

Temperature Controller



Solution Guide

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Thank you very much for selecting Autonics products. For your safety, please read the corresponding product manuals before using them

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Preface

Thank you very much for selecting Autonics products.

Please familiarize yourself with the information in this manual and in the product manuals before using them.

This solution guide contains information about a specific architecture solution and does not replace any specific product documentation.

This document does not attempt to describe the entire solution architecture and configuration but only introduce some basics procedures. Customization of this solution can be made by the users in respect of safety laws and regulations.

Document Guide

- This manual provides procedure steps for a particular solution architecture. It does not offer any guarantee concerning matters beyond the scope of this manual.
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- This manual is not provided as part of the product package. Please visit our home-page (www.autonics.com) to download a copy.
- The content of this manual may vary depending on updates of the product software and others unforeseen developments within Autonics. It is subject to change without prior notice. Upgrade notices are published through our homepage.
- We contrived to describe this manual the easiest and more accurate way. However, if there are any corrections required or questions, please notify us these remarks on our homepage.

Document Symbols

Symbol	Description	
Note	Additional information about a particular feature.	
Å Warning	g Failure to follow instructions can result in serious injury or death.	
Caution Failure to follow instructions can lead to a minor injury or product damage.		
Ex. An example of the concerned feature's use.		
*1	Annotation mark.	

Document Version History

Date	Version	Author	Description
August 24 th 2016	v1.0	기술지원팀 - YCG	Document creation
November 17 th 2017	v2.0	기술지원팀 - GTE	Document revision, template update Add several sections, change example

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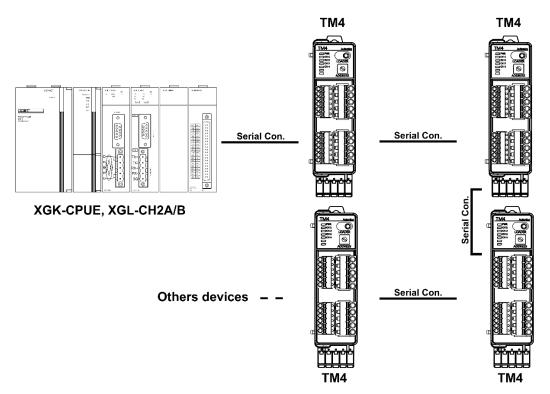
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1 Solution Overview

1.1 Solution description

Autonics TM4 device from the TM series is a multi-channel PID temperature controller, capable of controlling various type of power controllers thanks to its build-in SSR driver or relay output and simultaneously controlling up to 4 elements, (up to 2 elements for the TM2 type). It has also build-in serial Modbus connection through RS-485 pins.

Thanks to its characteristic, the TM device can be added in any existing automation architecture with Modbus connection and device parameters or statuses, values limits and Present Value can be monitored or set, allowing remote access to key-data.



This solution brings the following benefits to your current installation:

- > Allows to monitor in real time several TM devices status and feedback values
- Allows settings of several TM devices parameters like setting values or PID parameters from only 1 device
- > Allows data exchange between different device types

XG-5000

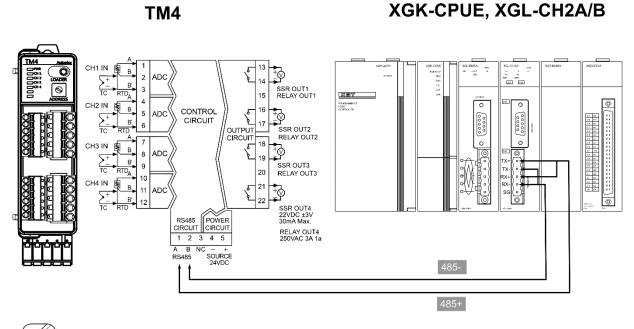
XGT Series(Cnet)

	p	
Hardware / Software	Version	Note
MS Windows	Win 7	
TM4-N2RB		Autonics product.

