview、E-control
- ……

3 Configuration And Operation

3.1 operation steps example（set up a project）

Click OPC2Modus.exe.

3.1.1 select target OPCServer

Click  or Edit,select New Server Connection  ,as blew ,select target OPC Server.

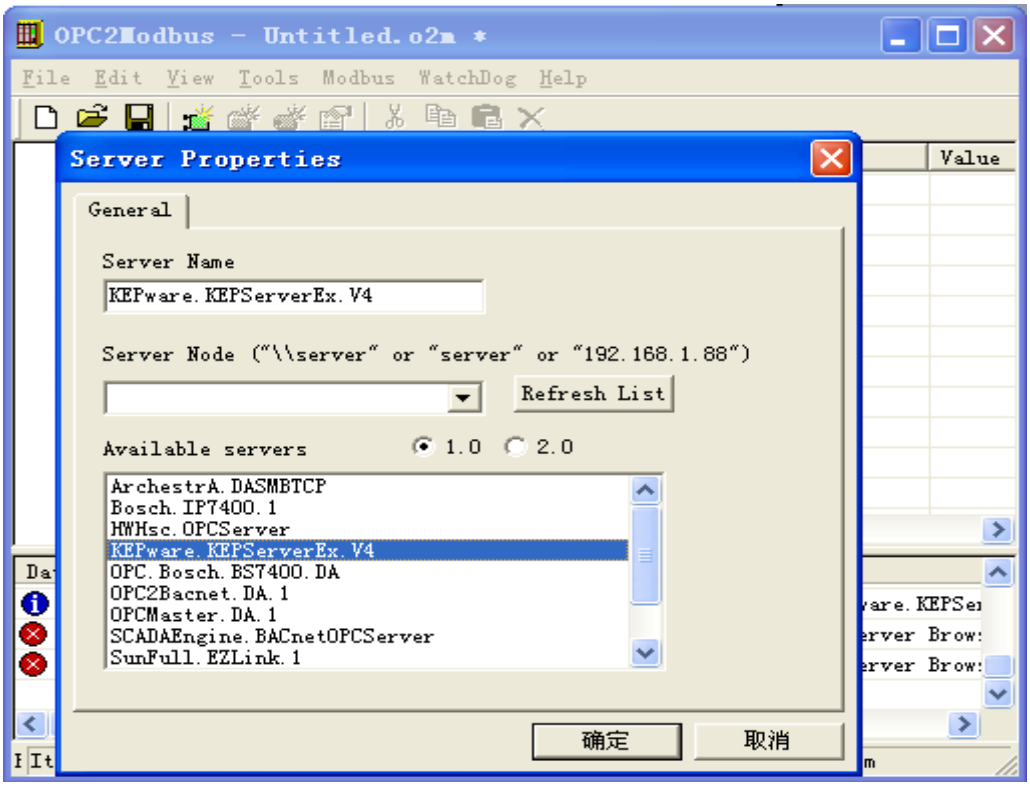
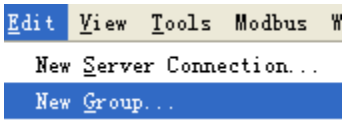


Fig. 1 Connection OPC server

3.1.2 Creat group,and tags

create group : click  or click Edit,click New Group  ,or select connected OPC Server to click New Group  ,as below Fig.2,one list will be show in dialogue box.

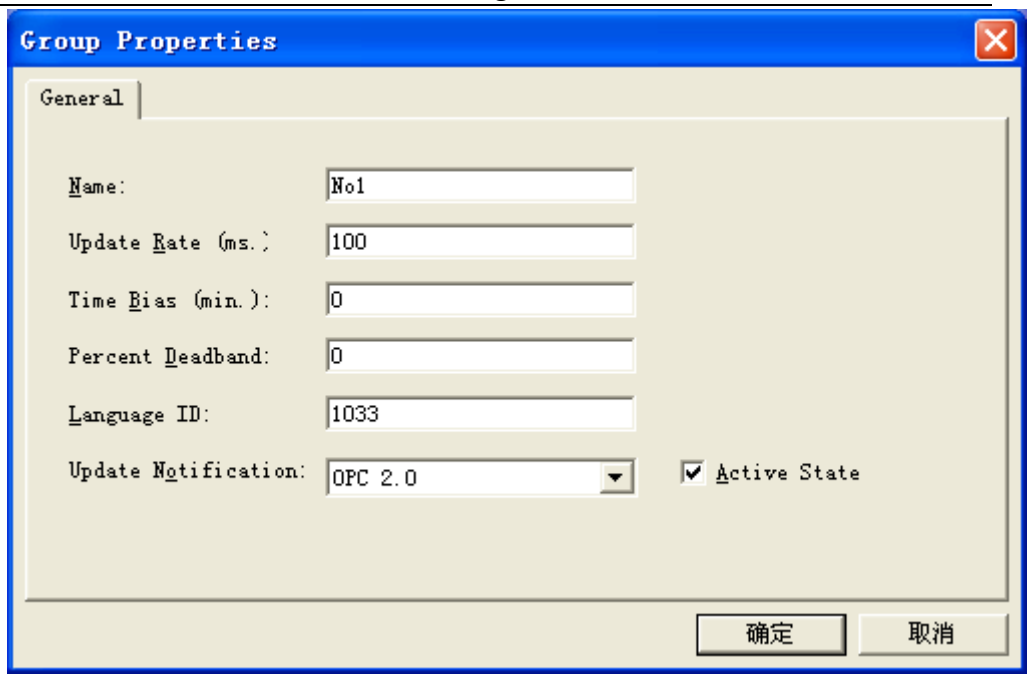


Fig. 2 New group

create tag. click  or select Edit,click New Item  ,or right click then select New item tag.

