Introduction

This manual explains how to use SMARTDAC+ STANDARD IP Address Configurator. To ensure correct use, please read this manual thoroughly before beginning operation.

Notes

- The contents of this manual are subject to change without prior notice as a result of continuing improvements to 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 your nearest YOKOGAWA dealer.
- Copying or reproducing all or any part of the contents of this manual without YOKOGAWA's permission is strictly prohibited.
- The TCP/IP software of this product and the document concerning the TCP/IP software have been developed/created by YOKOGAWA based on the BSD Networking Software, Release 1 that has been licensed from University of California.

QR code

The product may have a QR Code pasted for efficient plant maintenance work and asset information management. It enables confirming the specifications of purchased products and user's manuals. For more details, please refer to the following URL.

https://www.yokogawa.com/qr-code

QR Code is a registered trademark of DENSO WAVE INCORPORATED.

Trademarks

- SMARTDAC+ and SMARTDACPLUS are registered trademarks or trademarks of Yokogawa Electric Corporation.
- Microsoft, Windows, and Internet Explorer are either 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.
- Pentium is a trademark of Intel Corporation in the United States and/or other countries.
- Bluetooth is a registered trademark or trademark of Bluetooth SIG, Inc.
- 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

<table>
<thead>
<tr>
<th>Date</th>
<th>Edition</th>
</tr>
</thead>
<tbody>
<tr>
<td>December, 2014</td>
<td>1st Edition</td>
</tr>
<tr>
<td>August, 2015</td>
<td>2nd Edition</td>
</tr>
<tr>
<td>December, 2015</td>
<td>3rd Edition</td>
</tr>
<tr>
<td>May, 2017</td>
<td>4th Edition</td>
</tr>
<tr>
<td>June, 2018</td>
<td>5th Edition</td>
</tr>
<tr>
<td>March, 2019</td>
<td>6th Edition</td>
</tr>
</tbody>
</table>
Software License Agreement

IMPORTANT - PLEASE READ CAREFULLY BEFORE INSTALLING OR USING:

THANK YOU VERY MUCH FOR SELECTING SOFTWARE OF YOKOGAWA ELECTRIC CORPORATION ("YOKOGAWA") PROVIDED BY DOWNLOADING FROM YOKOGAWA’S WEB SITE, OR THE RECORDING MEDIUM (collectively, “Software Product”). BY INSTALLING OR OTHERWISE USING THE SOFTWARE PRODUCT, YOU AGREE TO BE BOUND BY THE TERMS AND CONDITIONS OF THIS AGREEMENT. IF YOU DO NOT AGREE, DO NOT INSTALL NOR USE THE SOFTWARE PRODUCT.

1. Scope

This Agreement applies to the Software Product and associated documentation of Yokogawa. Unless otherwise provided by Yokogawa, this Agreement applies to the updates and upgrades of the Software Product which may be provided by Yokogawa.

Software product: SMARTDAC+ STANDARD IP Address Configurator

2. Grant of License

2.1 Subject to the terms and conditions of this Agreement, Yokogawa hereby grants to you a non-exclusive and non-transferable right to use the Software Product for your internal operation use.

2.2 Unless otherwise agreed or provided by Yokogawa in writing, the following acts are prohibited:

a) to reproduce the Software Product, except for one archival copy for backup purpose, which shall be maintained with due care subject to this Agreement;

b) to sell, lease, distribute, transfer, pledge, sublicense, make available via the network or otherwise convey the Software Product or the license granted herein to any other person or entity;

c) to use the Software Product on any unauthorized computer via the network;

d) to cause, permit or attempt to dump, disassemble, decompile, reverse-engineer, or otherwise translate or reproduce the Software Product into source code or other human readable format, or to review or translate the Software Product into other language and change it to other formats than that in which Yokogawa provided;

e) to cause, permit or attempt to remove any copy protection used or provided in the Software Product; or

f) to remove any copyright notice, trademark notice, logo or other proprietary notices or identification shown in the Software Product.

2.3 Any and all technology, algorithms, know-how and process contained in the Software Product are the property or trade secret of Yokogawa or licensors to Yokogawa. Ownership of and all the rights in the Software Product shall be retained by Yokogawa or the licensors and none of the rights will be transferred to you hereunder.

2.4 You agree to maintain the aforementioned property and trade secret of Yokogawa or licensors and key codes in strict confidence, not to disclose it to any party other than your employees, officers, directors or similar staff who have a legitimate need to know to use the Software Product and agreed in writing to abide by the obligations hereunder.

2.5 Upon expiration or termination of this Agreement, the Software Product and its copies, including extracts, shall be returned to Yokogawa and any copies retained in your computer or media shall be deleted irretrievably. If you dispose of media in which the Software Product or its copy is stored, the contents shall be irretrievably deleted.

