

RSVIEW SE 读写网关 BT-EN-XXX 系列 内部数据手册

BEACON GLOBAL TECHNOLOGY



目录

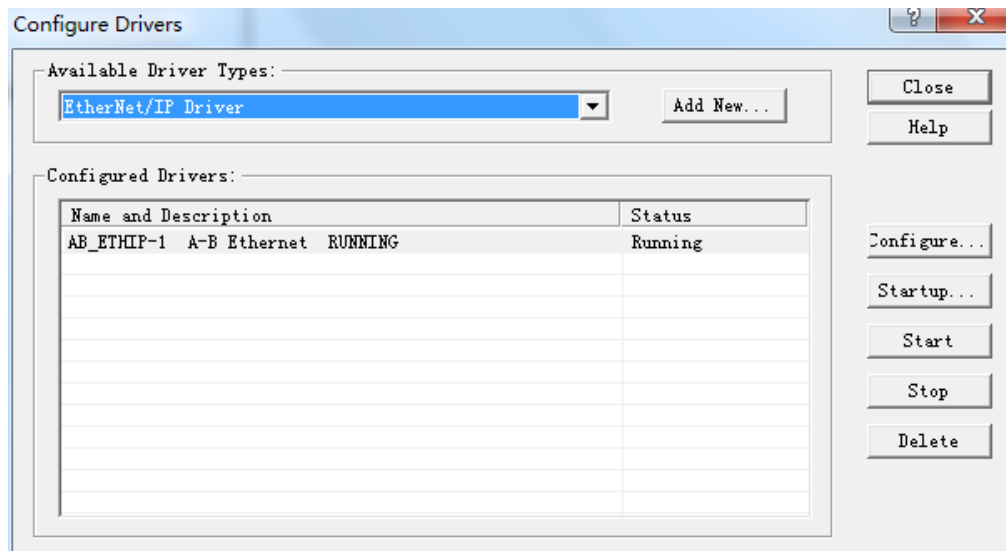
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BT-EN-XXX简介:

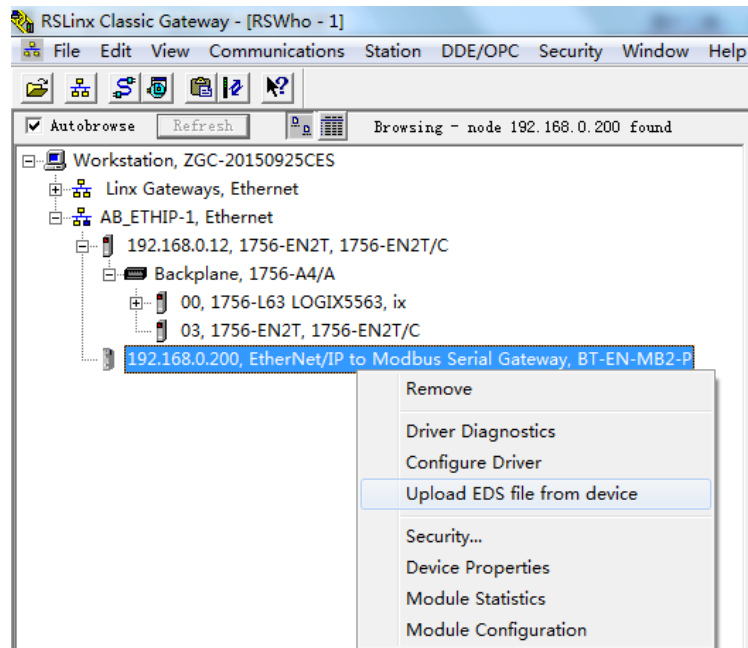
BT-EN-XXX系列是连接罗克韦尔PLC，EtherNet/IP通讯协议的网关，其中EN代表的是EtherNet/IP通讯协议，有些不需要PLC操作读写的数据可以直接送到RSVIEW SE上位机软件里面。

一: RSLINX 配置网关

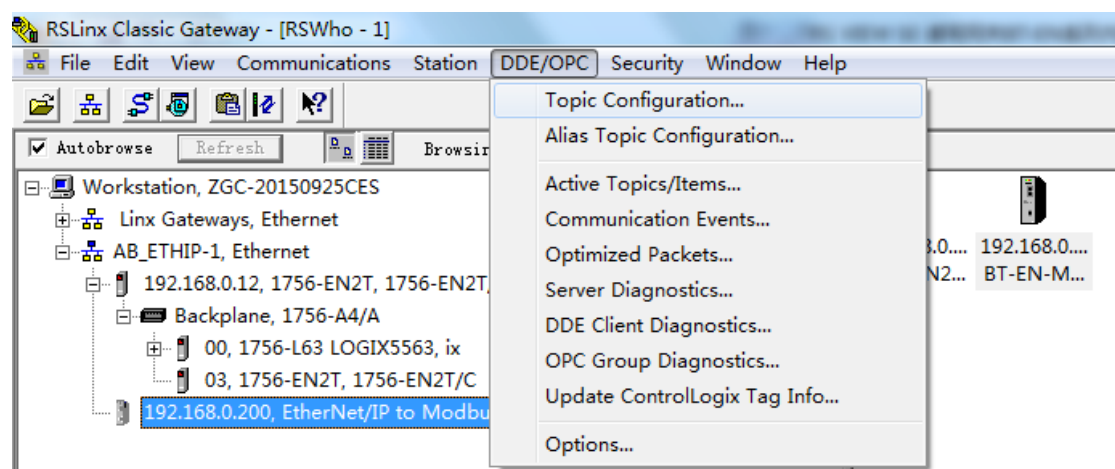
1. 建立以太网驱动，选择 Ethernet devices 配置 IP 地址



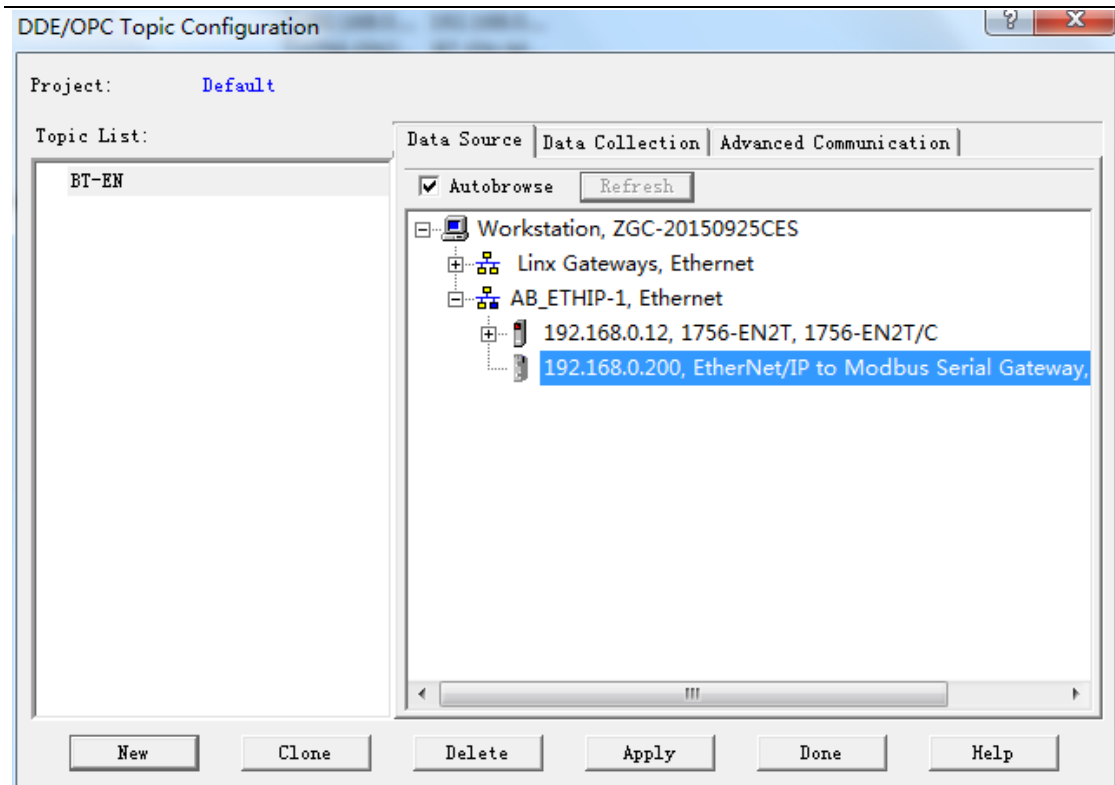
2. 开始时显示黄色的问号，点击从设备上传 EDS 文件。



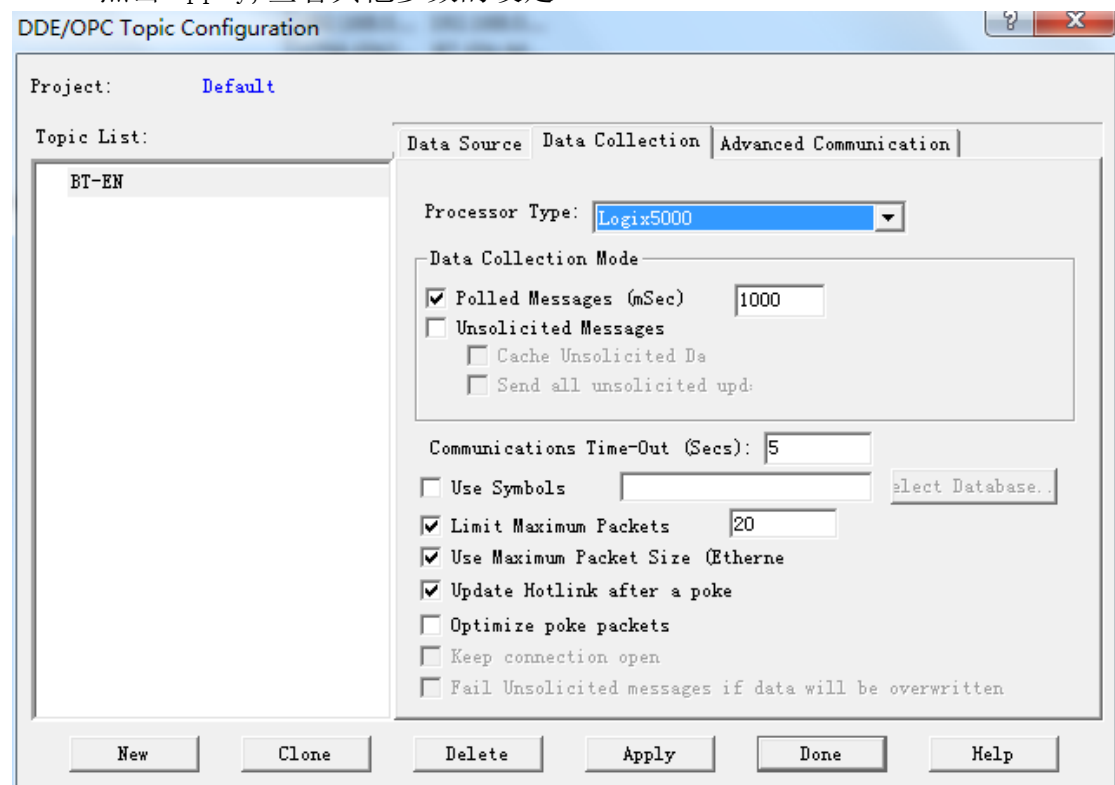
3. 配置 DDE/OPC 驱动，点击 Topic Configuration.

