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Chapter1. Overview

1.1. Specification



IIoT Gateway with Serial Bridge

Features

- IIoT Gateway with serial bridge can upgrade your existing serial-based controller and touch panel without the need for modifying PLC and HMI projects. Transparent (pass-through) between COM1 and COM2 •

- Supports OPC UA and MQTT Compact Design and DIN-rail Mountable Fan-less Cooling System Built-in 256 MB Flash Memory
- •
- •
- Built-in Power Isolator
- Wide input voltage range: 10.5~28VDC •

MemoryFlash RAMIProcessorIIProcessorSD Card SlotIJARASD Card SlotIUSB HostIIUSB ClientIIEthernetIICOM PortIIPower IsolationIIPower ConsumptionIIVoltage ResistanceIIIsolation ResistanceII	256 MB	
Hash RAM Processor JO Card Slot USB Host USB Client Ethernet COM Port RTC Input Power Power Isolation Power Consumption Voltage Resistance	256 MB	
Processor		ARM RISC 528MHz
	SD Card Slot	N/A
	USB Host	N/A
	USB Client	N/A
I/O Port	Ethernet	10/100 Base-T x 1
		COM1: RS-232 2W, RS-485 2W/4W
	COM Port	COM2: RS-232 2W, RS-485 2W/4W
RTC		Built-in
	Input Power	10.5~28VDC
	Power Isolation	Built-in
Power	Power Consumption	300mA@12VDC;150mA@24VDC
Fower	Voltage Resistance	500VAC (1 min.)
	Isolation Resistance	Exceed 50MΩ at 500VDC
	Vibration Endurance	10 to 25Hz (X, Y, Z direction 2G 30 minutes)
	PCB Coating	Yes
	Enclosure	Plastic
Specification	Dimensions WxHxD	109 x 81 x 27 mm
	Weight	Approx. 0.14 kg
	Mount	35 mm DIN rail mounting
	Protection Structure	IP20
Environment	Storage Temperature	-20° ~ 60°C (-4° ~ 140°F)
LINIOIIIIein	Operating Temperature	0° ~ 50°C (32° ~ 122°F)
	Relative Humidity	10% ~ 90% (non-condensing)
Cortificato	CE	CE marked
Certificate	UL	
Software		EasyBuilder Pro V6.01.02 or later versions

1.2. Dimensions







Top View

Bottom View

а	Ethernet Port (10M/100M)
b	COM1, COM2
С	Power Connector
d	Default Button

1.3. Connector pin designations

	I			COM1	[RS232-2\	N;RS-485-2	2W/4W],				
	Pin	Pin		COM2	[RS232-2\	N;RS-485-2	2W/4W]				
	1				COM1	COM2		COI IRS4	V1 851	CO IRS	M2 4851
7	5		K	PIIN#	[RS232] 2W	[KS232] 2W	PIIN#	4W	2W	4W	2W
	7			1	RXD1		2	Rx1-	Data1-		
	g			3	TXD1		4	Rx1+	Data1		
n	11			5	FG		6	Tx1-			
	11			7	GND		8	Tx1+			
	13			9		RXD2	10			Rx2-	Data2-
	15			11		TXD2	12			Rx2+	Data2+
				13		FG	14			Tx2-	
-			_	15		GND	16			Tx2+	

1.4. Restoring factory default

Press and hold on the Default button on the unit for more than 15 seconds to restore factory default.

LAN: DHCP

Please note that the projects and data stored in the unit are all cleared after pressing the Default button.

1.5. LED indicator

LED indicators show the status of IIoT Gateway.



lcon	Color	Meaning
ł	Blue	LAN Communication Status
сом 1 2	Green	COM1/COM2 Communication Status
*	Orange	Helps the operator to find the cMT-G03. Triggering system register LB-11959 can turn this indicator on/off.

1.6. Battery

IIoT Gateway requires a CR1220 3V lithium battery to keep the RTC running.

1.7. Power connection

Power: The unit can be powered by DC power only, the voltage range is compatible with most controller DC systems. The power conditioning circuitry inside the unit is accomplished by a switching power supply. The peak starting current can be as high as 500mA. voltage range: 10.5~28 VDC



Note: Connect positive DC line to the '+' terminal and the DC ground to the '-' terminal.

Chapter2. cMT-G03 System Setting

Connect cMT-G03 via Ethernet cable, and then configure system settings by the following ways.

