

Technical Information

TI 04L65B01-02EN

GA10 Data Logging Software Setup Guide

SMARTDAC+



The contents of this Technical Information are subject to change without notice.

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GA10

Data Logging Software

Setup Guide

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Introduction

This document describes the setup for GA10 Data Logging Software.

■ Notice

- The contents of this manual are subject to change without notice as a result of continuing improvements to the instrument's performance and functions.
- Every effort has been made to ensure accuracy in the preparation of this manual. Should any errors or omissions come to your attention, however, please inform Yokogawa Electric's sales office or sales representative.
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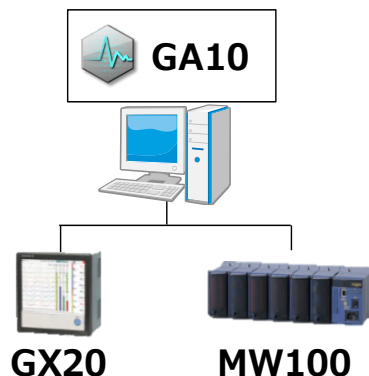
■ Scope of This Document

This document does not explain the basic operations of the Windows operating system (OS). For this information, read the relevant user's guide or related materials.

1. Basic Operation of GA10

1.1 Collecting Data Easily (Simple Settings)

Let's actually connect devices to GA10 and collect data.



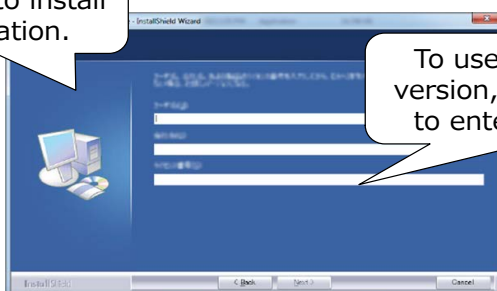
* To connect the UT, PR, or JUXTA series; other Modbus devices; or the WT series (excluding the WT3000/WT3000E), see Chapter 2.

Download GA10 from the Web site, and install it in your PC.

InstallE_x86

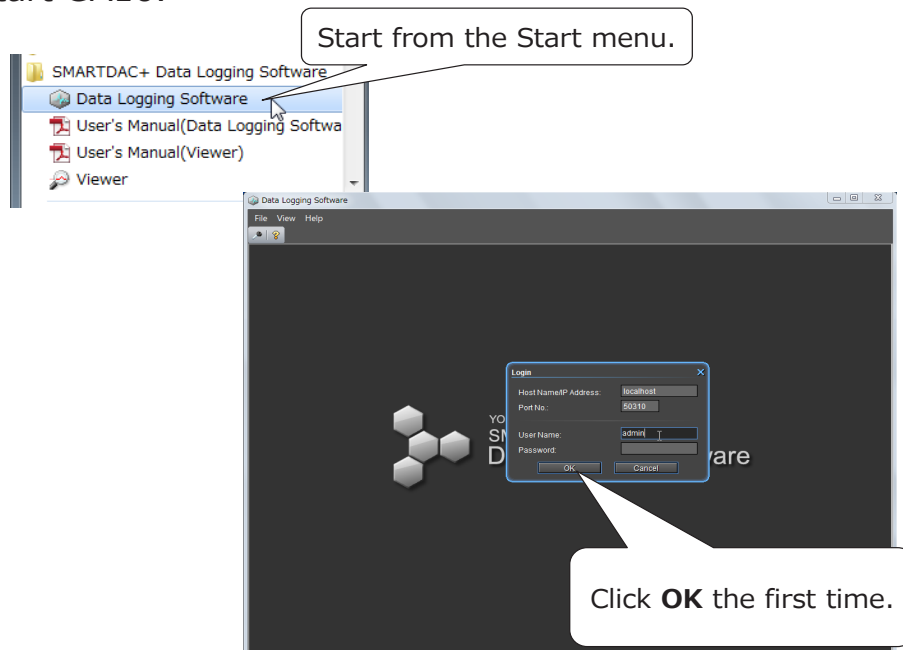
Right-click InstallE_x86.exe (InstallE_x64.exe for the 64 bit edition), and click **Run as administrator**.

Follow the wizard instructions to install the application.

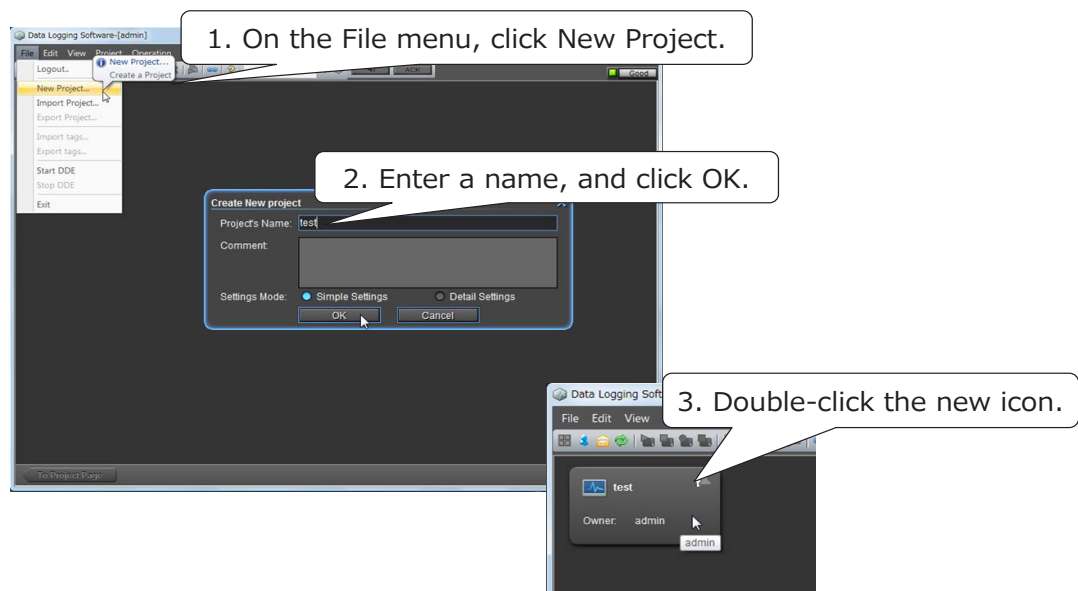


To use GA10 as a trial version, you do not need to enter a license key.