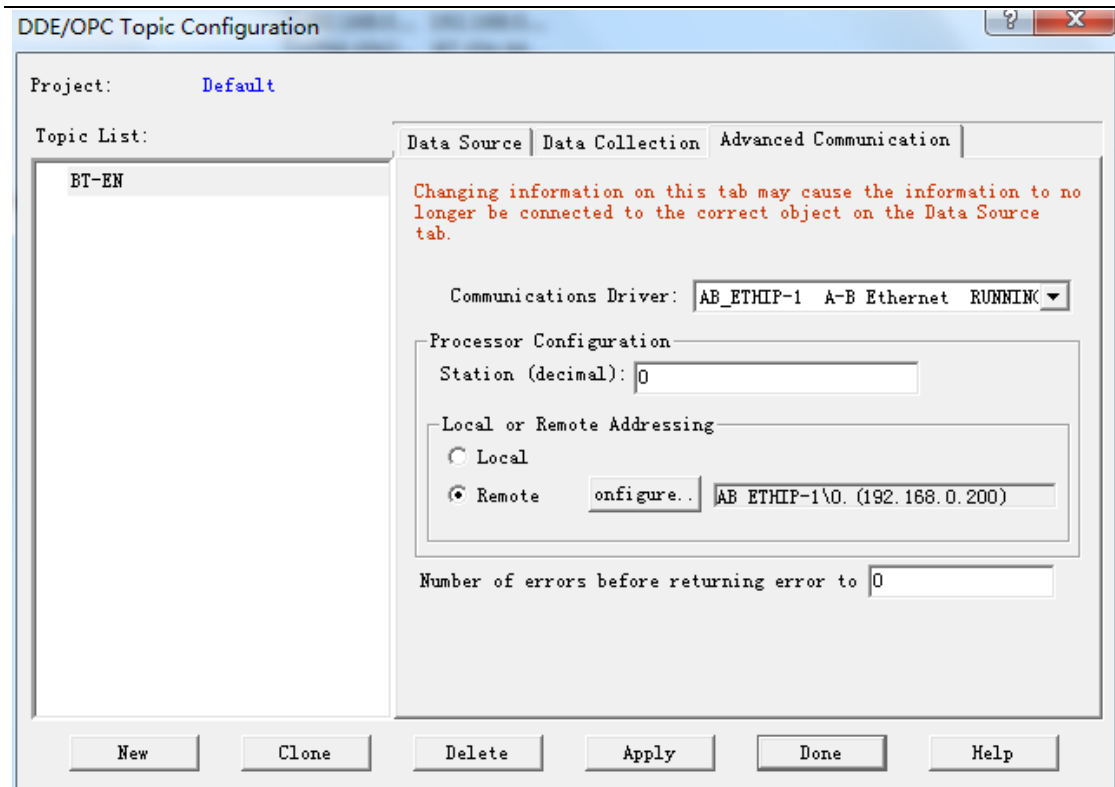


4. 新建一个项目 BT-EN，指定到 192.168.0.200 的网关上



5. 点击 Apply, 查看其他参数的设定

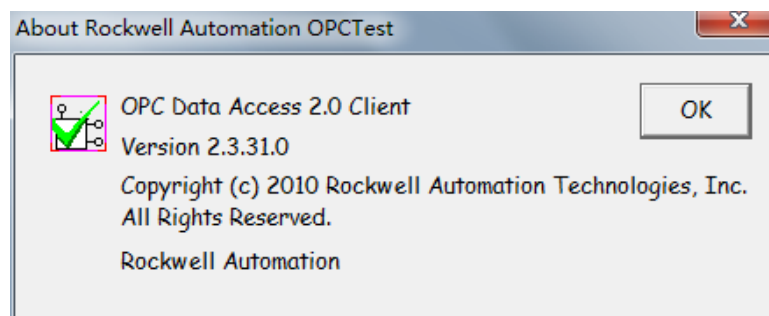




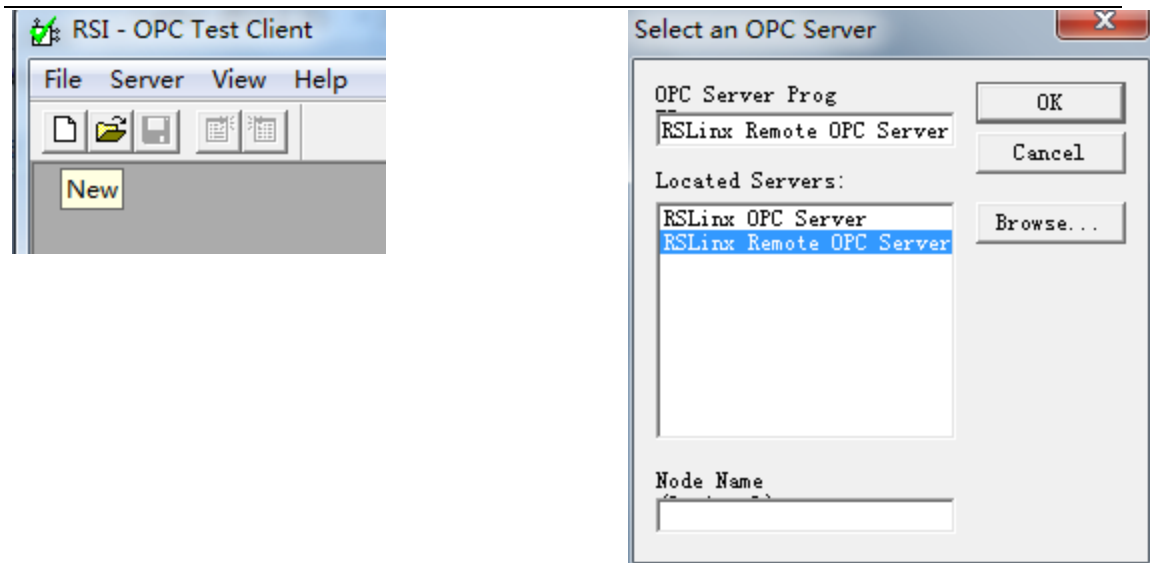
6. 打开测试工具 OPC Test Client, 这个工具随着 RSLINX 自带, 这个工具只是测试工具。不需要建立全部的数据点。



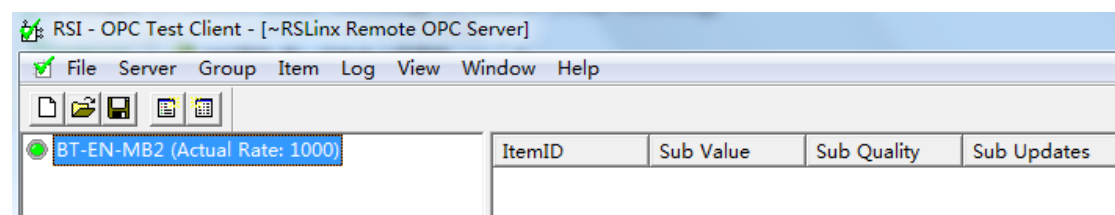
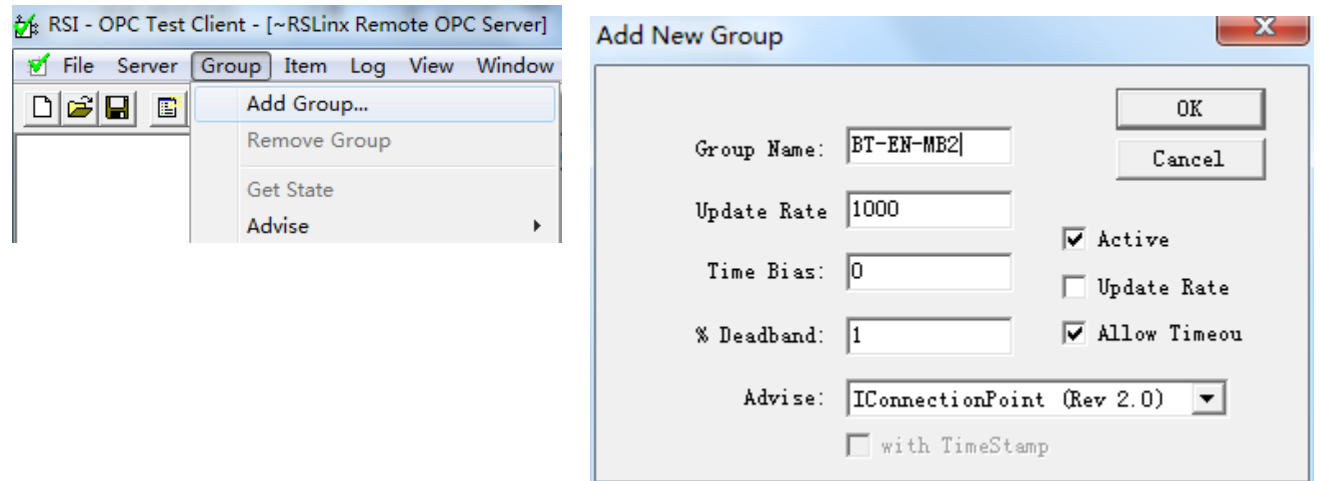
OPC Test Client



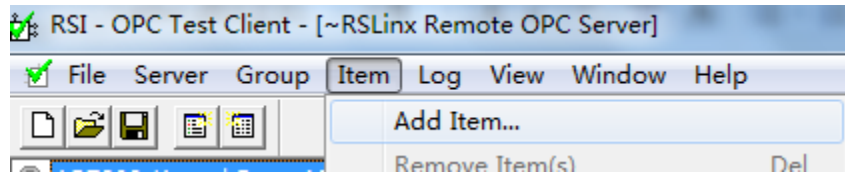
7. 配置 OPC Test Client, 新建一个项目, 选择 Remote OPC Server



8. 添加一个 Group, 起一个名字, 点击 OK 。



9. 添加一个 Item。



建立测试点

BOOL

SINT

INT

DINT

REAL

对应关系说明

Internal Data	OPC_BOOL	OPC_SINT	OPC_INT	OPC_DINT	OPC_REAL
内部数据库地址	布尔量地址	单整型地址	整型地址	双整型地址	浮点型地址
16 位	1 位	8 位	16 位	32 位	32 位
0	booltag[0]	sinttag[0]	inttag[0]	dinttag[0]	realtag[0]
998	booltag[15968]	sinttag[1996]	inttag[998]	dinttag[499]	realtag[499]
1000	booltag[16000]	sinttag[2000]	inttag[1000]	dinttag[500]	realtag[500]
1998	booltag[31968]	sinttag[3996]	inttag[1998]	dinttag[999]	realtag[999]
2500	booltag[40000]	sinttag[5000]	inttag[2500]	dinttag[1250]	realtag[1250]
5000	booltag[80000]	sinttag[10000]	inttag[5000]	dinttag[2500]	realtag[2500]
10000	booltag[160000]	sinttag[20000]	inttag[10000]	dinttag[5000]	realtag[5000]
内部地址	内部地址 × 16	内部地址 × 2	内部地址	内部地址 ÷ 2	内部地址 ÷ 2

10. 点击 Add Item 添加测试点，添加完后点 OK.