1.2 Solution components and version

v4.22

1.3 Solution architecture



LS product. Release 2017.09.29

LS product

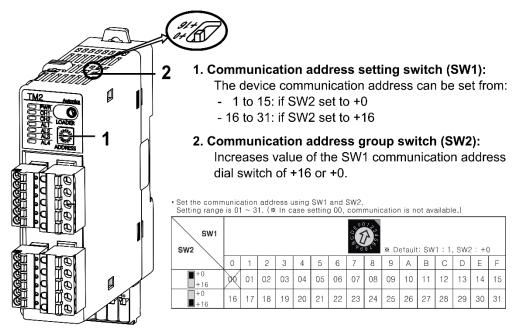
Note

Bridges should be addded between the "Tx+" and "Rx+" pins and between the "Tx-" and "Rx-" pins of the XGL communication module.

2 TM4 Communication Settings

Devices from the TM series do not have graphic interface; To change the devices' settings, we need to use the device management program from Autonics: DAQMaster.

1st Set the desired Modbus address thanks to the 'Communication address' switches, this address should be unique on the network:



2nd Connect the TM device to DAQMaster



Please follow the procedure in annex part of this document to connect a TM device to the DAQMaster program and have access to its parameters.

3rd In the DAQ Master 'Property' window, set the parameters of the 'Communication Setting' group as following:

Parameter	DAQ Master setting name	Value range	Note
Comm. speed	Baudrate	Multiple choice	User setting, same than the PLC parameter
Comm. Parity bit	Parity Bit	None	Fixed
Comm. Stop bit	Stop Bit	2	User setting
Comm. Response waiting time	Response waiting Time	20	User setting
Comm. writing	Communication Write	Enable	Fixed
Device address	Not available	1 to 31	User setting by switch dials, should be unique on the network

4th The TM temperature controller has been properly set.

3 XGT Project Settings

1st Run XG5000 and select [Project] – [New Project] in the menu bar. Enter project name and select CPU type 'XGK'-'XGK-CPUE' in the 'New Project' dialog box. Click 'OK'.

New Project		? 🔀
P <u>r</u> oject name: File <u>d</u> irectory:	TM(XGT) C:\xG5000\TM(XGT)	OK Cancel
CPU Series	XGK	
<u>C</u> PU type: Programming Format:	XGK-CPUE XGK Programming	
Program name:	NewProgram	
Program <u>L</u> anguage:	LD 🔻	
Project description:		

2nd Set connection method at [Online] – [Connection Settings]. This example is connection via USB, select connection type as 'USB' and click 'OK'.

С	onnectio	n Settings - NewPLO	c ? 💌	
	Connect	ion Settings		
	<u>T</u> ype:	USB	 <u>S</u>ettings 	
	<u>D</u> epth:	Local	Pre <u>v</u> iew	
	General			
	Timeout	Interval:	5 🚔 sec	
	<u>R</u> etrial Ti	mes:	1 times	
	Read / V	Vrite data size in PLC	run mode	
	© <u>N</u> o	rmal 💿 <u>M</u> aximum		
	$\ensuremath{^*}\xspace$ Send maximum data size in stop mode.			
	Conne	ct OK	Cancel	

- 3rd Start connection at [Online] [Connect].
- 4th To synchronize the modules information, stop the PLC processing by selecting [Online] [Change Mode] – [Stop]. If you cannot stop the PLC with this method, change the 'RUN/STOP' switch of the PLC CPU from 'RUN' to 'STOP'.

5th Then enter [Online] – [Diagnosis] – [I/O Information] and click [I/O Sync]. Click 'OK' if necessary to finish the synchronization then click 'OK' to close the 'I/O information' window.

