ADVANTECH Enabling an Intelligent Planet

Advantech AE Technical Share Document

Date	2018/3/6	SR#	1-3379302321
Category	■FAQ □ SOP	Related OS	N/A
Abstract	How to test ADAM MQTT function with Utility		
Keyword	MQTT, Adam/Apax.NET Utility , ADAM-6000, ADAM-6200		
Related Product	ADAM-6000, ADAM-6200		

■ Problem Description:

ADAM-6000-D version and ADAM-6200-AE have supported the MQTT function as a new feature. This document will explain how to test ADAM MQTT function with Adam/Apax.net Utility.

■ Answer

Below is the table for module support MQTT function. User need to check module have upgrade to the FW version below to have MQTT function.

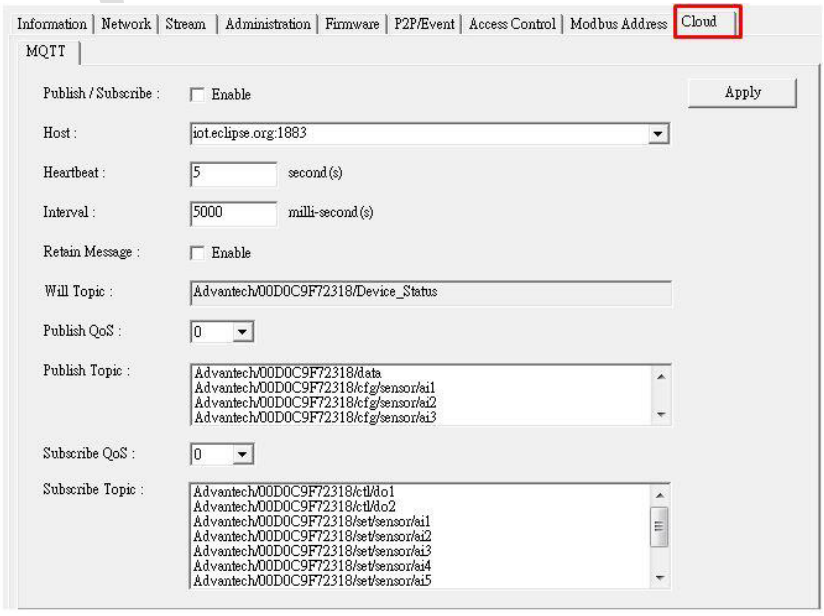
DIO Model	FW version	AIO Model	FW version
ADAM-6050/51/52/60/66-D	After 6.01 B11	ADAM-6017-CE	After 5.04 B04
ADAM-6250/51/56/60/66-AE	After A1.06 B07	ADAM-6217/6224-AE	After A1.06 B08

1. Configuration by using Adam/Apax.Net Utility

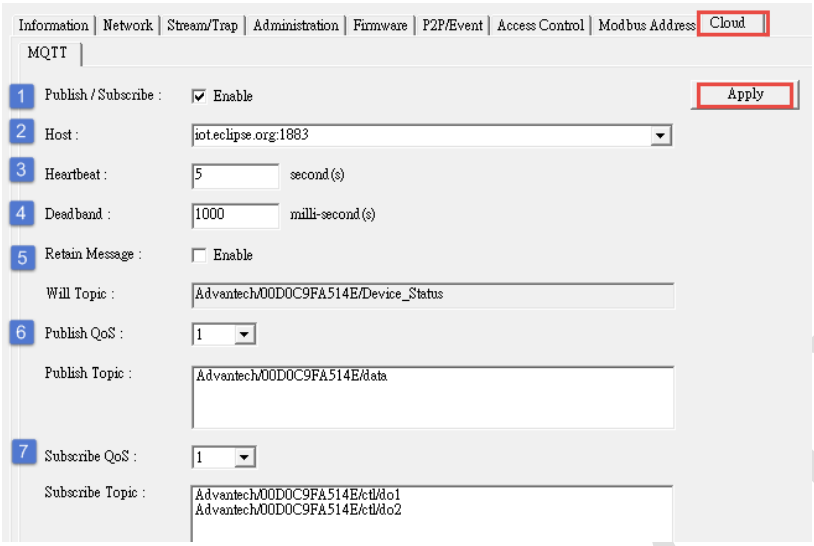
User need to install Adam/Apax.Net Utility version after v2.05.11 (B02) for MQTT function configuration. The latest Utility version can be downloaded from below link.

http://support.advantech.com/support/DownloadSRDetail_New.aspx?SR_ID=1-2AKUDB&Doc_Source=Download

After installing the latest Utility on your PC, you will see the "Cloud" menu in Utility as below.