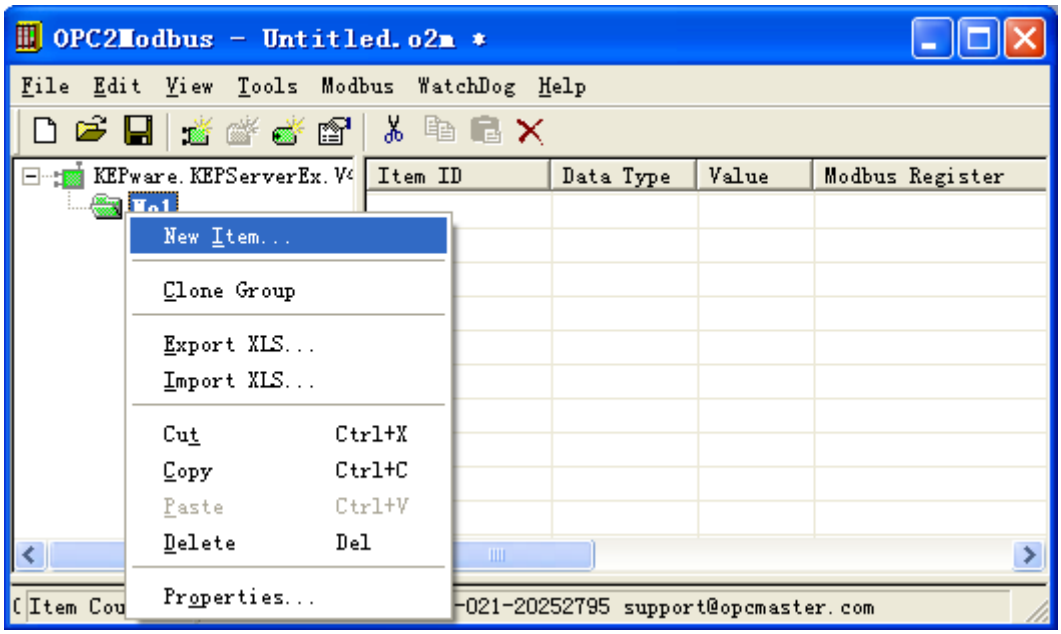


Fig. 3 New Item

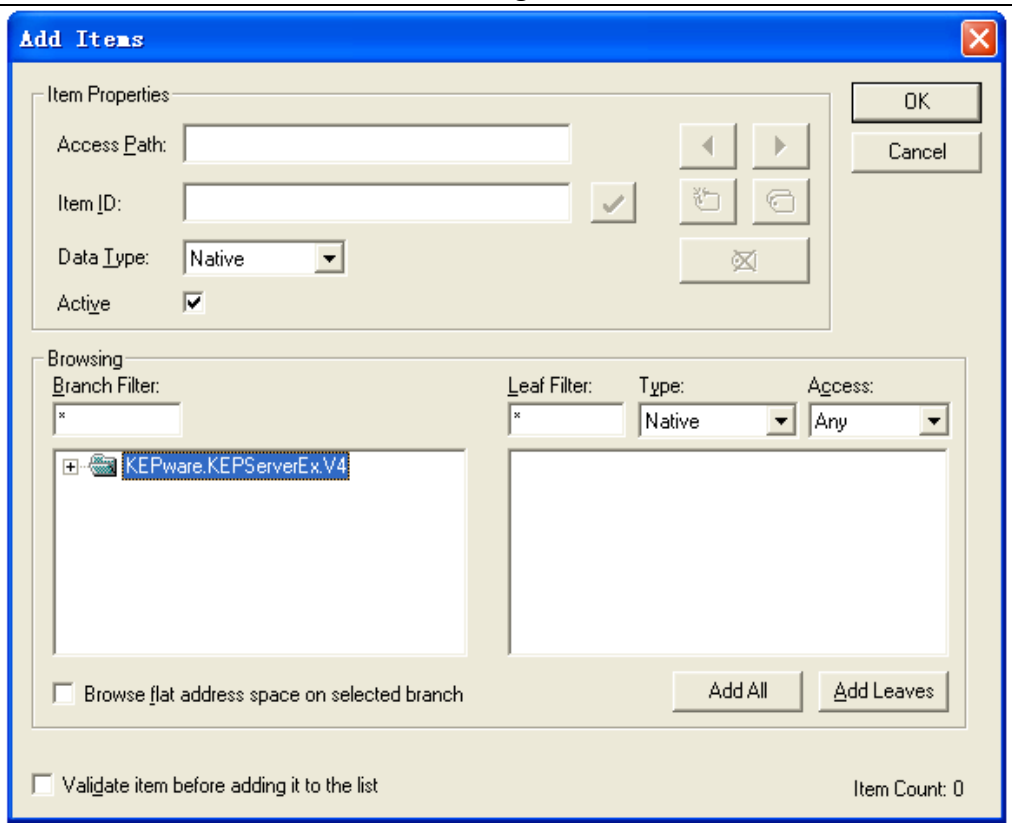


Fig. 4 Select OPCServer

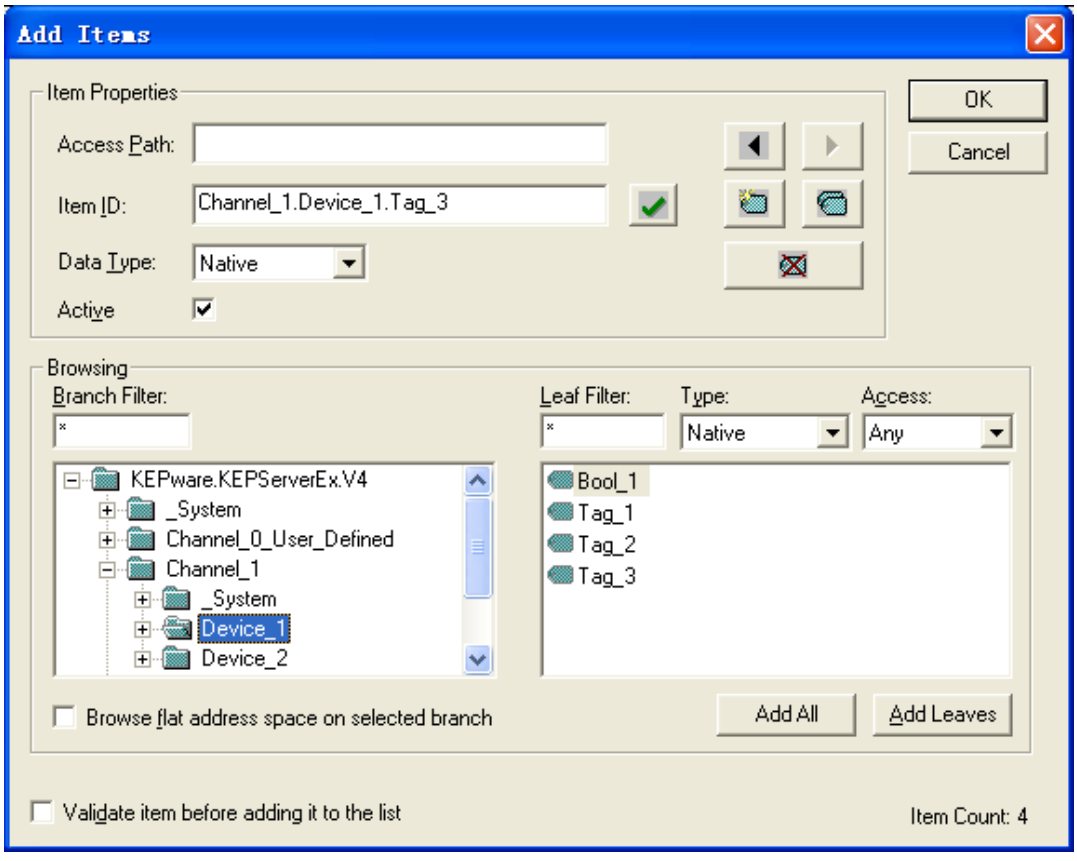


Fig. 5 Add tags

3.1.3 Register type and Register address of Modbus

Select tags and right click to select “Link to Modbus Server…”as below Fig. 6