I/O information		? 💌		
Base module information	Slot I/O in	formation		
Base 00	Slot	Module		
(D) Base 01	0	XGL-DMEA/B		
	1	XGL-CH2A/B		
	2			
	3	XGH-DT4A (DC 24V INPUT/TR OUTPUT, 32points)		
	4			
	5			
	6			
	7			
	8			
	9			
	10			
	11			
Show Existing Base Only	r			
		I/O Sync Details OK Cancel		

6th When I/O synchronizing is completed, communication modules will be added under [Network Configuration] – [Undefined Network] in the project tree. Double-click on the 'XGL-CH2A/B' communication module.

Project	▼ ₽ ×			
⊿.खुः TM(XGT) *				
▲ 4 Metwork Configuration				
🖌 🗂 Undefined Network				
Direct NewPLC [B0S0 XGL-DMEA/B]				
🔒 NewPLC [B0S1 XGL-CH2A/B]				
🤯 System Variable				
MewPLC(XGK-CPUE)-Stop				
Variable/Comment				
🖌 🐼 Parameter				
Basic Parameter				
🔤 I/O Parameter				
⊿ - 🗑 Scan Program				
📾 NewProgram				
Project View High-speed Link View P2P				

Item		Setting	Note
	Communication type	RS485	Fixed
Standard settings Channel 2	Communication speed	Same that TM	User setting
	Terminating resistances	Disable	Fixed
	Station No.	Multiple choice	User setting, should be unique on the network
Operation mode	Channel 2	Use P2P	Mandatory

7th In 'Standard Settings - Cnet' dialog box appears. Set 'Standard Settings' tab as below.

-	gs Channel 1	Channel 2
Type:	RS232C -	RS485 -
Speed:	9600 -	9600 -
Terminating Resist	ters: Disable 👻	Disable 🔻
Station No.:	0	0
Operation Mode Channel 1: XGT	server	Modbus Settings
Channel 2: Use	P2P	Modbus Settings
Repeater Mode		service is not supplied in

8th In 'Advanced Settings' tab set as below, then click 'OK'.

ltem		Channel 2
	Data bit	8
Advanced settings	Stop bit	2
	Parity bit	NONE

Standard Settings - Cnet		(×
Standard Settings Ad	vanced Settings		
Connection Settings	Channel 1	Channel 2	
Data Bit:	8 🔹	8 🔹	
Stop Bit:	1 -	2 🔻	
Parity Bit:			
Parity Receiving	Disable 🔻	Disable 🔻	
Modem Type:	Null Modem 🔹	Null Modem 👻	
Modem Initialization:			
Time Settings			
Response Waiting Time: (0-50)(*100ms)	1	1	
Delay Time Setting: (0-255)(*10ms)	0	2	
Delay Time Between Character: (0-255)(*10ms)	1	1	
		OK Cancel	

9th In the project tree, right click on the 'XGL-CH2A/B' communication module, and select [Add Item] – [P2P Communication]. Select '1' and click 'OK'

Project		🔻 🕂 🗙	NewProgram ×
▲ TM(XGT) * ▲ Network Configuration ▲ ௵ Undefined Network ▲ ௵ Undefined Network ▲ ௵ NewPLC [BOSC ↓ NewPLC [Posci ↓ NewPLC [Posci ↓ NewPLC [Posci ↓ NewPLC [Posci ↓ NewPLC [Posci ↓ NewPLC [Posci ↓ Network Variable	rk) XGL-DMEA/B]		
A · (1) NewPLC(XGK-C ·····) Variable/Con A ··· Parameter	Add Item	Ctrl+C	Network Communication Module
Basic Para	Paste	Ctrl+V	P2P Communication High-speed Link Communication
▲ 👩 Scan Program	Delete Properties	Delete	User Frame Add a Group
Project View High-speed L	Communication Mo	dule Setting 🔶	Add Slave

10th In the project tree, double click on the newly created 'P2P Channel' under communication module – [P2P 01].