2. Steps to configure ADAM MQTT function

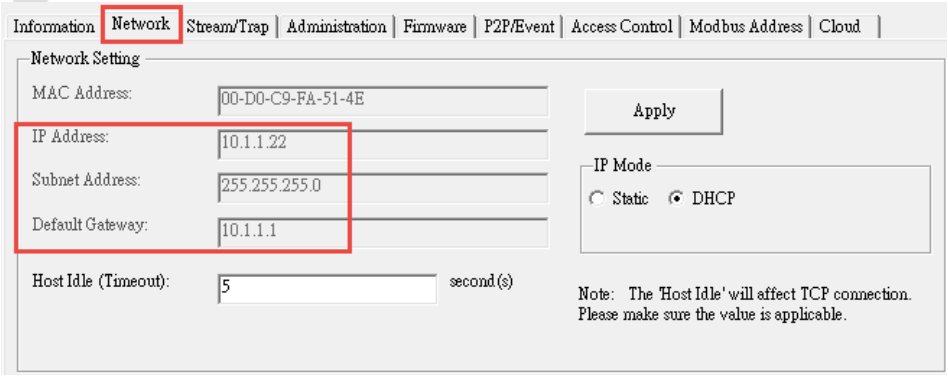


- Enable MQTT setting
- Set broker IP
  - can be IP address or URL, here we use iot.eclipse.org for testing
- Set heartbeat interval
- Deadband
  - Determine the minimum interval between publishing two MQTT messages
- Retain message
  - Let broker store the last message of the topic
- Publish QoS
  - Define the message delivery quality between broker and publisher (ADAM)
- Subscribe QoS
  - Define the message delivery quality between broker and subscriber (ADAM)

After finished all the setting, please click "**Apply**" button to make all the setting valid.

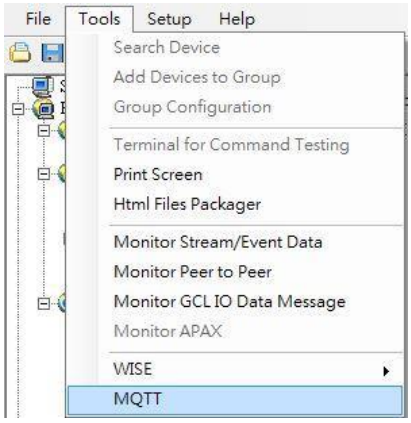
3. Check the network setting of ADAM module

Since the broker we set for ADAM is in a public IP address (iot.eclipse.org = 198.41.30.241), we need to make sure ADAM is able to communicate with a public IP, so here we set the module into DHCP mode for the external communication to a public IP.



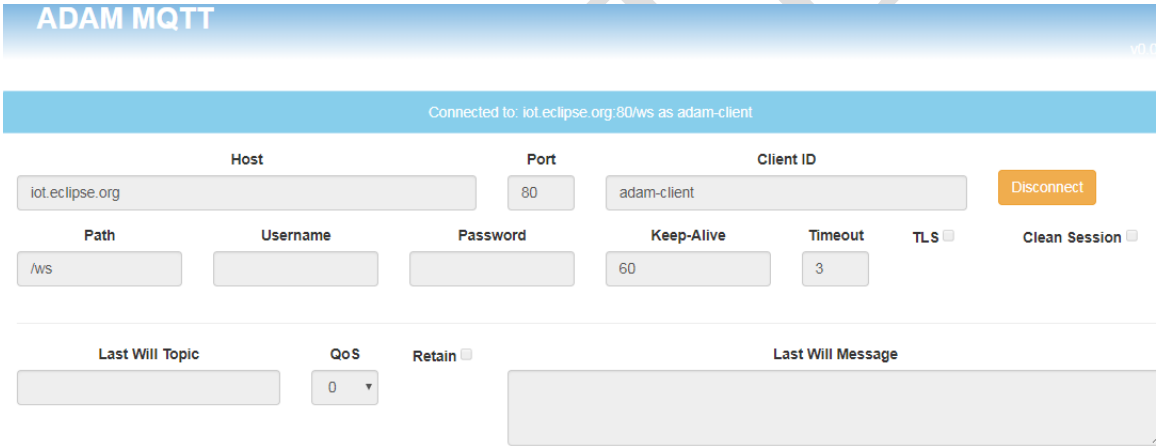
4. Using simulate MQTT client to subscribe data from broker to verify MQTT function

