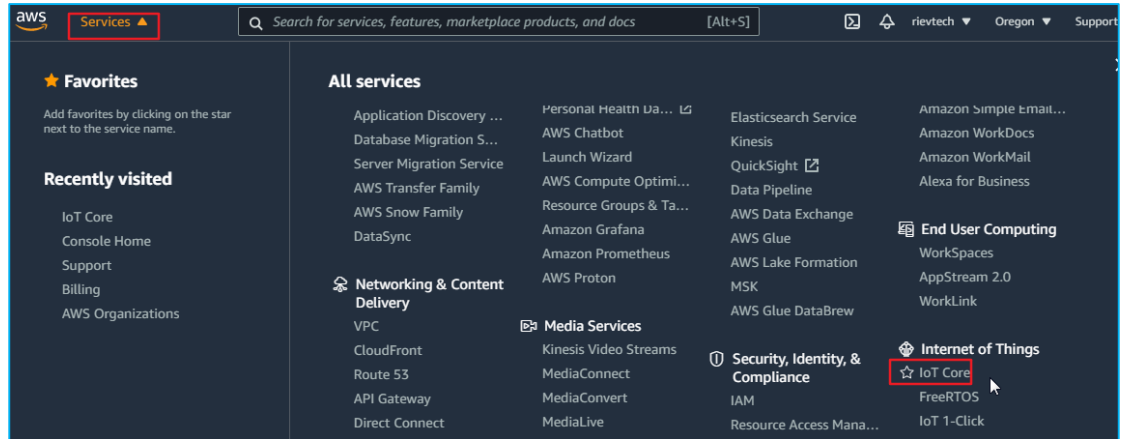
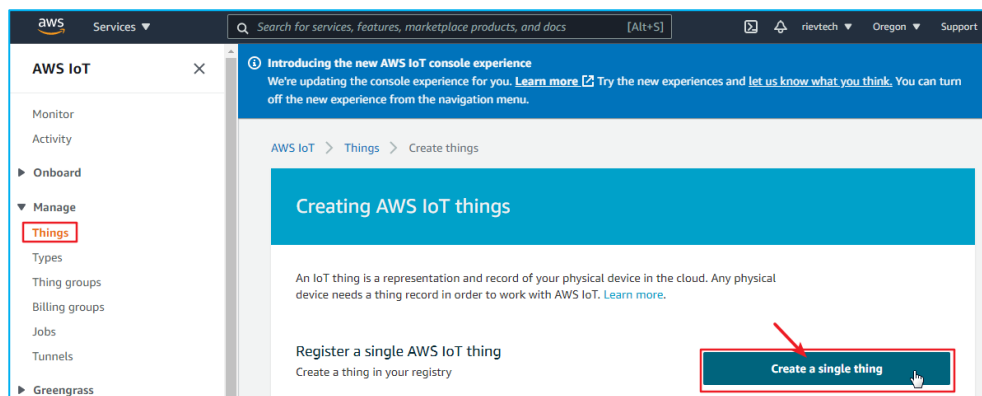
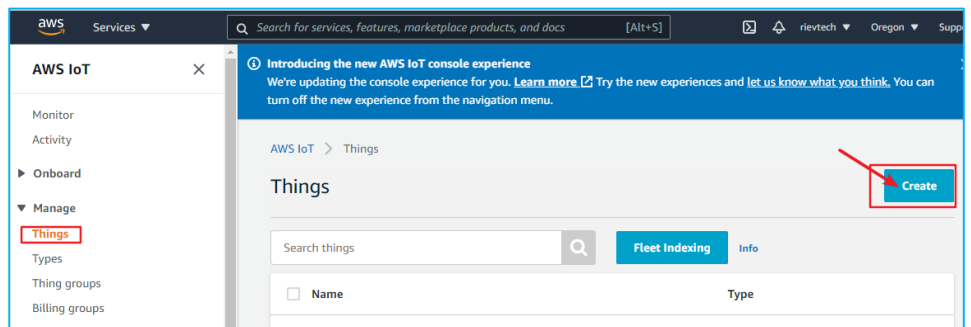


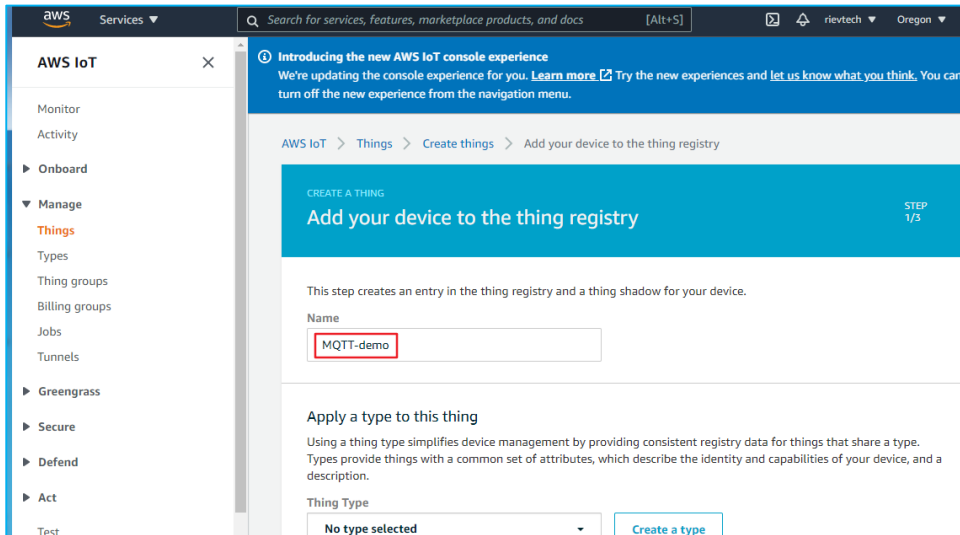
Rievtech PLC connect to AWS IoT platform