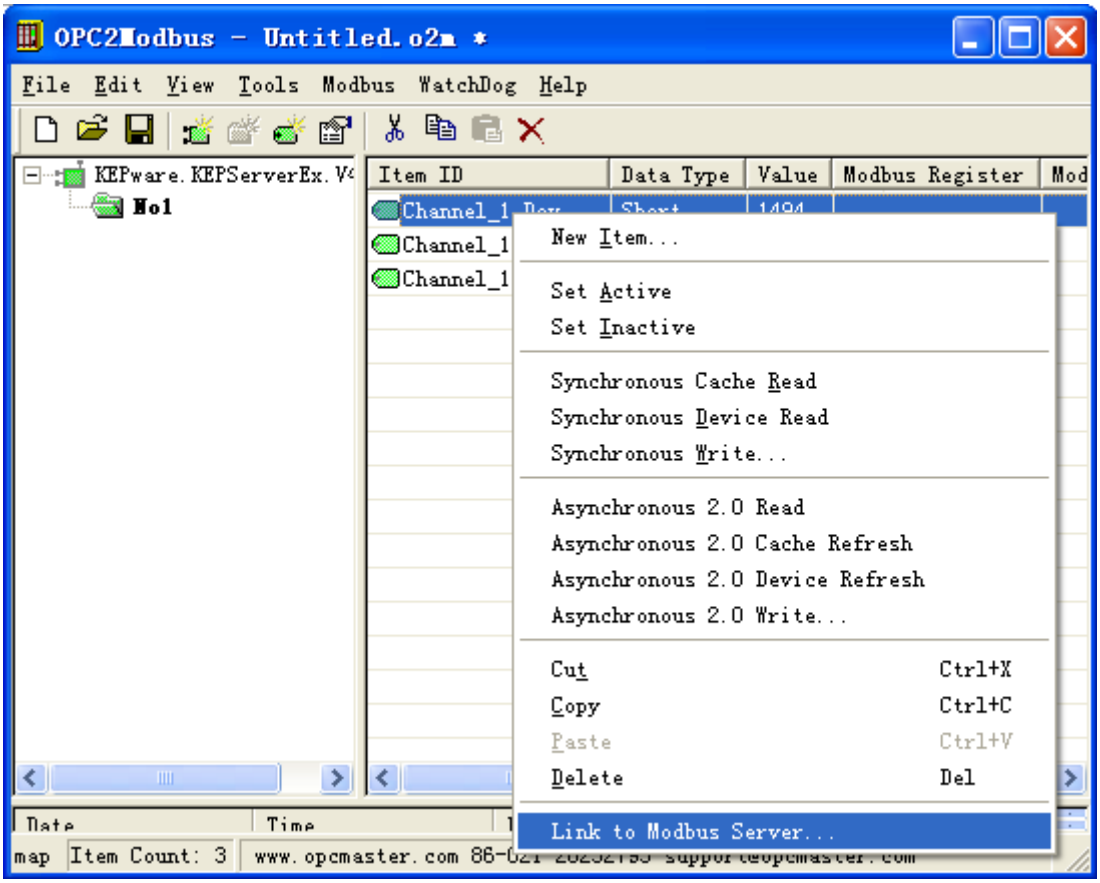


Fig. 6 Link to Modbus Server

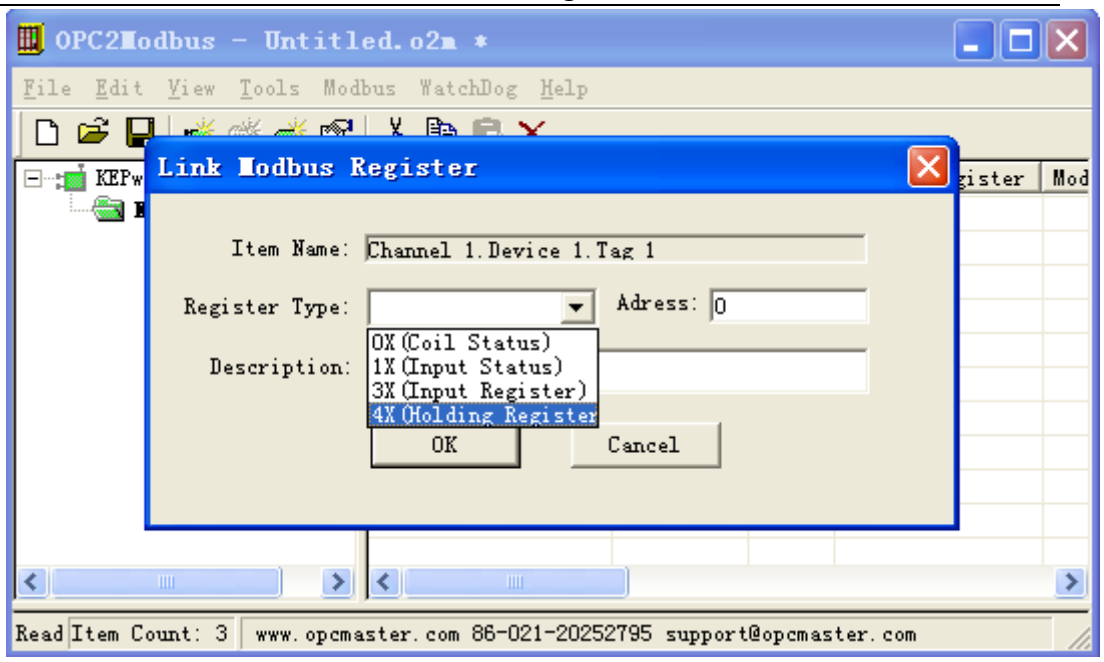


Fig. 7 Link Modbus Register setting

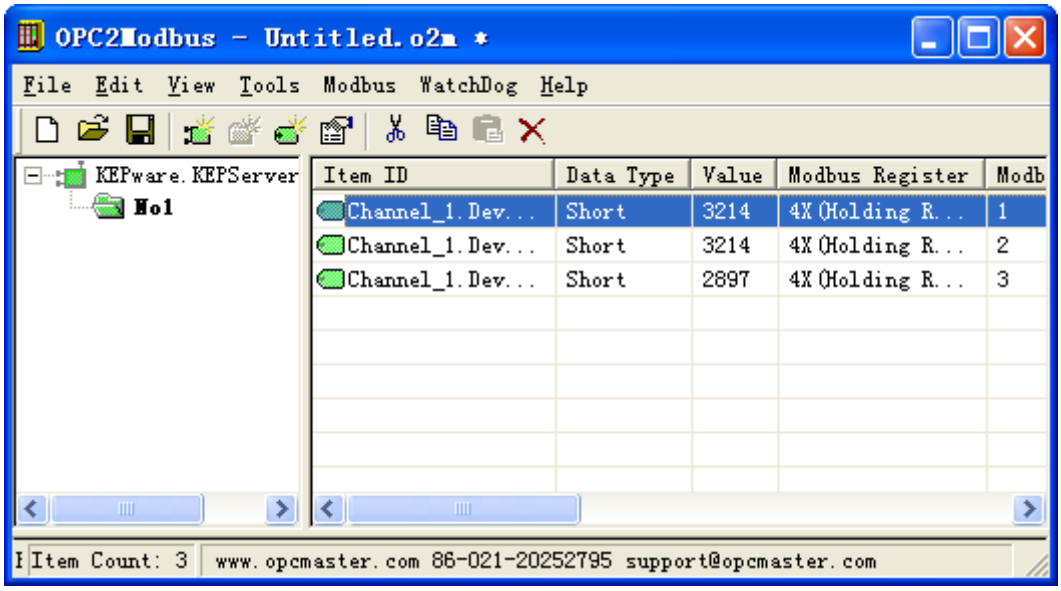


Fig. 8 Linked Modbus Register

Remark: if we want to cancel link, input Address is 0 is ok.

