

RYC1001_Application_note



Windows MQTT.FX demo



RYC1001 Example Account

<URL>	iot.reyax.com
<Username>	zFtbPwRwxE
<Password>	GhMshMhWG9
<Network_ID>	28
<Device_ID>	xD5GufgiHVRm6MkfVypfEDKJJzKOyoILkhI0

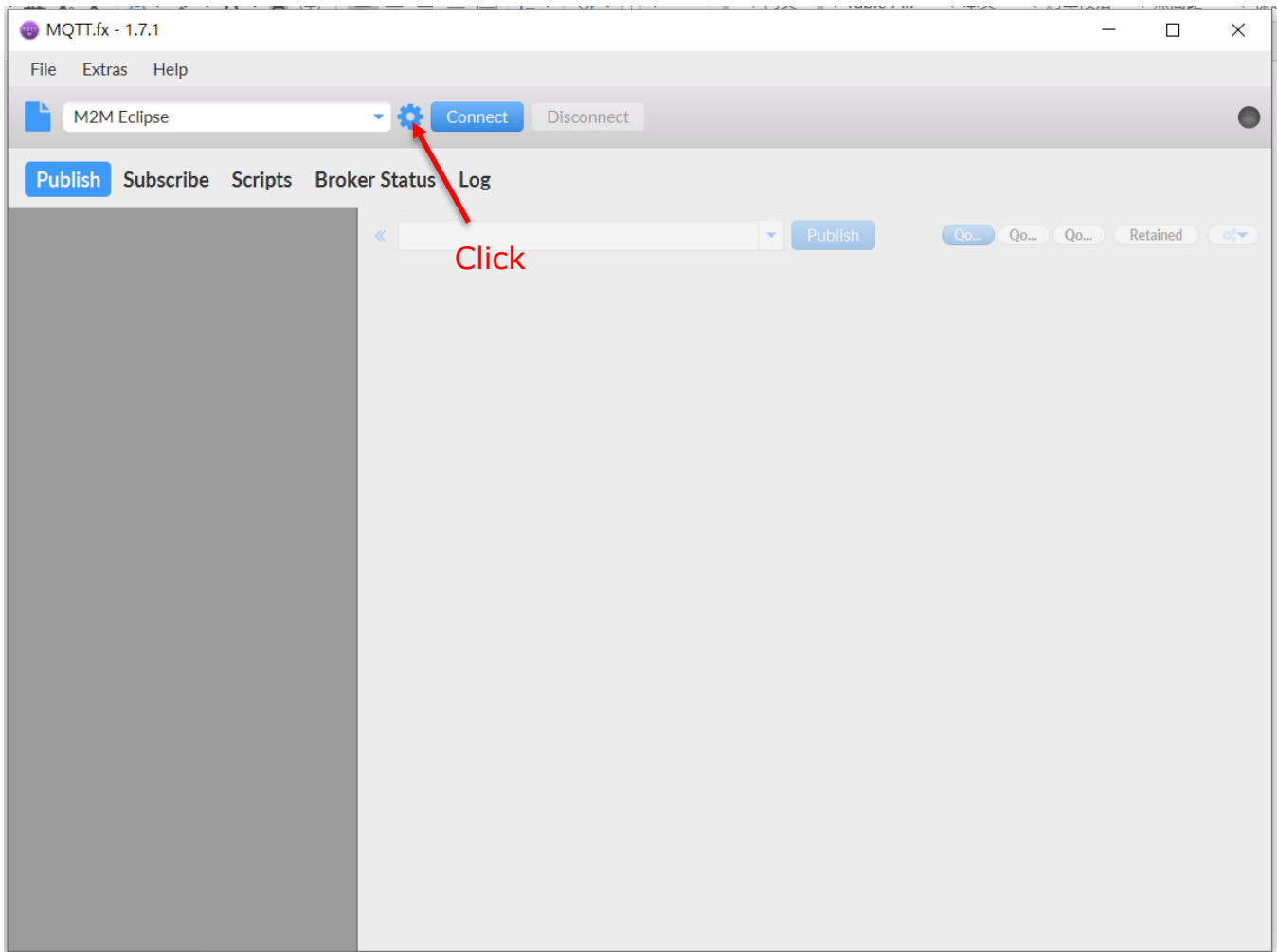
Windows MQTT demo software : MQTT.FX

Please visit website to obtain the software.