2.6 The Software Product may contain software which Yokogawa is granted a right to sublicense or distribute by third party suppliers, including affiliates of Yokogawa ("Third Party Software"). If suppliers of the Third Party Software ("Supplier") provide special terms and conditions for the Third Party Software which differ from this Agreement, the special terms and conditions separately provided by Yokogawa shall prevail over this Agreement. Some software may be licensed to you directly by Supplier.

2.7 The Software Product may contain open source software ("OSS"), for which the special terms and conditions separately provided by Yokogawa shall take precedence over this Agreement.

3. Restrictions on Application

3.1 Unless otherwise agreed in writing between you and Yokogawa, the Software Product is not intended, designed, produced or licensed for use in relation to aircraft operation or control, ship navigation or marine equipment control, or ground facility or device for support of the aforesaid operation or control, or for use in relation to rail facility, nuclear related facility, radiation-related equipment, or medical equipment or facility, or under any other circumstances which may require high safety standards.

3.2 If the Software Product is used for the abovementioned purposes, neither Yokogawa nor assumes liability for any claim or damage arising from the said use and you shall indemnify and hold Yokogawa, Supplier, their affiliates, subcontractors, officers, directors, employees and agents harmless from any liability or damage whatsoever, including any court costs and attorney’s fees, arising out of or related to the said use.

4. Limited Warranty

4.1 The Software Product shall be provided to you on an “as is” basis at the time of delivery. Yokogawa shall disclaim all of the warranties whatsoever, express or implied, and all liabilities therefor. If any physical defect is found on the recording medium not later than twelve (12) months from delivery, Yokogawa shall replace such defective medium free of charge, provided that the defective medium shall be returned to the service office designated by Yokogawa at your expense within the said twelve (12) months. THIS LIMITED WARRANTY PROVIDED IN THIS CLAUSE IS IN LIEU OF ALL OTHER WARRANTIES OF ANY KIND WHATSOEVER AND YOKOGAWA HEREBY DISCLAIMS ALL OTHER WARRANTIES RELATING TO THE SOFTWARE PRODUCT, WHETHER EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, NON-INFRINGEMENT, QUALITY, FUNCTIONALITY, APPROPRIATENESS, ACCURACY, RELIABILITY AND RECIENCY. IN NO EVENT SHALL YOKOGAWA WARRANT THAT THERE IS NO INCONSISTENCY OR INTERFERENCE BETWEEN THE SOFTWARE PRODUCT AND OTHER SOFTWARE NOR SHALL BE LIABLE THEREFOR. The warranty provisions of the applicable law are expressly excluded to the extent permitted.

4.2 At the sole discretion of Yokogawa, Yokogawa may upgrade the Software Product to the new version number ("Upgrade") and make it available to you at your expense or free of charge as Yokogawa deems fit. In no event shall Yokogawa be obliged to upgrade the Software Product or make the Upgrade available to you.

4.3 Certain maintenance service may be available for some types of Software Product at Yokogawa’s current list price. Scope and terms and conditions of the maintenance service shall be subject to those separately provided by Yokogawa. Unless otherwise provided in Yokogawa catalogues or General Specifications, maintenance services will be available only for the latest version and the immediately preceding version. In no event will service for the immediately preceding version be available for more than 5 years after the latest version has been released. In addition, no service will be provided by Yokogawa for the Software Product which has been discontinued for more than 5 years. Notwithstanding the foregoing, maintenance service may not be available for non-standard Software Product. Further, in no event shall Yokogawa provide any service for the Software Product which has been modified or changed by any person other than Yokogawa.
5. Infringement

5.1 If you are warned or receive a claim by a third party that the Software Product in its original form infringes any third party’s patent (which is issued at the time of delivery of the Software Product), trade mark, copyright or other intellectual property rights (“Claim”), you shall promptly notify Yokogawa thereof in writing.

5.2 If the infringement is attributable to Yokogawa, Yokogawa will defend you from the Claim at Yokogawa’s expense and indemnify you from the damages finally granted by the court or otherwise agreed by Yokogawa out of court. The foregoing obligation and indemnity of Yokogawa shall be subject to that (i) you promptly notify Yokogawa of the Claim in writing as provided above, ii) you grant to Yokogawa and its designees the full authority to control the defense and settlement of such Claim and iii) you give every and all necessary information and assistance to Yokogawa upon Yokogawa’s request.

5.3 If Yokogawa believes that a Claim may be made or threatened, Yokogawa may, at its option and its expense, either a) procure for you the right to continue using the Software Product, b) replace the Software Product with other software product to prevent infringement, c) modify the Software Product, in whole or in part, so that it become non-infringing, or d) if Yokogawa believes that a) through c) are not practicable, terminate this Agreement and refund you the paid-up amount of the book value of the Software Product as deprecated.