Add New OPC Item

Items to be Added INTTAG[0]	Attributes Access: BT-EN Item Name: INTTAG[0] Active: <input checked="" type="checkbox"/> Datatype: VT_EMPTY Array: <input type="checkbox"/> Access:	OK Cancel Add Item Validate Item Properties
---------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------

Datatype: Native ☐ Array Filter: * Access: All Items

RSLink Remote OPC Server (Node: <Local>)	RSLink Remote OPC Server (Node: <Local>)
------------------------------------------	------------------------------------------

You can add items using this dialog. Click on validate items if you wish to check your items against the server before adding them. Results will be displayed from this

Add New OPC Item

Items to be Added INTTAG[2500]	Attributes Access: BT-EN Item Name: INTTAG[2500] Active: <input checked="" type="checkbox"/> Datatype: VT_EMPTY Array: <input type="checkbox"/> Access:	OK Cancel Add Item Validate Item Properties
------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------

Datatype: Native ☐ Array Filter: * Access: All Items

RSLink Remote OPC Server (Node: <Local>)	RSLink Remote OPC Server (Node: <Local>)
------------------------------------------	------------------------------------------

You can add items using this dialog. Click on validate items if you wish to check your items against the server before adding them. Results will be displayed from this

Add New OPC Item

Items to be Added INTTAG[5000]	Attributes Access: BT-EN Item Name: INTTAG[5000] Active: <input checked="" type="checkbox"/> Datatype: VT_EMPTY Array: <input type="checkbox"/> Access:	OK Cancel Add Item Validate Item Properties
------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------

Datatype: Native ☐ Array Filter: * Access: All Items

RSLink Remote OPC Server (Node: <Local>)	RSLink Remote OPC Server (Node: <Local>)
------------------------------------------	------------------------------------------

You can add items using this dialog. Click on validate items if you wish to check your items against the server before adding them. Results will be displayed from this

Add New OPC Item

Items to be Added BOOLTAG[40000]	Attributes Access: BT-EN Item Name: BOOLTAG[40000] Active: <input checked="" type="checkbox"/> Datatype: VT_EMPTY Array: <input type="checkbox"/> Access: Read / Write	OK Cancel Add Item Validate Item Properties
--------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------

Datatype: Native ☐ Array Filter: * Access: All Items

RSLink Remote OPC Server (Node: <Local>)	RSLink Remote OPC Server (Node: <Local>)
------------------------------------------	------------------------------------------

You can add items using this dialog. Click on validate items if you wish to check your items against the server before adding them. Results will be displayed from this

Add New OPC Item

<p>Items to be Added</p> <p>SINTTAG[5000]</p>	<p>Attributes</p> <p>Access: BT-EN</p> <p>Item Name: SINTTAG[5000]</p> <p>Active: <input checked="" type="checkbox"/></p> <p>Datatype: VT_EMPTY</p> <p>Array: <input type="checkbox"/></p> <p>Access: Read / Write</p>	<p>OK</p> <p>Cancel</p> <p>Add Item</p> <p>Validate</p> <p>Item Properties</p>
-----------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------

Datatype: Native ☐ Array filter: * Access: All Items

RSLink Remote OPC Server (Node: <Local>)

RSLink Remote OPC Server (Node: <Local>)

You can add items using this dialog. Click on validate items if you wish to check your items against the server before adding them. Results will be displayed from this

Add New OPC Item

<p>Items to be Added</p> <p>DINTTAG[1250]</p>	<p>Attributes</p> <p>Access: BT-EN</p> <p>Item Name: DINTTAG[1250]</p> <p>Active: <input checked="" type="checkbox"/></p> <p>Datatype: VT_EMPTY</p> <p>Array: <input type="checkbox"/></p> <p>Access:</p>	<p>OK</p> <p>Cancel</p> <p>Add Item</p> <p>Validate</p> <p>Item Properties</p>
-----------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------

Datatype: Native ☐ Array filter: * Access: All Items

RSLink Remote OPC Server (Node: <Local>)

RSLink Remote OPC Server (Node: <Local>)

You can add items using this dialog. Click on validate items if you wish to check your items against the server before adding them. Results will be displayed from this

Add New OPC Item

Items to be Added

REALTAG[1250]

Attributes

Access: BT-EN

Item Name: REALTAG[1250]

Active: ☒

Datatype: VT_EMPTY

Array: ☐

Access: Read / Write

OK

Cancel

Add Item

Validate

Item Properties

Datatype: Native ☐ Array filter: * Access: All Items

RSLink Remote OPC Server (Node: <Local>)

RSLink Remote OPC Server (Node: <Local>)

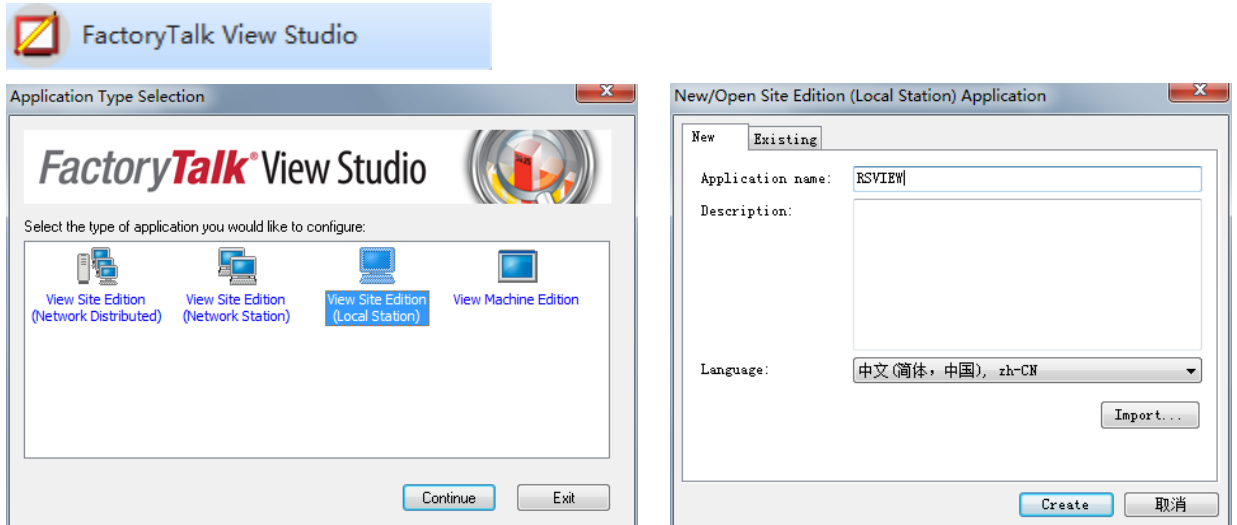
You can add items using this dialog. Click on validate items if you wish to check your items against the server before adding them. Results will be displayed from this

ItemID	Sub Value	Sub Quality	Sub Updates	Update Rate	Run. Avg
INTTAG[0]	0	Good	1	0	0.000304
INTTAG[2500]	0	Good	1	0	0.000328
INTTAG[5000]	12012	Good	2933	1	0.997212
BOOLTAG[40000]	0	Good	2546	1	0.998769
SINTTAG[5000]	0	Good	116	1	0.987379
DINTTAG[1250]	0	Good	1	0	0.013833
REALTAG[1250]	0	Good	1	0	0.053911

