User's Manual

WX1
Gate µR

vigilantplant.®

YOKOGAWA
Yokogawa Electric Corporation

IM WX1-08E
3rd Edition

Foreword

This manual describes the functions and operating procedures of GateμR. To ensure correct use, please read this manual thoroughly before beginning operation. After reading the manual, keep it in a convenient location for quick reference in the event a question arises.
Gate μR is a software program that acquires data from the μR10000/μR20000/SR10000 (Referred to hereinafter as the recorder in this manual.) and transfers it to DAQLOGGER or Remote Monitor.

Notes

- The contents of this manual are subject to change without prior notice as a result of improvements in the software's performance and functions.
- Every effort has been made in the preparation of this manual to ensure the accuracy of its contents. However, should you have any questions or find any errors, please contact the dealer from whom you purchased the software.
- Copying or reproducing all or any part of the contents of this manual without the permission of Yokogawa Electric Corporation is strictly prohibited.
- Use of this software on more than one computer at the same time is prohibited. Use by more than one user is also prohibited.
- Transfer or lending of this software to any third party is prohibited.
- Yokogawa Electric Corporation provides no guarantees other than for physical deficiencies found on the original disk or this manual upon opening the product package.
- **License numbers will not be reissued. Please keep your license numbers in a safe place.**

Copyrights

- Copyrights for the programs included on the CD-ROM are attributable to Yokogawa Electric Corporation.

Trademarks

- DAQWORX, DAQLOGGER, and DAQEXPLORER are registered trademarks or trademarks of Yokogawa Electric Corporation.
- Microsoft and Windows are registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- Adobe and Acrobat are registered trademarks or trademarks of Adobe Systems Incorporated.
- Company and product names that appear in this manual are registered trademarks or trademarks of their respective holders.
- The company and product names used in this manual are not accompanied by the registered trademark or trademark symbols (® and ™).

Revisions

- 1st Edition: February, 2005
- 2nd Edition: March, 2006
- 3rd Edition: June, 2007

3rd Edition : June 2007 (YK)

Terms and Conditions of the Software License

NOTICE - PLEASE READ CAREFULLY BEFORE USE

Thank you very much for purchasing this medium containing a software program and related documentation provided by Yokogawa Electric Corporation (hereinafter called "Yokogawa"), and the program contained, embedded, inserted or used in the medium (hereinafter called the "Yokogawa Software Program").

By opening this package or plastic wrapping (hereinafter called "Package") enclosing the Yokogawa Software Program, you acknowledge that you understand and agree to the "Terms and Conditions of the Software License" (hereinafter called "Terms and Conditions") which is written in the documentation and separately attached. Accordingly, the Terms and Conditions bind you.

The Yokogawa Software Program and its related documentation including ownership of copyright shall remain the exclusive property of Yokogawa or those third parties from whom sublicensed software in the Yokogawa Software Program is licensed.

Yokogawa hereby grants you permission to use the Yokogawa Software Program on the conditions that you agree to the Terms and Conditions before you open the Package and/or install it in or onto a computer.

IF YOU DO NOT AGREE TO THE TERMS AND CONDITIONS, YOU CANNOT OPEN THE PACKAGE, AND MUST IMMEDIATELY RETURN IT TO YOKOGAWA OR ITS DESIGNATED PARTY.

Terms and Conditions of the Software License

Yokogawa Electric Corporation, a Japanese corporation (hereinafter called "Yokogawa"), grants permission to use this Yokogawa Software Program (hereinafter called the "Licensed Software") to the Licensee on the conditions that the Licensee agrees to the terms and conditions stipulated in Article 1 hereof.
You, as the Licensee (hereinafter called "Licensee"), shall agree to the following terms and conditions for the software license (hereinafter called the "Agreement") based on the use intended for the Licensed Software.
Please note that Yokogawa grants the Licensee permission to use the Licensed Software under the terms and conditions herein and in no event shall Yokogawa intend to sell or transfer the Licensed Software to the Licensee.
Licensed Software Name: Gate µR (Model WX1)
Number of License: 1

Article 1 (Scope Covered by these Terms and Conditions)

1.1 The terms and conditions stipulated herein shall be applied to any Licensee who purchases the Licensed Software on the condition that the Licensee consents to agree to the terms and conditions stipulated herein.

1.2 The "Licensed Software" herein shall mean and include all applicable programs and documentation, without limitation, all proprietary technology, algorithms, and know-how such as a factor, invariant or process contained therein.

Article 2 (Grant of License)

2.1 Yokogawa grants the Licensee, for the purpose of single use, non-exclusive and non-transferable license of the Licensed Software with the license fee separately agreed upon by both parties.

2.2 The Licensee is, unless otherwise agreed in writing by Yokogawa, not entitled to copy, change, sell, distribute, transfer, or sublicense the Licensed Software.

2.3 The Licensed Software shall not be copied in whole or in part except for keeping one (1) copy for back-up purposes. The Licensee shall secure or supervise the copy of the Licensed Software by the Licensee itself with great, strict, and due care.

2.4 In no event shall the Licensee dump, reverse assemble, reverse compile, or reverse engineer the Licensed Software so that the Licensee may translate the Licensed Software into other programs or change it into a man-readable form from the source code of the Licensed Software. Unless otherwise separately agreed by Yokogawa, Yokogawa shall not provide the Licensee the source code for the Licensed Software.

2.5 The Licensed Software and its related documentation shall be the proprietary property or trade secret of Yokogawa or a third party which grants Yokogawa the rights. In no event shall the Licensee be transferred, leased, sublicensed, or assigned any rights relating to the Licensed Software.

2.6 Yokogawa may use or add copy protection in or onto the Licensed Software. In no event shall the Licensee remove or attempt to remove such copy protection.

2.7 The Licensed Software may include a software program licensed for re-use by a third party (hereinafter called "Third Party Software", which may include any software program from affiliates of Yokogawa made or coded by themselves.) In the case that Yokogawa is granted permission to sublicense to third parties by any licensors (sub-licensor) of the Third Party Software pursuant to different terms and conditions than those stipulated in this Agreement, the Licensee shall observe such terms and conditions of which Yokogawa notifies the Licensee in writing separately.

2.8 In no event shall the Licensee modify, remove or delete a copyright notice of Yokogawa and its licenser contained in the Licensed Software, including any copy thereof.

Article 3 (Restriction of Specific Use)

3.1 The Licensed Software shall not be intended specifically to be designed, developed, constructed, manufactured, distributed or maintained for the purpose of the following events:

a) Operation of any aviation, vessel, or support of those operations from the ground;,
b) Operation of nuclear products and/or facilities;,
c) Operation of nuclear weapons and/or chemical weapons and/or biological weapons; or
d) Operation of medical instrumentation directly utilized for humankind or the human body.

3.2 Even if the Licensee uses the Licensed Software for the purposes in the preceding Paragraph 3.1, Yokogawa has no liability to or responsibility for any demand or damage arising out of the use or operations of the Licensed Software, and the Licensee agrees, on its own responsibility, to solve and settle the claims and damages and to defend, indemnify or hold Yokogawa totally harmless, from or against any liabilities, losses, damages and expenses (including fees for recalling the Products and reasonable attorney's fees and court costs), or claims arising out of and related to the above-said claims and damages.

Article 4 (Warranty)

4.1 The Licensee shall agree that the Licensed Software shall be provided to the Licensee on an "as is" basis when delivered. If defect(s), such as damage to the medium of the Licensed Software, attributable to Yokogawa is found, Yokogawa agrees to replace, free of charge, any Licensed Software on condition that the defective Licensed Software shall be returned to Yokogawa's specified authorized service facility within seven (7) days after opening the Package at the Licensee's expense. As the Licensed Software is provided to the Licensee on an "as is" basis when delivered, in no event shall Yokogawa warrant that any information on or in the Licensed Software, including without limitation, data on computer programs and program listings, be completely accurate, correct, reliable, or the most updated.

4.2 Notwithstanding the preceding Paragraph 4.1, when third party software is included in the Licensed Software, the warranty period and terms and conditions that apply shall be those established by the provider of the third party software.

4.3 When Yokogawa decides in its own judgement that it is necessary, Yokogawa may from time to time provide the Licensee with Revision upgrades and Version upgrades separately specified by Yokogawa (hereinafter called “Updates”).

4.4 Notwithstanding the preceding Paragraph 4.3, in no event shall Yokogawa provide Updates where the Licensee or any third party conducted renovation or improvement of the Licensed Software.

4.5 THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF QUALITY AND PERFORMANCE, WRITTEN, ORAL, OR IMPLIED, AND ALL OTHER WARRANTIES INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED BY YOKOGAWA AND ALL THIRD PARTIES LICENSING THIRD PARTY SOFTWARE TO YOKOGAWA.

4.6 Correction of nonconformity in the manner and for the period of time provided above shall be the Licensee’s sole and exclusive remedy for any failure of Yokogawa to comply with its obligations and shall constitute fulfillment of all liabilities of Yokogawa and any third party licensing the Third Party Software to Yokogawa (including any liability for direct, indirect, special, incidental or consequential damages) whether in warranty, contract, tort (including negligence but excluding willful conduct or gross negligence by Yokogawa) or otherwise with respect to or arising out of the use of the Licensed Software.

Article 5 (Infringement)

5.1 If and when any third party should demand injunction, initiate a law suit, or demand compensation for damages against the Licensee under patent right (including utility model right, design patent, and trade mark), copy right, and any other rights relating to any of the Licensed Software, the Licensee shall notify Yokogawa in writing to that effect without delay.

5.2 In the case of the preceding Paragraph 5.1, the Licensee shall assign to Yokogawa all of the rights to defend the Licensee and to negotiate with the claiming party. Furthermore, the Licensee shall provide Yokogawa with necessary information or any other assistance for Yokogawa’s defense and negotiation. If and when such a claim should be attributable to Yokogawa, subject to the written notice to Yokogawa stated in the preceding Paragraph 5.1, Yokogawa shall defend the Licensee and negotiate with the claiming party at Yokogawa’s cost and expense and be responsible for the final settlement or judgment granted to the claiming party in the preceding Paragraph 5.1.

5.3 When any assertion or allegation of the infringement of the third party’s rights defined in Paragraph 5.1 is made, or when at Yokogawa’s judgment there is possibility of such assertion or allegation, Yokogawa will, at its own discretion, take any of the following countermeasures at Yokogawa’s cost and expense.

a) To acquire the necessary right from a third party which has lawful ownership of the right so that the Licensee will be able to continue to use the Licensed Software;
b) To replace the Licensed Software with an alternative one which avoids the infringement; or
c) To remodel the Licensed Software so that the Licensed Software can avoid the infringement of such third party’s right.

5.4 If and when Yokogawa fails to take either of the countermeasures as set forth in the preceding subparagraphs of Paragraph 5.3, Yokogawa shall indemnify the Licensee only by paying back the price amount of the Licensed Software which Yokogawa has received from the Licensee. THE FOREGOING PARAGRAPHS STATE THE ENTIRE LIABILITY OF YOKOGAWA AND ANY THIRD PARTY LICENSING THIRD PARTY SOFTWARE TO YOKOGAWA WITH RESPECT TO INFRINGEMENT OF THE INTELLECTUAL PROPERTY RIGHTS INCLUDING BUT NOT LIMITED TO, PATENT AND COPYRIGHT.

Article 6 (Liabilities)

6.1 If and when the Licensee should incur any damage relating to or arising out of the Licensed Software or service that Yokogawa has provided to the Licensee under the conditions herein due to a reason attributable to Yokogawa, Yokogawa shall take actions in accordance with this Agreement. However, in no event shall Yokogawa be liable or responsible for any special, incidental, consequential and/or indirect damage, whether in contract, warranty, tort, negligence, strict liability, or otherwise, including, without limitation, loss of operational profit or revenue, loss of use of the Licensed Software, or any associated products or equipment, cost of capital, loss or cost of interruption of the Licensee’s business, substitute equipment, facilities or services, downtime costs, delays, and loss of business information, or claims of customers of Licensee or other third parties for such or other damages. Even if Yokogawa is liable or responsible for the damages attributable to Yokogawa and to the extent of this Article 6, Yokogawa’s liability for the Licensee’s damage shall not exceed the price amount of the Licensed Software or service fee which Yokogawa has received. Please note that Yokogawa shall be released or discharged from part or all of the liability under this Agreement if the Licensee modifies, remodels, combines with other software or products, or causes any deviation from the basic specifications or functional specifications, without Yokogawa’s prior written consent.

6.2 All causes of action against Yokogawa arising out of or relating to this Agreement or the performance or breach hereof shall expire unless Yokogawa is notified of the claim within one (1) year of its occurrence.

6.3 In no event, regardless of cause, shall Yokogawa assume responsibility for or be liable for penalties or penalty clauses in any contracts between the Licensee and its customers.

Article 7 (Limit of Export)

Unless otherwise agreed by Yokogawa, the Licensee shall not directly or indirectly export or transfer the Licensed Software to any countries other than those where Yokogawa permits export in advance.

Article 8 (Term)

This Agreement shall become effective on the date when the Licensee receives the Licensed Software and continues in effect unless or until terminated as provided herein, or the Licensee ceases using the Licensed Software by itself or with Yokogawa’s thirty (30) days prior written notice to the Licensee.

Article 9 (Injunction for Use)

During the term of this Agreement, Yokogawa may, at its own discretion, demand injunction against the Licensee in case that Yokogawa deems that the Licensed Software is used improperly or under severer environments other than those where Yokogawa has first approved, or any other condition which Yokogawa may not permit.

Article 10 (Termination)

Yokogawa, at its sole discretion, may terminate this Agreement without any notice or reminder to the Licensee if the Licensee violates or fails to perform this Agreement. However, Articles 5, 6, and 11 shall survive even after the termination.

Article 11 (Jurisdiction)

Any dispute, controversies, or differences between the parties hereto as to interpretation or execution of this Agreement shall be resolved amicably through negotiation between the parties upon the basis of mutual trust. Should the parties fail to agree within ninety (90) days after notice from one of the parties to the other, both parties hereby irrevocably submit to the exclusive jurisdiction of the Tokyo District Court (main office) in Japan for settlement of the dispute.

Article 12 (Governing Law)

This Agreement shall be governed by and construed in accordance with the laws of Japan. The Licensee expressly agrees to waive absolutely and irrevocably and to the fullest extent permissible under applicable law any rights against the laws of Japan which it may have pursuant to the Licensee’s local law.

Article 13 (Severability)

In the event that any provision hereof is declared or found to be illegal by any court or tribunal of competent jurisdiction, such provision shall be null and void with respect to the jurisdiction of that court or tribunal and all the remaining provisions hereof shall remain in full force and effect.

How to Use This Manual

Structure of the Manual

This user's manual consists of the following chapters.

Chapter	Title	Description
1	**Overview**	Gives an overview of the Gate µR software. Lists the PC requirements for running Gate µR and gives information about system configuration.
2	**Operating Procedures**	Gives procedures for entering environment and data acquisition interval settings, and how to monitor the operational status of the software.
3	**Details of Functions**	Provides a detailed description of the functions of Gate µR. Lists error messages, their causes, and their corrective actions.
Index		An alphabetical index of the manual's contents.

Scope of the Manual

This manual provides instructions on how perform basic operations with the software when running under Windows XP, Windows 2000, and Windows Vista. For information regarding the basic operations of Windows, see the Windows user's manual.

Safety Markings

- **Units**
  K Denotes 1024. Example: 10 KB
  M Denotes 1024 K. Example: 10 MB

- **Boldface Characters**
  Hardware and software controls that the user manipulates such as dialog boxes, buttons, and menu commands are often set in boldface type.

- **Subheadings**
  On pages in chapters 1 through 3 that describe operating procedures, the following subheadings are used to distinguish a procedure from its explanation.

  Procedure This subsection contains the operating procedure used to carry out the function described in the current section. All procedures are written with inexperienced users in mind; experienced users may not need to carry out all the steps.

  Note Calls attention to information that is important for proper operation of the instrument.

Contents

1.1 Overview of Gate μR Functions

Gate μR (hereinafter referred to as “this software” is a software driver that acquires data from the Yokogawa μR10000/μR20000/SR10000 (Referred to hereinafter as the recorder in this manual.) Recorder and transfers it to DAQLOGGER or Remote Monitor. Using the software allows you to monitor pressure, temperature, and other kinds of data on DAQLOGGER or Remote Monitor that was measured on the μR10000.
Yokogawa’s DAQLOGGER is a software program that allows users to open a connection from their PC to various kinds of Yokogawa recorders (the μR10000/μR1800, VR, DARWIN, DX, MV, and CX) and perform data logging and monitoring.
Yokogawa’s Remote Monitor is a software program that enables monitoring of data logged by recorders or data logging software.

Features

- Runs as a Windows application.
- Of the instruments in the μR series, only the μR10000/μR20000/SR10000 can be connected.
- Up to sixteen recorder’s can be connected for communication.
- Measurement can be performed at intervals of up to 0.5 seconds*.
  * However, DAQLOGGER’s shortest interval is 1 second. Also, the maximum speed of 0.5 seconds may not be attainable depending on the amount of data being read, the response time of the device, and the communication speed.

1.2 System Overview

System

This software can download data from recorder series instruments having the following characteristics.

- Option /C3 (RS-422A/485 communication interface), or /C7 (Ethernet interface) required.

Supported Operating Systems

Run DAQWORX under any of the following operating systems.

- Windows 2000 Professional SP4
- Windows XP Home Edition SP2
- Windows XP Professional SP2 (excluding Windows XP Professional x64 Edition)
- Windows Vista Home Premium (excluding the 64-bit edition)
- Windows Vista Business (excluding the 64-bit edition)

The language displayed by the software under different language versions of the OS are as follows.

OS Language	Software Language
Japanese	Japanese
Other	English

Hardware Requirements

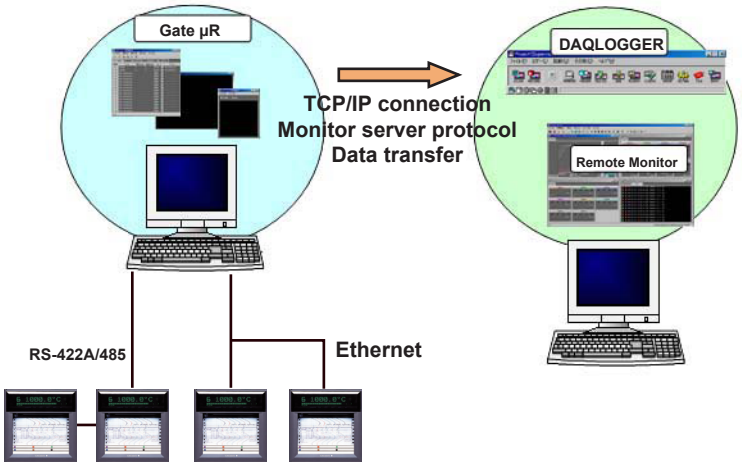
The following hardware and software are required to use this software.

- PC: A PC that runs one of the OS above, and that meets the following CPU and memory requirements.
  When Using Windows 2000 or Windows XP
  Pentium 4, 1.6 GHz or faster
  512 MB or more of memory
  When Using Windows Vista
  Pentium 4, 3 GHz or faster
  2GB or more of memory
- Free disk space: 200 MB or more
- Communication interface:
  An Ethernet port (when connecting to DAQLOGGER, Remote Monitor, or a recorder with Ethernet function) or RS-232 port that is recognized by the operating system.
- CD-ROM drive: Used to install the software
- Peripheral devices: A mouse supported by the operating system
- Monitor: **When Using Windows 2000 or Windows XP**
  A monitor supported by the OS of 1024 × 768 dpi or higher and 65,536 colors or more.
  When Using Windows Vista
  A video card recommended for use with Vista and a monitor supported by the OS of 1024 × 768 dpi or higher and 65,536 colors or more.

Note

An RS-232 to RS-422-A/485 converter is required to perform communications between the software a recorder via RS-422-A/485 (Yokogawa ML2 RS232C/RS485 recommended).

System Configuration



It is recommended that you run this software and DAQLOGGER on separate PCs.

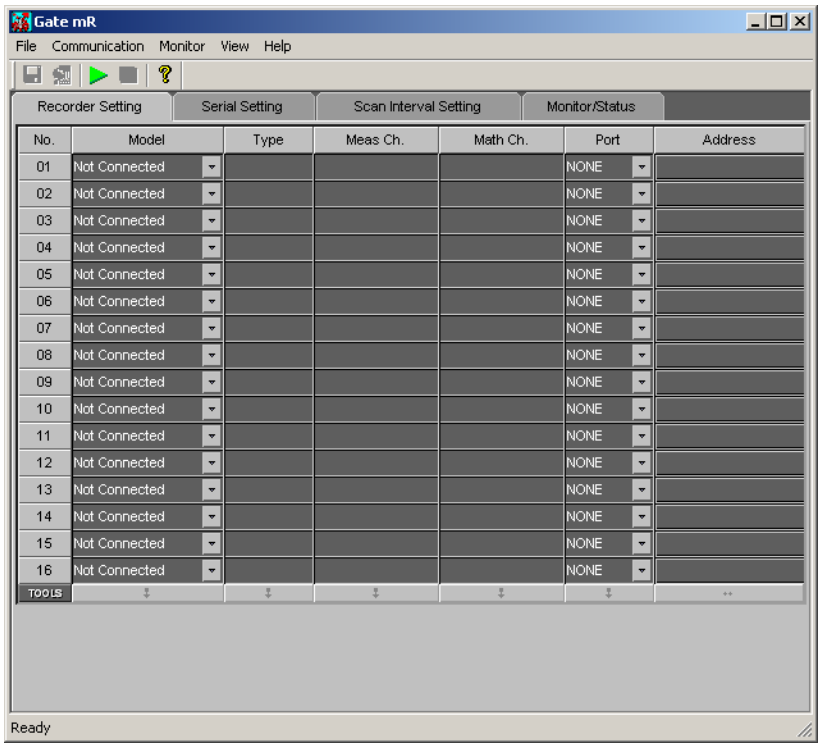
2.1 Running and Exiting

Running the Software

Procedure

1. From the Windows Start menu, choose **Programs > YOKOGAWA DAQWORX > Gate mR > Gate mR.**

   The program starts.



Note

- When you start the software it is restored to the same status that was active during the previous session.
- If the program is closed while a process or service is running, the license will be considered to be “in use.” If the message, “Invalid license number. Please reinstall.” appears when restarting the program, it may indicate that the user is attempting to run a Gate program in excess of the number of available licenses.

Exiting the Software

Procedure

1. **Choose File > Exit** from the menu bar, or click the **X** button at the right end of the title bar.

   The program closes.

2.2 Entering Environment Settings

The following settings can be entered using the software.

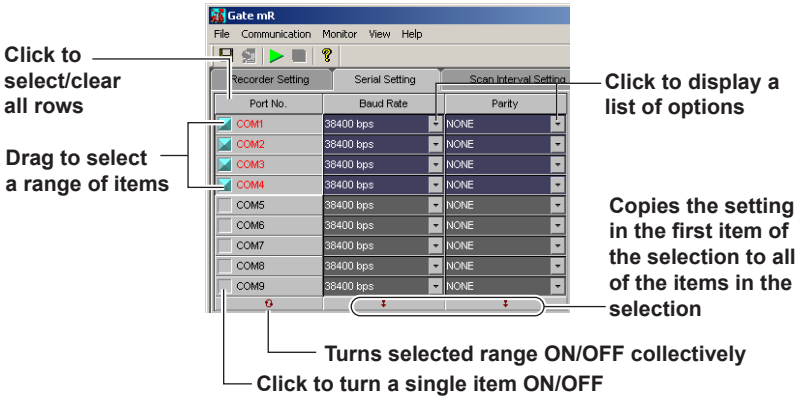
- Recorder assignments, communication settings, and login settings (**serial port and recorder settings**)
- Acquisition settings for each recorder (**acquisition interval and retry settings**)
- Port number settings (for the monitor server) as needed (**port settings**)
- Saving settings (**saves environment settings**)

Serial Port Settings

You must enter serial port settings to connect to a recorder using the serial port.

Procedure

1. Click the **Serial Setting** tab or choose **View > Serial Setting** from the menu bar. The Serial Setting tab is displayed.



2. Enter settings for each item.

Port number: ON (blue)/OFF (gray)

Baud rate: 4800, 9600, 19200, 38400 bps

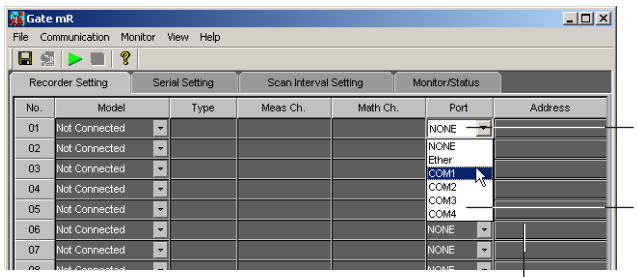
Parity: NONE, ODD, EVEN

Recorder Settings

Procedure

1. Click the **Recorder Setting** tab or choose **View > Recorder Setting** from the menu bar.

The Recorder Setting tab is displayed.



Click to display a list box for selecting a communication port

Only enabled COM ports (specified in serial port settings) are displayed

Click to display the Input Address dialog box

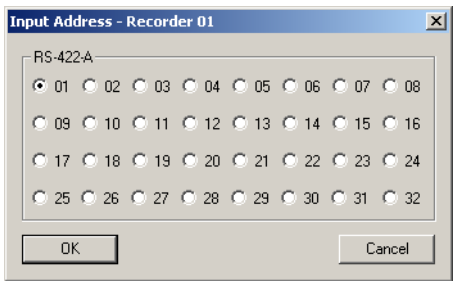
2. Enter the port and address.

Port: Select the port to be used for the connection. Only the COM ports turned ON in the serial setting tab are displayed.

For Serial Ports Set to COM1-COM9

Click an address to display the following dialog box.

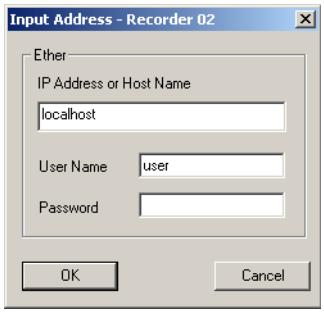
Enter the address set on the device to which you wish to connect.



For Ports Set to Ether

Click an address to display the following dialog box.

Enter the IP address or host name, user name, and password of the device to which you wish to connect.



Automatic Model Determination

3. You can drag to select the items for automatic model determination.

4 Click **Auto determination** on the toolbar or choose **Communication > Automatic detection** from the menu bar.

Automatic detection button

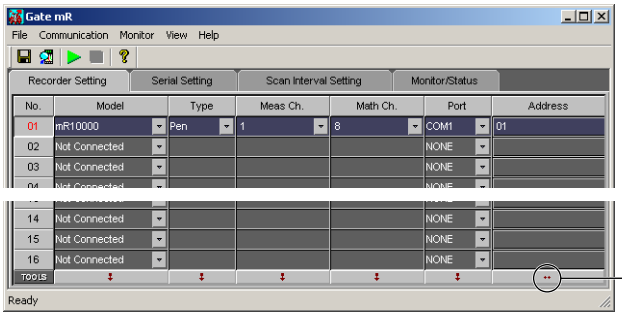
The following items are displayed.

Model: Recorder model connected

Type: Type of recorder model connected

Measurement channels: Number of measurement channels of the recorder connected

Computation channels: Number of computation channels of the recorder connected

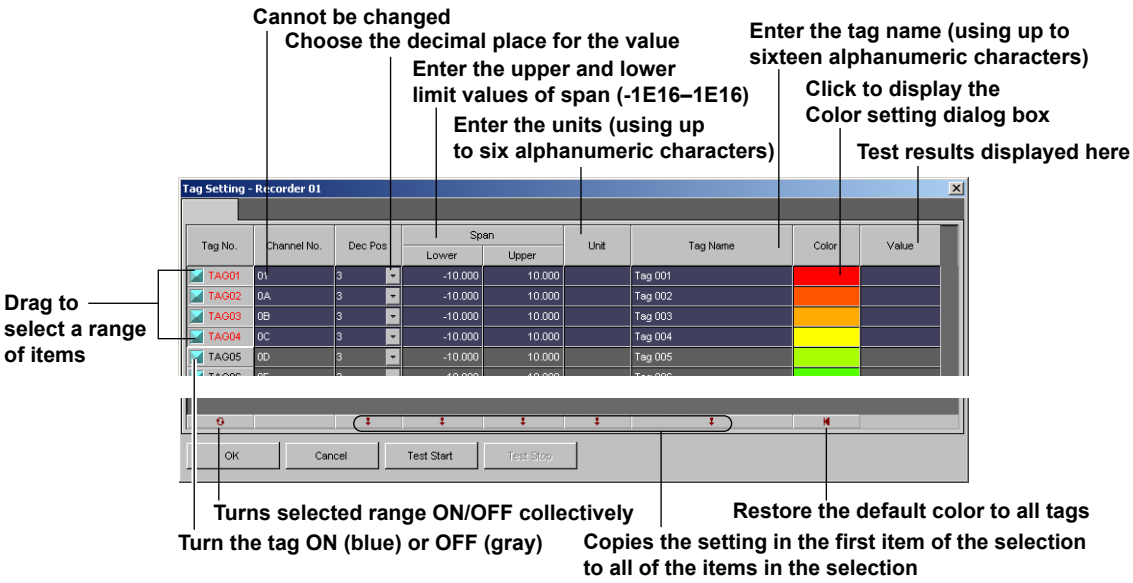


Click to assign available addresses in the selected range starting from the smallest.

Tag Settings

5. Double-click the number cell on the **Recorder Setting** tab of the tag that you wish to set.

The **Tag Setting** dialog box opens.



Note

If you execute automatic model determination, the decimal point, span, units, and tag name settings are set from the connected device.

Test Execution

6. Click the **Test Start** button in the Tag Setting dialog box.

The test result is displayed in the Value column, and the current values can be monitored.

Stopping the Test Execution

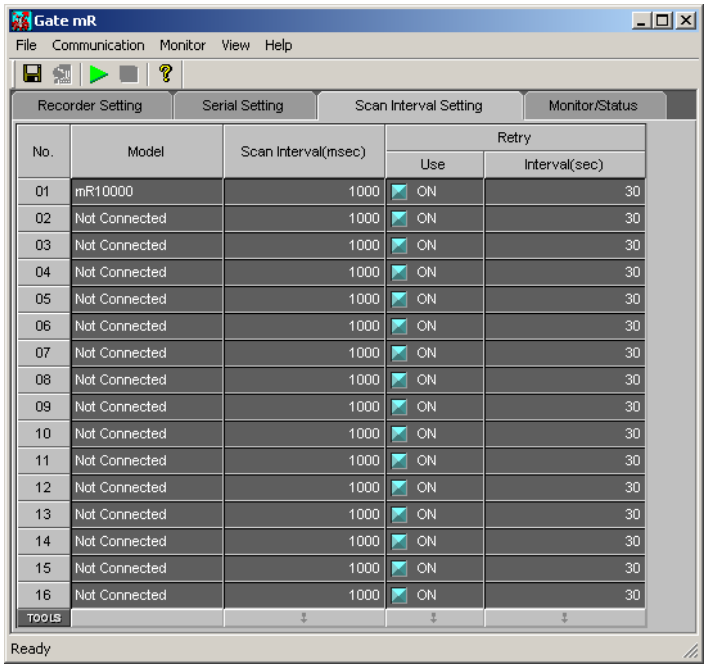
7. Click the **Test Stop** button.

Acquisition Interval and Retry Settings

Procedure

1. Click the **Scan Interval Setting** tab or choose **View > Scan Interval Setting** from the menu bar.

The **Scan Interval Setting** tab is displayed.



Setting the Acquisition Interval

2. Enter a setting within the following range into the Acquisition Interval box.

Setting range: 0.5 to 3600 seconds, initial value: 1 second

Retry Settings

3. Turn the communication retry setting ON (blue) or OFF (gray).

4. Enter a retry interval from the following range to be used when retrying communication.

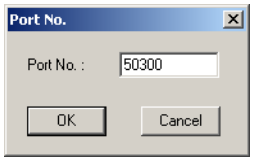
Setting range: 30 to 3600 seconds, initial value: 30 second

Port Settings

Procedure

1. Choose **File > Port No.** from the menu bar.

   The **Port No.** dialog box opens.



2. Enter the port number used to transfer data loaded from a connected device to DAQLOGGER or Remote Monitor.

Note

The port number need not be changed unless a problem occurs.

Saving Environment Settings

Procedure

1. Click the **Save** button on the tool bar or choose **File > Save** from the menu bar. The current settings are saved.

Save button

Note

Be sure to save the environment settings before starting acquisition.

2.3 Connecting from DAQLOGGER or Remote Monitor

While the software is running, DAQLOGGER or Remote Monitor works via Ethernet to log and monitor the recorder data that the software is acquiring. This software acts as the monitor server of a DAQLOGGER or Remote Monitor that is running as the client.

In this case, system numbers are assigned as follows:
μR10000/μR20000/SR10000 assigned to No. 01: 0
μR10000/μR20000/SR10000 assigned to No. 02: 1

Connecting from DAQLOGGER

Procedure

See section 2.6 of the WX101 DAQLOGGER WX81 DAQLOGGER Client Package User's Manual (IM WX101-01E).

Connecting from Remote Monitor

Procedure

See section 8.1 of the WX101 DAQLOGGER WX81 DAQLOGGER Client Package User's Manual (IM WX101-01E).
See section 9.2 of the WX102 DAQ32Plus WX82 DAQ32Plus Client Package User's Manual (IM WX102-01E).

2.4 Starting and Stopping Acquisition, and Starting Acquisition upon Startup of the Software

Starting/Stopping Acquisition from the Menu Bar

Procedure

Starting Acquisition

1. Click the **Start** button on the toolbar. Or, choose **Monitor > Start** from the menu bar.

   Acquisition on the software is started. The communication status of each device is displayed under Connected Device Communication Status in the Monitor/Status tab.

Stopping Acquisition

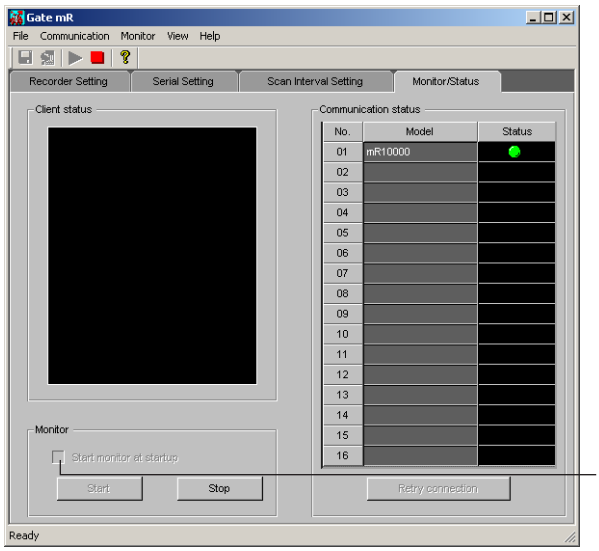
1. Click the **Stop** button on the tool bar or choose **Monitor > Stop** from the menu bar.

Starting/Stopping Acquisition from the Monitor/Status Tab

Procedure

1. Click the **Monitor/Status** tab or choose **View > Monitor/Status** from the menu bar.

   The Monitor/Status tab is displayed.



Select to start acquisition simultaneously upon startup of the software

Starting Acquisition

2. Click the **Start** button.

   Communication with the device set up in the Recorder Setting tab starts.

Stopping Acquisition

2. Click the **Stop** button.

   Communication with the device stops.

Starting the Software and Data Acquisition at the Same Time

Procedure

1 When you turn ON “Start monitor at startup” in the **Monitor/Status** tab, data acquisition starts according to the saved environment settings the next time (and simultaneously with) the software is started.

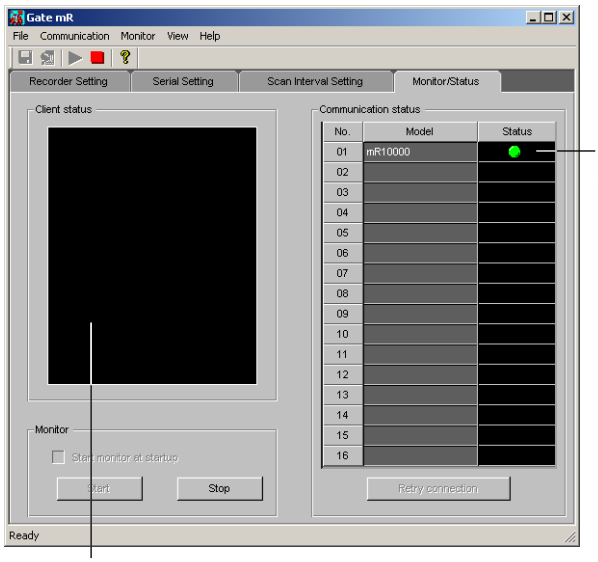
2.5 Displaying the Execution Status and Reconnecting

Procedure

Displaying the Connection Status

1. Click the **Monitor/Status** tab or choose **View > Monitor/Status** from the menu bar.

The Monitor/Status tab is displayed, showing which recorder is connected and with which PC.



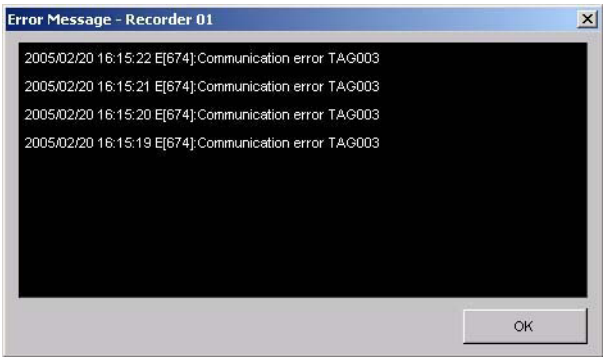
Indicator for the communication status with the connected device
Green: Normal (comm. open)
Red: Communication error
Yellow: Data lost, other (communication paused)
No display: Communication error (comm. paused)
Double-click to display the Error Indicator dialog box

Displays the names of connected clients

Viewing Error Detail

2. Double-click Status under Communication Status on the **Monitor/Status** tab.

The **Error Message** dialog box opens.



See section 3.3 for error messages.

Note

Click the Start button to download data from the connected devices. The interval at which data is acquired is determined by the acquisition interval on the Acquisition Setting tab. If Retry is turned OFF and a connected device experiences an error while running, data acquisition stops on the next interval. To restart acquisition, reconnect using the procedure below.

Reconnecting

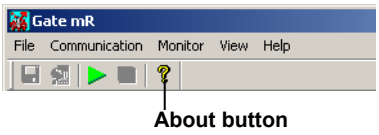
1. Drag to select the devices with which you wish to reconnect in the Communication Status area.
2. Click the **Retry connection** button.

   Communication with the selected devices is reopened.

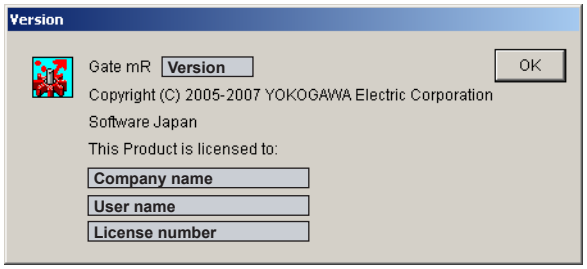
2.6 Viewing Version Information

Procedure

1. Click the **About** button in the toolbar or choose **Help > About** from the menu bar.



The **Version** dialog box opens.



3.1 Functional Overview

This software opens communications with µR10000/µR20000/SR10000 (Referred to hereinafter as the recorder in this manual.) units and acquires data at regular intervals. Through the Monitor Server function, the acquired data is transferred to DAQLOGGER or Remote Monitor via Ethernet. The following is a list of the features of each software function.

Functions of the Software

- Entry of parameters used for communications with up to sixteen recorders.
  When connecting via Ethernet: Address, user, password
  For serial communications: Port, baud rate, parity, and address
- Displays information (model and number of channels) from the connected recorder
  Opens communication with a recorder and automatically determines the model.
- Enter the following settings on each recorder.
  - Upper/lower limit of span*
  - Decimal place*
  - Units*
  - Tag*
  - Color

  * With automatic model determination, these device settings are automatically obtained.
- Entry of the data acquisition interval and port number
- Performing of the Test Execution
- The above communication parameters, device information from the recorder, acquisition interval, and port numbers can be saved to a file
- Displays the status of the software.
  Displays the client connection status and connected device communication status
- Displays software errors
- Runs as a monitor server
  Compatible with the DAQLOGGER monitor server specifications.

3.2 Details of Functions

Serial Port

The communications ports available to the software are the COM1–COM9 serial ports.
To connect to a recorder via serial communication, the user must enter the following settings for the port to be used.

- Use/Do not use (ON/OFF)
- Baud rate: Select 4800, 9600, 19200, or 38400 bps
- Parity: Choose NONE, ODD, or EVEN

RS-422A/485 Communications

The software can use RS-422A/485 addresses 1–30.

Recorder Settings

The software can open connections with sixteen recorders simultaneously.
The user must enter the following settings on the software for the recorders to be accessed.

- Choose a communication method (COMx or Ethernet)
  When COMx is selected, set up the recorder as follows.
  Protocol: NORMAL
  Date length: 8 bit
- Address number (for ports set to COM)
- IP address or host name (if Ethernet is selected for the port)
- User name (if Ethernet is selected for the port)
- Password (if Ethernet is selected for the port)
- Automatic model determination
- For instructions on entering settings on the recorder itself, see the μR10000/μR20000/SR10000 User's Manual.

Automatic Model Determination

If you select a recorder (μR10000/μR20000) on the software and perform automatic model determination, the recorder model, type, number of measurement channels, and number of computation channels are applied to the **Recorder Setting** tab.

Model and Number of Channels

Model	Type	No of meas ch	No of calc ch
μR10000/μR20000/SR10000	Pen	1	8[1]
μR10000/μR20000/SR10000	Pen	2	8[1]
μR10000/μR20000/SR10000	Pen	3	8[1]
μR10000/μR20000/SR10000	Pen	4	8[1]
μR10000/μR20000/SR10000	Dot	6	12[1]
μR20000	Dot	12	24
μR20000	Dot	18	24
μR20000	Dot	24	24

1 The SR10000 does not have MATH channels.

Scan Interval

A scan interval from 0.5 to 3600 seconds can be selected for each of the sixteen recorders.