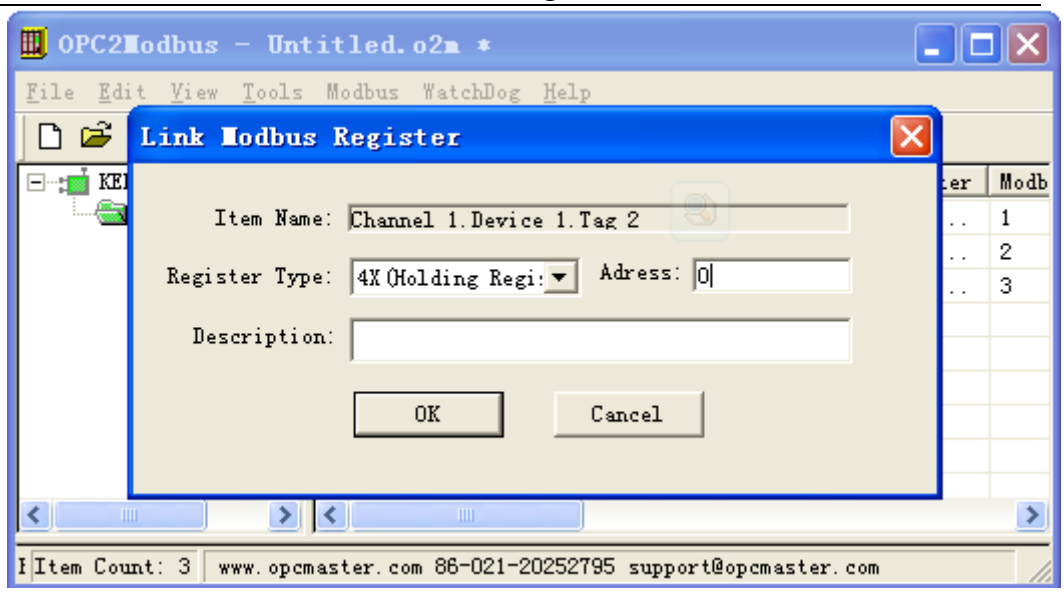


Fig. 9 Cancel Link Modbus Register

3.2 Modbus Client software Modbus Poll connection

3.2.1 Modbus poll parameter setting

Serial Port（COM）Connection Test Method：

Click “Connection” →Connect.. F3”,see below Fig.10:

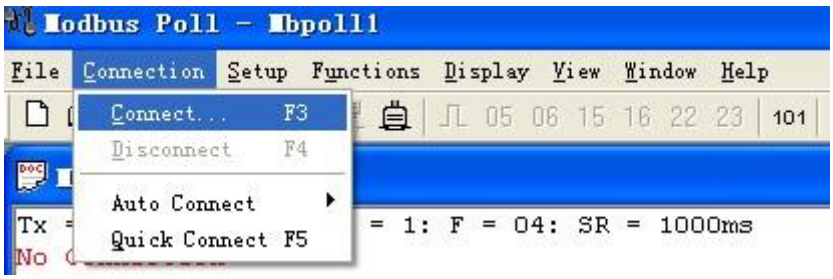


Fig. 10

Pop up dialogue box as below Fig. 11:

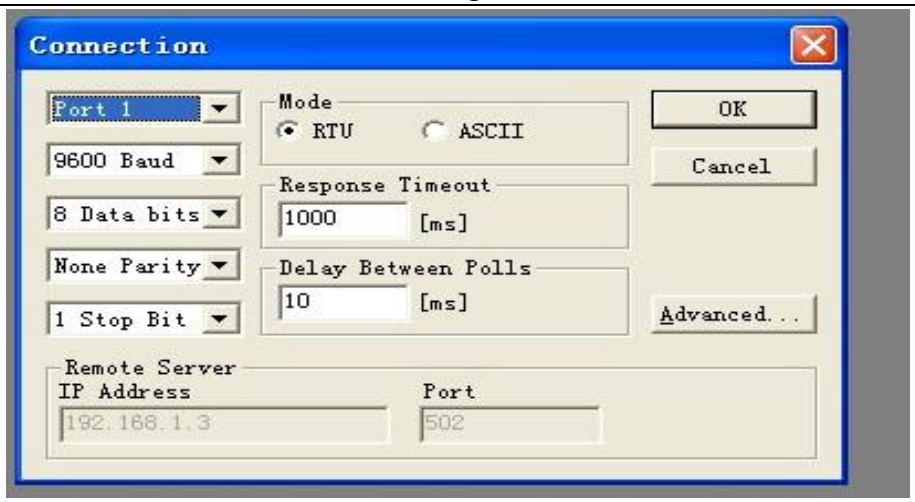


Fig.11 Connection Parameter Setting

Remark:Port1 That is serial port – COM1,Modbus Poll and OPC2Modbus in same Modbus protocol, such as Modbus RTU,Modbus TCP. For example, select Modbus RTU setting from OPC2Modbus as below Fig. 12:

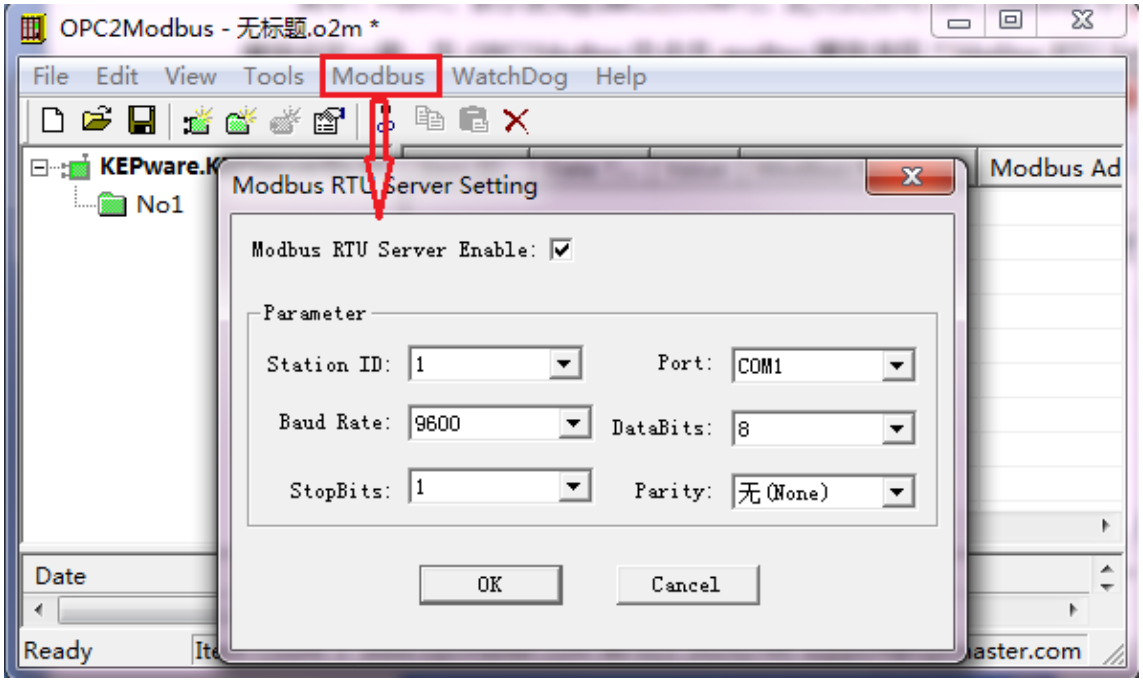


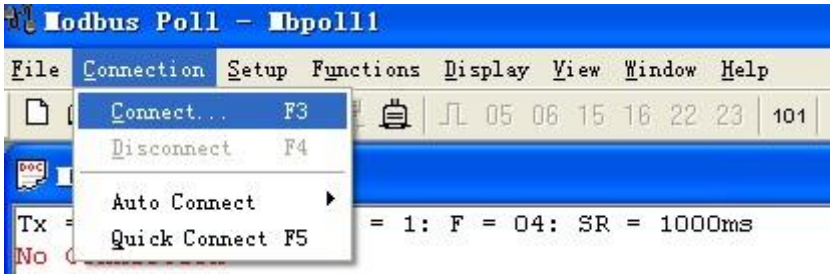
Fig. 12 ModbusRTU parameter setting

Popup Modbus RTU Server Setting dialogue box, setting up then click OK

Remark: Modbus slave default setting is Modbus TCP, we can select Modbus RTU as we need.

