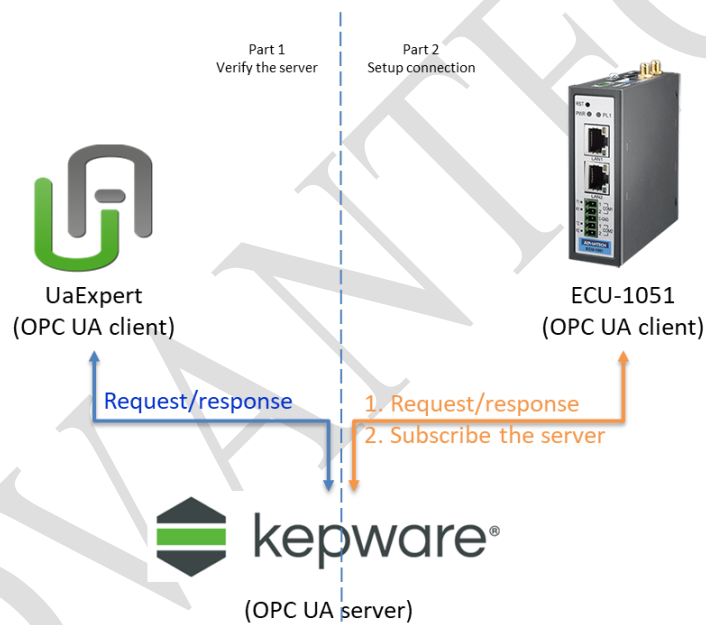


Advantech AE Technical Share Document

Date	2021/10/19	SR#	1-4039871691
Category	■FAQ □SOP	Related OS	N/A
Abstracta	How to use OPCUA driver in Edgelinek		
Keyword	OPCUA client		
Related Product	ADAM-3600, ECU-1152, ECU-1251, ECU-1051		

■ **Problem Description:**

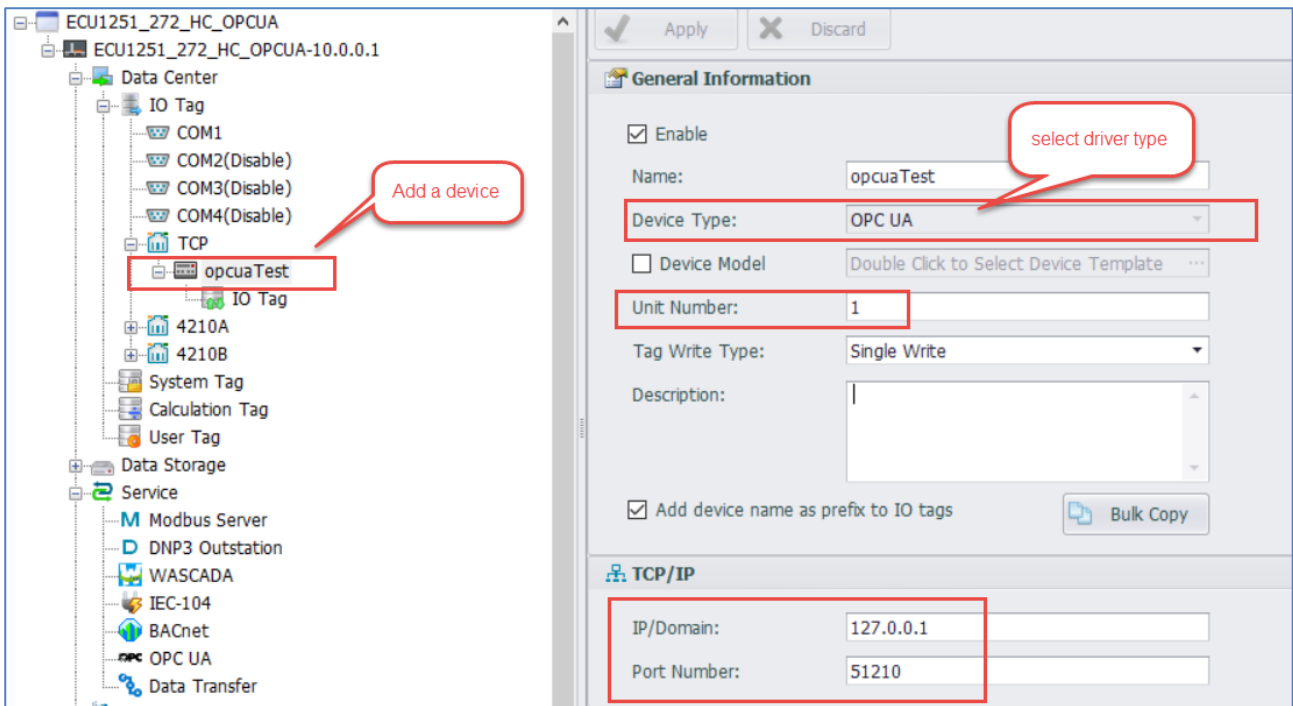
This document explains how to use OPCUA driver in Edgelinek which EdgeLink device is acting as an OPCUA client.



