

MQTT Instruction Manual for FBox

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1.Configure cloud services

Fbox: a gateway

1. Create an MQTT connection device in FlexManager by the step:'Remote-->DEVICE

SETTING—>Network PLC'

Mo	mitor	Alarm Da	ta Edge Computing	k Remote	Camera	Address Tag	Info
lia	Device	setting				×	
LE	COM1	COM2 COM3	Network PLC Servi	ice Cloud Server		TRANS	
FI	No.	Network PLC Setti	ng		× peration	TRANS	
lite	1	Manufacturer	MQTT	•	1	TRANS	
G	2	Device Type	Ali_MQTT	×	• 1		
M	3	IP Address	192.168.1.1		• 1	TRANS	◆ TAG
IEI		Port	1883			TRANS	
IEI	4	Alias	Ali_MQTT			TRANS	
	5	Broadcast			•		
ch	6	Station No			- 1	TRANS	
CF	7		ADVANCE 🗸	CANCE	L	TRANS	

In the device added here, the IP address and port are ignored, and the IP address (service address) and port number are set in the next configuration cloud service.

2. Then configure the server address, port number, device ID, login user name and password that push by the MQTT : Remote --> DEVICE SETTING--> Cloud Server



Monitor Ala	I Data	Edge Rem	ote Camera	Address Tag	-
SIEMENS S7-300	Device setting				×
SIEMENS	COM1 COM2 (COM3 Network PLC	Service Cloud Se	rver	
SIEMENS S7-1200	с С	Not Used 💿 M	QTT 🔘 212		
	Cloud Server	MQTT 🔻	Keep alive	60	
Schneider MODBUS_ S TCP	S Server Url	192.168.31.123	Port	1883	
	Device ID				
AB Compac	Encryption	Enabled TLS	Store	None 🔻	
SIEMENS S7-200-sm st_Ethernet	Client certificate	Enabled		– Ū	
	Server certificate	Enabled		🗁 🗊	
Madhua TOD Casua	Client private key (PEM)	Enabled		🗁 🛈	
Modbus_ICP_Server I	Topic	Enabled			
FBox	User authentication	Enabled			
	Firmware	300.*.*	Sync Ala	irm Sync Dmon	

Cloud Server: FLEXEM MQTT is an designated MQTT service protocol

Keep alive: Heartbeat package time, unit: second

Sever Url: Server address pushed by MQTT

Device ID: The device ID used to specify the box (such as the box serial number, or a user-defined ID) **Encryption:** Enable encryption, support box and MQTT server to communicate using TLS (SSL)

Store: Allows the push message to be cached to the SD card or U-disk while the MQTT is offline. If no cache is required, select 'None'.

Client certificate: The client certificate can be enabled if TLS encryption is enabled. The certificate is for the box

Sever certificate : The server certificate can be enabled if TLS encryption is enabled. This certificate is used by the MQTT server. Enable this if the box requires two-way encryption, otherwise it does not need to be enabled

Topic : Support for custom topic prefixes. If not customized, this prefix is used by default: Topic/flexem/fbox/.

Take the box serial number 222218030009 as an example. The topic of the restart is: Topic/flexem/fbox/222218030009/system/Reboot. If the custom prefix is: office/room1/, the restart topic is: office/room1/222218030009/system/Reboot

Note: Custom topic must end with "/". If there is / before the custom topic, the subscription topic is also added with the corresponding /.



User autherticcation: The user information verification required for the box to log in to the MQTT server. **Sync Alarm, Sync Dmon:** If you are using the MQTT service for the first time, after adding a monitoring items or alarm entry, you need to click "Sync Alarm" or "Sync Don" to make the added item push MQTT take effect; if it is not the first time you need to click "Sync Alarm" or "Sync Dmon" After that, restart the device to make the added entry push MQTT take effect. If you do not want to use an alarm, then no need to set synchronize alarms.

Note:

When FBox uses MQTT to push data, it needs to reference any variable of mqtt address in the alarm record (for example, mqtt-connect). After setting the alarm entry, you need to click the sync alarm point in the cloud service configuration window. As shown below.