1. Enter 'Internet of Things' - 'IoT Core' in AWS Management Console, as shown below:

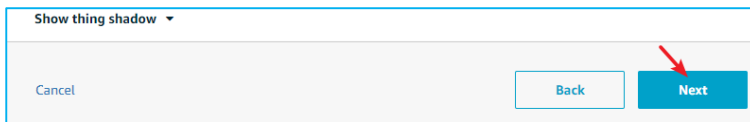


2. Create a new 'Things'.

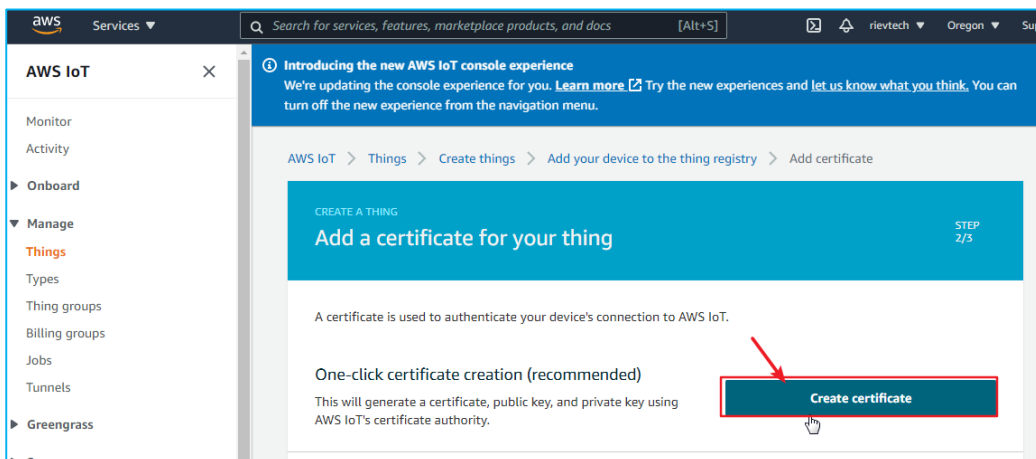




Click "Next" at the bottom of the page.



Create a certificate:



Certificate created!

Download these files and save them in a safe place. Certificates can be retrieved at any time, keys cannot be retrieved after you close this page.

In order to connect a device, you need to download the following:

A certificate for this thing	b4c8e96b0e.cert.pem	Download
A public key	b4c8e96b0e.public.key	Download
A private key	b4c8e96b0e.private.key	Download

You also need to download a root CA for AWS IoT:
A root CA for AWS IoT [Download](#)

[Activate](#)

Download the 3 certificates in the picture below.

Download these files and save them in a safe place. Certificates can be retrieved at any time, but the private and public keys cannot be retrieved after you close this page.

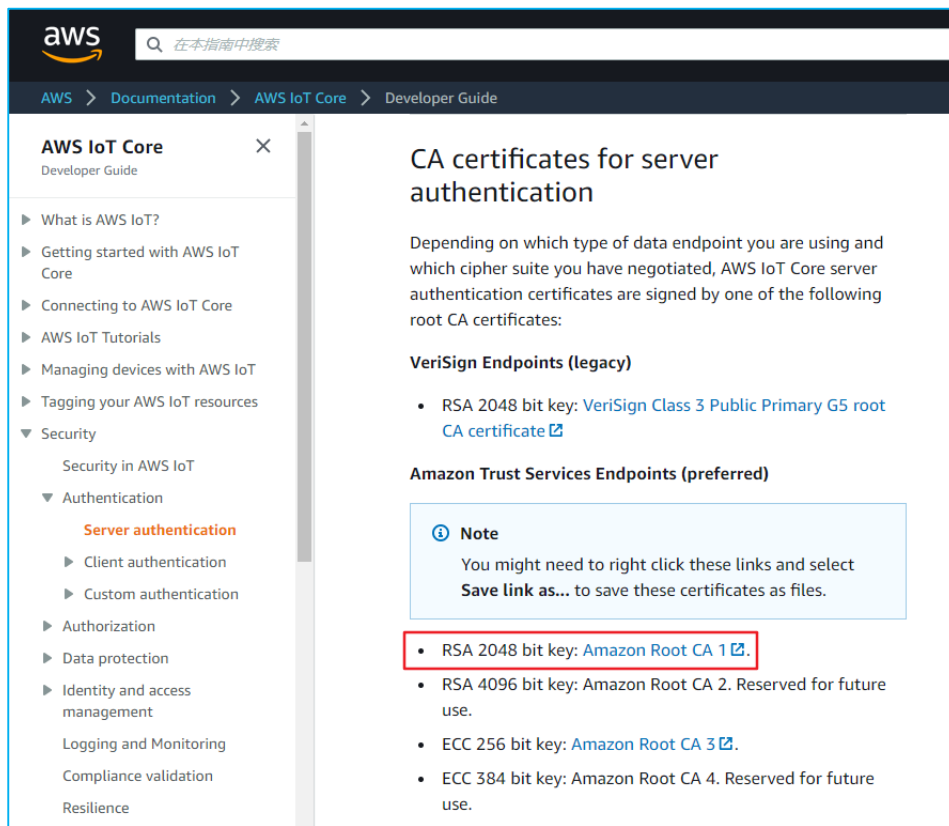
In order to connect a device, you need to download the following:

