OPC UA Client

Supported Series: Weinetk OPC UA Server, Unified Automation, Prosys, Kepware

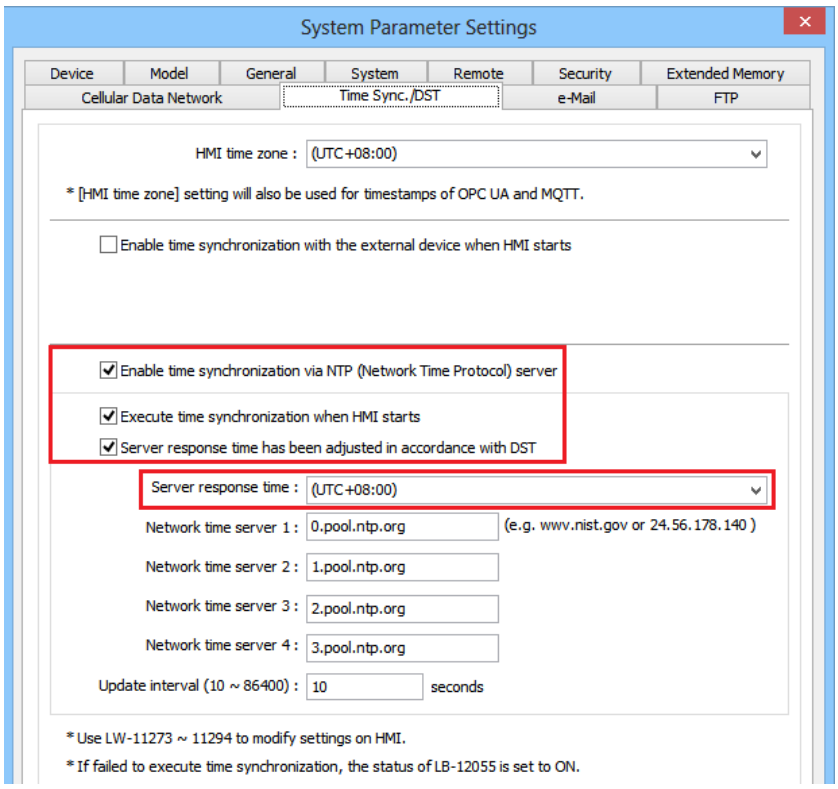
HMI Setting:

Parameters	Recommended	Options	Notes
PLC type	OPC UA Client		
PLC I/F	Ethernet		
Port no.	4840		
Security policy	None	None / Basic128Rsa15 / Basic256 /	
Message security mode	None	None / Sign/ SignAndEncrypt	
Re-Build Certificate when HMI Starts			
Use sha-256 mode (default sha-1)			
Support Uncertain Initail Value			

On-line simulator	Yes	**Multi-HMI connect**	Yes

When you use opc ua client for the first time, you need to set time related settings, please refer to the settings below.

System Parameter Setting -> **Time Sync./DST**



Update Mode:

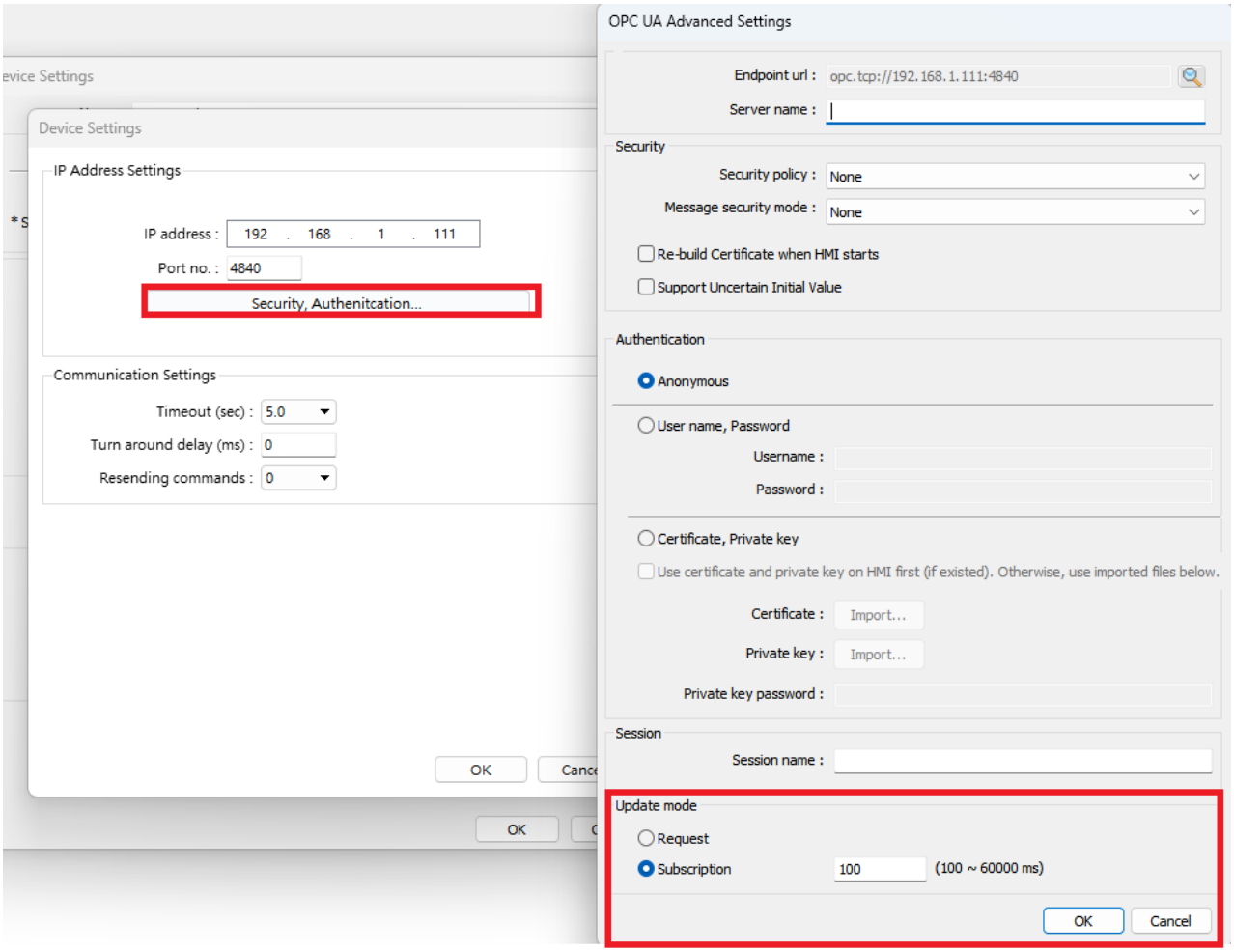
[Request Mode]

The opcau client will actively send a ReadRequest packet to the opcau server. After the server receives the packet, it sends it back to the opcau client using a ReadResponse packet.

[Subscription Mode]

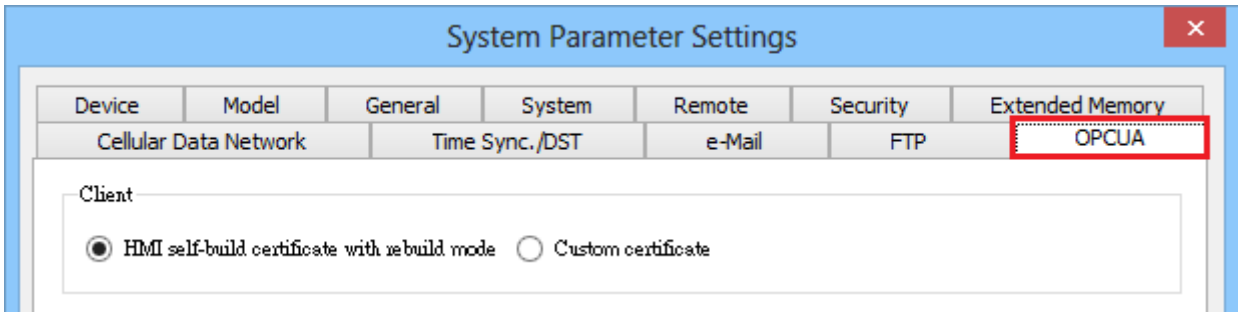
The server regularly performs tag sampling on the PLC.