Monitor A	Marm Data	Edge Computing	Remote	Camera	Address Tag	X Info
Current Alarms	Historical Alar	ms Registra	tion	Contacts	Global S	Settings
w alarm item				×		
Name	Set empty will use th	e code as default value.			Operation	
No.	(Auto)	Group	默认组	• 1	10	Ŵ
	🔘 Use address Tag	 Use address 		1	1	Ŵ
Device	FEMQTT_S •	Station No.	1	1	16	Ŵ
Data Type	16-Bit UnSi 🔻	Address Type	mqtt_conne	T	10	Ŵ
	Bit-index within a By	vte Register	mqtt_alive status/mgtt	_monitor_num	/ 6	Ŵ
Address	0		config/mqtt config/mqtt	_password _username	16	Ŵ
Format	D(0~0)		config/mqtt config/mqtt	_client_id _keep_alive		
Trigger Value	= v	0	mqtt_server,	_port _url		
Alarm Contents			matt_errno	ct		
					/6 « «	1

3. Verify that the MQTT server is connected to the client or not. Add a monitoring point with the address type "mqtt_connect" in the data monitoring. When the value is 1, it means connectivity. If the value is 0, it means there is no connectivity. You need to check if the first two configuration of the steps is correct or not.





Monitor	Alarm	O Data	Edge Remo Computing] •••• Dite Camera Ado	dress Tag	Info
Default G	Group (15) ok	(24) 🗘 Group Sett	ing 🛛 🥥 Global Settings	5		
- New	w data monitor	item		×	Operat	tion
					1	6
	Name	mtqq-connect			1	<u>ت</u>
		Use address Tag	 Use address 		1	6
	Device	FEMQTT_S V	Station No.	1	1	6
	Data Type	16-Bit UnSi ▼	Address Type	mqtt_conn 🔻	1	6
		Bit-index within a	16-Bit UnSi Address Type mqtt_conni Bit-index within a Byte Register mqtt_alive status/mqtt_monitor_num			
	Address	0		config/mqtt_password config/mqtt_username	1	Ω m
	Integer Digits	4	Fraction Digits	config/mqtt_client_id config/mqtt_keep_alive	1	6 0
	Format	D(0~0)	Unit	system/mqtt_ssl_flag mqtt_server_port	1	6
	Computation	🗌 Enable Config	ſ	mqtt_server_un mqtt_server_un	1	6
	RW Settings	Readonly	C Read/Write	Indt_version	1	6 1
	Traffic Saving	Check data change global settings.	e every 10 sec(s). The interv	val can be changed in		

M	onitor	Alarm	Data Edu Comp	/2 ge outing	Remote	Came	Address	s Tag	X Info
De	fault Group	p (16) ok (24	() Group Setting	🚱 GI	obal Settings				
	Status	Name	Value		Address	Traffic	Description	Operation	
	-	τυ	U	ß	τυ		טז	<u>ل</u> ا م	W
	•	¥4	0	ß	Y 4	N	Y 4	1	Ŵ
		Y7	0	ß	¥7	N	Y 7	/ 6	Ŵ
	•	Y10	0	ß	Y 10		Y 10	/ 6	Ŵ
	•	Y11	0	C	Y 11	N	Y 11	/ 6	Ŵ
	•	Y12	0	C	Y 12		Y 12	/ 6	Ŵ
	•	Y13	0	ß	Y 13	N	Y 13	/ 6	Ŵ
	•	0b	0	ß	D 0		D 0	/ 6	Ŵ
	•	M100	0	ß	M 100	N	M 100	/ 0	Ŵ
	•	ІЬО	0	C	LB 0	N	LB 0	/ 6	Ŵ
	•	mtqq-connect	0		mqtt_connect 0	N	MQTT_CONNE CT 0	/ 6	Ŵ



2.FBox subscription and publishing topics

After the MQTT server is connected to the box client, For example, log in to the MQTT web client, and the topic can be subscribed and published. On the MQTT client, you can view the Topic list of the device. The Topic of FLEXEM MQTT (hereinafter referred to as Topic) is transmitted in json format. View the device's topic list as shown in the figure: (taking box 222218030009 as an example)

(EMQ) Dashboard		
	Topics	
Clients	Торіс	Node
≓ Sessions	Topic/flexem/fbox/222218030009/system/Reboot	emq@127.0.0.1
▲ Topics	Topic/flexem/fbox/222218030009/system/MDataPubNow	emq@127.0.0.1
Subscriptions	Topic/flexem/fbox/222218030009/system/WriteData	emq@127.0.0.1
MANAGEMENT	Topic/flexem/fbox/222218030009/system/GetInfo	emq@127.0.0.1
🖋 Plugins	Topic/flexem/fbox/222218030009/system/MDataPubCycle	emq@127.0.0.1
Ø Listeners	Topic/flexem/fbox/222218030009/system/Pause	emq@127.0.0.1
TOOLS	Topic/flexem/fbox/222218030009/system/MDPCS	 emq@127.0.0.1
🗑 Websocket		
<> HTTP API		
ADMIN		

The topics that have already subscribed to will be displayed in this place.

