

Integration Objects'

Free OPC UA Explorer Tool

OPC UA Client
Version 1.4 Rev.0

QUICK USER GUIDE

OPC UA Client Quick User Guide Version 1.4 Rev 0
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ABOUT THIS USER GUIDE

This guide is a step by step guide that lists the main steps on how to install, configure and run OPC UA Client.

INSTALLATION PRE-REQUISITES

In order to properly run the OPC UA Client, install these software components on the target system:

- .NET Framework version 4.6 or higher.
- The OPC UA Discovery Server, which lists the OPC UA endpoints available on a given computer.

INSTALLING OPC UA CLIENT

To install the OPC UA Client, run the installation executable using an administrator account and the wizard will take you through the different installation steps.

CONFIGURING OPC UA CLIENT

Go to **Start => Programs => Integration Objects => OPC UA Client => OPC UA Client** and start the UA Client.

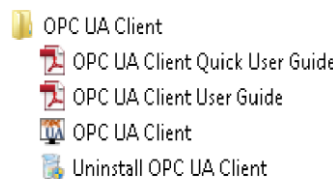


Figure 1: OPC UA Client Start Menu

Step 1: Connect to an OPC UA Server

To connect to an OPC UA server, select **Connect** button available in the Home menu bar or by right clicking on the Sessions root node and selecting **Add Session** as shown below.

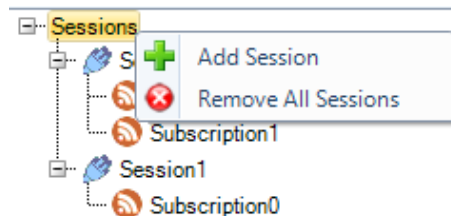


Figure 2: The Sessions Context Menu

The following dialog screen will appear:

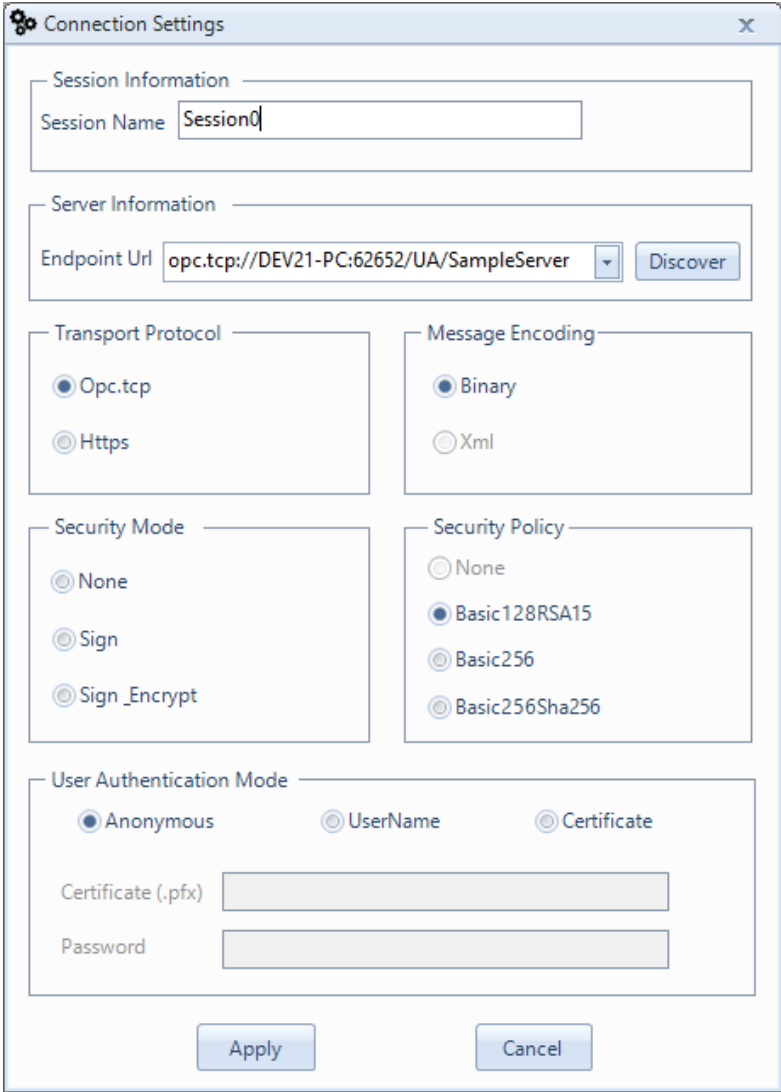


Figure 3: Connection Settings Dialog Screen

When the server URL, the security options, the user authentication mode and the session name are set, the connection to the server can be established by clicking the **Apply** button.