5.4 Notwithstanding the foregoing, Yokogawa shall have no obligation nor liability for, and you shall defend and indemnify Yokogawa and its suppliers from, the Claim, if the infringement is arising from a) modification of the Software Product made by a person other than Yokogawa, b) combination of the Software Product with hardware or software not furnished by Yokogawa, c) design or instruction provided by or on behalf of you, d) not complying with Yokogawa’s suggestion, or e) any other causes not attributable to Yokogawa.

5.5 This section states the entire liability of Yokogawa and its suppliers and the sole remedy of you with respect to any claim of infringement of a third party’s intellectual property rights. Notwithstanding anything to the contrary stated herein, with respect to the claims arising from or related to the Third Party Software or OSS, the special terms and conditions separately provided for such Third Party Software or OSS shall prevail.

6. Limitation of Liability

6.1 EXCEPT TO THE EXTENT THAT LIABILITY MAY NOT LAWFULLY BE EXCLUDED IN CONTRACT, YOKOGAWA SHALL NOT BE LIABLE TO ANY PERSON OR LEGAL ENTITY FOR LOSS OR DAMAGE, WHETHER DIRECT, INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES, OR OTHER SIMILAR DAMAGES OF ANY KIND, INCLUDING WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OR DESTRUCTION OF DATA, LOSS OF AVAILABILITY AND THE LIKE, ARISING OUT OF THE USE OR INABILITY TO USE OF THE SOFTWARE PRODUCT, OR ARISING OUT OF ITS GENERATED APPLICATIONS OR DATA, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, WHETHER BASED IN WARRANTY (EXPRESS OR IMPLIED), CONTRACT, STRICT LIABILITY, TORT (INCLUDING NEGLIGENCE), OR ANY OTHER LEGAL OR EQUIVALENT GROUNDS. If the Software Product delivered by Yokogawa is altered, modified or combined with other software or is otherwise made different from Yokogawa catalogues, General Specifications, basic specifications, functional specifications or manuals without Yokogawa’s prior written consent, Yokogawa shall be exempted from its obligations and liabilities under this Agreement or law.

6.2 Any claim against Yokogawa based on any cause of action under or in relation to this Agreement must be given in writing to Yokogawa within three (3) months after the cause of action accrues.

7. Export Control

You agree not to export or provide to any other countries, whether directly or indirectly, the Software Product, in whole or in part, without prior written consent of Yokogawa. If Yokogawa agrees such exportation or provision, you shall comply with the export control and related laws, regulations and orders of Japan, the United States of America, and any other applicable countries and obtain export/import permit and take all necessary procedures under your own responsibility and at your own expense.

8. Audit; Withholding

8.1 Yokogawa shall have the right to access and audit your facilities and any of your records, including data stored on computers, in relation to the use of the Software Product as may be reasonably necessary in Yokogawa’s opinion to verify that the requirements of this Agreement are being met.

8.2 Even after license being granted under this Agreement, should there be any change in circumstances or environment of use which was not foreseen at the time of delivery and, in Yokogawa’s reasonable opinion, is not appropriate for using the Software Product, or if Yokogawa otherwise reasonably believes it is too inappropriate for you to continue using the Software Product, Yokogawa may suspend or withhold the license provided hereunder.

9. Assignment

If you transfer or assign the Software Product to a third party with Yokogawa’s prior written consent, you shall expressly present this Agreement to the assignee to ensure that the assignee comply with this Agreement, transfer all copies and whole part of the Software Product to the assignee and shall delete any and all copy of the Software Product in your possession irrevocably. This Agreement shall inure to the benefit of and shall be binding on the assignees and successors of the parties.

10. Termination

Yokogawa shall have the right to terminate this Agreement with immediate effect upon notice to you, if you breach any of the terms and conditions hereof. Upon termination of this Agreement, you shall promptly cease using the Software Product and, in accordance with sub-clause 2.5, return or irretrievably delete all copies of the Software Product, certifying the same in writing. Clauses 2.4 and 2.5, 3, 5, 6 and 11 shall survive any termination of this Agreement.

11. Governing Law: Disputes

This Agreement shall be governed by and construed in accordance with the laws of Japan. Any dispute, controversies, or differences which may arise between the parties hereto, out of, in relation to or in connection with this Agreement (“Dispute”) shall be resolved amicably through negotiation between the parties based on mutual trust. Should the parties fail to settle the Dispute within ninety (90) days after the notice is given from either party to the other, the Dispute shall be addressed in the following manner:

(i) If you are a Japanese individual or entity, the Dispute shall be brought exclusively in the Tokyo District Court (The Main Court) in Japan.

(ii) If you are not a Japanese individual or entity, the Dispute shall be finally settled by arbitration in Tokyo, Japan in accordance with the Commercial Arbitration Rules of the Japan Commercial Arbitration Association. All proceedings in arbitration shall be conducted in the English language, unless otherwise agreed. The award of arbitration shall be final and binding upon both parties, however, each party may make an application to any court having jurisdiction for judgment to be entered on the award and/or for enforcement of the award.

12. Miscellaneous

12.1 This Agreement supersedes all prior oral and written understandings, representations and discussions between the parties concerning the subject matter hereof to the extent such understandings, representations and discussions should be disparate or inconsistent with this Agreement.

12.2 If any part of this Agreement is found void or unenforceable, it shall not affect the validity of the balance of the Agreement, which shall remain valid and enforceable according to its terms and conditions. The parties hereby agree to attempt to substitute for such invalid or unenforceable provision a valid or enforceable provision that achieves to the greatest extent possible the economic, legal and commercial objectives of the invalid or unenforceable provision.

12.3 Failure by either party to insist on performance of this Agreement or to exercise a right when entitled does not prevent such party from doing so at a later time, either in relation to that default or any subsequent one.

End of document
How to Use This Manual

Structure of the Manual

This manual contains the following four chapters.

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Before Using the Product</td>
</tr>
<tr>
<td></td>
<td>Provides an overview of the IP Address Configurator and the PC system requirements for using the software and describes how to install, start, and close the software.</td>
</tr>
<tr>
<td>2</td>
<td>Setting the IP Address</td>
</tr>
<tr>
<td></td>
<td>Describes the parts of the window and how to use them and how to change the IP address.</td>
</tr>
<tr>
<td>--</td>
<td>Appendix</td>
</tr>
<tr>
<td></td>
<td>Describes how to set and clear a firewall, using Windows 7 as an example.</td>
</tr>
</tbody>
</table>

Scope of This Manual

This manual does not explain the basic operations of your PC’s operating system. For this information, read the Windows user’s guide or related materials.

Conventions Used in This Manual

<table>
<thead>
<tr>
<th>Unit</th>
<th>Denotes 1024. Example: 768K (file size)</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>Denotes 1000.</td>
</tr>
</tbody>
</table>

Notes

Improper handling or use can lead to injury to the user or damage to the instrument. This symbol appears on the instrument to indicate that the user must refer to the user’s manual for special instructions. The same symbol appears in the corresponding place in the user’s manual to identify those instructions. In the manual, the symbol is used in conjunction with the word “WARNING” or “CAUTION.”

WARNING
Calls attention to actions or conditions that could cause serious or fatal injury to the user, and precautions that can be taken to prevent such occurrences.

CAUTION
Calls attention to actions or conditions that could cause light injury to the user or cause damage to the instrument or user’s data, and precautions that can be taken to prevent such occurrences.

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

Reference Item

Reference to related operation or explanation is indicated after this mark. Example: ➤ section 4.1

Conventions Used in the Procedural Explanations

Bold characters
Indicates character strings that appear on the screen. Example: Volt

Procedure
Carry out the procedure according to the step numbers. All procedures are written under the assumption that you are starting operation at the beginning of the procedure, so you may not need to carry out all the steps in a procedure when you are changing the settings.

Explanation
The explanation section describes limitations and related information about the operation.

Images

The images used in this manual may differ from those that actually appear in the software. Such differences do not affect the procedural explanation.
How to Use This Manual

Products That This Manual Covers

<table>
<thead>
<tr>
<th>Product</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Acquisition Module GM10</td>
<td>Release number 4</td>
</tr>
<tr>
<td></td>
<td>Up to firmware version R4.06.xx.</td>
</tr>
<tr>
<td></td>
<td>In the explanations in this manual, these are</td>
</tr>
<tr>
<td></td>
<td>referred to as the “main unit” or “GM.”</td>
</tr>
<tr>
<td>SMARTDAC+ STANDARD IP Address Configurator</td>
<td>R4.03.xx</td>
</tr>
</tbody>
</table>

Revision History

<table>
<thead>
<tr>
<th>Edition</th>
<th>Software Version</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R2.02.xx</td>
<td>New edition</td>
</tr>
<tr>
<td>2</td>
<td>Same as above</td>
<td>Added notes for using the security function (communication login) on the GM10.</td>
</tr>
<tr>
<td>3</td>
<td>R3.01.xx</td>
<td>Modified to support the following new options for GM10 release number 3.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Aero space heat treatment (/AH)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Multi-batch function (/BT)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• OPC-UA server (/E3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• SLMP communication (/E4)</td>
</tr>
<tr>
<td>4</td>
<td>R4.01.01</td>
<td>Modified to support the Program Control option (/PG) for GM10 release number 4.</td>
</tr>
<tr>
<td>5</td>
<td>R4.02.01</td>
<td>Modified to support the R4.02</td>
</tr>
<tr>
<td>6</td>
<td>R4.03.01</td>
<td>Modified to support the R4.05</td>
</tr>
</tbody>
</table>

Downloading the Latest Software and Manuals

Download the latest version of the IP Address Configurator from the following URL: www.smartdacplus.com/software/en/

Download the latest manuals of the Hardware configurator, and the related manuals from the following URL: www.smartdacplus.com/manual/en/

Related Manuals

<table>
<thead>
<tr>
<th>Manual Name</th>
<th>Manual No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Acquisition System GM First Step Guide</td>
<td>IM 04L55B01-02EN</td>
</tr>
<tr>
<td>Data Acquisition System GM User’s Manual</td>
<td>IM 04L55B01-01EN</td>
</tr>
<tr>
<td>SMARTDAC+ STANDARD Hardware Configurator User’s Manual</td>
<td>IM 04L61B01-02EN</td>
</tr>
</tbody>
</table>
Contents

Introduction ........................................................................................................................................... i
Software License Agreement ............................................................................................................. ii
How to Use This Manual ................................................................................................................... iv

Chapter 1 Before Using the Product
1.1 Overview of IP Address Configurator ...................................................................................... 1-1
   1.1.1 IP Address Configurator Features .................................................................................... 1-1
   1.1.2 Installation and Version Updating ...................................................................................... 1-1
   1.1.3 Starting and Closing IP Address Configurator ................................................................. 1-2
1.2 PC System Requirements ......................................................................................................... 1-3
   1.2.1 Hardware .......................................................................................................................... 1-3
   1.2.2 Operating System ............................................................................................................. 1-3
   1.2.3 Other Operating Conditions ............................................................................................ 1-3
   1.2.4 Security Measures .......................................................................................................... 1-3

Chapter 2 Setting IP Address
2.1 Names of the Parts of the Screen and How to Use Them ......................................................... 2-1
   2.1.1 Start Window ................................................................................................................... 2-1
   2.1.2 List Display Screen ........................................................................................................ 2-2
   2.1.3 Address Setting Screen .................................................................................................. 2-3
2.2 Changing the IP Address ........................................................................................................ 2-4
   2.2.1 Connecting the GM to a PC Locally (One-to-One) and Changing the Address ................. 2-4
   2.2.2 Changing the Address of the GM Connected to the Network ......................................... 2-4
2.3 Troubleshooting ...................................................................................................................... 2-6
   2.3.1 What to Do When GMs Cannot Be Detected .................................................................... 2-6
   2.3.2 If GM’s Communication Is Set to Login and the IP Address Cannot Be Changed .......... 2-6
   2.3.3 Errors and Messages ...................................................................................................... 2-6

Appendix

App. 1 Configuring/Removing the Firewall ...................................................................................... App-1
Chapter 1  Before Using the Product

1.1 Overview of IP Address Configurator

1.1.1 IP Address Configurator Features

SMARTDAC+ STANDARD IP Address Configurator is a PC software application for configuring the communication parameters of the GM10 Data Acquisition Module (hereafter referred to as the GM).

IP address setting
You can edit a GM’s host name, IP address, DNS server, domain name, domain suffix, and so on as well as register the host name to a DNS server.

GM searching
GM searching

Device call-up
You can send commands to GMs shown in the list. You can check the response by looking at the LED blinking on the GMs.

1.1.2 Installation and Version Updating

Download the latest installer from YOKOGAWA’s website (www.smartdacplus/software/en/) to install and update the software: From the Help menu, you can view the software version information and access the link to the website.

**Note**

- Before installing the software, check that your PC is not infected by a virus.
- Close all other software applications before installing this software.
- To reinstall the software, uninstall the current software first.

**Procedure**

1. Double-click the downloaded file to extract the files.

2. In the extracted folder, right-click Install.exe, and click **Run as administrator**.

3. The installation wizard starts. Continue to follow the instructions on the screen to install the software.

4. When the installation is complete, click **Finish**.

SMARTDAC+STANDARD > IP Address Configurator will be registered under All Programs in the Windows Start menu.
1.1.3 Starting and Closing IP Address Configurator

Starting the Software
On the Start menu, click All Programs, SMARTDAC+ STANDARD, and IP Address Configurator.

The start window appears.

Closing the Software
On the File menu, click Exit Application. Or click the close button in the upper right of the window.

Names of the parts of the screen and how to use them → section 2.1
1.2 PC System Requirements

1.2.1 Hardware

PC
A PC running Windows 7, Windows 8.1 or Windows 10.

CPU and Main Memory

<table>
<thead>
<tr>
<th>PC Configuration</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>Intel Pentium 4, 3 GHz or faster x64 or x86 processor.</td>
</tr>
<tr>
<td>Memory</td>
<td>2GB or more.</td>
</tr>
<tr>
<td>Hard Disk</td>
<td>Free space of at least 100 MB (depending on the amount of data, you may need more disk space). NTFS recommended.</td>
</tr>
<tr>
<td>Mouse</td>
<td>A mouse compatible with the OS.</td>
</tr>
<tr>
<td>Display</td>
<td>A display that is compatible with the OS, that has a resolution of 1024×768 or higher, and that can show 65,536 colors (16-bit, high color) or more.</td>
</tr>
<tr>
<td>Communication port</td>
<td>Ethernet port compatible with the OS and TCP/IP protocol.</td>
</tr>
<tr>
<td>Printer</td>
<td>A printer compatible with your Windows system (a printer driver for the OS is required).</td>
</tr>
</tbody>
</table>

1.2.2 Operating System

<table>
<thead>
<tr>
<th>OS</th>
<th>Edition</th>
<th>Service pack</th>
<th>32-bit/64-bit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows 7</td>
<td>Home Premium</td>
<td>SP1</td>
<td>32- or 64-bit edition</td>
</tr>
<tr>
<td></td>
<td>Professional</td>
<td>SP1</td>
<td>32- or 64-bit edition</td>
</tr>
<tr>
<td>Windows 8.1</td>
<td>update</td>
<td></td>
<td>32- or 64-bit edition</td>
</tr>
<tr>
<td></td>
<td>Pro</td>
<td>update</td>
<td>32- or 64-bit edition</td>
</tr>
<tr>
<td>Windows 10</td>
<td>Home</td>
<td></td>
<td>32- or 64-bit edition</td>
</tr>
<tr>
<td></td>
<td>Pro</td>
<td></td>
<td>32- or 64-bit edition</td>
</tr>
</tbody>
</table>

1.2.3 Other Operating Conditions

To view the user’s manual of this software, you need to use Adobe Reader 7 or later by Adobe Systems (the latest version is recommended).

1.2.4 Security Measures

To deal with security threats, we recommend that you take security measures.

- Apply restrictions to PC network connections. We recommend that you use an isolated network.
- Manage external media properly. Prevent malware intrusion through external media, unauthorized file operations on external media, and information leakage due to misplacement.
- Set a strong password and manage it properly. Use a password that is at least eight characters in length, and include three types of characters from uppercase letters, lowercase letters, numbers, and symbols. Change the password regularly.
- Install antivirus software. This software has been verified to work on a PC running McAfee VirusScan Enterprise Ver. 4.8.0.887.
Chapter 2  Setting IP Address

2.1  Names of the Parts of the Screen and How to Use Them

This section explains the window components. For the actual procedure to change the IP address, see section 2.2, “Changing the IP Address”

2.1.1  Start Window

Clicking the shutter for expanding/reducing the size of the list display screen (the bar in the center of the window) hides the Address setting screen and shows the List display screen in the entire window. Clicking it again returns the Address setting screen.

Menu Commands

<table>
<thead>
<tr>
<th>Menu</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>File</td>
<td>Exit</td>
</tr>
<tr>
<td></td>
<td>Closes the software.</td>
</tr>
<tr>
<td>View</td>
<td>Status Bar</td>
</tr>
<tr>
<td></td>
<td>Shows or hides the status bar.</td>
</tr>
<tr>
<td>Help</td>
<td>User’s Manual</td>
</tr>
<tr>
<td></td>
<td>Displays the user’s manual (this manual).</td>
</tr>
<tr>
<td></td>
<td>About</td>
</tr>
<tr>
<td></td>
<td>Displays the version of the software in use.</td>
</tr>
<tr>
<td></td>
<td>Update</td>
</tr>
<tr>
<td></td>
<td>A link to the website for downloading the latest version of the software.</td>
</tr>
</tbody>
</table>
2.1 Names of the Parts of the Screen and How to Use Them

2.1.2 List Display Screen

Click Search to search for GMs in the same network segment and display the list of search results. Click a No. cell to select the GM you want to configure.