Subscribe and post topics in the MQTT client "Websocket" menu. When you fill in please note:capitalization or lower case

MONITORING	Connect						
	Host III /2 78 Jah AL	Port		Client ID:			
	lar 版介备地址	80		mqtijs_9774			
	Username. 用户名	Password:		Keep Alive: 60			
	Riban Session \$51						
MANAGEMENT	Current State: DISCONNECTED						
	Subscribe 订阅主题填写位置						
7001.0	World		Topic	QoS Time			
I Websocket							
			r No Data				
ADMIN							
	Messages 发布主题填写位置 发布:						
	Topic: Messages:						
	/World Hello world!			👻 📄 Retained			
	Messages already sent. Ø		Messages received: 0	V			
				QoS			



2.1 Publish Topic

Fill in these topics at the subscription of the MQTT client and receive the corresponding information from the box. (Taking the box 222218030009 as an example, and the theme is not customized, the default is:Topic/flexem/fbox/)

2.1.1 Real-time data

This topic is the topic that the box actively publishes. It is released according to the default release period (10s). When the MQTT client subscribes to this theme, it can receive the push of the box entry. Example: There is a monitoring point in the box. When the MQTT client subscribes to the topic, it will receive the monitoring point content pushed in the box:

Торіс	Topic/flexem/fbox/{Box serial number}/system/MonitorData				
	(example: Topic/flexem/fbox/222218030009/system/MonitorData)				
Туре	publish				
Content	{				
	"time":"2018-4-26 17:33:16",				
	"Data":[{"name":"Temp","value","124"},				
	{"name":"mqtt_connect","value","1"},				
	{"name":"bit","value","0"},				
	{"name":"single","value","45.500473"}				
]				
	}				

"Time": Item monitoring point push time

"name":Monitoring point name

"value":Monitor point value

Note: The maximum number of monitoring points for an MQTT message is 50. When the num ber of monitoring points that need to be uploaded exceeds 50, the box is divided into multipl e message pushes. The time stamps of the messages sent separately are the same, and the pa ckets can be grouped according to this.

You can view the monitoring points added to the box in the box client (FlexManager):



M	onitor	Alarm	Data Edge Computing	Len Remote	Came	era Addres	s Tag Info
De	fault Group	o (16) ok (24) 🗘 Group Setting 🚱 G	lobal Settings			
	Status	Name	Value	Address	Traffic	Description	Operation
		τυ	0 🕑	τυ		τυ	ש 🗠 💌
	•	¥4	0	Y 4		Y 4	/ 🖸 🗑
		Y 7	0	¥7		¥7	/ 🖸 🗑
	•	Y10	0	Y 10	Ø	Y 10	/ 🗇 🗹
	•	Y11	0	Y 11	N	Y 11	/ 6 0
	•	Y12	0	Y 12	N	Y 12	/ 🖸 🗑
	•	Y13	0	Y 13	N	Y 13	/ G 🛈
	•	d0	11 🕑	DO	N	DO	/ 6 0
	•	M100	0	M 100		M 100	/ 🖸 🗹
	۲	lb0	0	LB 0		LB 0	/ 6 0
	•	mtqq-connect	0	mqtt_connect	N	MQTT_CONNE	/ 6 0

Fill the topic in "Subscribe-->Topic":Topic/flexem/fbox/222218030009/system/MonitorData, Click "Subscribe", the subject of the MQTT client subscription will be displayed in the list on the right, and the received information will be received in the "Messages received" list at the bottom right, according to the default release period.