1. If the "value" or "status" of the TAG changes, the PublishResponse will be sent to the client in the next Publsihing tick.
2. If the values do not change, an empty PublishResponse will be sent to the client to ensure that the connection is still established, otherwise it will timeout.



Certificate:

HMI self-build certificate with rebuild mode:



[Re-build Mode]

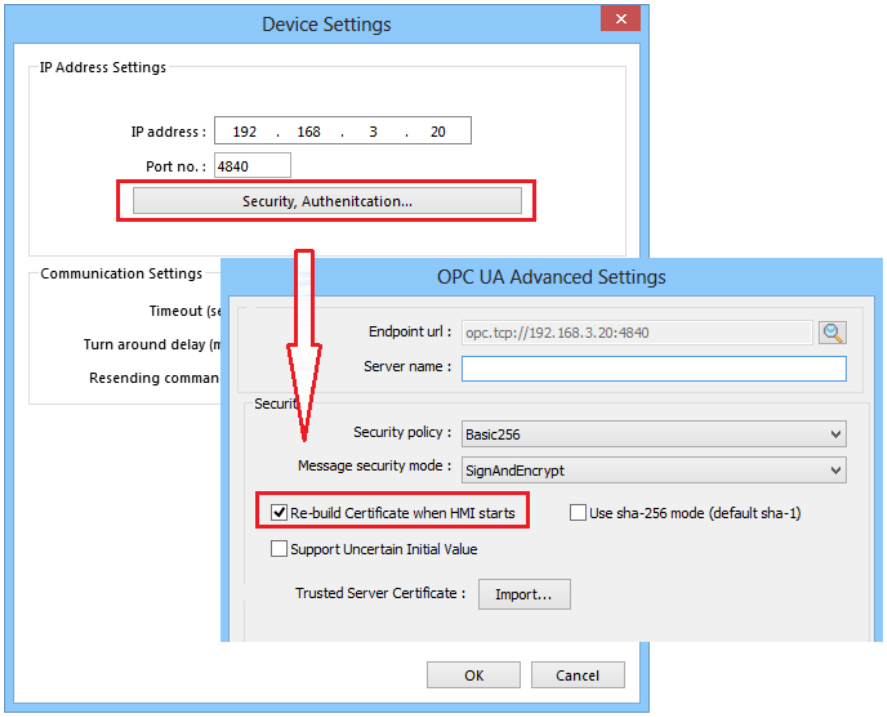
Does the certificate exist in the HMI?

1. Yes, overwrite the certificate and reload it.
2. No, create a new credential and load it.

[Not Re-build Mode]

Does the certificate exist in the HMI?