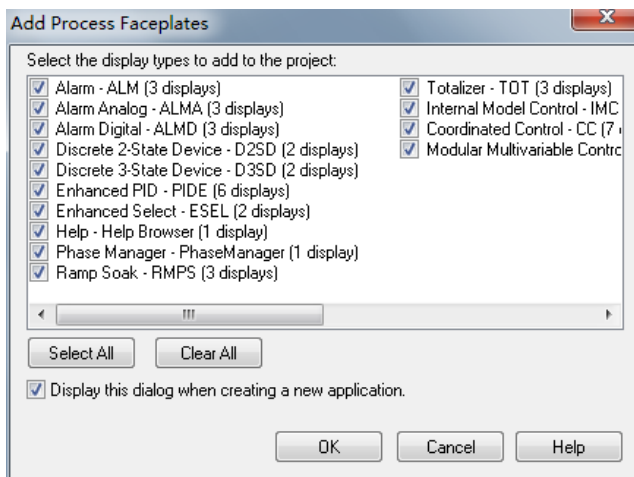
11. 测试点的状态位是 Good ，表示数据 OK。

二：RSVIEW SE 配置

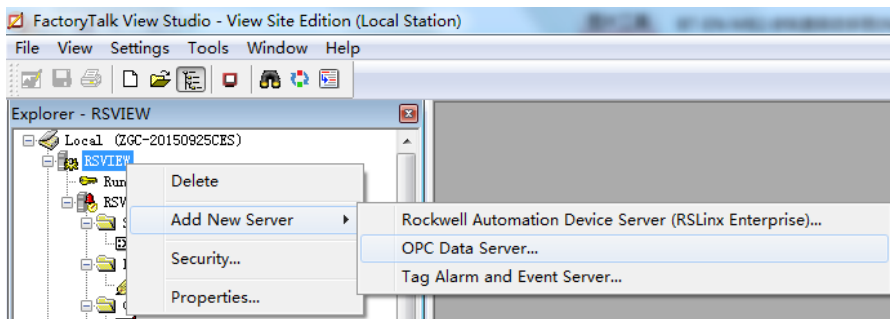
1. 新建 SE 项目，打开 RSVIEW SE 软件，建立一个项目。



2. 弹出如图所示界面, 点击 OK。

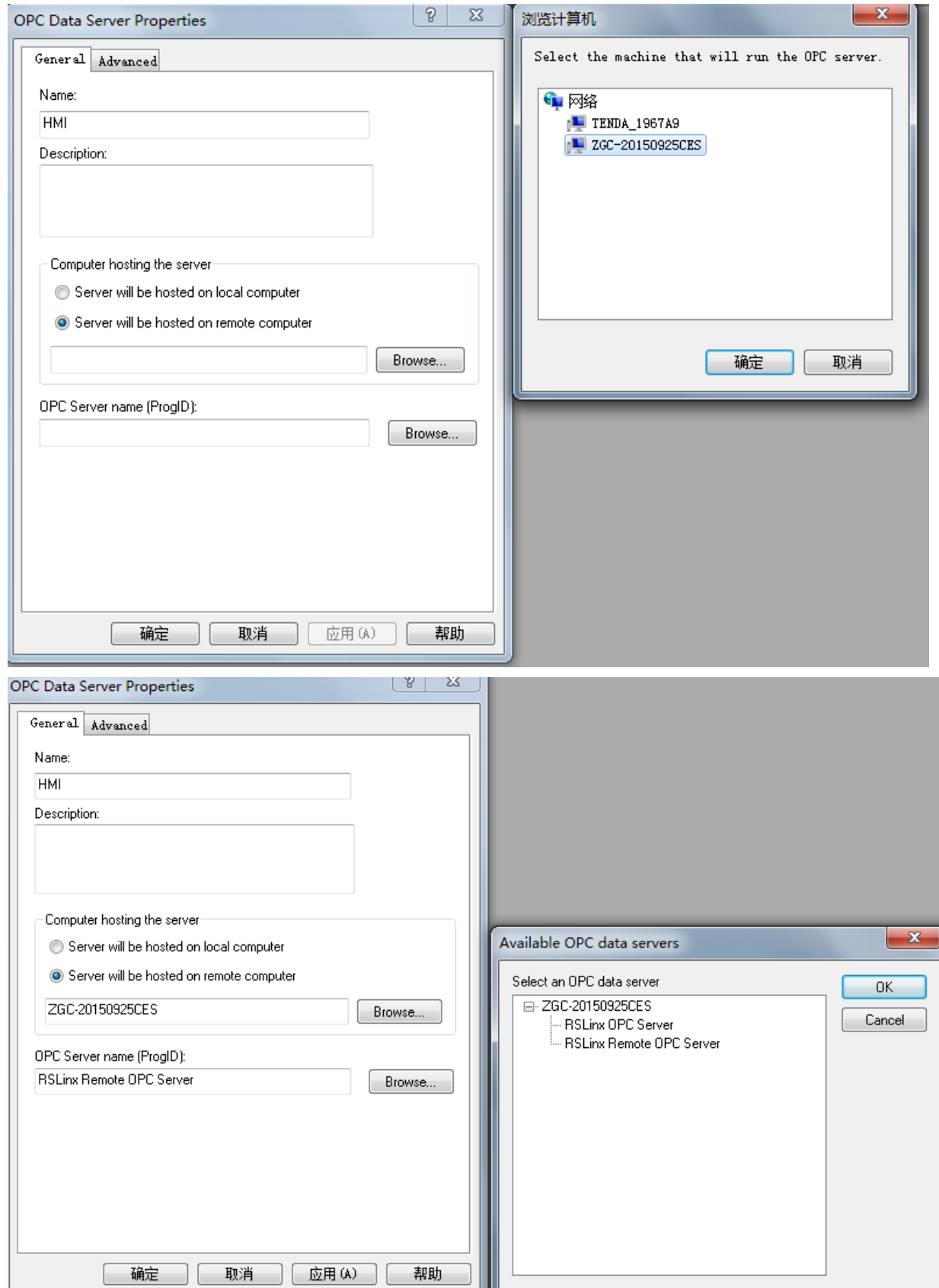


3. 配置通讯。右键单击, 弹出菜单中选择“创建新的服务器”, 然后选择 OPC Data Server。

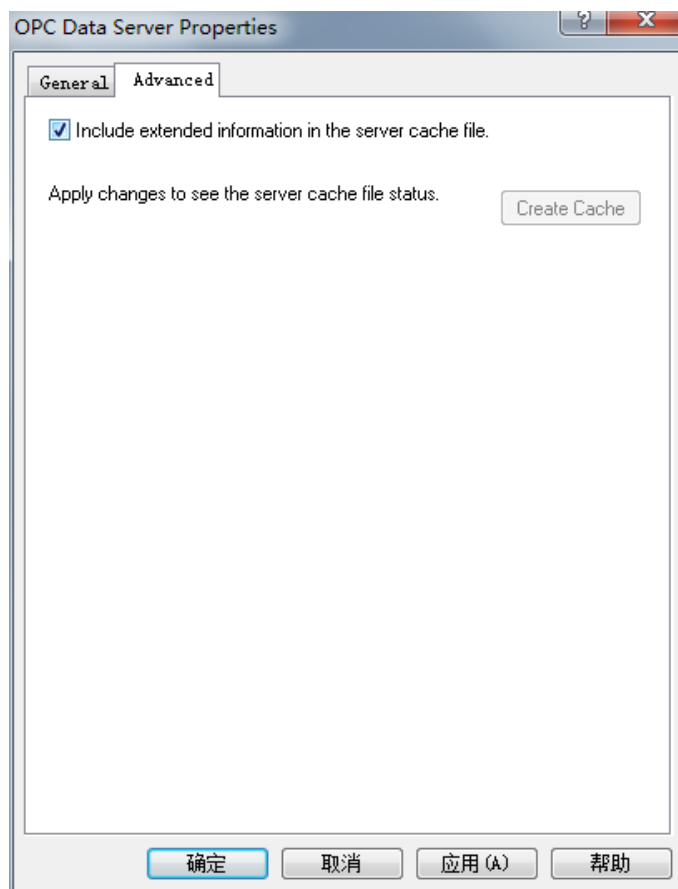


4. 如下图所示, 创建名字后, 选择远程电脑, 并选择 OPC 名字。 示例中 ZGC-20150925CES 是所使用电脑的名字, 单击选择后点击确定, 选择要连接

的 OPC Server name, 选择远程 OPC.

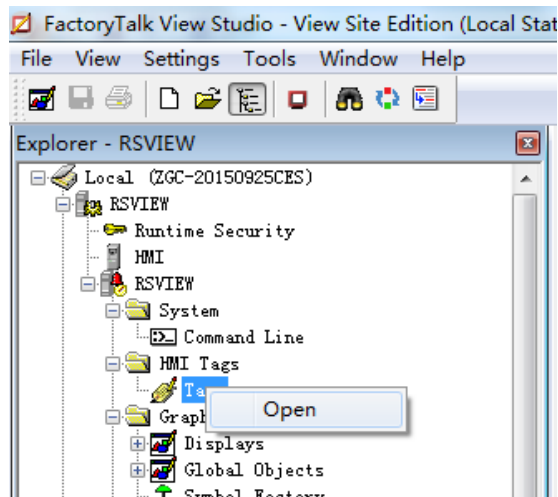


5. 增加选项里勾选包括扩展服务器缓存文件中的信息, 点击确定。



6. 配置标签。

右键点击 TAGS，创建标签名字 HMI_BOOL，选择数字量 Digital，点击 Accept 建立标签。按照相同方法创建其他数据类型。



Tags - /RSVIEW/

Tag

Name:

Type: Security:

Description:

Off Label: On Label:

Data Source

Type: ☒ Device ☐ Memory

Address:

Close Prev Next New Help Alarm...

Search For:

system

Alm	Tag Name	Type	Description
1	HMI_BOOL40000	Digital	
2	HMI_SINT5000	Analog	
3	HMI_INT0	Analog	
4			

Tags - /RSVIEW/

Tag

Name:

Type: Security:

Description:

Minimum: Scale: Units:

Maximum: Offset: Data Type:

Data Source

Type: ☒ Device ☐ Memory

Address:

Close Prev Next New Help Alarm...

Search For:

system

Alm	Tag Name	Type	Description
1	HMI_BOOL40000	Digital	
2	HMI_SINT5000	Analog	
3	HMI_INT0	Analog	
4			

Tags - /RSVIEW/

Tag

Name: HMI_INT0

Type: Analog Security: *

Description:

Minimum: -32768 Scale: 1 Units:

Maximum: 32767 Offset: 0 Data Type: (Default)

Data Source

Type: ☒ Device ☐ Memory

Address: [BT-EN]INTTAG[0]

Close Accept Discard New Help Alarm...

Search For:

system

Alm	Tag Name	Type	Description
1	HMI_BOOL40000	Digital	
2	HMI_SINT5000	Analog	
3			

Tags - /RSVIEW/

Tag

Name: HMI_INT2500

Type: Analog Security: *

Description:

Minimum: -32768 Scale: 1 Units:

Maximum: 32767 Offset: 0 Data Type: (Default)

Data Source

Type: ☒ Device ☐ Memory

Address: [BT-EN]INTTAG[2500]

Close Prev Next New Help Alarm...

Search For:

system

Alm	Tag Name	Type	Description
1	HMI_BOOL40000	Digital	
2	HMI_SINT5000	Analog	
3	HMI_INT0	Analog	
4	HMI_INT2500	Analog	
5	HMI_DINT1250	Analog	
6			

Tags - /RSVIEW/

Tag

Name: HMI_DINT1250

Type: Analog Security: *

Description:

Minimum: -2147483648 Scale: 1 Units:

Maximum: 2147483647 Offset: 0 Data Type: (Default)

Data Source

Type: ☒ Device ☐ Memory

Address: [BT-EN]DINTTAG[1250]

Close Prev Next New Help Alarm...

Search For:

system

Alm	Tag Name	Type	Description
1	HMI_BOOL40000	Digital	
2	HMI_SINT5000	Analog	
3	HMI_INT0	Analog	
4	HMI_INT2500	Analog	
5	HMI_DINT1250	Analog	
6			

Tags - /RSVIEW/

Tag

Name: HMI_REAL1250

Type: Analog Security: *

Description:

Minimum: 0 Scale: 1 Units:

Maximum: 10000 Offset: 0 Data Type: (Default)

Data Source

Type: ☒ Device ☐ Memory

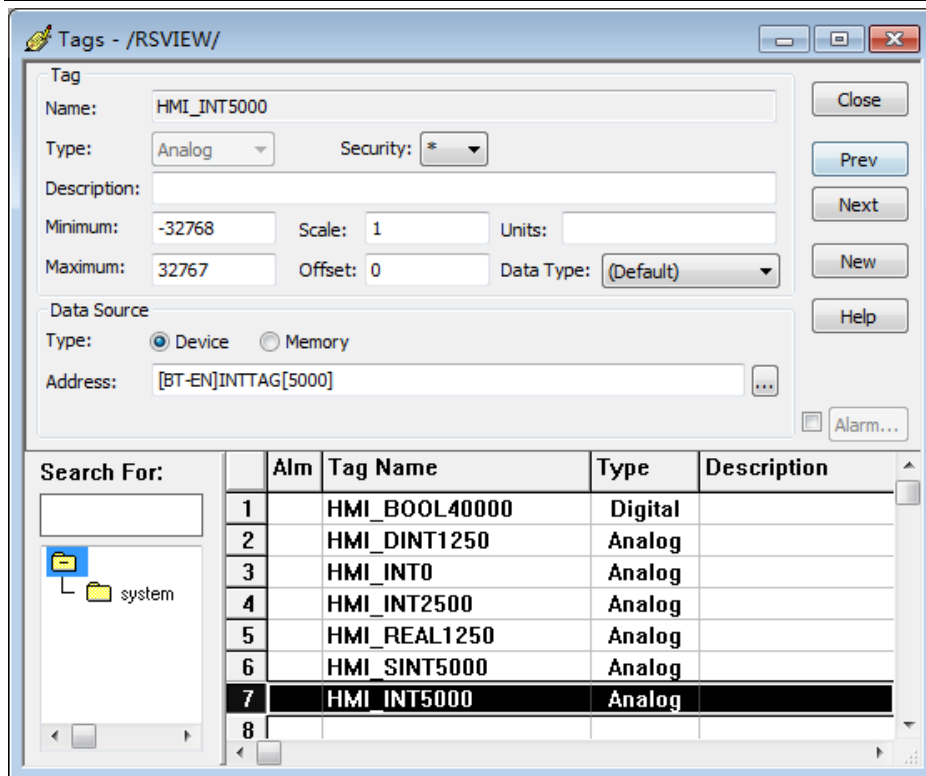
Address: [BT-EN]REALTAG[1250]

Close Prev Next New Help Alarm...