A certificate for this thing	b4c8e96b0e.cert.pem	Download
A public key	b4c8e96b0e.public.key	Download
A private key	b4c8e96b0e.private.key	Download

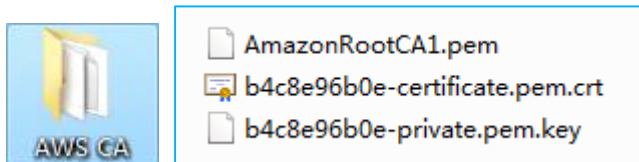
You also need to download a root CA for AWS IoT:
A root CA for AWS IoT [Download](#)

[Deactivate](#)

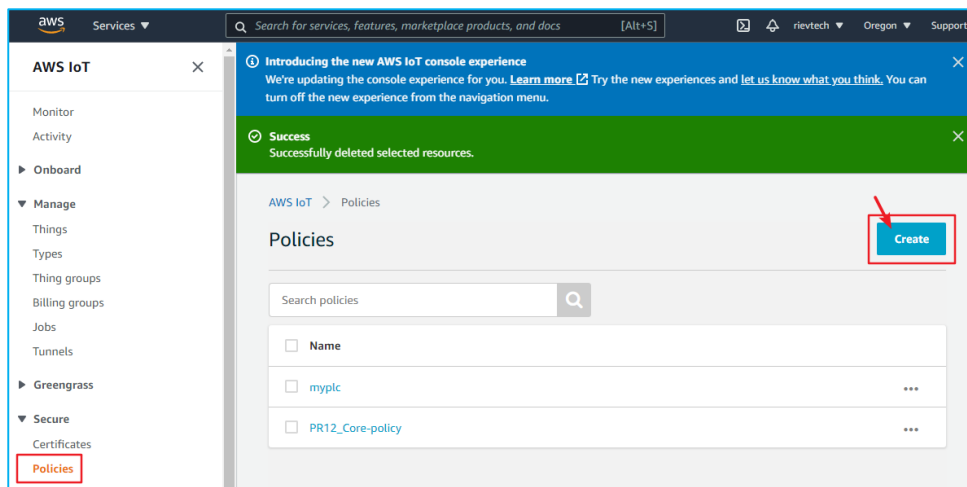
For root CA, select the ‘RSA 2048 bit key’ in the figure below:



Put the downloaded 3 certificates in a folder:



3. Create a new ‘Policies’ .



Create a policy

Create a policy to define a set of authorized actions. You can authorize actions on one or more resources (things, topics, topic filters). To learn more about IoT policies go to the [AWS IoT Policies documentation page](#).

Name

Add statements

Policy statements define the types of actions that can be performed by a resource.

Advanced mode

Action	<input type="text" value="iot:*"/>
Resource ARN	<input type="text" value="*"/>
Effect	<input checked="" type="checkbox"/> Allow <input type="checkbox"/> Deny
	<input type="button" value="Remove"/>

