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• (a) Enter [MQTT Certificate] (Skip this step if no encryption is required)

MOTT Certificate

Confirm the authentication setting of the remote Broker is one-way or two-way:

If the remote Broker setting is **one-way authentication**, upload the **trust certificate of the remote Broker** on this setting page.

If the remote Broker setting is **two-way authentication**, upload the **trust certificate of the remote Broker**, the **certificate of the UA series**, and the **private key of the UA series** on this setting page.

MQTT Client								
Remove the File	Remove the File							
Trusted Certificate	Remove							
Certificate	Remove							
Private Key	Remove							
Upload the file to the cor	ntroller							
Trusted Certificate	Select File Upload							
Certificate	Select File Upload							
Private Key	Select File Upload							

- 1. Get the trusted certificates from MQTT Client and save in the PC.
- 2. In the [MQTT Client] > [Upload the file to the controller], click the button [Select File] to select the file of the Trusted Certificate, Certificate or Private Key.
- 3. Click the button [Upload].

Notes for MQTT Client Certificate:

- The supported code format: "PEM".
- The supported file extension name for **Certificates**: " *.pem / *.cer / *.crt " .
- The supported file extension name for **Private Key**: " *.key ".

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• (b) Click [MQTT Broker Setting]

MQTT Broker Setting

In MQTT Connection, select [Local Broker] or [Remote Broker] of the left menu.

Local Broker

The UA series has a built-in MQTT Broker service. When using MQTT communication, there is no need to build a Broker system.

Set up according to the user case situation (if there is no encryption need, please uncheck the SSL/TLS option), and click [Save].

System Setting	Module Setting	IoT Platform Setting	Convert Setting	Advanced Setting	Log
I/O Status File S	etting		-		
IoT Platform Setting Lo	cal Broker				
MQTT Connection	Local	Broker Setting			
Remote Broker		Port	1883		
MQTT Group Connect	tion	Anonymous Login	Enabled		
Microsoft Azure Platfo	rm	WebSocket	Enabled		
OPC UA Connection		Port	9001		
		SSL/TLS	C Enabled		
		Port	8883		
		Certificate	Select File	Up	load
		Private Key	Select File	Up	load
			Save		

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his function of nessages to th System Settir I/O Status IoT Platform Sett MQTT Connect Local Broker	ker an set up the remote E ng Module File Setting ing Remote Br ion	he MQTT co Broker throu Setting IoT	nnect gh th Platforr oker l	ion with the r is connection. n Setting Con	emote Brok	er. User ca Advanced Se	n publish ar	nd subscrib
Remote Broke	ər 🔶			Broker Name		IP / Domair	n Po	rt E
MQTT Group	Connection	÷	Nam	9				
Microsoft Azur	re Platform			Name		127.0.0.1	188	33 E
OPC UA Conne	ection			Remove			< 1 / 1	>
Local Server					Save			
		Broker Na	ame		IP / Dom	ain	Port	Edit
(2	Name						
L								
L		Remove				< 0	/ 0 >	
·		Remove		Save		< 0	/ 0 >	
After adding a	a list of the	Remove e Remote B	roker	Save		< 0	/ 0 >	
After adding a	a list of the note Broke	Remove e Remote B er List	roker	Save		< 0	/ 0 >	
After adding a	a list of the	Remove e Remote B er List Broker Na	roker	Save	IP / Doma	< 0	/ 0 > Port	Edit
After adding a	a list of the note Broke	Remove e Remote B er List Broker Na Name1	roker	Save	IP / Doma	< 0	/ 0 > Port	Edit
After adding a	a list of the note Broke	Remove e Remote B er List Broker Na Name1 Broker	roker ame	Save :	IP / Doma 127.0.0.1	in	/ 0 > Port 1883 3	Edit
After adding a	a list of the note Broke	Remove e Remote B er List Broker Na Name1 Broker	roker ame	Save	IP / Doma 127.0.0.1	< 0	/ 0 > Port 1883 3 / 1 >	Edit
After adding a	a list of the	Remove e Remote B er List Broker Na Name1 Broker	roker ame	Save : با Save	IP / Doma 127.0.0.1	< 0	/ 0 > Port 1883 3 / 1 >	Edit
After adding a	a list of the	Remove e Remote B er List Broker Na Name1 Broker	roker ame	Save	IP / Doma 127.0.0.1	< 0	/ 0 > Port 1883 3 / 1 >	Edit