Project	•	д	х
⊿ .壘 TM(XGT) *			-
Metwork Configuration			
a 🗊 Undefined Network			
^{Dnet} NewPLC [B0S0 XGL-DMEA/B]			
NewPLC [B0S1 XGL-CH2A/B]			
⊿			
🖓 💼 P2P Channel			
P2P Block			
📖 🧓 User frame definition			
🍪 System Variable			
MewPLC(XGK-CPUE)-Stop			
a 💽 Parameter			÷
Project View High-speed Link View P2P			

11th Set the 'P2P Driver' of the channel 2 to 'Modbus RTU client' and click 'OK'.

iannel S	etting						
Chann	Operation Mode	P2P Driver	TCP/UDP	Client/Server	Partner Port	Partner IP address	
1	XGT server						
2	Use P2P						
		User frame definition XGT client LS Bus Client Modhus ASCII client Modbus RTU client					

12th The project has been properly set. Then you need to create your own 'P2P block' depending on the desired point in the TM device and your own PLC program and download the complete project to the XGT device by selecting [Online] - [Write], then clicking 'OK'.



Note

Please refer to the XG5000 documentation for procedures on Ladder program creation and other method to write project to a XGT device.

Please refer to the TM documentation for the complete list of Modbus registers and information on Modbus functions.

4 Data Exchange Example

4.1 Solution overview

4.1.1 Communication objective

In this example, we will access the TM registers from the XGT PLC to:

Read:

- The present values measured by the temperature controller for CH1 and CH2
- The unit settings for CH1 and CH2

➤ Write:

- The setting values of the temperature controller for CH1 and CH2
- The activation flag of the Auto-Tuning function for CH1 and CH2

4.1.2 TM4 – XGT connection

Point description		TM4		XGT		
Variable name	Read / Write function			Bit	Word	
Present Value CH1	Read	-	0x303E8	-	D110	
PV unit CH1	Read		0x303EA		D111	
Present Value CH2	Read	-	0x303EE	-	D112	
PV unit CH2	Read		0x303F0	-	D113	
Setting Value CH1	Write	-	0x40000	-	D114	
Auto-Tuning CH1	Write	-	0x40064	-	D115	
Setting Value CH2	Write	-	0x403E8	-	D116	
Auto-Tuning CH2	Write	-	0x4044C	-	D117	

In this example, we will set the communication address:

- of the XGT device to 0

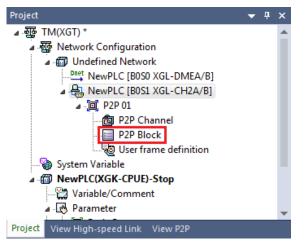
- of the TM4 device to 1

4.2 XG5000 program

4.2.1 P2P Block definition

We will define 1 P2P block for each value that we want to transfer following the previously table, and associate a specific conditionnal action flag to the different elements (for read or write).

1st In the project tree, double click on 'P2P Block' under communication module – [P2P 01].



2nd Set the different table elements for the first line as following:

Item	Setting	Note
Ch	2	XGT Channel number
Driver Setting	Mod. RTU Clt	fixed
P2P function	READ	Read or Write function
Conditional flag	M10	Flag to trigger the communication
Command type	1. Single	Select 2. if want to read several word registers in 1 command
No. of variables	1	fixed
Data size		Enter value if read several word registers in 1 command
Destination station	Enable	To define Modbus ID
Destination station number	1	Modbus ID of the targeted device

Ne	wProg	am X NewPLC - P2P 01 X											
Index	Ch	Driver Setting	P2P function	Conditional flag	Command type	Data type	No. of variables	Data size	Destin ation station		Frame	Setting	Variable setting contents
0	2	Modbus RTU client	READ	M00010	1. Single	WORD	1		ব	1		Setting	
1												Setting	
2												Setting	
2							1					Satting	

3rd Click on 'Setting' button and set as following, then click 'OK'.