AWS IoT > Policies

Policies



Name

myplc

PR12_Core-policy

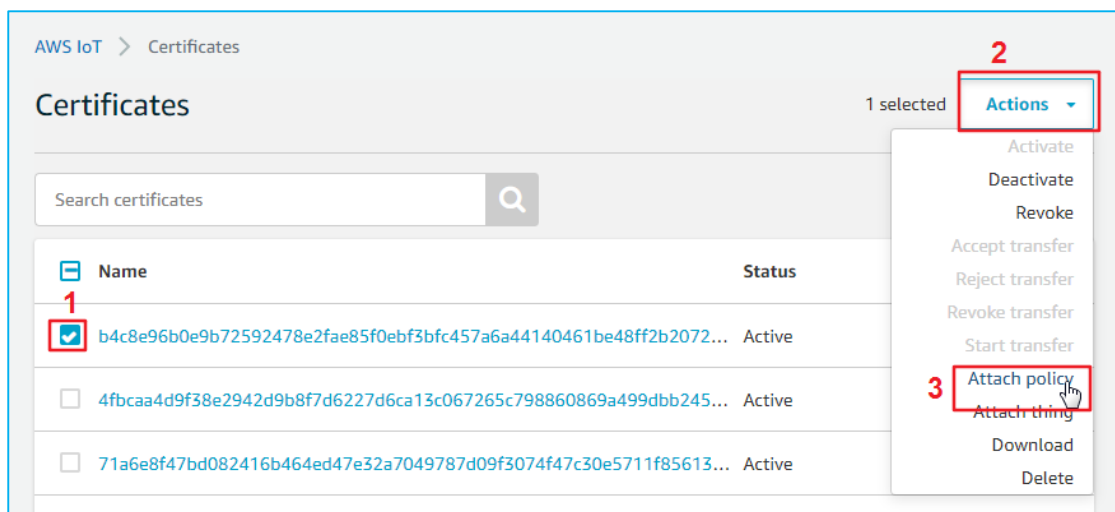
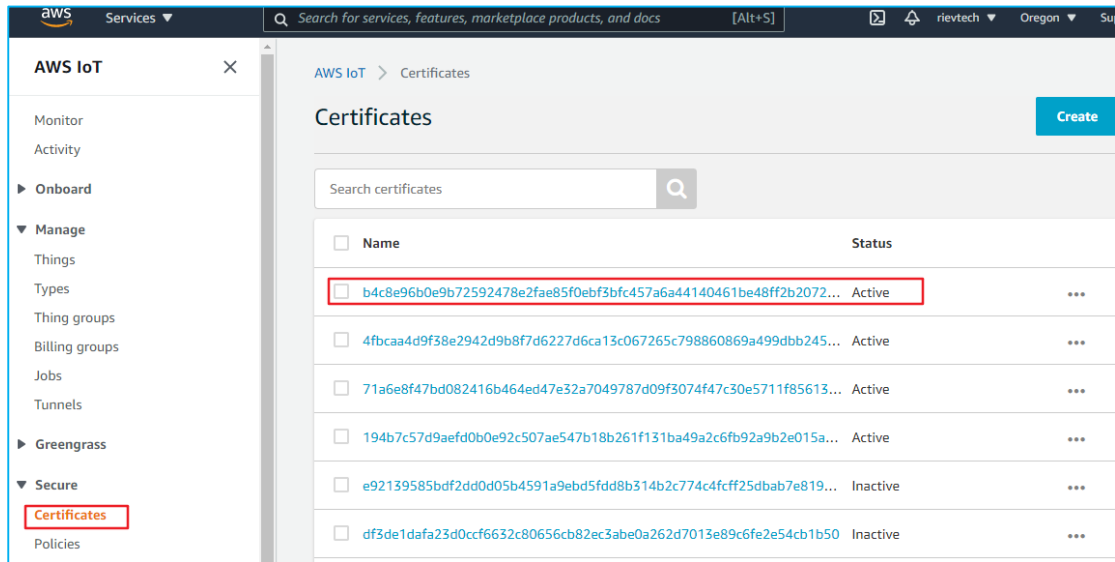
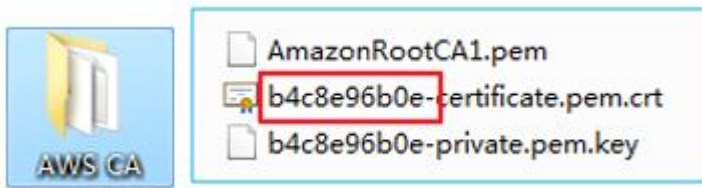
PLC-test01

...

...

...

Enter 'Certificates' and find the certificate just created.



Attach policies to certificate(s)

Policies will be attached to the following certificate(s):
b4c8e96b0e9b72592478e2fae85f0ebf3bfc457a6a44140461be48ff2b207207

Choose one or more policies

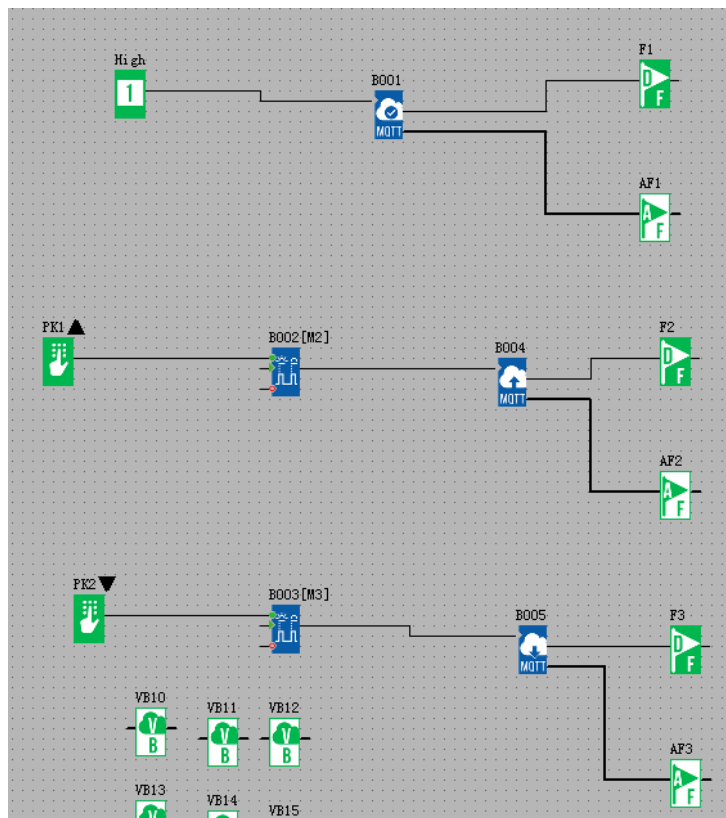
<input type="checkbox"/>	myplc	View
<input type="checkbox"/>	PR12_Core-policy	View
<input checked="" type="checkbox"/>	PLC-test01	View