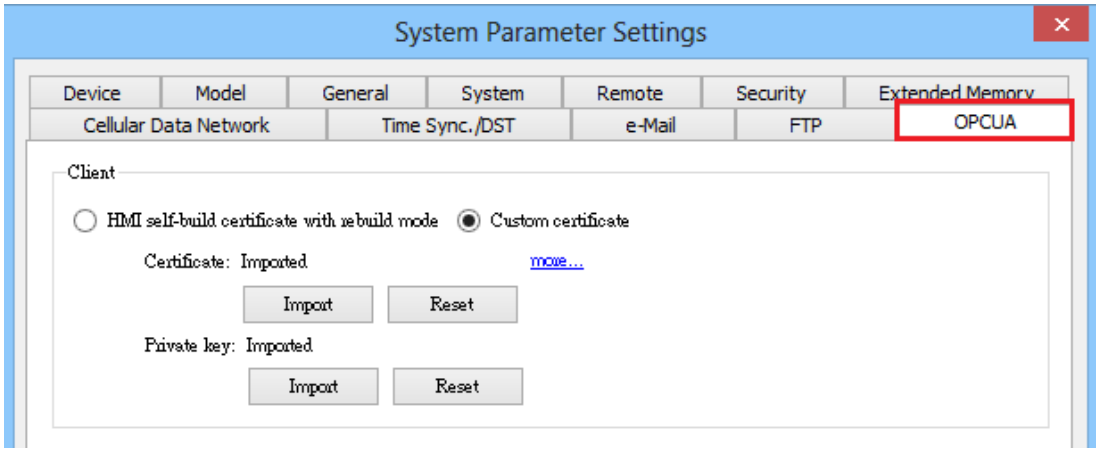
1. Yes, load the credentials existing in the HMI.
2. No, there is no certificate in the HMI and cannot communicate with the server.



Custom Certificate:

Import custom certificate

*Note: If you choose to import a custom certificate, you cannot check rebuild cetificate, otherwise the cetificate will be overwritten.



Note: The **[Custom Certificate]** function can only be downloaded to HMI and cannot be used for online simulation.

Support Device Type:

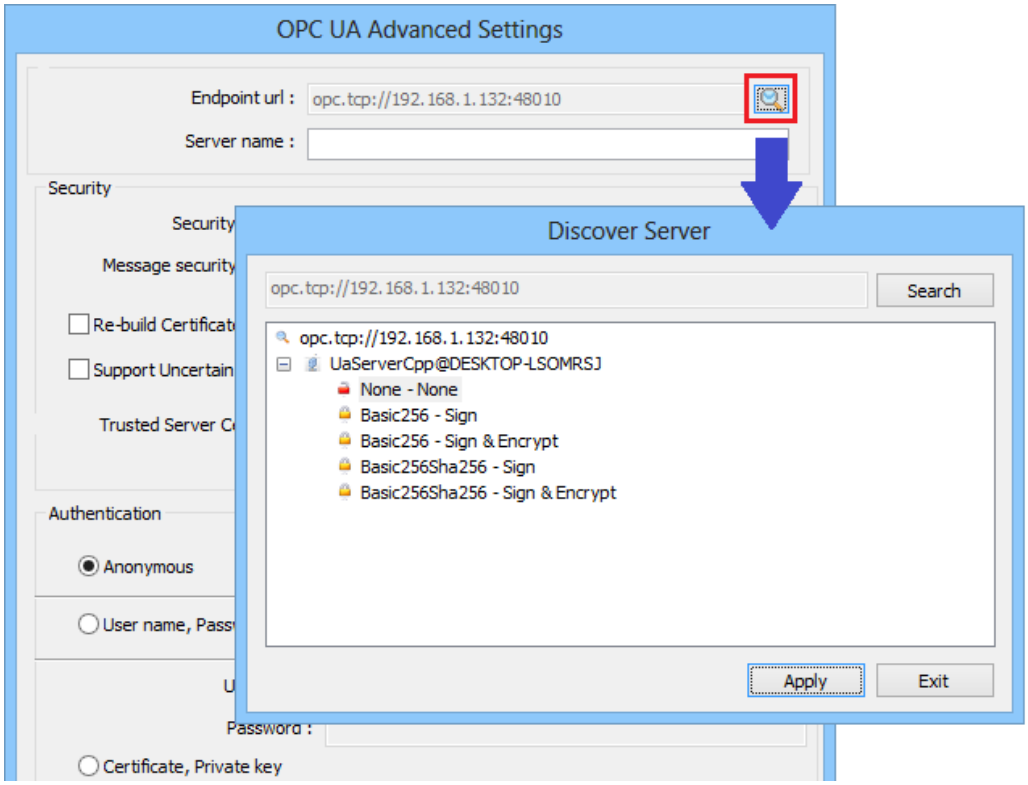
Data type	EasyBuilder data format	Memo
Bool	bit	
Int	16-bit BCD, Hex, Binary, Signed	16-bit
UInt	16-bit BCD, Hex, Binary, Unsigned	16-bit
DInt	32-bit BCD, Hex, Binary, Signed	32-bit
Real	32-bit Float	32-bit
UDInt	32-bit BCD, Hex, Binary, Unsigned	32-bit
LInt	64-bit Signed	64-bit
ULInt	64-bit Unsigned	64-bit
Double	64-bit Float	64-bit

