

Web Server Module

User's Manual

mitsubishi

Q series
Q series

Mitsubishi
Programmable Controller

MELSEC-Q

QJ71WS96

● SAFETY PRECAUTIONS ●

(Always read these instructions before using this equipment.)

Before using this product, please read this manual and the relevant manuals introduced in this manual carefully and pay full attention to safety to handle the product correctly.

Note that these precautions apply only to this product. Refer to the user's manual of the CPU module for the programmable controller system safety precautions.

In this manual, the safety instructions are ranked as "DANGER" and "CAUTION".



DANGER

Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.



CAUTION

Indicates that incorrect handling may cause hazardous conditions, resulting in medium or slight personal injury or physical damage.

Note that the  CAUTION level may lead to a serious consequence according to the circumstances.

Always follow the instructions of both levels because they are important to personal safety.

Please save this manual to make it accessible when required and always forward it to the end user.

[Design Precautions]



DANGER

- When controlling a running programmable controller (e.g. modifying data), establish an interlock circuit in a sequence program for safety of the overall system.
Also, be sure to read the manual carefully and ensure safety before making controls such as change of operation status.
Especially, when controlling a programmable controller from a remote location via the Internet, problems on the programmable controller side may not be dealt with promptly due to abnormal data communication.
Establish an interlock circuit in a sequence program.
- For the operation status of each station in the event of a communication error in the station, see the manual for each station.
Failure to do so can cause an accident due to false output or malfunction.
- When the e-mail function is utilized, it may take time to send e-mail or is disabled depending on the status of the send server, transmission path, receive server and/or receive device.
To ensure the safety of the programmable controller system, provide calling circuits using lamps and buzzers.
- Provide a safety circuit outside the programmable controller so that safety of the whole system can be ensured against an external power failure or programmable controller failure.
Failure to do so may cause an accident due to false output or malfunction.
- If it is necessary to ensure the security of the programmable controller system against unauthorized and illegal access from external devices via the Internet, appropriate measures (firewall, etc.) must be taken by the user.

[Design Precautions]

DANGER

- Do not write any data into the "System area" of the buffer memory of the intelligent function module.

Also, do not output (turn on) the "Use prohibited" signal, which is one of the output signals from the programmable controller CPU to the intelligent function module.

If data is written to the "System area" or the "Use prohibited" signal is output, there is a risk that the programmable controller system may malfunction.

CAUTION

- Do not bunch the control wires or communication cables with the main circuit or power wires, or install them close to each other.
They should be installed 100 mm (3.94 inch) or more from each other.
Not doing so could result in noise that would cause erroneous operation.
- Do not power off a station where this module is mounted and do not reset the programmable controller CPU while storing the settings into the standard ROM of the module using a Web browser.
This may make the data unstable within the standard ROM and require resetting and re-storing, or it may cause a failure or malfunctions of the module.

[Installation Precautions]

CAUTION

- Use the programmable controller in the environment specified in the user's manual of the CPU module.
Using this programmable controller in an environment outside the range of the general specifications could result in electric shock, fire, erroneous operation, and damage to or deterioration of the product.
- While pressing the installation lever located at the bottom of module, insert the module fixing tab into the fixing hole in the base unit until it stops. Then, securely mount the module with the fixing hole as a supporting point.
Incorrect loading of the module can cause a malfunction, failure or drop.
When using the programmable controller in the environment of much vibration, tighten the module with a screw.
- Completely turn off the externally supplied power used in the system before mounting or removing the module.
Not doing so could result in damage to the product.
- Tighten the screw in the specified torque range.
Undertightening can cause a drop, short circuit or malfunction.
Overtightening can cause a drop, short circuit or malfunction due to damage to the screw or module.
- Do not directly touch the module's conductive parts or electronic components.
Touching the conductive parts could cause an operation failure or give damage to the module.

[Installation Precautions]

CAUTION

- For connector wiring, correctly press, pressure-weld or solder the connecting part by using the tool specified by the manufacturer.
Poor connection may cause short circuits, fires or malfunctions.
- Be sure to set the Compact Flash™ card by pressing it into the Compact Flash™ card slot.
Confirm it is completely set.
Poor contact may lead to malfunctions.

[Wiring Precautions]

CAUTION

- Be sure to fix communication cables and power cables to the module by ducts or clamps.
Failure to do so may cause damage of the module or the cables due to accidental pull or unintentional shifting of the cable, or malfunctions due to poor contact of the cables.
- Connect the connectors to the module securely.
- Tighten the terminal screws with the specified torque.
If the terminal screws are loose, it could result in short circuits, fire, or erroneous operation.
Tightening the terminal screws too far may cause damages to the screws and/or the module, resulting in fallout, short circuits, or malfunction.
- Do not hold the communication cable by hand when pulling it out from the module.
Be sure to hold the connector by hand, when removing the cable with a connector from the module.
Failure to do so may cause malfunctions or damage to the module or cable.
- Be sure there are no foreign substances such as sawdust or wiring debris inside the module.
Such debris could cause fires, damage, or erroneous operation.
- The module has an ingress prevention label on its top to prevent foreign matter, such as wire offcuts, from entering the module during wiring.
Do not peel this label during wiring.
Before starting system operation, be sure to peel this label because of heat dissipation.

[Startup/Maintenance Instructions]

DANGER

- Do not touch the terminals while the power is on.
Doing so may cause malfunctions.
- Before cleaning up and retightening terminal screws and module mounting screws, be sure to shut off all phases of external power supply used by the system.
Failure to do so can cause the failure or malfunctions of module.
Loose tightening may cause a fall, short-circuits, or malfunctions of the module.
Overtightening may damage the screws and module and cause a fall, short-circuits, or malfunctions of the module.

[Startup/Maintenance Instructions]

CAUTION

- Never disassemble or modify the module.
This may cause failure, malfunctions, injuries or a fire.
- Before mounting/dismounting the module, be sure to shut off all phases of external power supply used by the system.
Failure to do so may cause failure or malfunctions of the module.
- Do not mount/remove the module onto/from base unit more than 50 times (IE C61131-2 compliant), after the first use of the product.
Failure to do so may cause the module to malfunction due to poor contact of connector.
- Do not drop the battery installed to the module, and do not give it a shock.
Doing so may damage the battery, causing battery fluid leakage in the battery.
If the battery has been dropped or given a shock, do not use it but dispose of it.
- Always make sure to touch the grounded metal to discharge the electricity charged in the body, etc., before touching the module.
Failure to do so may cause a failure or malfunctions of the module.

[Operating Precautions]

DANGER

- Before controlling a running programmable controller (e.g. modifying data), fully ensure safety.
- Do not write any data into the "System area" of the buffer memory of the intelligent function module.
Also, do not output (turn on) the "Use prohibited" signal, which is one of the output signals from the programmable controller CPU to the intelligent function module.
If data is written to the "System area" or the "Use prohibited" signal is output, there is a risk that the programmable controller system may malfunction.

[Disposal Instructions]

CAUTION

- Dispose of this product as industrial waste.
When disposing of batteries, separate them from other wastes according to the local regulations.
(For details of the battery directive in EU member states, refer to Appendix 9.)

[Transportation Precautions]

CAUTION

- When transporting lithium batteries, make sure to treat them based on the transport regulations.
(Refer to Appendix 8 for details of the controlled models.)

REVISIONS

* The manual number is given on the bottom left of the back cover.

| Print Date | * Manual Number | Revision |
|------------|-------------------|--|
| Dec., 2002 | SH (NA)-080320E-A | First Printing |
| Apr., 2003 | SH (NA)-080320E-B | <div>Correction</div> <p>Operating Instructions, Section 4.9.1, Section 9.1 (1)(9)</p> <div>Addition</div> <p>Section 4.9.2</p> |
| Nov., 2003 | SH (NA)-080320E-C | The whole manual was reexamined with the enhancement of the Web server module functions. Refer to Appendix 5 for the enhancement of the Web server module functions. |
| Apr., 2005 | SH (NA)-080320E-D | <div>Correction</div> <p>SAFETY PRECAUTIONS, Operating Instructions, Section 2.4 (1), 2.5 (1), Section 3.1 (2), Section 4.9.1, Section 6.3.3 REMARKS, 6.4.4 REMARKS, Section 7.2, Section 9.1 (5), 9.3 (064Ch), Appendix 5.2 (2)</p> <div>Addition</div> <p>Section 7.2.6, Section 9.3 (0B07h, 0B08h, 0B09h), Appendix 5.1 (2), Appendix 7</p> |
| Sep., 2006 | SH (NA)-080320E-E | <div>Correction</div> <p>SAFETY PRECAUTIONS, Generic Terms and Abbreviations, Section 2.1, 2.4, 2.5, Section 3.1, 3.6.1, 3.6.2, 3.8.6, 3.8.7, 3.8.9, Section 4.6.3, 4.6.5 to 4.6.7, 4.7, 4.8.3, 4.9.2, 4.10.1, 4.10.3, 4.11, 4.12, Section 6.4.4, 6.6.4, 6.7.4, 6.7.5, Section 8.1 to 8.10, Section 9.2.1, Appendix 1</p> |
| Jan., 2007 | SH (NA)-080320E-F | <div>Correction</div> <p>Operating Instructions, Generic Terms and Abbreviations, Section 2.1, 2.5, Section 3.4, 3.7, Section 4.6.7, Section 6.3.3, Section 8.1, Section 9.1, 9.3, Appendix 2, 5.1</p> |
| Apr., 2007 | SH (NA)-080320E-G | <div>Change of a term</div> <p>"PLC" was changed to "programmable controller".</p> <div>Correction</div> <p>Generic Terms and Abbreviations, Section 2.1, 2.5, Section 4.6.7, Section 6.2.1, 6.3.3, 6.4.4, Section 8.2 to 8.10, Section 9.3, Appendix 2, Appendix 5.1, Appendix 6.5</p> |
| Jan., 2008 | SH (NA)-080320E-H | <div>Correction</div> <p>Operating Instructions, Generic Terms and Abbreviations, Packing List, Section 2.1, 2.4, 3.1, 3.2, 3.6.2, 3.7, 4.1, 4.6.7, 4.9.1, 7.2.4, 9.1, 9.3, Appendix 1, Appendix 2, Appendix 5.1, Appendix 6.5</p> |
| Sep., 2008 | SH (NA)-080320E-I | <div>Correction</div> <p>SAFETY PRECAUTIONS, Operating Instructions, Compliance with the EMC and Low Voltage Directives, Generic Terms and Abbreviations, Section 2.1, 2.4, 2.5, 3.1, 3.8.6, 4.1, 4.9.2, 4.10.1, 4.10.3, 8.2 to 8.10, 9.1, 9.3, Appendix 2, Appendix 5.1</p> <div>Addition</div> <p>Appendix 9</p> |

Japanese Manual Version SH-080319-K

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Operating Instructions

This section explains the precautions in the following order.

- 1) Precautions for network connection
- 2) Precautions for performance/specifications
- 3) Precautions for security
- 4) Precautions for tag function
- 5) Precautions for logging function
- 6) Precautions for user screen creating function
- 7) Precautions for other functions
- 8) Precautions for access to Web server module
- 9) Precautions for battery
- 10) Precautions for using Compact Flash™ card
- 11) Precautions for using redundant system

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| Precautions for network connection |
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- (1) Infrastructure for Internet connection
For devices applicable to the Web server module for the Internet connection or Internet service providers, refer to Section 2.4.
Note that Internet connection of the Web server module may not be available in some regions or in some countries depending on the Internet infrastructure.
In this case, please consult your local Mitsubishi service center or representative.
- (2) Connection to mail server or FTP server
Powering on the programmable controller immediately after powering it off may cause failure to connect to the mail server or FTP server. After powering it off, wait for several minutes before turning it on.

Precautions for performance and specifications

- (1) Performance of the Web server module and the system using the Web server module.
Performance of the Web server module and the system using the Web server module differs depending on the following factors.
Conduct verification by user prior to starting the system.
 - Operating environment (personal computer, network, and the CompactFlash™ card)
 - Loading status of the network
 - Sequence scan time
 - Accessing status from a personal computer, terminal display, or intelligent function module to the programmable controller CPU.
 - Accessing status of the Web server module from outside.
 - Settings of the Web server module
- (2) Number of writes to standard ROM (flash ROM)
Data can be written to the same area of a standard ROM up to 100,000 times, and there are some write restrictions (standard ROM drive life).
Refer to Section 3.1 **REMARKS** (1) for the life of the standard ROM drive and how to check the used condition.
- (3) Time handled by Web server module (Refer to Section 3.9)
Transfer delay may occur since the Web server module acquires the clock data from CPU No.1 at the following timings.
 - When the programmable controller is powered off and then on or CPU module is reset
 - Once per minute

Precautions for security

- (1) Security of the Web server module
The Web server module supports the basic authentication (account setting) by the user name and password and the IP filter function, however, it does not prevent all of illegal access from the outside.
Preventive measures must be taken by users against illegal access to ensure the programmable controller system safety. (Refer to Section 4.6.5 (3))

(2) Remote password function of QCPU

The remote password function of the QCPU is not used for the Web server module.

When restricting access to the QCPU, use the user authentication function of the Web server module.

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| Precautions for tag function |
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(1) Tag setting and component setting (Refer to Section 6.3.3)

- (a) When a component setting is deleted, the settings of the components after the deleted setting No. are shifted up.

When the component has been set in the user part of the user screen creation function, reexamine the parameters since the setting No. is changed. (Refer to Chapter 7 for user part details.)

- (b) If a component has a wrong device number in the component setting, the other component that will obtain the device of the same access target CPU will result in an error. Check the device number set in the component setting.

- (c) If the data type is set as "String" in the component setting, device values may be replaced.

(2) Tag sampled at high speed

- (a) Be sure to create a user-set system area in the program memory of the control CPU. (Refer to Section 6.3.3 **REMARKS**.)

- (b) "Sampling: High speed" can be registered to only one tag. (Multiple setting is not allowed)

- (c) The access target CPU of the tag component selected to execute "Sampling: High speed" is the access target CPU setting No. 1 (control CPU). (Fixed)

- (d) Total points of 96 or less can be set for the devices of the tag component selected to execute "Sampling: High speed".

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| Precautions for logging function |
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(1) Logging setting (Refer to Section 6.4.4)

- (a) When the logging file storage has been set to the standard ROM, pay attention to the free user area of the standard ROM or the number of writes to standard ROM.

- (b) E-mail transmission/File transfer requires several to several tens of seconds depending on the network line and data size.

Depending on the logging setting, the target file may be deleted before e-mail transmission or file transfer is completed.

Examine the settings, such as the timing, file capacity and number of saved files to increase the time to file deletion.

- (2) High-speed logging
 - (a) Be sure to create a user-set system area in the program memory of the control CPU. (Refer to Section 6.3.3 **REMARKS**.)
 - (b) A delay may occur in the logging interval depending on the scan time of the control CPU and the time of access from a peripheral device/intelligent function module to the programmable controller CPU.

Precautions for user screen creating function

- (1) User parts
 - (a) Be sure to set the must-be-set parameters of the user parts.
Failure to do so will result in an error.
 - (b) The file names and parameters of the user parts are not case sensitive.
 - (c) When the contents of a user screen have been changed, delete the temporary Internet files (cache), and then read the user screen on the Web browser.
(Refer to Section 6.2.7 (1) for how to delete the temporary Internet files.)
 - (d) The device value corresponding to the tag component specified in the user parts parameter must be retained for a time longer than the tag collection interval and communication time in the sequence program.
(Especially, be careful when accessing the user screen via the Internet.)
When the retention time of the device value is too short, value change may not be displayed in user parts accurately.
- (2) Sample screens
Sample screens for the user parts are available in the /ROM/WWW/USER/ directory of the Web server module.
Delete all sample screen files before starting actual operation. (To prevent write to the devices using the sample screens)
The sample screens can be restored by initializing the module. (Refer to Section 4.13.)

Precautions for other functions

- (1) Account setting (Refer to Section 4.6.5)
After completion of initial setting, make sure to register at least one account with administrator authority, and then connect to the network.
- (2) IP filter setting (Refer to Section 4.6.6)
 - (a) When using a mail server, FTP server, DHCP server, DNS server and/or router, do not block the IP packets of these devices.
To do so will disable communication with the above devices.
 - (b) When a proxy server exists on the LAN, block the IP address of the proxy server. If the IP packet from the proxy server is passed, access to the Web server module is available from a personal computer that can access the proxy server regardless of the other setting.
 - (c) When accessing the Web server module from a personal computer on the LAN, do not use the proxy server.

- (3) Access target CPU setting (Refer to Section 4.6.7)
 - (a) Web server module requires preparatory time to communicate with the access target CPU when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. Therefore, it may take several minutes before the communication will be available if many access target CPUs are set. Confirm that the setting update has been completed or the Web server module has been ready (X0 is on), and make access from the personal computer to the Web server module.
 - (b) Carefully set the "PLC series" of the access target CPU setting. A wrong "PLC series" setting will generate an error in the programmable controller CPU or module on the route to the access target CPU, and a response time-out error (error code: 0002h) is displayed on the Web server module.
- (4) Event setting (Refer to Section 6.5.3)

When the display form of the component is set to "Exponential" in the tag event setting, a rounding error is produced in the range outside the number of digits set in the number of decimal places.

Hence, when the exponential form component is set in the tag event setting, an event may not be detected correctly.

Refer to Section 6.5.3 (3) for the tag event setting.
- (5) Access log function (Refer to Section 6.8)

Though several login records may be registered for one login, it is not an error and means that several logins have been executed internally.
- (6) Data management function (Refer to Section 6.10)
 - (a) Backup

Do not alter the backup data. Using the altered backup data can cause the module to fail or malfunction.
 - (b) Restore

The setting information file of the product with first 5 digits of serial No. 05111 or earlier can be restored to the product with first 5 digits of serial No. 05112 or later.

However, the setting information file of the product with first 5 digits of serial No. 05112 or later cannot be restored to the product with first 5 digits of serial No. 05111 or earlier.
- (7) CSV export/import function (Refer to Section 6.10.3)
 - (a) When editing the setting information file, be sure to use the CSV-exported setting information file. The user should not create a new setting information file.
 - (b) CSV-import the setting information file in the procedure given in Section 6.10.3 (3).
 - (c) While CSV export/import is being executed in the data management, do not switch power from on to off, reset the CPU module, or perform management menu operation. To do so can cause the setting information file to be corrupted or cleared.

- (d) As the setting information file includes the password and other important information and its information may be obtained illegally, delete the file from the standard ROM or Compact Flash card after the setting is completed.

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| Precautions for access to Web server module |
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- (1) Monitor screen and user screen
 - (a) Since the monitor screens and user screen use the Java applet, JavaVM is required for the Web browser to execute the applet.
Refer to Section 3.1 **REMARKS** (2) and (3).
 - (b) Displaying each monitor screen and user screen may take a little while.
When displaying a monitor or user screen on the Web browser, do not switch the screen to another or update the setting until it is displayed completely.
 - (c) If communication is interrupted due to some reason while monitoring the system from a monitor or user screen, or if monitoring is executed before connecting the Web server module to the network, the monitor or user screen may not be correctly displayed on the Web browser even after restoration or restart of communications.
 - (c) If communication is interrupted while monitoring the system from the monitor screen, the monitor screen may not be displayed normally even after communication is restored.
 - (d) When using the Web server module in a local area, make setting in Local Area Network (LAN) Settings of the Web browser so that the proxy server is not used for the local address.
Refer to Section 4.5 (3).
 - (e) Values and states displayed on monitor and user screens may have been delayed.
Also, when more than one Web browser has been activated, the display timing varies among them.
 - (f) Select any other than "Never" for "Check for newer versions of stored pages" in the temporary Internet files settings of the Web browser.
If "Never" is set, the old screen (the one saved in the temporary Internet files) is displayed unchanged when the file is read from the Edit screen, etc.
Refer to Section 4.5 (3).
 - (g) The old screen (the one saved in the temporary Internet files) may be displayed unchanged if read is performed on the monitor screen and user screen, etc. In that case, delete the temporary Internet files (cache) of the Web browser and read it again.
Refer to Section 4.5 (3).
 - (h) In the security level setting of the Web browser, set the security level of the Internet and Intranet zones to "Default Level".
Refer to Section 4.5 (3).
 - (i) In the advanced settings of the Web browser, set to "Restore Defaults".
Refer to Section 4.5 (3).

- (j) When displaying the TOP page of the standard screen using an operating system and a Web browser of English version, do not click on the "Japanese" button provided for link to the Japanese version.
Doing so may display an incorrect screen.
 - (k) When displaying the standard screen of English version using an operating system and a Web browser of Japanese version, words and phrases used by the operating system (e.g. the "Cancel" button to a confirmation message) are displayed in Japanese.
- (2) Display of administrative menu screen
- (a) On individual administrative menu screens, make sure to click on the "Save" button after changing the settings.
Switching to another screen or ending the Web browser before clicking on the "Save" button deletes the new settings.
 - (b) Before complete screen is displayed, do not operate the buttons, etc.
- (3) Device test and tag component test
- (a) The device test or tag component test may affect the control of the programmable controller CPU. Ensure safety before execution.
 - (b) An error may be produced between the value set in the tag component setting and the actually written component value. (Refer to Section 6.2.2 (2).)
 - (c) In the tag component test, a rounding error may be produced when a real number is written to the target component. (Refer to Section 6.2.2 (2).)
- (4) FTP server function (Refer to Section 6.7.1)
- (a) It is required to end the FTP operation once and restart connection to FTP from the beginning if a wrong user name or password is entered to FTP, due to the restrictions on the FTP client side application.
Even when the correct user name or password is entered to "user" of the FTP command, FTP may not operate normally.
 - (b) The maximum number of simultaneous connections to the FTP server is 10. However, since several internal connections may be made simultaneously depending on the FTP client, login may not be allowed even if the number of connections does not seem to reach 10.
 - (c) If many files are transferred at once by FTP, a 426 (Data connection error) error may occur.
In that case, transfer the files not at once but several times.
 - (d) When a file of the Web server module is overwritten via FTP, the file will be deleted if an error occurs during write of the file.
Write the file again via FTP.
 - (e) In the case of FTP access by the Internet Explorer, the user authentication screen may not be displayed depending on the Internet Explorer's specifications.
In this case, enter the Web server module address as follows:

ftp://<User name>:<Password>@<Web server module address or host name>/

Precautions for battery

In any of the following cases, erasure of data (e.g. logging data) being processed, corruption of data in the standard ROM drive/Compact Flash™ card during access, or a file system fault may occur. (*)

- 1) When the battery is not replaced after battery error occurrence (Refer to Section 4.10.3)
 - 2) When shut-down operation is not performed before power off during operation without battery (Refer to Section 4.11)
 - 3) When the battery is removed without shut-down operation being performed (Refer to Section 4.12)
- * It is recommended to back up the standard ROM data (setting information, logging data, user HTML, etc.) to the Compact Flash™ card periodically in case of corruption of data in the standard ROM drive. (Refer to Section 6.10)

Precautions for use of Compact Flash™ card

- (1) Removal or replacement of Compact Flash™ card
 - (a) Be sure to stop file access before removing or replacing the Compact Flash™ card. (Refer to Section 4.9.2.)
 - (b) Failure to observe the procedures indicated in Section 4.9.2 may result in erasure of logging data during processing, corruption of data in the Compact Flash™ card during access, or a file system fault.
 - (c) If a Compact Flash™ card fault has occurred, refer to Section 9.1 (9) and restore the card.
- (2) Diagnostic time of Compact Flash™ card
 - (a) The Web server module executes diagnosis (including file restoration) of the Compact Flash™ card when:
 - 1) Power is turned OFF and ON, or the CPU module is reset.
 - 2) The Compact Flash™ card is inserted while the power is ON.
 - (b) The diagnostic time of the Compact Flash™ card is lengthened if many files are stored in the card.
It takes approx. 5 seconds for 100 files, and approx. 10 seconds for 1000 files.
 - (c) Since the following times may be lengthened due to too many files, delete unnecessary files.
 - 1) Rising time of the Compact Flash™ card setting status. (X1)
 - 2) Web server module's ready time. (Rising time of the Module READY (X0))
- (3) Compact Flash™ card formatting
 - (a) Use the formatting function of the Web server module to format the Compact Flash™ card. (Refer to Section 6.10.2.)
 - (b) Do not format the Compact Flash™ card on Windows® .
If it is formatted on Windows® by mistake, recover it according to the manual of the Compact Flash™ card.

- (4) Precaution for Compact Flash™ card lifetime (limited number of writes)
The Compact Flash™ card has its own lifetime (the limited number of writes).
For details, check the specifications of each product.
Since the lifetime of the Compact Flash™ card generally varies depending on its free space, it is advisable to use the card with sufficient free space.
For the size of the data written to the Compact Flash™ card, refer to Appendix 7.2.

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| Precautions for using redundant system |
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- (1) Applicable base units
When using the Web server module in a redundant system, always mount it to an extension base unit designed for redundant CPU/power supply systems.
The Web server module cannot be mounted to a main base unit in redundant systems.
- (2) Access target CPU setting
(a) If the Web server module is connected to a redundant CPU, it can access only the CPU of its own station.
Access to the other station's CPU is not allowed.
(b) If the Web server module is connected to any other than redundant CPUs, it cannot access redundant CPUs on other stations.
- (3) Tag setting
(a) When "Execute at high speed" has been selected for Sampling in Tag setting, always create two user-setting system areas of the same size in the redundant CPUs on both systems. (Refer to Section 6.3.3 REMARKS.)
(b) If system switching occurs in the redundant CPUs, tag collection may stop for approx. 15 seconds.
- (4) Dedicated instructions
When the Web server module is connected to a redundant CPU, dedicated instructions are not executable.
If instruction execution is attempted, an "OPERATION ERROR" will occur in the redundant CPU.
However, some of the dedicated instructions may be executable using the Web server module functionalities.
(a) WMSEND instruction
Please consider sending E-mails by the event monitor function or the logging function. (Refer to Section 6.6.1.)
(b) FTPPUT and FTPGET instructions
Please consider using the FTP server function. (Refer to Section 6.7.1.)
(c) TAG instruction
Please consider collecting tags by the tag setting. (Refer to Section 6.3.3.)
(d) LOG and LOGDEL instructions
Please consider logging data based on the logging setting. (Refer to Section 6.4.4.)

INTRODUCTION

Thank you for purchasing the Mitsubishi MELSEC-Q series general-purpose programmable controller. Before using the equipment, please read this manual carefully to fully understand the functions and performance of the Q series programmable controller so as to ensure correct use.

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Compliance with the EMC and Low Voltage Directives

(1) For programmable controller system

To configure a system meeting the requirements of the EMC and Low Voltage Directives when incorporating the Mitsubishi programmable controller (EMC and Low Voltage Directives compliant) into other machinery or equipment, refer to Chapter 9 "EMC AND LOW VOLTAGE DIRECTIVES" of the QCPU User's Manual (Hardware Design, Maintenance and Inspection).

The CE mark, indicating compliance with the EMC and Low Voltage Directives, is printed on the rating plate of the programmable controller.

(2) For the product

For the compliance of this product with the EMC and Low Voltage Directives, refer to Section 9.1.3 "Cables" in Chapter 9 "EMC AND LOW VOLTAGE DIRECTIVES" of the QCPU User's Manual (Hardware Design, Maintenance and Inspection).

How to Use This Manual

For the Web server module (QJ71WS96), the explanation sections are indicated by the purpose of use. Use this manual, when you need to know the following.

(1) Features, functions and components

- (a) Features and functions
 - 1) Chapter 1 describes the features of the Web server module.
 - 2) Chapter 3 describes the common functions, specifications, etc. of the Web server module.
- (b) Supplied products and network components
 - 1) The "Packing List" before Chapter 1 indicates the products included with shipment of the Web server module.
 - 2) Chapter 2 describes the system configuration of the Web server module. Parts and members other than the supplied products should be obtained by users separately.

(2) Procedures required before startup of the Web server module

- (a) Startup procedure

Section 4.2 describes the rough procedure prior to the operation of the Web server module.
- (b) Connection to the Internet
 - 1) Section 2.2 describes the devices required for network connection.
 - 2) Section 4.4 describes the network connection method by connection type.
 - 3) Chapter 5 describes the examples of connection to the network.
- (c) Processing required before startup of the Web server module
 - 1) Section 4.6 describes the setting from the Web browser to use the Web server module.
 - 2) Section 3.5 list the items of setting made from the Web browser. After confirming the descriptions of the setting items, set the parameters according to the detailed explanation sections.
- (d) How to check whether the Web server module is faulty or not

Section 4.8 describes the self-diagnostic function of the Web server module.
- (e) How to check the connection with the external device for a fault

Section 6.11 describes how to conduct the PING test, e-mail transmission test, file transfer test, etc.

(3) Functions of the Web server module

Chapter 6 describes the functions of the Web server module.

(4) How to create user-original HTML screens

Chapter 7 describes the Mitsubishi-supplied parts that can be used on user-created HTML screens.

(5) Error check and corrective action

Chapter 9 provides the troubleshooting, how to check the error code, and error code list.

(6) Enhancement of the Web server module functions

Appendix 5 describes the enhancement of the Web server module functions.