1 policy selected

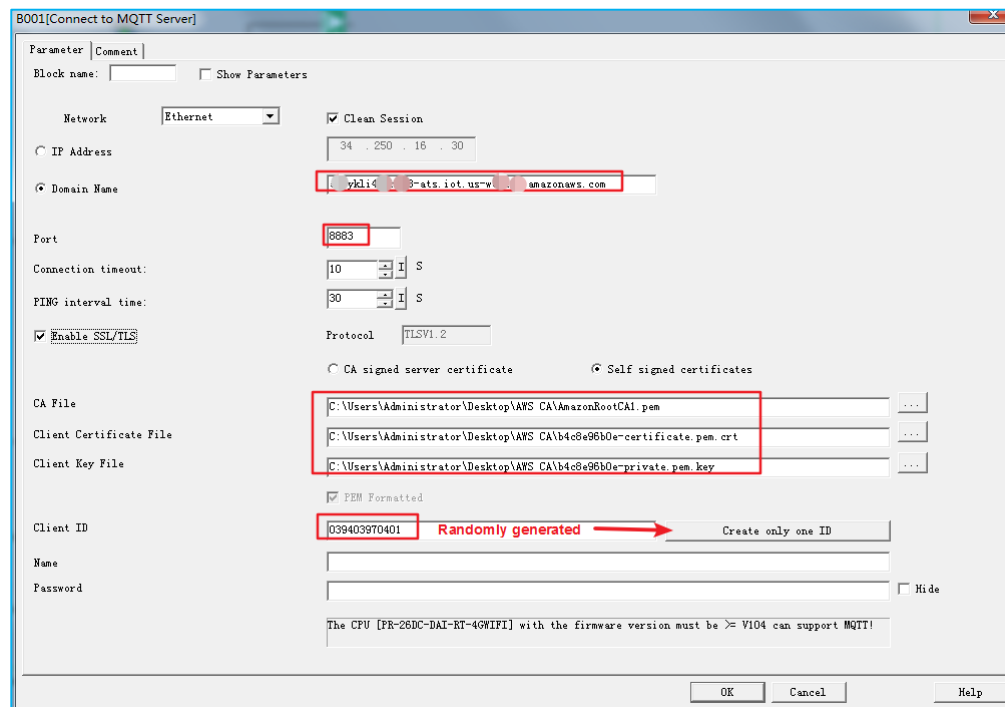
4. Find the endpoint of this Things in 'Settings'.
Port is 8883

The screenshot shows the AWS IoT console 'Settings' page. The left sidebar has 'Settings' highlighted. The main content area shows the 'Device data endpoint' section, which is circled in red. The endpoint URL is `afyl-tu0hi-3-ats.iot.us-east-1.amazonaws.com`. Below this, the 'Domain configurations' section is visible, showing a table with columns for Name, Domain name, Status, Service type, and Date updated. The table is currently empty, displaying 'No domain configurations'.

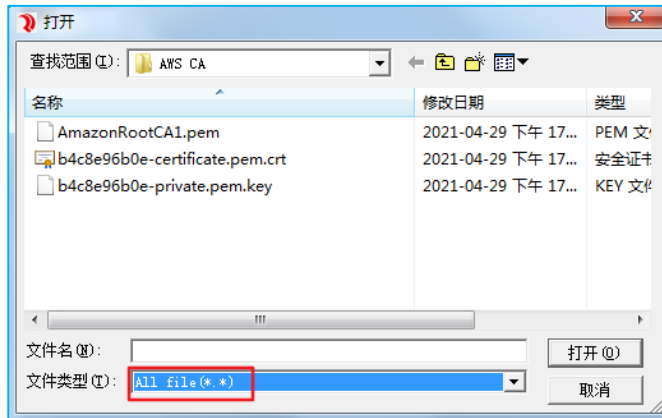
5. Write program on xLogic software.



1) 'Connect to MQTT Server' block:

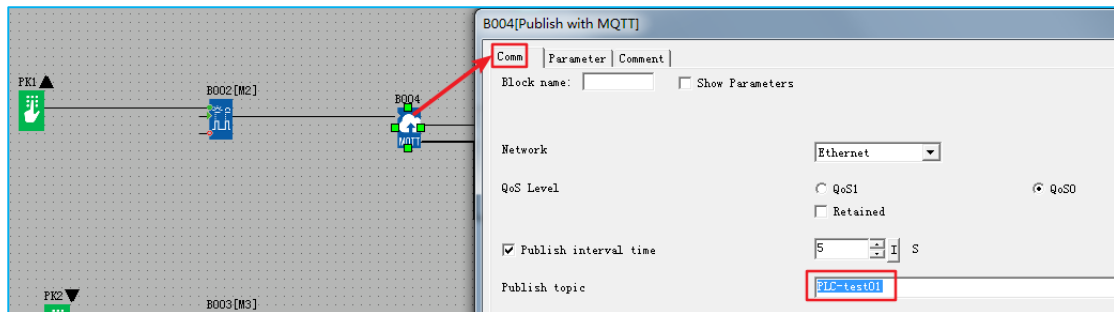


It should be noted that only our newly produced PR26-4G PLCs support the 4G MQTT function (PR26-4G PLCs produced in June 2021 and later).



After filling in, do not change the storage location of the certificate.