Step 1: Click “Tools” and “MQTT”, the page will lead you to ADAM MQTT page



Step 2: Set up the connection

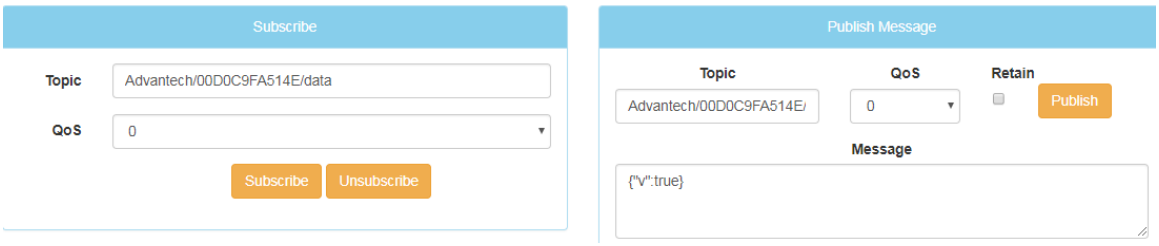
In the connection configuration page, user is able to set up the client information. The default host is a public broker “iot.eclipse.org” at port 80. Users can also set up the host URL or IP address. Click “connect” when the configuration is done.



Step 3: Use Subscribe/Publish function to get or send data to broker.

Subscribe: Enter the MQTT IO data topic of ADAM, here is “Advantech/00D0C9FA514E/data”

Publish: Enter the MQTT DO control topic of ADAM, here is “Advantech/00D0C9FA514E/ctl/do1”

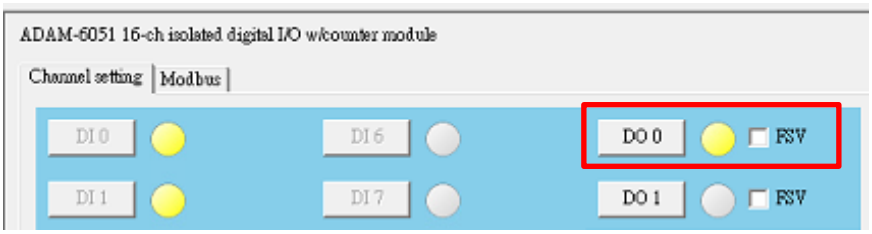


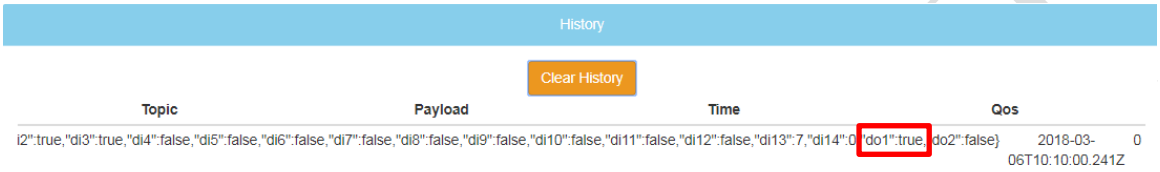
The detail information about each MQTT topic can refer to MQTT startup manual.

http://support.advantech.com/support/DownloadSRDetail_New.aspx?SR_ID=1-1EG0A1E&Doc_Source=Download

Step 4: Viewing the MQTT message

By changing the status of DO channel 0, you will see the result in history column.





By click the publish button on simulate client, user can change the DO channel 0 status successfully.