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Click [Edit] to set up the group in the Broker Content Setting page. (if there is no encryp please uncheck the SSL/TLS option)									
	Broker Cor	ntent S	ettings	S					
		Broke	r Name	Bro	ker1				
	IP / Domain			127	7.0.0.1				
	Port			188	33				
	Keep Ali	ve Time(s	second)	60					
	SSL/TLS SSL/TLS					l			
	Т	rusted Ce	rtificate				•		
		Ce	rtificate	▼					
		Priv	ate Key				•		
	A	nonymou	s Login	e	Enabled				
						OK	Cancel		
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(c) Click Module S System Settin I/O Status Module Setting Modbus RTU Module (1 TCP Module (1	Module Setting Setting Module File Setting MQTT Module Master)	Setting]	T Platform Setting	Convert Set	ting Advanced	d Setting Log	gger Setting
ASCII Module	(Master)	Select All	No.	*Module Na	ame / Nickname		Edit
in a r r modulo							
EtherNet/IP ICPDAS Modu	le	Remove all	Copy Remov	/e	Save	< 1	/1>
EtherNet/IP ICPDAS Modu atting Steps 1.Give the 2.Click the 3.Click the Set up MQTT I	e module e button [b the Module Module L	Remove all name or nice) to add Edit] to ente bus Mappin .ist LAN	Copy Remove ckname, e.g. I a new module er the Module og Table for th	MQ-7255, I e Content S e UA contro	Save DL-302. Defa etting page oller and mod	ult: Name	nnels
EtherNet/IP ICPDAS Modu atting Steps 1.Give the 2.Click the 3.Click the Set up MQTT I Set	e module e button [b the Module Module L ick to add	Remove all name or nic a) to add Edit] to ente bus Mappin .ist LAN	Copy Remove ckname, e.g. I a new module er the Module og Table for the AN *Module Nam	MQ-7255, I e Content S e UA contro	Save DL-302. Defa etting page oller and mod	ult: Name	nnels
EtherNet/IP ICPDAS Modu atting Steps 1. Give the 2. Click the 3. Click the Set up MQTT I 2. Cli	e module e button [b the Module Module L ick to add No. 2	Remove all name or nic) to add Edit] to entrous Mappin ist LAN	Copy Remove ckname, e.g. I a new module er the Module ig Table for th AN *Module Nam	MQ-7255, I e Content Se e UA contro • • Nickname 1. C	Save DL-302. Defa etting page oller and mod	ult: Name dule I/O char E Default: Na	nnels idit me
tting Steps 1.Give the 2.Click the 3.Click the Set up	e module e button [b the Module L dock to add No. 2	Remove all name or nic (c)] to add Edit] to entrous Mappin ist LAN	Copy Remove ckname, e.g. I a new module a new module g Table for the AN *Module Nam MQ-7255	VQ-7255, E Content Se e UA contro V e / Nickname 1. C	Save DL-302. Defa etting page oller and mod	ult: Name dule I/O char Default: Na	nnels idit idit

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Select the MQT	T Connection.	nt Setting	9						
			No.	1					
			Module Name	MQ-725	5				
	MQTT Connection Cloud1 (Remote)								
MQTT Variable Setting: Add the variables of the attribute/type/number for your project. EX: 2 variables for this case.									
	MQTT Varia	ible Set	ting				_		
		Attribute Read ~							
			Data Type	Bool		~			
			Data Number	1					
			Create Tables	Add]				
			Details	Show	Hide				
The completed	table looks like	the follo	wing image:				-		
MQTT Variable	Table								
Remove Tabl	es Remove								
Remove Name	Attribute	Data Typ	e Subs Top	cribe Dic	Publish Topic		Description		
Tag1	Read V	Bool	/MQTT_No.1 7255/Tag1/Si	_MQ- Ibscribe					
Tag2	Read V	Bool	/MQTT_No.1 7255/Tag2/Si	_MQ- Ibscribe					
			ОК	ancel					
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(d) Click MySQL / Add a databa Edit] button t	[MySQL MariaDB Co se identifie to enter th	/ Maria	DB Con Setting name (Ex QL / Mar	nection S :: ICPDAS iaDB Cor	Settin S_Cyc ntent	og] cle_Date Setting"	• Time) as be page.	elow, and	then	click
System Setting	g Module File Setting	Setting	IoT Platfo	orm Setting	Cor	overt Setting	Advanced	Setting	Logger S	Setting
Advanced Setting	MySQL / Ma	riaDB								
PID Operation		MySC	QL / Maria	DB List						
IFTTT Conditio	n Trigger	Remo	ve	lde	entificati	on Name		Status		Ed
Data Logger	ger	(6	ICPDA	S Cycle	DateTime	1			
MS SQL	901		9		e_eye					
MySQL / Maria	DB			Remove				< 0	/0	>
		Nam	Identificati ie1	on Name			Stati	s		Edit
		ICF	PDAS_Cyc	le_DateTim	ne		Enat	ole		Edit
		Remove	•				<	1/1	>	
				S	ave					
click [Edit	:] button to	o enter	the "MyS	SQL / Mar	iaDB	Content	t Setting" pa	ıge.		