2) Publish

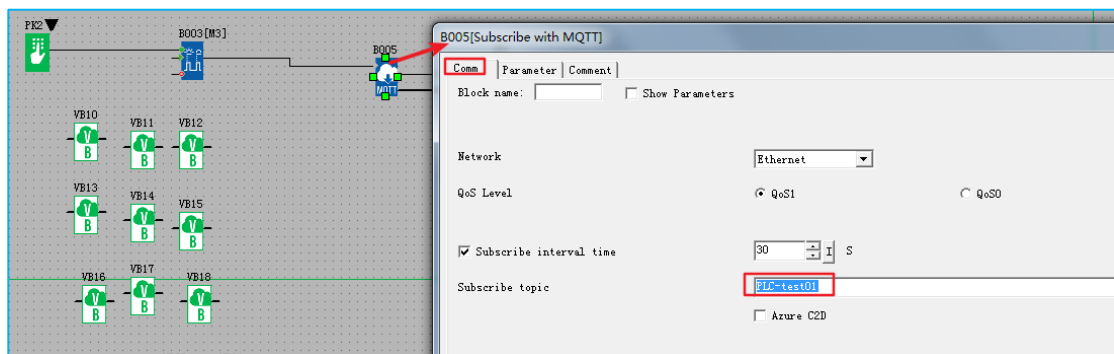


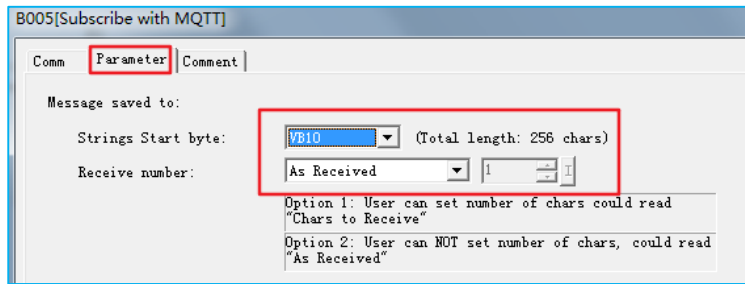
B004[Publish with MQTT]

Comm | Parameter | Comment

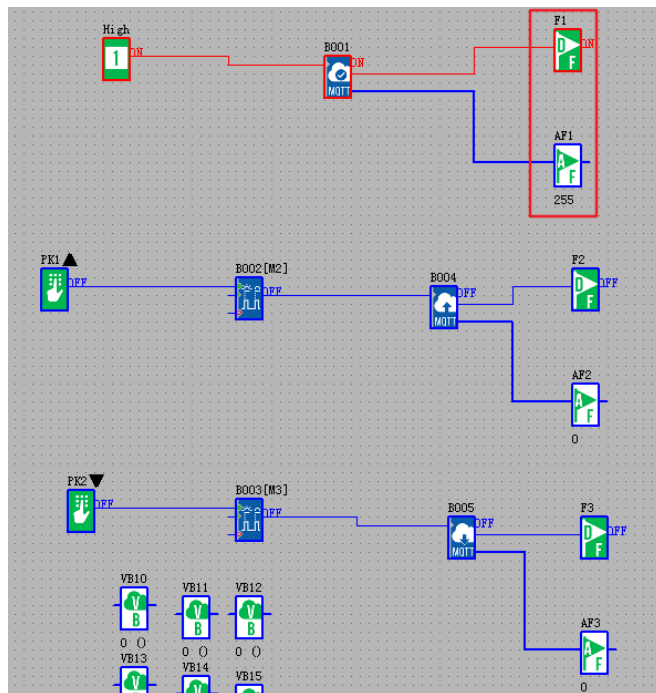
Comment	Parameter	CPU/EXT	Index	Count	Format	Description	Length
A					Signed short	S	0
B					Signed short	O	0
C	I	CPU	I001	1	Bit	S	0

3) Subscribe:



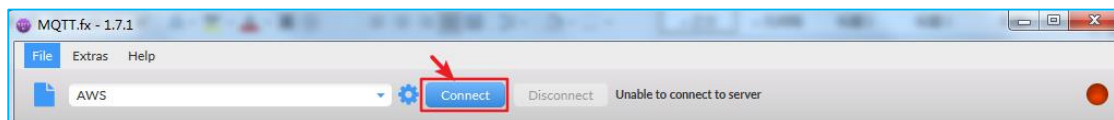
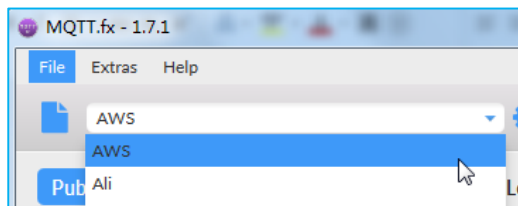
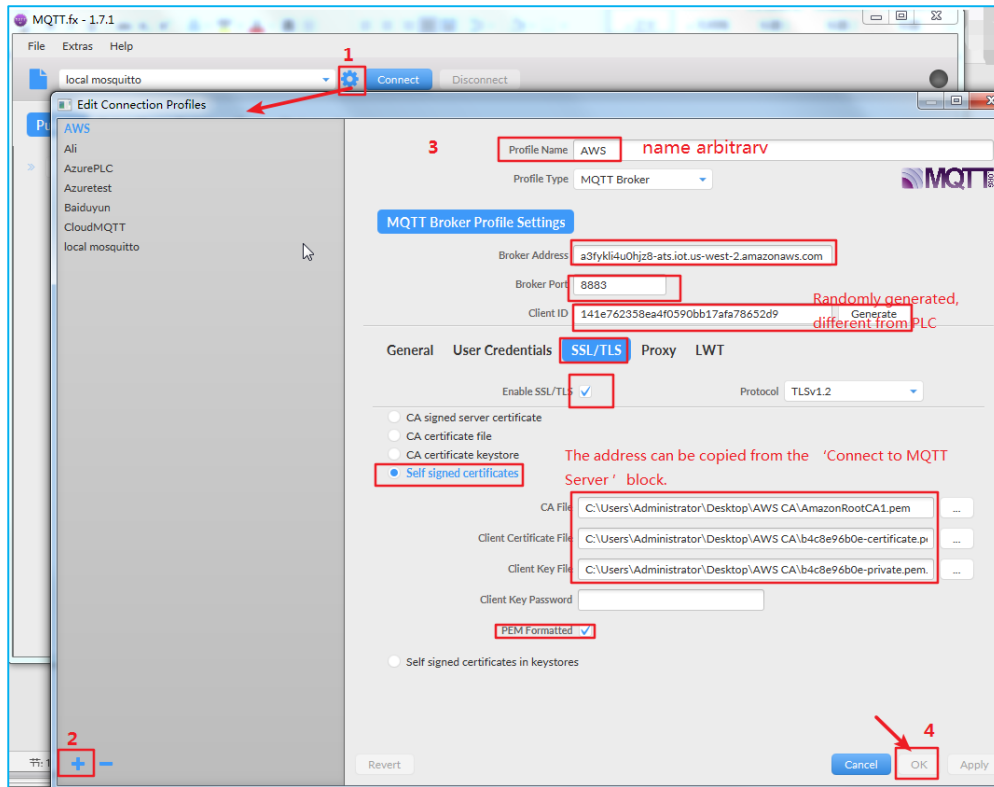