Step 2: Monitor Real-Time Data

To monitor real-time data, the user needs to drag and drop the variable node or the list of variable nodes from the address space browser to the **Data View** grid view, and the following dialog screen will be prompted:

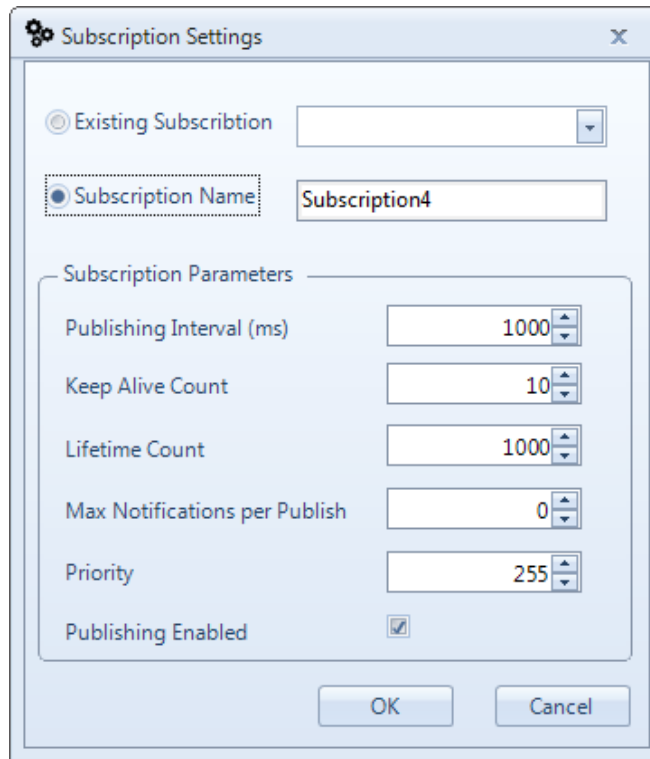


Figure 4: Subscription Settings

Using this dialog box, you can choose either an existing subscription if available or create a new subscription to receive data changes.

After clicking the **OK** button, a new line in the grid view will be added as illustrated in the figure below:

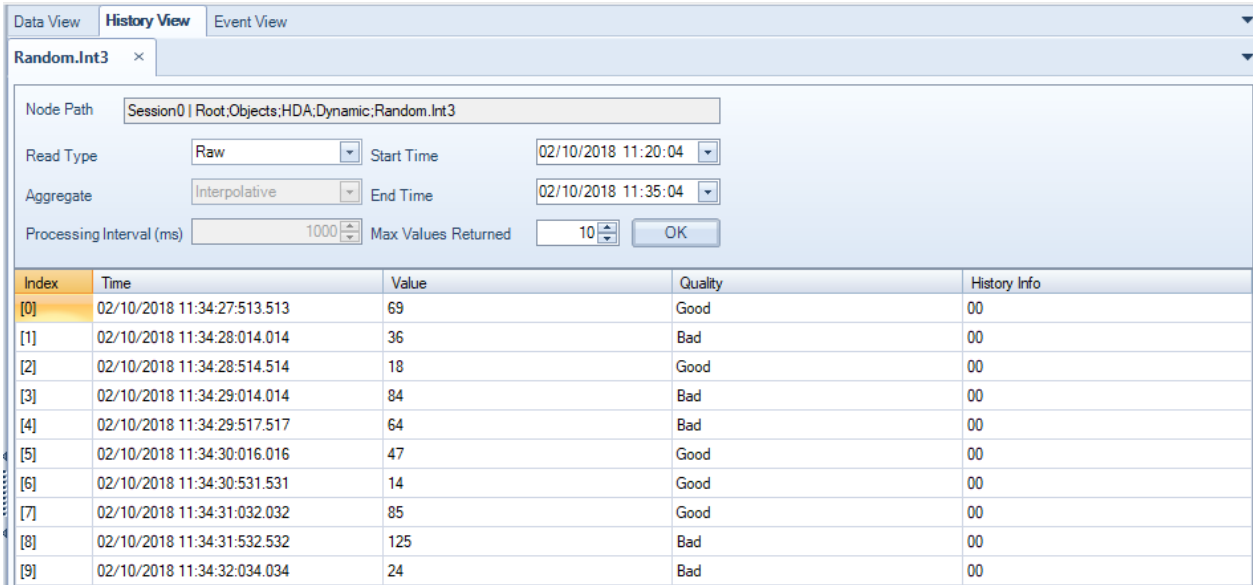
Display Name	Node Id	Value	Data Type	Server Timestamp	Source Timestamp	Status Code	Subscription	Session
Int1	ns=2;s=Dynamic/Int1	17	Int32	03/10/2018 15:26:50.625	03/10/2018 15:26:50.625	Good	Subscription0	Session0
Int2	ns=2;s=Dynamic/Int2	65	Int64	03/10/2018 15:26:50.625	03/10/2018 15:26:50.625	Good	Subscription0	Session0
Int3	ns=2;s=Dynamic/Int3	36	String	03/10/2018 15:26:50.625	03/10/2018 15:26:50.625	Good	Subscription0	Session0
UInt1	ns=2;s=Dynamic/UInt1	44512	UInt16	03/10/2018 15:26:50.625	03/10/2018 15:26:50.625	Good	Subscription0	Session0
UInt2	ns=2;s=Dynamic/UInt2	2810188310	UInt32	03/10/2018 15:26:50.625	03/10/2018 15:26:50.625	Good	Subscription0	Session0
UInt3	ns=2;s=Dynamic/UInt3	10967740682877486908	UInt64	03/10/2018 15:26:50.625	03/10/2018 15:26:50.625	Good	Subscription1	Session0
String1	ns=2;s=Dynamic/String1	System Integration	String	03/10/2018 15:26:50.625	03/10/2018 15:26:50.625	Good	Subscription1	Session0
Byte1	ns=2;s=Dynamic/Byte1	27	Byte	03/10/2018 15:26:50.625	03/10/2018 15:26:50.625	Good	Subscription1	Session0
Boolean	ns=2;s=Dynamic/Boolean	True	Boolean	03/10/2018 15:26:50.625	03/10/2018 15:26:50.625	Good	Subscription1	Session0
Int1	ns=2;s=Static/Int1	-16406	Int16	03/10/2018 14:39:42.874	03/10/2018 14:39:42.874	Good	Subscription0	Session1
Int2	ns=2;s=Static/Int2	1866990214	Int32	03/10/2018 14:39:42.876	03/10/2018 14:39:42.876	Good	Subscription0	Session1
Int3	ns=2;s=Static/Int3	6819221709950500880	Int64	03/10/2018 14:39:42.876	03/10/2018 14:39:42.876	Good	Subscription0	Session1
UInt1	ns=2;s=Static/UInt1	39711	UInt16	03/10/2018 14:39:42.876	03/10/2018 14:39:42.876	Good	Subscription0	Session1
UInt2	ns=2;s=Static/UInt2	400632959	UInt32	03/10/2018 14:39:42.877	03/10/2018 14:39:42.877	Good	Subscription0	Session1
UInt3	ns=2;s=Static/UInt3	1408172889387341416	UInt64	03/10/2018 14:39:42.877	03/10/2018 14:39:42.877	Good	Subscription0	Session1
String1	ns=2;s=Static/String1	www.integrationobjects.com	String	03/10/2018 14:39:42.877	03/10/2018 14:39:42.877	Good	Subscription0	Session1

Figure 5: Data View

Step 3: Explore History Data

To explore history data, variable nodes that have history data need to be dragged and dropped to the **History View** so that a new tab with the node display name will be created.