Note: EBPro V6.03.02 or later supports 64 bits data type **(cMT Series only),** but please note that the address limit range is 48 bits in maximum..

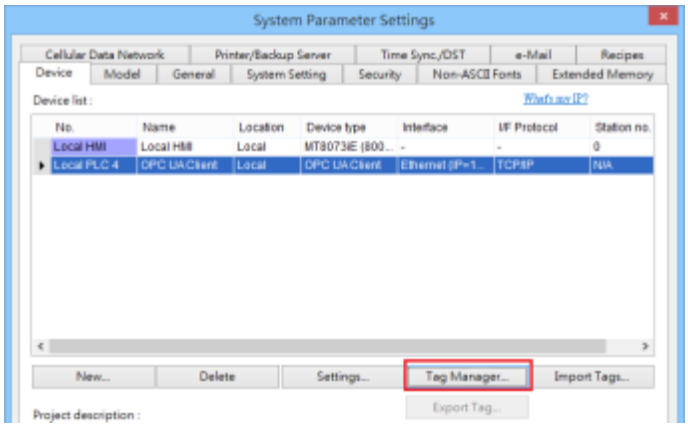
Tag Manager:

1. In EasyBuilder Pro, add OPC UA Client into the device list, set **[IP address]**, **[Port no.]**, and then open **[Security, Authentication]**.

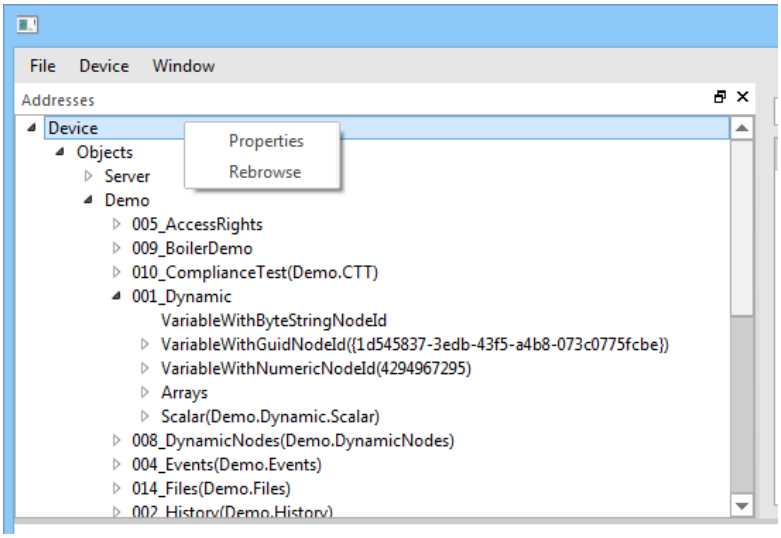
2.Click the magnifier icon near the **[Endpoint url]** field to open Discover Server window. In the window the security parameters of OPC UA Server can be found. Click **[Apply]**, the parameters will be automatically filled into the fields in Security group box in OPC UA Settings window. Finish the rest of the settings and then click **[OK]** to leave.