Generic Terms and Abbreviations

Unless otherwise specified, this manual uses the following generic terms and abbreviations to explain the QJ71WS96 Web server module.

| Generic Term/Abbreviation | Description |
|----------------------------|--|
| ACPU | Generic term for A1NCPU, A0J2HCPU, A1SCPU, A1SCPU-S1, A1SHCPU, A1SJCPU, A1SJHCPU, A2CCPU, A2CJCPU, A2NCPU, A2NCPU-S1, A2SCPU, A2SCPU-S1, A2SHCPU, A2SHCPU-S1, A2ACPU, A2ACPU-S1, A2UCPU, A2UCPU-S1, A2USCPU, A2USCPU-S1, A2ASCPU, A2ASCPU-S1, A2ASCPU-S30, A2USHCPU-S1, A3NCPU, A3ACPU, A3UCPU, and A4UCPU |
| CC-Link | Abbreviation for Control & Communication Link. |
| Ethernet | Generic term for 100BASE-TX, 10BASE-T, 10BASE5, and 10BASE2 network systems |
| Ethernet module | Generic term for E71, QE71 or Q series corresponding E71 |
| E71 | Generic term for AJ71E71N3-T, AJ71E71N-B5, AJ71E71N-B2, A1SJ71E71N3-T, A1SJ71E71N-B5, and A1SJ71E71N-B2 |
| FTPGET | Abbreviation for Z.FTPGET and ZP.FTPGET |
| FTPPUT | Abbreviation for Z.FTPPUT and ZP.FTPPUT |
| GX Developer | Generic product name for product types SWnD5C-GPPW-E, SWnD5C-GPPW-EA, SWnD5C-GPPW-EV, and SWnD5C-GPPW-EVA (n indicates Version 4 or later) -EA means a volume license product, and -EV an upgraded product. |
| LOG | Abbreviation for Z.LOG and ZP.LOG |
| LOGDEL | Abbreviation for Z.LOGDEL and ZP.LOGDEL |
| MELSECNET/H | Abbreviation for Q corresponding MELSECNET/H network system |
| MELSECNET/10 | Abbreviation for AnU or QnA/Q4AR corresponding MELSECNET/10 network system |
| QCPU (A mode) | Generic term for Q02CPU-A, Q02HCPU-A, and Q06HCPU-A |
| QCPU (Q mode) | Generic term for Q00JCPU, Q00CPU, Q01CPU, Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, Q25HCPU, Q02PHCPU, Q06PHCPU, Q12PHCPU, Q25PHCPU, Q12PRHCPU, Q25PRHCPU, Q02UCPU, Q03UDCPU, Q04UDHCPU, Q06UDHCPU, Q13UDHCPU, Q26UDHCPU, Q03UDECPU, Q04UDEHCPU, Q06UDEHCPU, Q13UDEHCPU and Q26UDEHCPU |
| QC24(N) | Generic term for AJ71QC24, AJ71QC24-R2, AJ71QC24-R4, A1SJ71QC24, A1SJ71QC24-R2, AJ71QC24N, AJ71QC24N-R2, AJ71QC24N-R4, A1SJ71QC24N, A1SJ71QC24N-R2, A1SJ71QC24N1, and A1SJ71QC24N1-R2 |
| QE71 | Generic term for AJ71QE71N3-T, AJ71QE71N-B5, AJ71QE71N-B2, A1SJ71QE71N3-T, A1SJ71QE71N-B5, and A1SJ71QE71N-B2 |
| QnACPU | Generic term for Q2ACPU, Q2ACPU-S1, Q2ASCPU, Q2ASCPU-S1, Q2ASHCPU, Q2ASHCPU-S1, Q3ACPU, Q4ACPU, and Q4ARCPU |
| Q series corresponding C24 | Generic term for QJ71C24N, QJ71C24N-R2, QJ71C24N-R4, QJ71C24, and QJ71C24-R2 |
| Q series corresponding E71 | Generic term for QJ71E71-100, QJ71E71-B5, and QJ71E71-B2 |
| TAG | Abbreviation for Z.TAG and ZP.TAG |
| UC24 | Generic term for AJ71UC24, A1SJ71UC24-R2, A1SJ71UC24-R4, A1SJ71UC24-PRF, A1SJ71C24-R2, A1SJ71C24-R4, A1SJ71C24-PRF, A1SCPUC24-R2, A2CCPUC24, and A2CCPUC24-PRF |
| Web browser | Term for software used to locate and display Web pages |
| Web server module | Abbreviation for QJ71WS96 Web server module |

| Generic Term/Abbreviation | Description |
|--|--|
| WFDEL | Abbreviation for Z.WFDEL and ZP.WFDEL |
| WFREAD | Abbreviation for Z.WFREAD and ZP.WFREAD |
| WFWRITE | Abbreviation for Z.WFWRITE and ZP.WFWRITE |
| WMSEND | Abbreviation for Z.WMSEND and ZP.WMSEND |
| Computer link module (serial communication module) | Generic term for UC24, QC24(N), and Q series corresponding C24 Described as a serial communication module when specifying QC24(N) or Q series corresponding C24 |
| Switch setting | Abbreviation for intelligent function module switch setting |
| Personal computer | Abbreviation for IBM PC/AT or compatible DOS/V-based personal computer |

Meanings and Definitions of Terms

The following table indicates the meanings and definitions of the terms used in the manual of the Web server module.

| Term | Description |
|---------------------------------|--|
| ADSL | ADSL is an abbreviation for Asymmetric Digital Subscriber Line. This service enables high-speed data communication using the existing analog telephone line. |
| CGI | CGI is an abbreviation for Common Gateway Interface. This technology starts the program on the server and displays the execution result of the program on the Web browser. |
| CHAP | CHAP is an abbreviation for Challenge Handshake Authentication Protocol. This authentic method is used for the PPP connection. |
| Compact Flash card (CF) | A storage card stipulated in the "CF+ and Compact Flash Specification" published by the Compact Flash Association. |
| DHCP | DHCP is an abbreviation for Dynamic Host Configuration Protocol. This protocol automatically assigns the IP address, subnet mask, DNS server address, etc. in response to a request from the DHCP client. |
| DNS | DNS is an abbreviation for Domain Name System. This system translates IP addresses into domain names easy for the user to remember and manages them. |
| FTP | FTP is an abbreviation for File Transfer Protocol. This protocol is designed to transfer a file. |
| HTML | HTML is an abbreviation for Hyper Text Markup Language. This language is used to describe Web pages. |
| HTTP | HTTP is an abbreviation for Hyper Text Transfer Protocol. This protocol is designed to send/receive the WWW data (World Wide Web) of the Internet. |
| ICMP | ICMP is an abbreviation for Internet Control Message Protocol. This protocol is designed to transfer errors that occur on the IP network and various data related to the network. |
| ISP (Internet service provider) | ISP is an abbreviation for Internet Service Provider. It is a company that provides services for connection to the Internet. |
| NAT | NAT is an abbreviation for Network Address Translator. This function makes conversion between the private IP address and global IP address. |
| PAP | PAP is an abbreviation for Password Authentication Protocol. This authentic method is used for the PPP connection. |
| POP3 | POP3 is an abbreviation for Post Office Protocol Ver. 3. This protocol is designed to transfer e-mail received by the mail server to the local computer. |
| POP before SMTP | This system performs user authentication with the POP server when e-mail is sent. |
| PPP | PPP is an abbreviation for Point to Point Protocol. This protocol is used for one-to-one computer connection. |
| SMTP | SMTP is an abbreviation for Simple Mail Transfer Protocol. This protocol is designed to transfer e-mail. |
| SSI | SSI is an abbreviation for Server Side Include. This technology replaces the part described in SSI format with the server side processing result when the server returns HTML to the client. |
| Tag | Tag is a data table in which data (components) required to make access to the device data of the programmable controller CPUs on the network are set as one. |
| UPnP | UPnP is an abbreviation for Universal Plug and Play. This standard is stipulated to easily connect the personal computer, peripheral device, etc. connected to the Internet. |
| URL | URL is an abbreviation for Uniform Resource Locator. It represents a place on the Internet. |

Packing List

The following table indicates the products that comprise the Web server module.

| Model Name | Product Name | Quantity |
|------------|----------------------------|----------|
| QJ71WS96 | QJ71WS96 Web server module | 1 |
| | Battery (Q6BAT) | 1 |

1 OVERVIEW

1

This manual provides the specifications, preparatory procedures, functions, troubleshooting, etc. of the MELSEC-Q Series QJ71WS96 Web server module (hereafter referred to as the Web server module).

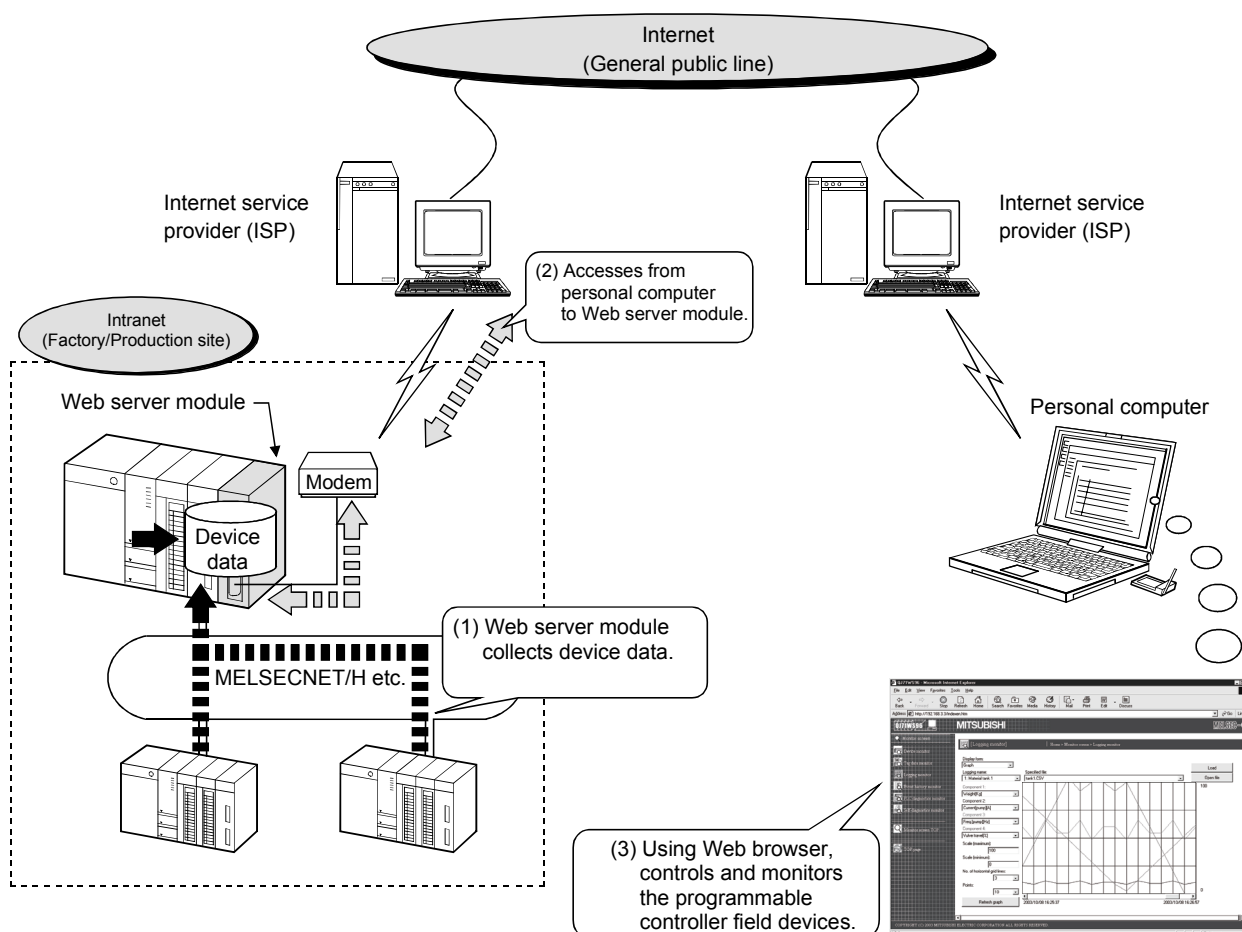
When applying the following program examples to the actual system, make sure to examine the applicability and confirm that it will not cause system control problems.

1.1 Features

This section explains the features of the Web server module.

(1) Remote monitoring of programmable controller CPU via Internet

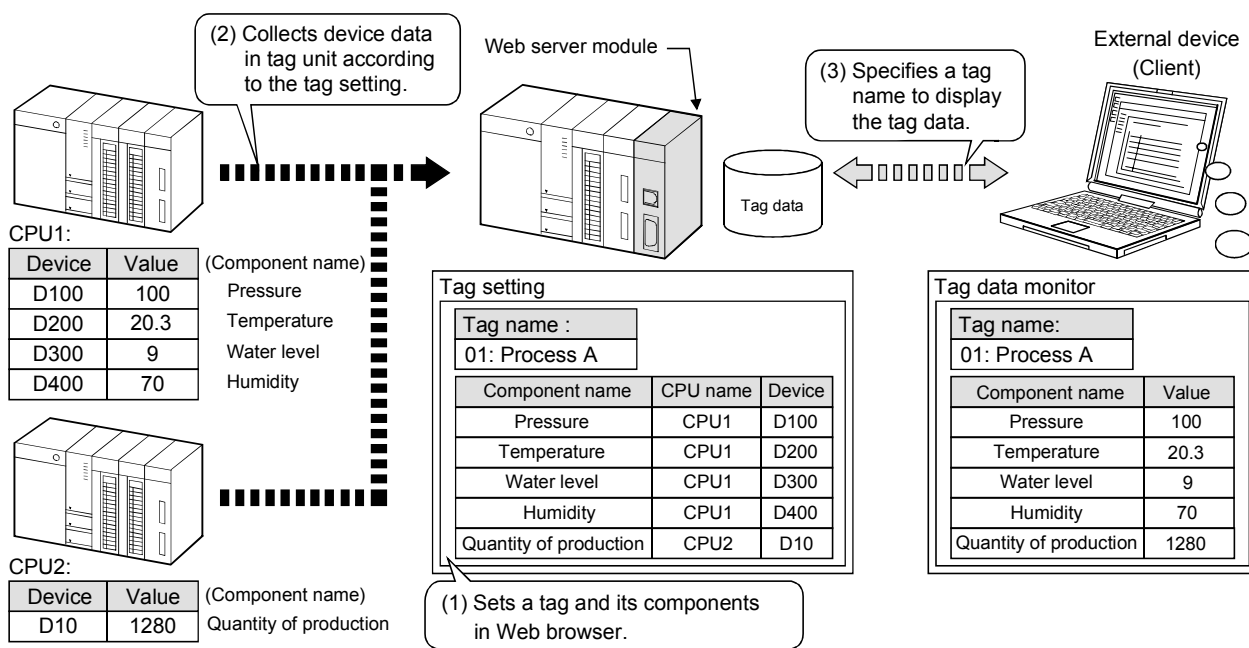
The Web server function allows users to monitor programmable controller CPUs at a remote location using a commercially available Web browser on a personal computer connected to the Internet/Intranet.



(2) Collection/Display of tag data (Tag function)

A set of individual programmable controller CPU's device data on a network is entered as a tag and the Web server module collects those device data in tag unit.

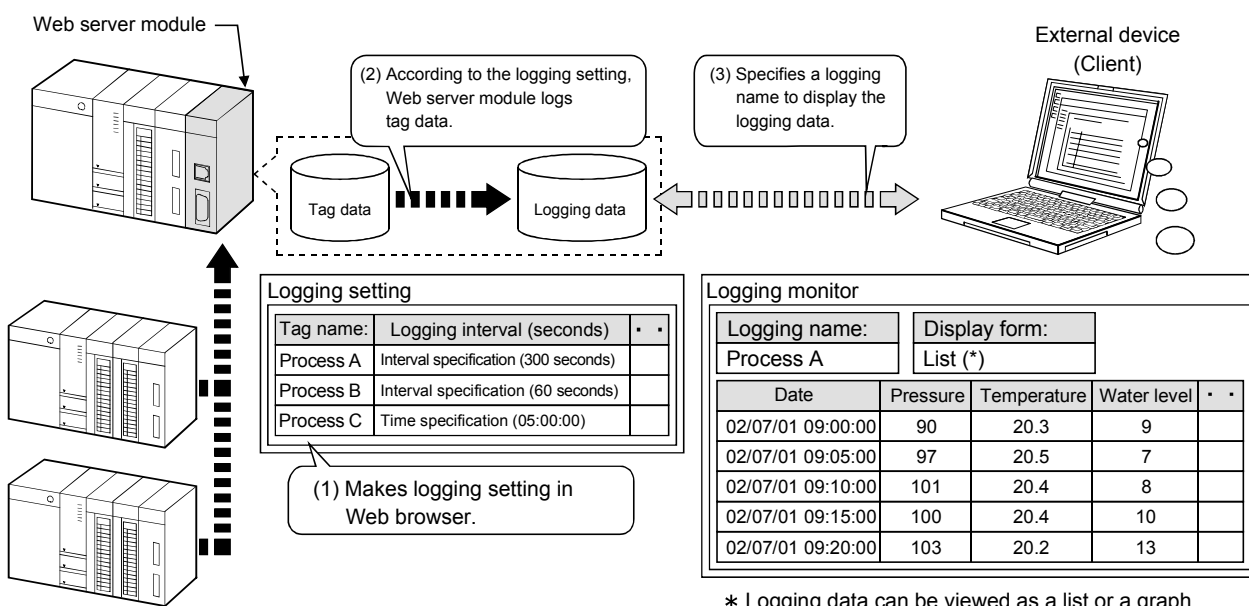
The collected data can be displayed in a Web browser by specifying a tag name.



(3) Display of tag data logging/logging result (Logging function)

Tag data can be stored as a CSV file in time series at the user-specified execution timing (by setting timing, start/stop condition).

The stored file can be displayed in a Web browser or downloaded by FTP operation, etc.

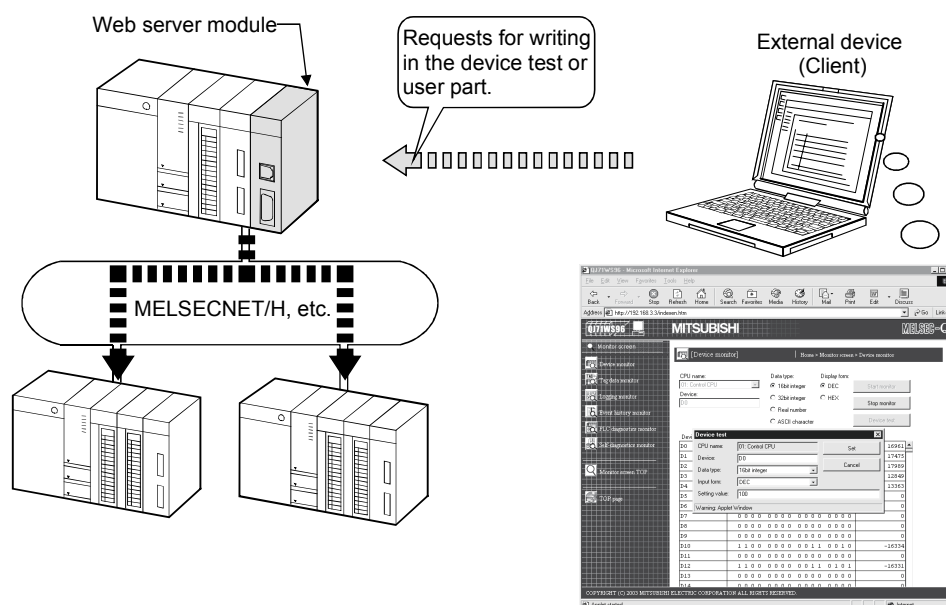


* Logging data can be viewed as a list or a graph.

(4) Data write from Web browser to programmable controller CPU

Using the standard screen or user screen, device data or tag data can be written from the Web browser to the programmable controller CPUs.

While data can be written in word unit, ON/OFF data can be used for ON/OFF operation in bit unit.

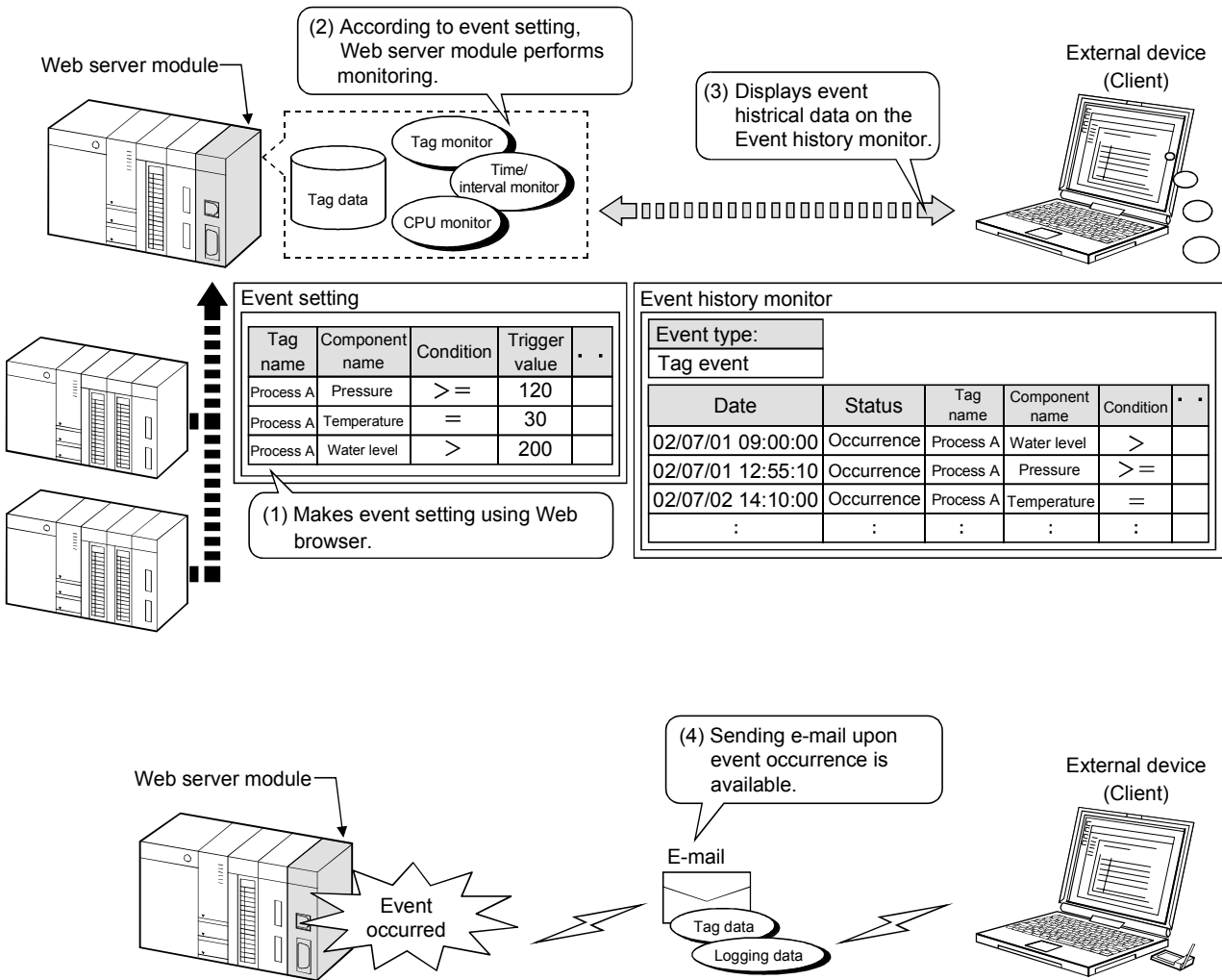


(5) Event monitoring/History display (Event monitor function)

The Web server module can monitor the programmable controller CPU status (CPU monitor), tag data (tag monitor) and time (time/interval monitor), and store the historical data of occurred events into CSV files.

The stored files can be displayed in a Web browser or downloaded by FTP operation.

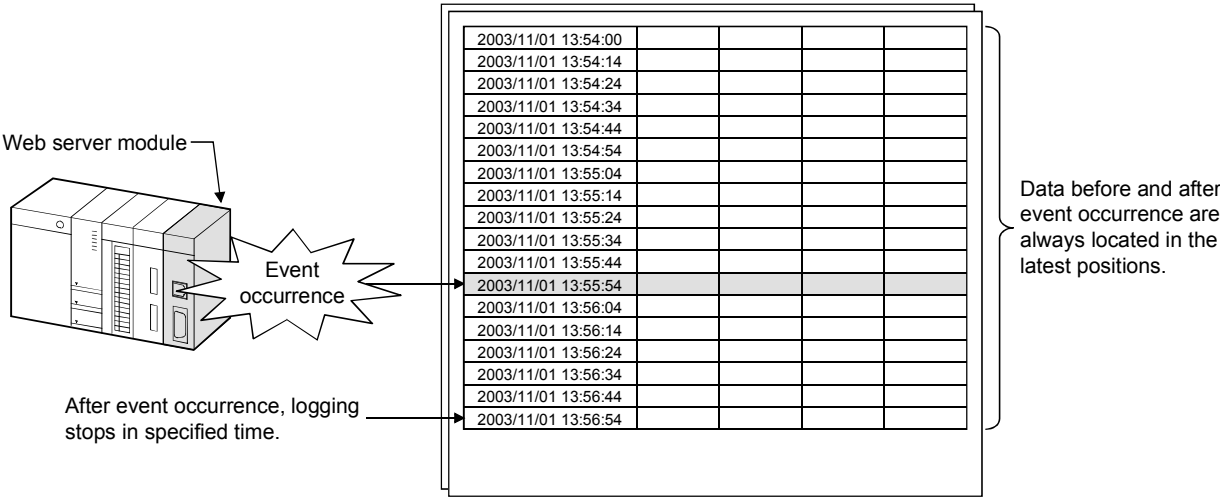
The e-mail transmission at event occurrence is also available.



(6) Storage of logging data before and after event occurrence (Logging function)

By setting the occurrence of an event as the start/stop condition of logging, logging data before and after event occurrence can be stored.

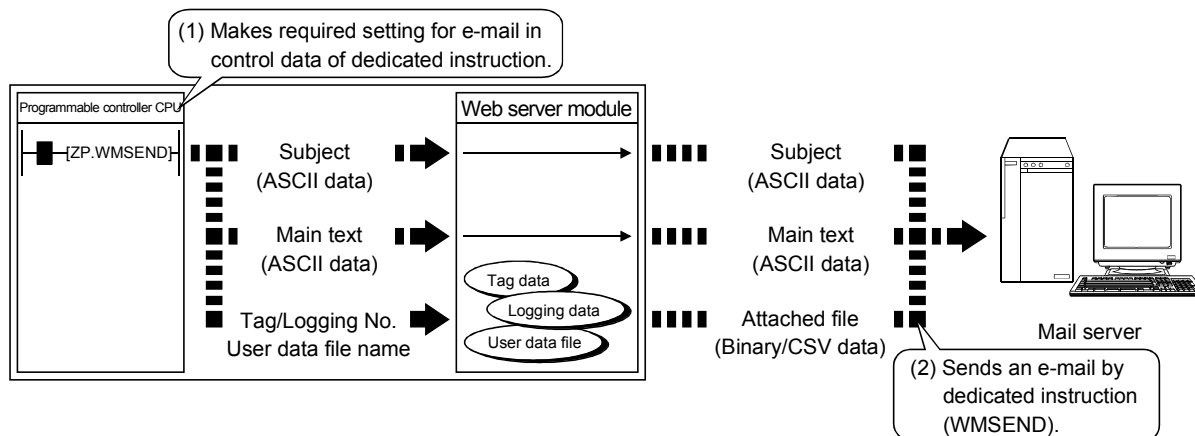
This enables only necessary data to be stored without the logging data before and after event occurrence being buried in the file.



(7) Data transmission/Alarm notification by e-mail (E-mail function)

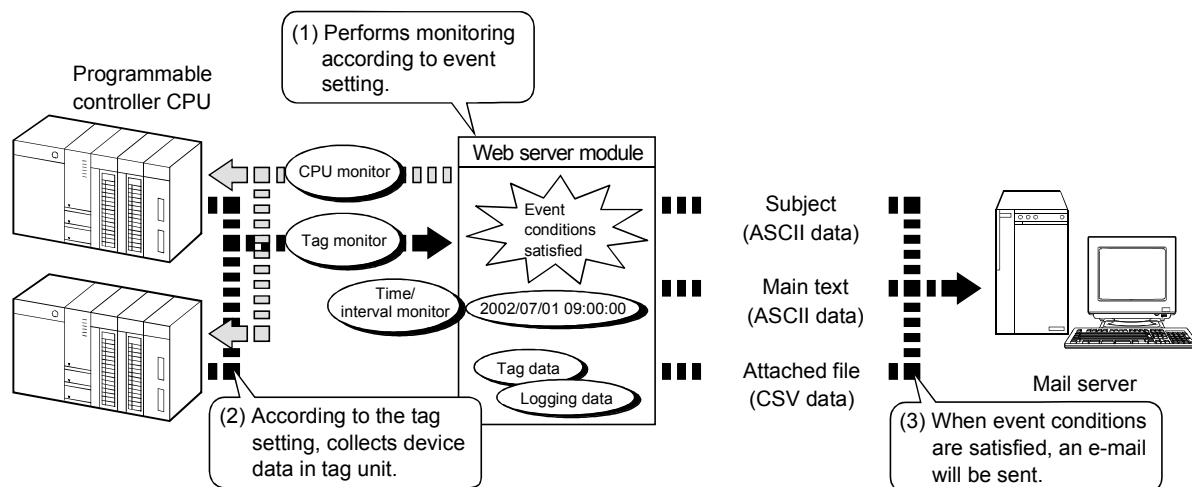
(a) E-mail transmission by programmable controller CPU

With the dedicated instruction (WMSSEND), a tag data/logging data/user data file can be sent as an attached file of e-mail.



(b) E-mail transmission by event monitor function

Event setting enables transmission of an event data, tag data or logging data by e-mail when an event occurs.

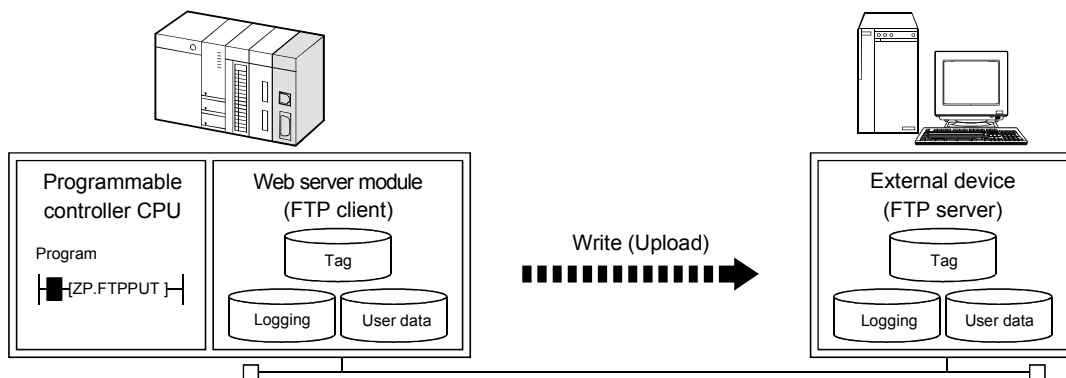


(8) Read/Write of file by FTP (FTP function)

(a) FTP client function

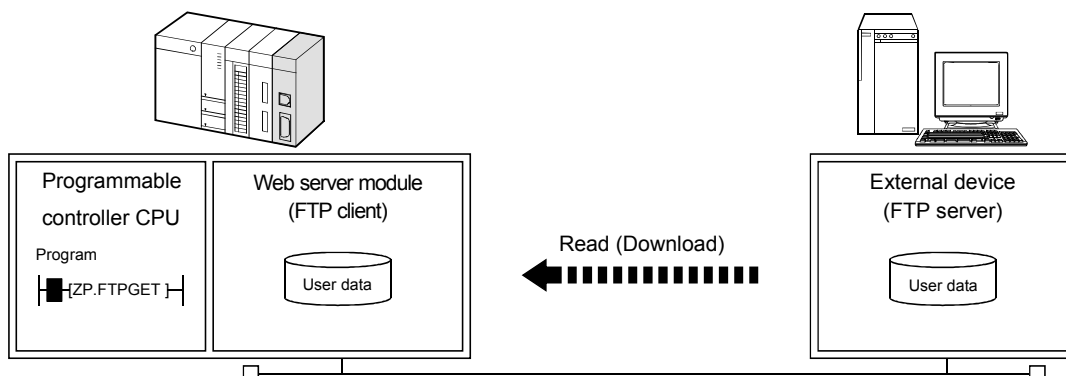
1) FTPPUT instruction

The tag data/logging data/user data file stored in the Web server module can be written to an external device (FTP server).



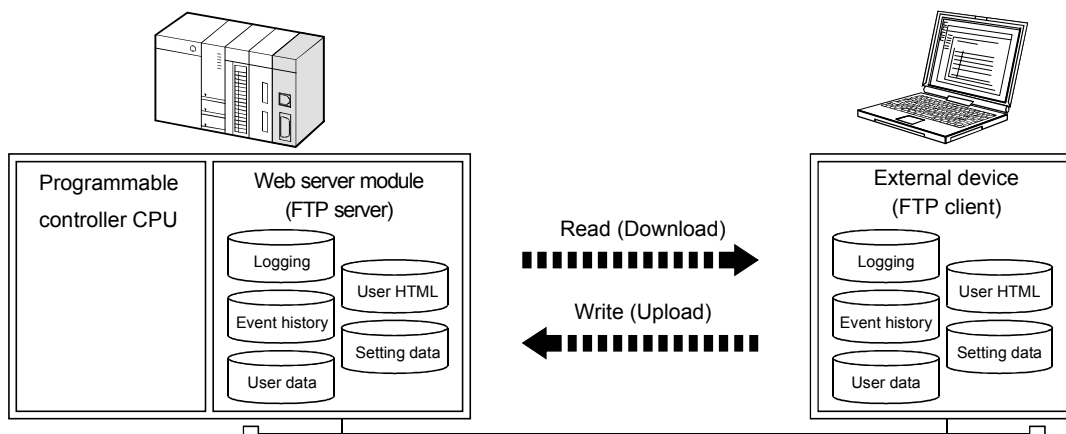
2) FTPGET instruction

The user data file stored in the external device (FTP server) can be read to the Web server module.