Start GA10.



Assign a name to the project.

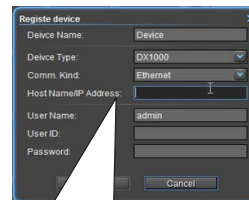
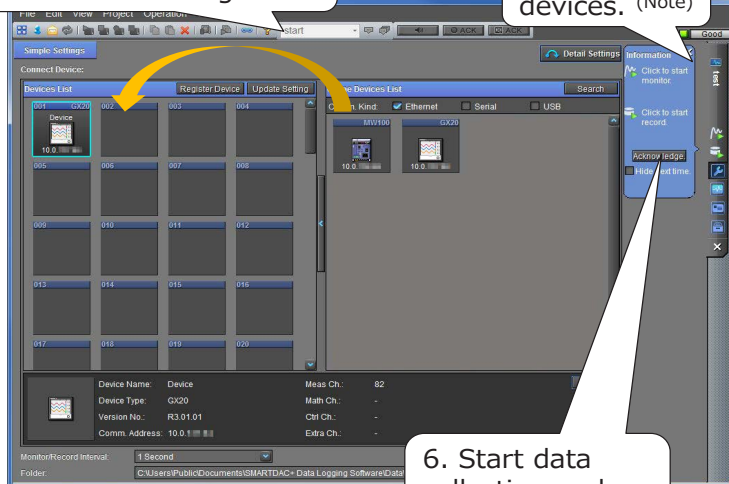


Simply register devices, and you can start collecting data.

5. Drag the detected GX20 and MW100 to register.

4. Search for devices. (Note)

Note: If you cannot search, use the Register Device button.



- Select the device name.
- Enter the IP address or serial settings.

If you want to connect the following devices, see the explanation provided later.

- PR, UPM, or JUXTA series and Modbus devices: Chapter 2
- WT series: Chapter 3

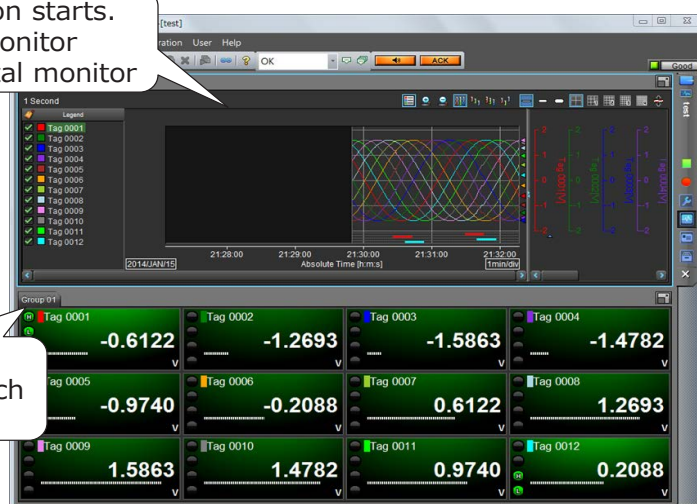
6. Start data collection and recording.

- Monitor: Monitoring only
- Record: Saves data to file

You can start collecting data by simply performing the aforementioned steps.

Data collection starts.
Top: Trend monitor
Bottom: Digital monitor

A group is created for each device.



If you recorded data, you can view the data with the viewer.

The screenshot shows two windows from the 'Data Logging Software'. The top window, titled 'Data Logging Software [admin] [test]', displays a 'Data List' table with columns: File Name, Data Number, Record Interval, Start Time, End Time, File Size, and Comment. The table lists three files: 'Data.dlg', 'Data-0001.dlg', and 'Data-0003.dlg'. The bottom window, titled 'Universal Viewer - [Event File Graph [Data-0003.dlg]]', shows a graph of multiple data channels (CH0001 through CH0012) plotted against 'Absolute Time [s]'. The graph displays several overlapping waveforms. Callout boxes provide instructions: '1. Click the icon on the right side to switch to the data list page.' points to a button in the top window's toolbar; '2. Double-click the data that you want to view.' points to a row in the 'Data List' table; and 'The viewer starts.' points to the graph window.

File Name	Data Number	Record Interval	Start Time	End Time	File Size	Comment
Data.dlg	1	1 Second	2013M03V14 11:15:05.000	2013M03V14 11:16:39.000	66024	
Data-0001.dlg	47	1 Second	2013M03V25 12:18:09.000	2013M03V25 12:18:55.000	91362	
Data-0002.dlg	1	1 Second	2014JAN15 21:33:27.000	2014JAN15 21:33:14.000	11562	
Data-0003.dlg	1	1 Second	2014JAN15 21:33:17.000	2014JAN15 21:35:37.000	23256	

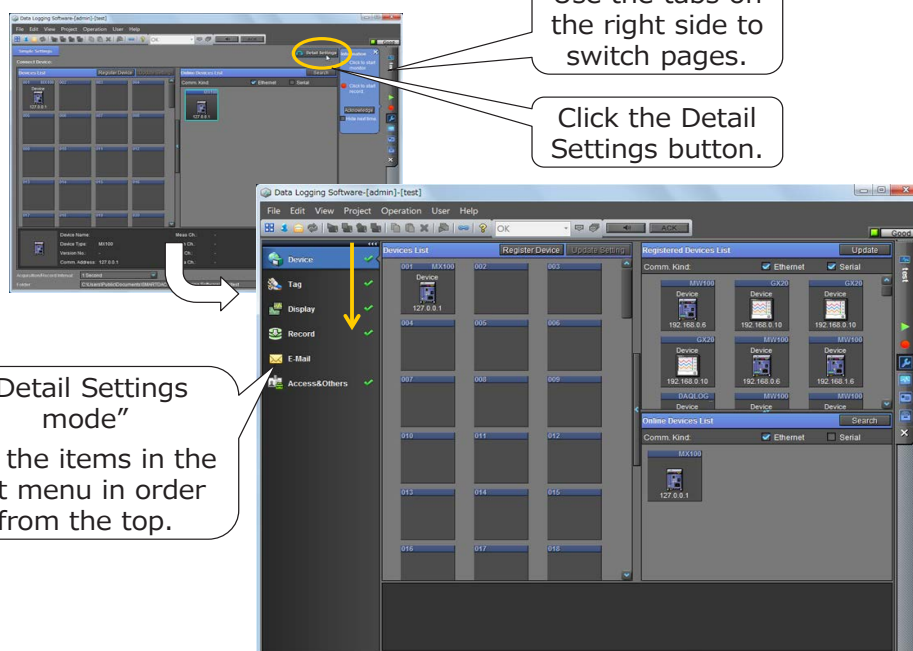
1. Click the icon on the right side to switch to the data list page.

2. Double-click the data that you want to view.

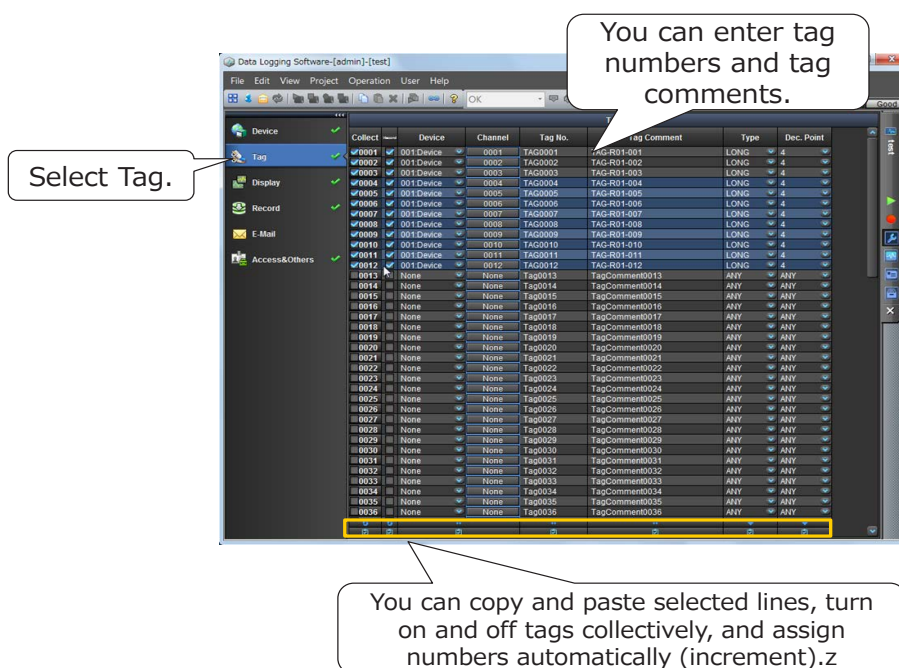
The viewer starts.

1.2 Collecting Data with Detailed Settings

Switch to Detail Settings mode.



You can change tag numbers and tag comments.



You can assign tags to different groups as you like.

- You can change how to display the waveforms, such as the waveform color, meter type, Y-axis, and scale.

On the View menu, click Display Group.

Group tags any way you like. Automatic assignment by device or by a specific number of tags is possible.)

Display group name

Y-axis to use for trends

Meter display type

Max. and min. scale values to display

Zone

Trip

Zone: Specify the vertical waveform position.
Example: Specify 1 to 25, 25 to 75, and 75 to 100.

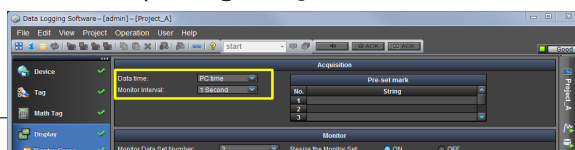
Trip: Displays a horizontal guideline
Example: Specify 5.0.

Selecting the data time

We recommend you use "PC time," which does not divide the screen or files.

- Use "Device time" to back up data or when replacing DAQ32Plus.

- Monitoring applications on a PC
- If you want data to be consolidated into a single file
- For replacing DAQLOGGER



	Timestamp	Collection and record interval	Backfill*	Monitor page (Trend/Alarm)	Data file
PC time	Time on the PC	Can be set freely	No	Displayed on a single page	Saved to a single file
Device time	Time on the device	Uses the interval on the device	Yes	Page divided by device or collection interval	File divided by device or collection interval

- Data backup applications
- For replacing DAQ32Plus (using one Darwin unit)

- * Backfill operates under the following conditions.
- Applicable devices: GX/GP/GM/DX/MV
 - Data is retained in the device's internal memory.
 - The device's FTP function is on.

Changing the monitor screen

- The monitor page can be divided into up to 16 monitor sets.

On the View menu, click Acquisition & Monitor.

Example 1: 4 monitor sets (horizontally divided into 2)



The available display types are trend, digital, meter, and alarm.

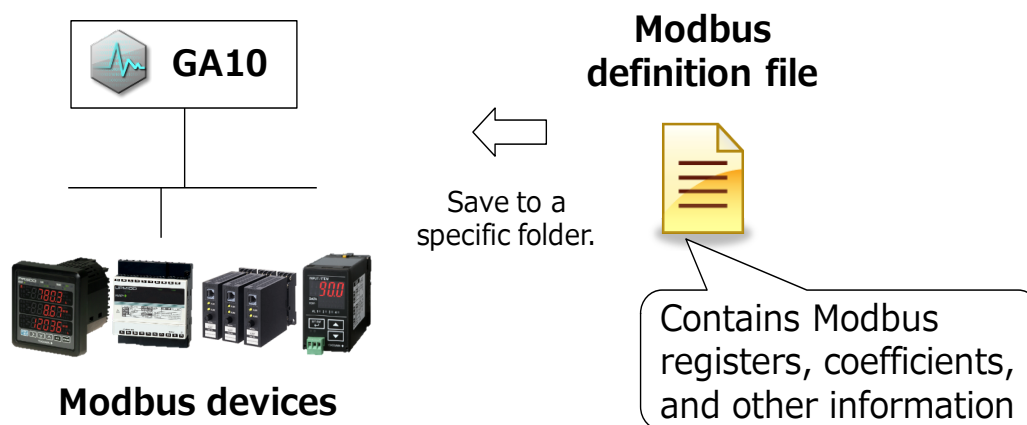
Check the preview.

Example 2: 6 monitor sets (horizontally divided into 2)



2. Connecting Modbus Devices

To connect a UT, PR, or JUXTA series device or other Modbus device, you need to register a “definition file” containing the device information in GA10.



UTAdvanced series devices can be connected without creating definition files.

Create a Modbus device definition file, and save it in a specific location.

You can use the dedicated Modbus Device Definition File Creating Tool to create the file.

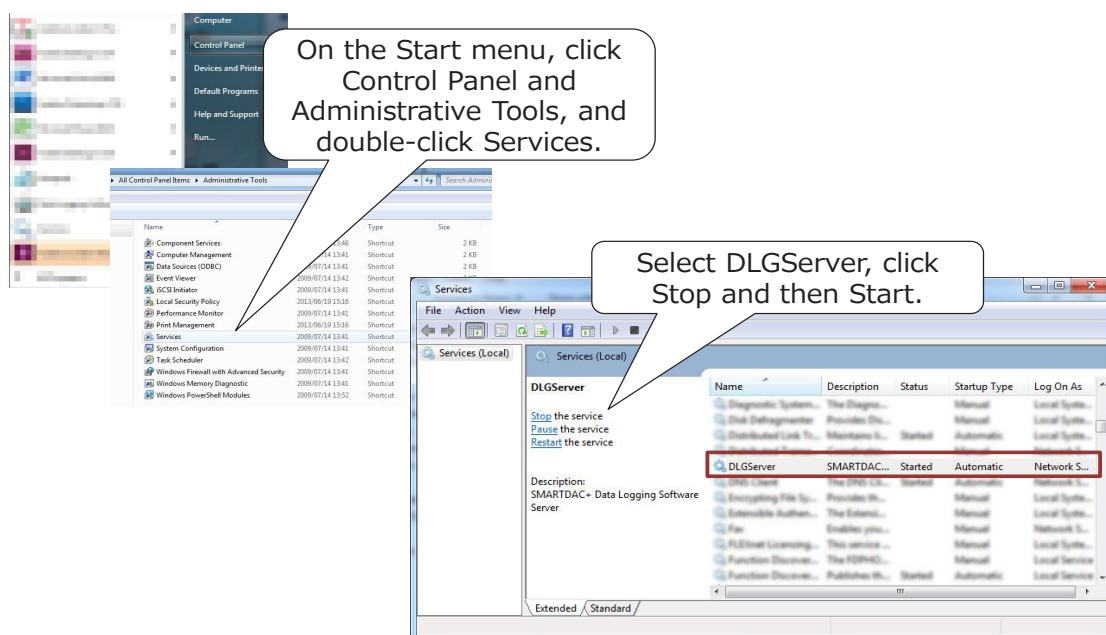
1. Enter the device name.
2. Enter the port number and command delay.
3. Set the channel information.
4. Save the settings.
5. Export the Modbus device definition file.

Modbus Device Definition File Creating Tool

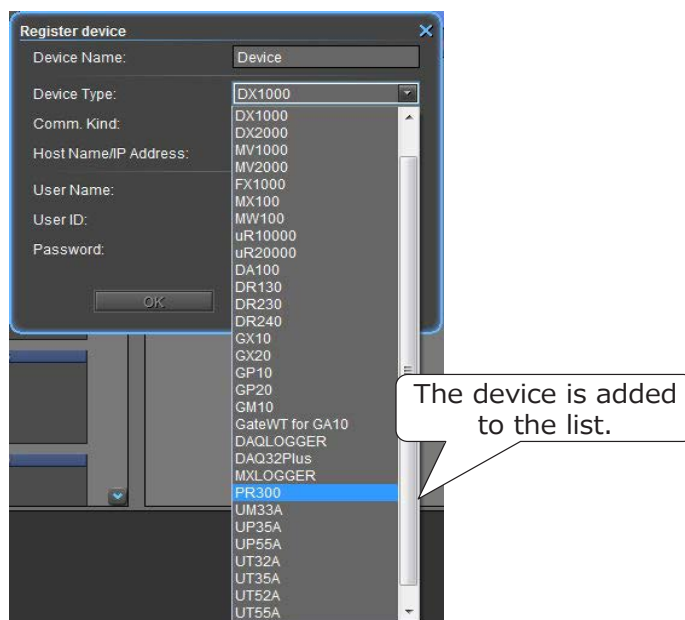
The exported file is saved in a specific folder.

The specific folder
C:\Program Files\Yokogawa Electric Corporation\SMARTDAC+ Data Logging Software\Modbus

❖ Restart the GA10 service.



The defined device can now be registered on the GA10 Setting Page.
The subsequent setting procedure is the same as in the normal case.



3. Connecting the WT series

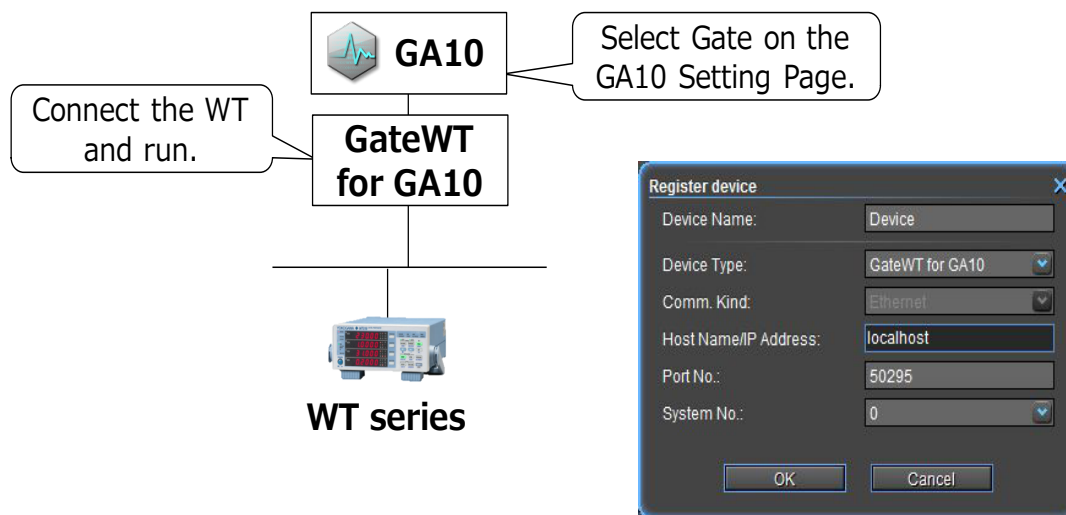
Download GateWT for GA10, and use it to make the connection.

License: Free

Applicable models: WT210/230/500/1800

- The WT310/330 can be connected using the WT210/WT230 compatible command mode.
- WT3000/WT3000E can be connected without using GateWT.

Communication port: Ethernet or serial

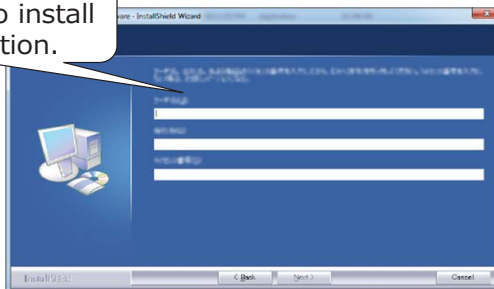


❖ Install GateWT for GA10

- Be sure to read "Readme.txt"
- Install GateWT for GA10.

Right-click Install.exe, and click **Run as administrator**.

Follow the wizard instructions to install the application.



Start GateWT for GA10.

2. Select the device to automatically detect the device type.

1. Select the communication method.

ETHER: Enter the address (IP address).
COM: Set on the serial setting tab in advance.

4. On the Scan Interval Setting Tab, set the scan interval (msec).

3. Double-click the device number to set the channels to load.

Switch tabs

Switch tabs

2. Select the device to automatically detect the device type.

No.	Model	Channel Num.	Comm. Type	Address
01	WT1800	16	Ether	01
02	WT210	16	COM1	
03	WT210	18	COM2	
04	WT210	18	COM3	
05	WT210	52	COM4	
06	Not Connected		NONE	
07	Not Connected		NONE	
08	Not Connected		NONE	

No.	Model	Scan Interval(msec)	USE	Interval(sec)
01	WT1800	1000	<input checked="" type="checkbox"/> ON	30
02	WT210	1000	<input checked="" type="checkbox"/> ON	30
03	WT210	1000	<input checked="" type="checkbox"/> ON	30
04	WT210	1000	<input checked="" type="checkbox"/> ON	30
05	WT210	1000	<input checked="" type="checkbox"/> ON	30
06	Not Connected	1000	<input checked="" type="checkbox"/> ON	30
07	Not Connected	1000	<input checked="" type="checkbox"/> ON	30
08	Not Connected	1000	<input checked="" type="checkbox"/> ON	30
09	Not Connected	1000	<input checked="" type="checkbox"/> ON	30
10	Not Connected	1000	<input checked="" type="checkbox"/> ON	30
11	Not Connected	1000	<input checked="" type="checkbox"/> ON	30
12	Not Connected	1000	<input checked="" type="checkbox"/> ON	30

Tag No.	Out Pch	Inver Name	Out Pch	Unit	Unit	Tag Name	Color	Value
10000	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
10001	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
10002	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
10003	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
10004	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
10005	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
10006	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0

When you finish the settings, register the device to GA10.

5. On the Execution/Status tab, click the process execution button.

7. Register the device on the GA10 Setting Page.

Device type: GateWT for GA10
IP address: localhost

Switch tabs

6. Check that the PC information is added to the connection status.

8. Start data collection and recording on GA10.

Ready

Practice Status - Process

Client Connection Status

DOC DELL E/

Register device

Device Name: Device

Device Type: GateWT for GA10

Comm. Kind: Ethernet

Host Name/IP Address: localhost

Port No.: 50295

System No.: 0

OK Cancel

4. For DAQWORX Users

If you are using the logger software, you can replace it with GA10.

➡ See 4.1

- Applicable products: DAQLOGGER, DAQ32Plus, MXLOGGER

If the following condition applies, use DAQWORX and GA10 together.

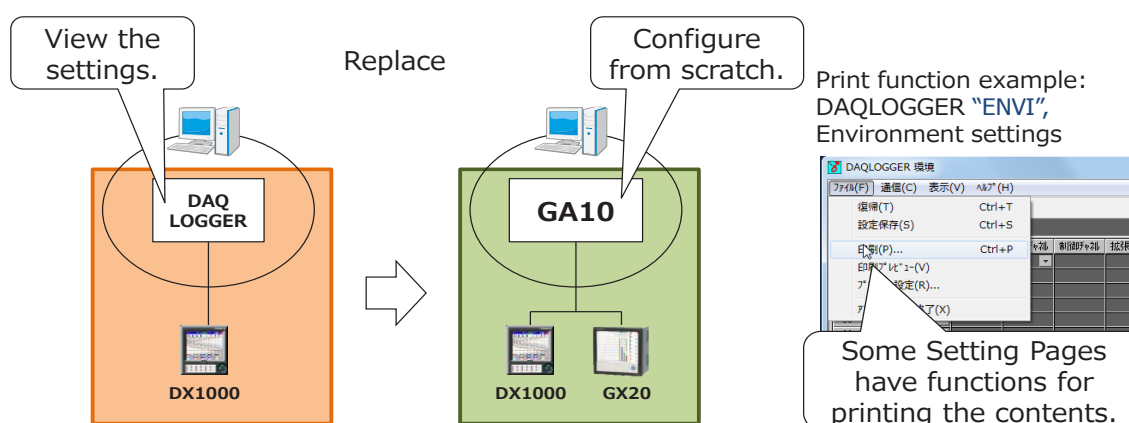
➡ See 4.2

Item	Condition
OS	Windows XP or earlier is in use.
Device	A legacy model or a model with an older version not supported by GA10 is in use.
Communication	GP-IB communication is in use.
Function	The following DAQWORX function is in use. <ul style="list-style-type: none"> – Event processor (e-mail transmission, FTP transfer, html conversion, etc.) – File utility (file split and merge) – Math channels, AO channels, or DO channels are in use. (Mainly, MXLOGGER)
Software	The following software application is in use. <ul style="list-style-type: none"> – AddTrigger – AddObserver – DataBrowser

4.1 Replacing DAQWORX

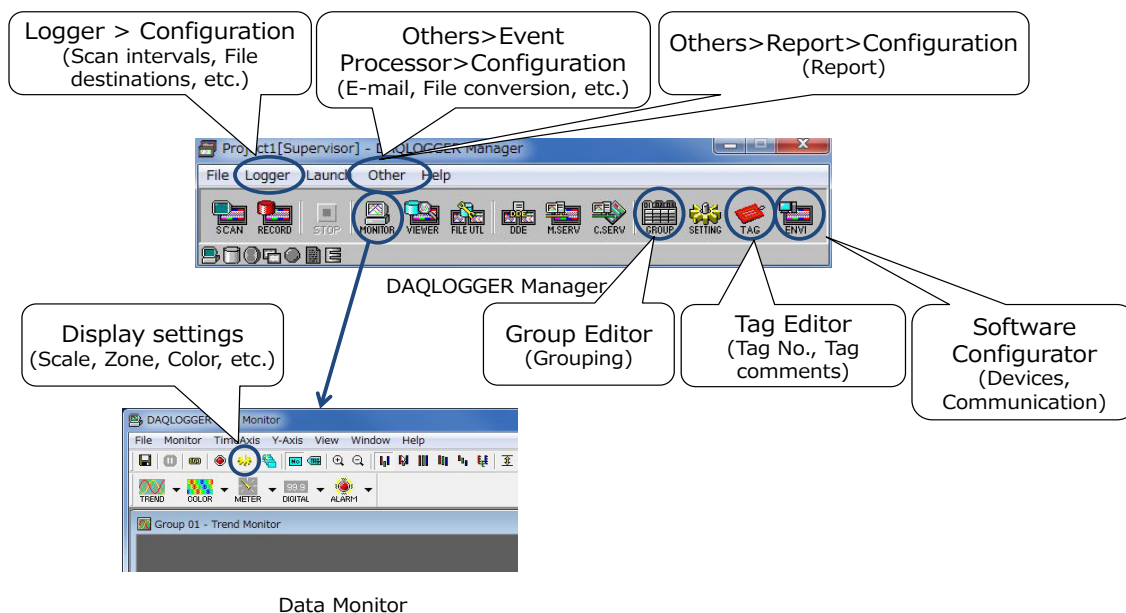
Check the settings of the logger software that you are using, and configure GA10 from scratch.

It is convenient to use the print function to view the settings.



