ADVANTECH
Enabling an Intelligent Planet

Advantech SE Technical Share Document

Date	2020 / 03 / 5	**Related Product**	ESRP-PCS-WISE710 / ESRP-CSS-UNO series / ESRP-PCS-ECU series / ESRP-PCS-ADAM3600
Category	□ FAQ □ SOP ■ Driver Tech Note		
Abstract	How to connect to OPC UA server via EdgeLink OPC UA Client driver		
Keyword	WISE-PaaS EdgeLink / OPC UA Client / OPC UA Server		
Related OS	Linux image		

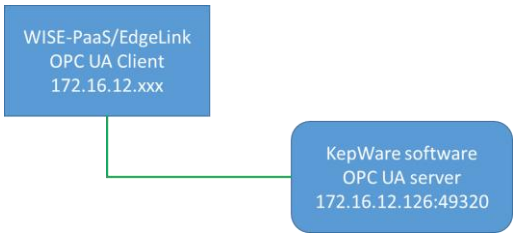
Revision History

Date	Version	Author	Reviewer	Description
2020/03/5	V1.0	Black Chang	Nick Liu	WISE-PaaS/EdgeLink Studio V2.6

■ **Problem Description & Architecture:**

How to connect to OPC UA server via EdgeLink OPC UA Client driver

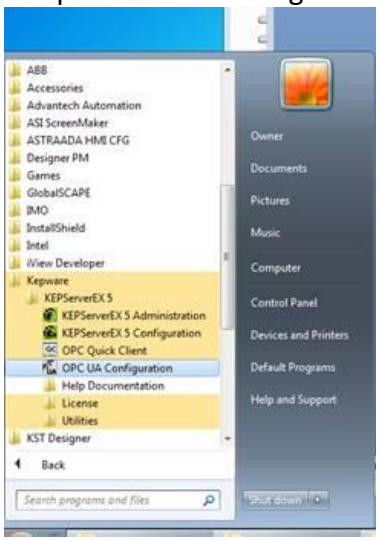
OPC UA server → Kepware software



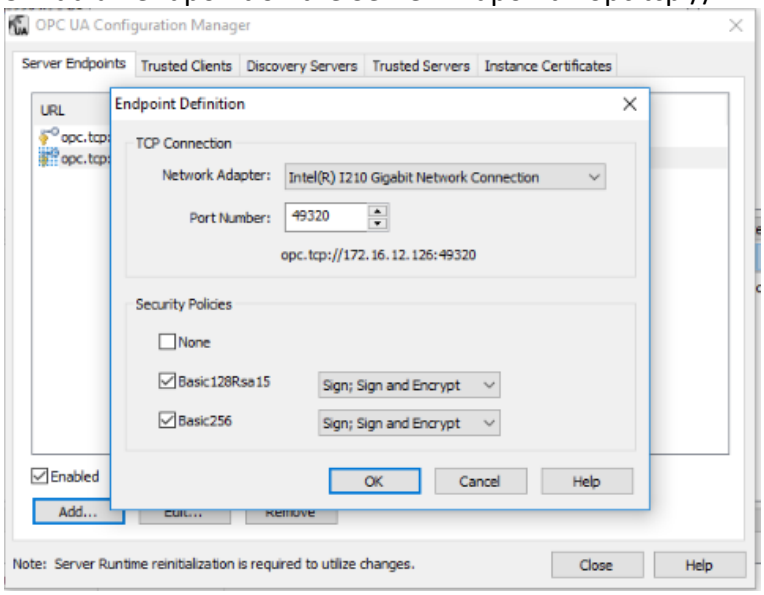
■ **Brief Solution - Step by Step:**

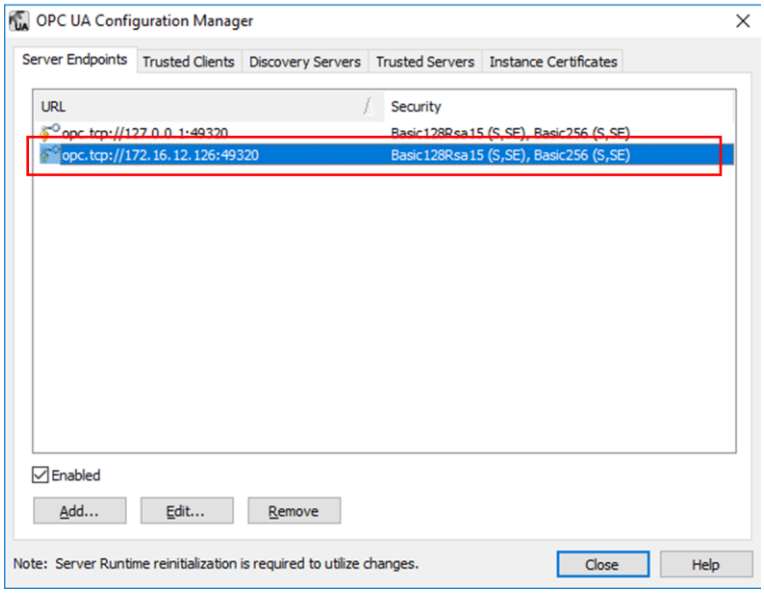
Kepware OPC UA server software

1. Install Kepware(KEPServerEx5) and “OPC UA Local Discovery Server 1.02” software
2. Open OPC UA Configuration on the Kepware software



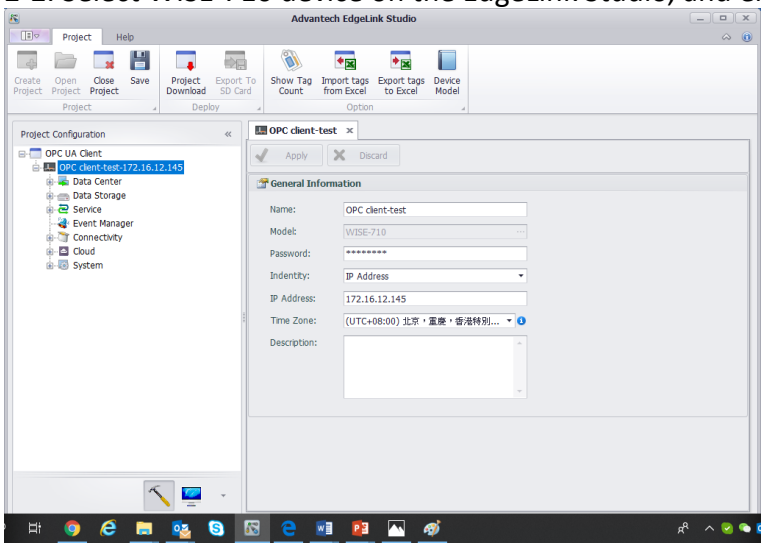
3. Add an endpoint on the Server Endpoint: “opc.tcp://172.16.12.126:49320”