Note

When connecting to DAQLOGGER and acquiring data from the recorder, if Gate μR's scan interval is longer than that of DAQLOGGER, DAQLOGGER logs the same data as is within the Gate μR scan interval. Therefore, it is recommended that Gate μR's scan interval be set to a value smaller than DAQLOGGER's scan interval.

Communication Retry Operation

You can turn communication retry ON and OFF, and set the retry interval.

- When Turning Communication Retry OFF
  After detecting that communications were broken, it is not reconnected.
- When Turning Communication Retry ON
  After detecting that communications were broken, the software attempts to reconnect after the retry interval has elapsed. Even if the reconnection resulted in an error, the software waits again for the retry interval to elapse, then attempts another reconnection. This process repeats until a valid connection is opened.
  A communication retry interval of 30 to 3600 seconds can be entered.
  Retries are also performed on instruments with which a communication error occurred during the first communication. At the point that communication is restored, the decimal place, alarm values, and other necessary information are retrieved from the μR, and data is acquired.

Note

This software considers communications to have been cut in the following circumstances.

- If the software requests data from the recorder but no response is received within ten seconds.
- If a TCP/IP connection is detected or if login fails when attempting to connect to the recorder via Ethernet.

Port Settings

The following port settings can be entered using the software.

- Monitor server port
  The TCP/IP port number used for communication with DAQLOGGER or Remote Monitor.

Monitor Server Function

When the software is running, you can connect from DAQLOGGER or Remote Monitor via Ethernet using the remote monitor protocol, and acquire data. In this case, system numbers are assigned as follows:

μR10000/μR20000/SR10000 assigned to No. 01: 0
μR10000/μR20000/SR10000 assigned to No. 02: 1

Software Status Display

You can display the status of the software.
The information from the software that can be displayed is as follows:

- Connection status from the client
  Displays a list of PCs running DAQLOGGERs and Remote Monitors with which the software has opened a connection.
- Communication status with connected recorders
- Error Messages
  Shows the presence or absence of errors occurring in communication with the recorder.

Test Acquisition

You can perform a test acquisition on each tag using the software. During the test acquisition, data is read from recorder channels and is displayed as digital values. This allows you to determine whether the settings for each tag are correct.
The test acquisition gets values from assigned tags approximately at one-second intervals.

Channel Numbers Assigned to Tag Numbers

Tag numbers are set as follows according to the μR10000/μR20000 type.

- Pen model TAG01-TAG12 (μR10000), TAG01-TAG12 (μR20000), TAG01-TAG04 (SR10000)
- Dot model TAG01-TAG18 (μR10000), TAG01-TAG48 (μR20000), TAG01-TAG06 (SR10000)

Also, channels are assigned as follows:

Channel Numbers Assigned to Tag Numbers (for a Pen Model with One Measurement Channel and Eight Computations Channels)

Tag No.	Channel number
TAG01	01
TAG02	0A
TAG03	0B
TAG04	0C
TAG05	0D
TAG06	0E
TAG07	0F
TAG08	0G
TAG09	0J

Channel Colors

The default channel colors on the software are the following sixteen colors.

Red, Green, Blue, Magenta, Orange, Cyan, Brown, LightGray, Purple, Pink, Yellow, White, CaditBlue, LightPink, LightGreen, Salmon

These can be changed.

3.3 Error Messages and Corrective Actions

A message (such as an error message) may appear during operation. The following describes the meanings of the messages and their corrective actions.

Error

Code	Message	Corrective Actions
E211	Cannot write to the file.	Confirm that the disc capacity and file system are correct.
E212	Cannot read file.	Confirm that a file exists, that the software supports it, and whether the file system is correct.
E213	Cannot open the file.	Confirm that a file exists, that the software supports it, and whether the file system is correct.
E401	Communication error.	Check whether the power to the connected measuring instruments with which you wish to open communications is ON, and whether the cables are connected correctly. Also check the following. • For Ethernet Is the address correct, is the TCP/IP protocol installed in Windows, and is the Ethernet card installed correctly? Is the address correct, is the TCP/IP protocol installed in Windows, and is the Ethernet card installed correctly? • For RS-232 and RS-422A Are the baud rate, port numbers (COM1–COM9), and addresses (RS422) correct? Is the PC serial port valid? Is the cable type correct?
E402	Communication timeout.	–
E403	Communication open error.	Check whether the power to the connected measuring instruments with which you wish to open communications is ON, and whether the cables are connected correctly. Also check the following. • For Ethernet Is the address correct, is the TCP/IP protocol installed in Windows, and is the Ethernet card installed correctly? • For RS-232 and RS-422A Are the baud rate, port numbers (COM1–COM9), and addresses (RS422) correct? Is the PC serial port valid? Is the cable type correct?
E501	Invalid license number.	With the Gate series, the number of licenses purchased is the limit for the number of programs run at the same time.
E1001	Login failed.	Check the user name and password on the µR10000.
E1002	Invalid password.	Check the user name and password on the µR10000.
E1003	Invalid password.	Check the user name and password on the µR10000.
E1010	A user with the same name is already logged in.	Check the user name and password on the µR10000.

Message

Code	Message
M1201	Model determination completed successfully.
M1210	Save the setting changes and try again.

Error Messages during Acquisition

Code	Description	Cause/Corrective Actions
W[631]	Data Lack	Data was unexpectedly lost. Reduce the number of acquired data points or connected instruments, or lengthen the scan interval.
E[673]	Cannot open communication	Communication failed to open Check whether the power to the connected measuring instruments with which you wish to open communications is ON, and whether the cables are connected correctly. Also check the following. • For Ethernet Is the address correct, is the TCP/IP protocol installed in Windows, and is the Ethernet card installed correctly? • For RS-232 and RS-422A Are the baud rate, port numbers (COM1–COM9), and addresses (RS422) correct? Is the PC serial port valid? Is the cable type correct?
E[674]	Communication error	Communication Errors
		Same as E[673].
E[675]	Communication time out	Communication timeout
		Same as E[673].
W[880]	Do not specify communication port	Specify the communication parameters.
W[881]	Current connecting recorder configuration is mismatch! The recorder is:	Change the parameters for the main unit.
W[882]	Cannot login recorder	Recorder login error
W[882]	Cannot Get recorder information	Failed to get settings from the recorder. Check whether the communication status and connected instruments matches those specified in the software. If they do not match, perform automatic model determination again.

Index