Author Eva Li Version 1.0.0 Date 2022,09 Page 9 / 11 (MySQL / MariaDB Connection Settings Identification Name ICPDAS_Cycle_DateTime Database Name DatabaseName Identification Name ICPDAS_Cycle_DateTime Database Name DatabaseName Identification Name ICPDAS_Cycle_DateTime Identification Name TableName Identification Name Identification Name Identification Name TableName Identification Name Identification Name Identification Name TableName Identification Name Identification Name Identification Name TableName Identification Name Identification Name Identification Name TableName Identification Name Identification Name Identification Name Identification Name TableName Identification Name Identification Name Identification Name Identification Name Test Connection Identification Setting Identification Name Identification Name Identification Name Identification Name Log M	Classification	UA-Series	UA-Series English Function Wizard FAQ-dbl-08									
MySQL / MariaDB Connection Settings Identification Name CPDAS_Cycle_DateTime Database Name Database Name Table Name T	Author	Eva Li	Version	1.0.0	Date	2022, 09	Page	9 / 11				
Identification NameICPDAS_Cycle_DateTimeDatabase NameDatabaseNameTable NameTableNameIP127.0.0.1Pott3306AccountrootInterval Seconds5Date Time Format[yyyy-MM-dd], [HH:mm:ss] ▼Enable✓Test ConnectionConnectionOKCancel	[MySQL / Mar	aDB Conte	nt Setting] o	an set up th DB Conn	ne database ection S	se relational	setting.					
Database NameDatabaseNameTable NameTableNameIP127.0.0.1Port3306AccountrootAccountrootLog ModeCycleInterval Seconds5Date Time Format[yyyy-MM-dd], [HH:mm:ss] ▼Enable✓Test ConnectionConnectionOKCancel			Identific	ation Name	ICPDAS	_Cycle_DateT	ime					
Table NameTableNameIP127.0.0.1Port3306AccountrootPassword••••Log ModeCycleInterval Seconds5Date Time Format[yyyy-MM-dd], [HH:mm:ss] ▼Enable✓Test ConnectionOKCancel			Data	base Name	Database							
IP127.0.0.1Port3306AccountrootPassword••••Log ModeCycleCycle✓Interval Seconds5Date Time Format[yyyy-MM-dd], [HH:mm:ss] ✓Enable✓Test ConnectionConnectionOKCancel				Table Name	TableNar	ne						
Port 3306 Account root Password ···· Log Mode Cycle Cycle ✓ Interval Seconds 5 Date Time Format [yyyy-MM-dd], [HH:mm:ss] ✓ Enable ✓ Test Connection Connection OK Cancel				IP	127.0.0.1	1						
Account root Password ···· Log Mode Cycle Interval Seconds 5 Date Time Format [yyyy-MM-dd], [HH:mm:ss] ~ Enable Test Connection OK Cancel				Port	3306							
Password •••• Log Mode Cycle Interval Seconds 5 Date Time Format [yyyy-MM-dd], [HH:mm:ss] ~ Enable Test Connection Connection OK Cancel				Account	root							
Log Mode Cycle Interval Seconds 5 Date Time Format [yyyy-MM-dd], [HH:mm:ss] • Enable • Test Connection Connection OK Cancel				Password	••••							
Interval Seconds 5 Date Time Format [yyyy-MM-dd], [HH:mm:ss] ✓ Enable ✓ Test Connection Connection OK Cancel				Log Mode	Cycle		~					
Date Time Format [yyyy-MM-dd], [HH:mm:ss] Enable Image: Connection Test Connection Connection OK Cancel			Interv	val Seconds	5							
Enable Test Connection Connection OK Cancel			Date T	îme Format	[уууу-ММ	Л-dd], [HH:mm	1:SS] 🗸					
Test Connection OK				Enable	~							
OK Cancel			Test	Connection	Connect	tion						
						ОК	Cancel					
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(e) Click [Apply Connection & Enable Recording Module] Apply Connection & Enable Recording Module									
	lule List								
No. *Moo	lule Name / Nickna	me	Edit		Database Nam	ne	All Enabled		
1	MQ-7255		Edit	ICPDAS	S_Cycle_DateTin		3		
					< 1	/1>			
			Save						
Save Pro Click [Save project is sa	Project], the saving. When the	Step Bo≯ ∋ animati	will show an on vanished,	animati the proje	on as below ect is saved o	picture, tha completely.	t means the		
• (g) Click [l Run the p When the v	Run the Project	: t] vait" disa	appears, the n	ew worc	ds " Success '	' appears, tl	hat means		
the UA con	troller is running	g new pro	oject successf	ully.					
		Rı	in the projec	st Su	ccess.				
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2. Check the MQTT Real-Time Status Click the menu [I/O Status]. System Setting Module Setting IoT Platform Setting Convert Setting Advanced Setting Logger Setting File Setting							
Check the left menu [MQTT Module] and Click the module name you want to check.							
		Mod (Mas No.	Ibus ASCII Mo ster) Name	dule Serial Po 0 >	ort		
		MQT No. 1	TT Module Name MQ-7255	LAN] LAN 1 >	J		
The I/O Status v	will display the	Ethe No.	Name	LAN	Broker conne		ess the
status will show [Good].							
I/O Statu	S				I/O So	caling B	itwise
Variable N	lame Dat	а Туре	Value		Description	S	tatus
Tag1	E	001					Bood
Tag2	Bool						Good
< 1 /1 >							
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