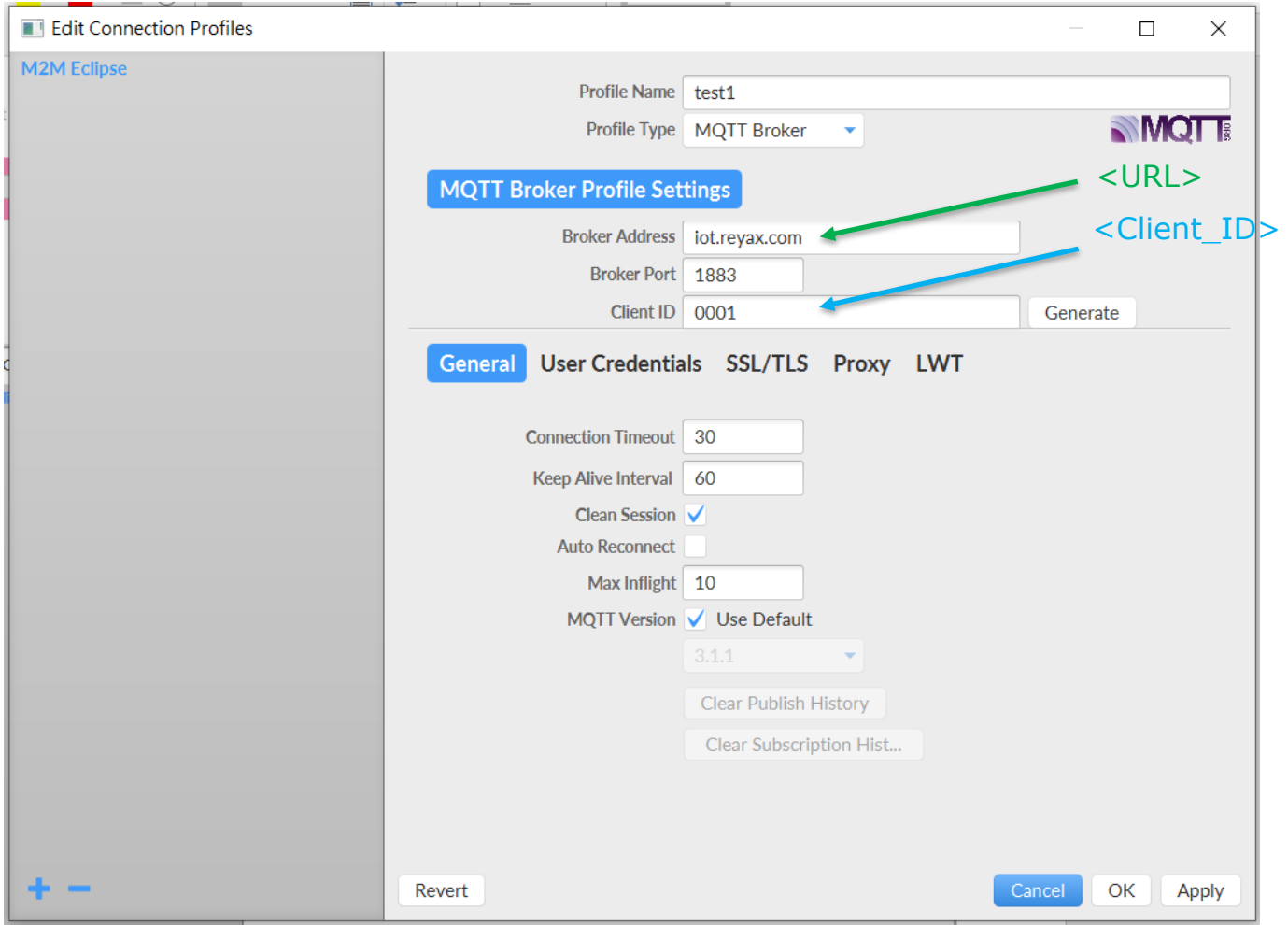
<https://mqttfx.jensd.de>

**If you want to execute “Subscribe” and “Publish” in
Windows at the same time, please execute two Windows
programs.**

1.MQTT.FX software setup



Setup MQTT server information



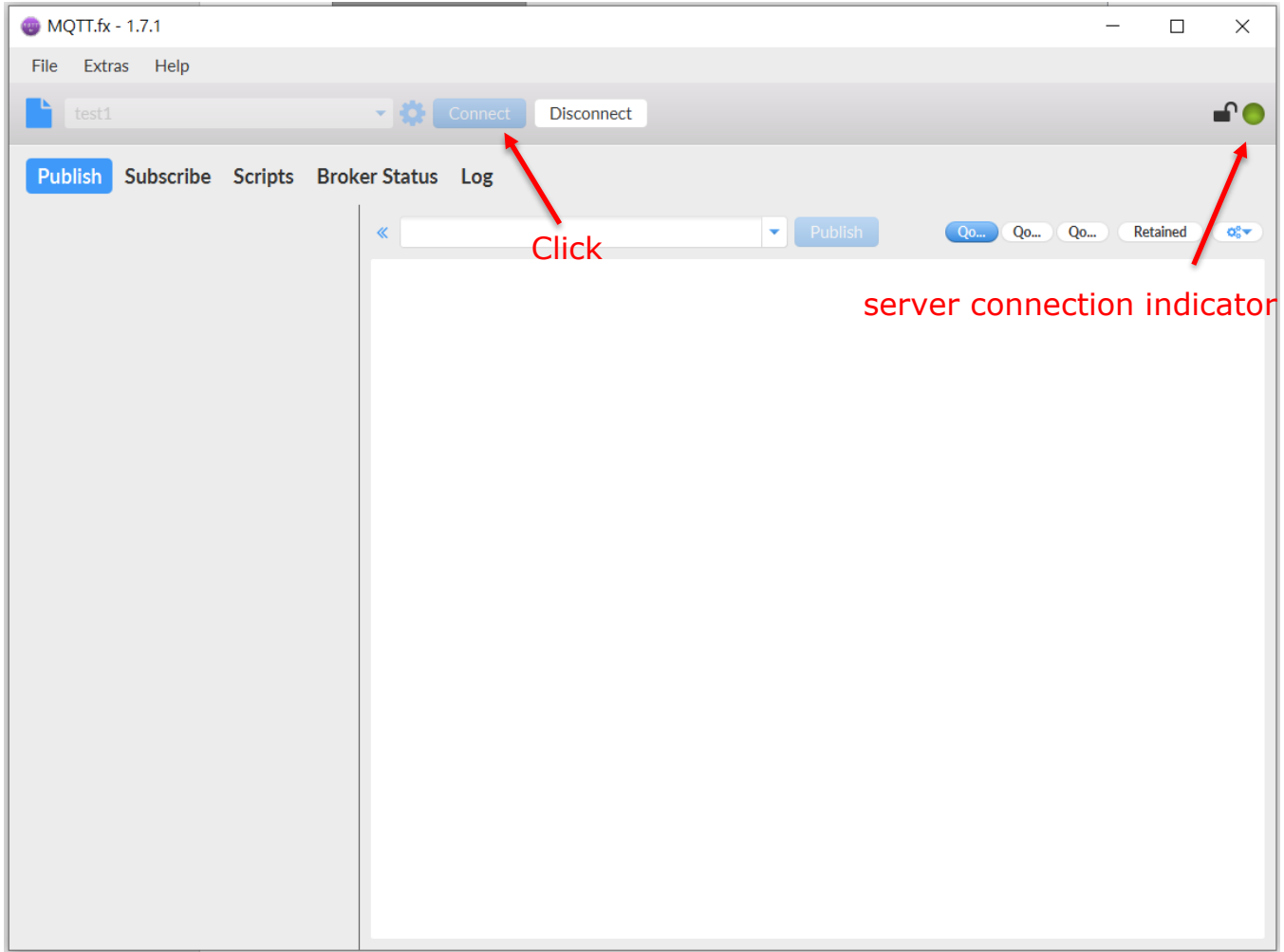
Setup <Username> & <Password>

The screenshot shows the 'Edit Connection Profiles' dialog box in M2M Eclipse. The 'User Credentials' tab is active, displaying the following fields:

- Profile Name: test1
- Profile Type: MQTT Broker
- MQTT Broker Profile Settings section:
 - Broker Address: iot.reyax.com
 - Broker Port: 1883
 - Client ID: 0001
 - Generate button
- General tab selected, with sub-tabs: User Credentials, SSL/TLS, Proxy, LWT
- User Name: zFtbPwRwxE
- Password: [masked]

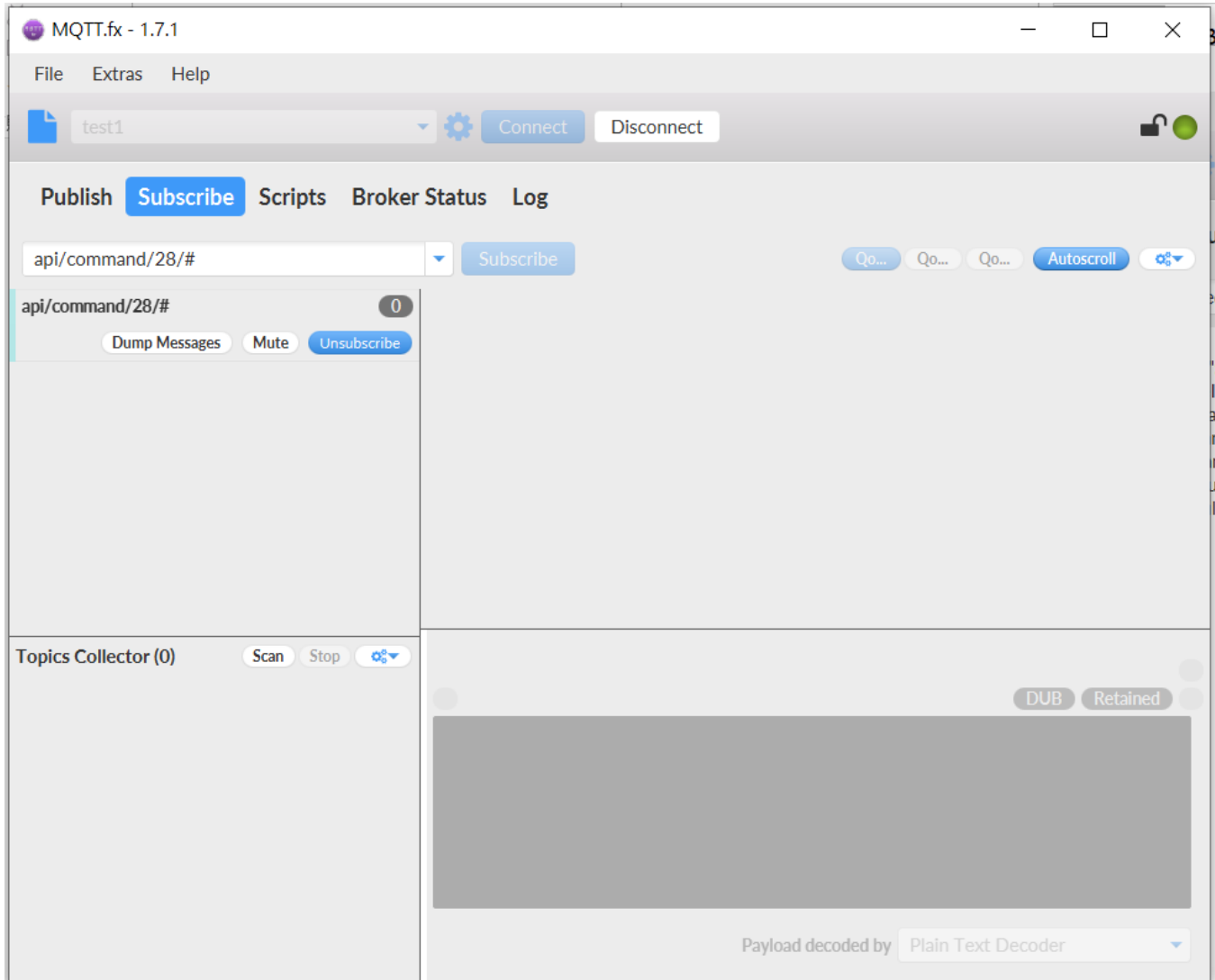
Green arrows point from the labels '<Username>' and '<Password>' to the User Name and Password fields respectively. A red arrow points to the 'Apply' button at the bottom right of the dialog box.