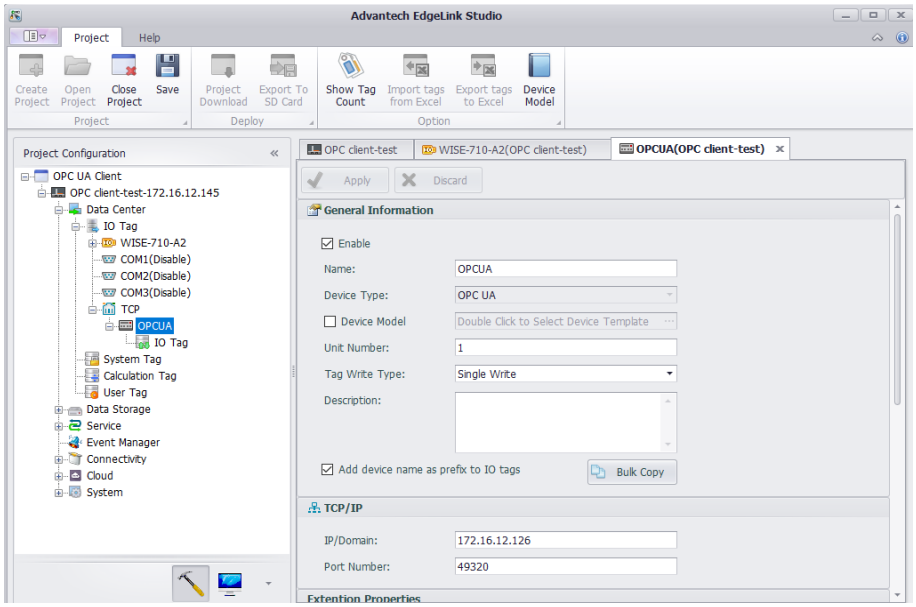


2. EdgeLink Studio Setting

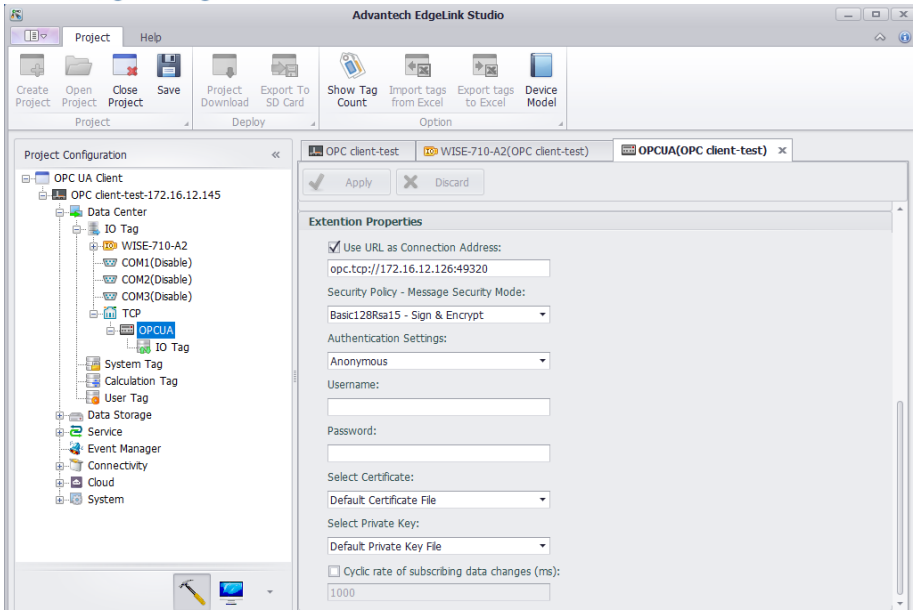
2-1. Create one Project of EdgeLink Studio.
2-2. Select WISE-710 device on the EdgeLink Studio, and enter IP Address.



2-3. Add OPC UA driver on the TCP and setting the communication parameter.
Device Type: OPC UA
Unit Number: Different from other devices in one interface is ok.
IP Address and Port Number: OPCUA server's IP and Port.

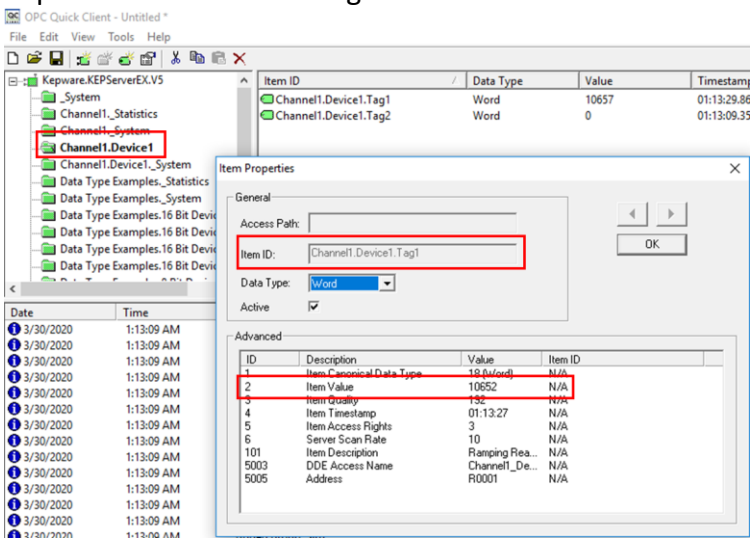


Use URL as Connection Address: If OPCUA server must be connected by its URL, you can choose this.
Security Policy and Authentication Setting: Follow the OPCUA server.
Certificate and Private Key: We have self-authentication files by default. If customer needs to use the special file, they can choose in here.
Cyclic rate of subscribing data changes: By default, the mode of our opcua master is Asking-Answer. If choosing this, the mode we use will be: We send a message to OPCUA server to tell it to check itself by cycle if there is some data changed. When some data changing, server will tell us, we don't need to ask server any more.