Item	Setting	Note
Read area	0x303E8	TM register to read/write data
Save area	D110	XGT register to save/read data
Address	Auto filled	Fixed by XG5000

Variable Se	etting		×						
Opponent PLC Detail Settings									
Oppone Series:	nt CPU	~	View by Product						
Oppone Type:	Opponent CPU v								
	a: Remote Address a: Local Address (Ne	wPLC)							
	Read area	Save area	Address						
1	0x303E8	D00110	N00001						
		ОК	Cancel						

4th Set the other table elements as following:

Ne	wProgr	am 💉 NewPLC - P2P 01 🗙											
Index	Ch	Driver Setting	P2P function	Conditional flag	Command type	Data type	No. of variables	Data size	Destin ation station	Destination station number	Frame	Setting	Variable setting contents
0	2	Modbus RTU client	READ	M00010	1. Single	WORD	1		٩	1		Setting	Number:1 READ1:0x303E8,SAVE1:D00110
1	2	Modbus RTU client	READ	M00011	1. Single	WORD	1		•	1		Setting	Number:1 READ1:0x303EA,SAVE1:D00111
2	2	Modbus RTU client	READ	M00012	1. Single	WORD	1		•	1		Setting	Number:1 READ1:0x303EE,SAVE1:D00112
3	2	Modbus RTU client	READ	M00013	1. Single	WORD	1		•	1		Setting	Number:1 READ1:0x303F0,SAVE1:D00113
4	2	Modbus RTU client	WRITE	M00014	1. Single	WORD	1		~	1		Setting	Number:1 READ1:D00114,SAVE1:0x40000
5	2	Modbus RTU client	WRITE	M00015	1. Single	WORD	1		•	1		Setting	Number:1 READ1:D00115,SAVE1:0x40064
6	2	Modbus RTU client	WRITE	M00016	1. Single	WORD	1		~	1		Setting	Number:1 READ1:D00116,SAVE1:0x403E8
7	2	Modbus RTU client	WRITE	M00017	1. Single	WORD	1		₹	1		Setting	Number:1 READ1:D00117,SAVE1:0x4044C
9		1	1		1				1			Settina	I

4.2.2 Ladder program

1st Create the following ladder program:

To set and monitor values:

Comment	// Overw //Use of mov fi	riting/Monitoring of TM4 values unctions to monitor and change variable values when in PLC monitoring mode				
Comment	//****TM4 devi	ce Modbus address 1				
Comment	//**Monitor val	les				
				25	25	Present Value CH1
			MOV	D00110	M0810	0x303E8 (WORD)
3	·····			0	0	
			MOV	D00111	M0811	PV Unit CH1 0x303EA (WORD)
				25	25	
			MOV	D00112	M0812	Present Value CH2 0x303EE (WORD)
				0	0	
			MOV	D00113	M0813	PV Unit CH2 0x303F0 (WORD)
Comment	//**Write value	s				
				75	75	SV CH1 0x40000
17			MOV	M0814	D00114	(WORD)
- 1/	· · · · · · · · · · · · · · · · · · ·			0	0	A to Turing CUI
			MOV	M0815	D00115	AutoTuning CH1 0x40064 (WORD)
				30	30	01/01/2.0.40250
			MOV	M0816	D00116	SV CH2 0x403E8 (WORD)
				0	0	
			MOV	M0817	D00117	AutoTuning CH2 0x4044C (WORD)
				1		

To manage reading flags:

Comment	//******Start V	Vrite/Read flag	s management	t					
Comment	//****Reading I // Each flags a // Reading loop	re becoming ac	tive one by on d by a writing	ne each 100ms action					
	T100MS	M09019					1		Activation loop for Read
32					 	CTR	C0000	5	action flags
	_ =	1 C0000	1					M00010	Counter = 1: action associated to M10
37		1						M00011	Counter = 2: action
41	- =	C0000	2		 			()	associated to M11
45	_ =	1 C0000	3					M00012	Counter = 3: action associated to M12
49	- =	1 C0000	4					M00013	Counter = 4: action associated to M13

To manage writing flags:

	M09014	M09015	M09016	M09017		M09019	
54					*	()	
	M09014					M00014	*** Writing flag for SV
60						()	СН1
~	_P2P1_ND R04					_P2P1_ND R04	reset flag after response received fro device
63						M09014	
67	M09015					M00015	*** Writing flag for Auto Tuning CH1
	_P2P1_ND R05					_P2P1_ND R05	reset flag after response received fro device
70						M09015	
74	M09016					M00016	•••• Writing flag for SV CH2
77	_P2P1_ND R06					_P2P1_ND R06	reset flag after response received fro device
						M09016	-
81	M09017					M00017	*** Writing flag for Auto Tuning CH2
	_P2P1_ND R07					_P2P1_ND R07	reset flag after response received fro device
84						M09017	UEVICE
_							
88						END	



We will not describe how to create a Ladder program under XG 5000 in this document. Please refer to the XG 5000 documentation for more information.

2nd The project has been properly created, we need then to download the complete project to the XGT device by selecting [Online] – [Write], then clicking 'OK'.

4.3 Data exchange test

- > Set the CH1 and CH2 SV (M0814=D114=0x40000 and M0816=D116=0x403E8):
- 1st Double click on the 'M0814' variable in the '//write values' section, set to desired CH1 SV and click 'OK':

			21	21	Present Value CH1
_ON		MOV	D00110	M0810	0x303E8 (WORD)
			0	0	
		MOV	D00111	M0811	PV Unit CH1 0x303EA (WORD)
	Change Current Value ? X		22	22	
	Name: M0814	MOV	D00112	M0812	Present Value CH2 0x303EE (WORD)
	Type: WORD		0	0	
	Range: (0 ~ 65535)	MOV	D00113	M0813	PV Unit CH2 0x303F0 (WORD)
Comment //**Write values	Display type: Unsigned				
	Set value	• • • • • • • • • • • • • • •	0	0	
ON	Value: 30	MOV	M0814	D00114	SV CH1 0x40000 (WORD)
17	- Valac. 50				
	OK Cancel	MOV	0 M0815	D00115	AutoTuning CH1 0x40064 (WORD)
					0.10001(110110)
			0		SV CH2 0x403E8

- 2nd Set the same way the CH2 SV (M816).
- 3rd In the '//****Writing Mode' section, double click on the variable associated to the CH1 SV writing flag: 'M9014', set to 'TRUE' and click 'OK':

	//****Writing M	ode:			Change Current Value	?	×			
Comment	// Each flags a // Writing actio	re becoming ac n paused the re	tive by a discre ading loop	t event or	Name: M09014					
	M09014	M09015	M09016	M090	Type: BIT				M09019	
54					Range: (0 ~ 1)			*	_()	
	M09014				Display type: Unsigned				M00014	*** Writing flag for SV
60					Set value				_()	CH1
	_P2P1_ND R04				Value: 1 (TRUE)	(FALSE)			_P2P1_ND R04	reset flag after response received from
63									—(1)	device
					Forced I/OV OK	Cano	el		M09014	

4th Using the same process, write the new CH2 SV value to the TM device (M9016).

Activate the CH1 Auto-Tuning function (M0815=D115=0x40064 = 1):

5th In the '//write values' section, double click on the 'M0815' variable, set to '1' to start the function or '0' to stop it, and click 'OK':

			0	0	PV Unit CH1 0x303EA
		MOV	D00111	M0811	(WORD)
			22	22	Present Value CH2
	Change Current Value ? ×	MOV	D00112	M0812	0x303EE (WORD)
	Name: M0815		0	0,	PV Unit CH2 0x303F0
	Type: WORD	MOV	D00113	M0813	(WORD)
Comment //**Write values	Range: (0 ~ 65535)				
			30	30	SV CH1 0x40000
	Display type: Unsigned	MOV	M0814	D00114	(WORD)
17	Set value		0	0	
	Value: 1	MOV	M0815	D00115	AutoTuning CH1 0x40064 (WORD)
			0	0	SV CH2 0x403E8
	OK Cancel	MOV	M0816	D00116	(WORD)
	····· • • • • • • • • • • • • • • • • •				

6th In the '//****Writing Mode' section, double click on the variable associated to the CH1 AT function writing flag: 'M9015', set to 'TRUE' and click 'OK':

	M09014	Change Current Value	?	×	M00014	*** Writing flag for SV CH1
60	_P2P1_ND R04	Name: M09015 Type: BIT			_P2P1_ND R04	reset flag after response received from device
63		Range: (0 ~ 1)			M09014	
67	M09015	Display type: Unsigned			M00015	*** Writing flag for Auto Tuning CH1
70	_P2P1_ND R05	Value: 1 (TRUE) 0 (FAI	LSE)		_P2P1_ND R05	reset flag after response received from device
		Forced I/OV OK	Canc	el	M09015	

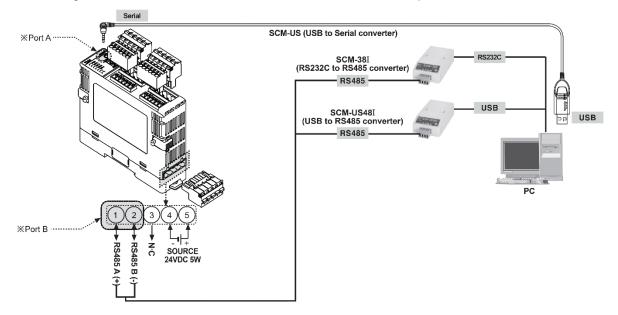
- Result for a temperature controller set to 'Heat' mode:
 - The CH1 or/and CH2 LED indicator will turn on if PV is lower than SV.
 - The CH1 or/and CH2 LED indicator will flash with 1 sec period if the Auto Tuning function has been activated.

5 Appendix

5.1 TM device connection to DAQ Master

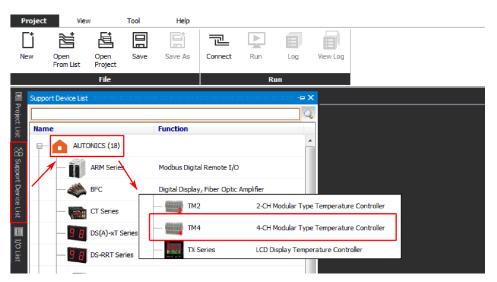
There are severals ways to connect a TM device to the DAQ Master software:

- using the PC loader port of the TM device and the USB port of the PC
- using serial connection RS-485 of the TM device and the RS-232 port of the PC
- using serial connection RS-485 of the TM device and the USB port of the PC.



For each configuration, the procedure under DAQ Master is the same:

1st Start DAQ Master and select TM4 device (or TM2 depending of your model) under [Support Device List] - [AUTONICS] in the left tab menu.

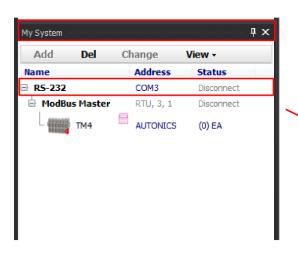


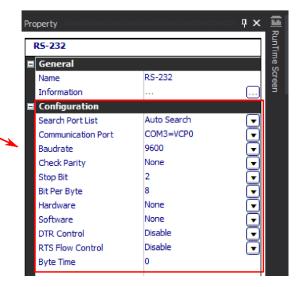
2nd Select the 'RS-232' DAQ interface and click 'OK'.

TM4 - DAQ Interface	— ו
New DAQ Interface	Added DAQ Interface
RS-232	
TCP/IP	
	OK Cancel

3rd Once the communication interface has been created, select this RS-232 interface in the 'My System' menu and set the PC communication port connected to the TM device. Then the different communication settings can be configure to match the TM device settings.

Item	Setting	Note
Communication Port	Port name	Port number which is connected to TM device
Baudrate	Comm. speed	Actual TM baudrate can be determine by TM light indicator (see below). Fixed to 9600 if using SCM-US cable
Check Parity	None (default) / Odd / Even	Need to try different settings
Stop bit	1 / 2 (default)	Need to try different settings
Bit Per Byte	8	Fixed





Rem: When power is supplied initially, 1 LED indicator associated to specific communication speed will fash for 5 sec; The device communication speed can be determine following this tables:

●TM2 Series				
Status Indicator	Initial power ON ^{※1}			
PWR (green) ^{**3}	ON			
CH1 (red)	Flash (2,400bps)			
CH2 (red)	Flash (4,800bps)			
AL1 (yellow)	Flash (9,600bps)			
AL2 (yellow)	Flash (19,200bps)			
AL3	Flash (38,400bps)			
AL4				

●TM4 Series				
Status Indicator	Initial power ON ^{×1}			
PWR (green) ^{×3}	ON			
CH1 (red)	Flash (2,400bps)			
CH2 (red)	Flash (4,800bps)			
CH3 (red)	Flash (9,600bps)			
CH4 (red)	Flash (19,200bps)			
	Flash (38,400bps)			

4th Once the communication settings have been set, start the communication interface by clicking the 'Connect' button in the [Project] - [Run] menu from the icon bar.



5th Then find your TM device by doing a right-click on the TM4 icon in the 'My System' archictecture tree and select 'Scan Unit Address...'. Click on 'Start Scan', select your TM device when the search is done and click 'OK'.

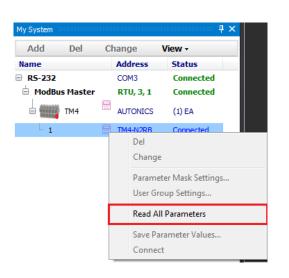
Rem:

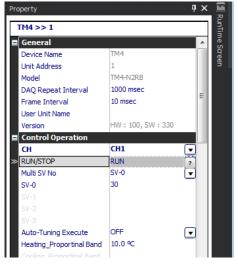
- search time can be reduced by changing searching range according to your device setting
- if using the SCM-US cable, all addresses can be used; set the range to 1~1.

Scan Unit - TM4			23
Scan Unit			
Address Range	• ~ 1 •	Retry 0	▼ Start Scan
Scan Status	1		
Scanned Unit	1	Other Scanned Unit	0
No. Address Model 1 TM4-N2RB	Version SW:330, HW:100	No. Address M	lodel Version
My System	₽ ×		
ing official			
Add Del Change Name Address	View +		
	Connected		
	(0) EA		
Del Add			
Scan Unit Address			OK Cancel
Read All Unit Para	meters		
Copy Parameters.			
Print Modbus Ma Edit I/O Script	o Table		

6th Your TM device has been added to the system list. To have access to its parameters, click right on the device in the 'My System' architecture and select 'Read All Parameters'.

When the synchronisation has been done, you can access and customize your device parameters in the 'Property' window at the left side of DAQ Master.





6 Troubleshooting

6.1 XG5000: I/O synchronization

Problem:

There is no 'I/O Sync' button in the 'I/O information' window.

I/O information		? <mark>×</mark>
Base module information	Slot I/O in	formation
Base 00	Slot	Module
Base 01	0	XGL-DMEA/B
	1	XGL-CH2A/B
	2	
	3	XGH-DT4A (DC 24V INPUT/TR OUTPUT, 32points)
	4	
	5	
	6	
	7	
	8	
	9	
	10	
	11	
Show Existing Base Only		
		Write Parameter Details OK Cancel

> Solution:

Please, stop the PLC processing by selecting [Online] – [Change Mode] – [Stop].

If you cannot stop the PLC with this method, change the 'RUN/STOP' switch of the PLC CPU from 'RUN' to 'STOP'.



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