

## How to Use the MQTT Extension

Simple, Informal Steps on Getting Started with the [MQTT Extension](#) on the TWX Marketplace.

Tested with Thingworx 8.4 in February 2019, version 1.1

### Install Broker / Server

You can use [mosquitto](#) as an easy-to-use broker. If installed on Windows it will run as a service and you can control the settings from C:\Program Files\mosquitto\mosquitto.conf.

### Install Client

You can use [MQTT.fx](#) as a client

You just need to connect it to the broker using server name and port.

### Import Extension

Import the [extension from the marketplace](#) using the menu option Import/Export > Import > Extension > File Name > 139-MQTT\_Extensions.zip

### Create the Thing

Create a Thing (e.g. called TestMQTT (or MQTT2 as per the below screenshot)) in TWX based on the template MQTT (which has both Connection and Subscriber capabilities)

Go to Properties > Add > Name=status, Type=string, Persistent=TRUE

Go to Configuration > JDBC Settings > serverName and input the server name for your MQTT Broker.

Go to Configuration > JDBC Settings > serverPort and input the server port for your MQTT Broker.

Thing: MQTT2 To Do Save Cancel More

General Information Properties and Alerts Services Events Subscriptions **Configuration** Permissions Change History View Relationships

### JDBC Settings

**clientIdFormat**  
/Thingworx/(s)/(t)

**password**  
\*\*\*\*\*

**qos**  
0

**connectTimeout**  
10000

**serverName**  
localhost

**retryInterval**  
30000

**serverPort**  
1883

**userId**

**timeout**  
5000

useSSL

Go to Configuration > Mappings > Add and add a row as follows:

subscribe=TRUE, publish=TRUE, name=status, topic=home/garden/fountain

Save your Thing

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### Configuration

#### Mappings

Mappings (1) + Add

Actions	subscribe	publish	name	topic
 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	status	home/garden/fountain

## Publish a Topic

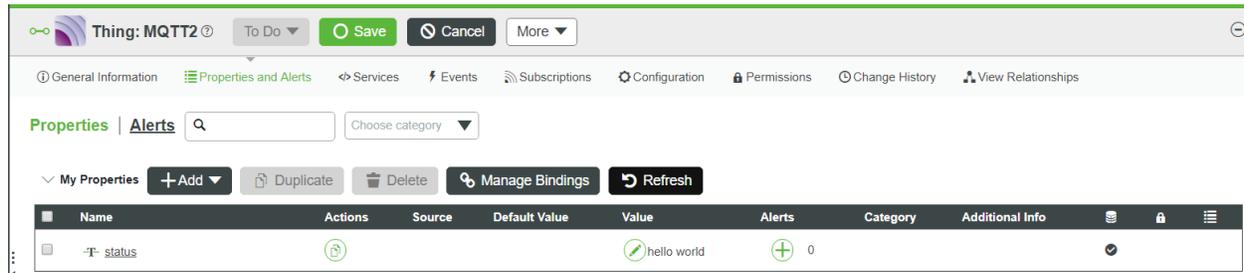
In MQTT.fx, subscribe to topic: home/garden/fountain

In MQTT.fx, publish some message, e.g. "hello world" to topic: home/garden/fountain

In MQTT.fx under the subscribe tab you should see that you've received the "hello world" message from the broker.

## Check the Thing

Now go to TWX > Thing TestMQTT (or MQTT2 as per the screenshot) > Properties, you might need to click Refresh. You should see the “hello world” message received from the broker. You can input a value to property status (e.g. “hello from TWX”) and you should be able to see that message received in MQTT.fx



## Other Considerations – Mosquitto pub / sub

Alternatively note that Mosquitto comes with a subscriber and publisher too, so you wouldn't need to install another client. Syntax would be

```
.\mosquitto_sub.exe -t home/garden/fountain
```

```
.\mosquitto_pub.exe -t home/garden/fountain -m "hello, world"
```

## Other Considerations – MQTTBox

As an alternative MQTT client you could also use [MQTTBox](#)

## Other Considerations – Python

You can also publish and subscribe topics from Python using the paho MQTT python client from Eclipse. A very simple publish and subscribe example is attached in MQTT-from-Python.zip

## Acknowledgements

Stefan Bode has published some more detailed videos in German on using the MQTT Extension on [Youtube here](#)

Roman Legat helped me out with some of these steps.