(b) FTP server function

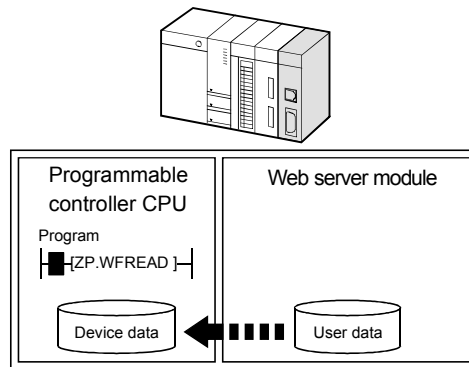
The files stored in the Web server module can be read/written from the external device (FTP server).



(9) Read/write of user data file by programmable controller CPU
(Dedicated instructions)

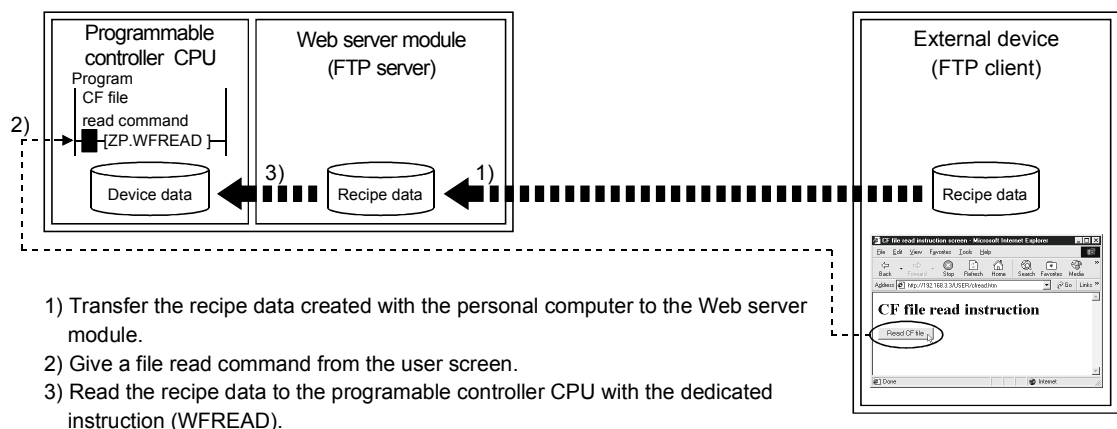
(a) WFREAD instruction

The user data file on the compact flash card mounted on the Web server module can be read to the device data of the programmable controller CPU.



(Example) User data file reading

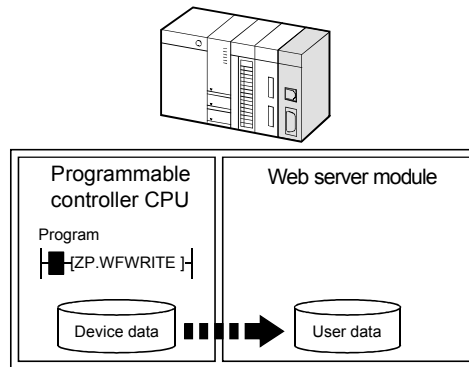
Transfer the recipe data created with the personal computer to the Web server module, and read the data from the Web server module to the device data of the programmable controller CPU with the WFREAD instruction. (*1)



* 1 File transfer to the Web server module can also be performed with the dedicated instruction (FTPGET).

(b) WFWRITE instruction

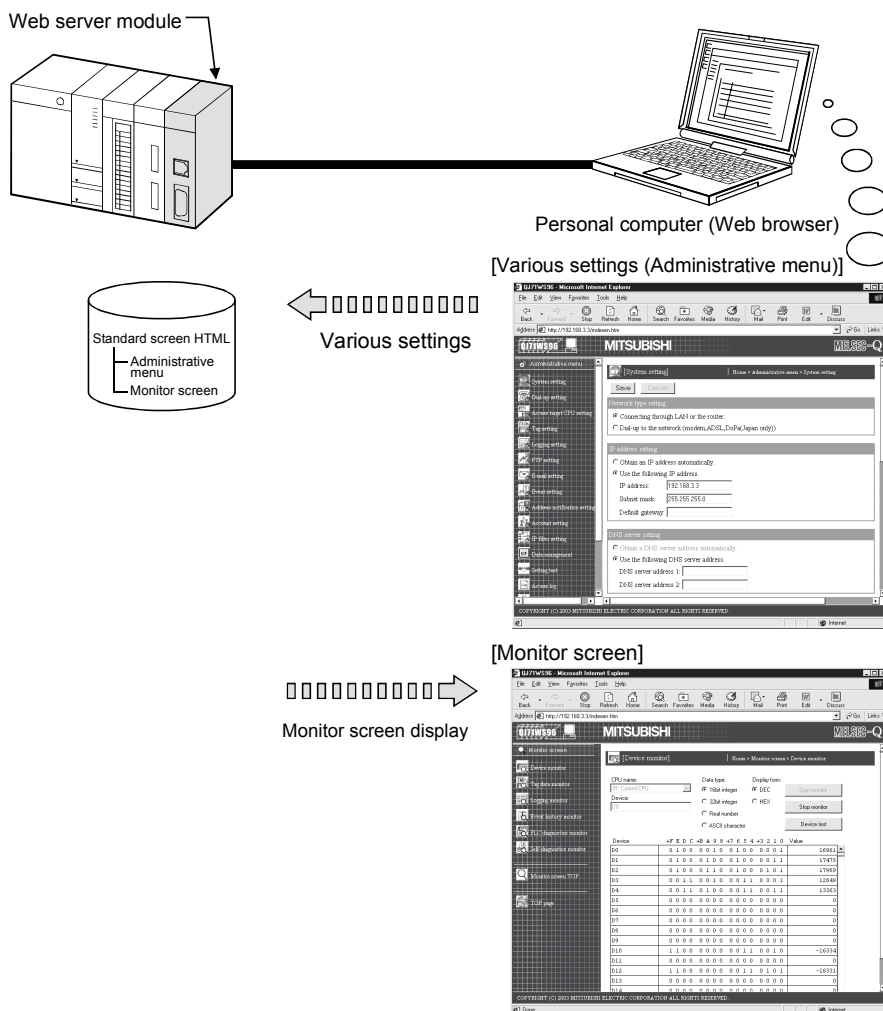
The device data of the programmable controller CPU can be written to the user data file of the compact flash card mounted on the Web server module.



(10) Easy Web server (Web server module) system configuration by setting in Web browser

Setting in a Web browser allows easy Web server system configuration.

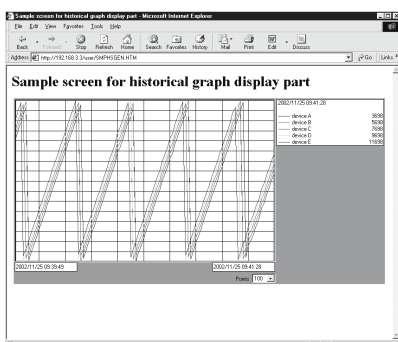
Once the Web server module is connected to the network, users can monitor device data on the standard screen of the Web server module.



(11) Creation of user screens using parts supplied as standard

Creating HTML files using the standard-supplied user parts (applet, SSI, CGI parts) allows the user to make original Web screens.

[Applet parts]

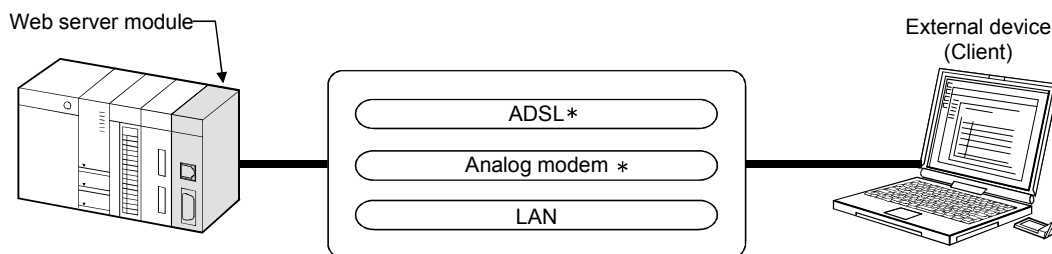


[SSI, CGI parts]

Sample screen for CGI write part

(12) Compatibility with a variety of connection methods

- (a) A connection method that meets a user's network environment can be selected.



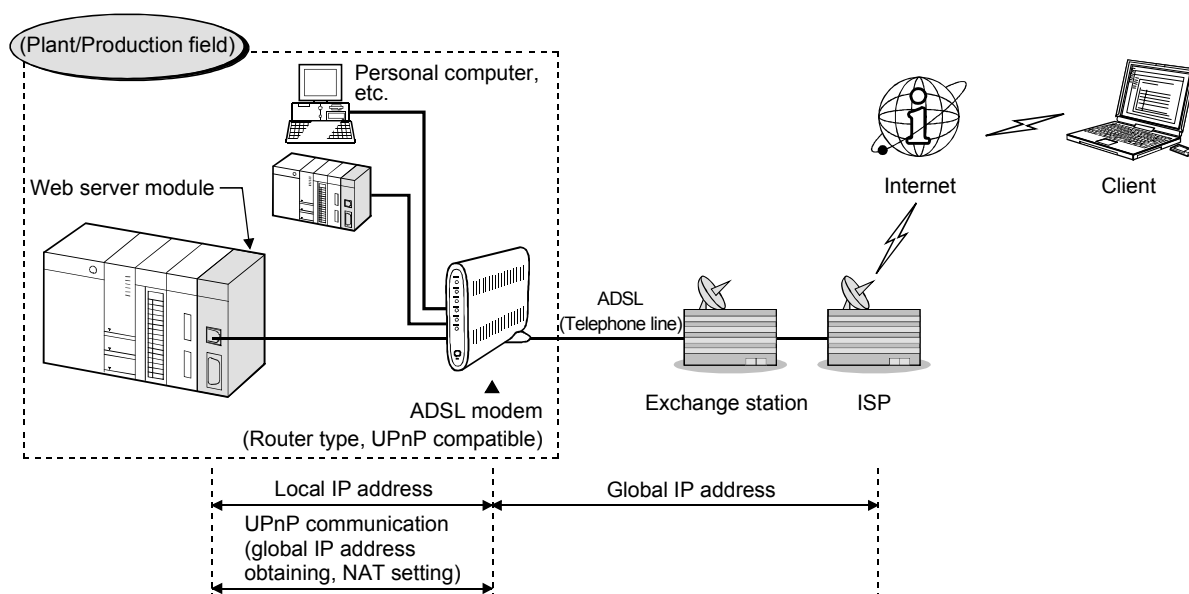
* For connection to the Internet, sign-up with the Internet service provider is required in advance.

- (b) The Web server module can be connected to an ADSL line via a UPnP-compatible broadband router.
- 1) By merely connecting the Web server module to an ADSL line, it can be connected to the network without taking account of the NAT setting of the router.
 - 2) In the environment where a global IP address is dynamically assigned, the Web server module can obtain the global IP address from the router and notify the client of the address.

(Example) Using ADSL modem (router type, UPnP compatible)

Using the router type ADSL modem, a single ADSL line can be shared with the personal computer, etc.

Using the security functions, e.g. firewall and VPN, of the router prevents illegal entrance from external networks.



(13) Seamless access beyond network hierarchies

Using the Web server module as a gateway, the statuses of the programmable controller CPUs connected hierarchically with Ethernet, MELSECNET/H and/or CC-Link can be monitored and those data can be collected.

(14) High capacity and backup memory

(a) Processing of large data volume

Large volume of data that is beyond capability of the programmable controller CPU can be processed using the standard ROM and Compact Flash™ card.

Saving device data in file format and accessing them from a remote location is available using Web browser or FTP.

(b) Backup/Restoration of standard ROM data

The data (setting information, logging data, user HTML, etc.) of the standard ROM can be backed up on the Compact Flash™ card. It is also possible to restore the data of the Compact Flash™ card onto the standard ROM.

(c) Power off without shut-down operation

The file protection battery allows power to be switched on/off any time without troublesome shut-down operation. (When a battery is installed)

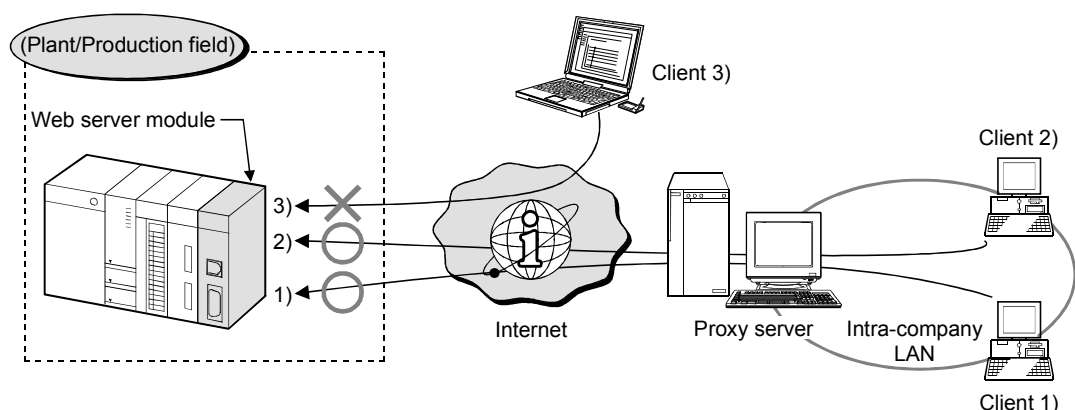
(15) Prevention of illegal access by user authentication and IP filter functions

(a) By basic authentication of the user name and password, the Web server module can restrict access of users and setting operations.
(User authentication function)

(b) The IP address of the access source can be identified to restrict access.
(IP filter function)

(Example) Using IP filter function

When access is made from an intra-company LAN (client 1), 2)), registering the IP address of the proxy server to the IP filter shuts off external access (client 3)), enabling access from only the intra-company LAN.



2 SYSTEM CONFIGURATION

This chapter explains the system configuration of the Web server module.

2.1 Applicable Systems

(1) Applicable modules and base units, and No. of modules
(a) When mounted with a CPU module

The table below shows the CPU modules and base units applicable to the Web server module and quantities for each CPU model.

Depending on the combination with other modules or the number of mounted modules, power supply capacity may be insufficient.

Pay attention to the power supply capacity before mounting modules, and if the power supply capacity is insufficient, change the combination of the modules.

| Applicable CPU module | | | No. of modules (*1) | Base unit (*2) | |
|-----------------------------|-------------------------------------|-----------|------------------------|----------------|---------------------|
| CPU type | | CPU model | | Main base unit | Extension base unit |
| Programmable controller CPU | Basic model QCPU | Q00JCPU | 8 | ○ | ○ |
| | | Q00CPU | 24 | | |
| | | Q01CPU | | | |
| | High Performance model QCPU | Q02CPU | 64 | ○ | ○ |
| | | Q02HCPU | | | |
| | | Q06HCPU | | | |
| | | Q12HCPU | | | |
| | | Q25HCPU | | | |
| | Process CPU (*6) | Q02PHCPU | 64 | ○ | ○ |
| | | Q06PHCPU | | | |
| | | Q12PHCPU | | | |
| | | Q25PHCPU | | | |
| | Redundant CPU (*3) (*4) (*7) | Q12PRHCPU | 53 | × | ○ |
| | | Q25PRHCPU | | | |
| | Universal model QCPU (*5) (*6) (*7) | Q02UCPU | 36 | ○ | ○ |
| Q03UDCPU | | 64 | | | |
| Q04UDHCPU | | | | | |
| Q06UDHCPU | | | | | |
| Q13UDHCPU | | | | | |
| | Q26UDHCPU | | | | |

(Continued on the next page)

(From the preceding page)

| Applicable CPU module | | | No. of modules (*1) | Base unit (*2) | |
|-----------------------------|--|-------------|------------------------|----------------|---------------------|
| CPU type | | CPU model | | Main base unit | Extension base unit |
| Programmable controller CPU | Universal model QCPU (*5) (*6) (*7) | Q03UDECPU | 64 | ○ | ○ |
| | | Q04UDEHCPU | | | |
| | | Q06UDEHCPU | | | |
| | | Q13UDEHCPU | | | |
| | | Q26UDEHCPU | | | |
| | Safety CPU | QS001CPU | N/A | × | × |
| C Controller module | | Q06CCPU-V | N/A | × | × |
| | | Q06CCPU-V-B | | | |

○: Applicable, ×: N/A

- *1 Limited within the range of I/O points for the CPU module.
- *2 Can be installed to any I/O slot of a base unit.
- *3 Use the Web server module whose serial No.(first five digits) is 09012 or later.
- *4 The redundant CPU can access its own station only.
Access to another station is not allowed.
- *5 For the Q02U/Q03UD/Q04UDH/Q06UDHCPU
Use the Web server module whose serial No.(first five digits) is 09012 or later.
- *6 For the Q02PH/Q06PHCPU and Q13UDH/Q26UDH/Q03UDE/Q04UDEH/
Q06UDEH/Q13UDEH/Q26UDEHCPU
Use the Web server module whose serial No.(first five digits) is 10012 or later.
- *7 GX RemoteService-I cannot be used.
If it is used for a redundant CPU or Universal model CPU, it does not function normally.

| POINT |
|---|
| Use a Web server module appropriate to each CPU module. If an unsupported one is used for a CPU module, it does not function normally. |

- (b) When mounting to remote I/O station of MELSECNET/H
The Web server module cannot be mounted to remote I/O station of the MELSECNET/H.
Mount it next to the CPU module on the master station.

(2) Application to multiple CPU system

The Web server module is compatible with a multiple CPU system.

When using the Web server module in a multiple CPU system, refer to the QCPU User's Manual (Multiple CPU System).

The Web server module is compatible with the multiple CPU system with function version B from the first product.

(3) Compatible software package

The following table shows the systems where the Web server module will be used and the corresponding software package.

It should be noted that GX Developer is not capable of accessing the programmable controller CPU via the Web server module.

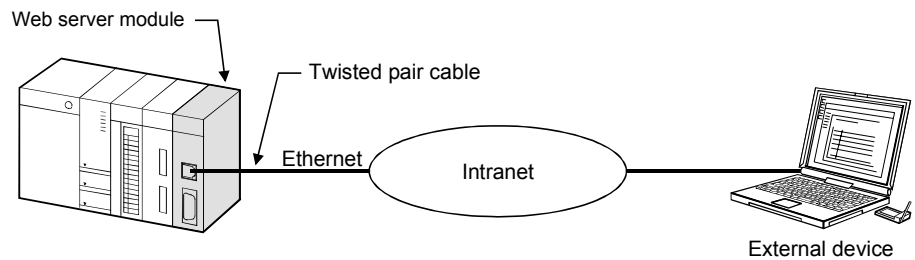
| | | Software version |
|---|---------------------|------------------------|
| | | GX Developer |
| Q00J/Q00/Q01CPU | Single CPU system | Version 7 or later |
| | Multiple CPU system | Version 8 or later |
| Q02/Q02H/Q06H/Q12H/Q25HCPU | Single CPU system | Version 4 or later |
| | Multiple CPU system | Version 6 or later |
| Q02PH/Q06PHCPU | Single CPU system | Version 8.68W or later |
| | Multiple CPU system | |
| Q12PH/Q25PHCPU | Single CPU system | Version 7.10L or later |
| | Multiple CPU system | |
| Q12PRH/Q25PRHCPU | Redundant system | Version 8.45X or later |
| Q02U/Q03UD/Q04UDH/Q06UDHCPU | Single CPU system | Version 8.48A or later |
| | Multiple CPU system | |
| Q13UDH/Q26UDHCPU | Single CPU system | Version 8.62Q or later |
| | Multiple CPU system | |
| Q03UDE/Q04UDEH/Q06UDEH/Q13UDEH/Q26UDEHCPU | Single CPU system | Version 8.68W or later |
| | Multiple CPU system | |

2.2 Network Connections

This section explains the connection methods of the Web server module to the network.

(1) LAN connection

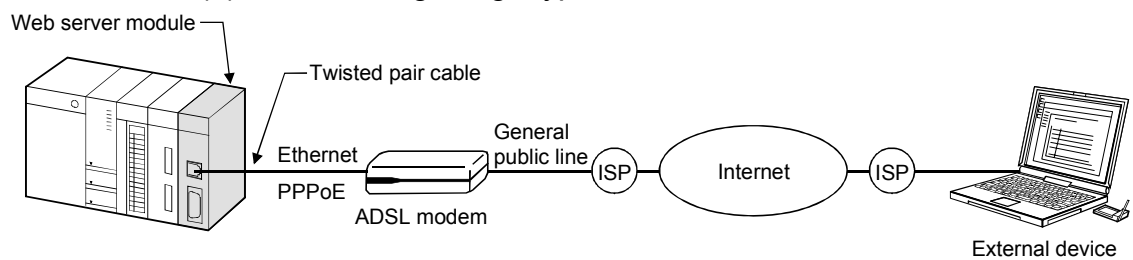
The Web server module can be connected to a LAN using the 10BASE-T/100BASE-TX interface.



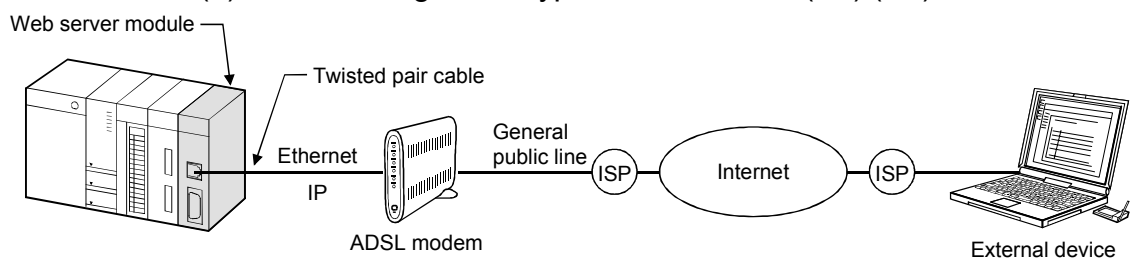
(2) Connection via ADSL modem

The Web server module can be connected to the Internet through ADSL modem using 10BASE-T/100BASE-TX interface.

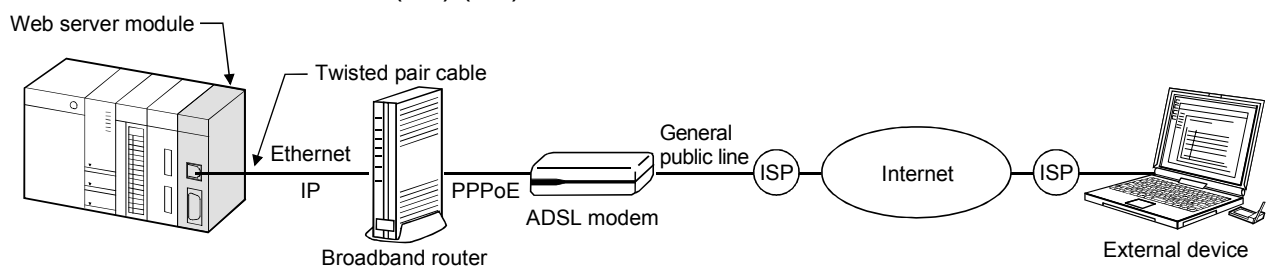
(a) When using bridge type ADSL modem



(b) When using router type ADSL modem (*1) (*2)



(c) When using bridge type ADSL modem + broadband router (*1) (*2)



*1 It is recommended to use a UPnP-compatible product.

When the product is incompatible with UPnP, contract on a static IP address with an Internet service provider and the NAT setting on the router are required.

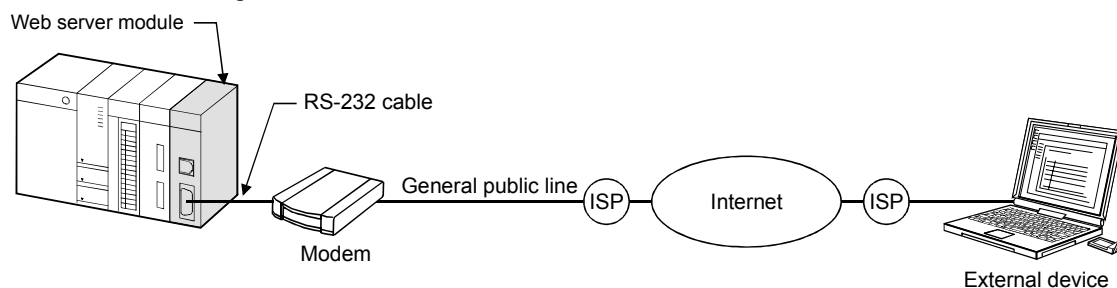
*2 Independently of whether the product is compatible or incompatible with UPnP, the initial setting of the modem or router must be made before start-up.

POINT

- (1) Internet connection via ADSL modem is made in dial-up setting. (Refer to Section 4.6.4.)
- (2) A global IP address is assigned to the Web server module by the Internet service provider.
With the address notification function, the external device can be informed of the IP address that the Web server module has acquired. (Refer to Section 6.9.)

(3) Connection via analog modem

The Web server module can be connected to the Internet through analog modem using the RS-232 interface.



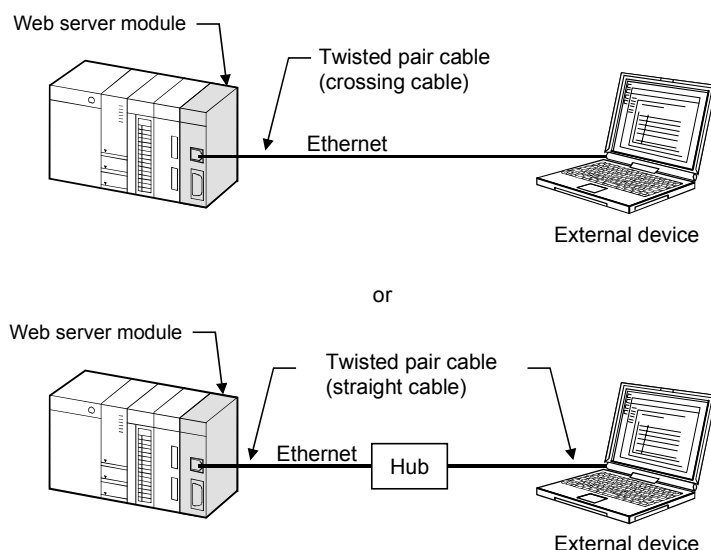
POINT

- (1) Internet connection via analog modem is made in dial-up setting. (Refer to Section 4.6.4.)
- (2) A global IP address is assigned to the Web server module by the Internet service provider.
With the address notification function, the external device can be informed of the IP address that the Web server module has acquired. (Refer to Section 6.9.)

2.3 System Configuration for Initial Setting, Maintenance and Inspection

This section shows a system configuration in the case of initial setting (system setting, dial-up setting), maintenance and inspection of the Web server module.

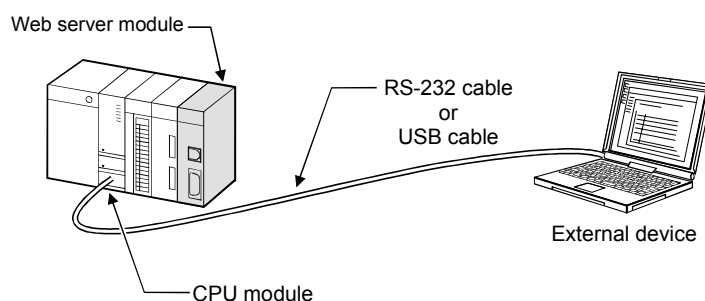
(1) System configuration for initial setting, maintenance and inspection by Web browser



POINT

- (1) Set the same network address to the Web server module and external device.
- (2) When changing the Web server module's IP address after initial setting, change the system setting to the default by the switch setting of GX Developer and make initial setting again.
(Refer to Section 4.7 for the switch setting of GX Developer.)

(2) System configuration for switch setting, sequence program creation and PLC diagnostics by GX Developer



2.4 Connection Device

This section explains the devices compatible with the Web server module.

(1) Compact Flash™ card

The Compact Flash™ card applicable to the Web server module is a TYPE I storage card that meets the Compact Flash™ specifications.

One Compact Flash™ card can be set to the Web server module.

Use either of the following CompactFlash cards.

| Model | Description |
|----------------|--------------------------|
| GT05-MEM-32MC | CompactFlash card 32 MB |
| GT05-MEM-64MC | CompactFlash card 64 MB |
| GT05-MEM-128MC | CompactFlash card 128 MB |
| GT05-MEM-256MC | CompactFlash card 256 MB |

POINT

The Compact Flash™ card has its own lifetime (the limited number of writes).
For details, check the specifications of each product.

(2) Analog modem

The following table provides the specifications of the analog modem applicable to the Web server module.

| Item | Specifications |
|------------------------------------|--|
| Web server module side interface | Operable with the interface specifications of the CH2 (RS-232) side on the Web server module (refer to Section 3.1). |
| Data communication control command | Compatible with AT command of Hayes. |
| DR Signal Control | Can turn on only the DR (DSR) signal independently. |

(3) ADSL modem

The following table provides the specifications of the ADSL modem applicable to the Web server module.

| Item | Specifications |
|----------------------------------|---|
| Web server module side interface | Operable with the interface specifications of the CH1 (10BASE-T/100BASE-TX) side of the Web server module (refer to Section 3.1). |
| Protocol | PPPoE (PPP over Ethernet) or PPPoA (PPP over ATM). |
| Connection form | Bridge type or router type. (*1) |

*1 Use the router type ADSL modem that satisfies the following.

- The modem has the NAT (address conversion) function.
- The modem is compatible with Universal Plug and Play (UPnP).
- When the modem is incompatible with UPnP, it is necessary for the user to make a contract on a static IP address with an Internet service provider and make the NAT setting of the router.

(4) Broadband router

The following table provides the specifications of the broadband router applicable to the Web server module.

| Item | Specifications |
|----------------------------------|---|
| Web server module side interface | Operable with the interface specifications of the CH1 (10BASE-T/100BASE-TX) side of the Web server module (refer to Section 3.1). |
| NAT | Should have the NAT (address conversion) function. |
| UPnP | Should be compatible with Universal Plug and Play (UPnP). (*2) |

*2 When the broadband router is incompatible with UPnP, it is necessary for the user to make a contract on a static IP address with an Internet service provider and make the NAT setting of the router.

(5) Twisted pair cable

Use the twisted pair cable that meets IEEE802.3 10BASE-T/100BASE-TX standards.

(a) For 100Mbps

Use either of the following cables.

- 1) Unshielded twisted pair cable (UTP cable), Category 5
- 2) Shielded twisted pair cable (STP cable), Category 5

(b) For 10Mbps

Use either of the following cables.

- 1) Unshielded twisted pair cable (UTP cable), Category 3 (4, 5)
- 2) Shielded twisted pair cable (STP cable), Category 3 (4, 5)

| POINT |
|---|
| <p>During the high speed communication (100Mbps) via 100BASE-TX connection, a communication error may occur due to the effect of high frequency noise generated from the device other than programmable controller, depending on the installation environment.</p> <p>Take the following countermeasures on the Web server module side to eliminate the effect of high frequency noise.</p> <p>(1) Wiring</p> <ul style="list-style-type: none"> • Do not bundle the twisted pair cables with the main circuit or power cables or bring them close to each other. • Make sure to place the twisted pair cable in a duct. <p>(2) Cable</p> <ul style="list-style-type: none"> • In the environment where the cable is susceptible to noise, use the shielded twisted pair cable (STP cable). <p>(3) 10Mbps communication</p> <ul style="list-style-type: none"> • Connect the 10Mbps-compatible device with Web server module, and then transmit the data to the device at transmission speed of 10Mbps. |

(6) RS-232 cable

Use the RS-232-compliant cable of up to 15m.