Modbus TCP/IP Simulation test:

Click “Connection”-“Connect.. F3”as below Fig. 13:



Pop up dialogue box

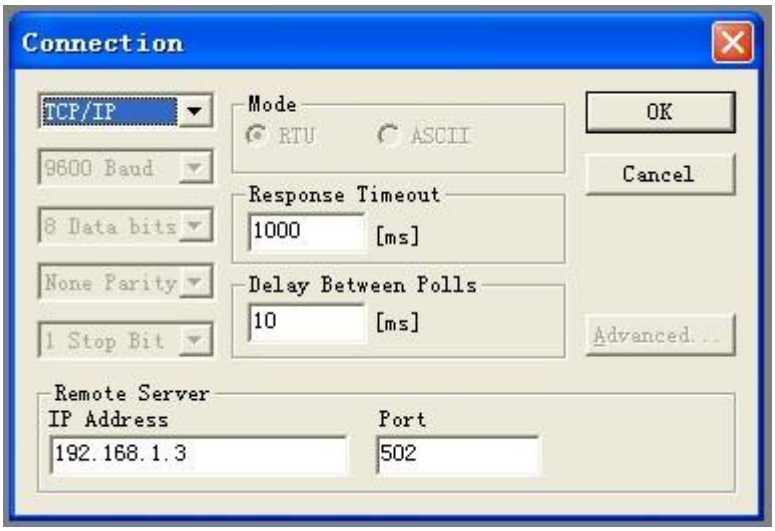


Fig. 13

IP Address is Remote server address ,port NO. is same as Port of OPC2Modbus as below Fig. 14

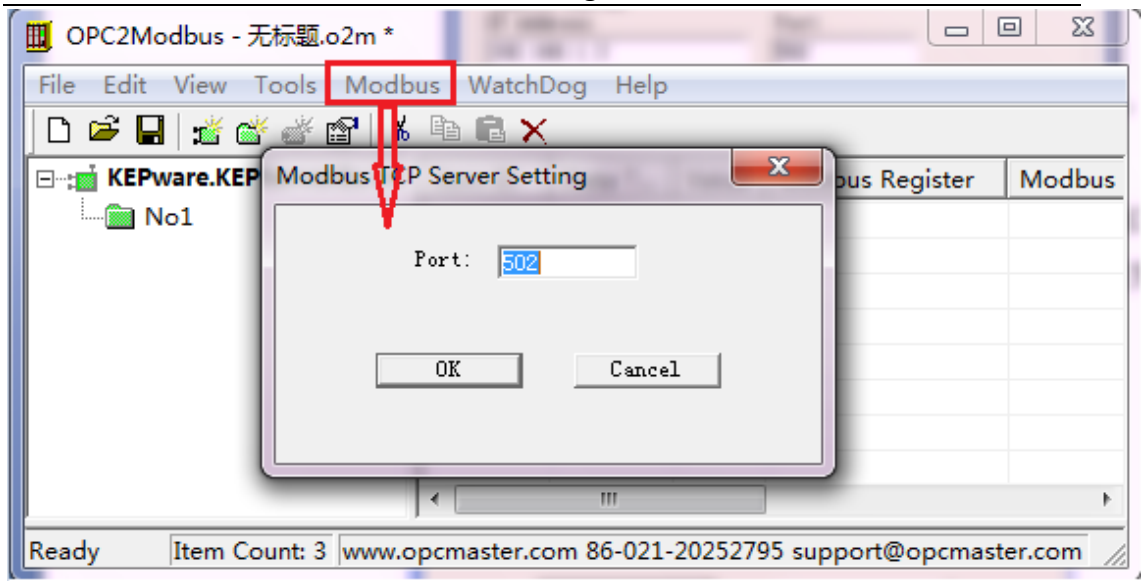


Fig. 14 ModbusTCP parameter setting

3.2.2 Modbus poll Testing

Third party software Modbus Poll visit Modbus slave to gain data of OPCServer same value both OPC2Modbus and Modbus Poll

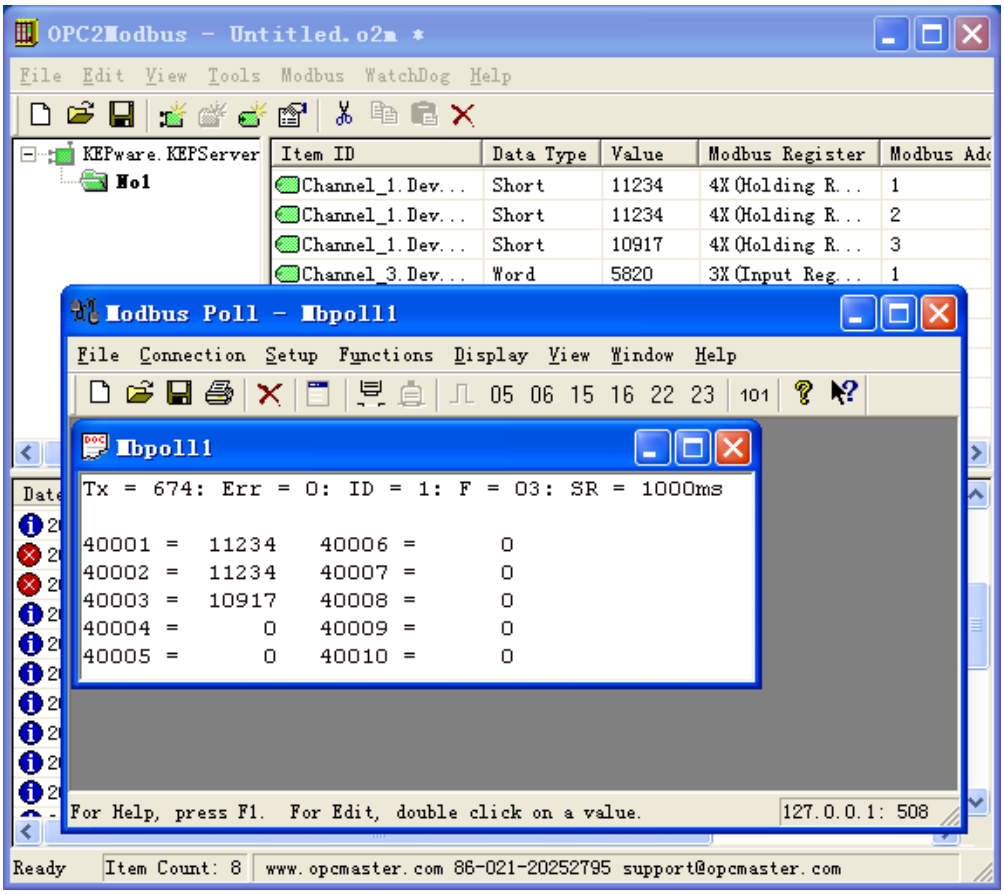


Fig. 15 Configuration is successful

Datatype and Modbus register No. as below：

Item	Datatype	Modbus Register No.
1	BOOL	1
2	Short	1
3	WORD	1
4	Int or long	2
5	DWORD	2
6	Float	2
7	Double	4

Remark: some configuration software is not support Double,in this case we select OPC2Modbus-tool-Convert Double to Float.