**GM Information Displayed in the List**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>1 to 255 numbers are assigned in retrieved order.</td>
</tr>
<tr>
<td>Check</td>
<td>If this button is clicked, the 7-segment LED on the main unit of the corresponding GM10 displays --CALL--.</td>
</tr>
<tr>
<td>Host Name</td>
<td>The host name is displayed if it is already registered.</td>
</tr>
<tr>
<td>Serial No.</td>
<td>The instrument number marked on the name plate of the main module.</td>
</tr>
<tr>
<td>Model</td>
<td>GM10-1 or GM10-2 is displayed.</td>
</tr>
<tr>
<td>Version</td>
<td>GM10 firmware version.</td>
</tr>
<tr>
<td>Option</td>
<td>GM10 option code. See the table below for the description.</td>
</tr>
<tr>
<td>MAC Address</td>
<td>The MAC address marked on the name plate of the main module.</td>
</tr>
</tbody>
</table>

**Option Display and Description**

Refer to MODEL and SUFFIX Codes on GM First Step Guide (IM 04L55B01-02EN).
2.1.3 Address Setting Screen

If the check box is selected, the items that can and cannot be set change. Dimmed setting items cannot be changed.

Click Network Config. to allow the settings of the GM selected in the list to be edited.

Apply
Applies the edited settings to the GM. GMs are searched for again.

Release
Releases the GM you selected and the IP address obtained from the DHCP server. GMs are searched for again.

Cancel
Does not applies the changes, and returns to the condition before editing.

Network Config.
When you select a GM in the list, this button becomes available.

Items on Address Setting Screen

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host Name</td>
<td>Set the host name. Up to 64 alphanumeric characters can be entered.</td>
</tr>
<tr>
<td>Obtain IP address automatically</td>
<td>Select the check box to automatically obtain the IP address from the DHCP server. To set the IP address manually, do not select the check box. Enter the IP address, subnet mask, and default gateway. Do not select the check box when connecting to the PC locally.</td>
</tr>
<tr>
<td>IP Address</td>
<td>Enter the IP address to assign to the GM. The default value is 0.0.0.0.</td>
</tr>
<tr>
<td>Subnet Mask</td>
<td>Enter the mask value used when determining the subnet network address from the IP address. The default value is 0.0.0.0.</td>
</tr>
<tr>
<td>Default Gateway</td>
<td>Set the IP address of the gateway (default gateway) used to communicate with other networks. The default value is 0.0.0.0. When connecting to the PC locally in a one-to-one relationship, this value does not need to be changed. In this case, you do not have to set the default gateway on the PC.</td>
</tr>
<tr>
<td>Obtain DNS address automatically</td>
<td>Select the check box to automatically obtain the DNS server IP address and domain name from the DHCP server. To set the DNS information manually, do not select the check box. Enter the primary DNS server, secondary DNS server, and domain name.</td>
</tr>
<tr>
<td>Primary DNS Server</td>
<td>You can specify two DNS servers. Be sure to set an IP address.</td>
</tr>
<tr>
<td>Secondary DNS Server</td>
<td></td>
</tr>
<tr>
<td>Domain Name</td>
<td>Specify the domain name that the device belongs to. Up to 64 alphanumeric characters can be entered.</td>
</tr>
<tr>
<td>Primary Domain Suffix</td>
<td>Up to 64 alphanumeric characters can be entered. The domain suffix is a domain name that is supplemented automatically when the mail server and the like are set only with the host name.</td>
</tr>
<tr>
<td>Secondary Domain Suffix</td>
<td></td>
</tr>
<tr>
<td>Host Name registration</td>
<td>Select the check box to register host names to the DNS server. Dynamic DNS (DDNS), which automatically registers host names to the DNS server, will be enabled. However, this requires that the DNS server support DDNS.</td>
</tr>
</tbody>
</table>

**Note**
Consult your network administrator for details of each setting item.
2.2 Changing the IP Address

Before carrying out the procedure below, turn ON the power to the relevant GMs and connect the GMs to the network using Ethernet cables. When connecting the GMs to the network, make the connection after changing the factory default IP address. (See 2.2.1 Connecting the GM to a PC Locally (One-to-One) and Changing the Address)

**Note**
When the GM (firmware version R2.03.01 or later) is in either of the following conditions, the IP address cannot be changed.
- In security settings, Communication is set to Login.
- The advanced security function (/AS option) is set to On, and the GM is recording.

**Related topic:** 2.3.2 If GM’s Communication Is Set to Login and the IP Address Cannot Be Changed

2.2.1 Connecting the GM to a PC Locally (One-to-One) and Changing the Address

Locally connect the GM to a PC in which the Address Configurator is installed (one-to-one connection), and change the IP address. The procedure to change the address is the same as that shown below.

When making a local (one-to-one) connection with the PC, do not set the PC to obtain the IP address automatically. Enter the IP address manually to an address other than the one that is to be assigned to the GM.