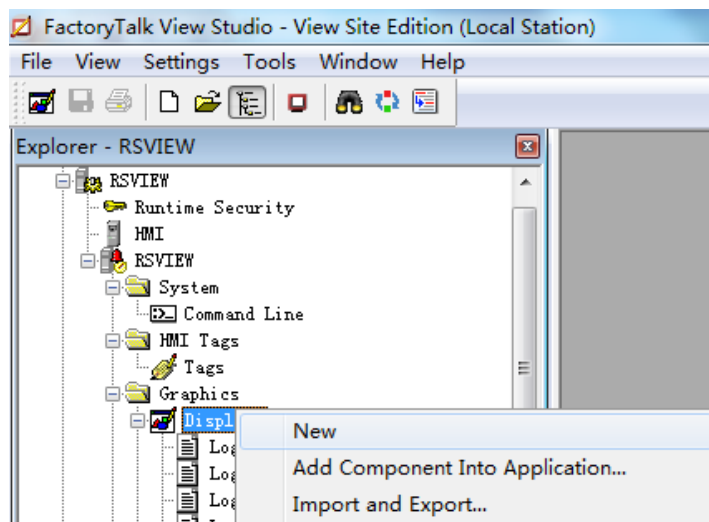
Search For:


system

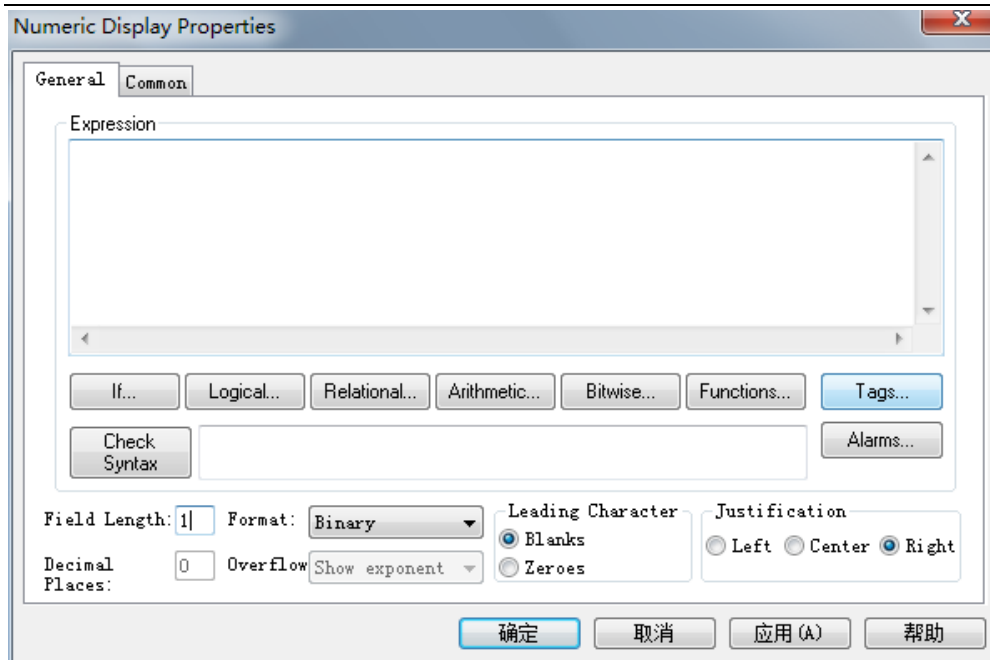
Alm	Tag Name	Type	Description
1	HMI_BOOL40000	Digital	
2	HMI_SINT5000	Analog	
3	HMI_INT0	Analog	
4	HMI_INT2500	Analog	
5	HMI_DINT1250	Analog	
6	HMI_REAL1250	Analog	
7			



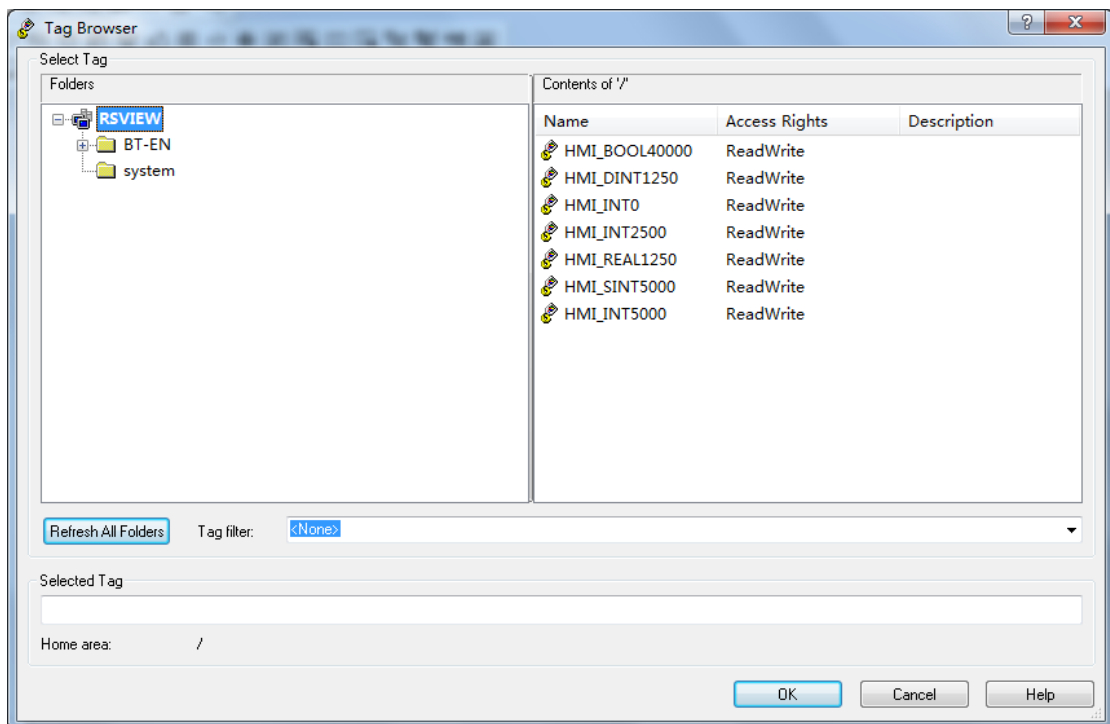
7. 新建一个显示的画面点击 New.



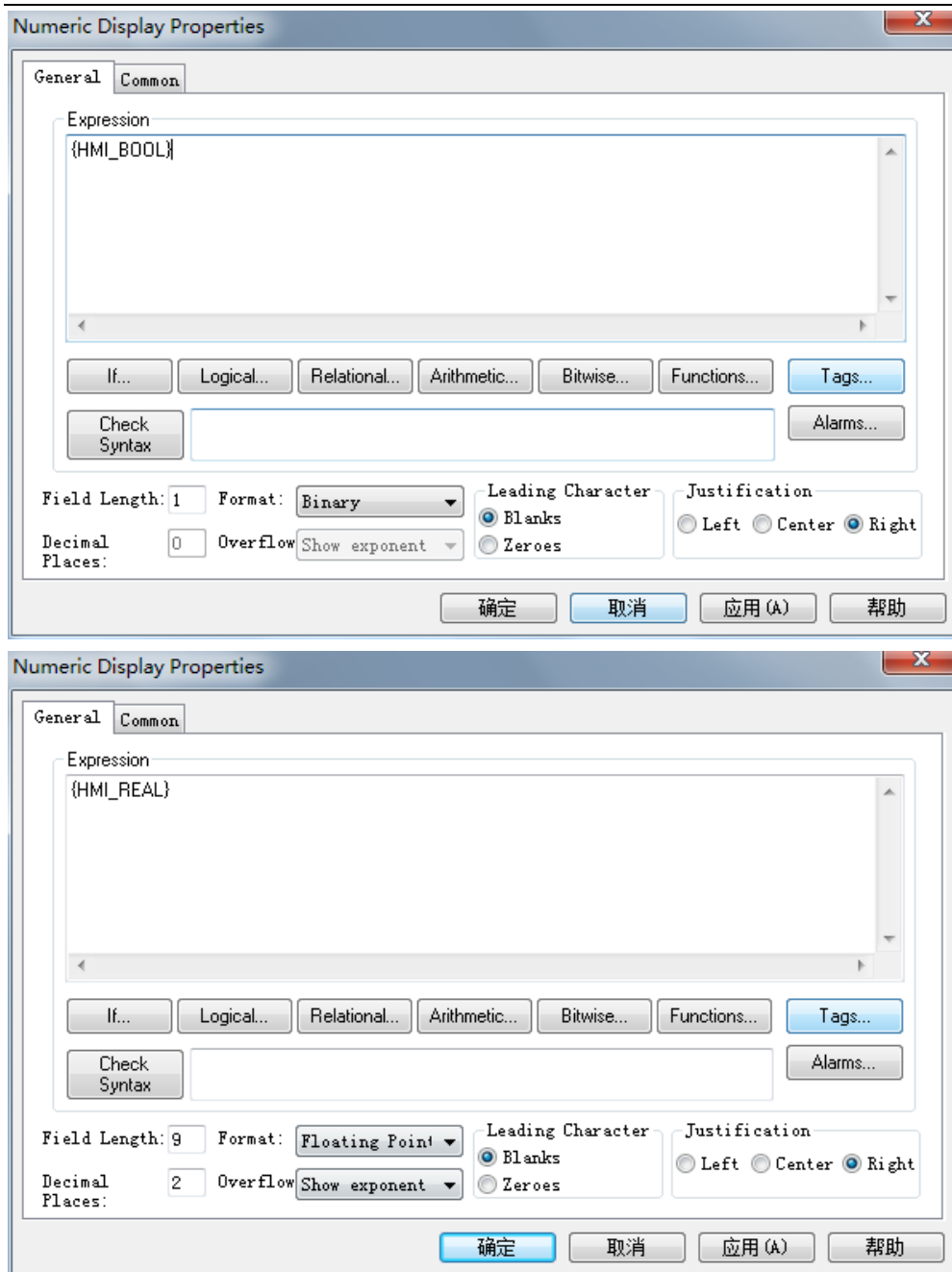
 使用显示数据的标志
建立位显示



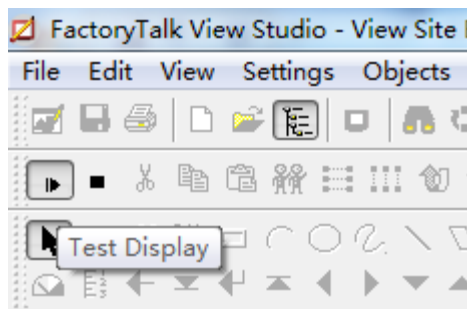
8. 建立其他显示，点击 Tags... 选择之前建立的标签。



9. 选择位的标签点。可按照此方法连接其它数据格式。



10. 点击测试显示。



举例说明：如果通过 MODBUS RTU 和对方 DCS 通讯，数据要求可读可写。
配置 Port 1 为 MODBUS 从站，使用仿真软件 MODSCAN 32 仿真 DCS 主站。

端口做为从站后，内部数据库 0 对应的地址为 40001

内部数据库 1 对应的地址为 40002

以此类推;::::::::::::::::::::::::;

内部数据库 0-4999 对应的 40001-44999 都可以读写。

Address	0	1	2	3
0	0	0	0	0
10	0	0	0	0
20	0	0	0	0

Home	Port	On
Module	Mode	RS485
Modbus Serial +2	Type	Slave
Port 1	Protocol	RTU
Configuration	Baud Rate	19200
Commands	Parity	None
Comm Status	Data Bits	8
Slave Status	Stop Bits	1
Command Errors	Slave ID	1
Diagnostics Log	Minimum Response Delay	100
Port 2	Holding Register Offset	0
EtherNet/IP Server	Word Input Offset	0
EtherNet/IP Client +15	Bit Input Offset	0
	Bit Output Offset	0