3.3 Save Project file

Save Project file as below Fig. 16:

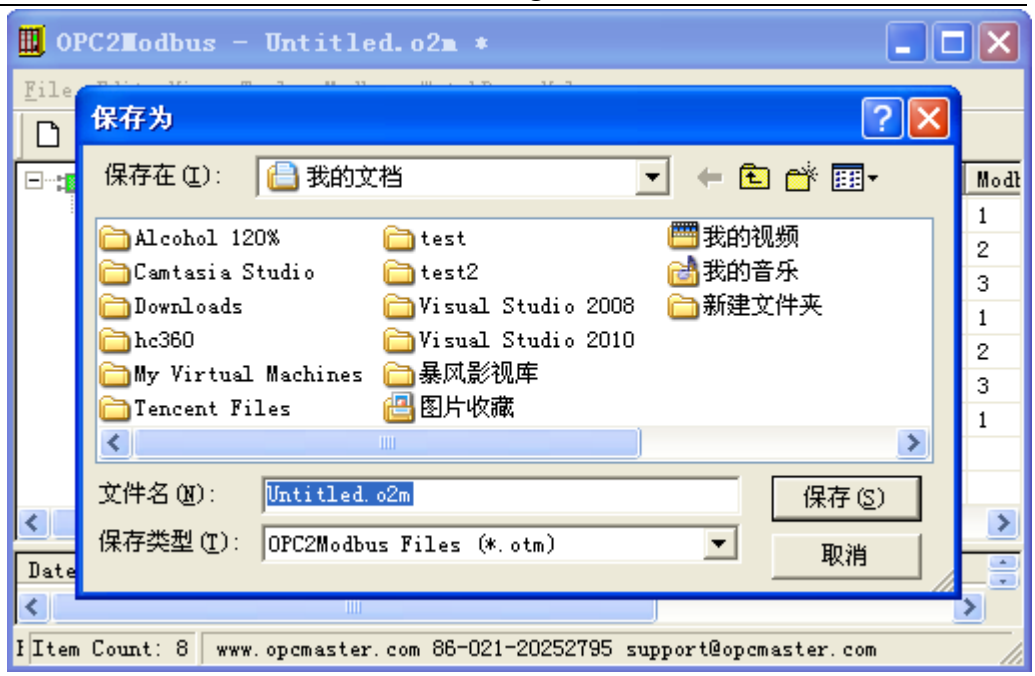


Fig. 16 Save project

3.4 Import and Export tags

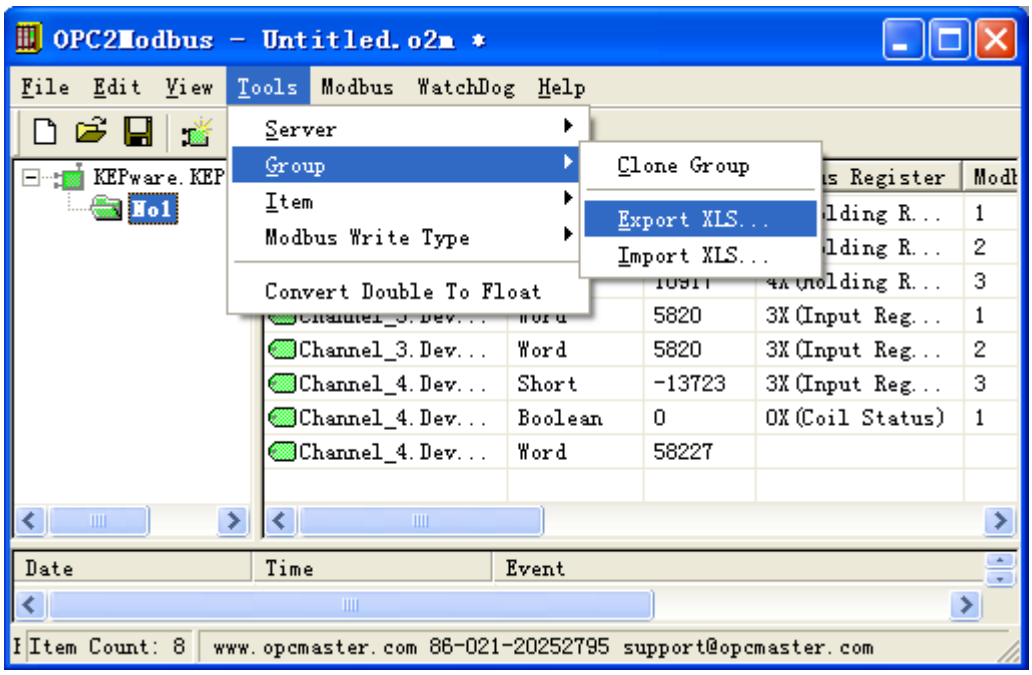
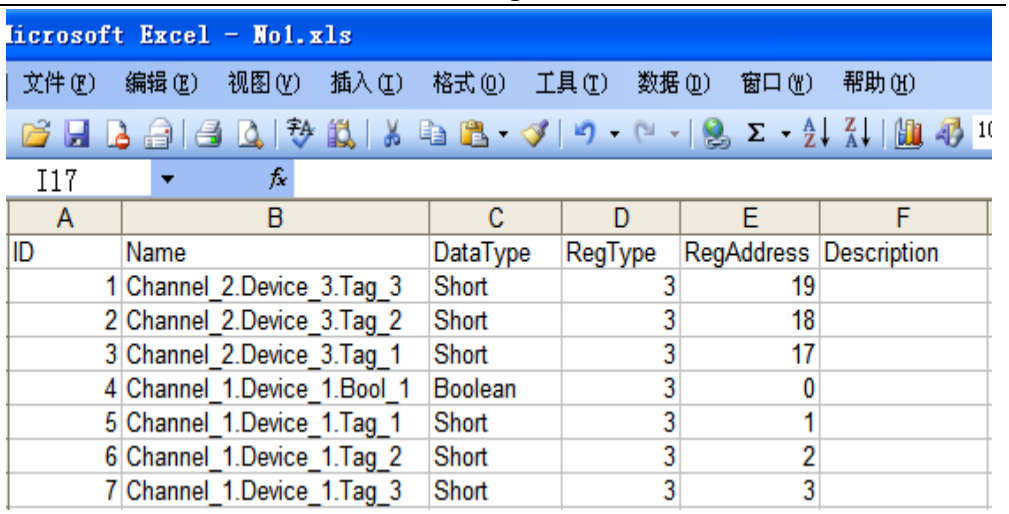


