

# Integration Objects' MQTT IoT Connector for OPC DA

OPC Client for MQTT Version 1.0 Rev. 0

## **QUICK USER GUIDE**

OPC Client for MQTT Quick User Guide Version 1.0 Rev 0 Published May 2018 Copyright © 2018 Integration Objects. All rights reserved.



## **ABOUT THIS USER GUIDE**

This guide is a step by step guide on how to install, configure and run OPC Client for MQTT.

## **INSTALLATION PRE-REQUISITES**

In order to properly run the OPC Client for MQTT, make sure to install these software components on the target system:

- .NET Framework version 4.5 or higher
- OPC Core Components version 3.00

#### **INSTALLING OPC CLIENT FOR MQTT**

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

#### STARTING OPC CLIENT FOR MQTT

Go to Start  $\rightarrow$  Programs  $\rightarrow$  Integration Objects  $\rightarrow$  OPC Client for MQTT  $\rightarrow$  OPC Client for MQTT to start the OPC Client for MQTT configuration tool.



Figure 1: OPC Client for MQTT Start Menu

## ADDING AN OPC DA CONNECTION

- 1. In the main user interface, go to the OPC Servers tab.
- 2. Right click on the OPC DA Servers node and then select **Connect to OPC DA Server** from the displayed menu.



OPC Servers	MQTT Agents	-
		P
	Connect to OPC DA Server	
0	Connect to OPC DA Server	

Figure 2: Connect to OPC DA Server Menu

- 3. Select you OPC DA Server from the displayed list and click on the **Connect** button.
- 4. Right Click on the connected OPC DA Server and then select **Add Group** from the displayed menu.

OPC Servers	MQTT Agents		
⊡ OPC Serve	rs		
OPC DA	A Servers	downed Circulates 111 and base	
	ntegrationObjecte A	Add Group	
		Display Tag Browser	
		Reconnect Server	
		Disconnect Server	
	×	Remove All Groups	
	*	Remove Server	
		Server Status	

Figure 3: Add Group

- 5. Enter the OPC Group parameters and click the **Apply** button.
- 6. Right click on the OPC Group node and select the Add Items menu item.



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+	Add Items	
	Add Items Manually	
Q	View Group Data	
X	Export Items to Data File	
X	Import Items from Data File	
1	Read Mode	•
1	Write Mode	٠
2	Set Group Properties	
×	Remove All Items	
*	Remove Group	
9	View Group Properties	

Figure 4: Add Items

7. Browse the OPC DA Server address space and select the required OPC items. Then, click on the **Apply** button.

#### **ADDING AN MQTT AGENT**

- 1. In the main user interface, go to the MQTT Agents tab.
- 2. Right click on the DA MQTT Agents and select the **Add New Agent** from the displayed menu.

OPC Servers	MQTT Agents
□ MQTT Age	ents
DA MO	T Agonte
	Add New Agent

Figure 5: Add New Agent Context Menu Item



3. Enter the MQTT Agent name and the MQTT Protocol version. Then, click Next.

头 Add M	QTT Agent		x
	Name and Protoc	ol Version	
	Welcome to A Wizard	dd MQTT Agent	
	This wizard will guide you through the steps of adding new MQTT agent		
	MQTT Agent Name:	Agent	
	MQTT Protocol Version:	3.1.1	
		To continue, click Next	
		< Back Next > Cance	<u>؛</u> ا

Figure 6: Name and Protocol Parameters



4. Configure the MQTT broker and the publishing operations parameters. Then, click **Next**.

🔦 Add MQTT Agent		x
Broker and Publis	h Parameters	
MQTT Broker		
Address:	127.0.0.1	
Reconnection Retry Delay:	2000 (ms) Port: 1883 (ms)	
Keep Alive Period:	2000 (ms) Clean Session	
Publish		
Topic:	PlantA/Section3/DCS1/Tags	
QoS:	0 (At Most Once)	
	Retain	
	< Back Next > Cance	1

Figure 7: Broker and Publish Parameters



5. Select the group to be assigned to this agent. Then, click **Next**.

🔦 Add M	QTT Agent			x
	OPC Groups			
	Please select one or n	nany groups to assign to the created agent :		
	Group Name	Server Progld	Host Address	
	Group0	IntegrationObjects.AdvancedSimulator.1	localhost	
	<		>	
		< Back	Next > Car	icel

Figure 8: OPC Groups Selection



#### 6. Verify your configuration and then click the **Finish** button.

🔦 Add MQTT Agent		x
You have successfully complete	d the MQTT Agent configuration	
You have specified the following	) settings:	
Parameter	Value	^
Name and Procotol		
Name	Agent	
MQTT Version	MQTT V3.1.1	
Broker and Publish Parameters		-
Broker Address	127.0.0.1	
Port	1883	
Reconnection Retry Delay	2000	
Keep Alive Period	2000	
Clean Session	Yes	
Topic	PlantA/Section3/DCS1/Tags	
QoS	At Most Once	
Retain	No	
		~
	< Back Finish Cance	!

Figure 9: MQTT Agent Parameters Verification



## LAUNCHING THE MQTT AGENT

Right click on the created MQTT Agent and select **Start** from the displayed menu. This will automatically launch the OPC DA data transfer to the configured MQTT broker.



Figure 10: Start Agent Context Menu Item



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

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