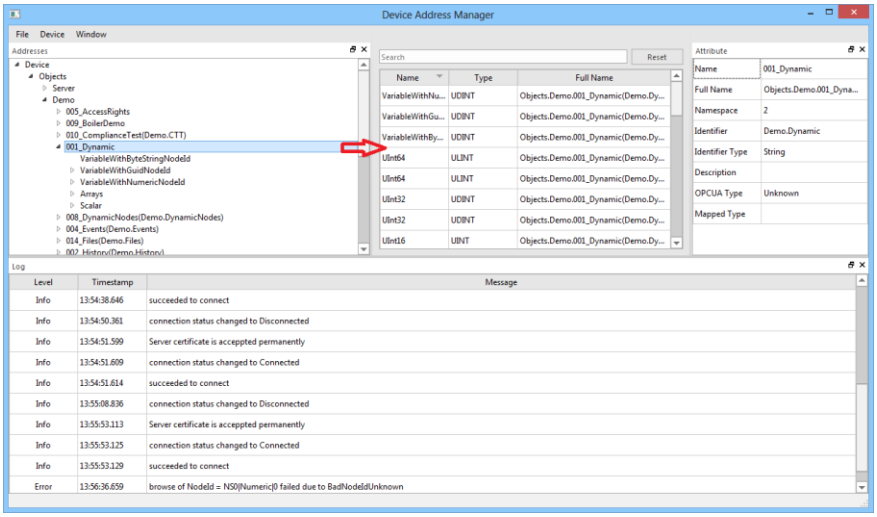
3.Click Tag Manager. If **"Connection failed."** message appears, please check the communication parameters.



4. **Device (right click)** -> **Rebrowse** -> **Expand node**

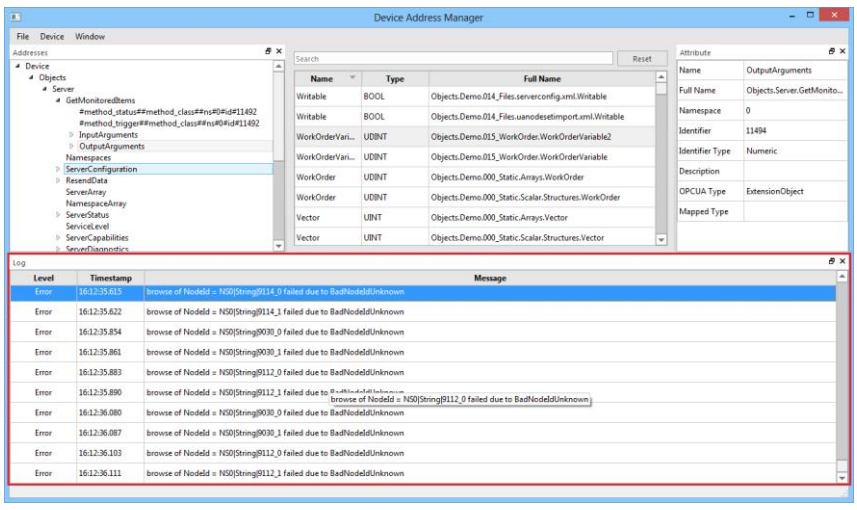


5. Drag the address to be added to the right area. If the node has child nodes, they will be added as well.

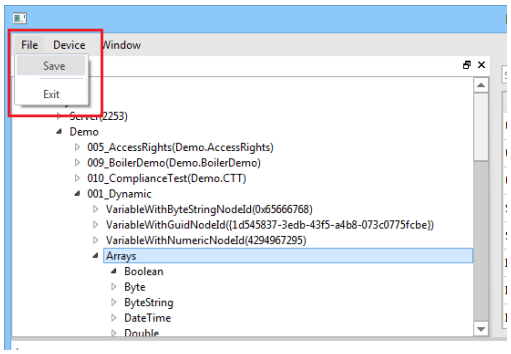


6. Log will display the import results, and unsupported data types will display a message in this field.

UaStatus code: https://www.opcti.com/common-error-codes.aspx



6. After importing the address, save it and leave. The specific operations are as follows:
   [File] -> **[Save]** -> **[Exit]**



Wiring Diagram:

Ethernet cable: