



Application Note

MQTT Host Utility

For use with GW66 Gateway



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1 MQTT Host Utility

1.1 Basic Parameters

- For use with the FLIR GW66 Gateway
- Port: 1883 (default), programmable
- Data topic: MQTT, programmable
- Data interval: 60 seconds (default), programmable
- Active interval: 60 seconds (default), programmable
- Username and password: MQTT (both)
- QoS level: 1 (default), programmable. See table below.

QoS Level	Publisher
0 (one time, maximum)	Sends message only once
1 (at least once)	Will send a message at least once, if an acknowledgement is received, or if the command to end the transmission is received
2 (exactly once)	Sends message only once

1.2 Payload Format

MQTT payload for GW66 sensor data is in JSON. See an example of the MQTT payload below.

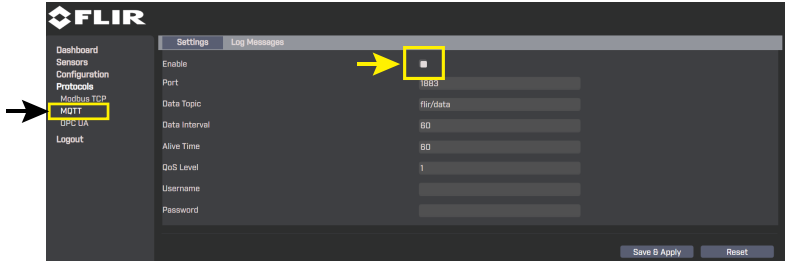
Sensor format: Sensor{index}: {index of sensor payload}

Complete format: {Sensor1: {Sensor1 payload}, Sensor2: {Sensor2 payload}, ...Sensor10: {Sensor10 payload}}

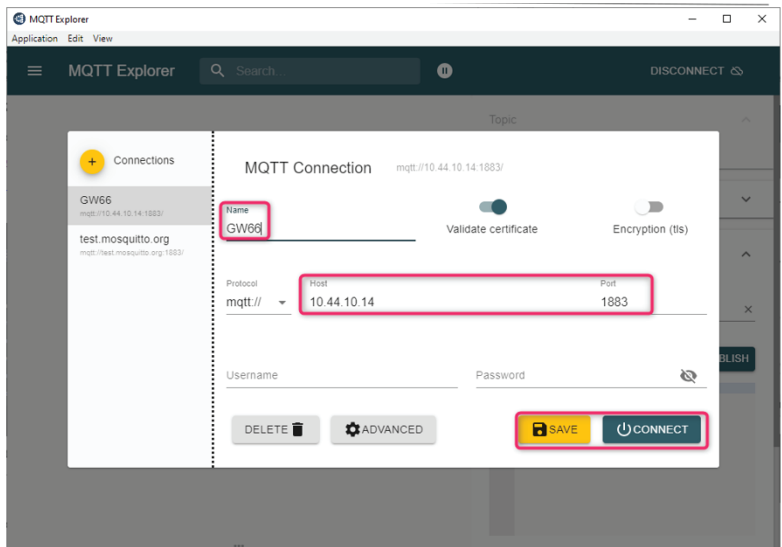
```
{ "Sensor1": { "record_time": "1662986234", "sn": "SV89-345678", "iso_x": "2.112",
"iso_state_x": "1", "rms_x": "1.642", "rms_state_x": "1", "peak_x": "2.351", "peak_state_x": "1",
"cf_x": "2.0", "cf_state_x": "1", "kurt_x": "1.1", "skew_x": "1.3", "stdev_x": "1.4", "temp": "25.0",
"temp_state": "1" }, "Sensor2": { "record_time": "1662986234", "sn": "SV89-234567", "iso_x":
"2.112", "iso_state_x": "1", "rms_x": "1.642", "rms_state_x": "1", "peak_x": "2.351",
"peak_state_x": "1", "cf_x": "2.0", "cf_state_x": "1", "kurt_x": "1.1", "skew_x": "1.3", "stdev_x":
"1.4", "temp": "25.0", "temp_state": "1" }, "Sensor3": { "record_time": "1662986234", "sn":
"SV88-567890", "iso_x": "2.112", "iso_state_x": "1", "iso_y": "2.043", "iso_state_y": "1", "iso_z":
"2.017", "iso_state_z": "1", "rms_x": "1.642", "rms_state_x": "1", "rms_y": "1.371",
"rms_state_y": "1", "rms_z": "1.456", "rms_state_z": "1", "peak_x": "2.351", "peak_state_x":
"1", "peak_y": "2.148", "peak_state_y": "1", "peak_z": "2.104", "peak_state_z": "1", "cf_x":
"2.0", "cf_state_x": "1", "cf_y": "2.02", "cf_state_y": "1", "cf_z": "1.58", "cf_state_z": "1",
"kurt_x": "1.1", "kurt_y": "1.25", "kurt_z": "1.4", "skew_x": "1.3", "skew_y": "1.12", "skew_z":
"1.25", "stdev_x": "1.4", "stdev_y": "1.32", "stdev_z": "1.12", "temp": "25.0", "temp_state":
"1" }, "Sensor4": { "record_time": "1662986234", "sn": "SV88-123456", "iso_x": "2.112",
"iso_state_x": "1", "iso_y": "2.043", "iso_state_y": "1", "iso_z": "2.017", "iso_state_z": "1",
"rms_x": "1.642", "rms_state_x": "1", "rms_y": "1.371", "rms_state_y": "1", "rms_z": "1.456",
"rms_state_z": "1", "peak_x": "2.351", "peak_state_x": "1", "peak_y": "2.148", "peak_state_y":
"1", "peak_z": "2.104", "peak_state_z": "1", "cf_x": "2.0", "cf_state_x": "1", "cf_y": "2.02",
"cf_state_y": "1", "cf_z": "1.58", "cf_state_z": "1", "kurt_x": "1.1", "kurt_y": "1.25", "kurt_z":
"1.4", "skew_x": "1.3", "skew_y": "1.12", "skew_z": "1.25", "stdev_x": "1.4", "stdev_y": "1.32",
"stdev_z": "1.12", "temp": "25.0", "temp_state": "1" } }
```