ModScan32 - ModSca1

File Connection Setup View Window Help

ModSca1

Address: 0001 Device Id: 1

MODBUS Point Type

Length: 10 03: HOLDING REGISTER

** Device NOT CONNECTED! **

40001: < 9999> 40006: < 0>

40002: < 0> 40007: < 0>

40003: < 0> 40008: < 0>

40004: < 0> 40009: < 0>

40005: < 0> 40010: < 0>

Connection Details

Connect: Direct Connection to COM4

Phone Number: 192.168.0.200

Service: 502

Configuration

Baud: 19200

Word: 8

Parit: NONE

Stop: 1

Hardware Flow Control

☐ Wait for DSR from sl

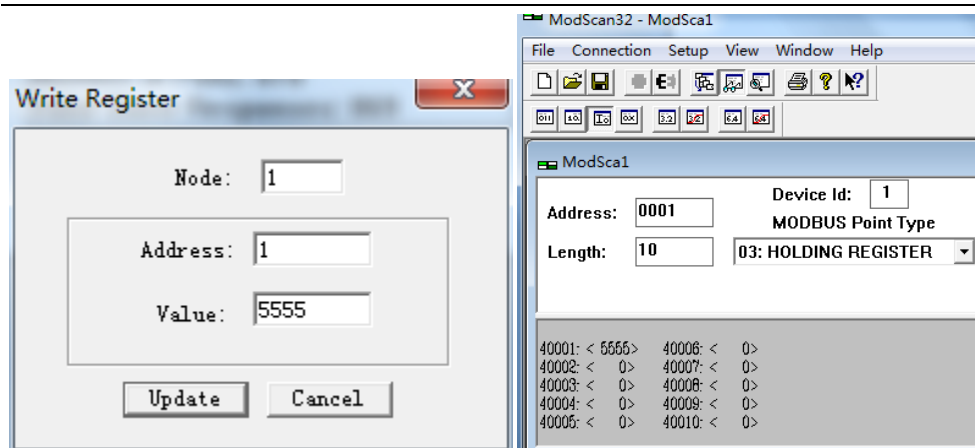
Delay: 10 ms after RTS before transmitting first