Click



2.1 Subscribe command message

Subscribe to the "api/command/<Network_ID>/#" topic:



2.2 Publish command message

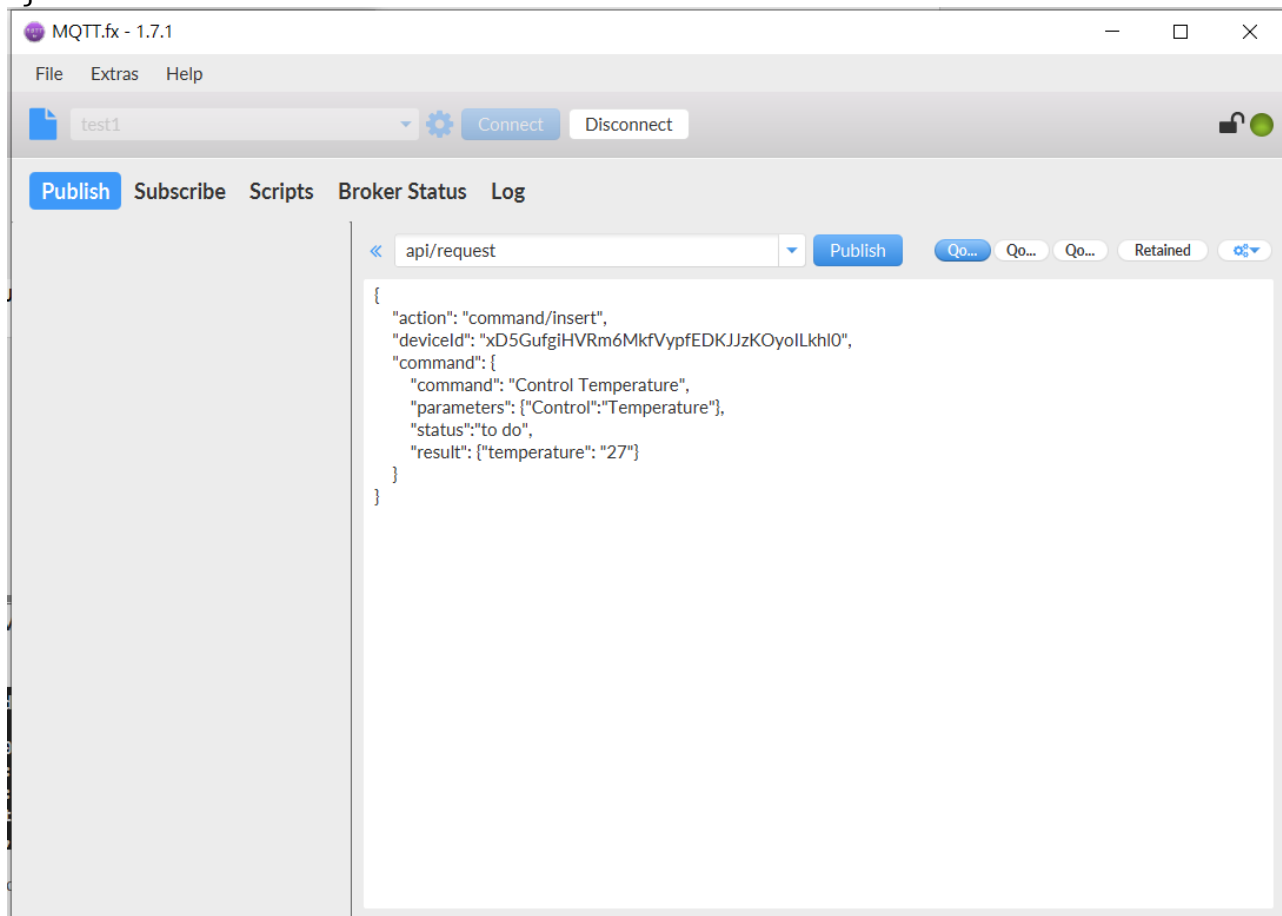
Publish the command message to the "api/request" topic:

The command format is as follows:

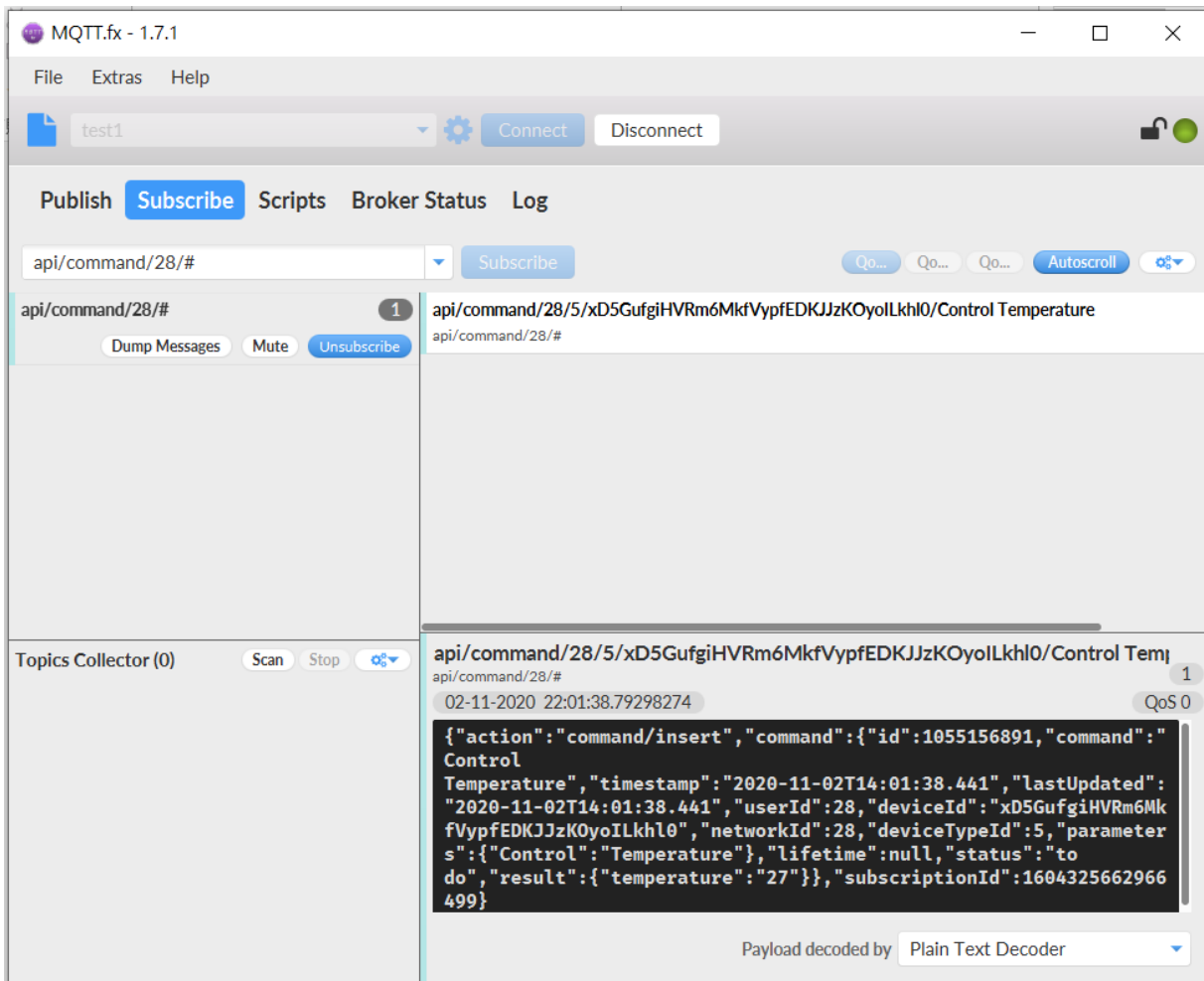
```
{ "action": "command/insert", "deviceId": "<Device_ID>", "command": { "command": "<Command_Name>", "parameters": { "<Parameter1>": "<Parameter2>" }, "status": "<Status>", "result": { "<Result1>": "<Result2>" } } }
```