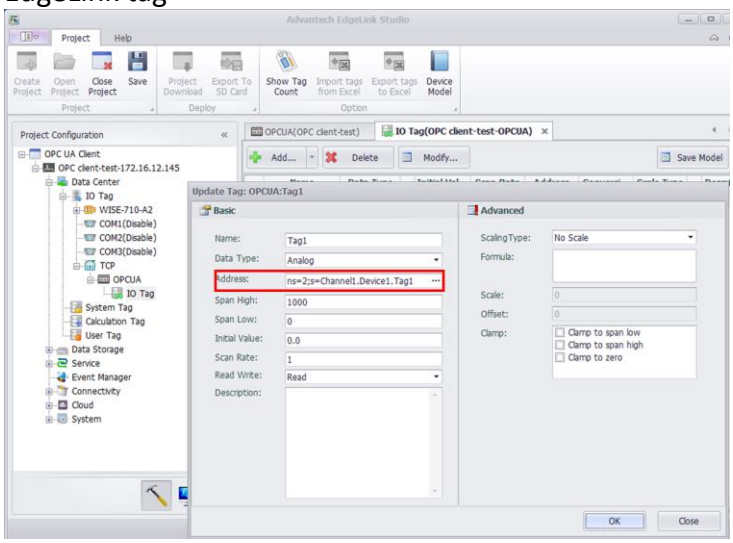


2-4. Add tag of OPC UA server: ID=ns=2, Item ID=<string>=Channel1.Device1.Tag1

Kepware OPC UA server tag:



EdgeLink tag

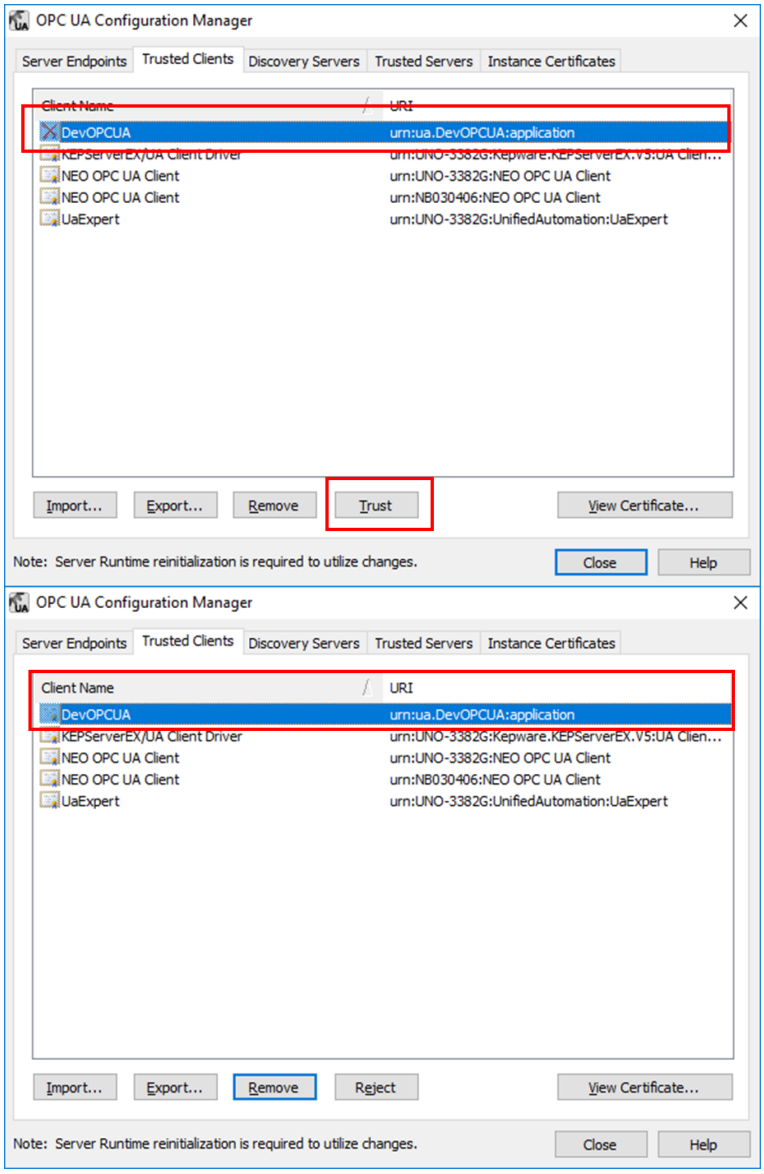


The address grammar is: ns=<Namespace Index>; <type>=<value>
Example:

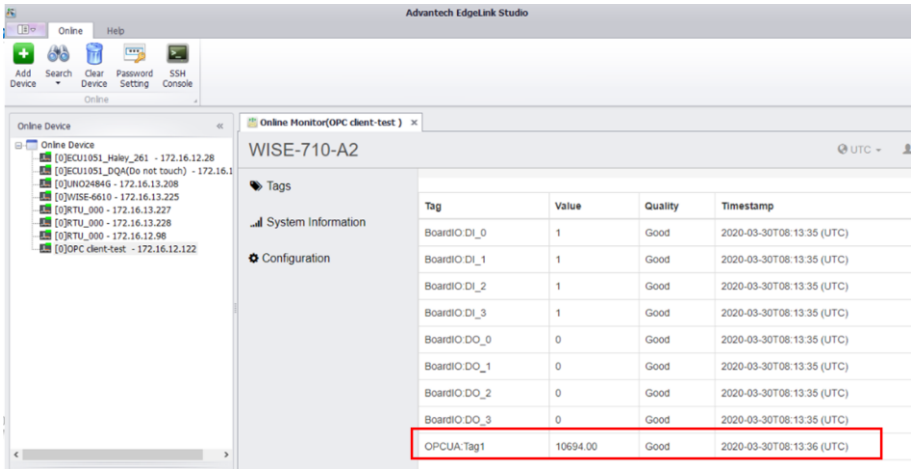
Address Type	Namespace Index	Example
Numeric	2	ns=2;i=1234
String	2	ns=2;s=Device.System_Tag.#SYS_TIME_SECOND
GUID	0	ns=0;g={8ACE8827-ECC3-4c9a-8032-CA1E9957A8E8}
Opaque	2	ns=2;b=M/RbKBsRVkePCePcx24oRA==

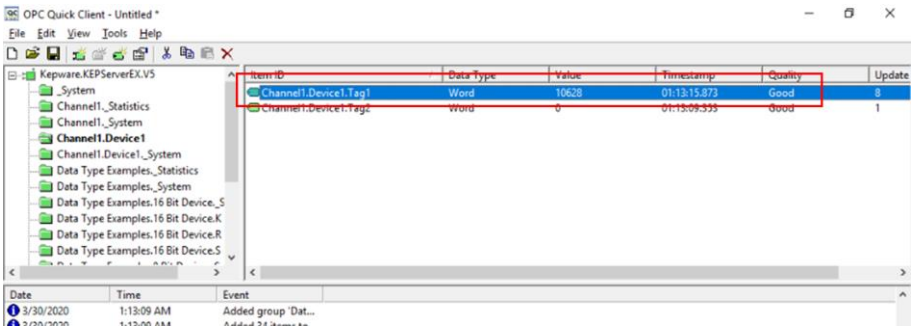
2-6. please press “Project Download” and download project to WISE-710

2-7. it will show Client Name “DevOPCUA” on the OPC UA configuration manager, and enter “Trust”



2-8. Please change to Monitor screen and connect to WISE-710, change to IO Tag and will show the value of OPC UA tag.





- **Pin Definition (in case of serial connection):**

- **Reference:**