☐ Wait for CTS from sla

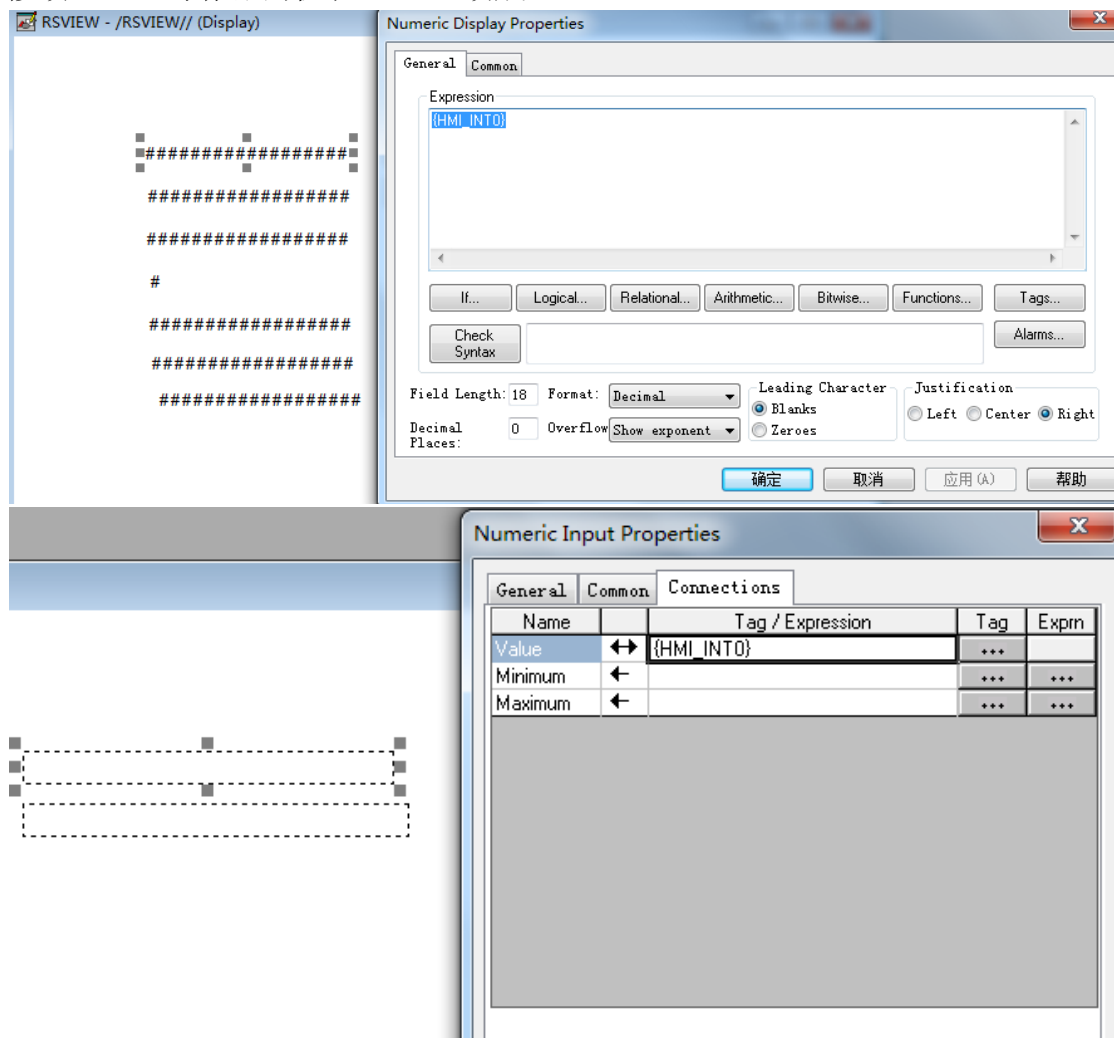
Delay: 1 ms after last character before

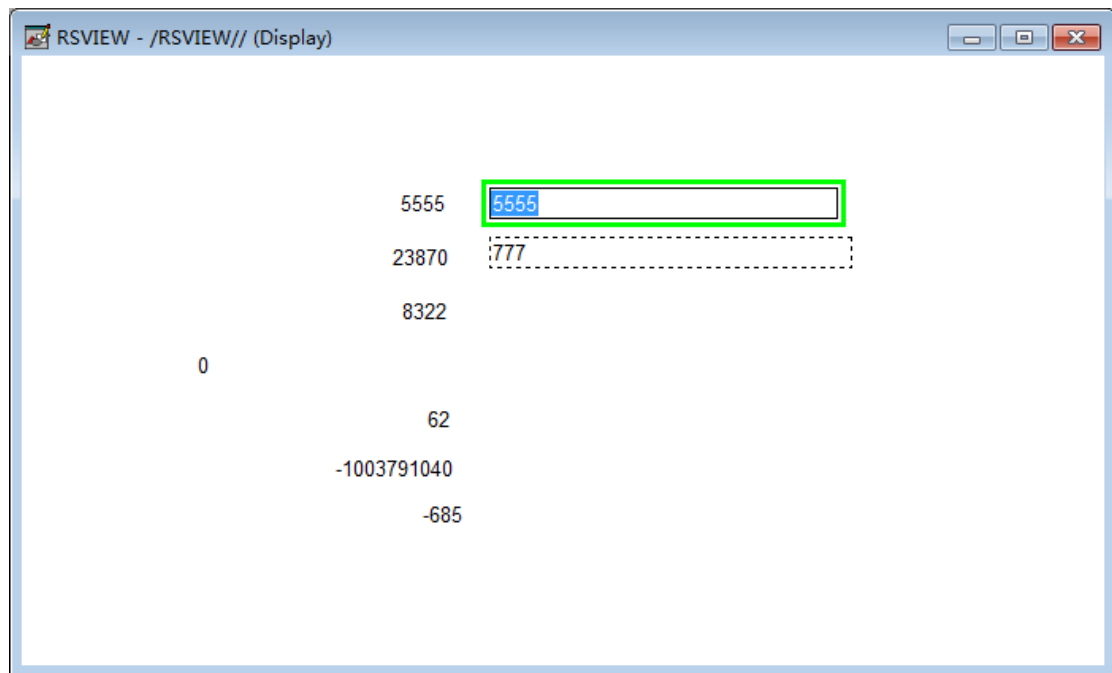
protocol Selection

OK Cancel

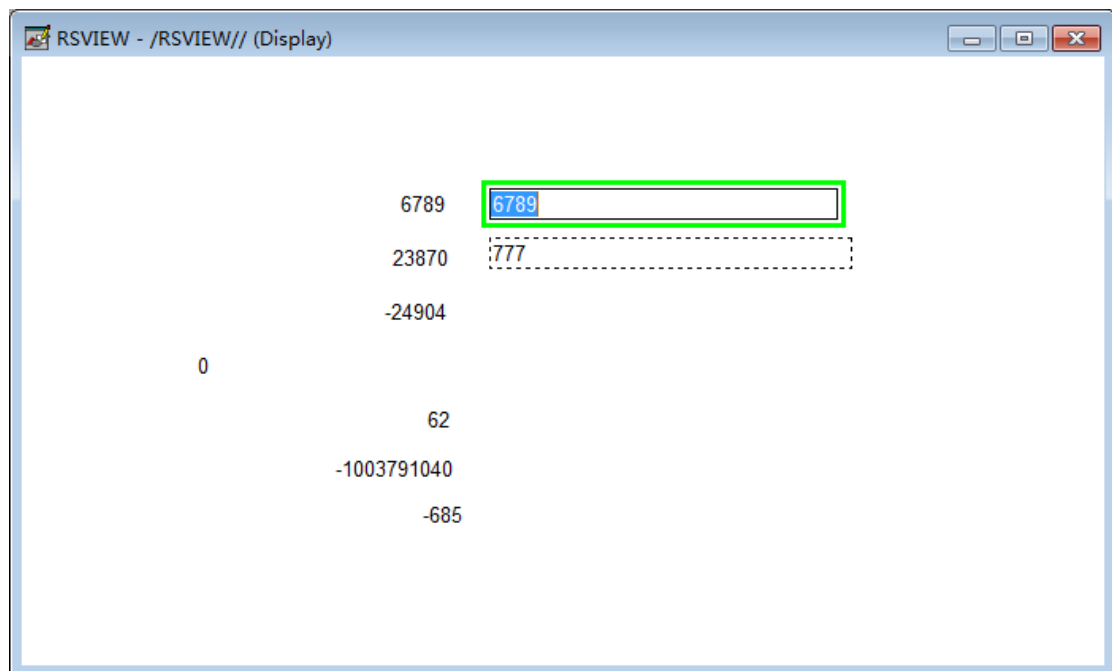


修改 40001 寄存器的值从 9999，改成 5555。

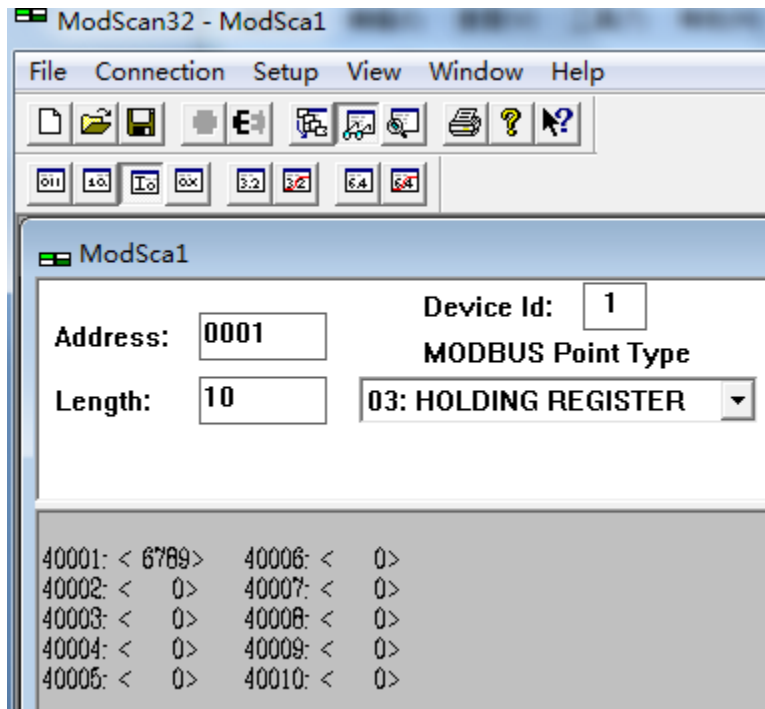




上位机修改 5555 的值 改成 6789

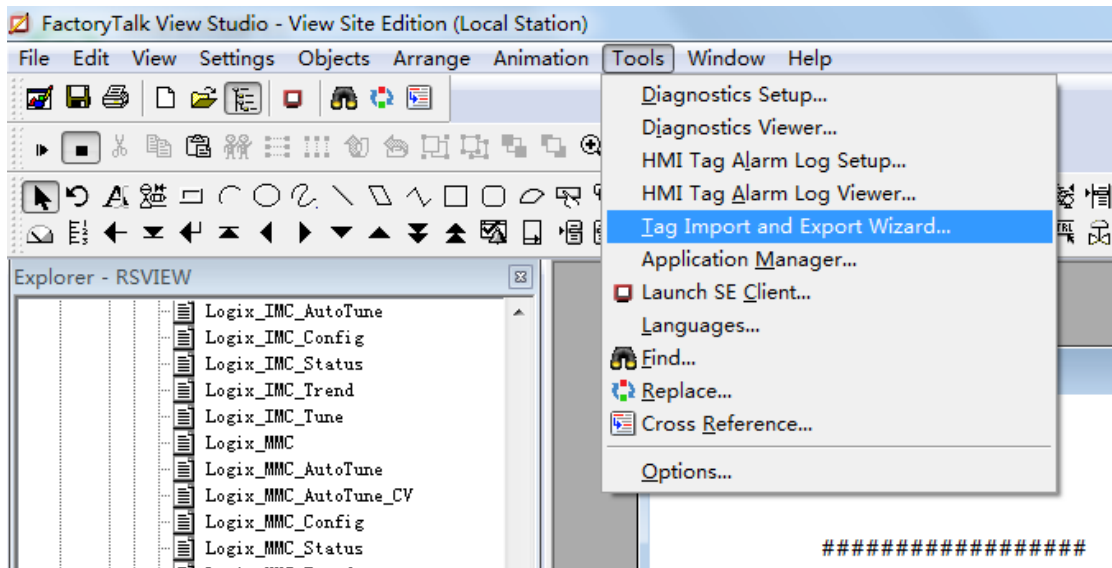


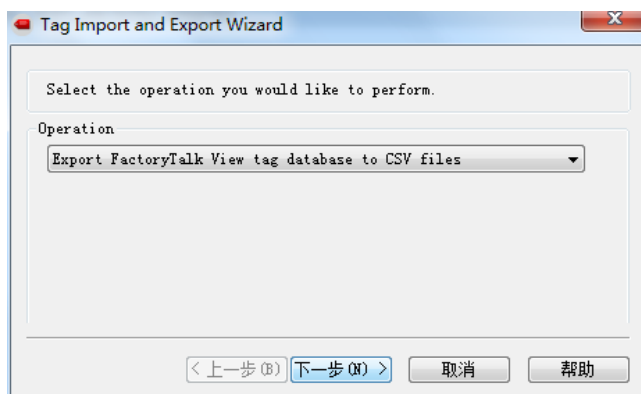
仿真软件 MODSCAN 就可以看到 40001 的变化。



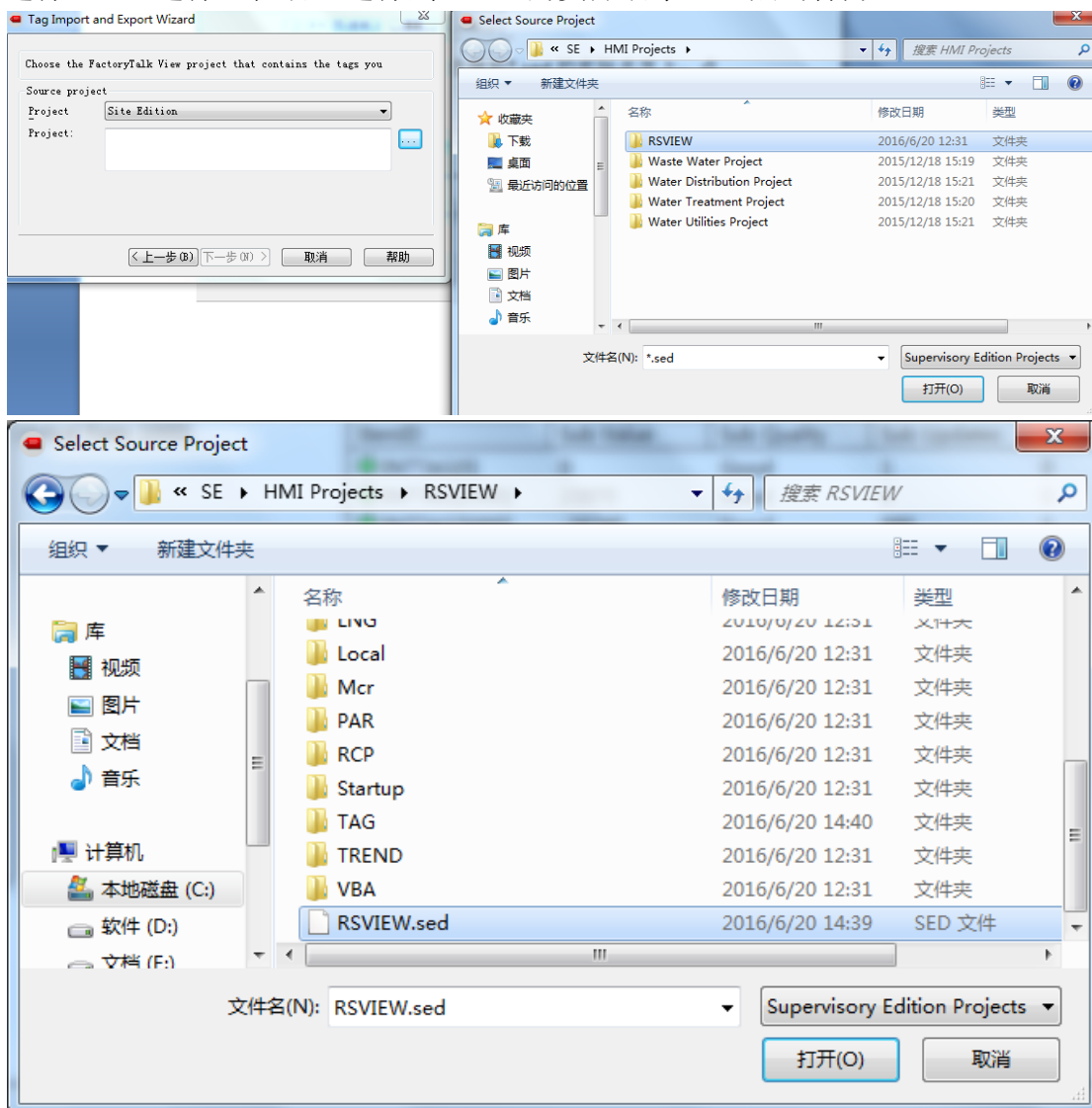
可以看到数据是对应的好的。鉴于这只是一个测试工具，可不必要理会 RSI-OPC test Client。

11. 导出标签，可以批量编辑标签和数据点对应的关系。

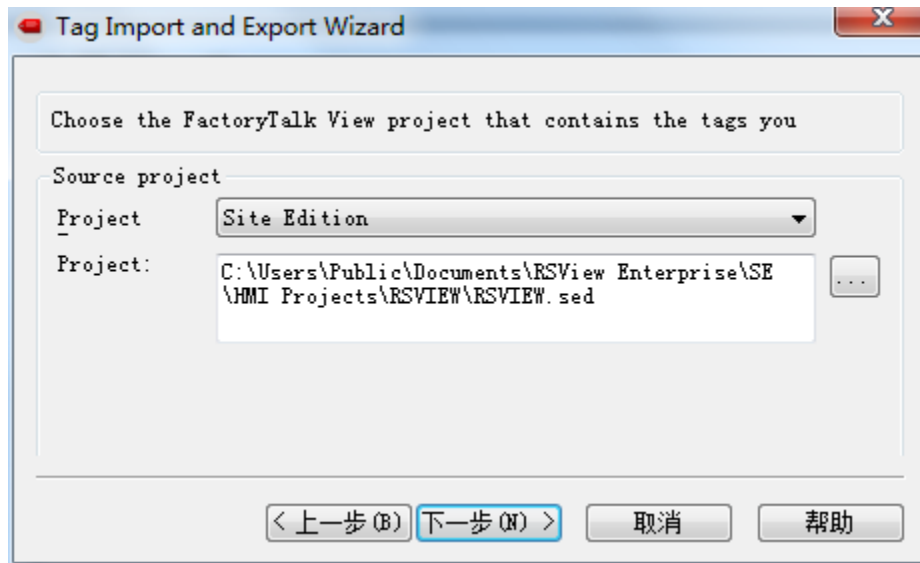




选择 SE 。选择工程名，选择到*.sed 的实际名字上，点击打开。

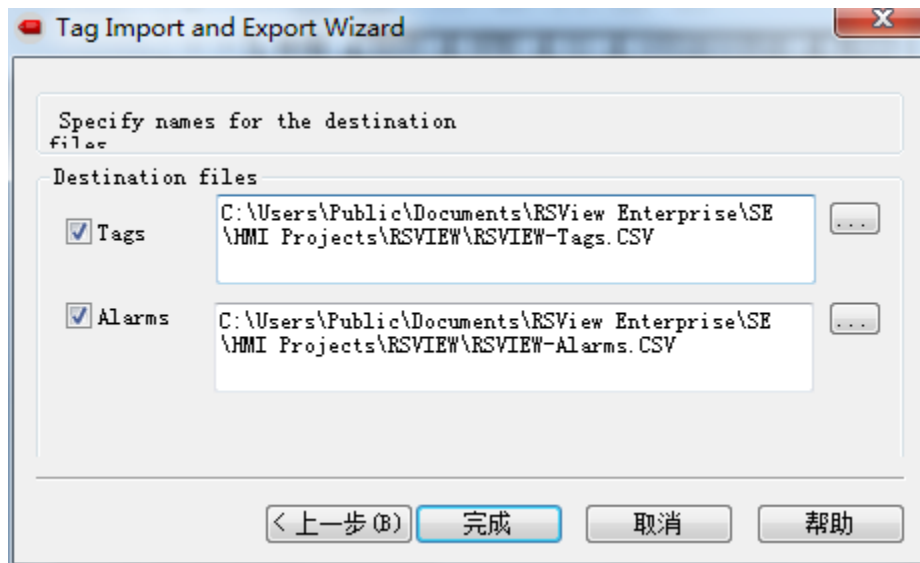


选择下一步。



标签表保存的位置，复制下来，点击完成。

C:\Users\Public\Documents\RSView Enterprise\SE\HMI
Projects\RSVIEW\RSVIEW-Tags.CSV