1.3 Verify MQTT Broker

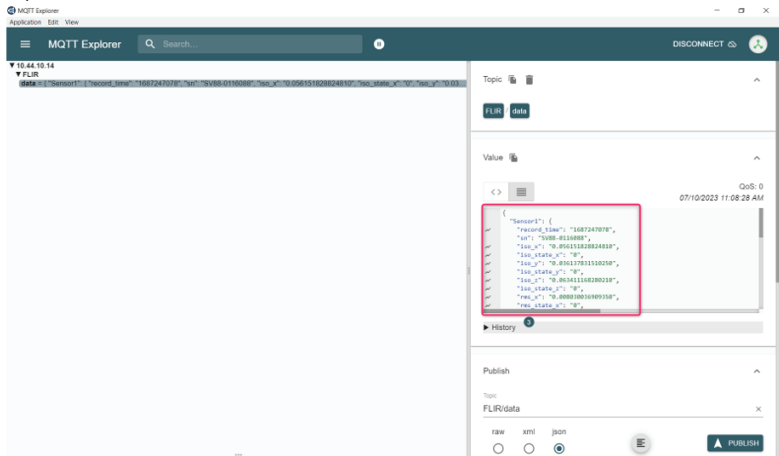
1. Enable MQTT in the GW66 user interface, per the image below.



2. Use the link below to download MQTT-Explorer
<https://apps.microsoft.com/detail/9PP8SFM082WD?ocid=badge=1=en-US=US>
3. Open MQTT Explorer and complete the parameter fields. The parameters should match the settings in the GW66 user interface for Name (GW66), Host (GW66 IP address), and Port (1883). Save your settings and connect to the MQTT broker.



- Retrieve sensor data from the MQTT broker. It will take several seconds for the broker to publish sensor to the MQTT Explorer (MQTT client server).



- These data in MQTT Explorer should be same as the Sensor Data page in the GW66 user interface, per below.

The screenshot shows the FLIR GW66 user interface. The page displays the Sensor Data page for sensor SV88-0116088. The data is as follows:

Measure	X	Y	Z
Velocity(mm/s)	0.06	0.04	0.06
Acc. RMS (g)	0.01	0.01	0.01
Acc. Peak (g)	0.01	0.01	0.01
Crest Factor	3.81	3.80	4.34
Kurtosis	-0.06	-0.05	-0.00
Skewness	0.00	-0.01	-0.02
Standard Deviation	0.01	0.01	0.01
Temperature(°C)	23.26		

1.4 Customer Support

Customer Support Telephone List	https://support.flir.com/contact
Repair, Calibration, and Technical Support	https://support.flir.com



Website

<http://www.flir.com>

Customer support

<http://support.flir.com>

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