2.1. Search for cMT-G03's IP address

Launch UtilityManagerEX. On the top-left menu, select cMT Series – Gateway, and then select a function from Reboot, Download, or Upload. cMT-G03 can be found in the IP/HMI Name group box by using the model's IP address, even if the PC or laptop is not on the same network. UtilityManagerEX can find and change cMT-G03's IP address. The following settings can be carried

out after obtaining the IP address.

Reboot	×	
Connection		
Ethernet O USB cable		
IP HMI Name	Þ	
HMI: 92.168.1.102 (cMT-1BEE)		
Search 192.168.1.189 (HMIName) 192.168.1.213 (cMT-1B2D)		Search and Change IP
Search All 192.168.1.22 (cMT-0DAF) Search and Change IP 192.168.1.83 (cMT-DDD2)	-	HMI Name / IP HMI Model May DHCP: O On Off
	4	CMT-0426 192.106.209 CMT-SVR 000 CMT-0DAF 192.168.1.22 CMT-SVR 000 CMT-10FE 102.168.1.22 CMT-SVR 000 IP: 192.168.2.89
		CMT-1BEE 192.106.1.102 CMT-SVR 00.1 CMT-4B36 192.168.2.26 CMT-SVR 00.1 Subnet mask : 255 . 255 . 252 . 0
		CMT-80DA 192.168.2.16 CMT-SYR 00.1 cMT-80DA 192.168.2.16 CMT-SYR 00.1 Password :
		CMT-E054 192.108.1.67 CMT-FVF 001 cMT-E054 192.168.225 cMT-HDMI 001 eMT-E0F0 102.168.1.86 AMT HDMI 001 Blink LED Apply
		HMIName 192.168.1.189 cMT-SVR 00.1
Decement - excess		PLANT_FAC 192.168.1.161 cMT-SVR bc.f
Passinal U . V Mask		< >
Reboo	t	Refresh

2.2. Set in internet browser

Open internet browser (IE, Chrome, Firefox, Safari), and enter cMT-G03's IP address to configure cMT-G03.



The default IP: LAN: DHCP

cMT-G03 system information is shown in the Login page, and the language used can be changed in this page.

lcon	Description
CMT-G03-MAO	Displays HMI name.
Date 2018/08/02	Displays system date.
(b) Time 10:17:46 am	Displays system time.

2.3. System Setting

The following part introduces cMT-G03 system settings.

Please Login!



Three levels of privileges can be found:

[System Setting]: Controls all the settings

[Update]: Controls limited items.

[History]: Downloads history data (Recipes and Event Logs).

2.3.1. Network

Configure Ethernet ports: IP, Mask, Gateway, and DNS. cMT-G03 has one Ethernet port, and is set to DHCP by default.



2.3.2. Date/Time

Set RTC date and time. Select [Sync. with host] and then click [Save] to synchronize cMT-G03 time with the computer time.

CMT series Server X												8 0 0	Σ
← → C (192.168.2.99/web)	_ihmi/SetDateTi	me.ph	p							ه ي ا	0		
	identity: System Sett	ting						Logout	🔇 cMT-G03-MAO	💼 10:25:53 am	0	2018/08/02	2
Network	Date	/Tir	ne										
🕒 Date/Time													
🖉 HMI Name	Curre	nt date	e/ time	2018	/08/02	10:25	:53 am	I.					
History	New	date/ ti	ime:										
🔈 Email	•	4	Au	gust 2	018	•	₩						
🔊 Project Management	Su	Мо	Tu	We	Th	Fr	Sa						
System Password	5	6	7	1	2	3 10	4						
Enhanced Security	12	13	14	15	16	17	18						
EasyAccess 2.0	19	20	21 28	22 29	23 30	24 31	25						
o opcua													
Communication		ŀ	Irs	Min	Se	c							
Event Logs	an	n 10)	25	49		•						
							•						
		Sync w	ith bos	t									
		Jyric W	in no:	э с.									

2.3.3. HMI Name

Enter a name to identify the unit.

[Identification light]: The LED indicator 🗱 of the unit will flash three times when this button is clicked, helping user to find the unit.

CMT series Server				
← → C ① 192.168.2.99/web_i	hmi/SetHMIName.php		\$ \$	0 🖬 🗷 🕤 🗄
<u> </u>	identity: System Setting	Logout 🕥 ci	MT-G03-MAO 🛛 🗖 10:26:40 am	2018/08/02
Network	HMI Name			
Date/Time				
🖉 HMI Name	Current HMI name: cMT-G03-MAO	Identification light		
History				
se Email	New HMI Name: New HMI Name			- 1
🕒 Project Management				
System Password				
Enhanced Security				
EasyAccess 2.0				
OPCUA				
Communication	Save			
Event Logs				

2.3.4. History

This tab offers settings related to historical data.

[Clear]: Clears history data.

[Backup]: Downloads history data in the unit to this computer.

→ C (192.168.2.99/web_i	hmi/History.php		\$ ☆	0 🖪 🗷 🖸
	identity: System Setting	ut 🚫 cMT-G03-MAO	10:29:02 am	2018/08/02
Network	History			
🕒 Date/Time	Clear Packup			
🖉 HMI Name	Clear Dackup			
History	Clear Recipe (recipe.rcp, recipe_a.rcp)			
San Email				
Project Management				
System Password				
Security				
EasyAccess 2.0				
OPCUA				
Communication				
Event Logs	Clear			

2.3.5. Email

This tab offers settings related to email.

[SMTP]: Configure email server and relevant settings.

[Contacts]: Set email contacts in this tab.

[Update Email Contacts]: Import the email contacts built using Administrator Tools.

CMT series Server X	
← → C ① 不安全 192.168.2.9	29/web_ihmi/Email.php 🛚 🖬 🖈 🧐 🚺 🗾 🖸 🗄
<u> </u>	identity: Logout Sustem Setting 0 2018/08/02
Network	Email
Date/Time	SMTP Contacts Update Email Contacts
🖉 HMI Name	Half dature is not early in
History	Mail feature is not enabled.
🔝 Email	Server: SMTP server Port:
🖹 Project Management	SMTP server requires authentication
System Password	✓ Use the following type of encrypted connection
Enhanced Security	
EasyAccess 2.0	User name: User name
opcua	Password: Password Confirm password: Confirm passv
Communication	
Event Logs	Sender information
	Name: Sender name Use HMI name
	Mail address: Sender mail

2.3.6. Project Management

This tab offers settings related to project management.

[Restart Project]: Restart cMT-G03 project.

[Update Project]: Upload the project's *.cxob file to cMT-G03.

[Backup Project]: Backup the project file to this computer.

C cMT series Server X		
← → C ③ 192.168.2.99/web_i	hmi/ProjectM.php	🗟 🖈 🤻 🜔 📘 🗵 🙄 :
<u> </u>	identity: Logout System Setting	 10:30:07 am 2018/08/02
Network	Project Management	
Date/Time	Restart Project Update Project Backup Project	
🖉 HMI Name		
History	Please click following button to restart Project.	
🏡 Email	Restart EB Project	
🖹 Project Management		
System Password		
Enhanced Security		
EasyAccess 2.0		
💿 OPCUA		
Communication		
Event Logs		

2.3.7. System Password

Set login password and the password for transferring project file.

CMT series Server X	20 Austa Hansi /DM/Dframe a mise		D A A	
	identity: System Setting	Logout CMT-G03-MAO	🔟 🔀 👻 🦉	© 2018/08/02
Network	System Password			
 Date/Time HMI Name 	Please select identity to e	dit password.		
History	System Setting 👻			
here and the second sec	Current password:	Current password		
Project Management	New password:	New password		
System Password	Confirm new password:	Confirm new password		
EasyAccess 2.0				
opcua				
Communication	Save			
Event Logs				
				-

2.3.8. Enhanced Security

The account setting in this tab can determine the accounts that can log in OPC UA.

[Accounts]: Add user or change user password and operable classes.

[Import User Account]: Import the user accounts built in Administrator Tools.

										_				•	
	System Set	tting			Log	out		:MI-G0.	3-MAO		10:3	3:21 an	n	0 20)18/08/
Network	Enho	anc	ed Secu	urity											
Date/Time	Accou	ints	Import User	Accounts											
🖉 HMI Name	Accor		import osci	Accounts											
History		Ad	ld account												
Sa Email	Pleas	se clicl	k [Save] buttor	n after editii	ng dat	a.									
🖹 Project Management	D	Hide	Account	Password	i	A B	c	D	E	F	G	н	I	J	К
System Password	1		admin	111111	//	· •	~	~	*	*	*	*	*	*	*
<u>ଛ</u> ହୁ Enhanced Security															
EasyAccess 2.0															
OPCUA															
Communication															

2.3.9. EasyAccess 2.0

This tab shows Hardware Key, EasyAccess 2.0 activate status, and proxy settings. For more information on EasyAccess 2.0, please see EasyAccess 2.0 User Manual.

CMT series Server ×				
← → C ① 不安全 192.168.2.9	9/web_ihmi/RA.php		🗟 🕁 🧐	0 🖬 🗷 🖸 🗄
<u> </u>	identity: System Setting	S cMT-G03-MAO	a 10:35:11 am	2018/08/02
Network	EasyAccess 2.0			
Date/Time	FasyAccess 2.0 Provy			
🖉 HMI Name				
History	Account: Account			
🜨 Email	Password: Password			
Project Management				
System Password	Hardware key 6JNXBFQ6-VJGL-VAK3-7D6H-A2O2-ZBF	IUFXQE		
Enhanced Security	Detect activation status			
¹⁴ ≰ EasyAccess 2.0				
OPCUA				
Communication				
Event Logs	Activate			

2.3.10. OPA UA

Configure OPC UA settings. Please see "Chapter 6 OPC UA Web Management Interface" in this manual for details.

2.3.11. Communication

This tab displays the communication parameters of the device connected to cMT-G03.



Chapter3. Updating Web Package and OS

cMT-G03 Web Package and OS can be updated through Ethernet. Launch UtilityManagerEX, select [cMT Series-Gateway] » [Maintenance] » [cMT-Gateway OS Update].



3.1 Updating Web Package

- 1. Select a cMT-Gateway to update OS.
- 2. Select [Web package] and browse for the source file.
- 3. Click [Update].

cMT-Gateway OS Update			×
IP HMI Name			٩
HMI: cMT-G03-	MAO	.80 (cMT-3333) 2.82 (cMT-G01_8EBD) 2.84 (cMT-A04A) 2.95 (cMT-G02-MAO) 2.88 (cMT-G04-MAO) 2.99 (cMT-G03-MAO)	A III
 Web package OS 	PLEASE INPUT WEB PACKAGE FILE N	IAME !	
Password : ******	Mask		Update

3.2 Updating OS

- 1. Select a cMT-Gateway to update OS.
- 2. Select [OS], a Warning message shows, please read this message carefully before you click [OK].

Warning	—
OS Firmware upgrade is a critical opera and do not disconnect before the upda provider if you are not sure of this oper system will automatically reboot .	tion. Please make sure power stays on ite is completed. Contact your service ation. After update is completed, the
Begin firmware update procedure	
	OK Cancel

3. If you click [OK], the cMT-Gateway OS Update window opens again, browse for the source file, and then click [Update].

MT-Gateway OS Update			×
4 IP HMI Name			
HMI: cMT-G03	MAO Search Search All	r 192.168.2.80 (cMT-3333) 192.168.2.82 (cMT-G01_8EBD) 192.168.2.84 (cMT-A04A) 192.168.2.95 (cMT-G02-MAO) 192.168.2.98 (cMT-G04-MAO) 192.168.2.99 (cMT-G03-MAO)	A III V
Web package			
OS	PLEASE INPUT OS IMA	AGE FILE NAME !	
Password :		🖉 Mask	Update

4. The message window below opens, please do not turn off the power while upgrading.



5. When finished, cMT-Gateway OS Update window shows "finished".

Chapter4. How to create a cMT-G03 project

This chapter explains how to create a project when cMT-G03 is used as an OPC UA Server, and how to set the addresses used to communicate with OPC UA Clients. The basic steps are:

- 1. Add a driver into Device List in EasyBuilder Pro.
- 2. Enable OPC UA Server and designate communication address.
- 3. Download the project to HMI.



The following explains how to set up OPC UA Server in the project.

4.1. Create a new project

Step 1. Launch EasyBuilder Pro and select a cMT-G03.



Step 2. Configure In(HMI)/Out(PLC) communication parameters.

evice N	Viodel (Feneral	System Setti	ng Rem	ote Security	Time Sv		-Mail	
-		0000000	2)00110012	16 1101	010 0000000)	12000)			
Device lis	st:								What's my IP?
SerialBrige									
N	ame : Loc	al HMI							
									Settings
In									
Inter	face : CO	M 1 (960	0,E,7,1)						
I/F prot	ocol : RS2	232							
							Duplica	te From Out	Settings
Out									
N	ame : Out	t							
Device	type : FA1	TEK FB/FB	s/B1/B1z Ser	ies					
Inter	face : CO	M 2 (960	0,E,7,1)						
I/F prot	ocol: RS2	232							
									Settings

Step 3. Click [IIoT/Energy] » [OPC UA Server], and select [Enable] check box to enable OPC UA Server.

OPC UA Server	
Enable Server Settings Tag	
Local HMI 	New group New Tag Delete Settings Import Export

Step 4. Click [Tags] of the device and then click [New Tag] to add tags monitored using OPC UA. When finished, click [OK] to leave.

Settings			—
Na	me : 🔟		
Type	Bit	• Word	
Address Device :	Out		Settings
Address : * You can :	D scale/convert data v	▼ 0 with conversion tag in Tag Libr	16-bit Unsigned (1) ary.
Туре	✓ Readable	Vritable	
			OK Cancel

Step 5. Find the created tags in OPC UA Server window.

OPC UA Server	
✓ Enable Server Settings Tag	
Local HMI Local HMI Double Tags Double Tags Local HMI Double Tags Local HMI Local HMI Double Tags Local HMI Local HMI Double Tags Local HMI Local HMI Lo	New group New Tag Delete Settings Import Export

4.2. Download project to cMT-G03

The format of the project file run on cMT-G03 is *.cxob. In EasyBuilder Pro, click [Project] » [Compile] to compile the project into *.cxob format. When finish compiling, you can download the project to cMT-G03 by two ways.

Way 1: Download using EasyBuilder Pro. Click [Project] » [Download(PC->HMI)], and set HMI IP address. The project can be downloaded via Ethernet.

Download (PC->HMI)	
Ethernet	Password/Port no. of download/upload : Settings
4 IP HMI Name	4
HMI: cMT-G03-MAO -	192.168.2.70 (cMT-15B7) 192.168.2.80 (cMT-3333) 192.168.2.99 (cMT-603-MAO)
Search All	
Search and Change IP	
Runtime * Necessary if update runtime or execute d	What's my IP?
Reset recipe (RW, RW_A)	event log 📝 Reset data sampling
Automatically using current settings to download after	r compiling
Download Stop	Exit

Way 2: Download using website. Open internet browser (IE, Chrome, Firefox, Safari), enter cMT-G03 IP address, click System Setting, enter password, and then configure cMT-G03 settings. Go to [Project Management] page and open [Upload Project] tab to download the project file from the

computer to cMT-G03.

CMT series Server					
← → C ① 192.168.2.99/web_ihm	i/ProjectM.php			© ☆ 🦻	0 🖪 🗷 🖸 :
🧧 🧧 📩 id	entity: stem Setting	Logout	🔇 cMT-G03-MAO	a 02:47:18 pm	2018/08/02
Network	Project Mana	gement			
O Date/Time	Restart Project Up	date Project Backup F	Project		
🖉 HMI Name					
History	Please select item(s) t	288.289.249 + 288.289 /m /m /m	t aire		
🔈 Email	RW	選擇倡条 木選擇比内個	iA.		- 1
🖹 Project Management	RW_A				
System Password					- 1
Enhanced Security					
SeasyAccess 2.0					
OPCUA					
Communication					
Event Logs	Upload				

4.3. Monitoring OPC UA Client

After downloading the project file, use OPC UA Client software to connect with cMT-G03 to monitor OPC UA Tag data.



Note: For more information on OPC UA Client software settings, please see OPC UA server manual.

4.4. On-line/Off-line Simulation

Running On-line or Off-line simulation in EasyBuilder Pro helps you examine OPC UA Tag settings. In On-line simulation, cMT Gateway Viewer can read from / write to PLC. Please note that On-line simulation is limited to 10 minutes.

Step 1. In EasyBuilder Pro click [Project] » [On-line Simulation] / [Off-line Simulation] to open cMT Gateway Viewer window.

Step 2. Add the tags to be previewed into the Monitor list on the right side.

Step 3. In On-line Simulation, data in PLC tags will also change.