MONITORING	Subscribe					
All Overview	Topic:					
Cients	Topic/flexem/fbox/222218030009/system/MonitorData					
≓ Sessions	QoS:		Topic/flexem/fbox/22221803000	0		
A Topics		×.	9/system/MonitorData			
Subscriptions	Subacite		*			
MANAGEMENT						
🖋 Plugins	Messages					
Ø Listeners						
TOOLS				-	Retained send	
S Websocket	Messages already sent: 2		Messages received: 2			
() HTTP API						
ADMIN				opic/flexem/fbox/ 22218030009/syst 0		018-04-25 11:35:04
A Users		接收的内容	lue","0"},("name":"single","val er ue","45.750473"}]}			
			{\time\'2018-4-25-11:34-5 2\'Data'{{\name\'Temp'\v Tr alue\'104},{\name\'bit\'va 2: lue'\0},{\name\'single'\val er ue'\45.750397}}	opic/Rexem/Fbox/ 22218030009/syst 0 m/MonitorData		2018-04-25 11:34:54
			("time":2018-4-25 11:34.4 2":Data":{("name":Temp"/v Tr alue";85"),("name":bit";valu 2: e":0"),("name":single";valu en e";45:750320")})	opic/flexem/fbox/ 22218030009/syst 0 m/MonitorData		2018-04-25 11:34:44

If you want to unsubscribe from the topic, you can cancel the topic in the list of subscribed topics.





MANAGEMENT	Subscribe			
∯ Plugins Ø Listeners	Topic: Tspic/fexem/box/2222160300699xystem/MoniterClata	Subscribe: Topic		Oper
TOOLS			2018-04-25 11:33:54	×
Websocket White API			点击取消	

2.1.2 Publish box related status or information

When the box receives some relevant information or status topics, it needs to be published on this topic. After the MQTT client subscribes to the topic, it will get information about the box.

Торіс	Topic/flexem/fbox/222218030009/system/Stat	
	us	
Туре	publish	
Content	{	
	Status Type: Status Value	
	}	
Status: Pause	{"Pause":"Enable"} or{"Pause":"Disable"}	paused or not
Status: MDataPubCycle	{"MDataPubCycle":10}	Monitoring point publish
		period value

Note: The box does not actively publish the theme. When the box receives the topic Topic/flexem/fbox/222218030009/system/GetInfo and the content is Pause or MDataPubCycle, the box related status or information will be published. When MQTT client subscribes to the topic will received corresponding information.

Fill the topic in "Subscribe-->Topic": Topic/flexem/fbox/222218030009/system/Status, and click "Subscribe" to subscribe to the topic. Fill the topic in "Messages-->Topic": Topic/flexem/fbox/222218030009/system/GetInfo, fill in the content "Pause" in "Messages-->Messages", and you will get the status of the box in the paused push entry. When fill in "MDataPubCycle" will get the value of the box monitoring point publish period.





≓ Sessions	Subscribe									
A Topics	Topic									
Subscriptions	Topic/flexem/fbox/222218	130009/system/Status								
MANAGEMENT						Topic/flexem/fbox/22221803 9/system/Status	100 1			
🖋 Plugins							N.			1
Ø Listeners										1
TOOLS	Messages									
U Websocker	Topic			Messages						
(d) HTTP API	Topic/flexem/fbox/222218	130009/system/GetInfo		MDataPubCycle				🖌 📄 Retained - 💽 🗸	send	
ADMIN						Messages received	1			
A Users					ne -	Messages	Торіс			
		Topic/flexem/f box/22221803 0009/system/G			18-04-25 07:54:23		Topic/flexem/fbox/2 22218030009/syste m/Status			
	Pause	etinfo Topic/flexem/f box/22221803					Topic/flexem/fbox/2 22218030009/syste m/Status			
		0009/system/G etinfo								

2.1.3 Publish an entry information list

After the MQTT client subscribes to the topic, it will get the monitoring point information in the box.

Торіс	Topic/flexem/fbox/222218030009/system/Taglist						
Туре	Publish						
Content	"Version":1,						
	"list":[{"name":"Temp"},						
	{"name":"mqtt_connect"},						
	{"name":"bit"},						
	{"name":"single"}						
]						
	}						

Note: The box will not actively publish the topic, when the box receives the box information, the topic is Topic/flexem/fbox/222218030009/system/GetInfo

And when the content is Taglist, it means to get a list of item information of the box, then the box will be published by:

Topic/flexem/fbox/222218030009/system/Taglist.