找到这个标签表，复制粘贴就可以任意修改。

	RSVIEW-Alarms.CSV	2016/6/20 14:58	Microsoft Office...	2 KB
<input checked="" type="checkbox"/>	RSVIEW-Tags.CSV	2016/6/20 14:58	Microsoft Office...	2 KB

RSVIEW-Tags.CSV - Microsoft Excel

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Tag Type	Tag Name	Tag Desc	Read Onl	Data Sou	Security	Alarmed	Native T	Value Ty	Min Anal	Max Anal	Initial	Scale	Offset	Deac
2	###002	THIS LINE CONTAINS VERSION INFORMATION. DO NOT REMOVE!!!													
3															
4	Folders Section (Must define folders before tags)														
5															
6	Tag Section														
7	D	HMI_BOOL40000		F	D	*	F								
8	A	HMI_DINT1250		F	D	*	F	D	L	-2.1E+09	2.15E+09	0	1	0	
9	A	HMI_INT0		F	D	*	F	D	L	-32768	32767	0	1	0	
10	A	HMI_INT2500		F	D	*	F	D	L	-32768	32767	0	1	0	
11	A	HMI_INT5000		F	D	*	F	D	L	-32768	32767	0	1	0	
12	A	HMI_REAL1250		F	D	*	F	D	L	0	10000	0	1	0	
13	A	HMI_SINT5000		F	D	*	F	D	L	-128	127	0	1	0	
14															

修改完，导入回来。

Tag Import and Export Wizard

Select the operation you would like to perform.

Operation

Import FactoryTalk View tag CSV files

< 上一步 (B) 下一步 (N) > 取消 帮助

选择目标导入项目。

Tag Import and Export Wizard

Choose the FactoryTalk View project you want to import into.

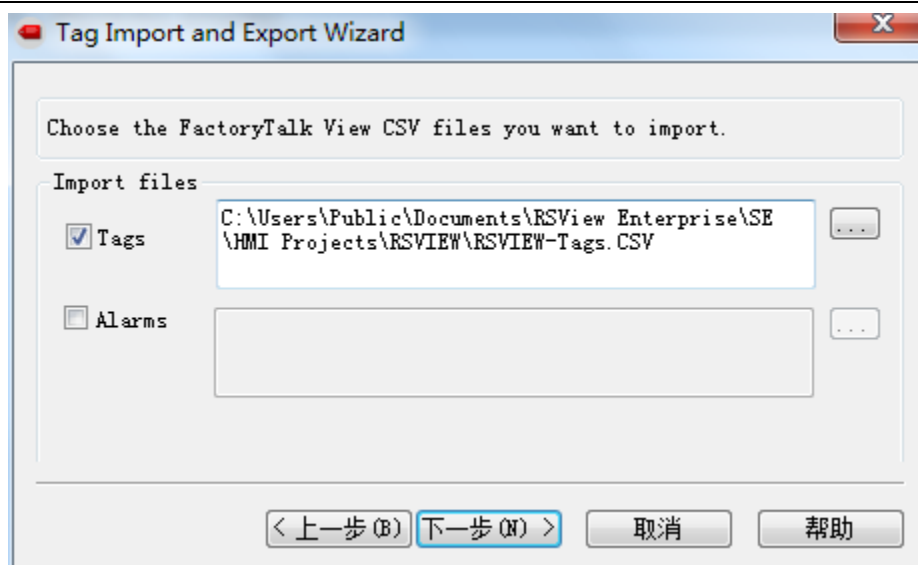
Destination projects

Project: Site Edition

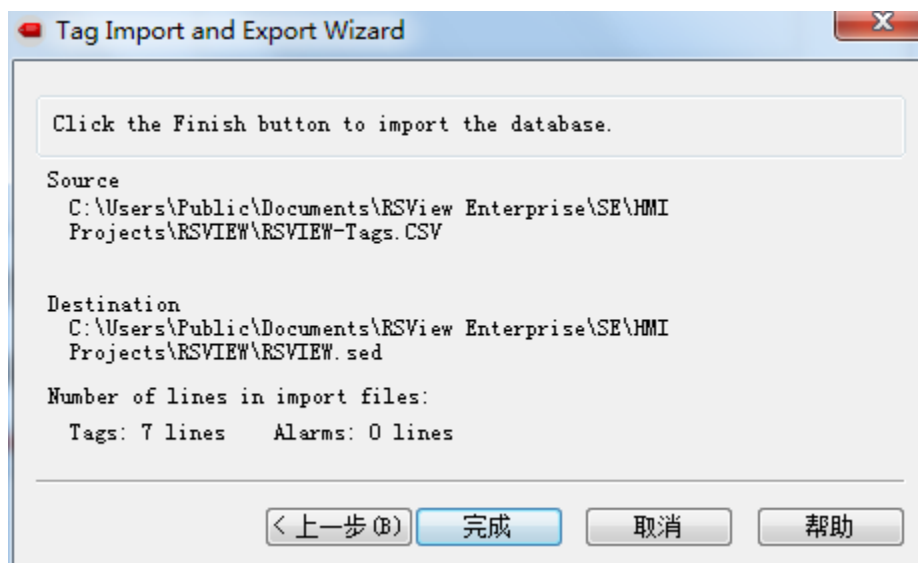
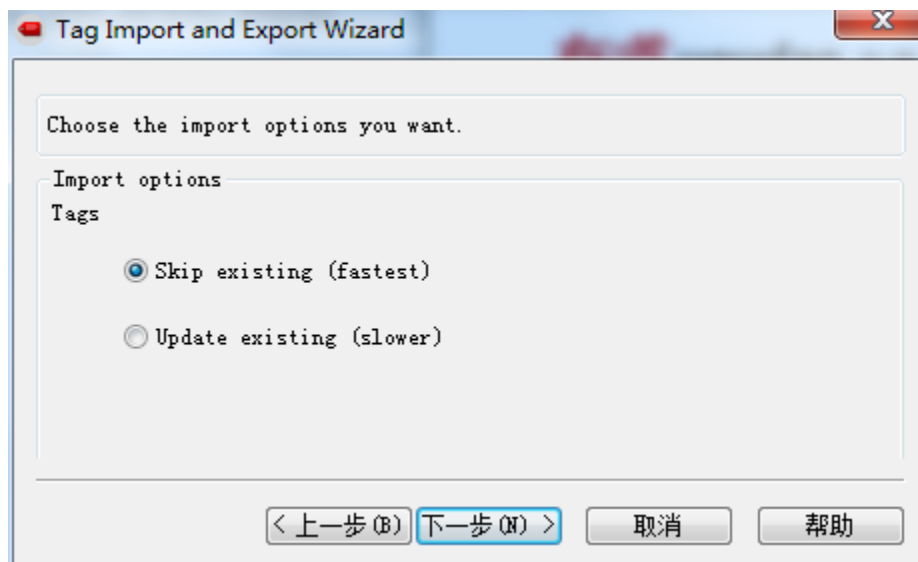
Project: C:\Users\Public\Documents\RSView Enterprise\SE\HMI Projects\RSVIEW\RSVIEW.sed

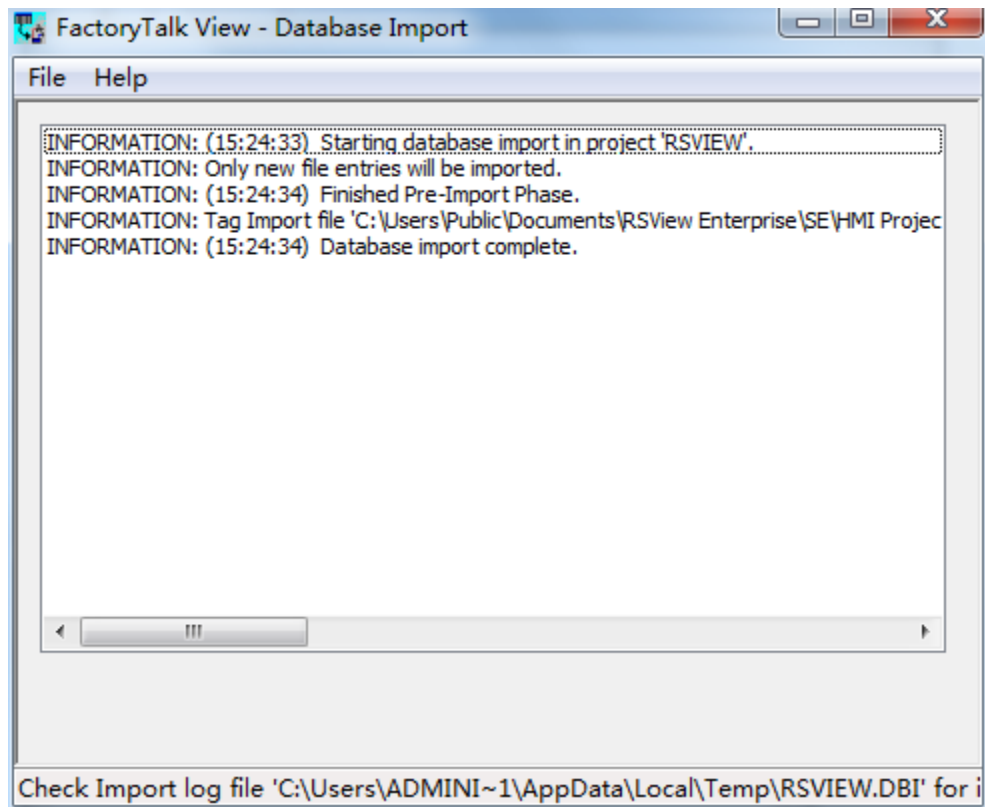
< 上一步 (B) 下一步 (N) > 取消 帮助

选择目标导入变量表。



选择跳过现有的标签，可以看到成功导入一个在 EXCEL 里面编辑的标签。





OPC 连接网关就此结束。

鉴于这只是一个测试工具，可不必理会 RSI-OPC Test Client。

其他版本

- 本案例介绍了BEACON品牌 BT-EN-XXX系列的网关从上位机直接读取网关内部数据。并适包含EtherNet/IP协议的产品。

联系我们

如果在使用过程中有更多的问题，可以通过以下方式联系我们获得支持。

客户服务热线 (中国大陆)	4008-710-598
技术支持	support@beacongt.com
亚太区销售	asia@beacongt.com
北美区销售	usa@beacongt.com