■ **Answer:**

1. Use UaExpert to connect to OPCUA Server to check if the OPCUA server is running.
2. EdgeLink OPCUA master configuration.

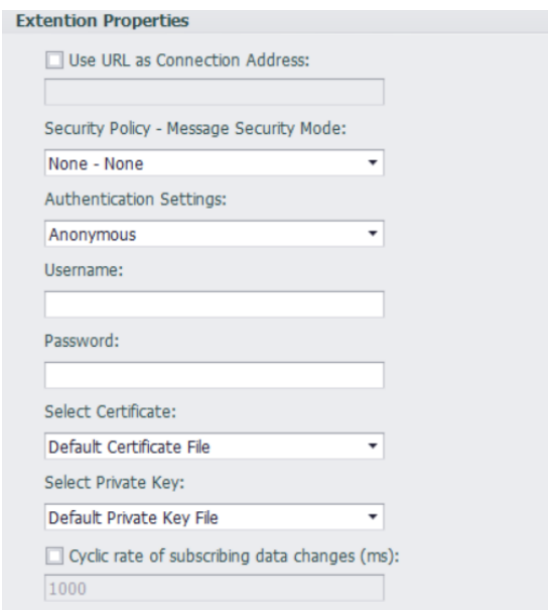
Step 1. Add a OPCUA dev



Device Type: OPCUA

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.

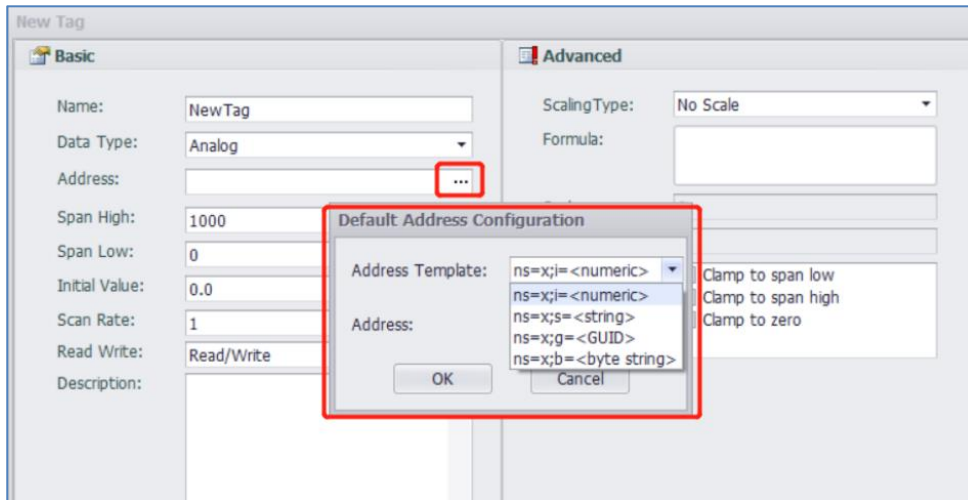
Cyclic rate of subscribing data changes:

Disable: (default), the mode of our OPCUA master is request/response.

Enable: the mode used will be: EdgeLink sends a message to the OPCUA server to request it to check itself periodically if there is value changed. The server will publish the data while change of

status. EdgeLink does not need to ask server regularly.