Fill the topic in "Subscribe-->Topic": Topic/flexem/fbox/222218030009/system/Taglist, and click "Subscribe" to subscribe to the topic. Fill in the topic "Tops/flexem/fbox/222218030009/system/GetInfo" in "Messages-->Topic", and fill in the content "Taglist" in "Messages-->Messages" to get all the monitoring point entries in the box.



∧ Topics									
Subscriptions	Subscribe								
MANAGEMENT	Topic.				Subscribe				
🖋 Plugins	Topic/flexem/fbox/2222180	60009/system/Taglist			Topic				
Ø Listeners				-	Topic/flexem/fbox/2222180300 9/system/Taglist				
TOOLS									
Websocket									
() ⁵ HTTP API	Messages								
ADMIN	Topic:		Messages:						
🛆 Users	Topic/flexem/fbox/2222180	0009/system/GetInfo	Taglist				Retained send		
					Messages received: 0 Messages	Topic			
		Topic/Bexem/f bax/22221803 0009/system/G etInfo			(Version':1,"ist':{{name':"T emp';{name':"Temp';{na me':"nqtt_connect';{nam e':"bit';{name':"single']}	Topic/flexem/fbox/2 22218030009/syste m/Taglist			

2.1.4 Publish topic list

The topic list is the system default topic. After the MQTT client subscribes to the topic, you can get a list of topics supported by the device. Where sub indicates that the topic is the subject of the box subscription, and pub indicates the theme that the box can publish.

Торіс	Topic/flexem/fbox/222218030009/system/Topiclist
Туре	Publish
Content	{
	"topicVer": 1,
	"topicList": [
	{
	"topicname": "WriteData",
	"type": "sub"},
	{
	"topicname": "GetInfo",
	"type": "sub"},
	{
	"topicname": "Reboot",
	"type": "sub"},
	{
	"topicname": "Pause",
	"type": "sub"},
	{
	"topicname": "MDataPubCycle",
	"type": "sub"},
	{
	"topicname": "MonitorData",
	"type": "pub"},
	"topicname": "Status",
	"type": "pub"},
	{



"topicname": "Taglist",
"type": "pub"},
"topicname": "Topiclist",
"type": "pub"}
]}

"topicVer": Theme version number

"topicList": A list of topics supported by the device, sub indicates that the topic is the subject of the box subscription, and pub indicates the theme that the box can publish

The prefix for all topics is the default Topic/flexem/fbox/222218030009/system/. So you only need to reply to the last level.

Note: The box does not actively publish the topic, the same reason, when the box receives the subject of getting the box information Topic/flexem/fbox/222218030009/system/GetInfo

And when the content is Topiclist, it means to get a list of item information of the box, then the box will be publish by: Topic/flexem/fbox/222218030009/system/Topiclist

Fill the topic in "Subscribe-->Topic": Topic/flexem/fbox/222218030009/system/Topiclist, and click "Subscribe" to subscribe to the topic. In "Messages-->Topic", fill out the topic:

Topic/flexem/fbox/222218030009/system/GetInfo, and fill in the content "Topiclist" in

"Messages-->Messages" to get a list of topics supported by the device.

Oper
Oper

2.2 Subscribe to topics

The following topics are box subscription topics, which are filled in at the publish topic of the MQTT client before the box can subscribe to receive this information. (Taking the box 222218030009 as an example, and the theme is not customized, the default is: Topic/flexem/fbox/)



2.2.1 Set monitoring point

Setting the monitoring point will control the box to write to the monitoring point. Currently, th e FLEXEM MQTT write operation only supports writing one variable value at a time.

Example: There is a monitoring point named "Temp" in the box, and the value is modified in t he MQTT client by 30:

Торіс	Topic/flexem/fbox/222218030009/system/WriteData
Туре	subscription
Content	{"Version":10,
	"Data":[
	{"name":"Temp","value":"30"}
]}

"Version":10: The version number of the topic "name":Monitoring point name to be modified

"value": Monitoring point value to be modified

Fill the topic in "Messages-->Topic": Topic/flexem/fbox/222218030009/system/WriteData, fill in the contents of the modified monitoring point in "Messages-->Messages", click "send", after the box receives the topic, perform a write operation.