[Recommended cable]

• Oki Electric Cable Co., Ltd.

7/0.127 □P HRV-SV ... □: Specify the number of pairs. (For 13 pairs, specify 7/0.127 13P HRV-SV.)

(7) Internet service provider

The following table provides the specifications of the Internet service provider to be connected to the Web server module.

| Item | Specifications |
|-------------------------|---|
| Protocol | PPP (Point to Point Protocol) |
| Authentic method | PAP or CHAP (Operable without authentication) |
| IP address | Global IP address must be assigned. (*3) |
| E-mail (When being set) | SMTP server must be prepared. (*4) |

*3 When using a UPnP-incompatible router type ADSL modem or broadband router, it is necessary for the user to make a contract on a static IP address with an Internet service provider and make the NAT setting of the router.

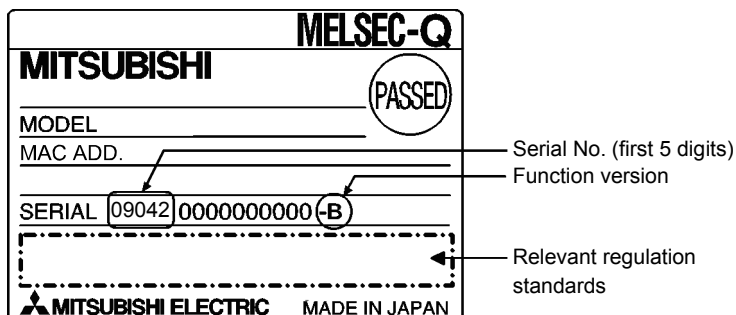
*4 It must be able to access with "No authentication" or "POP before SMTP" authentication.

Also, it must be able to access with the SMTP server and Port No.25.

2.5 Checking Function Version

This section explains how to check the function version of the Web server module.

- (1) Checking at "SERIAL" section in the rating plate on the Web server module



- (2) Checking with GX Developer

The function version of the Web server module is shown on the "Product Information List" or "Module's Detailed Information" screen of GX Developer. The following explains how to check the function version on the "Product Information List" screen. (Refer to Section 9.2.2 for the "Module's Detailed Information" screen.)

[Startup procedure]

[Diagnostics] → [System monitor] → Product inf. list button

| Product Information List | | | | | | | | | |
|--------------------------|------------|----------|------------|--------|---------|------------|------------------|------|-------------------|
| Slot | Type | Series | Model name | Points | I/O No. | Master PLC | Serial No. | Ver. | Production No. |
| PLC | PLC | Q | Q03UDCPU | - | - | - | 0904200000000000 | B | 090421091210001-B |
| 0-0 | Intelli. Q | QJ71WS96 | 32pt | 0000 | - | - | 0904200000000000 | B | - |
| 0-1 | - | - | None | - | - | - | - | - | - |
| 0-2 | - | - | None | - | - | - | - | - | - |
| 0-3 | - | - | None | - | - | - | - | - | - |
| 0-4 | - | - | None | - | - | - | - | - | - |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

[Serial No., Ver., Production No.]

- The serial No. of module is displayed in the "Serial No." column.
- The function version of module is displayed in the "Ver." column.
- The serial No. (Production No.) shown on the rating plate is displayed in the "Production No." column. (*1)

Note that "-" is displayed in the "Production No." column for the Web server module since this module is not supporting Production No. display.

*1 The Production No. is displayed in the column only when the Universal model QCPU is used.

| POINT |
|---|
| <p>The serial No. displayed in the Product Information List of GX Developer may be different from the one on the rating plate.</p> <ul style="list-style-type: none">• The serial No. on the rating plate indicates the management information on the product.• The serial No. in the Product Information List of GX Developer indicates the functional information on the product, which is updated when a new function is added. |

3 SPECIFICATIONS

This chapter provides information on the performance specifications, transmission specifications, etc. of the Web server module.

For the general specifications of the Web server module, refer to the user's manual of the CPU module.

3.1 Performance Specifications

This section shows the performance specifications of the Web server module.

(1) Transmission and Interface specifications

| Item | | Specifications | |
|---|-----------|---|-------------------------------------|
| 10BASE-T/100BASE-TX | | — | |
| Interface (*1) | | 10BASE-T | 100BASE-TX |
| Data transmission speed | | 10Mbps | 100Mbps |
| Transmission method | | Base band | |
| Number of cascaded stages | | Cascade connection Maximum 4 stages | Cascade connection Maximum 2 stages |
| Maximum segment length (*2) | | 100m | |
| Supported function | | Auto negotiation function (automatically recognizes 10BASE-T/100BASE-TX) | |
| RS-232 | | — | |
| Interface | | Compliance with RS-232 (D-sub 9 pin) | |
| Communication method | | Full-duplex communication | |
| Synchronization method | | Start-stop synchronization method | |
| Transmission speed | | 9600, 19200, 38400, 57600, 115200 bps | |
| Transmission distance | | Maximum 15m | |
| Data format | Start bit | 1 | |
| | Data bit | 8 | |
| | Stop bit | 1 | |
| Parity check | | None | |
| Transmission control | | Flow control (RS/CS control) is available | |
| Recommended cable | | 7/0.127 □P HRV-SV outside diameter: 8.5mm or longer (Oki Electric Cable Company, Limited Specify the number of pairs in □.) | |
| External wiring applicable connector | | 9 pin D-sub (Male) fixing type | |
| Compact Flash TM card | | — | |
| Supply power voltage | | 3.3V±5% | |
| Supply power capacity | | Maximum 150mA | |
| Size | | TYPE I card | |
| Number of mountable cards | | 1 | |
| Number of occupied I/O points | | 32 points/1 slot (I/O assignment: intelligent 32 points) | |
| Maximum number of writes for Standard ROM (Flash ROM) | | Maximum 100,000 times to one area (refer to REMARKS (1)) | |
| Clock | | The clock data is obtained from a programmable controller CPU (in multiple CPU system, CPU No.1) (every 60s) (Refer to Section 3.9) | |
| 5V DC internal current consumption | | 0.65A | |
| External dimensions | | 98 (3.86 in.) (H) × 27.4 (1.08 in.) (W) × 90 (3.54 in.) (D) [mm] | |
| Weight | | 0.17kg (0.37lb.) | |

*1 Web server module recognizes 10BASE-T/100BASE-TX according to the external device.
For connection with the hub that does not have the auto negotiation function, set the hub side to the half-duplex communication mode.

*2 Distance between the hub and node.

(2) Software specifications

| Item | | Specifications |
|-----------------|--|--|
| Web server | Number of simultaneously connectable nodes | 5 |
| | HTTP version | 1.0 |
| | User area capacity | Standard ROM: Maximum 5MB When Compact Flash™ card is used: Maximum 1GB (Including the home page capacity and logging capacity) |
| | Parts for creating user screen | Java applet: 15 types, SSI: 1 type, CGI: 3 types (The file included as standard can be used (cannot be created by the user)) |
| Browser | Valid browser | Internet Explorer 5.5/6.0/7.0 of Microsoft® Corporation (Refer to REMARKS (4)) |
| | Java VM | Microsoft® VM Build number: 3309 or later (*1) (Refer to REMARKS (2)) Sun Microsystems JRE (J2SE) v1.4 (v1.4.1_02 or later)/v1.5/v1.6 (Refer to REMARKS (3)) |
| E-mail | Subject | Maximum 373 words |
| | Main text | Maximum 960 words |
| | Attached file | Maximum 256k words (512k bytes) |
| | Attached file format | MIME Format |
| | MIME version | 1.0 |
| | Attached file Data | CSV or binary format |
| | Division | Attached file cannot be divided |
| | Encryption | None |
| | Compression | None |
| | Communication with mail server | SMTP (send server) port number = 25 |
| | Operation check mailer | Internet Explorer 5.5/6.0 of Microsoft® Corporation (Outlook® Express 5.5/6.0) Windows® Mail of Microsoft® Corporation (in the case of Windows Vista®) |
| FTP server | Others | POP before SMTP compatible |
| | Server function | Provided |
| | Number of simultaneously connectable nodes | 10 |
| FTP client | Client function | Provided (PUT, GET) |
| Security | User authentication | Account number: Maximum 16 (User ID: 1 to 20 characters, password: 8 to 14 characters) |
| | Access log | Maximum 500 |
| | IP filter | Registration number: Maximum 32 |
| Data collection | Tag | No. of tags: Maximum 64, No. of components: Maximum 4096 (maximum 64 components for each tag) |
| | Logging | No. of logging: Maximum 64, No. of lines (number of records): Maximum 10000 lines |
| | Sampling interval | <ul style="list-style-type: none"> When "Sampling: Execute at high speed" is selected in tag setting (control CPU only): 100 to 60000ms (total number of device points: Maximum 96) When "Sampling: Execute" is selected in tag setting: 1 to 32767ms (number of components: Maximum 4096) |

*1 There are some restrictions on the use of audio parts in Microsoft® VM. (Refer to Section 7.2.6 (4).)

| POINT |
|--|
| <p>Performance of the Web server module and the system using the Web server module differs depending on following factors.</p> <p>Conduct verification by user prior to starting the system.</p> <ul style="list-style-type: none"> • Operating environment (personal computer, network, and the Compact Flash™ card) • Loading status of the network • Sequence scan time • Accessing status from a personal computer, terminal display, or intelligent function module to the programmable controller CPU. • Accessing status to the Web server module from outside. • Settings of the Web server module |

REMARKS

(1) Number of writes for Standard ROM (Flash ROM)

Data can be written to the same area of a standard ROM up to 100,000 times and the life of a standard ROM drive is limited as shown below.

(a) Standard ROM drive life

Life of standard ROM drive (days) = $737000 / \text{write size per day} \times (\text{MB})$

(Example) When executing 4 logging settings in which 64 "single word"-data-type components are to be collected at intervals of 10 seconds

$LS = 20 + (18 + 1) \times 64 + 1 = 1237$ bytes

Write size per day = $1237 \times (86400 / 10) \times 4 = 40.8\text{MB}$

Life of standard ROM drive life = $737000 / 40.8\text{MB} = 18064$ days = 49.5 years

LS: Write size to logging file at one time

* For calculation of the size of the data written to the standard ROM drive per day, refer to Appendix 7.1.

(b) Checking standard ROM drive usage

Used condition of a standard ROM drive can be checked by the number of standard ROM erasure in the buffer memory area (buffer memory: 10 to 11).

When a standard ROM is erased frequently, take appropriate measures such as stopping logging or changing the storage location of the logging file to Compact Flash™ card.

(2) Checking the Build number of Microsoft® VM and downloading Microsoft® VM

(a) Checking the Build number of Microsoft® VM

By entering "jview" on the MS-DOS Prompt (command prompt) screen, the Build number of Microsoft® VM can be checked as shown below. (*)

* When not displayed as below, Microsoft® VM has not been installed and must be installed. (Refer to (b).)

[Execution example]

The following is an example in which the above operation is executed on the MS-DOS prompt of Microsoft® Windows® 98 operating system.

In this case, the Build number of Microsoft® VM is "3802".

```

Microsoft (R) Command-line Loader for Java Version 5.00.3802
Copyright (C) Microsoft Corp 1996-2000. All rights reserved.

Usage: JView [options] <classname> [arguments]

Options:
/?                displays usage text
/cp <classpath>   set class path
/cp:p <path>       prepend path to class path
/cp:a <path>       append path to class path
/n <namespace>    namespace in which to run
/p               pauses before terminating if an error occurs
/v               verify all classes
/d:<name>=<value>  define system property
/a               execute AppletViewer
/vst             print verbose stack traces (requires debug classes)
/prof[:options]  enable profiling (/prof:? for help)

Classname:
.CLASS file to be executed.

Arguments:
command-line arguments to be passed on to the class file

C:\>

```

(b) Downloading Microsoft® VM

When Microsoft® VM has not been installed or the Build number of Microsoft® VM is earlier than "3309", download Microsoft® VM of the latest version (Windows® Update, etc.) from the Microsoft® Corporation Home Page.

- (3) Downloading Sun Microsystems Inc. Java VM and confirming its version
- (a) Downloading Sun Microsystems Inc. Java VM
When using Sun Microsystems Inc. Java VM, download it from the Sun Microsystems Inc. Home Page.
- (b) Confirming version
The version can be confirmed by choosing the following.
[Control] → "Java Plug-in" → <<About>> tab → "Java(TM) Plug-in Control Panel" on Windows®
- (c) Precautions for use of Java VM of Sun Microsystems Inc.
1) Installation
When installing Java VM of Sun Microsystems Inc. into an English operating system (OS), select Custom Setup and enable the "Support for Additional Languages" setting.
- (4) Combinations of Operating Systems (OS) and Web browsers
The following table shows the combinations of the Operating Systems (OS) and Web browsers. The proper operation as a client computer has been confirmed. (*1) (*2)

| Operating system (OS) | Web browser |
|---|--|
| Microsoft® Windows Vista® Home Basic Operating System Microsoft® Windows Vista® Home Premium Operating System Microsoft® Windows Vista® Business Operating System Microsoft® Windows Vista® Ultimate Operating System Microsoft® Windows Vista® Enterprise Operating System (English version) | Microsoft® Internet Explorer 7.0 (English version) |
| Microsoft® Windows® XP Professional Operating System (English version) | Microsoft® Internet Explorer 6.0 (English version) |
| Microsoft® Windows® 2000 Professional Operating System (English version) | Microsoft® Internet Explorer 5.5/6.0 (English version) |
| Microsoft® Windows NT® Workstation Operating System Version 4.0 (English version) | Microsoft® Internet Explorer 5.5/6.0 (English version) |
| Microsoft® Windows® Millennium Edition Operating System (English version) | Microsoft® Internet Explorer 5.5/6.0 (English version) |
| Microsoft® Windows® 98 Operating System (English version) | Microsoft® Internet Explorer 5.5/6.0 (English version) |
| Microsoft® Windows Vista® Home Basic Operating System Microsoft® Windows Vista® Home Premium Operating System Microsoft® Windows Vista® Business Operating System Microsoft® Windows Vista® Ultimate Operating System Microsoft® Windows Vista® Enterprise Operating System (Japanese version) | Microsoft® Internet Explorer 7.0 (Japanese version) |
| Microsoft® Windows® XP Professional Operating System (Japanese version) | Microsoft® Internet Explorer 6.0 (Japanese version) |
| Microsoft® Windows® 2000 Professional Operating System (Japanese version) | Microsoft® Internet Explorer 5.5/6.0 (Japanese version) |
| Microsoft® Windows NT® Workstation Operating System Version 4.0 (Japanese version) | Microsoft® Internet Explorer 5.5/6.0 (Japanese version) |
| Microsoft® Windows® Millennium Edition Operating System (Japanese version) | Microsoft® Internet Explorer 5.5/6.0 (Japanese version) |

| Operating system (OS) | Web browser |
|---|--|
| Microsoft® Windows® 98 Operating System (Japanese version) | Microsoft® Internet Explorer 5.5/6.0 (Japanese version) |

*1 When displaying the TOP page of the standard screen using an operating system and a Web browser of English version, do not click on the "Japanese" button provided for link to the Japanese version.
Doing so may display an incorrect screen.

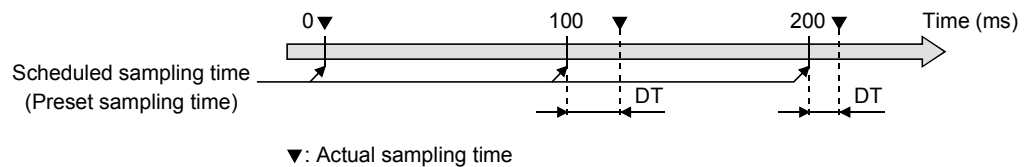
*2 When displaying the standard screen of English version using an operating system and a Web browser of Japanese version, words and phrases used by the operating system (e.g. the "Cancel" button to a confirmation message) are displayed in Japanese.

- (5) Relationship between scan time of programmable controller CPU and maximum delay time of high-speed sampling

$$DT = 2 \times ST + 5 \text{ (unit: ms)}$$

DT: Maximum delay time of high-speed sampling (See below)

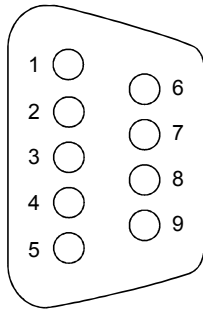
ST: Scan time of programmable controller CPU



3.2 RS-232 Connector Specifications

The RS-232 connector specifications are shown below.

(1) RS-232 connector specifications



| Pin No. | Signal abbreviation | Signal name | Signal direction Web server module ← → Modem |
|---------|---------------------|---------------------|---|
| 1 | CD(DCD) | Data Carrier Detect | ← |
| 2 | RD(RXD) | Received Data | ← |
| 3 | SD(TXD) | Transmitted Data | → |
| 4 | ER(DTR) | Data Terminal Ready | → |
| 5 | SG(GND) | Signal Ground | ← → |
| 6 | DR(DSR) | Data Set Ready | ← |
| 7 | RS(RTS) | Request To Send | → |
| 8 | CS(CTS) | Clear To Send | ← |
| 9 | CI(RI) | Ring Indicator | ← |

(2) RS-232 interface connector

The Web server module uses the following RS-232 interface connector.

- DDK Ltd.
9 pin D-sub (Female) screw type
17L-10090-27 (D9AC) (-FA)

Use the following model as a connector shell of the Web server module side connection cable.

- DDK Ltd.
Plug, shell: 17JE-23090-02 (D8A) (-CG)
- Connector fitting screw (M2.6)

3.3 Function List

The following is the function list of the Web server module.

| Function | | Description | Reference Section |
|-------------------------------|--------------------------|--|-------------------|
| Monitor Function | Device monitor | Monitors device values. | Section 6.2.1 |
| | Tag data monitor | Monitors tag data. | Section 6.2.2 |
| | Logging monitor | Monitors logging data. | Section 6.2.3 |
| | Event history monitor | Monitors event histories. | Section 6.2.4 |
| | PLC diagnostics monitor | Monitors programmable controller CPU operation status. | Section 6.2.5 |
| | Self-diagnostics monitor | Monitors Web server module operation status. | Section 6.2.6 |
| Tag function | | Stores a set of device data of individual programmable controller CPUs on a network as a tag, and collects those device data in tag unit. Collected data can be displayed in the Web browser. | Section 6.3 |
| Logging function | | Stores tag data as a CSV file in time series at the user-specified execution timing (by setting timing, start/stop condition). The stored file can be displayed in the Web browser or downloaded by FTP operation, etc. | Section 6.4 |
| Event monitor function | | Monitors the programmable controller CPU status (CPU monitor), tag data (tag monitor) and time (time/interval monitor), and stores the historical data of occurred events into CSV files. The stored files can be displayed in the Web browser or downloaded by FTP operation. At event occurrence, e-mail can be sent as necessary. | Section 6.5 |
| E-mail function | | Used to send e-mail. ▪ E-mail transmission by programmable controller CPU ▪ E-mail transmission by event monitor function | Section 6.6 |
| FTP function | | Used to transfer a file between the Web server module and external device. ▪ FTP server function ▪ FTP client function | Section 6.7 |
| Access log function | | Used to record access from the external device to the Web server module. | Section 6.8 |
| Address notification function | | Used to notify the external device of the Web server module address. | Section 6.9 |
| Data management function | | Backs up/restores the standard ROM, formats the compact flash card, and performs CSV export/import. | Section 6.10 |
| Diagnostic function | | Used to perform self-diagnostics and connection test of the Web server module. | Section 6.11 |
| User screen creation function | | Creates user-original Web screens using the standard-supplied user parts (applet, SSI, CGI). | Chapter 7 |

3.4 Dedicated Instruction List

The following is a list of the dedicated instructions available for the Web server module.

| Application | Instruction | Description | Reference Section |
|---------------------|-------------|--|-------------------|
| E-mail transmission | WMSEND | Sends e-mail. | Section 8.2 |
| FTP | FTPPUT | Transfers (PUT) a file to the FTP server. | Section 8.3 |
| | FTPGET | Transfers (GET) a file from the FTP server. | Section 8.4 |
| Tag | TAG | Issues a tag collection command. (Triggers a tag collection.) | Section 8.5 |
| Logging | LOG | Issues a logging command. (Triggers a logging.) | Section 8.6 |
| | LOGDEL | Deletes the saved file of logging data. | Section 8.7 |
| | WFWRITE | Writes the device data of the programmable controller CPU to the user data file on the compact flash card. | Section 8.8 |
| | WFREAD | Reads the user data file on the compact flash card to the device data of the programmable controller CPU. | Section 8.9 |
| | WFDEL | Deletes the user data file on the compact flash card. | Section 8.10 |

























POINT

When the Web server module is connected to a redundant CPU, dedicated instructions are not executable.
 If instruction execution is attempted, an "OPERATION ERROR" will occur in the redundant CPU.
 However, some of the dedicated instructions may be executable using the Web server module functionalities.

- (a) WMSEND instruction
 Please consider sending E-mails by the event monitor function or the logging function. (Refer to Section 6.6.1.)
- (b) FTPPUT and FTPGET instructions
 Please consider using the FTP server function. (Refer to Section 6.7.1.)
- (c) TAG instruction
 Please consider collecting tags by the tag setting. (Refer to Section 6.3.3.)
- (d) LOG and LOGDEL instructions
 Please consider logging data based on the logging setting. (Refer to Section 6.4.4.)

3.5 Web Browser Setting Item List

The following is a list of the parameter setting items to be set on a Web browser.

| Item | Description | Reference Section |
|--|---|-------------------|
|  Top page | This screen is displayed first when the URL of the Web server module is specified. | — |
|  Monitor screen | Monitors device data, tag data, logging data, event historical data, PLC diagnostics and self-diagnostics. | Section 6.2 |
|  Device monitor | Monitors device values. | |
|  Tag data monitor | Monitors tag data. | |
|  Logging monitor | Monitors logging data. | |
|  Event history monitor | Monitors event historical data. | |
|  PLC diagnostics monitor | Monitors programmable controller CPU operation status. | |
|  Self-diagnostics monitor | Monitors Web server module operation status. | |
|  Administrative menu | Allows initial setting, various function setting, setting test, etc. for use of the Web server module. Only the user with administrator authority can use this menu. | — |
|  System setting | Makes the initial setting required for network connection. Be sure to perform this setting to use the Web server module. | Section 4.6.3 |
|  Dial-up setting | Makes setting required for Internet connection. | Section 4.6.4 |
|  Access target CPU setting | Sets the connection path to the access target CPU. | Section 4.6.7 |
|  Tag setting | Makes setting for tag data collection. | Section 6.3 |
|  Logging setting | Sets the logging intervals, file capacity, etc. of logging data. | Section 6.4 |
|  FTP setting | Makes the setting to log in to the FTP server. | Section 6.7 |
|  E-mail setting | Sets the send server, e-mail address, etc. | Section 6.6 |
|  Event setting | Sets the event monitor conditions. | Section 6.5 |
|  Address notification setting | Makes the setting to notify the external device of the Web server module's URL. | Section 6.9 |
|  Account setting | Sets the account for making access to the Web server module. | Section 4.6.5 |
|  IP filter setting | Sets the IP address at which access to the Web server module is enabled/disabled. | Section 4.6.6 |
|  Data management | Backs up, restores and formats the compact flash card, and performs CSV export/import. | Section 6.10 |
|  Setting test | Conducts connection tests such as e-mail transmission, file transfer and PING tests. | Section 6.11 |
|  Access log | Displays the access log to the Web server module. | Section 6.8 |
|  Setting update | Updates the setting made in the Administrative menu on the Web server module operation. | Section 4.6.2 (3) |

3.6 I/O Signals for Programmable Controller CPU

3.6.1 I/O signals list

The following is the I/O signal list of the Web server module for the programmable controller CPU.

The following I/O signal assignment is based on the case where the start I/O No. of the MES interface module is "0000" (installed to slot 0 of the main base unit)

If mounted on other than Slot 0, use the device numbers corresponding to the slot.

Device X indicates an input signal from the Web server module to the programmable controller CPU, and device Y indicates an output signal from the programmable controller CPU to the Web server module.

| Signal Direction Web server module→ Programmable controller CPU | | Signal Direction Programmable controller CPU→ Web server module | | |
|--|---|--|---|--|
| Device No. | Signal name | Device No. | Signal name | |
| X0 | Module READY ON: Module prepared OFF: Module being prepared | Y0 | Use prohibited | |
| X1 | Compact Flash™ card setting status ON: Set OFF: Not set | Y1 | | |
| X2 | File access status ON: Stopped OFF: Operating | Y2 | File access stop request ON: Stop requested OFF: — | |
| X3 | Use prohibited | Y3 | File access stop cancel request ON: Stop request cancelled OFF: — | |
| X4 | Network connection status ON: Connected OFF: Not connected | Y4 | Use prohibited | |
| X5 | Network connection processing ON: Processing OFF: — | Y5 | Network connection request ON: Connection requested OFF: — | |
| X6 | Network connection completion ON: Connection completed OFF: — | Y6 | Use prohibited | |
| X7 | Network disconnection processing ON: Processing OFF: — | Y7 | Network disconnection request ON: Disconnection requested OFF: — | |
| X8 | Network disconnection completion ON: Disconnection completed OFF: — | Y8 | Use prohibited | |
| X9 | Use prohibited | Y9 | | |
| XA | | YA | | Device write disable request ON: Disable OFF: Enable |
| XB | | YB | | |
| XC | | YC | | |
| XD | CPU event status ON: Event occurrence OFF: Not occurred | YD | Use prohibited | |
| XE | Tag event status ON: Event occurrence OFF: Not occurred | YE | | |
| XF | Use prohibited | YF | | |

| Signal Direction Web server module→ Programmable controller CPU | | Signal Direction Programmable controller CPU→ Web server module | |
|--|---|--|---|
| Device No. | Signal name | Device No. | Signal name |
| X10 | ERR. LED status ON: On, Flicker OFF: Off | Y10 | Error clear request ON: Error clear requested OFF: — |
| X11 | Tag collection error ON: Error occurrence OFF: Normal | Y11 | Use prohibited |
| X12 | Logging error ON: Error occurrence OFF: Normal | Y12 | |
| X13 | CPU event monitor error ON: Error occurrence OFF: Normal | Y13 | |
| X14 | Tag event monitor error ON: Error occurrence OFF: Normal | Y14 | |
| X15 | Time event monitor error ON: Error occurrence OFF: Normal | Y15 | |
| X16 | Access target CPU error ON: Error occurrence OFF: Normal | Y16 | |
| X17 | E-mail transmission error ON: Error occurrence OFF: Normal | Y17 | |
| X18 | FTP transfer error ON: Error occurrence OFF: Normal | Y18 | |
| X19 | Connection error ON: Error occurrence OFF: Normal | Y19 | |
| X1A | Use prohibited | Y1A | |
| X1B | | Y1B | |
| X1C | Other error ON: Error occurrence OFF: Normal | Y1C | |
| X1D | Use prohibited | Y1D | |
| X1E | | Y1E | |
| X1F | Watch dog timer error ON: Error occurrence OFF: Normal | Y1F | |

Important

Do not output (turn on) the signal marked "use prohibited" among the I/O signals for the programmable controller CPU.

Doing so can cause malfunction of the programmable controller system.

3.6.2 I/O signals details

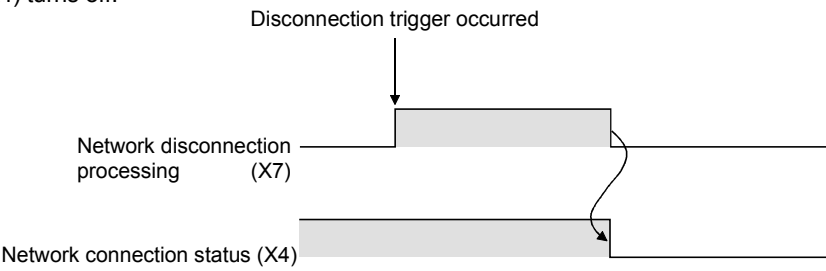
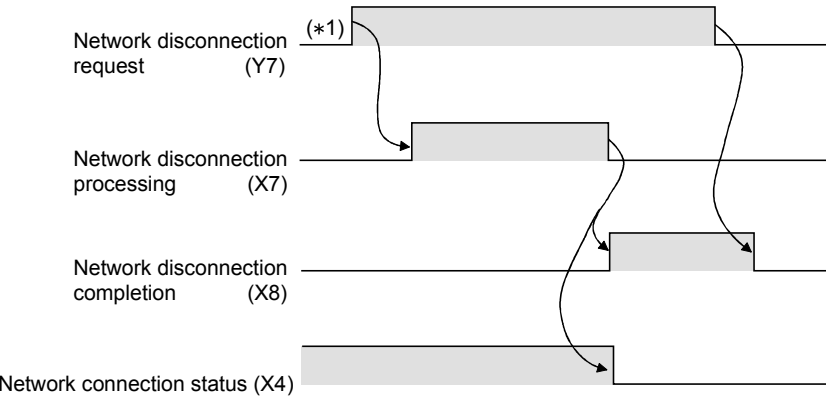
The following table shows the details of the I/O signals of the Web server module.