6. Download the program to PR-18DC-DA-R-N.
Online monitoring:

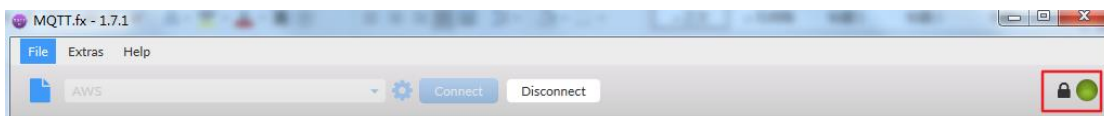


7. MQTT.fx connects to AWS platform

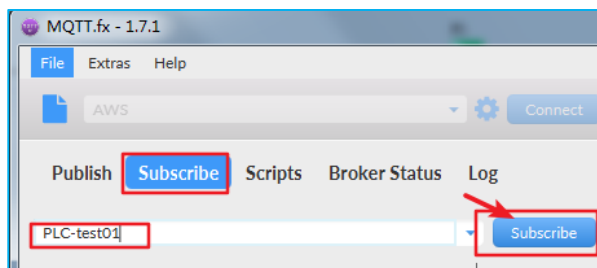
Download link: <http://mqttx.org/http://www.jensd.de/apps/mqttx/1.7.1/>

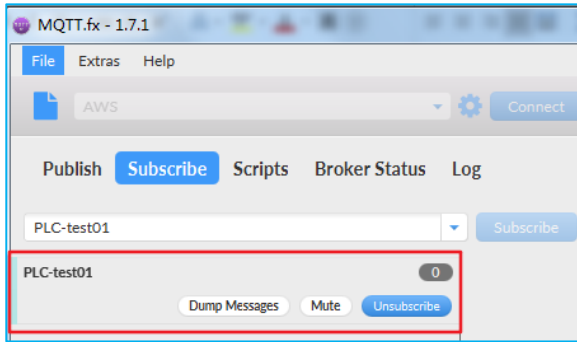


When MQTT.fx is successfully connected to the AWS platform, as shown below:

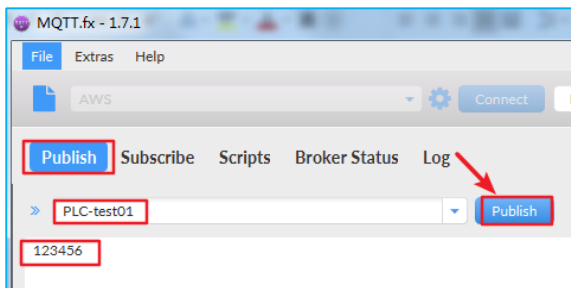


subscribe topic:





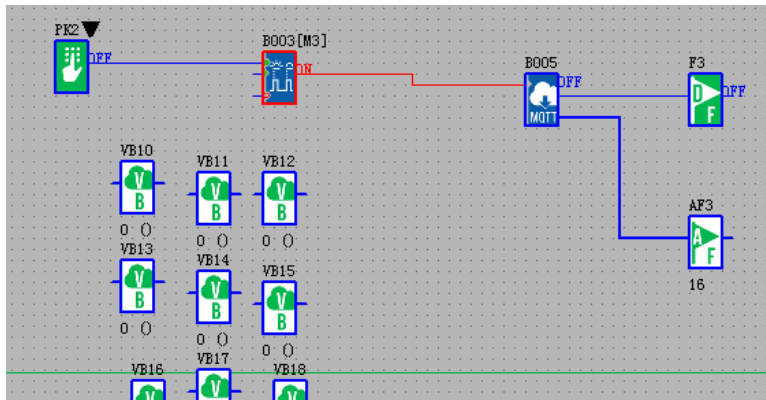
publish topic:



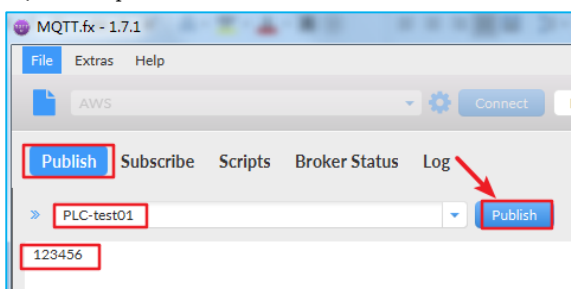
8. Use MQTT.fx to test MQTT of PLC.