EX:

```
{
  "action": "command/insert",
  "deviceId": "xD5GufgiHVRm6MkfVypfEDKJJzKOyoILkhl0",
  "command": {
    "command": "Control Temperature",
    "parameters": { "Control": "Temperature" },
    "status": "to do",
    "result": { "temperature": "27" }
  }
}
```



2.3 Received command message



When Publish is executed, the received format is as follows:

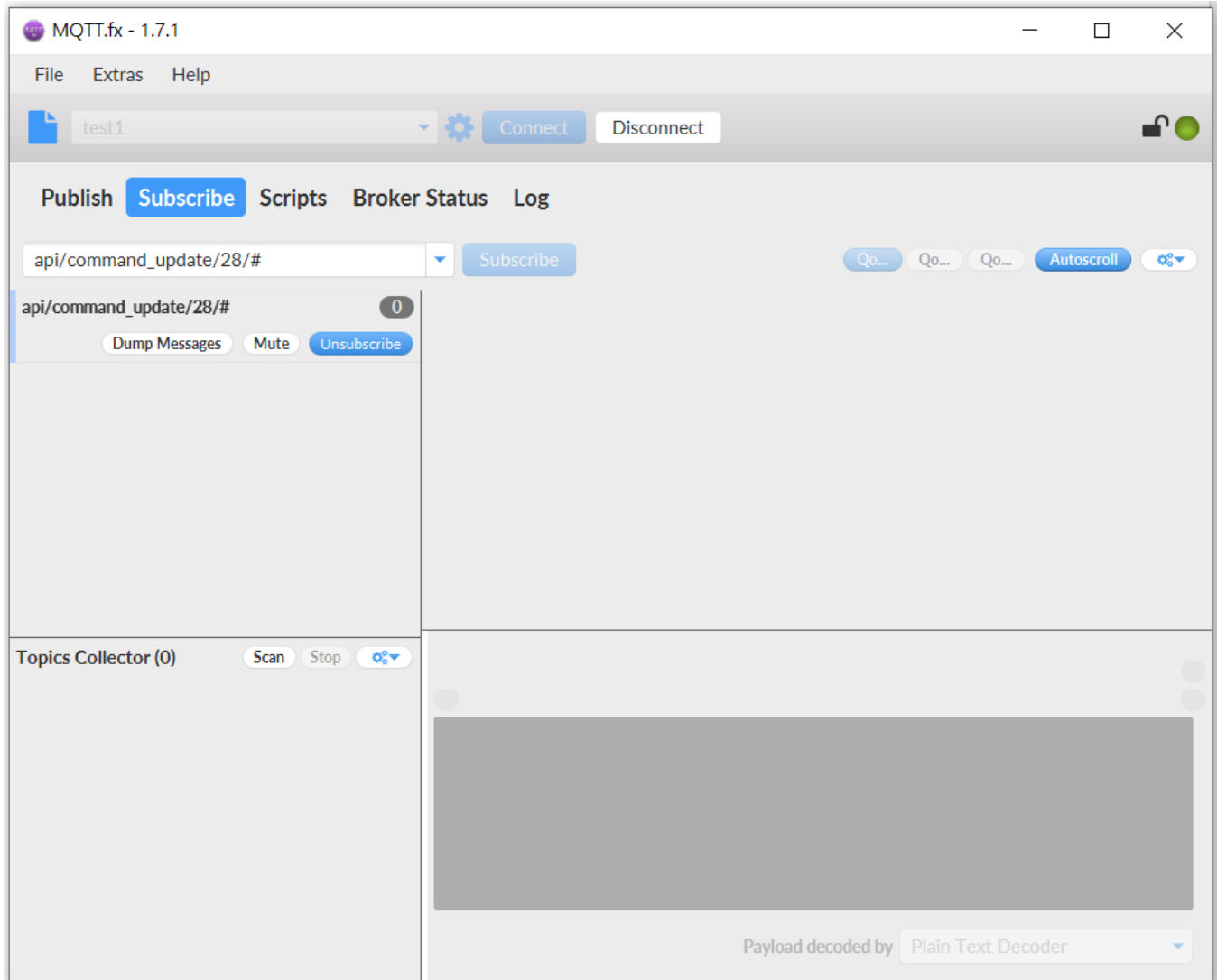
```
{
  "action": "command/insert",
  "command": {
    "id": <commandId>,
    "command": "<Command_Name>",
    "timestamp": "<Time_Stamp>",
    "lastUpdated": "<Time_Stamp>",
    "userId": 6,
    "deviceId": "<Device_ID>",
    "networkId": 6,
    "deviceTypeId": 4,
    "parameters": {
      "<Parameter1>": "<Parameter2>"
    },
    "lifetime": null,
    "status": "<Status>",
    "result": {
      "<Result1>": "<Result2>"
    }
  },
  "subscriptionId": <subscriptionId>
}
```

EX:

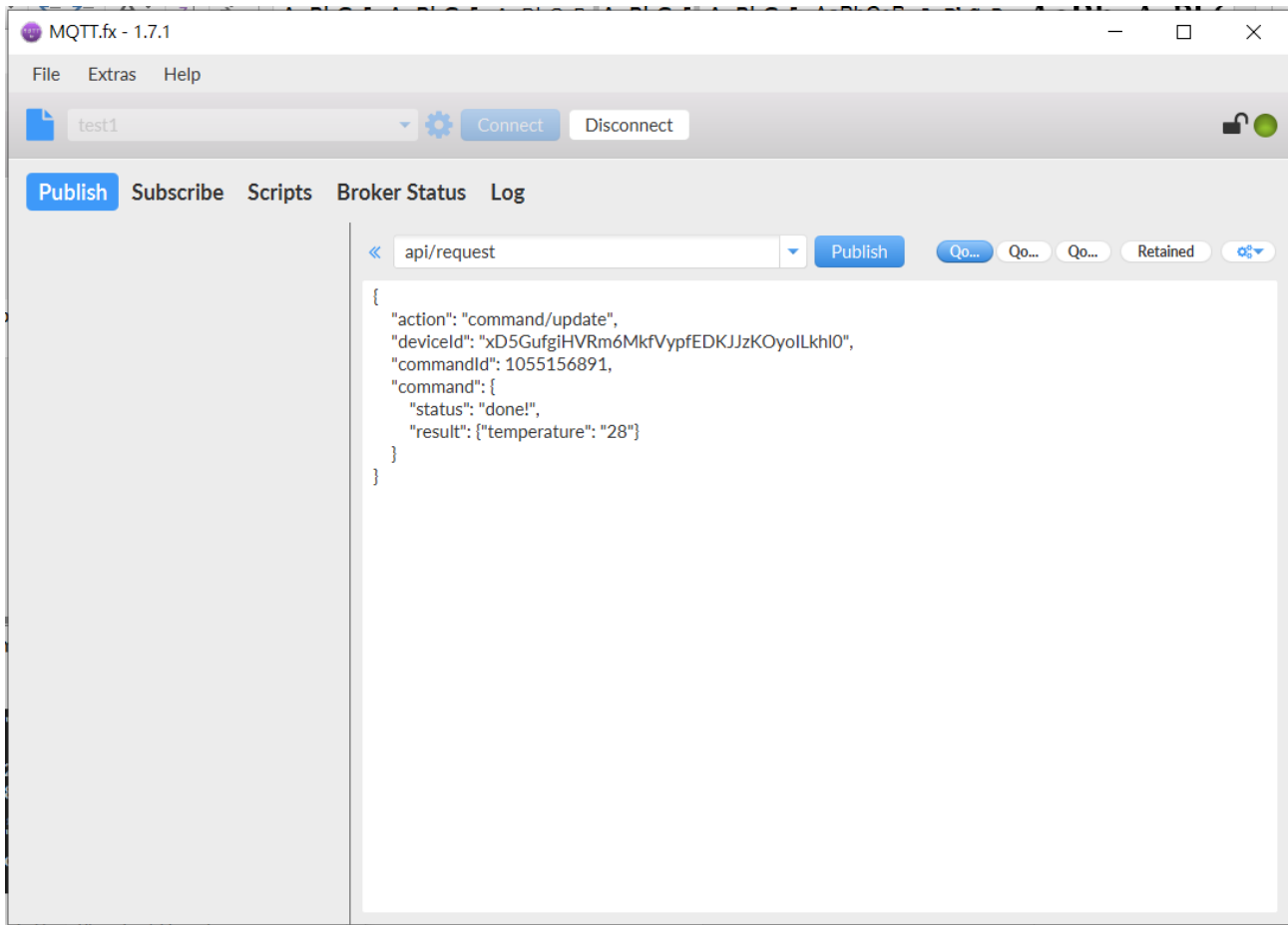
```
{
  "action": "command/insert",
  "command": {
    "id": "1055156891",
    "command": "Control Temperature",
    "timestamp": "2020-11-02T14:01:38.441",
    "lastUpdated": "2020-11-02T14:01:38.441",
    "userId": 28,
    "deviceId": "xD5GufgiHVRm6MkfVypfEDKJJzKOyoILkhl0",
    "networkId": 28,
    "deviceTypeId": 5,
    "parameters": {
      "Control": "Temperature"
    },
    "lifetime": null,
    "status": "to do",
    "result": {
      "temperature": "27"
    }
  },
  "subscriptionId": "1604325662966499"
}
```