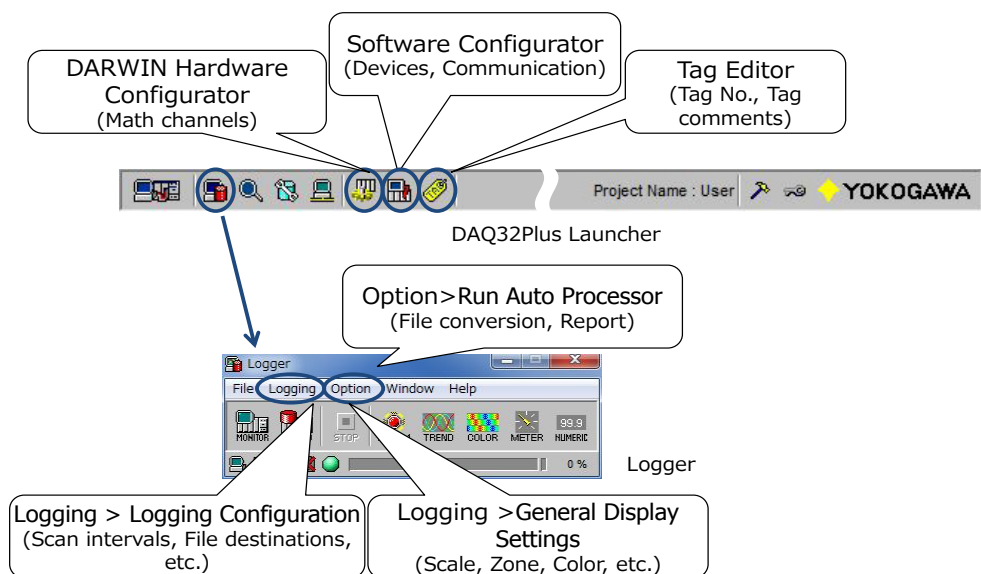
- DAQLOGGER

You can view the settings in the following locations.



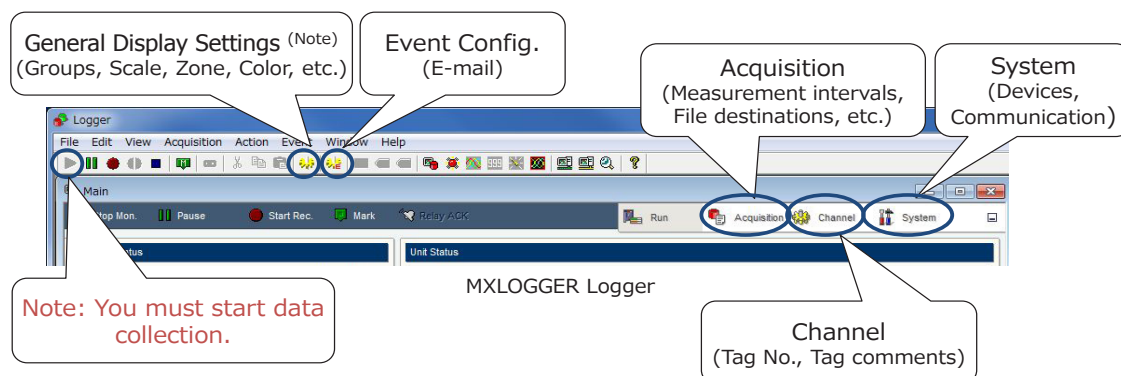
- DAQ32Plus

You can view the settings in the following locations.



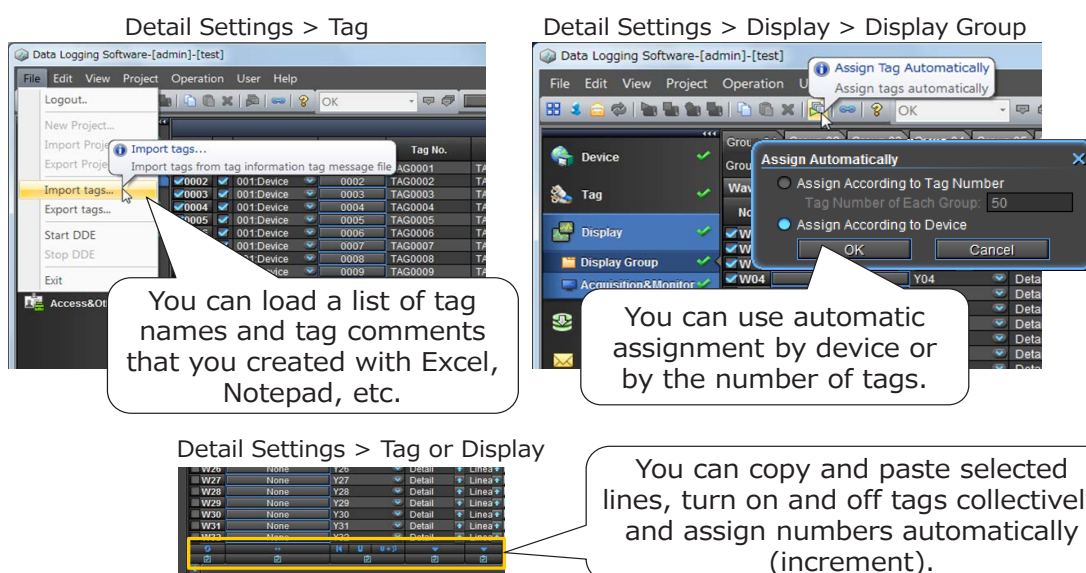
- MXLOGGER

You can view the settings in the following locations.



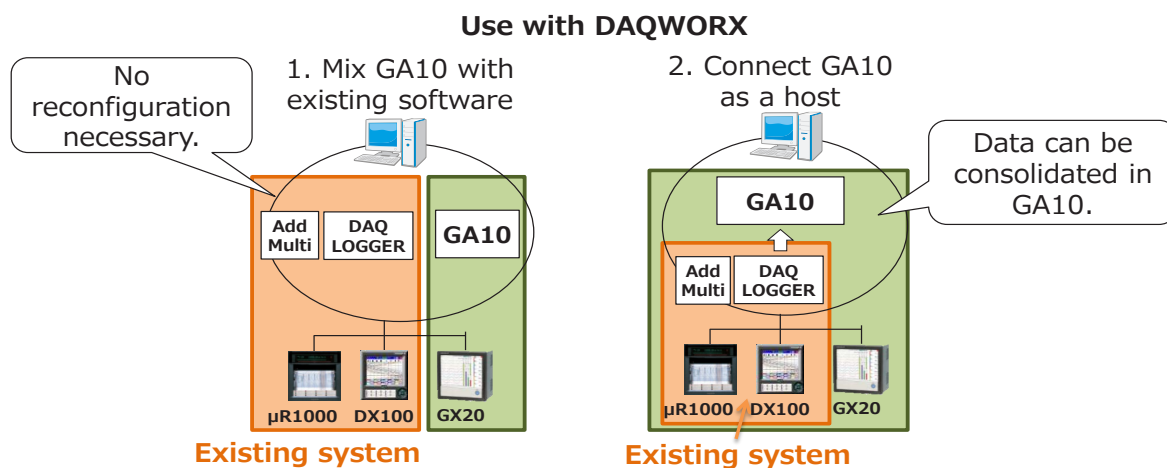
- GA10

- Configure from scratch.
- You can reduce the burden of configuration by using the GA10 tag import feature, tag auto assignment feature, and the Action bar.