1) Test the MQTT subscribe of PLC:

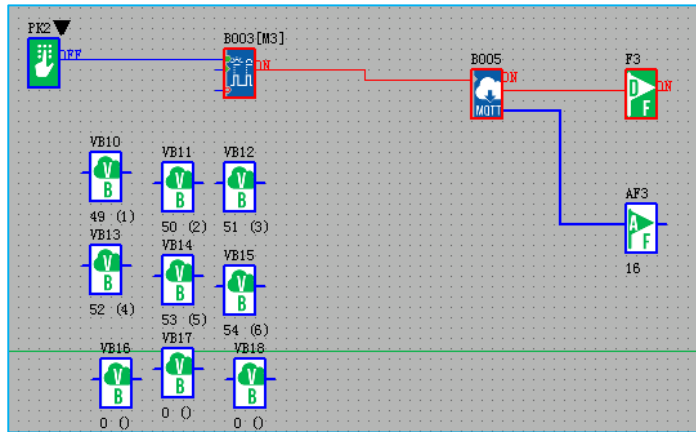
Press the down button on the LCD panel to trigger Subscribe with MQTT block.



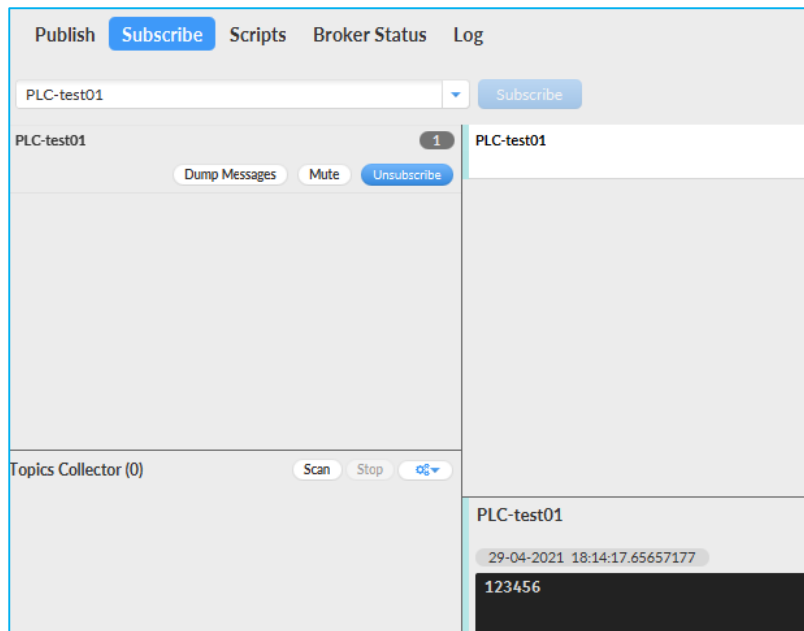
MQTT.fx publishes information with the subject 'PLC-test01'.



PLC successfully subscribed to the topic 'PLC-test01' .



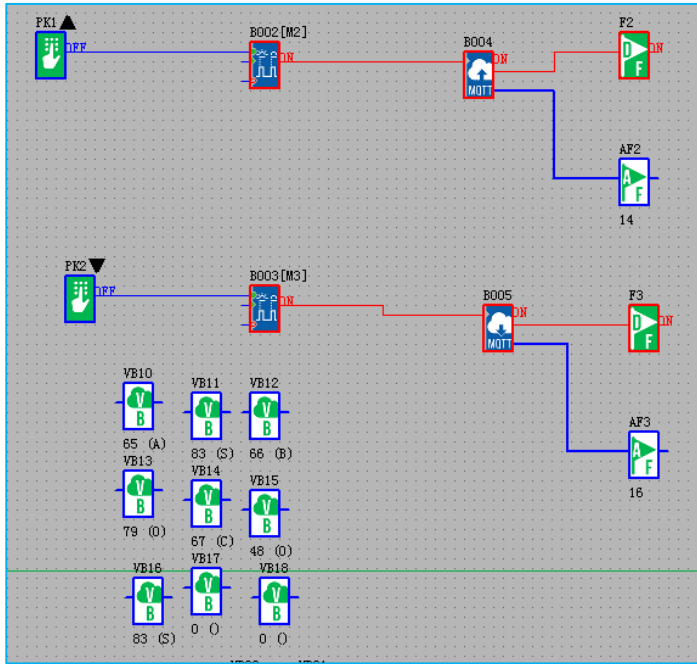
At the same time, MQTT.fx will also subscribe to the information with the topic 'PLC-test01' .



2) Test the Publish of PLC

Press the up button on the LCD panel to trigger Publish with MQTT block.

After the Publish is successful, the Subscribe block of PLC and MQTT.fx both receive the message with the subject 'PLC-test01' .



Publish **Subscribe** Scripts Broker Status Log

PLC-test01 QoS 0 QoS 1 QoS 2

PLC-test01 5

Topics Collector (0)

PLC-test01	1	QoS 0
PLC-test01	2	QoS 0
PLC-test01	3	QoS 0
PLC-test01	4	QoS 0
PLC-test01	5	QoS 0
PLC-test01	5	QoS 0
29-04-2021 18:16:30.65790541		QoS 0
ASB0C0S		