MONITORING	✓ Connect X Disconnect Current State: CONNECTED 处于连接状态
Ltdl Overview	
Clients	Subscribe
	Topic: Subscribe:
	World Topic QoS Time
Subscriptions	QoS: 0 No Data
MANAGEMENT	4
🖋 Plugins	V Subscribe
Ø Listeners	
	Messages
TOOLS	主题内容会议
10020	Topic: Messages: QoS:
Websocket	Topic/flexen/fbox/222218030009/s {"Version":10, "Data":["name":"Tk 0
	Messages already sent: a
ADMIN	Managanan Tania OaS Tima Managana Tania OaS Tima
	Messages Topic Qos Time Messages Topic Qos Time
A Users	Topic/ flexe 发布记录 No Data { Versio m/fbo m/fbo n*10, 'Dat x/2222 a*{ (nam 18030 0 e'.Tem 009/sy p'.valu stem/ e*301} WriteD

Note: Do not use entries with the same name when registering entries

MQTT does not support string entries



2.2.2 Pause data push

The server can suspend the publish of real-time data of MQTT. You can also use this topic to open the unpause publish of real-time data.

Торіс	Topic/flexem/fbox/222218030009/system/Pause					
Туре	subscription					
Content	"Enable" or "Disable"					

"Enable": Indicates to suspend the publish of all current real-time data

"Disable": Indicates that the suspension is cancelled and the real-time data continues to be Published

Fill the topic in "Messages-->Topic": Topic/flexem/fbox/222218030009/system/Pause, fill in "Enable" or "Disable" in "Messages-->Messages", the box receives the subject, according to the content will " Pause or unpause monitoring of the push of the item.

Take a pause push entry as an example:

Websocket	Subarribe						
O HTTP API	Messages						
ADMIN	Topic: Topic/llexem/fbox/2222	218030009/system/Pause		Messages Enable		Retained	v and
	Messages	Topic	QoS	Time			
		Topic/flexem/f box/22221803 0009/system/P ause					

Note: Pause push for a single entry is not supported.

2.2.3 Restart the box

After the box receives the topic, it will restart immediately. At this point, the MQTT server sho uld actively disconnect the existing link and release the subscribed topic. After the box is restar ted, it will re-register the device, get a list, and so on.

Торіс	Topic/flexem/fbox/222218030009/system/Reboot					
Туре	subscription					
Content	"True" (Content can be empty)					

Fill topic in 'Messages-->Topic': Topic/flexem/fbox/222218030009/system/Reboot,Fill "True" in "Me ssages-->Messages" (can be empty),*After the box receives the command, it will restart immediat ely.*



TOOLS												
	Messages	Messages										
ADMIN	Topic: Topic/Rexem/tbox/222218030009/system/Reboot			Messages: True		QoS: 0		Retained send				
	Messages already sent: 🕻	;				Messages received: C						
									Time			
	True	Topic/flexem/f box/22221803 0009/system/R eboot	0	2018-04-25 10:3):43							

Note: If the MQTT client publishes the topic multiple times, the MQTT server will continue to s end message without transmission completion when the box logs in again.

For example, the MQTT client continuously sends 10 restart commands. After the box receives a restart command, it immediately restarts. At this time, the MQTT server still records that there are still 9 restart commands that are not communicated. After the next box is started, the M QTT will continue to send.

2.2.4 Let the box publish the monitoring point immediately

After the box received the topic, it immediately publishes the Topic/flexem/fbox/222218030009/system/MonitorData , which is the value of the current item to be collected.

Торіс	Topic/flexem/fbox/222218030009/system/MDataPubNow
Туре	Subscription
Content	Any content, even empty is ok

If the set monitoring item period is long, but you want to get the monitoring item immediately, the client can publish the topic. When the FBox receives the topic, it will publish the monitoring item with Topic/flexem/fbox/222218030009/system/MonitorData.

First fill the topic in "Subscribe-->Topic": Topic/flexem/fbox/222218030009/system/MonitorData, get the monitoring point of the box, it is convenient to observe the transmission of monitoring points after the modification publish period.

Fill the topic in "Messages-->Topic": Topic/flexem/fbox/222218030009/system/MDataPubNow, click Send, you can get the box monitoring point data immediately.



技术热线: 4008-033-022 官方网站: www.flexem.com



2.2.5 Set the monitoring point entry release cycle

Торіс	Topic/flexem/fbox/222218030009/system/MDataPubCycle
Туре	Subscription
Content	5

Allows the publish period of monitoring points to be set through topic interaction.