Connected				
Browser	Check nodes status	Monitor	Remove non-existent nodes	Remove all nodes
Name	Status	Name	Id DataType	Value
Local HMI		D0	NS2 String Out.Ta UInt16	(read failed)
⊳ Tags				
Statistics				
a Out				
⊿ Tags				
D0	Untested			

Chapter5. Functions supported by cMT-G03

- OPC UA Server
 http://www.weintek.com/download/EBPro/Document/UM016009E_OPC_UA_UserManual_en.pdf
- EasyAccess 2.0
- <u>http://www.weintek.com/download/EasyAccess20/Manual/eng/EasyAccess2_UserManual_en.pdf</u>
- MQTT
- Database Server
- Administrator Tools
- Time synchronization (NTP)
- Macro
- Project protection
- Pass-through
- Data Transfer (Global) object
- Off-line / On-line Simulation
- Recipes (RW, RW_A)
- Data Log
- Event Log (please note that cMT-G03 cannot read history data saved in an external device)
- E-Mail
- Scheduler

Chapter6. OPC UA Web Management Interface

6.1. Introduction

cMT-G03 provides a web-based tool for convenient access to OPC UA configurations.



Open cMT-G03's webpage by entering its IP address into the address bar of a web browser. At the entry page, log in with System setting's password. Factory default of the password is 111111. (Suggested resolution: 1024×768 or higher)

<u> </u>	identity: System Setting	Logout
 Network Date/Time HMI Name History Email Project Management System Password Enhanced Security 	OPC UA OPC UA Server Status : Running Opc.tcp://192.168.2.222:48011/G01 Server Settings Edit node Certificates Discovery Advanced General Port: 48011 B Server name: 601 Security policy: None B B B B B B B B B B B B B B B B B B B	
ତ୍ତ OPCUA	Signification of the provided of the pro	
Communication	Basic256sha256 Sign;Sign & Encrypt	
Current OS version: ★ cht1-C01 OS baild 2016/128 Web version: V1.0.4	User Authentication Anonymous Enable Browse Browse Browse Browse Class: Clas	

Navigate to the OPC UA configuration page from the context menu on the left.

The OPC UA configuration page consists of a Startup/Shutdown control with status bar and tabbed windows including: Server settings, Edit node, Certificates, Discovery, and Advanced.

Usage of each window tab:

Tab	Description	
Sonvor sottings	Configure server settings such as port, name, security, user	
Server settings	authenticationetc.	
Edit node	Manage tags used by OPC UA server.	
Certificates	Manage certificates used by OPC UA server.	
Discovery	Manage list of discovery server.	
Advanced	Advanced options and features.	

6.2. Startup / Shut Down

OPC UA	
OPC UA Server 🗵 Status : Stopped	
opc.tcp://192.168.2.222:48011/G01	
OPC UA	
OPC UA Server 🥝 Status : Running	C*
opc.tcp://192.168.2.222:48011/G01	

Use the toggle button to start up or shut down the OPC UA server. If there is active client connection, when shutting down, the server will wait for a few seconds before closing off completely.

In addition, both the toggle button and a line of text also indicate the status of the server. The status is refreshed approximately every 10 seconds. An icon on the right C indicates that the status is being refreshed.

Endpoint URL is also displayed for user's reference.

*Whenever a page refresh is desired, use the menu on the left. Avoid using the browser's refresh button to reload a tab as you may be asked to enter the password to log in again.

6.3. Server Settings

The Server settings page shows general configurations of the OPC UA server.

identity: System Setting		≡	
Network Date/Time	OPC UA OPC UA Server Status : Running	¢	
 HMI Name History 	Opc.tcp://192.168.2.222:48011/G01 Server Settings Edit node Certificates Discovery Advanced		
se Email	General		
Project Management System Password	Port: 48011		
Enhanced Security	Security policy: None		
ි EasyAccess 2.0 ිල, OPCUA	✓ Basic128Rsa15 Sign;Sign & Encrypt ~ ✓ Basic256 Sign;Sign & Encrypt ~		
Communication	Basic256sha256 Sign;Sign & Encrypt		
Current OS version: CMT-CO1 OS build 20161128 Web version: V1.0.4	User Authentication Anonymous Enable Image: Browse Browse class: Image: Browse Read class: Image: Read Write class: Image: Write User name & password		
	 Certificate *Edit users setting in [Enhacned Security] and use corresponding permission classes (browse/read/write). *If setting changes are made while OPC UA server is running, the server will restart momentarily for changes to take effect. 	or the	
	Save		

General	Function		
Port	Access port of the OPC UA server		
Server name	Server name of the OPC UA server		
	Supported security policies. At least one must be selected.		
Security policy	Supported Policy: None, Basic128Rsa15, Basic256, Basic256sha256		
	Mode: Sign, Sign & Encrypt		
Ontion	Automatically Trust all client certificates: by enabling this option, the		
Option	OPC UA server will trust the certificate from any client connection.		