3.1 Subscribe command_update message

Subscribe to the topic "api/command_update/<Network_ID>/#":



3.2 Publish command_update message



Publish the command_update message to the "api/request" topic: The format of the command_update message is defined by this platform. The message will be stored in the database of this platform.

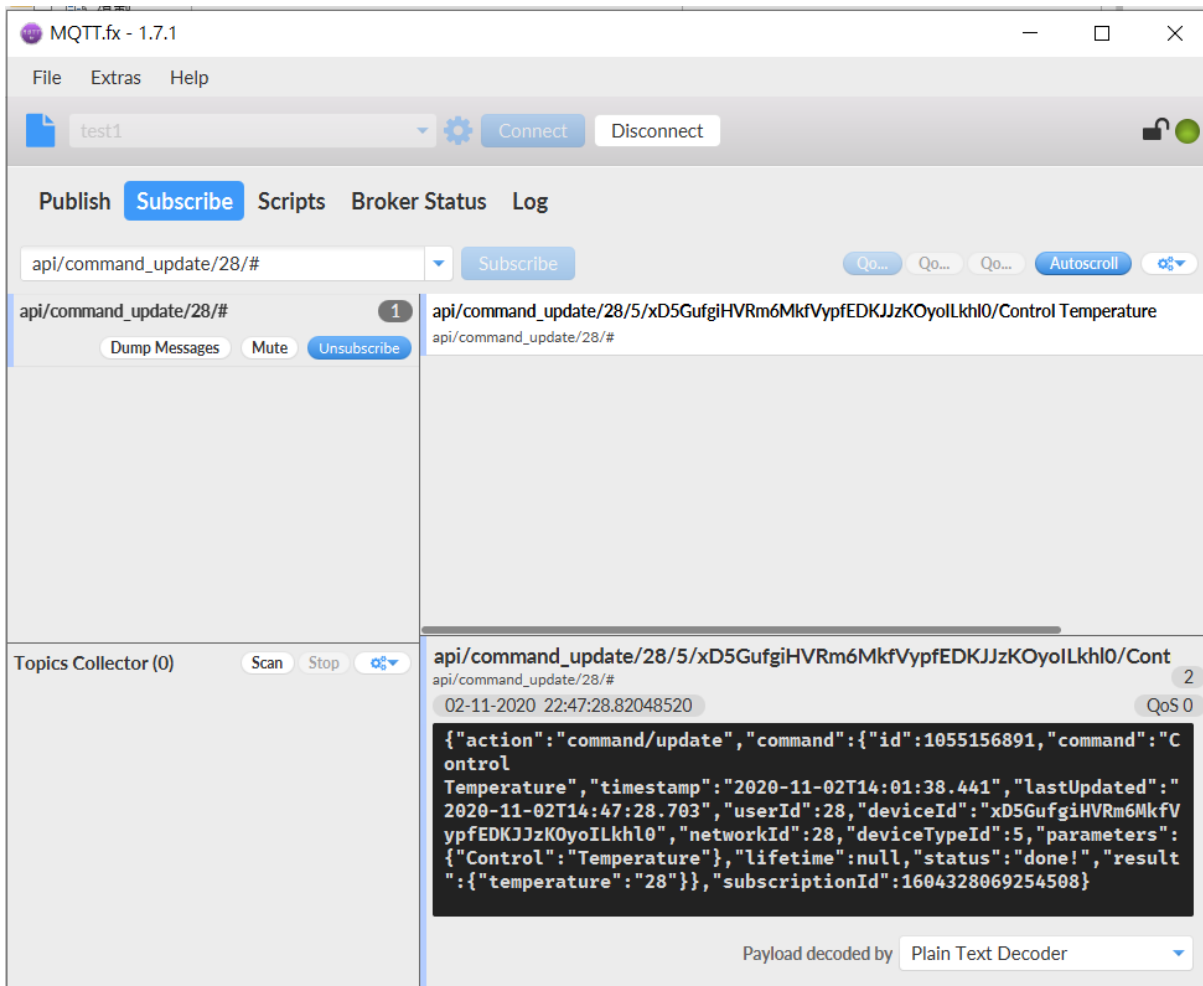
The command format is as follows:

```
{"action": "command/update", "deviceId": "<Device_ID>", "commandId": <commandId>, "command": {"status": "<Status>", "result": {"<Result1>": "<Result2>"}}
```

EX:

```
{
  "action": "command/update",
  "deviceId": "xD5GufgiHVRm6MkfVypfEDKJzKOyoILkhI0",
  "commandId": 1055156891,
  "command": {
    "status": "done!",
    "result": {"temperature": "28"}
  }
}
```

3.3 Received command_update message



When Publish is executed, the received format is as follows:

```

{"action": "command/update", "command": {"id": <commandId>, "command": "<Command_Name>", "timestamp": "<Time_Stamp>", "lastUpdated": "<Time_Stamp>", "userId": 6, "deviceId": "<Device_ID>", "networkId": 6, "deviceTypeId": 4, "parameters": {"<Parameter1>": "<Parameter2>"}, "lifetime": null, "status": "Done", "result": {"<Result1>": "<Result2>"}}, "subscriptionId": <subscriptionId>}
    
```