The topic is published on the MQTT client. When the box receives the topic and content, it indicates that the monitoring entry publish period is set to 5S. When set to 0, the default 10S is restored. (Unit: Second)

First fill the topic in "Subscribe-->Topic": Topic/flexem/fbox/222218030009/system/MonitorData, get the monitoring point of the box, which is convenient observe the transmission of monitoring points after the modification publish period.

Fill the topic in "Messages-->Topic": Topic/flexem/fbox/222218030009/system/MDataPubCycle, and fill in "5" in "Messages-->Messages" (modified publish period, unit: Second),*After the box recei ves the command, it will immediately modify the publish period of the monitoring point.*



2.2.6 Set single or multiple monitoring point entry publish cycles

The topic is published on the MQTT client, and the single or multiple monitoring points set will be published according to the set publish period. If the monitoring item period set by the topic is not used, the default period or the period set by MDataPubCycle will be used.

When set to 0, the monitoring entry uses the global release cycle.

Торіс	Topic/flexem/fbox/222218030009/system/MDPCS
Туре	subscription
Content	{"cycle":10,
	"num":3,
num:The num	"item":
ber of setting	[
S	"ItemName1",
	"ItemName2",
	"ItemName3"
] }



"cycle":Modified publish cycle time, unit: second

"num":Set the number of modified monitoring points

"item": The name of the monitoring point entry

First fill the topic in "Subscribe-->Topic": Topic/flexem/fbox/222218030009/system/MonitorData, ge t the monitoring point of the box, It is convenient to observe the transmission of monitoring p oints after the modification publish period.

Fill the topic in "Messages-->Topic": Topic/flexem/fbox/222218030009/system/MDPCS,

Fill the corresponding content in "Messages-->Messages". After receiving the topic, the box will change the push period of the set monitoring point.

A Topics	Messages	Messages												
Subscriptions	Topic:			Messages:	QoS									
MANAGEMENT	Topic/flexem/fbox/2222180	30009/system/MDPCS		{"cycle":5, "num":1, "item": ["Temp"]}	0 Retained View									
🖋 Plugins														
Ø Listeners									Time					
TOOLS		Topic/flexem/f box/22221803 0009/system/ MDPCS		2018-04-25 07:41:05		0';/Data':[('name':'Temp';'v alue'';5802'},('name':'mqtt _connect';value';1'},('nam e':'bit';'value';0'},('name';'s	Topic/flexem/fbox/ 222218030009/syst em/MonitorData		2018-04-25 07:41:12					
						(time'.'2018-4-25 19:41: 5'/Data'.{{"name'.'Temp'.'v alue'.'\$802'}}	Topic/flexem/fbox/ 222218030009/syst em/MonitorData		2018-04-25 07-41:07					
A Users						<pre>('time''2018-4/25 19:41: 0''Data'!('name''Temp')v alue''5802').('name'''mqtt _connect'.value''1').('nam e''bit''value''0').('name''s ingle''value''0').('name''s</pre>	Topic/flexem/fbox/ 222218030009/syst em/MonitorData		2018-04-25 07:41:02					
						{"time":"2018-4-25 19:40:5 0";"Data";{"name":"Temp";"v alue":"5802";},{"name":"mgtt connect"; value";"1"),{"nam e":"bit"; value";"0"),{"name";"s ingle;" value";"0.000000";}}	Topic/flexem/fbox/ 222218030009/syst em/MonitorData		2018-04-25 07:40:52					

2.2.7 Get the status or information about the box

When the box receives different access information, it is published with the specified topic. This topic is used in the previous section.

Торіс		Topic/flexem/fbox/222218030009/system/GetInfo				
Туре		subscription				
	Taglist	Get the current list of entries				
	Topiclist	Get the topic of the current box (subscription and publishable)				
	Pause	Get the pause status of the current box (whether it is pause				
		d)				
MDataPubCycle		Get the push cycle of the current box monitoring entry				

1)Taglist

Topic/flexem/fbox/300216080083/system/GetInfo Taglist

When the box receives the topic and content, it publishes the Topic/flexem/fbox/222218030009/ system/Taglist.

```
The content is:
```

```
{
```

```
"Version":1,
```

```
"list":[{"name":"Temp"},
```



```
{"name":"mqtt_connect"},
{"name":"bit"},
{"name":"single"}
]
```