(1) Input signals

| Device No. | Signal Name | Description |
|------------|------------------------------------|---|
| X0 | Module READY | Turns on when the Web server module becomes ready after the programmable controller is powered off and then on or the CPU module is reset. |
| X1 | Compact Flash™ card setting status | (1) Turns on when the Compact Flash™ card is set and File access status (X2) is off. (2) Turns off when the Compact Flash™ card is not set or File access status (X2) is on. |
| X2 | File access status | <p>(1) Is on during file access stop. (*)</p> <p>The following operations are available during file access stop.</p> <p>(a) Removing and setting the Compact Flash™ card. (Refer to Section 4.9.)</p> <p>(b) Powering off during operation without battery. (Refer to Section 4.11.)</p> <p>* During file access stop,</p> <ol style="list-style-type: none"> 1) Write of file to standard ROM is disabled. 2) Read from or write to Compact Flash™ card is disabled. 3) Tag collection, logging and event monitor are stopped. <p>(2) Is off during file access operation.</p> <p>The diagram illustrates the File access status (X2) signal. It shows four horizontal timelines: File access stop request (Y2), File access stop cancel request (Y3), File access status (X2), and CompactFlash™ card setting status (X1). X2 transitions from (Operating) to (Stopped) when Y2 is asserted. It transitions back to (Operating) when Y3 is asserted. X1 is high when X2 is in the (Stopped) state. A note indicates that X1 is also high during Compact Flash™ card replacement and programmable controller power-OFF.</p> |

| Device No. | Signal Name | Description |
|------------|-------------------------------|---|
| X4 | Network connection status | <p>(1) Turns on when the Web server module is connected to the network.</p> <p>(2) The Web server module is connected to the network. (Connection trigger) when:</p> <ul style="list-style-type: none"> (a) The programmable controller is powered off and then on or the CPU module is reset when "Automatic connection to network at start-up." is set in the System setting. (Refer to Section 4.6.3) (b) Network connection request (Y5) is turned from OFF to ON. (c) A telephone call is made to the Web server module side modem when the CALL function is set. (Refer to Section 4.6.4) (d) E-mail transmission/file transfer is performed. <p>(3) The Web server module is disconnected from the network (Disconnection trigger) when:</p> <ul style="list-style-type: none"> (a) Network disconnection request (Y7) is turned from OFF to ON. (b) No access is made from the external device within the preset time when the disconnection function is set. (Refer to Section 4.6.4) (c) E-mail transmission/file transfer is completed (when connected for transmission/transfer (above (2) (d))) (d) Line disconnection is requested from the user screen (disconnection by line disconnection part) (e) Disconnection is made by the Internet service provider. (f) The modem is powered off or the cable is disconnected. |
| X5 | Network connection processing | <p>(1) Is on while the Web server module is processing for connection to the network (during dialing or authentication). Turns on in response to any of the connection triggers shown in (2) of X4.</p> <p>(2) Upon completion of the network connection processing, Network connection status (X4) or Connection error (X19) turns on.</p> <ul style="list-style-type: none"> (a) When the network connection is normally completed, Network connection status (X4) turns on. (b) When the network connection is failed, Connection error (X19) turns on and a corresponding error code is stored into the connection error code area (buffer memory: 30). <pre> sequenceDiagram trigger "Connection trigger occurred" X5[Network connection processing (X5)] --> X5 X5 --> X4[Network connection status (X4)] : When normally completed X5 --> X19[Connection error (X19)] : When failed </pre> |

| Device No. | Signal Name | Description |
|------------|-------------------------------|--|
| X6 | Network connection completion | <p>(1) Turns on at completion of connection made by Network connection request (Y5). Does not turn on by any connection trigger other than Network connection request (Y5) indicated in (2) of X4.</p> <p>(2) Turns off when Network connection request (Y5) turns off.</p> <p>*1 When Network connection request (Y5) is turned on while Network connection status (X4) is on, Network connection processing (X5) turns off, and Network connection completion (X6) turns on immediately.</p> |

| Device No. | Signal Name | Description |
|------------|----------------------------------|---|
| X7 | Network disconnection processing | <p>(1) Is on while the Web server module is processing for disconnection from the network. Turns on in response to any of the disconnection triggers shown in (3) of X4.</p> <p>(2) Upon completion of the network disconnection processing, Network connection status (X4) turns off.</p>  |
| X8 | Network disconnection completion | <p>(1) Turns on at completion of disconnection made by Network disconnection request (Y7). Does not turn on by any connection trigger other than Network disconnection request (Y7) shown in (3) of X4.</p> <p>(2) Turns off when Network disconnection request (Y7) turns off.</p>  <p>* 1 When Network disconnection request (Y7) is turned on while Network connection status (X4) is off, Network disconnection processing (X7) turns off, and Network disconnection completion (X8) turns on immediately.</p> |
| XD | CPU event status | <p>(1) Turns on when a CPU event occurs.</p> <p>(2) Turns off when a CPU event is restored.</p> |
| XE | Tag event status | <p>(1) Turns on when a tag event occurs.</p> <p>(2) Turns off when a tag event is restored.</p> |
| X10 | ERR. LED status | <p>(1) Is on while the ERR. LED is on (during module continue error occurrence) or flickering (during module stop error occurrence).</p> <p>(2) Turns off when the ERR. LED turns off by turning on Error clear request (Y10) with the ERR. LED on. (Not for the case of flickering ERR. LED)</p> <p>(3) While the ERR. LED is on or flickering (when X10 is on), one (or more) of X11 to X19 and X1C turns on.</p> |
| X11 | Tag collection error | <p>(1) Turns on when an error of the tag collection occurs.</p> <p>(2) When this turns on, an error code is stored into the tag status area (buffer memory: 1000 to 1075).</p> <p>(3) Turns off when Error clear request (Y10) is turned on.</p> |

| Device No. | Signal Name | Description |
|------------|---------------------------|--|
| X12 | Logging error | (1) Turns on when a logging error occurs. (2) When this turns on, an error code is stored into the logging status area (buffer memory: 2000 to 2267). (3) Turns off when Error clear request (Y10) is turned on. |
| X13 | CPU event monitor error | (1) Turns on when an error of CPU event monitor occurs. (2) When this turns on, an error code is stored into the CPU event monitor status area 1 (buffer memory: 3300 to 3375). (*) * The statuses of CPU monitor setting No. 1 to 16 are also stored into the CPU event monitor status area 2 (buffer memory: 3000 to 3018). (3) Turns off when Error clear request (Y10) is turned on. |
| X14 | Tag event monitor error | (1) Turns on when an error of tag event monitor occurs. (2) When this turns on, an error code is stored into the tag event monitor status area 1 (buffer memory: 10000 to 10447). (*) * The statuses of tag monitor setting No. 1 to 16 are also stored into the tag event monitor status area 2 (buffer memory: 3100 to 3118). (3) Turns off when Error clear request (Y10) is turned on. |
| X15 | Time event monitor error | (1) Turns on when an error of time event monitor occurs. (2) When this turns on, an error code is stored into the time/interval monitor status area (buffer memory: 3200 to 3217). (3) Turns off when Error clear request (Y10) is turned on. |
| X16 | Access target CPU error | (1) Turns on when a communication error of the access target CPU occurs. (2) When this turns on, an error code is stored into the access target CPU setting status area (buffer memory: 4000 to 4071). (3) Turns off when Error clear request (Y10) is turned on. |
| X17 | E-mail transmission error | (1) Turns on when an e-mail transmission error occurs. (2) When this turns on, an error code is stored into the e-mail transmission status area (buffer memory: 5000 to 5984). (3) Turns off when Error clear request (Y10) is turned on. |
| X18 | FTP transfer error | (1) Turns on when an FTP transfer error occurs. (2) When this turns on, an error code is stored into the following area of the buffer memory. (a) Error related to FTP transfer (PUT): FTP client status (PUT) area (buffer memory: 6002 to 6553) (b) Error related to FTP transfer (GET): FTP client status (GET) area (buffer memory: 8002 to 8553) (3) Turns off when Error clear request (Y10) is turned on. |
| X19 | Connection error | (1) Turns on when network connection fails. (2) When this turns on, an error code is stored into the connection error code area (buffer memory: 30). (3) Turns off when Error clear request (Y10) is turned on. |
| X1C | Other error | (1) Turns on when an error not corresponding to X11 to X19 occurs. (2) When this turns on, the error code is stored into the error log area (buffer memory: 150 to 247). (3) Turns off when Error clear request (Y10) is turned on. (Only when the module continue error occurs) |
| X1F | Watch dog timer error | Turns on when a watch dog timer error occurs. |

(2) Output signal details

| Device No. | Signal Name | Description |
|------------|---------------------------------|---|
| Y2 | File access stop request | (1) Turns on when file access is stopped. (2) Refer to X2 for ON/OFF timing. |
| Y3 | File access stop cancel request | (1) Turns on when a file access stop is canceled. (2) Refer to X2 for ON/OFF timing. |
| Y5 | Network connection request | (1) Turns on when the Web server module is connected to the network. (2) Refer to X6 for ON/OFF timing. |
| Y7 | Network disconnection request | (1) Turns on when the Web server module is disconnected from the network. (2) Refer to X8 for ON/OFF timing. |
| YA | Device write disable request | (1) When this turns on, writing from the device test/tag component test by a write-authorized user is disabled. (2) When this turns off, writing from the device test/tag component test by a write-authorized user is enabled. |
| Y10 | Error clear request | (1) Turning this on during module continue error occurrence (ERR. LED on) turns off the ERR. LED and X10 to X19 and X1C. (*) * The ERR. LED does not turn off if Y10 is turned on during module stop error occurrence (ERR. LED flicker). (2) Clears the current error area (address: 140 to 145) of the buffer memory. Clears the latest error code displayed in the system monitor of GX Developer. (Refer to Section 9.2.2) |

3.7 Buffer memory list

The buffer memory addresses are listed below.

| Address (Decimal (Hex)) | Application | Name | Initial value | Read/ write * 1 | Reference section |
|---|---|---|---------------|--------------------|-------------------------------|
| 0 (0 _H) | Module status area | RUN LED status 0: Off 1: On | 0 | R | Section 4.3 (1) |
| 1 (1 _H) | | ERR. LED status 0: Off 1: On 2: Flicker | 0 | R | |
| 2 (2 _H) | | Switch 1 status (Mode setting) 0000 _H : Online 0001 _H : Hardware test 0002 _H : CH1 self-loopback test 0003 _H : CH2 self-loopback test 270F _H (9999) : Module initialization mode | 0 | R | Section 4.7 |
| 3 (3 _H) | | Switch 2 status (Default operation setting/battery error detection setting/logging monitor setting) 1) Default operation setting (Account setting) (b0) 0: Operates according to the account setting. 1: Operates according to the default account setting. 2) Default operation setting (System setting/IP filter setting) (b1) 0: Operates according to the system setting/IP filter setting. 1: Operates according to the default system setting/IP filter setting. 3) Battery error detection setting (b2) 0: Detects battery error. 1: Not detect battery error. 4) Logging monitor setting (b4) 0: Displays the last update time of the file. 0: Not display the last update time of the file. | 0 | R | |
| 4 (4 _H) | | Switch 3 status (Response monitoring time setting) 15 to 255 (second): Response monitoring time (*) * When switch setting 3 is not set or any of 0 to 14 has been set, the response monitoring time is 15 seconds. | 0 | R | |
| 5 to 6 (5 _H to 6 _H) | Use prohibited | System area | — | — | — |
| 7 (7 _H) | Module status area | Battery status 0: Normal 1: Battery error occurrence | 0 | R | Section 4.10.3 |
| 8 to 9 (8 _H to 9 _H) | Use prohibited | System area | — | — | — |
| 10 to 11 (A _H to B _H) | Module status area | Number of standard ROM erasure | 0 | R | Section 3.1 REMARKS |
| 12 to 27 (C _H to 1B _H) | Use prohibited | System area | — | — | — |
| 28 to 29 (1C _H to 1D _H) | Network connection status area (* 2) | Router external IP address | 0 | R | Section 3.8.2 |

(Continued on the next page)

(From the preceding page)

| Address (Decimal (Hex)) | Application | Name | Initial value | Read/ write * 1 | Reference section |
|---|--------------------------------------|--|---------------|--------------------|----------------------|
| 30 (1E _H) | Network connection status area | Connection error code 0: Normal Other than 0: Error code | 0 | R | Section 3.8.2 |
| 31 (1F _H) | | Number of successful connection | 0 | R | |
| 32 (20 _H) | | Number of failed connection | 0 | R | |
| 33 (21 _H) | | Number of connection tries by request signal (Y5) | 0 | R | |
| 34 (22 _H) | | Number of connection tries by automatic connection | 0 | R | |
| 35 (23 _H) | | Number of reconnection tries | 0 | R | |
| 36 (24 _H) | | Number of times of connection retry occurrence | 0 | R | |
| 37 (25 _H) | | Number of disconnection | 0 | R | Section 3.8.2 |
| 38 (26 _H) | | Number of disconnection by request signal (Y7) | 0 | R | |
| 39 (27 _H) | | Number of automatic disconnection | 0 | R | |
| 40 (28 _H) | | Number of line lost times | 0 | R | |
| 41 to 42 (29 _H to 2A _H) | | Total connection time (Unit: Minute) | 0 | R | |
| 43 to 44 (2B _H to 2C _H) | | LAN connection time (Unit: Minute) | 0 | R | |
| 45 to 46 (2D _H to 2E _H) | | Modem connection time (Unit: Minute) | 0 | R | |
| 47 to 48 (2F _H to 30 _H) | Use prohibited | System area | — | — | — |
| 49 to 50 (31 _H to 32 _H) | Network connection status area | ADSL connection time (Unit: Minute) | 0 | R | Section 3.8.2 |
| 51 to 52 (33 _H to 34 _H) | Use prohibited | System area | — | R | — |
| 53 to 54 (35 _H to 36 _H) | Network connection status area | Current connection time (Unit: Minute) | 0 | R | Section 3.8.2 |
| 55 to 56 (37 _H to 38 _H) | | IP address | 0 | R | |
| 57 to 58 (39 _H to 3A _H) | | Subnet mask | 0 | R | |
| 59 to 60 (3B _H to 3C _H) | | Default gateway | 0 | R | |
| 61 to 62 (3D _H to 3E _H) | | DNS server address 1 | 0 | R | |
| 63 to 64 (3F _H to 40 _H) | | DNS server address 2 | 0 | R | |
| 65 (41 _H) | | HTTP port number | 0 | R | |
| 66 (42 _H) | | Connection method 0: LAN 1: Modem 3: ADSL | 0 | R | |
| 67 (43 _H) | | Access point 1 to 3: Access point number being used | 0 | R | |
| 68 (44 _H) | Network connection status area | FTP port number | 0 | R | Section 3.8.2 |
| 69 (45 _H) | (* 2) | Number of disconnections from user screen (number of disconnections using line disconnection part) | 0 | R | |

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(From the preceding page)

| Address (Decimal (Hex)) | Application | Name | Initial value | Read/ write * 1 | Reference section |
|---|---------------------------------------|---|-----------------------|--------------------|----------------------|
| 70 (46 _H) | System setting status area | IP address setting 0: "Obtain an IP address automatically." 1: "Use the following IP address." | 0 | R | Section 4.6.3 |
| 71 to 72 (47 _H to 48 _H) | | IP address setting: IP address | C0A80303 _H | R | |
| 73 to 74 (49 _H to 4A _H) | | IP address setting: Subnet mask | FFFFFF00 _H | R | |
| 75 to 76 (4B _H to 4C _H) | | IP address setting: Default gateway | 0 | R | |
| 77 to 78 (4D _H to 4E _H) | | DNS server setting: DNS server address 1 | 0 | R | |
| 79 to 80 (4F _H to 50 _H) | | DNS server setting: DNS server address 2 | 0 | R | |
| 81 (51 _H) | | Web server setting 0 to 1023 : "Use the default HTTP port number (80)." 1024 to 65535 : "Use the following HTTP port number." | 0 | R | |
| 82 (52 _H) | | Network type setting 0: "Connecting through LAN or the router." 1: "Dial-up to the network (modem, ADSL)." | 0 | R | |
| 83 (53 _H) | System setting status area (*2) | Automatic network connection setting at start-up 0: "No connection to network at start-up." 1: "Automatic connection to network at start-up." | 0 | R | Section 4.6.4 |
| 84 (54 _H) | | FTP server setting 0 to 1023 : "Use the default FTP port number (21)." 1024 to 65535 : "Use the following FTP port number." | 0 | R | |
| 85 (55 _H) | | Web server setting Register the HTTP port number to NAT of the router. 0: Not register 1: Register | 0 | R | |
| 86 (56 _H) | | FTP server setting Register the FTP port number to NAT of the router. 0: Not register 1: Register | 0 | R | |
| 87 to 89 (57 _H to 59 _H) | Use prohibited | System area | — | — | — |
| 90 (5A _H) | Dial-up setting status area | Dial method 0: Tone 1: Pulse | 0 | R | Section 4.6.4 |
| 91 (5B _H) | | Retry: Number of retries. | 0 | R | |
| 92 (5C _H) | | Retry: Change access point automatically. 0: None 1: Provided | 0 | R | |
| 93 (5D _H) | | Modem attribute: Communication speed (Unit: bps) | 0 | R | |
| 94 to 97 (5E _H to 61 _H) | Use prohibited | System area | — | — | — |
| 98 (62 _H) | Dial-up setting status area | Modem attribute: Call timeout (Unit: Second) | 0 | R | Section 4.6.4 |
| 99 (63 _H) | | Modem attribute: Dial pause time (Unit: Second) | 0 | R | |
| 100 to 132 (64 _H to 84 _H) | | Modem attribute: Addition set Addition AT command string | 0 | R | |
| 133 (85 _H) | | Modem attribute: CALL function 0: None 1: Provided | 0 | R | |
| 134 (86 _H) | | Modem attribute: Disconnect function, Disconnect time (Unit: Minute) | 0 | R | |
| 135 to 139 (87 _H to 8B _H) | Use prohibited | System area | — | — | — |

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(From the preceding page)

| Address (Decimal (Hex)) | Application | Name | | Initial value | Read/ write * 1 | Reference section | |
|---|------------------------|---|---|------------------|--------------------|----------------------|------------------|
| 140 (8C _H) | Current error (* 2) | Error code 0: Normal Other than 0: Error code | | 0 | R | Section 3.8.5 | |
| 141 (8D _H) | | System area (Use prohibited) | | — | — | — | |
| 142 to 145 (8E _H to 91 _H) | | Time | | 0 | R | Section 3.8.5 | |
| 146 to 149 (92 _H to 95 _H) | Use prohibited | System area | | — | — | — | |
| 150 (96 _H) | Error log | Number of times of error occurrence | | 0 | R | Section 3.8.6 | |
| 151 (97 _H) | | Error log write pointer | | 0 | R | | |
| 152 (98 _H) | | Error log 1 | Error code 0: Normal Other than 0: Error code | | R | | R |
| 153 (99 _H) | | | System area (Use prohibited) | | — | — | — |
| 154 to 157 (9A _H to 9D _H) | | | Date and time | | 0 | R | Section 3.8.6 |
| 158 to 163 (9E _H to A3 _H) | | Error log 2 | (Same as Error log 1) | | | | |
| 164 to 169 (A4 _H to A9 _H) | | Error log 3 | (Same as Error log 1) | | | | |
| 170 to 175 (AA _H to AF _H) | | Error log 4 | (Same as Error log 1) | | | | |
| 176 to 181 (B0 _H to B5 _H) | | Error log 5 | (Same as Error log 1) | | | | |
| 182 to 187 (B6 _H to BB _H) | | Error log 6 | (Same as Error log 1) | | | | |
| 188 to 193 (BC _H to C1 _H) | | Error log 7 | (Same as Error log 1) | | | | |
| 194 to 199 (C2 _H to C7 _H) | | Error log 8 | (Same as Error log 1) | | | | |
| 200 to 205 (C8 _H to CD _H) | | Error log 9 | (Same as Error log 1) | | | | |
| 206 to 211 (CE _H to D3 _H) | | Error log 10 | (Same as Error log 1) | | | | |
| 212 to 217 (D4 _H to D9 _H) | | Error log 11 | (Same as Error log 1) | | | | |
| 218 to 223 (DA _H to DF _H) | | Error log 12 | (Same as Error log 1) | | | | |
| 224 to 229 (E0 _H to E5 _H) | | Error log 13 | (Same as Error log 1) | | | | |
| 230 to 235 (E6 _H to EB _H) | | Error log 14 | (Same as Error log 1) | | | | |
| 236 to 241 (EC _H to F1 _H) | | Error log 15 | (Same as Error log 1) | | | | |
| 242 to 247 (F2 _H to F7 _H) | | Error log 16 | (Same as Error log 1) | | | | |
| 248 to 249 (F8 _H to F9 _H) | | Use prohibited | System area | | — | — | — |

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| Address (Decimal (Hex)) | Application | Name | Initial value | Read/ write * 1 | Reference section |
|---|----------------|---|--|--------------------|----------------------|
| 250 to 251 (FA _H to FB _H) | Login history | Number of login times | 0 | R | Section 3.8.7 |
| 252 (FC _H) | | Login history write pointer | 0 | R | |
| 253 (FD _H) | | Login history 1 | User number | 0 | R |
| 254 to 255 (FE _H to FF _H) | | | Source IP address | 0 | R |
| 256 (100 _H) | | | Login type 1: Web login 2: FTP login | 0 | R |
| 257 to 260 (101 _H to 104 _H) | | | Date and Time | 0 | R |
| 261 to 268 (105 _H to 10C _H) | | Login history 2 | (Same as Login history 1) | | |
| 269 to 276 (10D _H to 114 _H) | | Login history 3 | (Same as Login history 1) | | |
| 277 to 284 (115 _H to 11C _H) | | Login history 4 | (Same as Login history 1) | | |
| 285 to 292 (11D _H to 124 _H) | | Login history 5 | (Same as Login history 1) | | |
| 293 to 300 (125 _H to 12C _H) | | Login history 6 | (Same as Login history 1) | | |
| 301 to 308 (12D _H to 134 _H) | | Login history 7 | (Same as Login history 1) | | |
| 309 to 316 (135 _H to 13C _H) | | Login history 8 | (Same as Login history 1) | | |
| 317 to 324 (13D _H to 144 _H) | | Login history 9 | (Same as Login history 1) | | |
| 325 to 332 (145 _H to 14C _H) | | Login history 10 | (Same as Login history 1) | | |
| 333 to 340 (14D _H to 154 _H) | | Login history 11 | (Same as Login history 1) | | |
| 341 to 348 (155 _H to 15C _H) | | Login history 12 | (Same as Login history 1) | | |
| 349 to 356 (15D _H to 164 _H) | | Login history 13 | (Same as Login history 1) | | |
| 357 to 364 (165 _H to 16C _H) | | Login history 14 | (Same as Login history 1) | | |
| 365 to 372 (16D _H to 174 _H) | | Login history 15 | (Same as Login history 1) | | |
| 373 to 380 (175 _H to 17C _H) | | Login history 16 | (Same as Login history 1) | | |
| 381 (17D _H) | Use prohibited | System area | — | — | — |
| 382 to 383 (17E _H to 17F _H) | IP filter (*2) | Number of times when IP packet is blocked | 0 | R | Section 3.8.8 |
| 384 to 799 (180 _H to 31F _H) | Use prohibited | System area | — | — | — |

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| Address (Decimal (Hex)) | Application | Name | | Initial value | Read/ write *1 | Reference section |
|---|-----------------------------|---------------------------------------|---|------------------|-------------------|----------------------|
| 800 to 801 (320 _H to 321 _H) | Collection monitor cycle | Current cycle (Unit: Second) | | 0 | R | Section 3.8.9 |
| 802 to 803 (322 _H to 323 _H) | | Maximum cycle (Unit: Second) | | 0 | R | |
| 804 to 999 (324 _H to 3E7 _H) | Use prohibited | System area | | — | — | — |
| 1000 to 1003 (3E8 _H to 3EB _H) | Tag status | Tag setting data | | 0 | R | Section 3.8.10 |
| 1004 to 1007 (3EC _H to 3EF _H) | | Tag collection data | | 0 | R | |
| 1008 to 1011 (3F0 _H to 3F3 _H) | | Tag collection error data | | 0 | R | |
| 1012 (3F4 _H) | | Tag collection 1 error code | | 0 | R | |
| 1013 to 1075 (3F5 _H to 433 _H) | | Tag collection 2 to 64 error codes | The composition of each area is the same as that of the tag collection 1 error code. Refer to *3 for assignment of each area. | | | |
| 1076 to 1999 (434 _H to 7CF _H) | Use prohibited | System area | | — | — | — |
| 2000 to 2003 (7D0 _H to 7D3 _H) | Logging status | Logging setting data | | 0 | R | Section 3.8.11 |
| 2004 to 2007 (7D4 _H to 7D7 _H) | | Logging execute data | | 0 | R | |
| 2008 to 2011 (7D8 _H to 7DB _H) | | Logging error data | | 0 | R | |
| 2012 (7DC _H) | | Logging 1 data | Error code 0: Normal Other than 0: Error code | 0 | R | |
| 2013 (7DD _H) | | | Number of saved files | 0 | R | |
| 2014 to 2015 (7DE _H to 7DF _H) | | | Number of the latest saved file | 0 | R | |
| 2016 to 2267 (7E0 _H to 8DB _H) | | Logging 2 to 64 data | The composition of each area is the same as that of the logging 1 data. Refer to *4 for assignment of each area. | | | |
| 2268 to 2999 (8DC _H to BB7 _H) | Use prohibited | System area | | — | — | — |

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| Address (Decimal (Hex)) | Application | Name | Initial value | Read/ write * 1 | Reference section |
|---|-------------------------------|---------------------------------|------------------|--------------------|----------------------|
| 3000 (BB8 _H) | CPU event monitor status 2 | CPU event setting data | 0 | R | Section 3.8.13 |
| 3001 (BB9 _H) | | CPU event occurrence data | 0 | R | |
| 3002 (BBA _H) | | CPU event monitor error data | 0 | R | |
| 3003 (BBB _H) | | CPU event monitor 1 error code | 0 | R | |
| 3004 (BBC _H) | | CPU event monitor 2 error code | 0 | R | |
| 3005 (BBD _H) | | CPU event monitor 3 error code | 0 | R | |
| 3006 (BBE _H) | | CPU event monitor 4 error code | 0 | R | |
| 3007 (BBF _H) | | CPU event monitor 5 error code | 0 | R | |
| 3008 (BC0 _H) | | CPU event monitor 6 error code | 0 | R | |
| 3009 (BC1 _H) | | CPU event monitor 7 error code | 0 | R | |
| 3010 (BC2 _H) | | CPU event monitor 8 error code | 0 | R | |
| 3011 (BC3 _H) | | CPU event monitor 9 error code | 0 | R | |
| 3012 (BC4 _H) | | CPU event monitor 10 error code | 0 | R | |
| 3013 (BC5 _H) | | CPU event monitor 11 error code | 0 | R | |
| 3014 (BC6 _H) | | CPU event monitor 12 error code | 0 | R | |
| 3015 (BC7 _H) | | CPU event monitor 13 error code | 0 | R | |
| 3016 (BC8 _H) | | CPU event monitor 14 error code | 0 | R | |
| 3017 (BC9 _H) | | CPU event monitor 15 error code | 0 | R | |
| 3018 (BCA _H) | | CPU event monitor 16 error code | 0 | R | |
| 3019 to 3099 (BCB _H to C1B _H) | Use prohibited | System area | — | — | — |

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(From the preceding page)

| Address (Decimal (Hex)) | Application | Name | Initial value | Read/ write * 1 | Reference section |
|-----------------------------|-------------------------------|---------------------------------|------------------|--------------------|----------------------|
| 3100 (C1C _H) | Tag event monitor status 2 | Tag event setting data | 0 | R | Section 3.8.15 |
| 3101 (C1D _H) | | Tag event occurrence data | 0 | R | |
| 3102 (C1E _H) | | Tag event monitor error data | 0 | R | |
| 3103 (C1F _H) | | Tag event monitor 1 error code | 0 | R | |
| 3104 (C20 _H) | | Tag event monitor 2 error code | 0 | R | |
| 3105 (C21 _H) | | Tag event monitor 3 error code | 0 | R | |
| 3106 (C22 _H) | | Tag event monitor 4 error code | 0 | R | |
| 3107 (C23 _H) | | Tag event monitor 5 error code | 0 | R | |
| 3108 (C24 _H) | | Tag event monitor 6 error code | 0 | R | |
| 3109 (C25 _H) | | Tag event monitor 7 error code | 0 | R | |
| 3110 (C26 _H) | | Tag event monitor 8 error code | 0 | R | |
| 3111 (C27 _H) | | Tag event monitor 9 error code | 0 | R | |
| 3112 (C28 _H) | | Tag event monitor 10 error code | 0 | R | |
| 3113 (C29 _H) | | Tag event monitor 11 error code | 0 | R | |
| 3114 (C2A _H) | | Tag event monitor 12 error code | 0 | R | |
| 3115 (C2B _H) | | Tag event monitor 13 error code | 0 | R | |
| 3116 (C2C _H) | | Tag event monitor 14 error code | 0 | R | |
| 3117 (C2D _H) | | Tag event monitor 15 error code | 0 | R | |
| 3118 (C2E _H) | | Tag event monitor 16 error code | 0 | R | |
| 3119 (C2F _H) | Use prohibited | System area | — | — | — |

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(From the preceding page)

| Address (Decimal (Hex)) | Application | Name | | Initial value | Read/ write * 1 | Reference section |
|---|--|---|--|------------------|--------------------|----------------------|
| 3200 (C80 _H) | Time/Interval monitor status | Time event setting data | | 0 | R | Section 3.8.16 |
| 3201 (C81 _H) | | Time event monitor error data | | 0 | R | |
| 3202 (C82 _H) | | Time event monitor 1 error code | | 0 | R | |
| 3203 (C83 _H) | | Time event monitor 2 error code | | 0 | R | |
| 3204 (C84 _H) | | Time event monitor 3 error code | | 0 | R | |
| 3205 (C85 _H) | | Time event monitor 4 error code | | 0 | R | |
| 3206 (C86 _H) | | Time event monitor 5 error code | | 0 | R | |
| 3207 (C87 _H) | | Time event monitor 6 error code | | 0 | R | |
| 3208 (C88 _H) | | Time event monitor 7 error code | | 0 | R | |
| 3209 (C89 _H) | | Time event monitor 8 error code | | 0 | R | |
| 3210 (C8A _H) | | Time event monitor 9 error code | | 0 | R | |
| 3211 (C8B _H) | | Time event monitor 10 error code | | 0 | R | |
| 3212 (C8C _H) | | Time event monitor 11 error code | | 0 | R | |
| 3213 (C8D _H) | | Time event monitor 12 error code | | 0 | R | |
| 3214 (C8E _H) | | Time event monitor 13 error code | | 0 | R | |
| 3215 (C8F _H) | | Time event monitor 14 error code | | 0 | R | |
| 3216 (C90 _H) | | Time event monitor 15 error code | | 0 | R | |
| 3217 (C91 _H) | | Time event monitor 16 error code | | 0 | R | |
| 3218 to 3299 (C92 _H to CE3 _H) | Use prohibited | System area | | — | — | — |
| 3300 to 3303 (CE4 _H to CE7 _H) | CPU event monitor status 1 (* 2) | CPU event monitor setting data | | 0 | R | Section 3.8.12 |
| 3304 to 3307 (CE8 _H to CEB _H) | | CPU event occurrence data | | 0 | R | |
| 3308 to 3311 (CEC _H to CEF _H) | | CPU event monitor error data | | 0 | R | |
| 3312 (CF0 _H) | | CPU event monitor 1 error code | | 0 | R | |
| 3313 to 3375 (CF1 _H to D2F _H) | | CPU event monitor 2 to 64 error code | The composition of each area is the same as that of the CPU event monitor 1 error code. Refer to *5 for assignment of each area. | | | |

(Continued on the next page)

(From the preceding page)

| Address (Decimal (Hex)) | Application | Name | | Initial value | Read/ write * 1 | Reference section | |
|---|--|--|--|------------------|--------------------|----------------------|--|
| 3376 to 3999 (D30 _H to F9F _H) | Use prohibited | System area | | — | — | — | |
| 4000 to 4003 (FA0 _H to FA3 _H) | Access target CPU setting status | Access target CPU setting data | | 0 | R | Section 3.8.17 | |
| 4004 to 4007 (FA4 _H to FA7 _H) | | Access target CPU error data | | 0 | R | | |
| 4008 (FA8 _H) | | Access target CPU 1 error code | | 0 | R | | |
| 4009 to 4071 (FA9 _H to FE7 _H) | | Access target CPU 2 to 64 error code | The composition of each area is the same as that of the access target CPU 1 error code. Refer to *6 for assignment of each area. | | | | |
| 4072 to 4999 (FE8 _H to 1387 _H) | Use prohibited | System area | | — | — | — | |
| 5000 (1388 _H) | E-mail transmission status | Number of times when WMSSEND instruction was normally completed | | 0 | R | Section 3.8.18 | |
| 5001 (1389 _H) | | Number of times when WMSSEND instruction failed | | 0 | R | | |
| 5002 (138A _H) | | Number of normally completed e-mail transmission | | 0 | R | | |
| 5003 (138B _H) | | Number of sent attached files | | 0 | R | | |
| 5004 (138C _H) | | Number of undelivered e-mails | | 0 | R | | |
| 5005 (138D _H) | | Number of writes for error log | | 0 | R | | |
| 5006 (138E _H) | | Error log write pointer | | 0 | R | | |
| 5007 (138F _H) | | Error log 1 | Error code | 0 | R | | |
| 5008 (1390 _H) | | | To | 0 | R | | |
| 5009 to 5023 (1391 _H to 139F _H) | | | Subject | 0 | R | | |
| 5024 to 5027 (13A0 _H to 13A3 _H) | | | Date | 0 | R | | |
| 5028 to 5048 (13A4 _H to 13B8 _H) | | Error log 2 | (Same as Error log 1) | | | | |
| 5049 to 5069 (13B9 _H to 13CD _H) | | Error log 3 | (Same as Error log 1) | | | | |
| 5070 to 5090 (13CE _H to 13E2 _H) | | Error log 4 | (Same as Error log 1) | | | | |
| 5091 to 5111 (13E3 _H to 13F7 _H) | | Error log 5 | (Same as Error log 1) | | | | |
| 5112 to 5132 (13F8 _H to 140C _H) | | Error log 6 | (Same as Error log 1) | | | | |
| 5133 to 5153 (140D _H to 1421 _H) | | Error log 7 | (Same as Error log 1) | | | | |