OPC UA server must be configured with at least one user authentication mode as listed in the following table.

Authentication	Descriptions	
Anonymous	Allow anonymous client connection. At least one of Browse, Read, or	
Anonymous	Write modes must be selected.	
	Allow user authentication with username and password. Each access	
User name &	mode, browse, read, and write can be assigned to a user class. User	
Password	classes are configured in the Enhanced Security mode on the web	
	interface or in EasyBuilder Pro.	
Certificate	User authentication with X.509 certificate	

After completing settings, click the Save button to save the changes. OPC UA server will shut down momentarily and then restart for the changes to take effect.

6.4. Edit Node

<u> </u>	dentity: system Setting
 Date/Time ∠ HMI Name 	OPC UA OPC UA Server Status : Running Opc tcp://192.168.2.222.48011/G01 Server Settings Edit node Certificates Discovery Advanced
 History Email Project Management 	Tags Dr Add Group Dr Add Tag D D Information
System Password Enhanced Security EasyAccess 2.0	→ Local HMI Tag Name: tag 1 → Local HMI Type: Bit → Siemens 57-300 MPI Address: 0x 1 → Mitsubishi FXSU Address: 0x 1 → MODBUS RTU BOBUS TCP/IP Address: 0x 1 → Tags BOOL Length: 1 → MODBUS TCP/IP Access: Read Write
Current OS version: Current OS version: Current OS version: Web version: V1.0.4	* Tags

In this page, the user can view and manage the tags currently available in the OPC UA server. New nodes and groups can be added, while existing nodes and groups can be edited or deleted. For ease of navigation, detail information of the currently selected node/group is displayed on the right. After completing settings, it is necessary to click the Save button to save the changes. OPC UA server will shut down momentarily and then restart for the changes to take effect. Changes will be lost if one exits this page without saving.

identity: System Setting		≡
🖉 HMI Name		
📄 History	Server Settings Edit node Certificates Discovery Advanced	
🏊 Email	Edit Tag X	Information
🖹 Project Management		
System Password	Tag Name: tag 1	Tag Name: ta Type: Bi
Security	Type: Bit Word	PLC: M
The EasyAccess 2.0	PLC: MODBUSTCP/IP	Index register: N
™ OPCUA	Address: 0x + 1	Length: 1
Communication	rormat: DDDDD (range : 1 ~ 65535)	Access: Re
	Length: 1	
	Access: Readable Writable	
Current OS version:	Cancel OK	
★ cMT-G01 OS build 20161128 Web version: V1.0.4	*After editing the tags, use the Save button below to apply the changes to the OPC UA server.If OPC UA ser momentarily for the changes to take effect.	ver is running, the ser
	Save	

Note that all modifications can only be made for existing drivers. It is not possible to change or add other drivers that are not already available. It is also not possible to edit the nodes of tag PLCs*.

*Tag PLCs are characterized by their use of name tags as device memory address as opposed to using device name with indices. Examples of tag PLCs include: BACnet, Rockwell Free Tag Names, Siemens S7-1200/1500 Symbolic Addressing,...etc.

6.5. Certificates

In this page, the user can manage certificates and revocation lists of the OPC UA server. Use the dropdown menu to access each page.

If "Automatically Trust All Client Certificates" (in the Server settings tab) option is not enabled, OPC UA server will reject all client connections and place their certificates in the untrusted list. User may manually "trust" them in this page. Use the reload button \bigcirc to repopulate the list of certificates if necessary.

Similarly, currently trusted certificates can be manually rejected on the same page.

<u> </u>	identity: System Setting		Logout	192.168.2.222 🗃 09:18:16 am 🕲 2017/10/0
P Network		Pupping		
🕒 Date/Time	• opc.tcp://192.168.2.222:48011/0	G01		
HMI Name	Server Settings Edit node Cert	ificates Discovery Advanced		
Email	Trusted Clients	~ O		
🖹 Project Management	Status Name	Valid From Valid to O	rganization OrganizationUnit	URI
System Password	O Trusted UaExpert@peter-p	pc 2017/01/13 2022/01/12 W	/eintek MyUnit	urn:peter-pc:UnifiedAutomation:UaExpert, DNS:peter-pc
Enhanced Security	O Trusted UaExpert@Jeremy	y 2017/03/22 2018/03/22 N	one	urn:Jeremy:UnifiedAutomation:UaExpert@Jeremy, DNS:Jeremy, IP Address:127.0.0.1
ିଭ OPCUA	× Untrusted UaExpert@peter-p	pc 2017/01/13 2022/01/12 W	/eintek MyUnit	urn:peter-pc:UnifiedAutomation:UaExpert, DNS:peter-pc
Communication				
	Trust/Reject		Remove Certificate	Import Certificate Export Certificate