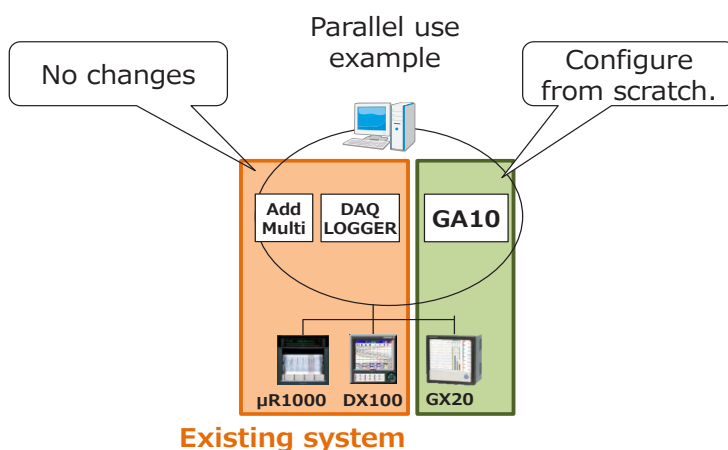


4.2 Using DAQWORX with GA10

1. Parallel use You can use the current configuration and add GA10.
2. Host connection By integrating GA10 as a host to DAQWORX, collected data can be consolidated in GA10.

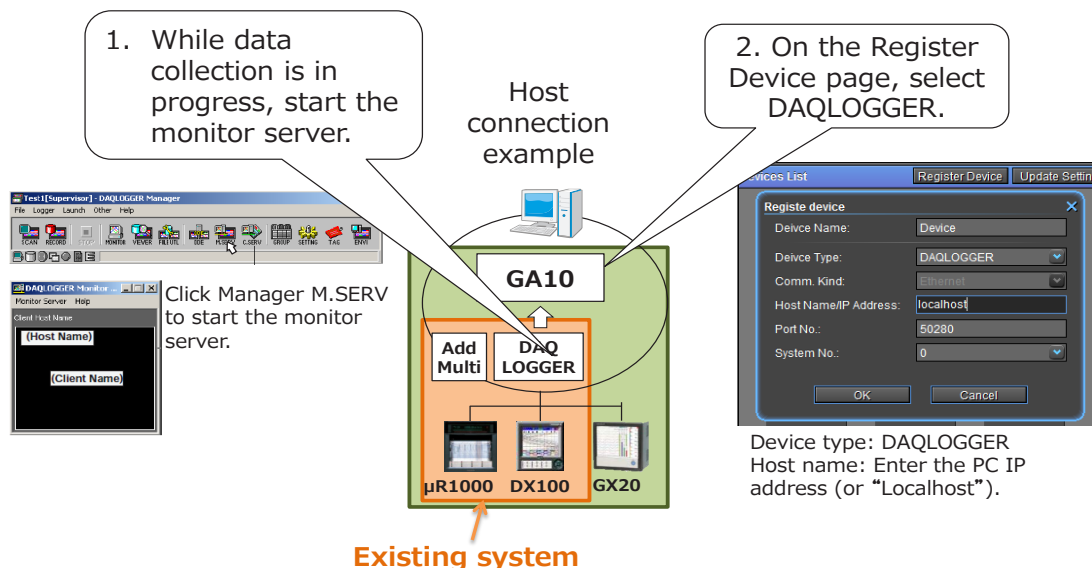


1. Parallel use
Install GA10 in the PC that you are using, and configure from scratch.



② Connect GA10 as a host

- Data that DAQWORX Data Logger is collecting will be consolidated in GA10.
- Tags that you set in the logger software are automatically reflected in GA10..



4.3 Comparative Table of DAQWORX and GA10

		DAQLOGGER	DAQ32Plus	MXLOGGER	GA10
Basic features	Connectable devices	Many devices	Darwin	MX100	Many devices
	Number of device connections	32	1	20	100
	Number of measurement channels	1600ch	300ch	1200ch	2000ch
	Number of math channels	No	60ch	240ch	(TBA)
	Collection (scan) interval	1 s or more	0.5 s or more	10 ms or more	100 ms or more (10 ms or more)*
Logging	Trigger acquisition	Option	Option	Option	Yes
	Collection in groups (multilogging)	Option	Option	Option	Yes
Data processing (event processor)	Auto data conversion	Yes	Yes	Yes	Yes
	e-mail transmission	Yes	Yes	Yes	Yes SMTP authentication support
	FTP transfer	Yes	Yes	Yes	No
	Simple report output	Yes	Yes	No	No
Monitoring function	Remote monitoring (client)	Option	Option	Option	Option
	Graphic monitoring	Option	Option	Option	No
Device configuration/control	Device configuration	Yes	Yes	Yes	Standard software
	IO/AO module control	No	Yes	No	No
Utility	File merge, split, reconfigure	Yes	Yes	Yes	No
User privilege	User privilege	No	No	No	Yes
Other	DDE server	Yes	Yes	Yes	Yes

* When GA10 is used in PC time mode to collect data and the MX100/MW100 collects data at 10 msec

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