Step 2. Add tags.

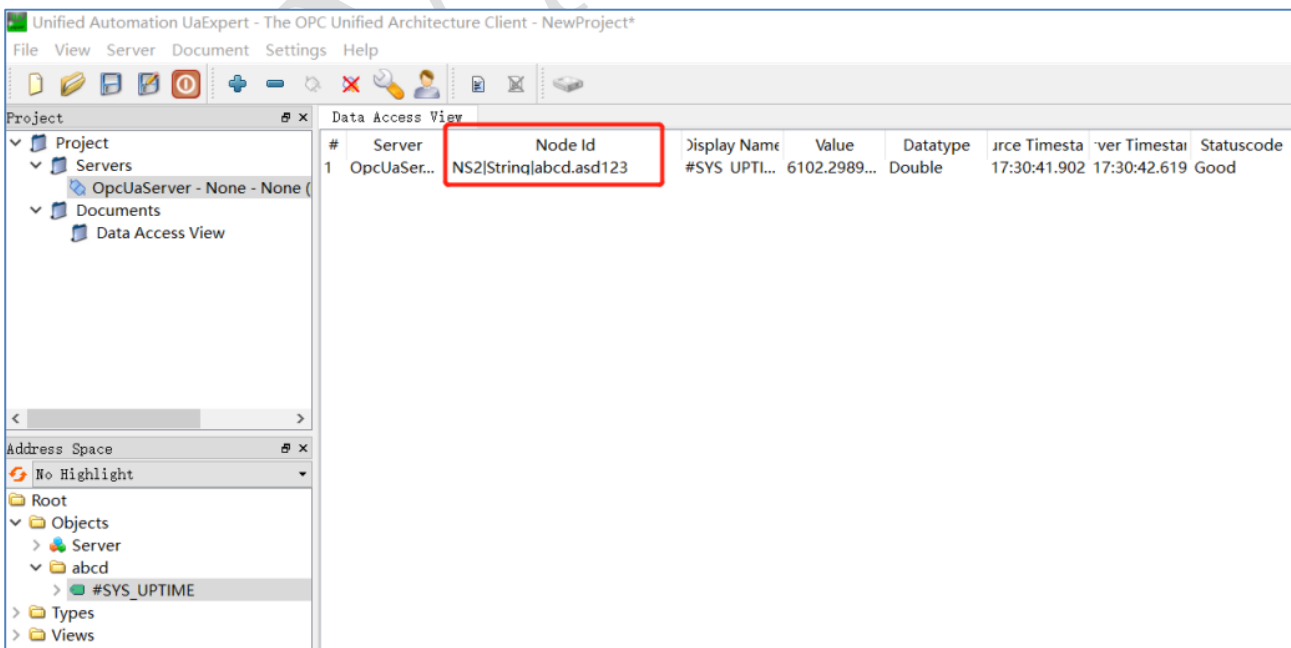


The address grammar is : ns=<Namespace Index>;<type>=<value>

Examples

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==

We can see the address by UaExpert (An OPCUA test tool).



In this example, we can see “ns=2”, type is string, value is “abcd.asd123”. So the address in edgelinek should be “ns=2;s=abcd.asd123”

The screenshot shows the Advantech configuration interface for a tag. The 'Basic' tab is active, and the 'Address' field is highlighted with a red box, containing the value 'ns=2;s=abcd.asd123'. Other fields include Name (NewTag), Data Type (Analog), Span High (1000), Span Low (0), Initial Value (0.0), Scan Rate (1), Read Write (Read), and Description. The 'Advanced' tab is also visible, showing Scaling Type (No Scale), Formula, Scale (0), Offset (0), and Clamp options.

Step 3. Download the project. We can see the result in online monitor.

The screenshot shows the Advantech online monitor interface. The 'IO Tag' section is active, displaying a table with two tags. Each row has an 'Edit' button.

ID	Name	Value	Quality	Timestamp	
1	opcuaTest.ReadSYS_UPTIME	94897.58	Good	2021-10-19T17:59:47 (+08:00)	Edit
2	opcuaTest.ReadCalculationTag	-94896.56	Good	2021-10-19T17:59:47 (+08:00)	Edit