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(From the preceding page)

| Address (Decimal (Hex)) | Application | Name | | Initial value | Read/ write * 1 | Reference section |
|---|--|--------------------------------|--|------------------|--------------------|----------------------|
| 5154 to 5174 (1422 _H to 1436 _H) | E-mail transmission status | Error log 8 | (Same as Error log 1) | | | Section 3.8.18 |
| 5175 to 5195 (1437 _H to 144B _H) | | Error log 9 | (Same as Error log 1) | | | |
| 5196 to 5216 (144C _H to 1460 _H) | | Error log 10 | (Same as Error log 1) | | | |
| 5217 to 5237 (1461 _H to 1475 _H) | | Error log 11 | (Same as Error log 1) | | | |
| 5238 to 5258 (1476 _H to 148A _H) | | Error log 12 | (Same as Error log 1) | | | |
| 5259 to 5279 (148B _H to 149F _H) | | Error log 13 | (Same as Error log 1) | | | |
| 5280 to 5300 (14A0 _H to 14B4 _H) | | Error log 14 | (Same as Error log 1) | | | |
| 5301 to 5321 (14B5 _H to 14C9 _H) | | Error log 15 | (Same as Error log 1) | | | |
| 5322 to 5342 (14CA _H to 14DE _H) | | Error log 16 | (Same as Error log 1) | | | |
| 5343 (14DF _H) | E-mail transmission status (* 2) | Transmission log write count | | 0 | R | Section 3.8.18 |
| 5344 (14E0 _H) | | Transmission log write pointer | | 0 | R | |
| 5345 (14E1 _H) | | Transmission log 1 | To | 0 | R | |
| 5346 to 5360 (14E2 _H to 14F0 _H) | | | Subject | 0 | R | |
| 5361 to 5364 (14F1 _H to 14F4 _H) | | | Date | 0 | R | |
| 5365 to 5984 (14F5 _H to 1760 _H) | | Transmission log 2 to 32 | The composition of each area is the same as that of the transmission log 1. Refer to * 7 for assignment of each area. | | | |
| 5985 to 5999 (1761 _H to 176F _H) | Use prohibited | System area | | — | — | — |
| 6000 (1770 _H) | FTP server status | Number of successful logins | | 0 | R | Section 3.8.19 |
| 6001 (1771 _H) | | Number of failed logins | | 0 | R | |

(Continued on the next page)

(From the preceding page)

| Address (Decimal (Hex)) | Application | Name | | Initial value | Read/ write * 1 | Reference section | |
|---|----------------------------|--|-----------------------|------------------|--------------------|----------------------|--|
| 6002 (1772 _H) | FTP client Status (PUT) | Number of times when the FTPPUT instruction was normally completed | | 0 | R | Section 3.8.20 | |
| 6003 (1773 _H) | | Number of times when the FTPPUT instruction was abnormally completed | | 0 | R | | |
| 6004 (1774 _H) | | Number of normally completed FTP transfers (PUT) | | 0 | R | | |
| 6005 (1775 _H) | | Number of abnormally completed FTP transfers (PUT) | | 0 | R | | |
| 6006 (1776 _H) | | Number of writes for error log | | 0 | R | | |
| 6007 (1777 _H) | | Error log write pointer | | 0 | R | | |
| 6008 (1778 _H) | | Error log 1 | Error code | 0 | R | | |
| 6009 (1779 _H) | | | Transfer destination | 0 | R | | |
| 6010 to 6015 (177A _H to 177F _H) | | | Transferred file name | 0 | R | | |
| 6016 to 6019 (1780 _H to 1783 _H) | | | Date | 0 | R | | |
| 6020 to 6031 (1784 _H to 178F _H) | | Error log 2 | (Same as Error log 1) | | | | |
| 6032 to 6043 (1790 _H to 179B _H) | | Error log 3 | (Same as Error log 1) | | | | |
| 6044 to 6055 (179C _H to 17A7 _H) | | Error log 4 | (Same as Error log 1) | | | | |
| 6056 to 6067 (17A8 _H to 17B3 _H) | | Error log 5 | (Same as Error log 1) | | | | |
| 6068 to 6079 (17B4 _H to 17BF _H) | | Error log 6 | (Same as Error log 1) | | | | |
| 6080 to 6091 (17C0 _H to 17CB _H) | | Error log 7 | (Same as Error log 1) | | | | |
| 6092 to 6103 (17CC _H to 17D7 _H) | | Error log 8 | (Same as Error log 1) | | | | |
| 6104 to 6115 (17D8 _H to 17E3 _H) | | Error log 9 | (Same as Error log 1) | | | | |
| 6116 to 6127 (17E4 _H to 17EF _H) | | Error log 10 | (Same as Error log 1) | | | | |
| 6128 to 6139 (17F0 _H to 17FB _H) | | Error log 11 | (Same as Error log 1) | | | | |
| 6140 to 6151 (17FC _H to 1807 _H) | | Error log 12 | (Same as Error log 1) | | | | |
| 6152 to 6163 (1808 _H to 1813 _H) | | Error log 13 | (Same as Error log 1) | | | | |
| 6164 to 6175 (1814 _H to 181F _H) | | Error log 14 | (Same as Error log 1) | | | | |
| 6176 to 6187 (1820 _H to 182B _H) | | Error log 15 | (Same as Error log 1) | | | | |
| 6188 to 6199 (182C _H to 1837 _H) | | Error log 16 | (Same as Error log 1) | | | | |

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(From the preceding page)

| Address (Decimal (Hex)) | Application | Name | | Initial value | Read/ write * 1 | Reference section |
|---|-------------------------------------|---|--|------------------|--------------------|----------------------|
| 6200 (1838 _H) | FTP client status (PUT) (* 2) | Transfer log write count | | 0 | R | Section 3.8.20 |
| 6201 (1839 _H) | | Transfer log write pointer | | 0 | R | |
| 6202 (183A _H) | | Transfer log 1 | Transfer destination | 0 | R | |
| 6203 to 6208 (183B _H to 1840 _H) | | | Transferred file name | 0 | R | |
| 6209 to 6212 (1841 _H to 1844 _H) | | | Data | 0 | R | |
| 6213 to 6553 (1845 _H to 1999 _H) | | Transfer log 2 to 32 | The composition of each area is the same as that of the transfer log 1. Refer to * 8 for assignment of each area. | | | |
| 6554 to 8001 (199A _H to 1F41 _H) | Use prohibited | System area | | — | — | — |
| 8002 (1F42 _H) | FTP client status (GET) (* 2) | Number of times when the FTPGET instruction was normally completed | | 0 | R | Section 3.8.21 |
| 8003 (1F43 _H) | | Number of times when the FTPGET instruction was abnormally completed | | 0 | R | |
| 8004 (1F44 _H) | | Number of normally completed FTP transfers (GET) | | 0 | R | |
| 8005 (1F45 _H) | | Number of abnormally completed FTP transfers (GET) | | 0 | R | |
| 8006 (1F46 _H) | | Number of writes for error log | | 0 | R | |
| 8007 (1F47 _H) | | Error log write pointer | | 0 | R | |
| 8008 (1F48 _H) | | Error log 1 | Error code | 0 | R | |
| 8009 (1F49 _H) | | | Transfer source | 0 | R | |
| 8010 to 8015 (1F4A _H to 1F4F _H) | | | Transferred file name | 0 | R | |
| 8016 to 8019 (1F50 _H to 1F53 _H) | | | Data | 0 | R | |
| 8020 to 8031 (1F54 _H to 1F5F _H) | | Error log 2 | (Same as Error log 1) | | | |
| 8032 to 8043 (1F60 _H to 1F6B _H) | | Error log 3 | (Same as Error log 1) | | | |
| 8044 to 8055 (1F6C _H to 1F77 _H) | | Error log 4 | (Same as Error log 1) | | | |
| 8056 to 8067 (1F78 _H to 1F83 _H) | | Error log 5 | (Same as Error log 1) | | | |
| 8068 to 8079 (1F84 _H to 1F8F _H) | | Error log 6 | (Same as Error log 1) | | | |
| 8080 to 8091 (1F90 _H to 1F9B _H) | | Error log 7 | (Same as Error log 1) | | | |
| 8092 to 8103 (1F9C _H to 1FA7 _H) | | Error log 8 | (Same as Error log 1) | | | |
| 8104 to 8115 (1FA8 _H to 1FB3 _H) | | Error log 9 | (Same as Error log 1) | | | |
| 8116 to 8127 (1FB4 _H to 1FBF _H) | | Error log 10 | (Same as Error log 1) | | | |
| 8128 to 8139 (1FC0 _H to 1FCB _H) | | Error log 11 | (Same as Error log 1) | | | |
| 8140 to 8151 (1FCC _H to 1FD7 _H) | | Error log 12 | (Same as Error log 1) | | | |

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(From the preceding page)

| Address (Decimal (Hex)) | Application | Name | | Initial value | Read/ write * 1 | Reference section |
|---|--|---|--|------------------|--------------------|----------------------|
| 8152 to 8163 (1FD8 _H to 1FE3 _H) | FTP client status (GET) (* 2) | Error log 13 | (Same as Error log 1) | | | Section 3.8.21 |
| 8164 to 8175 (1FE4 _H to 1FEF _H) | | Error log 14 | (Same as Error log 1) | | | |
| 8176 to 8187 (1FF0 _H to 1FFB _H) | | Error log 15 | (Same as Error log 1) | | | |
| 8188 to 8199 (1FFC _H to 2007 _H) | | Error log 16 | (Same as Error log 1) | | | |
| 8200 (2008 _H) | | Transfer log write count | | 0 | R | |
| 8201 (2009 _H) | | Transfer log write pointer | | 0 | R | |
| 8202 (200A _H) | | Transfer log 1 | Transfer source | 0 | R | |
| 8203 to 8208 (200B _H to 2010 _H) | | | Transferred file name | 0 | R | |
| 8209 to 8212 (2011 _H to 2014 _H) | | | Data | 0 | R | |
| 8213 to 8553 (2015 _H to 2169 _H) | | Transfer log 2 to 32 | The composition of each area is the same as that of the transfer log 1. Refer to * 9 for assignment of each area. | | | |
| 8554 to 9998 (216A _H to 270E _H) | Use prohibited | System area | | — | — | — |
| 9999 (270F _H) | Module initialization request | Module initialization request 0: No request 1: During module initialization mode (The system is set up when the CPU module is reset) 2: Module initialization request 3: Completed (The system is set up.) Other than 3: Failed (The system is set up.) | | 0 | R/W | Section 4.13 |
| 10000 to 10015 (2710 _H to 271F _H) | Tag event monitor status 1 (* 2) | Tag event monitor setting data | | 0 | R | Section 3.8.14 |
| 10016 to 10063 (2720 _H to 274F _H) | Use prohibited | System area | | — | — | — |
| 10064 to 10079 (2750 _H to 275F _H) | Tag event monitor status 1 (* 2) | Tag event occurrence data | | 0 | R | Section 3.8.14 |
| 10080 to 10127 (2760 _H to 278F _H) | Use prohibited | System area | | — | — | — |
| 10128 to 10143 (2790 _H to 279F _H) | Tag event monitor status 1 (* 2) | Tag event monitor error data | | 0 | R | Section 3.8.14 |
| 10144 to 10191 (27A0 _H to 27CF _H) | Use prohibited | System area | | — | — | — |
| 10192 (27D0 _H) | Tag event monitor status 1 (* 2) | Tag event monitor 1 error code | | 0 | R | Section 3.8.14 |
| 10193 to 10447 (27D1 _H to 28CF _H) | | Tag event monitor 2 to 256 error code | The composition of each area is the same as that of the tag event monitor 1 error code 1. Refer to * 10 for assignment of each area. | | | |

*1 Shows whether or not reading/writing is possible.

R: Only reading is possible. W: Only writing is possible.

R/W: Both reading and writing are possible.

*2 Can be used in the product whose first 5 digits of serial No. are 05112 or later.

(Assigned as system area for the product earlier than that)

*3 The following shows the assignment of error code area for the tag collection 1 to 64 (address: 1012 to 1075).

| Name | Tag Collection 1 to 64 Error Code Area | | | | | | | | | |
|------------|--|------|------|------|------|------|------|------|------|------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Error code | 1012 | 1013 | 1014 | 1015 | 1016 | 1017 | 1018 | 1019 | 1020 | 1021 |
| | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Error code | 1022 | 1023 | 1024 | 1025 | 1026 | 1027 | 1028 | 1029 | 1030 | 1031 |
| | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| Error code | 1032 | 1033 | 1034 | 1035 | 1036 | 1037 | 1038 | 1039 | 1040 | 1041 |
| | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| Error code | 1042 | 1043 | 1044 | 1045 | 1046 | 1047 | 1048 | 1049 | 1050 | 1051 |
| | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| Error code | 1052 | 1053 | 1054 | 1055 | 1056 | 1057 | 1058 | 1059 | 1060 | 1061 |
| | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| Error code | 1062 | 1063 | 1064 | 1065 | 1066 | 1067 | 1068 | 1069 | 1070 | 1071 |
| | 61 | 62 | 63 | 64 | | | | | | |
| Error code | 1072 | 1073 | 1074 | 1075 | | | | | | |

*4 The following shows the assignment of the logging 1 to 64 data area (address: 2012 to 2267).

| Name | Logging 1 to 64 Data Area | | | | | | | | | |
|---------------------------------|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Error code | 2012 | 2016 | 2020 | 2024 | 2028 | 2032 | 2036 | 2040 | 2044 | 2048 |
| Number of saved files | 2013 | 2017 | 2021 | 2025 | 2029 | 2033 | 2037 | 2041 | 2045 | 2049 |
| Number of the latest saved file | 2014, 2015 | 2018, 2019 | 2022, 2023 | 2026, 2027 | 2030, 2031 | 2034, 2035 | 2038, 2039 | 2042, 2043 | 2046, 2047 | 2050, 2051 |
| | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Error code | 2052 | 2056 | 2060 | 2064 | 2068 | 2072 | 2076 | 2080 | 2084 | 2088 |
| Number of saved files | 2053 | 2057 | 2061 | 2065 | 2069 | 2073 | 2077 | 2081 | 2085 | 2089 |
| Number of the latest saved file | 2054, 2055 | 2058, 2059 | 2062, 2063 | 2066, 2067 | 2070, 2071 | 2074, 2075 | 2078, 2079 | 2082, 2083 | 2086, 2087 | 2090, 2091 |
| | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| Error code | 2092 | 2096 | 2100 | 2104 | 2108 | 2112 | 2116 | 2120 | 2124 | 2128 |
| Number of saved files | 2093 | 2097 | 2101 | 2105 | 2109 | 2113 | 2117 | 2121 | 2125 | 2129 |
| Number of the latest saved file | 2094, 2095 | 2098, 2099 | 2102, 2103 | 2106, 2107 | 2110, 2111 | 2114, 2115 | 2118, 2119 | 2122, 2123 | 2126, 2127 | 2130, 2131 |

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| Name | Logging 1 to 64 Data Area | | | | | | | | | |
|---------------------------------|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| Error code | 2132 | 2136 | 2140 | 2144 | 2148 | 2152 | 2156 | 2160 | 2164 | 2168 |
| Number of saved files | 2133 | 2137 | 2141 | 2145 | 2149 | 2153 | 2157 | 2161 | 2165 | 2169 |
| Number of the latest saved file | 2134, 2135 | 2138, 2139 | 2142, 2143 | 2146, 2147 | 2150, 2151 | 2154, 2155 | 2158, 2159 | 2162, 2163 | 2166, 2167 | 2170, 2171 |
| | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| Error code | 2172 | 2176 | 2180 | 2184 | 2188 | 2192 | 2196 | 2200 | 2204 | 2208 |
| Number of saved files | 2173 | 2177 | 2181 | 2185 | 2189 | 2193 | 2197 | 2201 | 2205 | 2209 |
| Number of the latest saved file | 2174, 2175 | 2178, 2179 | 2182, 2183 | 2186, 2187 | 2190, 2191 | 2194, 2195 | 2198, 2199 | 2202, 2203 | 2206, 2207 | 2210, 2211 |
| | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| Error code | 2212 | 2216 | 2220 | 2224 | 2228 | 2232 | 2236 | 2240 | 2244 | 2248 |
| Number of saved files | 2213 | 2217 | 2221 | 2225 | 2229 | 2233 | 2237 | 2241 | 2245 | 2249 |
| Number of the latest saved file | 2214, 2215 | 2218, 2219 | 2222, 2223 | 2226, 2227 | 2230, 2231 | 2234, 2235 | 2238, 2239 | 2242, 2243 | 2246, 2247 | 2250, 2251 |
| | 61 | 62 | 63 | 64 | | | | | | |
| Error code | 2252 | 2256 | 2260 | 2264 | | | | | | |
| Number of saved files | 2253 | 2257 | 2261 | 2265 | | | | | | |
| Number of the latest saved file | 2254, 2255 | 2258, 2259 | 2262, 2263 | 2266, 2267 | | | | | | |

*5 The following shows the assignment of the CPU event monitor 1 to 64 error code area (address: 3312 to 3375).

| Name | CPU Event Monitor 1 to 64 Error Code Area | | | | | | | | | |
|------------|---|------|------|------|------|------|------|------|------|------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Error code | 3312 | 3313 | 3314 | 3315 | 3316 | 3317 | 3318 | 3319 | 3320 | 3321 |
| | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Error code | 3322 | 3323 | 3324 | 3325 | 3326 | 3327 | 3328 | 3329 | 3330 | 3331 |
| | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| Error code | 3332 | 3333 | 3334 | 3335 | 3336 | 3337 | 3338 | 3339 | 3340 | 3341 |
| | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| Error code | 3342 | 3343 | 3344 | 3345 | 3346 | 3347 | 3348 | 3349 | 3350 | 3351 |
| | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| Error code | 3352 | 3353 | 3354 | 3355 | 3356 | 3357 | 3358 | 3359 | 3360 | 3361 |
| | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| Error code | 3362 | 3363 | 3364 | 3365 | 3366 | 3367 | 3368 | 3369 | 3370 | 3371 |
| | 61 | 62 | 63 | 64 | | | | | | |
| Error code | 3372 | 3373 | 3374 | 3375 | | | | | | |

*6 The following shows the assignment of error code area for the access target CPU 1 to 64 (address: 4008 to 4071).

| Name | Access Target CPU 1 to 64 Error Code Area | | | | | | | | | |
|------------|---|------|------|------|------|------|------|------|------|------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Error code | 4008 | 4009 | 4010 | 4011 | 4012 | 4013 | 4014 | 4015 | 4016 | 4017 |
| | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Error code | 4018 | 4019 | 4020 | 4021 | 4022 | 4023 | 4024 | 4025 | 4026 | 4027 |
| | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| Error code | 4028 | 4029 | 4030 | 4031 | 4032 | 4033 | 4034 | 4035 | 4036 | 4037 |
| | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| Error code | 4038 | 4039 | 4040 | 4041 | 4042 | 4043 | 4044 | 4045 | 4046 | 4047 |
| | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| Error code | 4048 | 4049 | 4050 | 4051 | 4052 | 4053 | 4054 | 4055 | 4056 | 4057 |
| | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| Error code | 4058 | 4059 | 4060 | 4061 | 4062 | 4063 | 4064 | 4065 | 4066 | 4067 |
| | 61 | 62 | 63 | 64 | | | | | | |
| Error code | 4068 | 4069 | 4070 | 4071 | | | | | | |

*7 The following shows the assignment of the transmission log 1 to 32 area (address: 5345 to 5984).

| Name | Transmission Log 1 to 32 Area | | | | | | | | | |
|---------|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| To | 5345 | 5365 | 5385 | 5405 | 5425 | 5445 | 5465 | 5485 | 5505 | 5525 |
| Subject | 5346 to 5360 | 5366 to 5380 | 5386 to 5400 | 5406 to 5420 | 5426 to 5440 | 5446 to 5460 | 5466 to 5480 | 5486 to 5500 | 5506 to 5520 | 5526 to 5540 |
| Date | 5361 to 5364 | 5381 to 5384 | 5401 to 5404 | 5421 to 5424 | 5441 to 5444 | 5461 to 5464 | 5481 to 5484 | 5501 to 5504 | 5521 to 5524 | 5541 to 5544 |
| | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| To | 5545 | 5565 | 5585 | 5605 | 5625 | 5645 | 5665 | 5685 | 5705 | 5725 |
| Subject | 5546 to 5560 | 5566 to 5580 | 5586 to 5600 | 5606 to 5620 | 5626 to 5640 | 5646 to 5660 | 5666 to 5680 | 5686 to 5700 | 5706 to 5720 | 5726 to 5740 |
| Date | 5561 to 5564 | 5581 to 5584 | 5601 to 5604 | 5621 to 5624 | 5641 to 5644 | 5661 to 5664 | 5681 to 5684 | 5701 to 5704 | 5721 to 5724 | 5741 to 5744 |
| | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| To | 5745 | 5765 | 5785 | 5805 | 5825 | 5845 | 5865 | 5885 | 5905 | 5925 |
| Subject | 5746 to 5760 | 5766 to 5780 | 5786 to 5800 | 5806 to 5820 | 5826 to 5840 | 5846 to 5860 | 5866 to 5880 | 5886 to 5900 | 5906 to 5920 | 5926 to 5940 |
| Date | 5761 to 5764 | 5781 to 5784 | 5801 to 5804 | 5821 to 5824 | 5841 to 5844 | 5861 to 5864 | 5881 to 5884 | 5901 to 5904 | 5921 to 5924 | 5941 to 5944 |
| | 31 | 32 | | | | | | | | |
| To | 5945 | 5965 | | | | | | | | |
| Subject | 5946 to 5960 | 5966 to 5980 | | | | | | | | |
| Date | 5961 to 5964 | 5981 to 5984 | | | | | | | | |

*8 The following shows the assignment of the transfer (PUT) log 1 to 32 area (address: 6202 to 6553).

| Name | Transfer (PUT) Log 1 to 32 Area | | | | | | | | | |
|-----------------------|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Transfer destination | 6202 | 6213 | 6224 | 6235 | 6246 | 6257 | 6268 | 6279 | 6290 | 6301 |
| Transferred file name | 6203 to 6208 | 6214 to 6219 | 6225 to 6230 | 6236 to 6241 | 6247 to 6252 | 6258 to 6263 | 6269 to 6274 | 6280 to 6285 | 6291 to 6296 | 6302 to 6307 |
| Date | 6209 to 6212 | 6220 to 6223 | 6231 to 6234 | 6242 to 6245 | 6253 to 6256 | 6264 to 6267 | 6275 to 6278 | 6286 to 6289 | 6297 to 6300 | 6308 to 6311 |
| | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Transfer destination | 6312 | 6323 | 6334 | 6345 | 6356 | 6367 | 6378 | 6389 | 6400 | 6411 |
| Transferred file name | 6313 to 6318 | 6324 to 6329 | 6335 to 6340 | 6346 to 6351 | 6357 to 6362 | 6368 to 6373 | 6379 to 6384 | 6390 to 6395 | 6401 to 6406 | 6412 to 6417 |
| Date | 6319 to 6322 | 6330 to 6333 | 6341 to 6344 | 6352 to 6355 | 6363 to 6366 | 6374 to 6377 | 6385 to 6388 | 6396 to 6399 | 6407 to 6410 | 6418 to 6421 |
| | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| Transfer destination | 6422 | 6433 | 6444 | 6455 | 6466 | 6477 | 6488 | 6499 | 6510 | 6521 |
| Transferred file name | 6423 to 6428 | 6434 to 6439 | 6445 to 6450 | 6456 to 6461 | 6467 to 6472 | 6478 to 6483 | 6489 to 6494 | 6500 to 6505 | 6511 to 6516 | 6522 to 6527 |
| Date | 6429 to 6432 | 6440 to 6443 | 6451 to 6454 | 6462 to 6465 | 6473 to 6476 | 6484 to 6487 | 6495 to 6498 | 6506 to 6509 | 6517 to 6520 | 6528 to 6531 |
| | 31 | 32 | | | | | | | | |
| Transfer destination | 6532 | 6543 | | | | | | | | |
| Transferred file name | 6533 to 6538 | 6544 to 6549 | | | | | | | | |
| Date | 6539 to 6542 | 6550 to 6553 | | | | | | | | |

*9 The following shows the assignment of the transfer (GET) log 1 to 32 area (address: 8202 to 8553).

| Name | Transfer (GET) Log 1 to 32 Area | | | | | | | | | |
|-----------------------|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Transfer source | 8202 | 8213 | 8224 | 8235 | 8246 | 8257 | 8268 | 8279 | 8290 | 8301 |
| Transferred file name | 8203 to 8208 | 8214 to 8219 | 8225 to 8230 | 8236 to 8241 | 8247 to 8252 | 8258 to 8263 | 8269 to 8274 | 8280 to 8285 | 8291 to 8296 | 8302 to 8307 |
| Date | 8209 to 8212 | 8220 to 8223 | 8231 to 8234 | 8242 to 8245 | 8253 to 8256 | 8264 to 8267 | 8275 to 8278 | 8286 to 8289 | 8297 to 8300 | 8308 to 8311 |
| | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Transfer source | 8312 | 8323 | 8334 | 8345 | 8356 | 8367 | 8378 | 8389 | 8400 | 8411 |
| Transferred file name | 8313 to 8318 | 8324 to 8329 | 8335 to 8340 | 8346 to 8351 | 8357 to 8362 | 8368 to 8373 | 8379 to 8384 | 8390 to 8395 | 8401 to 8406 | 8412 to 8417 |
| Date | 8319 to 8322 | 8330 to 8333 | 8341 to 8344 | 8352 to 8355 | 8363 to 8366 | 8374 to 8377 | 8385 to 8388 | 8396 to 8399 | 8407 to 8410 | 8418 to 8421 |
| | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| Transfer source | 8422 | 8433 | 8444 | 8455 | 8466 | 8477 | 8488 | 8499 | 8510 | 8521 |
| Transferred file name | 8423 to 8428 | 8434 to 8439 | 8445 to 8450 | 8456 to 8461 | 8467 to 8472 | 8478 to 8483 | 8489 to 8494 | 8500 to 8505 | 8511 to 8516 | 8522 to 8527 |
| Date | 8429 to 8432 | 8440 to 8443 | 8451 to 8454 | 8462 to 8465 | 8473 to 8476 | 8484 to 8487 | 8495 to 8498 | 8506 to 8509 | 8517 to 8520 | 8528 to 8531 |
| | 31 | 32 | | | | | | | | |
| Transfer source | 8532 | 8543 | | | | | | | | |
| Transferred file name | 8533 to 8538 | 8544 to 8549 | | | | | | | | |
| Date | 8539 to 8542 | 8550 to 8553 | | | | | | | | |

*10 The following shows the assignment of the tag event monitor 1 to 256 error code area (address: 10192 to 10447).

| Name | Tag Event Monitor 1 to 256 Error Code Area | | | | | | | | | |
|------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Error code | 10192 | 10193 | 10194 | 10195 | 10196 | 10197 | 10198 | 10199 | 10200 | 10201 |
| | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Error code | 10202 | 10203 | 10204 | 10205 | 10206 | 10207 | 10208 | 10209 | 10210 | 10211 |
| | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| Error code | 10212 | 10213 | 10214 | 10215 | 10216 | 10217 | 10218 | 10219 | 10220 | 10221 |
| | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| Error code | 10222 | 10223 | 10224 | 10225 | 10226 | 10227 | 10228 | 10229 | 10230 | 10231 |
| | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| Error code | 10232 | 10233 | 10234 | 10235 | 10236 | 10237 | 10238 | 10239 | 10240 | 10241 |
| | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| Error code | 10242 | 10243 | 10244 | 10245 | 10246 | 10247 | 10248 | 10249 | 10250 | 10251 |
| | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| Error code | 10252 | 10253 | 10254 | 10255 | 10256 | 10257 | 10258 | 10259 | 10260 | 10261 |
| | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| Error code | 10262 | 10263 | 10264 | 10265 | 10266 | 10267 | 10268 | 10269 | 10270 | 10271 |
| | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| Error code | 10272 | 10273 | 10274 | 10275 | 10276 | 10277 | 10278 | 10279 | 10280 | 10281 |
| | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
| Error code | 10282 | 10283 | 10284 | 10285 | 10286 | 10287 | 10288 | 10289 | 10290 | 10291 |
| | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 |
| Error code | 10292 | 10293 | 10294 | 10295 | 10296 | 10297 | 10298 | 10299 | 10300 | 10301 |
| | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 |
| Error code | 10302 | 10303 | 10304 | 10305 | 10306 | 10307 | 10308 | 10309 | 10310 | 10311 |
| | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 |
| Error code | 10312 | 10313 | 10314 | 10315 | 10316 | 10317 | 10318 | 10319 | 10320 | 10321 |
| | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 |
| Error code | 10322 | 10323 | 10324 | 10325 | 10326 | 10327 | 10328 | 10329 | 10330 | 10331 |
| | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 |
| Error code | 10332 | 10333 | 10334 | 10335 | 10336 | 10337 | 10338 | 10339 | 10340 | 10341 |
| | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 |
| Error code | 10342 | 10343 | 10344 | 10345 | 10346 | 10347 | 10348 | 10349 | 10350 | 10351 |
| | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 |
| Error code | 10352 | 10353 | 10354 | 10355 | 10356 | 10357 | 10358 | 10359 | 10360 | 10361 |
| | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 |
| Error code | 10362 | 10363 | 10364 | 10365 | 10366 | 10367 | 10368 | 10369 | 10370 | 10371 |
| | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 |
| Error code | 10372 | 10373 | 10374 | 10375 | 10376 | 10377 | 10378 | 10379 | 10380 | 10381 |
| | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 |
| Error code | 10382 | 10383 | 10384 | 10385 | 10386 | 10387 | 10388 | 10389 | 10390 | 10391 |
| | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 |
| Error code | 10392 | 10393 | 10394 | 10395 | 10396 | 10397 | 10398 | 10399 | 10400 | 10401 |
| | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 |
| Error code | 10402 | 10403 | 10404 | 10405 | 10406 | 10407 | 10408 | 10409 | 10410 | 10411 |
| | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 230 |
| Error code | 10412 | 10413 | 10414 | 10415 | 10416 | 10417 | 10418 | 10419 | 10420 | 10421 |
| | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 |
| Error code | 10422 | 10423 | 10424 | 10425 | 10426 | 10427 | 10428 | 10429 | 10430 | 10431 |
| | 241 | 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 |
| Error code | 10432 | 10433 | 10434 | 10435 | 10436 | 10437 | 10438 | 10439 | 10440 | 10441 |
| | 251 | 252 | 253 | 254 | 255 | 256 | | | | |
| Error code | 10442 | 10443 | 10444 | 10445 | 10446 | 10447 | | | | |

3.8 Buffer memory details

This section explains the buffer memory details.

| POINT | |
|-------|--|
| (1) | The value stored into the buffer memory is cleared when the programmable controller is powered off and then on, or the CPU module is reset. Normally, this area need not be read. Read as necessary when maintenance is performed. |
| (2) | When a value of 65536 or more is stored in the area consisting of one word, a count is stopped at FFFF _H (65535). |
| (3) | If a value of more than two words is stored in the area consisting of two words, a count is stopped at FFFFFFFF _H (4294967295). |

3.8.1 Module status area (Address: 0 to 11)

The Web server module LED ON/OFF status, intelligent function module switch setting status, battery status, etc. can be confirmed.