Page	Description		
Trusted Clients	Lists of trusted/rejected client certificates on the server.		
	Supported operation: Trust/Reject, Remove, Import, Export.		
Trusted Users	Lists of trusted/rejected user certificates on the server. Supported		
	operation: Trust/Reject, Remove, Import, Export.		
Own	Server's own certificate.		
	Supported operation: Update, Remove.		
	When updating own certificate, matching certificate and Private Key		
	must be uploaded together; otherwise, update will fail.		
	A self-signed, 20-year validity certificate will be generated		
	automatically if own certificate is absent when server starts up.		
Trusted Client	List of trusted client issuer certificates.		
Issuers	Supported operation: Import, Remove, Export.		
Trusted User	List of trusted client issuer certificates.		
Issues	Supported operation: Import, Remove, Export.		
Certificate	Certificate revocation lists for client, user, client issuer, and user issuer.		
Revocation List	Supported operation: Import, Remove, Export		

6.6. Discovery

OPC UA server can register itself with Local Discovery Servers. In this page, the user can maintain the list of discovery servers that OPC UA server will register with during startup. Should the discovery server be unavailable during server shutdown, the shutdown process will be slightly delayed.

<u> </u>	identity: System Setting 09:49:51 am O 2017/10/03		
 Network Date/Time HMI Name History Email 	OPC UA OPC UA Server Status : Running opc.tcp://192.168.2.222:48011/G01 Server Settings Edit node Certificates Discovery Advanced Server URL Comment		
Project Management System Password Chanced Security Chan	opc.tcp://192.168.1.81:4840 *Server shutdown may be slightly delayed if the registered discovery server is unavailable at that time. *If setting changes are made while OPC UA server is running, the server will restart momentarily for the changes to take effect. Add Remove		
Gommunication			

After completing settings, click the Save button to save the changes. OPC UA server will shut down momentarily and then restart for the changes to take effect.

6.7. Advanced

Additional settings can be configured in the Advanced tab. The user can set the trace logging level and specific startup behavior of the OPC UA server. Furthermore, the trace log can be downloaded.

<u> </u>	identity: System Setting	Logout	192.168.2.222	0 9:52:44 am	2017/10/03
 Network Date/Time HMI Name History Email Project Management System Password Enhanced Security EasyAccess 2.0 OPCUA Communication 	OPC UA OPC UA Server Status : Running opc.tcp://192.168.2.222:48011/G01 Server Settings Edit node Certificates Discovery Adva Allow server to start with an expired certificate Trace Log: None Error Debug All	nced			
	Save Download Log				

After completing settings, click the Save button to save the changes. OPC UA server will shut down momentarily and then restart for the changes to take effect.

Chapter7. Tested PLC Drivers

PLC drivers supported by cMT-G03 are shown and can be selected in EasyBuilder Pro. Table below lists PLC devices tested by Weintek.

Manufacturer	PLC Model	Driver
FATEK	FB	FATEK FB/FBs/B1/B1z Series
Keyence	KV-N14AT	KEYENCE KV-3000
Коуо	Click	KOYO CLICK
Mitsubishi	FX2N	Mitsubishi FX2N
	FX3U/FX3G	Mitsubishi FX3U/FX3G
	FX5U	Mitsubishi FX5U
	Q00J	Mitsubishi Q00J
	00211	Mitsubishi
	QUZU	Q00U/Q01U/Q02U/QnUD/QnUDH
	Q00UJ	Mitsubishi Q00/Q00UJ/Q01/QJ71
MODBUS	Any	MODBUS RTU
Omron	CJ1M	OMRON CJ/CS/CP
Panasonic	FP0	Panasonic FP/KW
LS	MASTER-K80SK7MDR10S	LS MASTER-K CPU Direct
LS	XBM-DN16S	LS XBM/XBC/XGK CPU DIRECT
Cimon	CM3-SP16MDRE	Cimon CM1-SC02A
Toshiba	INVERTER VF	TOSHIBA INVERTER VF