}

A Topics														
	Subsorbe													
MANAGEMENT	Topic:						Subacribe							
	Topic/flexem/fbox/2222180	30009/system/Taglist												
							Topic/flexem/fbox/222218030 9/system/Taglist			×				
TOOLS														
	Messages													
ADMIN	Topic:			Messages:										
	Topic/flexem/fbox/2222180	30009/system/GetInfo		Taglist					Retained					
							Messages received							
							Messages	Topic						
	Taglist	Topic/flexem/f box/22221803 0009/system/G etInfo					(Version'),'ist'){'name''T emp'),'name''Temp'),{'na me''mqtt_connect'),{'nam e''bit'),'name''single')]}	Topic/flexem/fbox/2 22218030009/syste m/Taglist	1	2018-04-25 04:54:47				

2) Topiclist Get the topic of the current box Topic/flexem/fbox/300216080083/system/GetInfo Topiclist

When the box receives the topic and content, then

```
published,Topic/flexem/fbox/222218030009/system/Topiclist, the content is
```

```
{"topicVer": 1,
```

```
"topicList": [
    {"topicname": "WriteData","type": "sub"},
    {"topicname": "GetInfo","type": "sub"},
    {"topicname": "Reboot","type": "sub"},
    {"topicname": "Pause","type": "sub"},
    {"topicname": "MDataPubCycle","type": "sub"},
    {"topicname": "MonitorData","type": "pub"},
    {"topicname": "Status","type": "pub"},
    {"topicname": "Taglist","type": "pub"},
```

```
{"topicname": "Topiclist", "type": "pub"},
```

]}

The prefix for all topics is the default Topic/flexem/fbox/222218030009/system/, so you only need to reply to the last level.



MONITORING	Subscribe												
lat. Overview													
Clients	Topic/flexem/fbox/22221	1030009/system/Topiclist					Торіс	QoS	Time	Oper			
I Sessiona							Topic/flexem/fbox/2222180300 9/system/Topiclist						
∧ Topics													
Subscriptions													
MANAGEMENT	Messages												
🖋 Plugins	Topic:			Messages									
Ø Listeners	Topic/llexen/lbox/22221	1030009/system/GetInfo		Topiclist					Retained v sent				
TOOLS													
E Websocket	Messages aready sent.					-	Messages	Topic					
() HTTP API	Topiclist	Topic/flexem/f box/22221803 0009/system/G	1		2018-04-25 05:20:58		("topicVer"1/topicList"){"top icname"/WriteData', type")'s ub'1,5'topicname"/GetInfo'/t		400				
ADMIN													
≗ Users							boot"/ypo".sub]/(topona mil"Pause"/pop".sub]/(topona pionama".MDataPubdyd e"/ypo".sub/(toponama". b)/(toponame".NarmEven t"/ypo".sub/(toponame". a)/(toponame".NarmEven t"/ypo".pub/(toponame". a)//(toponame".toponame". b)/(toponame".toponame.To postar('ypo".pub/)[b)	Topic/flexem/fbox/2 22218030009/syste m/Topiclist	t . 1	2018-04-25.05:20:58			

3) Pause: Get the pause status of the current box (whether it is paused)

Topic/flexem/fbox/222218030009/system/GetInfo Pause

When the box receives the topic and content,

Topic/flexem/fbox/222218030009/system/Status is

posted, the content is:
{"Pause":"Enable"} or {"Pause":"Disable"}

MANAGEMENT	Subscribe									
	Topic/flexem/fbox/2222	18030009/system/MonitorD	ata							
						Topic/flexem/fbox/22221803 9/system/Status	0000 0			
TOOLS										
Uebsocket										
φ HTTP API	Messages									
ADMIN										
	Topic/liexem/lbox/2222	18030009/system/GetInfo		Pause				Retained		
						Messanas and very D				
				Time	_	Messages	Topic	QoS	Time	
	Pause	Topic/flexem/f box/22221803 0009/system/G		2018-04-25 03:27:07		('Pause'''Disable')	Topic/flexern/fbox/2 22218030009/syste m/Status			3.27.07

4) MDataPubCycle : Get the push cycle of the current box monitoring entryTopic/flexem/fbox/222218030009/system/GetInfo MDataPubCycle When the box receives the topic and content, it posts Topic/flexem/fbox/222218030009/system/Status, which reads: {"MDataPubCycle ":10}