Refer to corresponding sections in Section 3.7.

3.8.2 Network connection status area (Address: 28 to 69)

The connection status of the Web server module to the network can be confirmed.

(1) Router external IP address (Address: 28 to 29)

When the Web server module connects to the Internet after selection of "Notify the global IP address obtained from the router" in the address notification setting, this area stores the global IP address assigned to the router.

(2) Connection error code (Address: 30)

(a) The error code output at the time of network connection processing.
Refer to Section 9.3 for the error code.

(b) The connection error code is stored in binary when Connection error (X19) turns on.

(c) The connection error code is cleared when:

- 1) The network is connected normally by making reconnection (Network connection status (X4) turns on); or
- 2) The programmable controller is powered off and then on or the CPU module is reset.

(3) Number of successful connection (Address: 31), number of failed connection (Address: 32)

This area stores the cumulative numbers of successful/failed network connection.

(4) Number of connection tries by request signal (Y5) (Address: 33)

This area stores the cumulative number of attempted connection to the network by Network connection request (Y5).

- (5) Number of connection tries by automatic connection (Address: 34)
This area stores the cumulative number of attempted automatic connection from the Web server module to the network.
Refer to X4 of Section 3.6.2 (1) for the trigger of connection to the network.
- (6) Number of reconnection tries (Address: 35)
(a) This area stores the number of reconnection to the network.
(b) When connection is cut off unintentionally due to cable disconnection in the network connection status or line disruption by the Internet service provider, the Web server module makes reconnection to the network automatically only once.
(c) When the number of retries and multiple access points have been set in the dial-up setting, reconnection is performed for the number of retry times multiplied by the number of multiple access points.
- (7) Number of times of connection retry occurrence (Address: 36)
This area stores the number of connection tries (including initial time) during network connection the number 05 multiplied by the number of access points.
- (8) Number of disconnection (Address: 37)
This area stores the cumulative number of disconnection from the network.
Refer to X4 of Section 3.6.2 (1) for the trigger of disconnection from the network.
- (9) Number of disconnection by request signal (Y7) (Address: 38)
This area stores the cumulative number of disconnection from the network by Network disconnection request (Y7).
- (10) Number of automatic disconnection (Address: 39)
This area stores the cumulative number of automatic disconnection from the network.
Refer to X4 of Section 3.6.2 (1) for the trigger of disconnection from the network.
- (11) Number of line lost times (Address: 40)
This area stores the cumulative number of unintentional disconnection from the network due to cable disconnection in a network connection status or line disruption from the Internet service provider.
- (12) Total connection time (Address: 41 to 42)
This area stores the total time of connection to the network from the start-up time of the Web server module. (Unit: Minute)
- (13) LAN connection time (Address: 43 to 44), Modem connection time (Address: 45 to 46), ADSL connection time (Address: 49 to 50)
This area stores the time of the network connection for each connection method. (Unit: Minute)

(14) Current connection time (Address: 53 to 54)

This area stores the time of current connection to the network. (Unit: Minute)

(15) Network setting status of Web server module (Address: 55 to 68)

This area stores the setting status of the network where the Web server module is currently connected.

(a) IP address (Address: 55 to 56)

(b) Subnet mask (Address: 57 to 58)

(c) Default gateway (Address: 59 to 60)

(d) DNS server address 1 (Address: 61 to 62)

(e) DNS server address 2 (Address: 63 to 64)

(f) HTTP port number

(g) Connection method (Address: 66)

This area stores the method of connection to the network.

0: LAN connection

1: Modem connection

3: ADSL connection

(h) Access point (Address: 67)

This area stores the access point of the Internet service provider as the access point setting number on the "Dial-up setting" screen.

1 to 3: Access point setting number

(i) FTP port number (Address: 68)

(16) Number of disconnections from user screen (number of disconnections by line disconnection part) (Address: 69)

This area stores the cumulative number of disconnections from the network in response to a line disconnection request from the user screen.

3.8.3 System setting status area (Address: 70 to 86)

The system setting status can be confirmed.

Refer to Section 4.6.3 for system setting.

3.8.4 Dial-up setting status area (Address: 90 to 134)

The dial-up setting status can be confirmed.

Refer to Section 4.6.4 for dial-up setting.

3.8.5 Current error area (Address: 140 to 145)

The latest error code that is currently occurring can be confirmed.

(1) Error code (Address: 140)

This area stores the error code that indicates the error status.

Refer to Section 9.3 for the error code.

(2) Time (Address: 142 to 145)

Stores the error occurrence time in BCD code.

| | | | | | | |
|--------------|--|----|----|---|----|----|
| | b15 | to | b8 | b7 | to | b0 |
| Address: 142 | Month (01 _H to 12 _H) | | | Year (00 _H to 99 _H , last 2 digits) | | |
| 143 | Hour (00 _H to 23 _H) | | | Day (01 _H to 31 _H) | | |
| 144 | Second (00 _H to 59 _H) | | | Minute (00 _H to 59 _H) | | |
| 145 | Year (00 _H to 99 _H , first 2 digits) | | | Day of the week (0 _H to 6 _H) | | |

POINT

- (1) The information of the current error area can be confirmed on the following diagnostic screen.
 - (a) "Error data" of self-diagnostics monitor (Refer to Section 6.2.6)
 - (b) "Present Error" in system monitor of GX Developer (Refer to Section 9.2.2)
- (2) The current error area can be cleared in any of the following methods.
 - (a) Execute **Error clear** in self-diagnostics monitor (Refer to Section 6.2.6).
 - (b) Turn on the error clear request (Y10).
 - (c) Switch the power OFF and then ON or reset the CPU module.

3.8.6 Error log area (Address: 150 to 247)

The history of errors that occurred in the Web server module can be confirmed.

(1) Number of times of error occurrence (Address: 150)

- (a) This area stores the cumulative number of times stored in the error log area.
- (b) An error code is stored when other error (X1C) turns on.

(2) Error log write pointer (Address: 151)

- (a) This area stores the error log No. with which the latest error has been stored. (*)
 - 0 : No error. (No error stored)
 - 1 or more : Error log No. of the latest error stored

* The pointer value of "16" indicates that the latest error has been stored into the error log 16 area.
- (b) If 17 or more errors occur, the error is stored into the error log areas, starting from the error log 1 area again.

(3) Error log 1 to 16 (Address: 152 to 247)

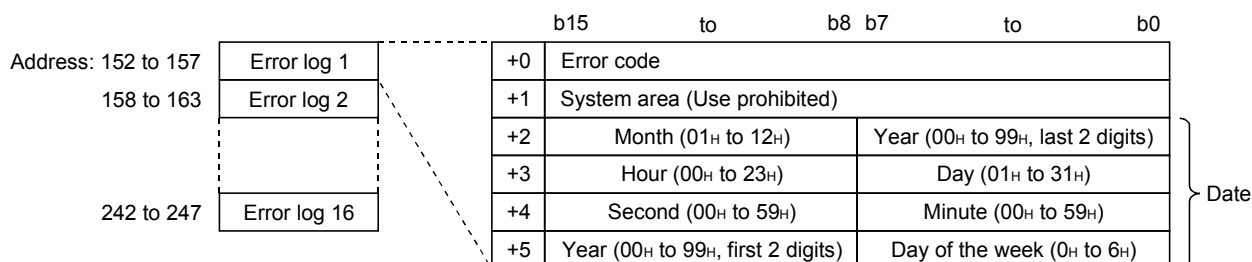
This area stores the history of errors that occurred in the Web server module. The error log area is composed of 16 portions of the same data arrangement.

- (a) Error code

This area stores the error code that indicates the error status. Refer to Section 9.3 for the error code.

(b) Time

This area stores the error occurrence time in BCD code.



- (c) If an error that has already stored in the Error log area recurs, the error code is not stored in the Error log area.

POINT

- (1) The information of the error log area can be confirmed on the following diagnostic screen.
 - (a) "Error history" of self-diagnostics monitor (Refer to Section 6.2.6)
 - (b) "Error Display" in system monitor of GX Developer (Refer to Section 9.2.2)
- (2) The error log area can be cleared in either of the following methods.
 - (a) Execute History clear in self-diagnostics monitor (Refer to Section 6.2.6).
 - (b) Switch the power OFF and then ON or reset the CPU module.

3.8.7 Login history area (Address: 250 to 380)

The history of login to the Web server module via the Web or FTP can be confirmed.

(1) Number of login times (Address: 250 to 251)

This area stores the cumulative number of login times to the Web server module using Web or FTP.

(2) Login history write pointer (Address: 252)

- (a) This area stores the login history No. with which the latest login history has been stored. (*)

0 : No login history. (No login history stored)

1 or more : Login history No. of the latest login history stored

* The pointer value of "16" indicates that the latest login history has been stored into the login history 16 area.

- (b) If 17 or more errors occur, the login history is stored into the login history areas, starting from the login history 1 area again.

(3) Login history 1 to 16 (Address: 253 to 380)

This area stores the history of login to the Web server module via the Web or FTP.

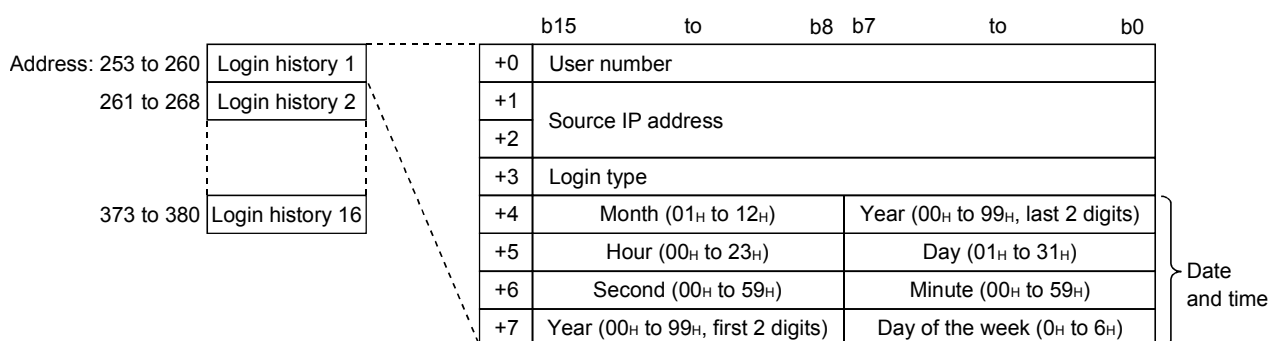
The login history area is composed of 16 portions of the same data arrangement.

- (a) User number

1) This area stores the user number for login.

2) The user number is the number set in the account setting.

- (b) Source IP address
This area stores the IP address of the access source for login.
- (c) Login type
This area stores whether Web or FTP has been used for login.
1: Web login
2: FTP login
- (d) Date and Time
This area stores the date and time of the login in BCD code.



3.8.8 IP filter area (Address: 382 to 383)

The number of times when the IP packet is blocked by the IP filter can be confirmed.

- (1) Number of times when IP packet is blocked (Address: 382 to 383)
This area stores the cumulative number of times when the IP packet is blocked by the Web server module according to the IP filter setting.

3.8.9 Collection monitor cycle area (Address: 800 to 803)

The collection monitor cycle in which the Web server module is operating actually can be confirmed.

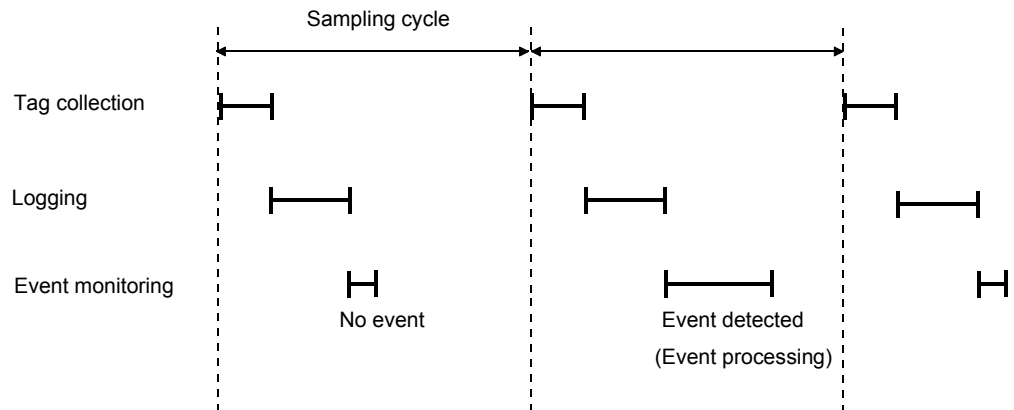
- (1) Current cycle (Address: 800 to 801)
This area stores the time interval of tag collection by the Web server module.
(Unit: Second)
- (2) Maximum cycle (Address: 802 to 803)
This area stores the maximum time interval of tag collection in the past. (Unit: Second)

REMARKS

(a) Collection monitor cycle

The Web server module performs tag collection, logging and event monitoring in this order.

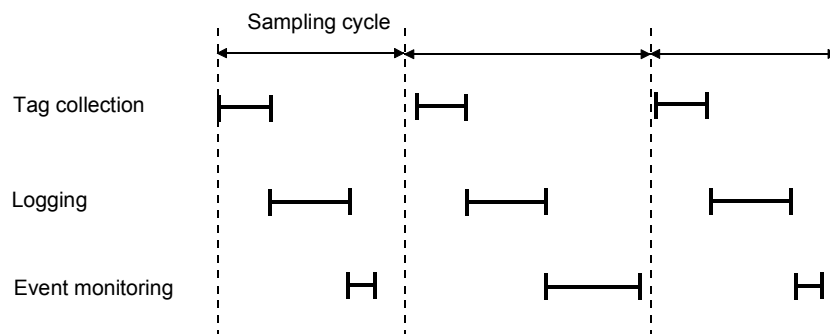
Example) When the same time value is set to the Tag collection interval, logging interval and event interval:



(b) Influence of tag collection, logging and event monitor on execution intervals

In the following cases, the processing of tag collection, logging or event monitor will delay.

- 1) When the maximum cycle time is longer than the time set to tag collection, logging or event monitor
- 2) When the tag collection, logging or event monitoring are overlapped with the execution of the dedicated instruction or the FTP/Web browser operation.



(Example) When logging timing is delayed:

| TIME | device A | device B |
|---------------------|----------|----------|
| 11/14/2002 14:20:15 | 100 | 123 |
| 11/14/2002 14:20:20 | 97 | 125 |
| 11/14/2002 14:20:25 | 101 | 125 |
| 11/14/2002 14:20:30 | 100 | 123 |

3.8.10 Tag status area (Address: 1000 to 1075)

The status related to the tag function can be confirmed.
Refer to Section 6.3 for the tag function.

(1) Tag setting data (Address: 1000 to 1003)

- (a) This area stores information on whether tag settings have been made or not.
- (b) The bit corresponding to the preset tag setting No. turns on.
0: Not set
1: Set

| Address: | 1000 | 1001 | 1002 | 1003 |
|----------|---|---|---|---|
| | b15 b14 b13 b12 b11 b10 b9 b8 b7 b6 b5 b4 b3 b2 b1 b0 | | | |
| | 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 | 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 | 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 | 64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 |

(2) Tag collection data (Address: 1004 to 1007)

- (a) This area stores the tag collection results.
- (b) The bit corresponding to the executed tag setting No. turns on.
0: Not collected
1: Collected

| Address: | 1004 | 1005 | 1006 | 1007 |
|----------|---|---|---|---|
| | b15 b14 b13 b12 b11 b10 b9 b8 b7 b6 b5 b4 b3 b2 b1 b0 | | | |
| | 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 | 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 | 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 | 64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 |

- (c) Tag collection is executed at the following timings.
 - 1) At start-up of the Web server module or during the collection interval time in the case that "Execute (at high speed)" has been set in the collection specification of the tag setting
 - 2) When the dedicated instruction TAG is executed
 - 3) When logging is performed in the case that "Update before logging" has been set in the collection specification of the tag setting

(3) Tag collection error data (Address: 1008 to 1011)

- (a) This area stores the tag collection error data.
- (b) The bit corresponding to the tag setting No. of a tag collection error turns on.
0: No tag collection error
1: Tag collection error detected

| Address: | 1008 | 1009 | 1010 | 1011 |
|----------|---|---|---|---|
| | b15 b14 b13 b12 b11 b10 b9 b8 b7 b6 b5 b4 b3 b2 b1 b0 | | | |
| | 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 | 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 | 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 | 64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 |

(c) The following is observed when a tag collection error occurs.

(Example) When an error occurs in tag collection of the tag setting No. 16

- Tag collection error (X11) turns on
- Tag collection error data area (address: 1008 (bit 15)) of the buffer memory turns on.
- The error code is stored into the tag collection 16 error code area (address: 1027) of the buffer memory.

(4) Tag collection 1 to 64 error code (Address: 1012 to 1075)

The error code that indicates the error status is stored into the corresponding tag setting No. area.

Refer to Section 9.3 for the error code.

3.8.11 Logging status area (Address: 2000 to 2267)

The status related to the logging function can be confirmed.

Refer to Section 6.4 for the logging function.

(1) Logging setting data (Address: 2000 to 2003)

(a) This area stores information on whether logging setting has been made or not.

(b) The bit corresponding to the preset logging setting No. turns on.

0: Not set

1: Set

| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
|---------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| Address: 2000 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 2001 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| 2002 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 |
| 2003 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 |

(2) Logging execute data (Address: 2004 to 2007)

(a) This area stores the logging execution results.

(b) The bit corresponding to the executed logging setting No. turns on.

0: Logging not executed

1: Logging executed

| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
|---------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| Address: 2004 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 2005 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| 2006 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 |
| 2007 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 |

(c) Logging is executed at the following timings.

- 1) At the specified time or specified time interval when "Schedule setting" has been set in the logging setting
- 2) When the dedicated instruction LOG is executed

(3) Logging error data (Address: 2008 to 2011)

(a) This area stores the logging error data.

(b) The bit corresponding to the logging setting No. of a logging error turns on.

0: No logging error

1: Logging error detected

| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
|---------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| Address: 2008 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 2009 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| 2010 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 |
| 2011 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 |

(c) The following is observed when a logging error occurs.

(Example) When an error occurs at execution of the logging setting No. 16

- Logging error (X12) turns on
- Logging error data area (address: 2008 (bit 15)) of the buffer memory turns on.
- The error code is stored into the logging 16 error code area (address: 2072) of the buffer memory.

(4) Logging data 1 to 64 (Address: 2012 to 2267)

This area stores information on the errors that occurred in the logging function.

The logging data area is composed of 64 portions of the same data arrangement.

(a) Error code

The error code that indicates the error status is stored into the corresponding logging setting No. area where a logging error occurred.
Refer to Section 9.3 for the error code.

(b) Number of saved files

This area stores the number of currently saved files.

(c) Latest saved file number

This area stores the latest saved file number.

| | | b15 | to | b8 | b7 | to | b0 |
|-----------------------|-----------------|-----|--------------------------|----|----|----|----|
| Address: 2012 to 2015 | Logging data 1 | +0 | Error code | | | | |
| 2016 to 2019 | Logging data 2 | +1 | Number of saved files | | | | |
| | | +2 | Latest saved file number | | | | |
| | | +3 | | | | | |
| 2264 to 2267 | Logging data 64 | | | | | | |

3.8.12 CPU event monitor status area 1 (Address: 3300 to 3375)

The status related to the CPU event monitor function can be confirmed.
Refer to Section 6.5 for the CPU event monitor function.

(1) CPU event setting data (Address: 3300 to 3303)

- (a) This area stores information on whether "CPU event setting" in the event setting has been made or not.
- (b) The bit corresponding to the preset CPU event setting No. turns on.
0: Not set
1: Set

| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
|---------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| Address: 3300 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 3301 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| 3302 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 |
| 3303 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 |

(2) CPU event occurrence data (Address: 3304 to 3307)

- (a) This area stores the CPU event occurrence results.
- (b) The bit corresponding to the CPU event setting No. of a CPU event turns on.
0: Event not occurred
1: Event occurred

| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
|---------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| Address: 3304 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 3305 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| 3306 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 |
| 3307 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 |

- (c) A CPU event occurs when the monitoring condition set in "CPU event setting" of the event setting is satisfied.

(3) CPU event monitor error data (Address: 3308 to 3311)

- (a) This area stores the CPU event monitor error data.
- (b) The bit corresponding to the CPU event setting No. of a CPU event monitor error turns on.
0: No CPU event monitor error occurred
1: CPU event monitor error occurred

| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
|---------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| Address: 3308 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 3309 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| 3310 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 |
| 3311 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 |

- (c) The following is observed when a CPU event monitor error occurs.

(Example) When an error occurs in CPU event monitor of the CPU event setting No. 16

- CPU event monitor error (X13) turns on
- CPU event monitor error data area (address: 3308 (bit 15)) of the buffer memory turns on.
- The error code is stored into the CPU event monitor 16 error code area (address: 3329) of the buffer memory.

(4) CPU event monitor 1 to 64 error code (Address: 3312 to 3375)

The error code that indicates the error status is stored into the corresponding CPU event setting No. area.

Refer to Section 9.3 for the error code.

3.8.13 CPU event monitor status area 2 (Address: 3000 to 3018)

The status related to the CPU event monitor function can be confirmed.

Refer to Section 6.5 for the CPU event monitor function.

| POINT |
|--|
| When using the product whose first 5 digits of serial No. are 05112 or later, use the CPU event monitor status area 1 (address: 3300 to 3375). (Refer to Section 3.8.12) |
| When this area has been used previously, it can be used as-is. |

(1) CPU event setting data (Address: 3000)

- (a) This area stores information on whether "CPU event setting" in the event setting has been made or not.
- (b) The bit corresponding to the preset CPU event setting No. turns on.
0: Not set
1: Set

| | | | | | | | | | | | | | | | | |
|---------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| Address: 3000 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

(2) CPU event occurrence data (Address: 3001)

- (a) This area stores the CPU event occurrence results.
- (b) The bit corresponding to the CPU event setting No. of a CPU event turns on.
0: Event not occurred
1: Event occurred

| | | | | | | | | | | | | | | | | |
|---------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| Address: 3001 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

- (c) A CPU event occurs when the monitoring condition set in "CPU event setting" of the event setting is satisfied.

(3) CPU event monitor error data (Address: 3002)

- (a) This area stores the CPU event monitor error data.
- (b) The bit corresponding to the CPU event setting No. of a CPU event monitor error turns on.
 0: No CPU event monitor error occurred
 1: CPU event monitor error occurred

| | | | | | | | | | | | | | | | | |
|---------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| Address: 3002 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

- (c) The following is observed when a CPU event monitor error occurs.

(Example) When an error occurs in CPU event monitor of the CPU event setting No. 16

- CPU event monitor error (X13) turns on
- CPU event monitor error data area (address: 3002 (bit 15)) of the buffer memory turns on.
- The error code is stored into the CPU event monitor 16 error code area (address: 3018) of the buffer memory.

(4) CPU event monitor 1 to 16 error code (Address: 3003 to 3018)

The error code that indicates the error status is stored into the corresponding CPU event setting No. area.

Refer to Section 9.3 for the error code.

3.8.14 Tag event monitor status area 1 (Address: 10000 to 10447)

The status related to the tag event monitor function can be confirmed.
 Refer to Section 6.5 for the tag event monitor function.

(1) Tag event setting data (Address: 10000 to 10015)

- (a) This area stores information on whether "Tag event setting" in the event setting has been made or not.
- (b) The bit corresponding to the preset tag event setting No. turns on.
 0: Not set
 1: Set

| | | | | | | | | | | | | | | | | |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| Address: 10000 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 10001 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| 10002 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 |
| 10003 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 |
| 10004 | 80 | 79 | 78 | 77 | 76 | 75 | 74 | 73 | 72 | 71 | 70 | 69 | 68 | 67 | 66 | 65 |
| 10005 | 96 | 95 | 94 | 93 | 92 | 91 | 90 | 89 | 88 | 87 | 86 | 85 | 84 | 83 | 82 | 81 |
| 10006 | 112 | 111 | 110 | 109 | 108 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | 97 |
| 10007 | 128 | 127 | 126 | 125 | 124 | 123 | 122 | 121 | 120 | 119 | 118 | 117 | 116 | 115 | 114 | 113 |
| 10008 | 144 | 143 | 142 | 141 | 140 | 139 | 138 | 137 | 136 | 135 | 134 | 133 | 132 | 131 | 130 | 129 |
| 10009 | 160 | 159 | 158 | 157 | 156 | 155 | 154 | 153 | 152 | 151 | 150 | 149 | 148 | 147 | 146 | 145 |
| 10010 | 176 | 175 | 174 | 173 | 172 | 171 | 170 | 169 | 168 | 167 | 166 | 165 | 164 | 163 | 162 | 161 |
| 10011 | 192 | 191 | 190 | 189 | 188 | 187 | 186 | 185 | 184 | 183 | 182 | 181 | 180 | 179 | 178 | 177 |
| 10012 | 208 | 207 | 206 | 205 | 204 | 203 | 202 | 201 | 200 | 199 | 198 | 197 | 196 | 195 | 194 | 193 |
| 10013 | 224 | 223 | 222 | 221 | 220 | 219 | 218 | 217 | 216 | 215 | 214 | 213 | 212 | 211 | 210 | 209 |
| 10014 | 240 | 239 | 238 | 237 | 236 | 235 | 234 | 233 | 232 | 231 | 230 | 229 | 228 | 227 | 226 | 225 |
| 10015 | 256 | 255 | 254 | 253 | 252 | 251 | 250 | 249 | 248 | 247 | 246 | 245 | 244 | 243 | 242 | 241 |

(2) Tag event occurrence data (Address: 10064 to 10079)

(a) This area stores the tag event occurrence results.

(b) The bit corresponding to the tag event setting No. of a tag event turns on.

0: Event not occurred

1: Event occurred

| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Address: 10064 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 10065 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| 10066 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 |
| 10067 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 |
| 10068 | 80 | 79 | 78 | 77 | 76 | 75 | 74 | 73 | 72 | 71 | 70 | 69 | 68 | 67 | 66 | 65 |
| 10069 | 96 | 95 | 94 | 93 | 92 | 91 | 90 | 89 | 88 | 87 | 86 | 85 | 84 | 83 | 82 | 81 |
| 10070 | 112 | 111 | 110 | 109 | 108 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | 97 |
| 10071 | 128 | 127 | 126 | 125 | 124 | 123 | 122 | 121 | 120 | 119 | 118 | 117 | 116 | 115 | 114 | 113 |
| 10072 | 144 | 143 | 142 | 141 | 140 | 139 | 138 | 137 | 136 | 135 | 134 | 133 | 132 | 131 | 130 | 129 |
| 10073 | 160 | 159 | 158 | 157 | 156 | 155 | 154 | 153 | 152 | 151 | 150 | 149 | 148 | 147 | 146 | 145 |
| 10074 | 176 | 175 | 174 | 173 | 172 | 171 | 170 | 169 | 168 | 167 | 166 | 165 | 164 | 163 | 162 | 161 |
| 10075 | 192 | 191 | 190 | 189 | 188 | 187 | 186 | 185 | 184 | 183 | 182 | 181 | 180 | 179 | 178 | 177 |
| 10076 | 208 | 207 | 206 | 205 | 204 | 203 | 202 | 201 | 200 | 199 | 198 | 197 | 196 | 195 | 194 | 193 |
| 10077 | 224 | 223 | 222 | 221 | 220 | 219 | 218 | 217 | 216 | 215 | 214 | 213 | 212 | 211 | 210 | 209 |
| 10078 | 240 | 239 | 238 | 237 | 236 | 235 | 234 | 233 | 232 | 231 | 230 | 229 | 228 | 227 | 226 | 225 |
| 10079 | 256 | 255 | 254 | 253 | 252 | 251 | 250 | 249 | 248 | 247 | 246 | 245 | 244 | 243 | 242 | 241 |

(c) A tag event occurs when the monitoring condition set in "Tag event setting" of the event setting is satisfied.

(3) Tag event monitor error data (Address: 10128 to 10143)

(a) This area stores the tag event monitor error data.

(b) The bit corresponding to the tag event setting No. of a tag event monitor error turns on.

0: No tag event monitor error occurred

1: Tag event monitor error occurred

| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Address: 10128 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 10129 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| 10130 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 |
| 10131 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 |
| 10132 | 80 | 79 | 78 | 77 | 76 | 75 | 74 | 73 | 72 | 71 | 70 | 69 | 68 | 67 | 66 | 65 |
| 10133 | 96 | 95 | 94 | 93 | 92 | 91 | 90 | 89 | 88 | 87 | 86 | 85 | 84 | 83 | 82 | 81 |
| 10134 | 112 | 111 | 110 | 109 | 108 | 107 | 106 | 105 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | 97 |
| 10135 | 128 | 127 | 126 | 125 | 124 | 123 | 122 | 121 | 120 | 119 | 118 | 117 | 116 | 115 | 114 | 113 |
| 10136 | 144 | 143 | 142 | 141 | 140 | 139 | 138 | 137 | 136 | 135 | 134 | 133 | 132 | 131 | 130 | 129 |
| 10137 | 160 | 159 | 158 | 157 | 156 | 155 | 154 | 153 | 152 | 151 | 150 | 149 | 148 | 147 | 146 | 145 |
| 10138 | 176 | 175 | 174 | 173 | 172 | 171 | 170 | 169 | 168 | 167 | 166 | 165 | 164 | 163 | 162 | 161 |
| 10139 | 192 | 191 | 190 | 189 | 188 | 187 | 186 | 185 | 184 | 183 | 182 | 181 | 180 | 179 | 178 | 177 |
| 10140 | 208 | 207 | 206 | 205 | 204 | 203 | 202 | 201 | 200 | 199 | 198 | 197 | 196 | 195 | 194 | 193 |
| 10141 | 224 | 223 | 222 | 221 | 220 | 219 | 218 | 217 | 216 | 215 | 214 | 213 | 212 | 211 | 210 | 209 |
| 10142 | 240 | 239 | 238 | 237 | 236 | 235 | 234 | 233 | 232 | 231 | 230 | 229 | 228 | 227 | 226 | 225 |
| 10143 | 256 | 255 | 254 | 253 | 252 | 251 | 250 | 249 | 248 | 247 | 246 | 245 | 244 | 243 | 242 | 241 |

(c) The following is observed when a tag event monitor error occurs.

(Example) When an error occurs in tag event monitor of the tag event setting No. 16

- Tag event monitor error (X14) turns on
- Tag event monitor error data area (address: 10128 (bit 15)) of the buffer memory turns on.
- The error code is stored into the tag event monitor 16 error code area (address: 10207) of the buffer memory.

(4) Tag event monitor 1 to 256 error code (Address: 10192 to 10447)

The error code that indicates the error status is stored into the corresponding tag event setting No. area.

Refer to Section 9.3 for the error code.

3.8.15 Tag event monitor status area 2 (Address: 3100 to 3118)

The status related to the tag event monitor function can be confirmed.

Refer to Section 6.5 for the tag event monitor function.

| POINT |
|--|
| When using the product whose first 5 digits of serial No. are 05112 or later, use the tag event monitor status area 1 (address: 10000 to 10447). (Refer to Section 3.8.14) |
| When this area has been used previously, it can be used as-is. |

(1) Tag event setting data (Address: 3100)

- (a) This area stores information on whether "Tag event setting" in the event setting has been made or not.
- (b) The bit corresponding to the preset tag event setting No. turns on.
0: Not set
1: Set

| | | | | | | | | | | | | | | | | |
|---------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| Address: 3100 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

(2) Tag event occurrence data (Address: 3101)

- (a) This area stores the tag event occurrence results.
- (b) The bit corresponding to the tag event setting No. of a tag event turns on.
0: Event not occurred
1: Event occurred

| | | | | | | | | | | | | | | | | |
|---------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| Address: 3101 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

- (c) A tag event occurs when the monitoring condition set in "Tag event setting" of the event setting is satisfied.