The user can choose between Read Raw, Read Processed, Read Modified and Read at Time. The figure below illustrates the read raw action:



Index	Time	Value	Quality	History Info
[0]	02/10/2018 11:34:27:513.513	69	Good	00
[1]	02/10/2018 11:34:28:014.014	36	Bad	00
[2]	02/10/2018 11:34:28:514.514	18	Good	00
[3]	02/10/2018 11:34:29:014.014	84	Bad	00
[4]	02/10/2018 11:34:29:517.517	64	Bad	00
[5]	02/10/2018 11:34:30:016.016	47	Good	00
[6]	02/10/2018 11:34:30:531.531	14	Good	00
[7]	02/10/2018 11:34:31:032.032	85	Good	00
[8]	02/10/2018 11:34:31:532.532	125	Bad	00
[9]	02/10/2018 11:34:32:034.034	24	Bad	00

Figure 6: Read Raw

The Processing Interval, the Start Time, the End Time and the Max Values Returned parameters are configurable using the fields available at the top of the grid view.

Step 4: Monitor Alarms and Conditions

To monitor alarms and events, the object node that should be an Event Notifier need to be dragged and dropped from the address space browser to the **Event View** grid view. Same as monitoring real-time data, a subscription should be created to receive Alarm and Condition notifications from the server.

After choosing the subscription, the event and alarm notifications will be added to the grid view as illustrated in the figure below:

Data View History View Event View									
AckReq	Node Display Name	Event Type	Source Name	Time	Message	Severity	Condition	Subscription Name	Session Name
Req	Server	Level	EventSources.Area2.Condition	3/2/2017 1:50:58 PM	Condition Active	100	SPLEVEL	Subscription0	Session2
	Server	Signal Change	EventSources.Area1.Simple2	3/2/2017 1:50:54 PM	False	800		Subscription0	Session2
	Server	Advanced Control	EventSources.Area1.Tracking	3/2/2017 1:50:59 PM	3489	600		Subscription0	Session2
	Server	Device Failure	EventSources.Area1.Simple	3/2/2017 1:50:59 PM	True	400		Subscription0	Session2
	Simulation	Program Transition...	Simulation	3/2/2017 1:49:56 PM	The "":"Start" m...	500		Subscription0	Session3
	Server	Injection Test Repor...	HistoryEvents/Titan	3/2/2017 1:50:54 PM	An injection test ...	500		Subscription0	Session3
	Server	FluidLevelTestRep...	HistoryEvents/Jupiter	3/2/2017 1:50:54 PM	A fluid level test r...	500		Subscription0	Session3

Figure 7: Event View

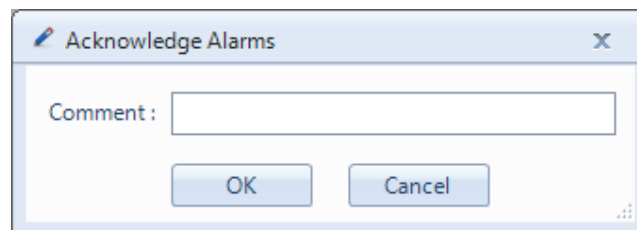
Step 5: Acknowledge Alarms

To acknowledge the alarms, select one or many rows from the Event gridview then right click and select **Acknowledge Selected** as illustrated in the figure below.

Data View History View Event View									
AckReq	Node Display Name	Event Type	Source Name	Time	Message	Severity	Condition	Subscription Name	Session Name
Req	Server	Level	EventSources.Area2.Condition	3/2/2017 1:44:59 PM	Condition Active	100	SPLEVEL	Subscription0	Session2
		A Acknowledge Selected	EventSources.Area1.Simple2	3/2/2017 1:44:55 PM	False	800		Subscription0	Session2
	Server	Advanced Control	EventSources.Area1.Tracking	3/2/2017 1:44:55 PM	3416	600		Subscription0	Session2
	Server	Device Failure	EventSources.Area1.Simple	3/2/2017 1:44:55 PM	False	400		Subscription0	Session2

Figure 8: Acknowledge Selected Alarms

If the acknowledge is required the **Acknowledge Alarms** dialog will prompted so that the user enters his comment.



The dialog box titled "Acknowledge Alarms" contains a text input field labeled "Comment:" and two buttons: "OK" and "Cancel".

Figure 9: Acknowledge Alarms Dialog

For additional information on this guide, questions or problems to report, please contact:

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