**Setup Example of the PC and GM**

<table>
<thead>
<tr>
<th>IP address of the PC</th>
<th>192.168.0.100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subnet mask of the PC</td>
<td>255.255.255.0</td>
</tr>
<tr>
<td>IP address of the GM</td>
<td>192.168.0.10</td>
</tr>
<tr>
<td>Subnet mask of the GM</td>
<td>255.255.255.0</td>
</tr>
</tbody>
</table>

2.2.2 Changing the Address of the GM Connected to the Network

**Procedure**

1. Start the IP Address Configurator.
   The Address Setting screen is displayed.

2. Click the Search button in the List display screen.
   The GMs residing in the same segment are displayed.
3. Click the No. of the GM whose address you want to change. The information of the selected GM is shown in blue characters.

4. Click Network Config. in the Address setting screen. This enables changes to the settings.

5. Enter settings for each item. (See 2.1.3 Address Setting Screen for the details.)

6. Click Apply to change the settings of the GM, Cancel to exit without saving changes, or Release to clear the IP address from the DHCP server.

**Note**

To check whether the IP address was obtained correctly each time, click the Apply button, wait a few moments, then click the Search button in the List display screen. If you click the Search button immediately after the change, the IP address, subnet mask, and default gateway may be displayed as 0.0.0.0.
2.3 Troubleshooting

2.3.1 What to Do When GMs Cannot Be Detected

If GMs are not detected even when you click Search, check the following.

- Check the internet connection status using the ping command. If the ping fails, check the cables, hub, IP address settings, and other factors to determine the cause.
- Check that procedures performed on the software are correct.
- If the Windows OS firewall is enabled, GMs may not be detected even when you click Search.
  For the workaround on Windows 7, see the Appendix.
  For other Windows versions, configure “Allow a program or feature through Windows Firewall”. For details on how to change the settings, check the Microsoft support website.
- Note that this software does not support multiple network adaptors. If the multiple network adaptors are being enabled (example: Both cable LAN and wireless LAN), disable the network connections other than GM.
  Windows 7: Go to Start > Control Panel > Network and Sharing Center, then click Change adapter settings in the left-hand column. Right-click on the unused connection and select Disable.

2.3.2 If GM’s Communication Is Set to Login and the IP Address Cannot Be Changed

In the security settings of the GM, if Communication is set to Login, you cannot change the IP address from this software. To change the GM IP address, use either of the following methods.

- When serial communication, USB communication, or Bluetooth communication is possible between the GM and PC
  Connect the GM to the PC using one of the communication schemes, and use SMARTDAC+ Hardware Configurator to change the IP address. If you use this method, you do not have to turn off the GM.
- When local Ethernet (one-to-one) connection is possible between the GM and PC
  Connect the GM to the PC locally with an Ethernet cable. Turn off the GM, and restart it in fixed IP address mode. Then, use the GM’s Web application or SMARTDAC+ Hardware Configurator to change the IP address.

Note

- For details on the GM fixed IP address mode and Web application, see the GM Data Acquisition System User’s Manual (IM 04L55B01-01EN).
- For details on how to use Hardware Configurator, see the SMARTDAC+ STANDARD Hardware Configurator User’s Manual (IM 04L61B01-02EN).

2.3.3 Errors and Messages

<table>
<thead>
<tr>
<th>Code</th>
<th>Message</th>
<th>Description and Corrective Action</th>
</tr>
</thead>
</table>
| 5000 | Failed to store. | Check the operation mode of the GM.
If the GM is in a mode other than the normal operation (such as A/D calibration, Encryption, and Update), return it to the normal mode.
Or, check the GM security settings. The IP address cannot be changed in the following situations.
  • Security settings > Security basic settings > Security function
  > Communication is set to Login.
  • The advanced security function (/AS option) is set to On, and recording is in progress. |
App. 1 Configuring/Removing the Firewall

On Windows 7

1. Click the Control panel on the Windows Start menu.
   The Control Panel appears.

2. Click System and Security.

3. Click Windows Firewall.
   The Windows Firewall Settings dialog box is displayed.
4. Click Advanced settings.

5. Click Windows Firewall Properties.

6. Click the tab of the profile appropriate for your operating environment. When the Firewall state is Off, click Cancel to exit. When the Firewall state is On, and Inbound connections or Outbound connections is Block, proceed to next step.
7. Click Inbound Rules.

8. Click New Rule in the Actions pane.

9. Select the Program check box. Click Next.
10. Select the **This program path** check box. Select `GMIPConfigE.exe` from the software's installation folder and click **Next**.

![Image](image1.png)

11. Select the **Allow the connection** check box. Click **Next**.

![Image](image2.png)

12. Specify the profiles for which this rule applies. Click **Next**.

![Image](image3.png)
13. Specify the name of this rule, and click **Finish**.