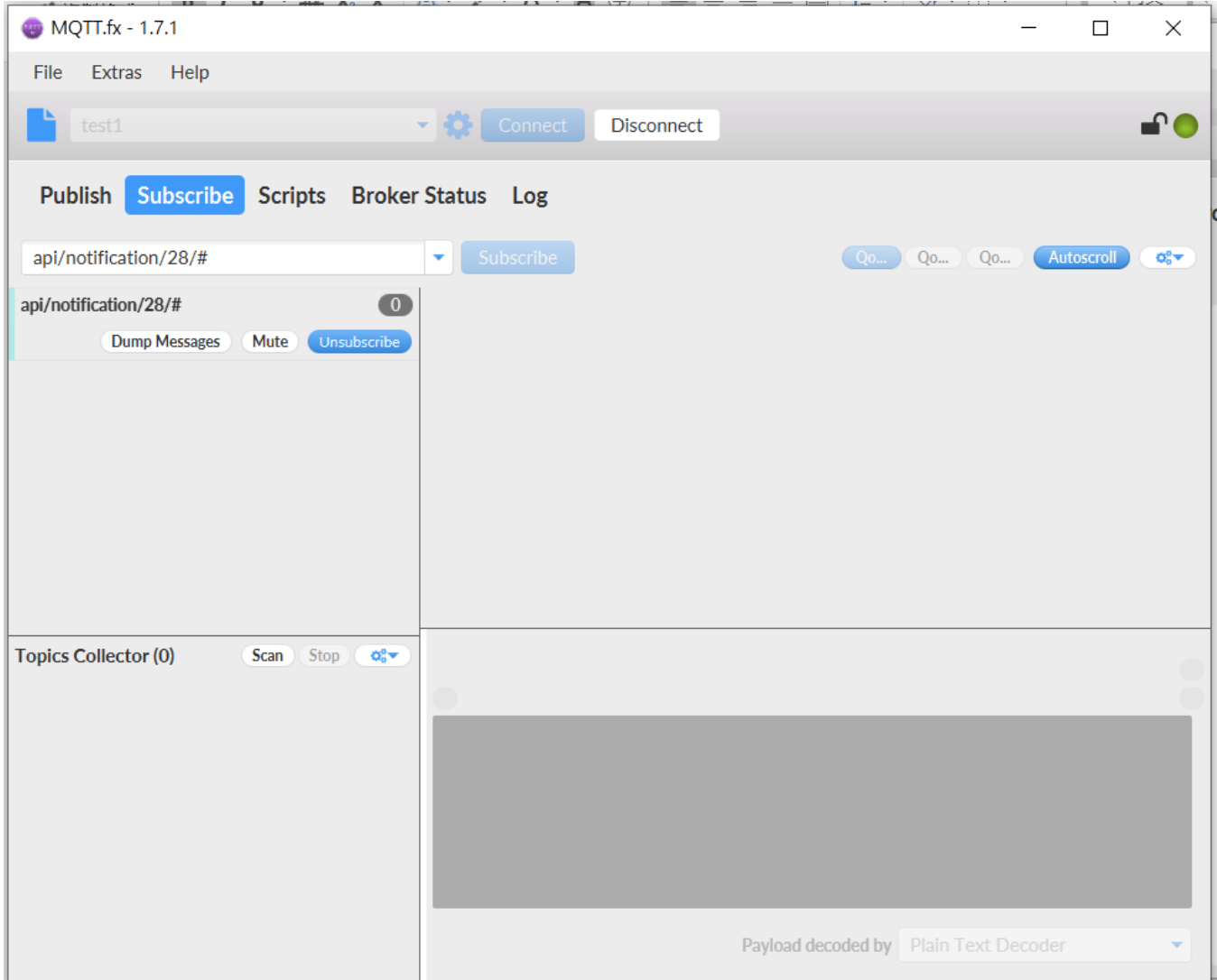
EX:

```

{"action": "command/update", "command": {"id": 1055156891, "command": "Control Temperature", "timestamp": "2020-11-02T14:01:38.441", "lastUpdated": "2020-11-02T14:47:28.703", "userId": 28, "deviceId": "xD5GufgiHVRm6MkfVypfEDKJzKOyoILkhl0", "networkId": 28, "deviceTypeId": 5, "parameters": {"Control": "Temperature"}, "lifetime": null, "status": "done!", "result": {"temperature": "28"}}, "subscriptionId": 1604328069254508}
    
```

4.1 Subscribe notification message

Subscribe to the topic "api/notification/<Network_ID>/#":



4.2 Publish notification message

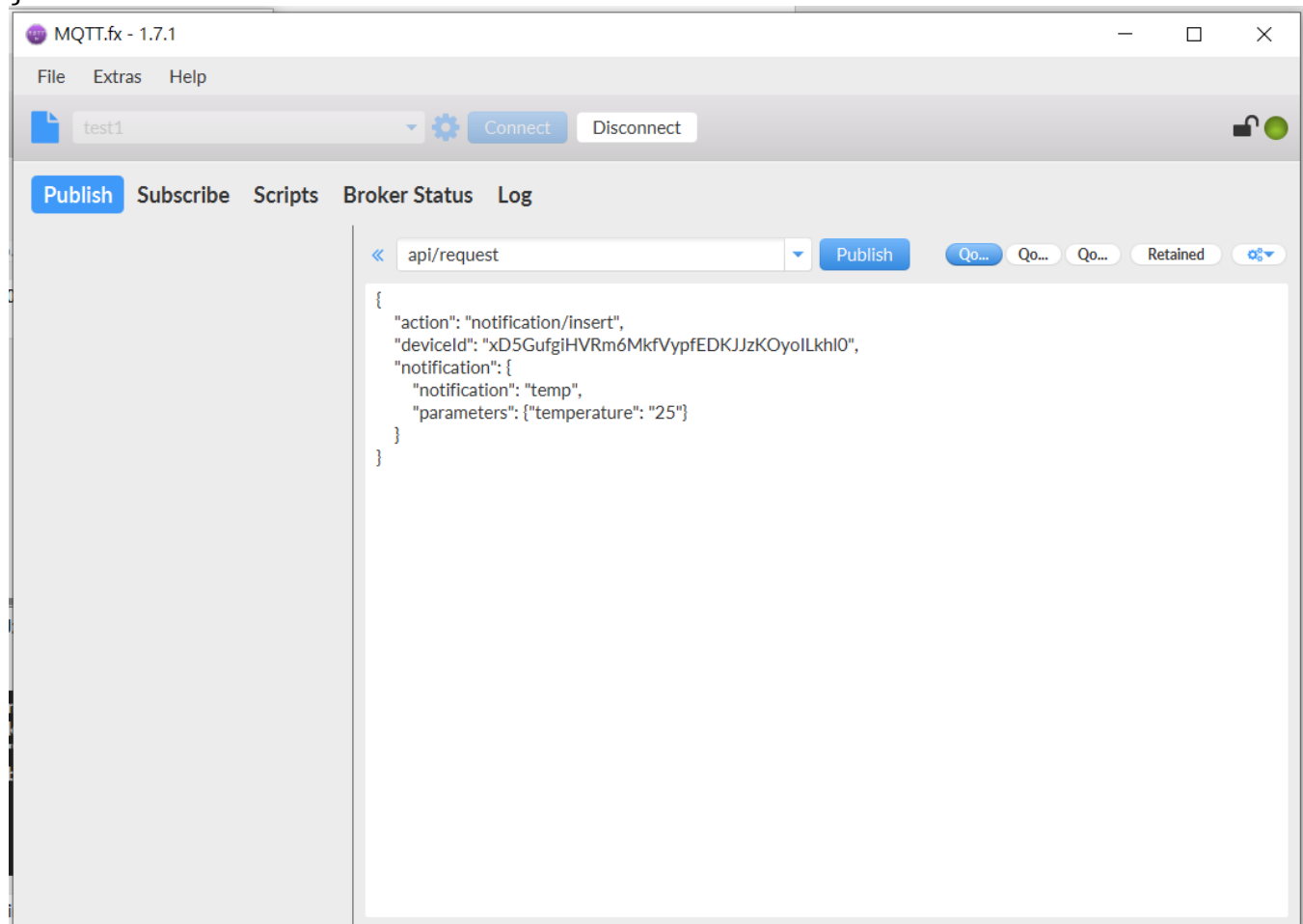
Publish notification messages to the "api/request" topic: The format and content of notification messages are defined by this platform. The message will be stored in the database of this platform.

The command format is as follows:

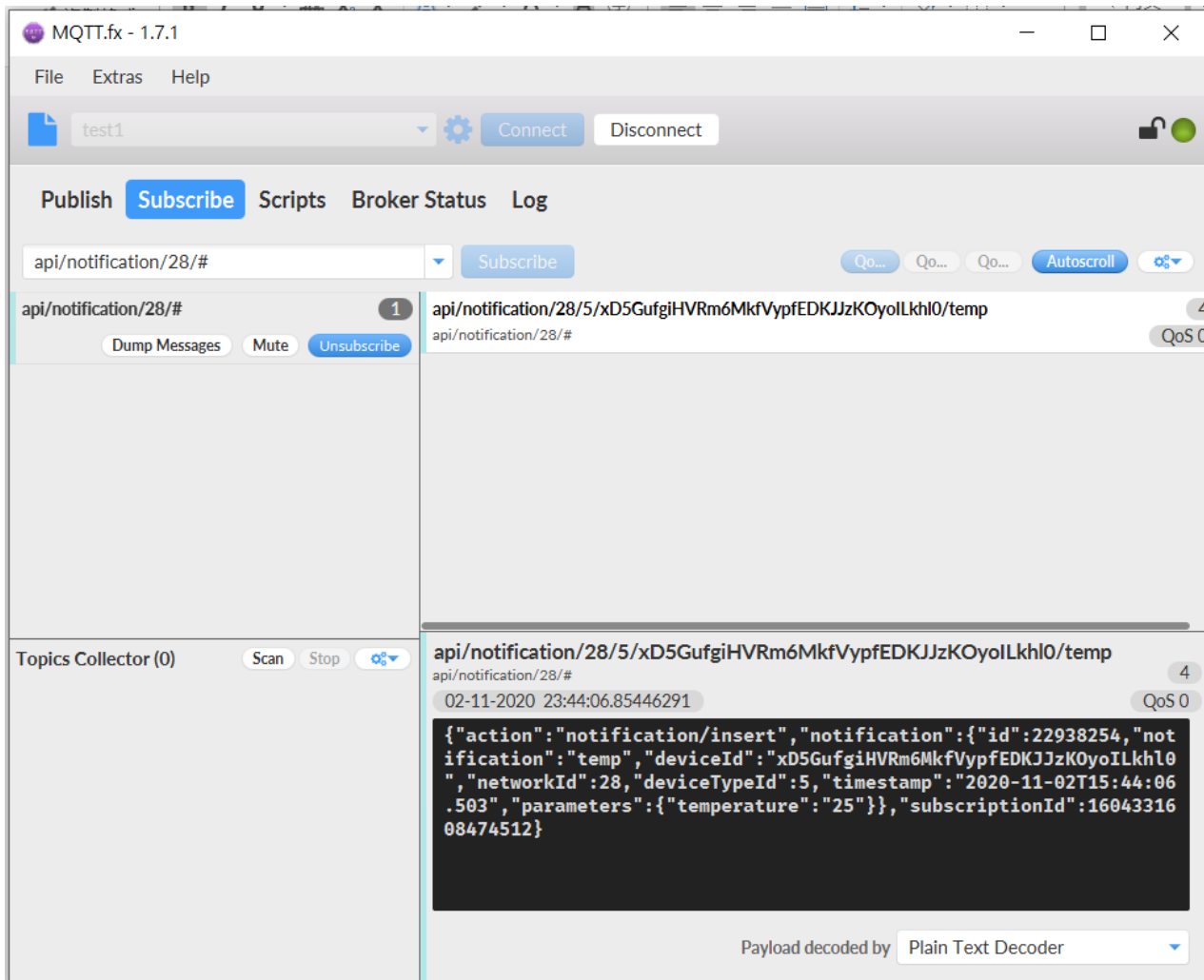
```
{"action": "notification/insert", "deviceId": "<Device_ID>", "notification": {"notification": "<Notification_Name>", "parameters": {"<Parameter1>": "<Parameter2>"}}}
```

EX:

```
{
  "action": "notification/insert",
  "deviceId": "xD5GufgiHVRm6MkfVypfEDKJJzKOyoILkhl0",
  "notification": {
    "notification": "temp",
    "parameters": {"temperature": "25"}
  }
}
```



4.3 Received notification message



Subscribe to the topic "api/notification/<Network_ID>/#": This topic is defined by the platform service to receive notification messages.

When Publish is executed, the received format is as follows:

```

{"action": "notification/insert", "notification": {"id": <notificationId>, "notification": "<Notification_Name>", "deviceId": "<Device_ID>", "networkId": 6, "timestamp": "<Time_Stamp>", "parameters": {"<Parameter1>": "<Parameter2>"}}, "subscriptionId": <subscriptionId>}
    
```

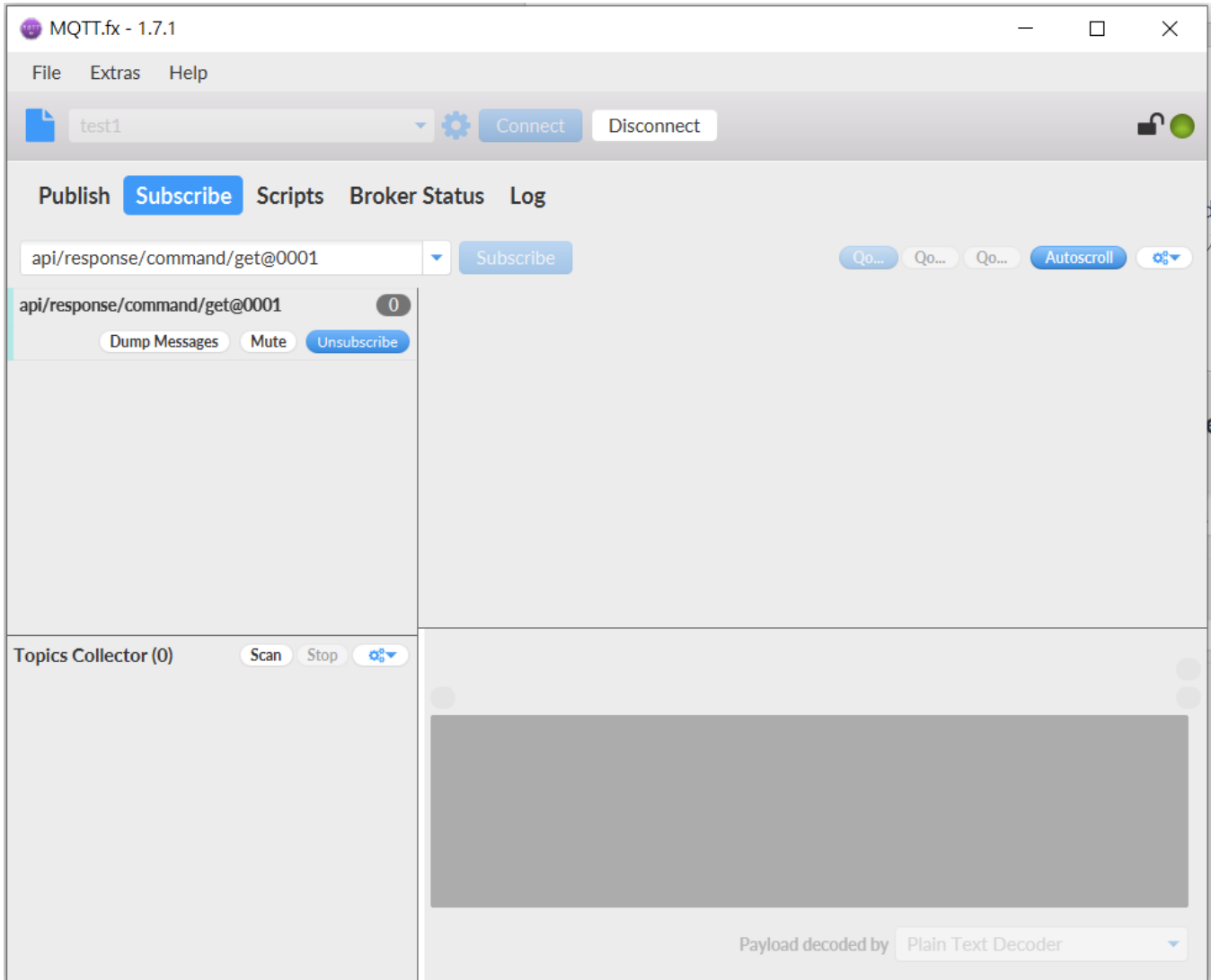
EX:

```

{"action": "notification/insert", "notification": {"id": 22938254, "notification": "temp", "deviceId": "xD5GufgiHVRm6MkfVypfEDKJJzKOyoILkhl0", "networkId": 28, "deviceId": 5, "timestamp": "2020-11-02T15:44:06.503", "parameters": {"temperature": "25"}}, "subscriptionId": 1604331608474512}
    
```

5.1 Subscribe command query message

Subscribe to the topic "api/response/command/get@<Client_ID>":