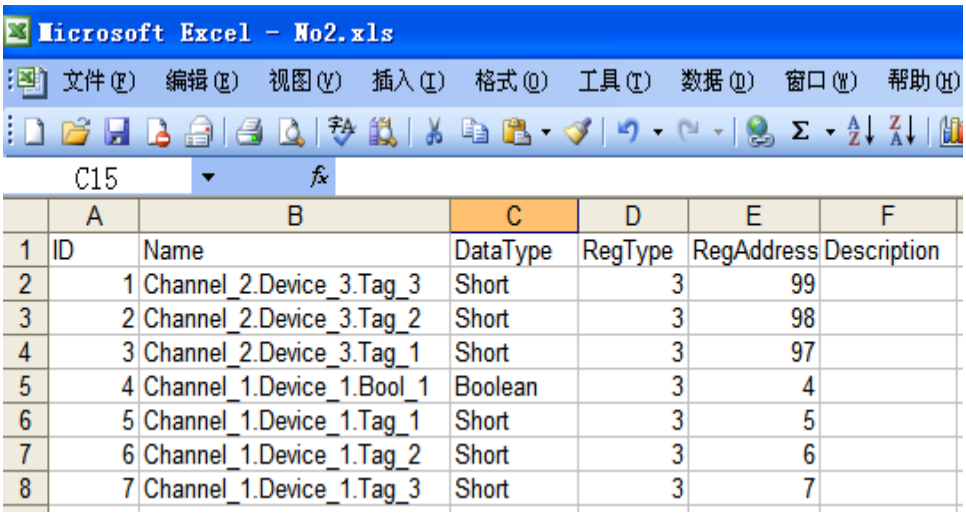
Fig. 17 Export XLS

3.5 Open exported files by Excel EXCEL, import file to the software.



A	B	C	D	E	F
ID	Name	DataType	RegType	RegAddress	Description
1	Channel_2.Device_3.Tag_3	Short	3	19	
2	Channel_2.Device_3.Tag_2	Short	3	18	
3	Channel_2.Device_3.Tag_1	Short	3	17	
4	Channel_1.Device_1.Bool_1	Boolean	3	0	
5	Channel_1.Device_1.Tag_1	Short	3	1	
6	Channel_1.Device_1.Tag_2	Short	3	2	
7	Channel_1.Device_1.Tag_3	Short	3	3	

Fig. 18 Export file



	A	B	C	D	E	F
1	ID	Name	DataType	RegType	RegAddress	Description
2	1	Channel_2.Device_3.Tag_3	Short	3	99	
3	2	Channel_2.Device_3.Tag_2	Short	3	98	
4	3	Channel_2.Device_3.Tag_1	Short	3	97	
5	4	Channel_1.Device_1.Bool_1	Boolean	3	4	
6	5	Channel_1.Device_1.Tag_1	Short	3	5	
7	6	Channel_1.Device_1.Tag_2	Short	3	6	
8	7	Channel_1.Device_1.Tag_3	Short	3	7	

Fig.19 Edit file

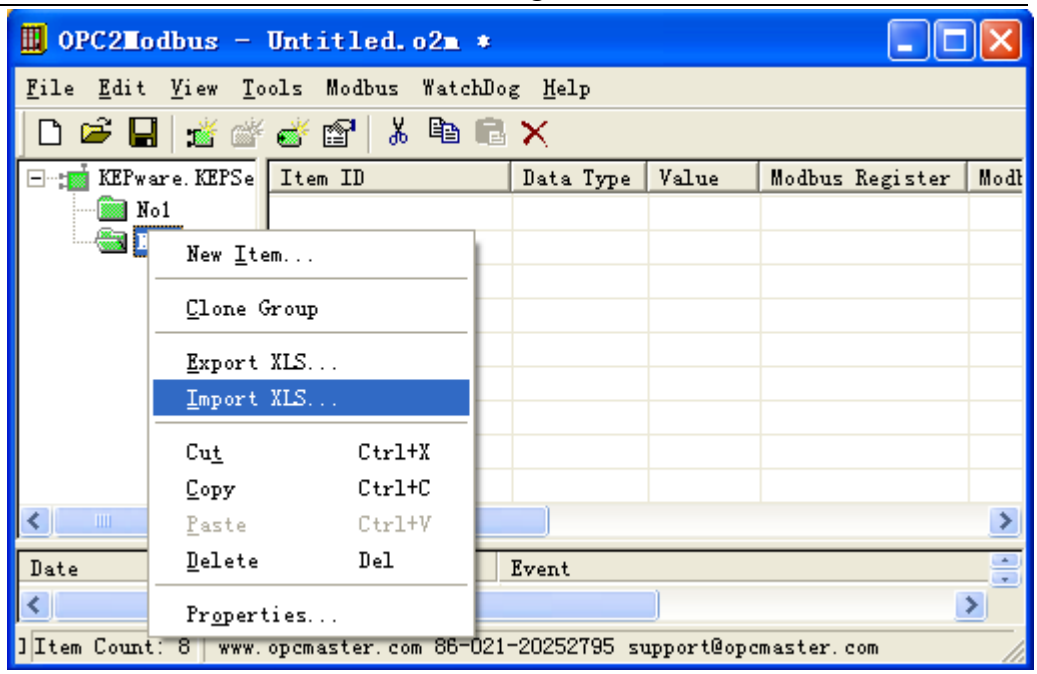


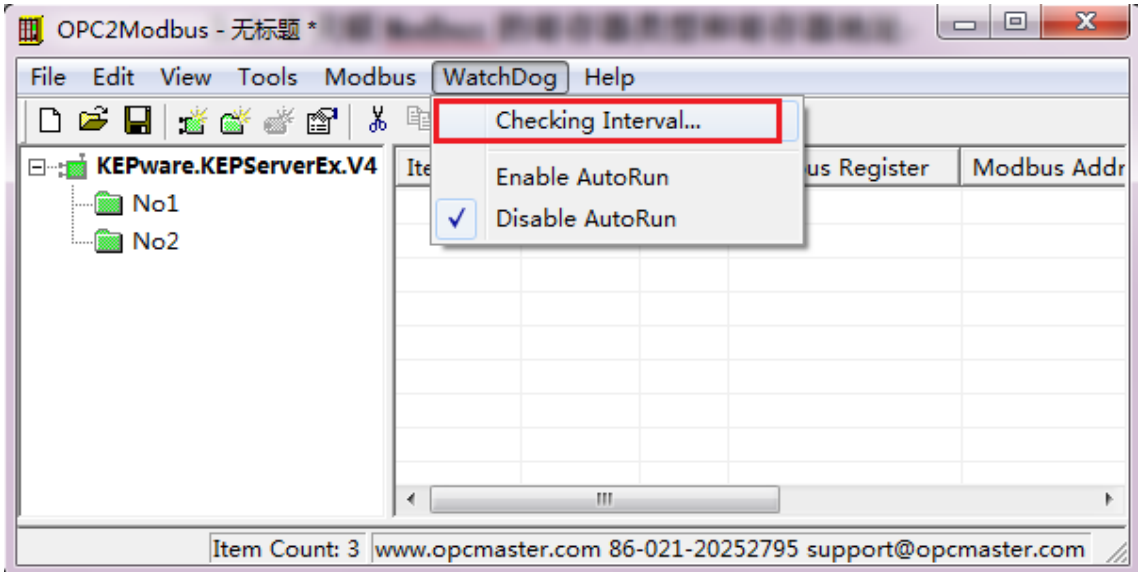
Fig. 20 Import XLS

4 USB-key dongle

When we plug in USB-key dongle, the OPC2Modbus will show “Welcome to use licenced version”.

5 SFWatchDog.exe

When OPCBridge.exe has been closed unexpectly, SFWatchDog will help to restart again. We will setting up as ourneeds as below Fig. 21:



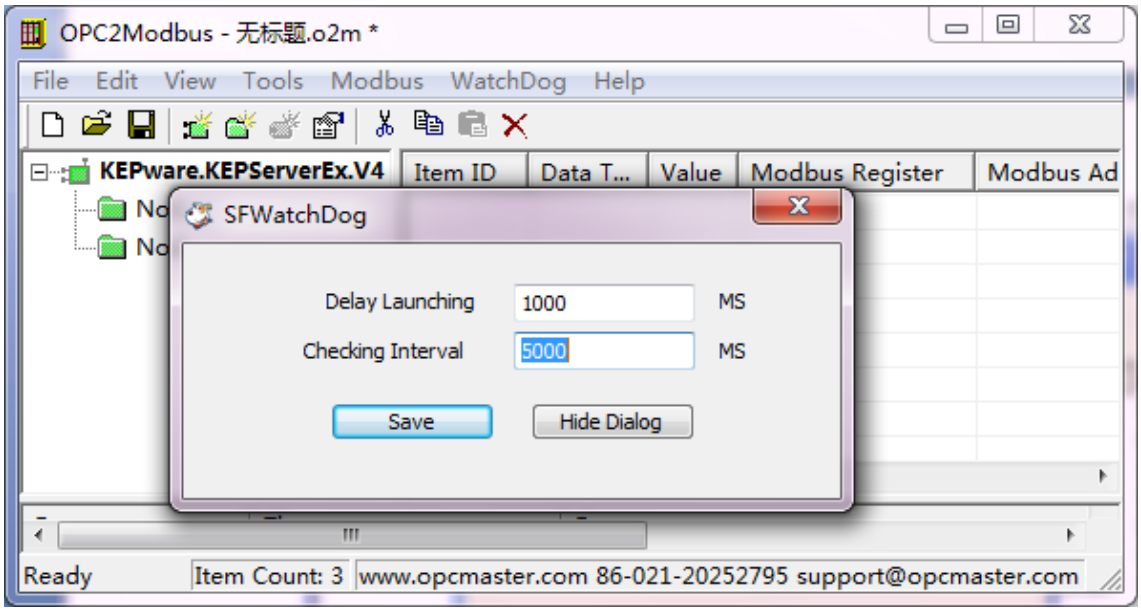
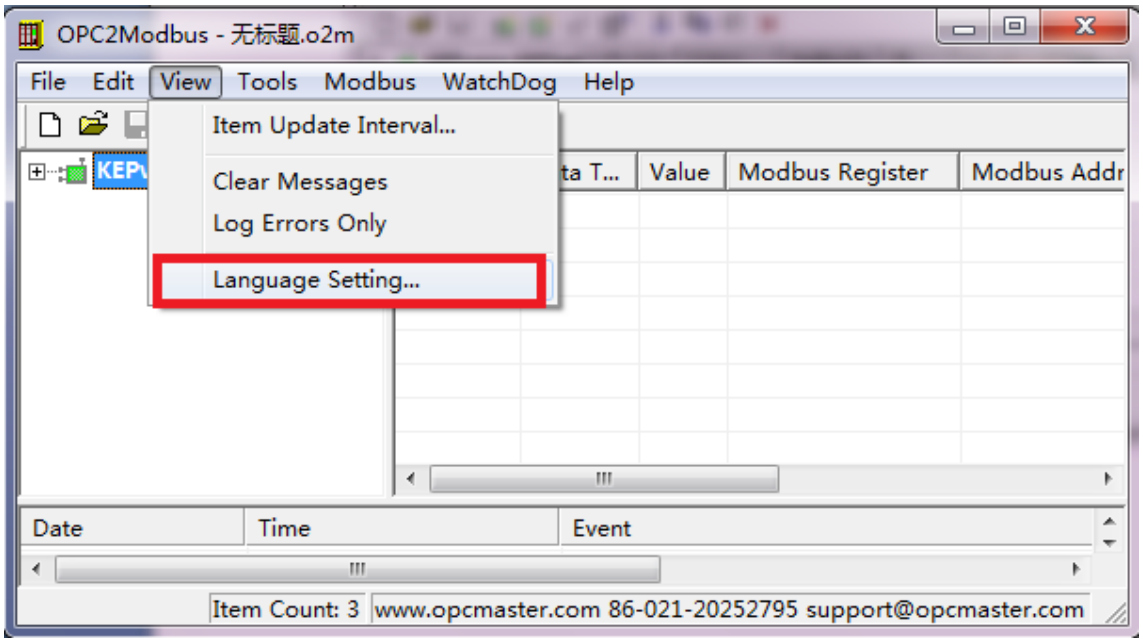


Fig. 21 Setting SFWatchdog

6 language setting

Supported language is Chinese and English , click View select Language from dialogue box. If the customer need other language, please contact us .



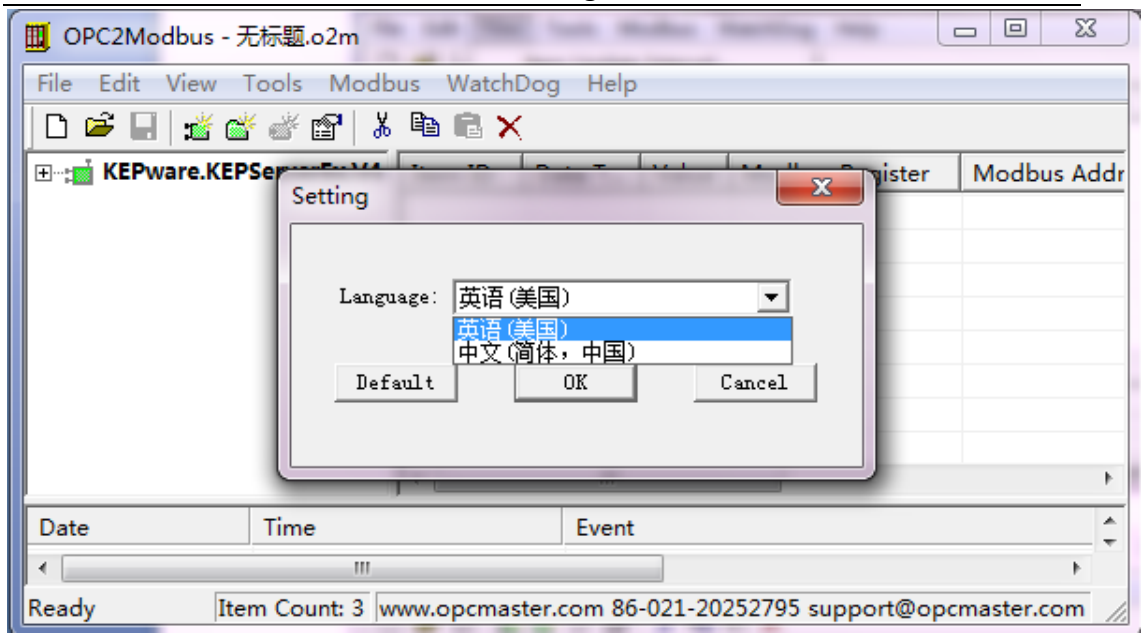


Fig. 22 Setting Language