5.2 Publish command query message

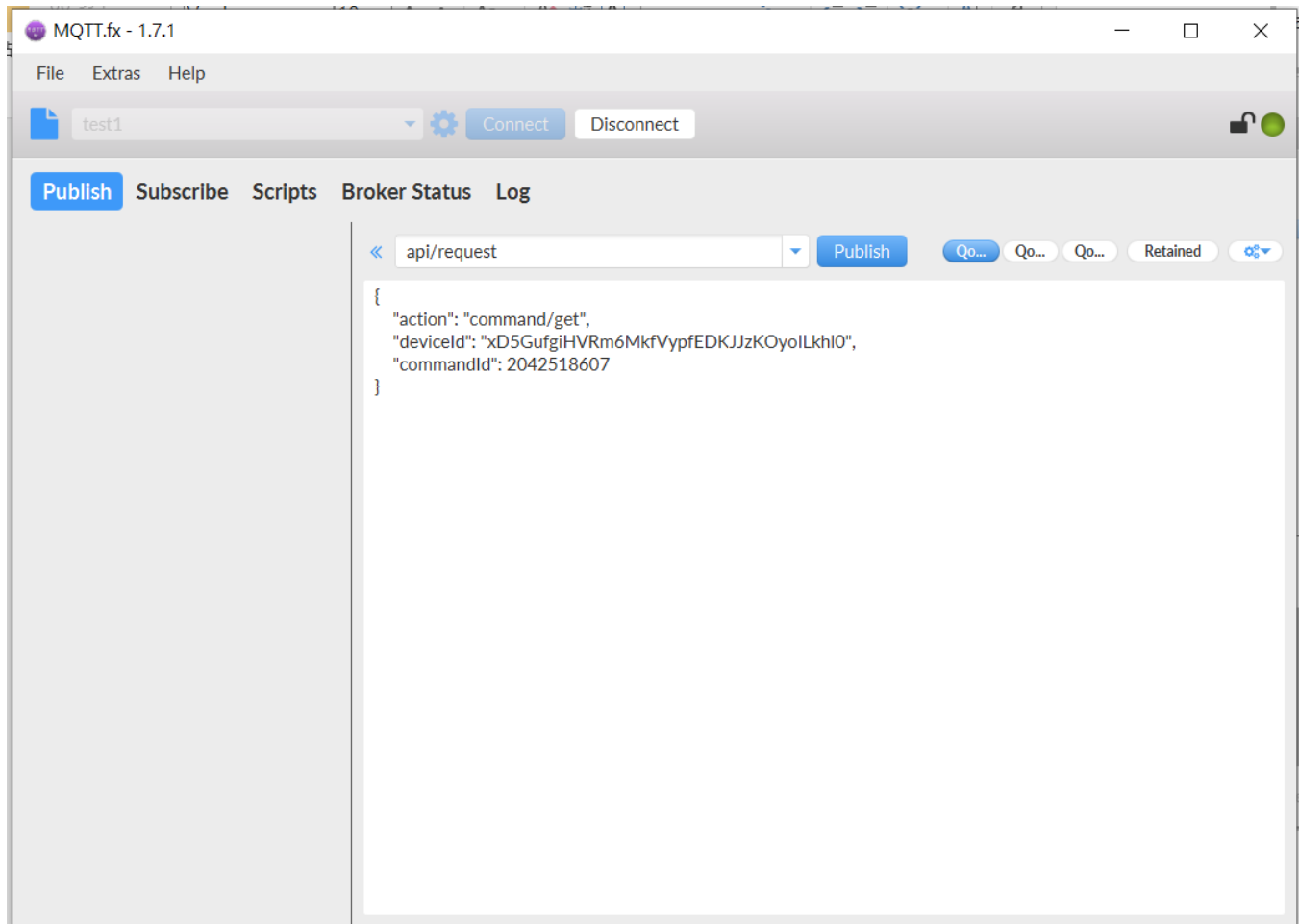
Publish Command_get message to "api/request" topic: The format and content of Command_get message are defined by this platform.

The command format is as follows:

```
{"action":"command/get","deviceId":"<Device_ID>","commandId":"<commandId>"}
```

EX:

```
{  
  "action": "command/get",  
  "deviceId": "xD5GufgiHVRm6MkfVypfEDKJJzKOyoILkhI0",  
  "commandId": 2042518607  
}
```



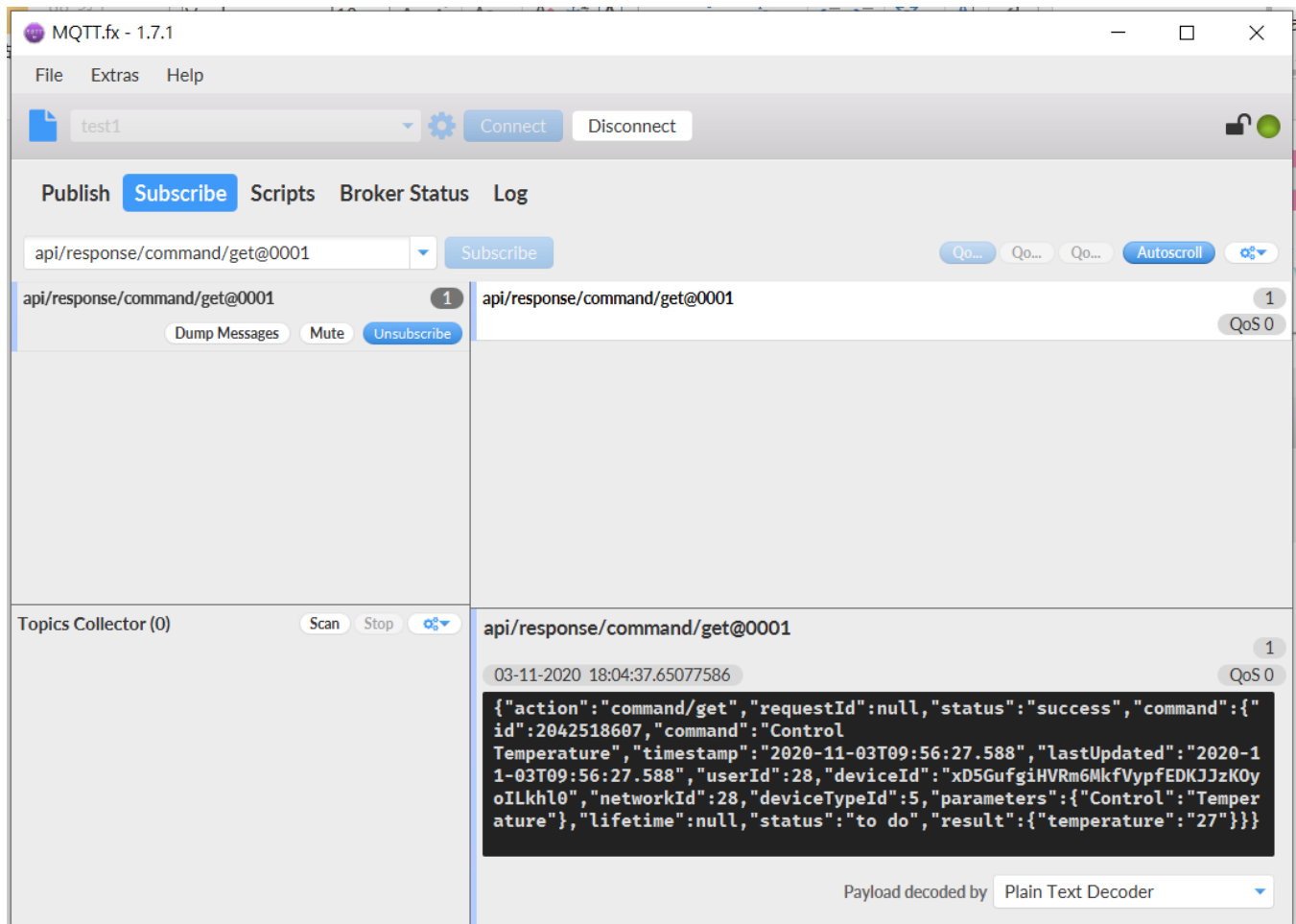
5.3 Received command query message

When Publish is executed, the received format is as follows:

```
{
  "action": "command/get",
  "requestId": null,
  "status": "success",
  "command": {
    "id": "<commandId>",
    "command": "<Command_Name>"
  },
  "timestamp": "<Time_Stamp>",
  "lastUpdated": "<Time_Stamp>",
  "userId": 6,
  "deviceId": "<Device_ID>",
  "networkId": 6,
  "deviceId": 4,
  "parameters": {
    "<Parameter1>": "<Parameter2>"
  },
  "lifetime": null,
  "status": "<Status>",
  "result": {
    "<Result1>": "<Result2>"
  }
}
```

EX:

```
{
  "action": "command/get",
  "requestId": null,
  "status": "success",
  "command": {
    "id": "2042518607",
    "command": "Control Temperature"
  },
  "timestamp": "2020-11-03T09:56:27.588",
  "lastUpdated": "2020-11-03T09:56:27.588",
  "userId": 28,
  "deviceId": "xD5GufgiHVRm6MkfVypfEDKJJzKOyoILkhI0",
  "networkId": 28,
  "deviceId": 5,
  "parameters": {
    "Control": "Temperature"
  },
  "lifetime": null,
  "status": "to do",
  "result": {
    "temperature": "27"
  }
}
```





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