(3) Tag event monitor error data (Address: 3102)

- (a) This area stores the tag event monitor error data.
- (b) The bit corresponding to the tag event setting No. of a tag event monitor error turns on.
 0: No tag event monitor error occurred
 1: Tag event monitor error occurred

| | | | | | | | | | | | | | | | | |
|---------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| Address: 3102 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

- (c) The following is observed when a tag event monitor error occurs.

(Example) When an error occurs in tag event monitor of the tag event setting No. 16

- Tag event monitor error (X14) turns on.
- Tag event monitor error data area (address: 3102 (bit 15)) of the buffer memory turns on.
- The error code is stored into the tag event monitor 16 error code area (address: 3118) of the buffer memory.

(4) Tag event monitor 1 to 16 error code (Address: 3103 to 3118)

The error code that indicates the error status is stored into the corresponding tag event setting No. area.

Refer to Section 9.3 for the error code.

3.8.16 Time/Interval monitor status area (Address: 3200 to 3217)

The status related to the time event monitor function can be confirmed.

Refer to Section 6.5 for the time event monitor function.

(1) Time event setting data (Address: 3200)

- (a) This area stores information on whether "Time/Interval event setting" in the event setting has been made or not.
- (b) The bit corresponding to the preset time/interval event setting No. turns on.
 0: Not set
 1: Set

| | | | | | | | | | | | | | | | | |
|---------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| Address: 3200 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

(2) Time event monitor error data (Address: 3201)

- (a) This area stores the time event monitor error data.
- (b) The bit corresponding to the time/interval event setting No. of a time event monitor error turns on.
 0: No time event monitor error occurred
 1: Time event monitor error occurred

| | | | | | | | | | | | | | | | | |
|---------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| Address: 3201 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

- (c) The following is observed when a time event monitor error occurs.

(Example) When an error occurs in time event monitor of the time/interval event setting No. 16

- Time event monitor error (X15) turns on.
- Time event monitor error data area (address: 3201 (bit 15)) of the buffer memory turns on.
- The error code is stored into the time event monitor 16 error code area (address: 3217) of the buffer memory.

(3) Time event monitor 1 to 16 error code (Address: 3202 to 3217)

The error code that indicates the error status is stored into the corresponding time/interval event setting No. area.

Refer to Section 9.3 for the error code.

3.8.17 Access target CPU setting status area (Address: 4000 to 4071)

The setting status of the access target CPU setting can be confirmed.

Refer to Section 4.6.7 for the access target CPU setting.

(1) Access target CPU setting data (Address: 4000 to 4003)

- (a) This area stores information on whether the access target CPU setting has been made or not.
- (b) The bit corresponding to the preset access target CPU setting No. turns on.
0: Not set
1: Set

| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
|---------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| Address: 4000 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 4001 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| 4002 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 |
| 4003 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 |

(2) Access target CPU error data (Address: 4004 to 4007)

- (a) This area stores the access target CPU error data.
- (b) The bit corresponding to the an access target CPU setting No. of an access target CPU error turns on.
0: No access target CPU error occurred
1: Access target CPU error occurred

| | b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 | b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
|---------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|
| Address: 4004 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| 4005 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| 4006 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 |
| 4007 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 |

- (c) The following is observed when an access target CPU error occurs.

(Example) When an error occurs in the access target CPU of the access target CPU setting No. 16

- Access target CPU error (X16) turns on.
- Access target CPU error data area (address: 4004 (bit 15)) of the buffer memory turns on.
- The error code is stored into the access target CPU 16 error code area (address: 4023) of the buffer memory.

(3) Access target CPU 1 to 64 error code (Address: 4008 to 4071)

The error code that indicates the error status is stored into the corresponding access target CPU setting No. area.

Refer to Section 9.3 for the error code.

3.8.18 E-mail transmission status area (Address: 5000 to 5984)

The status related to the e-mail function can be confirmed.

Refer to Section 6.6 for the e-mail function.

(1) WMSSEND instruction execution count storage area

The number of times when the WMSSEND instruction was executed can be confirmed.

The transmission log at normal completion can be confirmed in (4) in this section.

The error log at abnormal completion can be confirmed in (3) in this section.

- (a) Number of times when WMSSEND instruction was normally completed (Address: 5000)

This area stores the cumulative number of times when WMSSEND instruction was normally completed.

- (b) Number of times when WMSSEND instruction failed (Address: 5001)

This area stores the cumulative number of times when WMSSEND instruction failed.

(2) E-mail transmission count storage area

The number of times when the Web server module sent e-mail can be confirmed.

The transmission log at normal completion can be confirmed in (4) in this section.

The error log at abnormal completion can be confirmed in (3) in this section.

- (a) Number of normally completed e-mail transmission (Address: 5002)

This area stores the cumulative number of times when the Web server module sent e-mail to the mail server.

- (b) Number of sent attached files (Address: 5003)

This area stores the cumulative number of times when the Web server module sent e-mail with attached file.

- (c) Number of undelivered e-mails (Address: 5004)

This area stores the cumulative number of communication errors that were returned to the Web server module as a result of requesting the mail server to send e-mail.

(3) Error log storage area for abnormal completion

The error log of failed e-mail transmission can be confirmed.

(a) Number of writes for error log (Address: 5005)

- 1) This area stores the cumulative number of errors that were stored into the error log area.
- 2) The error code is stored when e-mail transmission error (X17) turns on.

(b) Error log write pointer (Address: 5006)

- 1) This area stores the error log No. of the latest error log. (*)
 - 0 : No error. (No error stored)
 - 1 or more : Error log No. of the latest error stored

* The pointer value of "16" indicates that the latest error has been stored into the error log 16 area.
- 2) If 17 or more errors occur, excess errors are stored into the error log areas, starting from the error log 1 area again.

(c) Error log 1 to 16 (Address: 5007 to 5342)

This area stores the error logs of failed e-mail transmission.

The error log area is composed of 16 portions of the same data arrangement.

1) Error code

This area stores the error code that indicates the error status.
Refer to Section 9.3 for the error code.

2) To

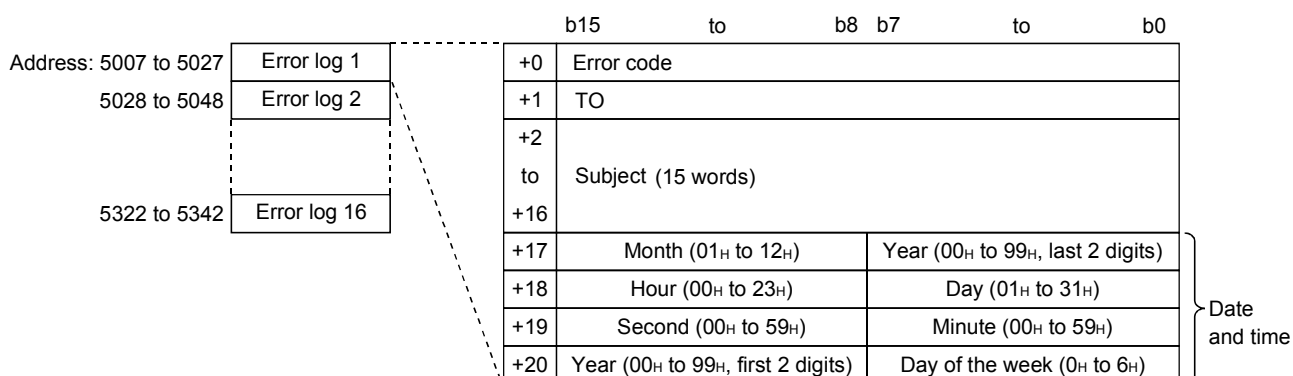
- This area stores the destination e-mail address No. of the undelivered e-mail.
- The destination e-mail address No. is set in "E-mail address (TO:) setting" of the E-mail setting.

3) Subject

This area stores the first 15 words of the e-mail subject.

4) Date and Time

This area stores the date and time of e-mail transmission in BCD code.



(4) Transmission log storage area for normal completion

The transmission log of normally completed e-mail transmission can be confirmed.

(a) Number of writes for transmission log (Address: 5343)

- 1) This area stores the cumulative number of registrations to the transmission log area.
- 2) This area stores the transmission log when the Web server module sent e-mail to the mail server normally.

(b) Transmission log write pointer (Address: 5344)

- 1) This area stores the transmission log No. where the latest transmission log is registered. (*)
 - 0 : No transmission. (No transmission log registered)
 - 1 or more : Transmission log No. where the latest transmission log is registered

* The pointer value of "16" indicates that the latest transmission log has been registered in the transmission log 16 area.

- 2) If 33 or more transmission logs occur, excess transmission logs are registered to the areas, starting from the transmission log 1 area again.

(c) Transmission log 1 to 32 (Address: 5345 to 5984)

This area stores the transmission logs at normal completion of e-mail transmission.

The transmission log area is composed of 32 portions of the same data arrangement.

1) To

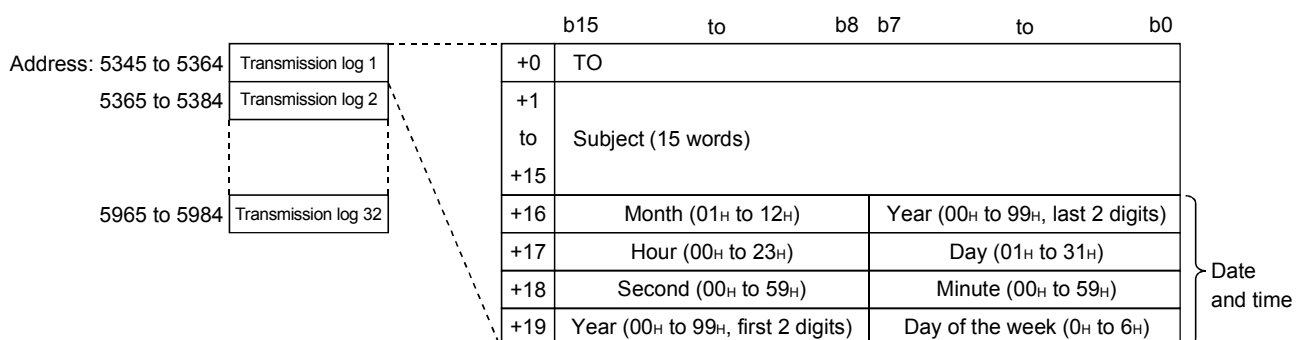
- This area stores the destination mail address No. of the normally completed e-mail.
- The destination mail address No. is set in "E-mail address (TO:) setting" of the E-mail setting.

2) Subject

This area stores the first 15 words of the e-mail subject.

3) Date and Time

This area stores the date and time of e-mail transmission in BCD code.



3.8.19 FTP server status area (Address: 6000 to 6001)

The status related to the FTP server function can be confirmed.
Refer to Section 6.7.1 for the FTP server function.

- (1) Number of successful login (Address: 6000)
This area stores the cumulative number of successful login to the FTP server.
- (2) Number of failed login (Address: 6001)
This area stores the cumulative number of failed login to the FTP server.

3.8.20 FTP client status (PUT) area (Address: 6002 to 6553)

The status related to the FTP client function (PUT) can be confirmed.
The FTP client function (PUT) writes the file of the Web server module to the FTP server.
Refer to Section 6.7.2 for the FTP client function (PUT).

- (1) FTPPUT instruction execution count storage area
The number of times when the FTPPUT instruction was executed can be confirmed.
The transfer log at normal completion can be confirmed in (4) in this section.
The error log at abnormal completion can be confirmed in (3) in this section.
 - (a) Number of times when FTPPUT instruction was normally completed (Address: 6002)
This area stores the cumulative number of times when FTPPUT instruction was normally completed.
 - (b) Number of times when FTPPUT instruction failed (Address: 6003)
This area stores the cumulative number of times when FTPPUT instruction failed.
- (2) File transfer count storage area
The number of times when the Web server module transferred files can be confirmed.
The transfer log at normal completion can be confirmed in (4) in this section.
The error log at abnormal completion can be confirmed in (3) in this section.
 - (a) Number of normally completed FTP transfer (PUT) (Address: 6004)
This area stores the cumulative number of times when the Web server module transferred (PUT) a file to the FTP server.
 - (b) Number of failed FTP transfer (PUT) (Address: 6005)
This area stores the cumulative number of communication errors that were returned to the Web server module as a result of requesting the FTP server to transfer (PUT) a file.

(3) Error log storage area for abnormal completion

The error log of failed file transfer can be confirmed.

(a) Number of writes for error log (Address: 6006)

- 1) This area stores the cumulative number of errors stored in the error log area.
- 2) The error code is stored when FTP transfer error (X18) turns on.

(b) Error log write pointer (Address: 6007)

- 1) This area stores the error log No. of the latest error log. (*)
 - 0 : No error. (No error stored)
 - 1 or more : Error log No. of the latest error stored

* The pointer value of "16" indicates that the latest error has been stored into the error log 16 area.
- 2) If 17 or more errors occur, excess errors are stored into the error log areas, starting from the error log 1 area again.

(c) Error log 1 to 16 (Address: 6008 to 6199)

This area stores the error logs of failed file transfer.

The error log area is composed of 16 portions of the same data arrangement.

1) Error code

This area stores the error code that indicates the error status.
Refer to Section 9.3 for the error code.

2) Destination

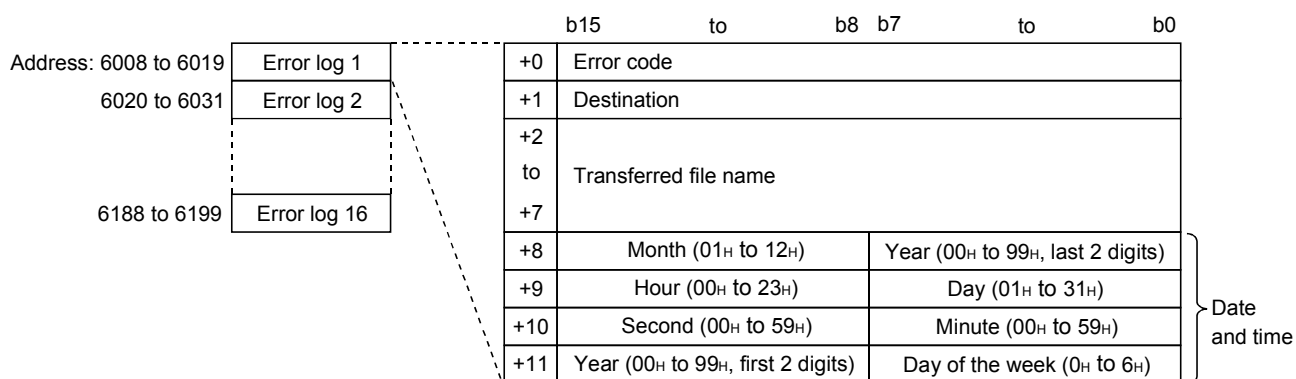
- This area stores the destination FTP server No. when a communication error occurs.
- The destination FTP server No. is set in the FTP server setting.

3) Transferred file name

This area stores the transferred file name in ASCII code.

4) Date and Time

This area stores the date and time of file transfer in BCD code.



(4) Transfer log storage area for normal completion

The transfer log of normally completed file transfer can be confirmed.

(a) Number of writes for transfer log (Address: 6200)

- 1) This area stores the cumulative number of registrations to the transfer log area.
- 2) This area stores the transfer log when the Web server module transferred (PUT) a file to the FTP server normally.

(b) Transfer log write pointer (Address: 6201)

- 1) This area stores the transfer log No. where the latest transfer log is registered. (*)
 - 0 : No transfer. (No transfer log registered)
 - 1 or more : Transfer log No. where the latest transfer log is registered

* The pointer value of "16" indicates that the latest transfer log is registered in the transfer log 16 area.
- 2) If 33 or more errors occur, excess transfer logs are registered to the areas, starting from the transmission log 1 area again.

(c) Transfer log 1 to 32 (Address: 6202 to 6553)

This area stores the transfer logs of normally completed file transfer. The transfer log area is composed of 32 portions of the same data arrangement.

1) Destination

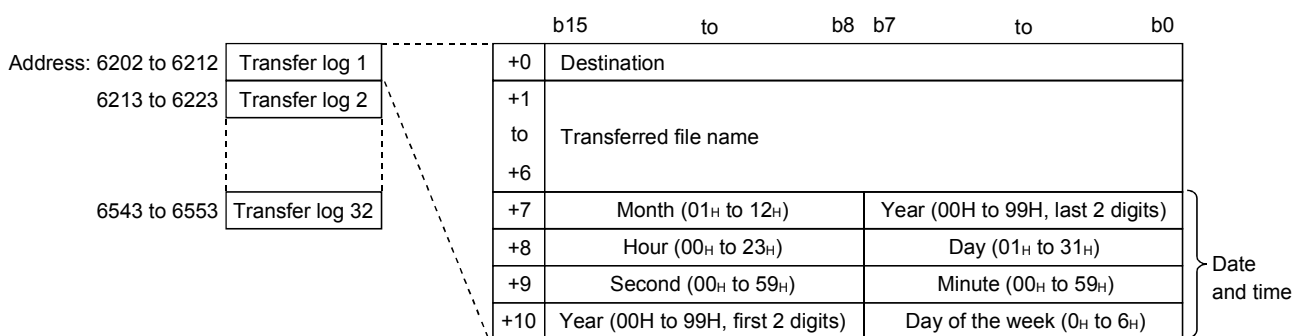
- This area stores the destination FTP server No. of the normally completed FTP transfer (PUT).
- The destination FTP server No. is set in the FTP server setting.

2) Transferred file name

This area stores the transferred file name in ASCII code.

3) Date and Time

This area stores the date and time of file transfer in BCD code.



3.8.21 FTP client status (GET) area (Address: 8002 to 8553)

The status related to the FTP client function (GET) can be confirmed.

The FTP client function (GET) reads the file of the FTP server to the Web server module.

Refer to Section 6.7.2 for the FTP client function (GET).

(1) FTPGET instruction execution count storage area

The number of times when the FTPGET instruction was executed can be confirmed.

The transfer log at normal completion can be confirmed in (4) in this section.

The error log at abnormal completion can be confirmed in (3) in this section.

- (a) Number of times when FTPGET instruction was normally completed (Address: 8002)

This area stores the cumulative number of times when the FTPGET instruction was normally completed.

- (b) Number of times when FTPGET instruction failed (Address: 8003)

This area stores the cumulative number of times when the FTPGET instruction failed.

(2) File transfer count storage area

The number of times when the Web server module transferred files can be confirmed.

The transfer log at normal completion can be confirmed in (4) in this section.

The error log at abnormal completion can be confirmed in (3) in this section.

- (a) Number of normally completed FTP transfer (GET) (Address: 8004)

This area stores the cumulative number of times when the Web server module transferred (GET) a file from the FTP server.

- (b) Number of failed FTP transfer (GET) (Address: 8005)

This area stores the cumulative number of communication errors that were returned to the Web server module as a result of requesting the FTP server to transfer (GET) a file.

(3) Error log storage area for abnormal completion

The error log of failed file transfer can be confirmed.

- (a) Number of writes for error log (Address: 8006)

- 1) This area stores the cumulative number of errors stored in the error log area.
- 2) An error code is stored when FTP transfer error (X18) turns on.

- (b) Error log write pointer (Address: 8007)

- 1) This area stores the error log No. of the latest error log. (*)
0 : No error. (No error stored)

1 or more : Error log No. of the latest error stored

* The pointer value of "16" indicates that the latest error has been stored into the error log 16 area.

- 2) If 17 or more errors occur, excess errors are registered to the error log areas, starting from the error log 1 area again.

(c) Error log 1 to 16 (Address: 8008 to 8199)

This area stores the error logs of failed file transfer.

The error log area is composed of 16 portions of the same data arrangement.

1) Error code

This area stores the error code that indicates the error status.

Refer to Section 9.3 for the error code.

2) Source

This area stores the source FTP server No. when a communication error occurs.

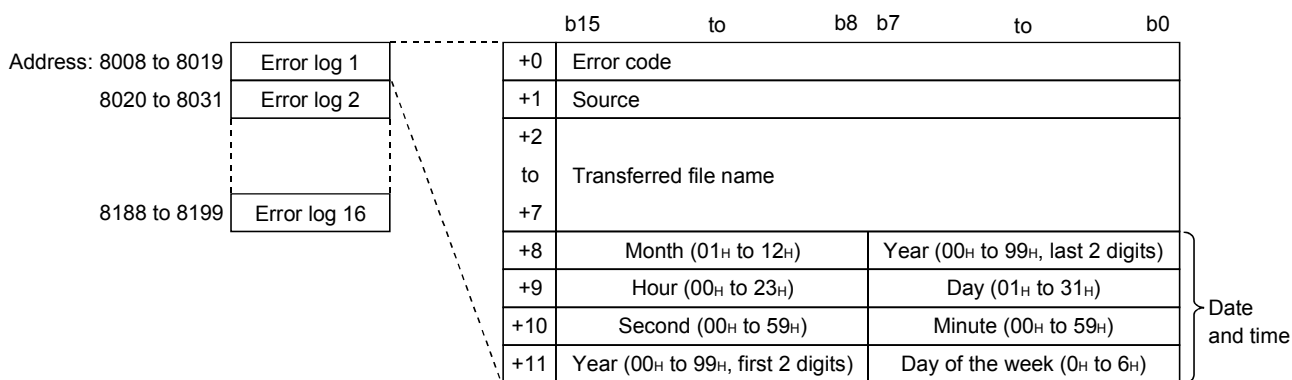
The source FTP server No. is set in the FTP server setting.

3) Transferred file name

This area stores the transferred file name in ASCII code.

4) Date and Time

This area stores the date and time of file transfer in BCD code.



(4) Transfer log storage area for normal completion

The transfer log of normally completed file transfer can be confirmed.

(a) Number of writes for transfer log (Address: 8200)

- 1) This area stores the cumulative number of registrations to the transfer log area.
- 2) This area stores the transfer log when the Web server module transferred (GET) a file from the FTP server normally.

(b) Transfer log write pointer (Address: 8201)

- 1) This area stores the transfer log No. where the latest transfer log is registered. (*)
 - 0 : No transfer. (No transfer log registered)
 - 1 or more : Transfer log No. where the latest transfer log is registered

* The pointer value of 16" indicates that the latest transfer log is registered in the transfer log 16 area.
- 2) If 33 or more errors occur, excess transfer logs are registered to the areas, starting from the transmission log 1 area again.

(c) Transfer log 1 to 32 (Address: 8202 to 8553)

This area stores the transfer logs of normally completed file transfer.
The transfer log area is composed of 32 portions of the same data arrangement.

1) Source

This area stores the source FTP server No. of the normally completed FTP transfer (GET).

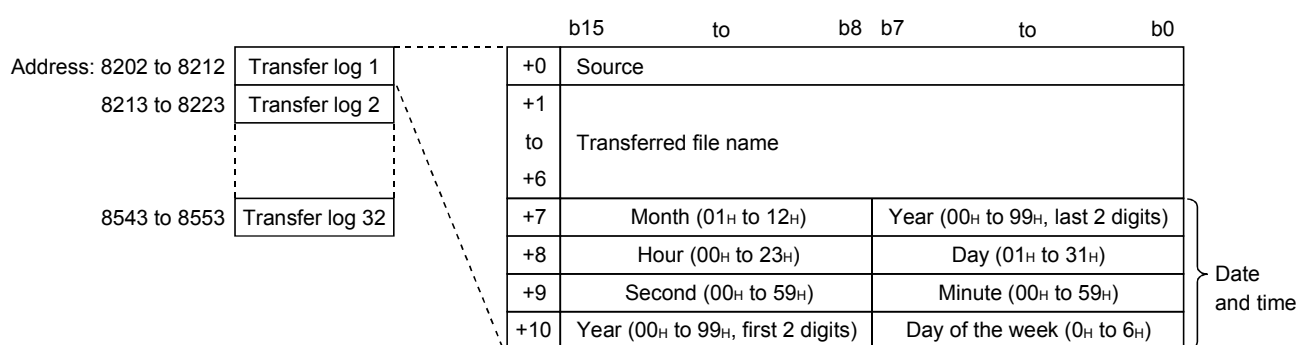
The source FTP server No. is set in the FTP server setting.

2) Transferred file name

This area stores the transferred file name in ASCII code.

3) Date and Time

This area stores the date and time of file transfer in BCD code.



3.8.22 Module initialization request area (Address: 9999)

Use this area when returning the Web server module to the factory setting. (Refer to Section 4.13.)

3.9 Time Data Handling

This section explains the time data handled by the Web server module.

(1) Time data handled by Web server module

The Web server module acquires and uses the clock data of CPU No. 1 at the following timings. (*)

- When the programmable controller is powered off and then on or the CPU module is reset
- Every 60 seconds

* The time data is used mainly for the time stamp of logging and event history files and the time specification of logging and event monitor.

(2) Precautions for time data handled by Web server module

- (a) Before operating the Web server module, complete the clock data setting of CPU No. 1.

For the clock data setting, refer to the user's manual of the used CPU module.

- (b) Errors will be produced in the clock data of CPU No. 1 used for the Web server module.

For accuracy of the clock data, refer to the user's manual of the used CPU module.

- (c) When the Web server module acquires the clock data of CPU No. 1, a maximum delay of one second occurs as transfer time. Hence, an error of one second may be produced in the logging data time on rare occasions when the clock is adjusted.

(Example) Error in logging data time

| | | | | | |
|---------|-----------------------|------|------|------|------|
| | 2003/10/01 15:48:32.8 | 1028 | 30.5 | 21.8 | 15.9 |
| | 2003/10/01 15:48:32.9 | 1029 | 31.5 | 22.8 | 16.9 |
| Error → | 2003/10/01 15:48:32.0 | 1030 | 32.5 | 23.8 | 17.9 |
| | 2003/10/01 15:48:32.1 | 1031 | 33.5 | 24.8 | 18.9 |
| | 2003/10/01 15:48:32.2 | 1032 | 34.5 | 25.8 | 19.9 |

Data are sampled normally at 100ms intervals.

- (d) The clock data of CPU No. 1 is acquired by the Web server module at the timings indicated in (1). Therefore, when the clock data of CPU No. 1 is changed during operation, the time of the Web server module will be changed in a maximum of 60 seconds.

3.10 Files Handled by Web Server Module

This section indicates the files that can be handled by the Web server module.

| Name | Description | Storage Directory *1 | File Creation *2 |
|--------------------|---|---|------------------|
| Tag file | CSV file that saves tag data. Created when e-mail transmission/file transfer is performed. | — | System |
| Logging file | CSV file that saves logging data. | [/ROM/WWW/LOGGING] or [/CF/LOGGING] | System |
| Event history file | CSV file that saves event historical data. | [/ROM/WWW/EVENT] | System |
| User data file | Binary/CSV file created by the user. Used as a file for reading/writing the device data of the programmable controller CPU. | [/CF/USER] | User/system |
| User HTML file | HTML/JPEG/GIF file created by the user. Used as a Web screen. | [/ROM/WW/USER] or [/CF/USER] | User |
| Setting data file | CSV file that saves the setting data (various settings of control menu). Created when CSV export is executed. (Refer to Section 6.10.3) | [/ROM/WWW/USER/CSV] or [/CF/USER/CSV] | System *3 |

*1 Refer to Appendix 3 for the directory configuration.

*2 System : Created by the Web server module.

User : File can be created or modified by the user.

*3 The setting data file created by CSV export can be edited by the user.

MEMO

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

4 SET-UP AND PROCEDURE BEFORE OPERATION

This chapter explains the set-up and preparatory procedure to operate the Web server module in a system.

| POINT |
|---|
| (1) Prior to use, make sure to read the safety precautions in the beginning of this manual. |
| (2) The mounting and installation environment of the Web server module are the same as those of the CPU module. For details, refer to the user's manual of the programmable controller CPU module. |

4.1 Handling Precautions

This section explains the precautions for handling the Web server module.

- (1) Do not drop or apply severe shock to the module case since it is made of resin.
- (2) Before touching the module, always touch grounded metal, etc. to discharge static electricity from human body, etc.
Not doing so can cause the module to fail or malfunction.
- (3) Tighten the screws such as module fixing screws within the following ranges.

| Screw position | Tightening torque range | Remarks |
|---|-------------------------|---|
| Module fixing screw (usually not required) (M3 screw) (*1) | 0.36 to 0.48 N•m | — |
| RS-232 cable connector screw (M2.6) | 0.20 to 0.39 N•m | Screw hole depth: L=3.2mm or less (Internal dimension from end face) |

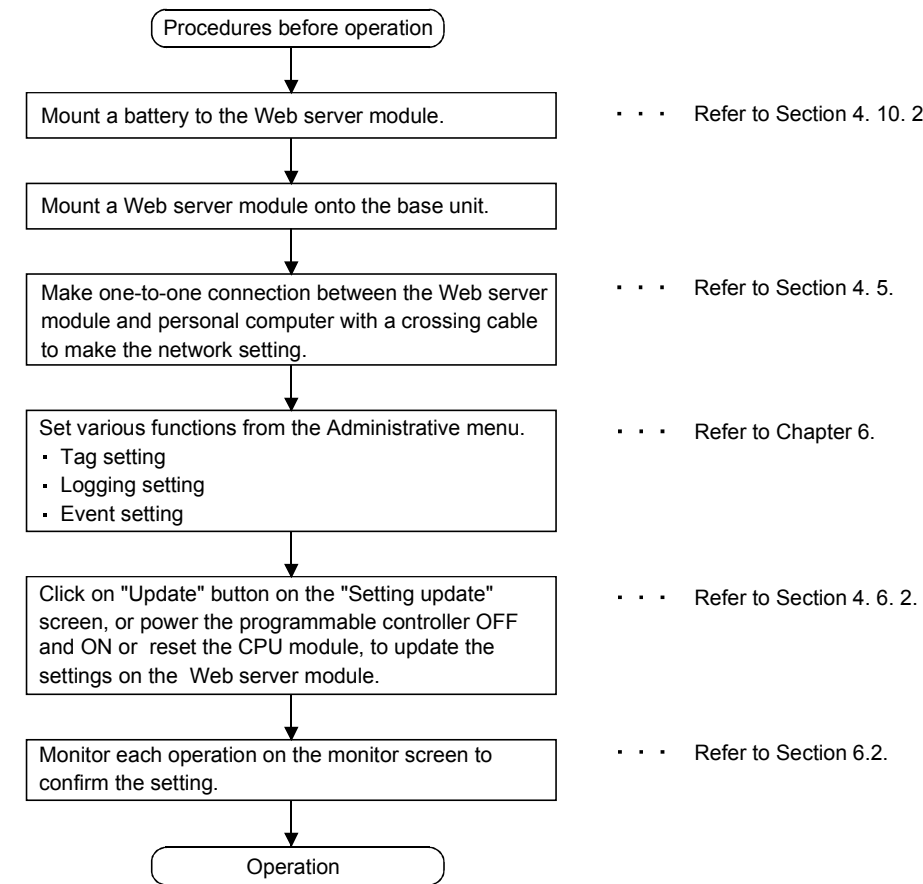
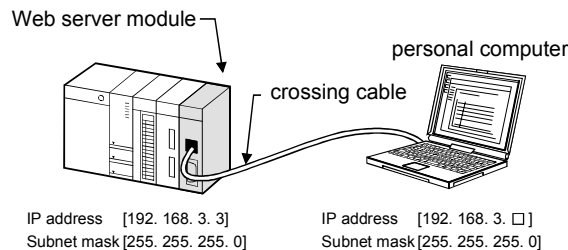
*1 The module can be easily fixed onto the base unit using the hook at the top of the module.

However, it is recommended to secure the module with the module fixing screw if the module is subject to significant vibration.

4.2 Set-up and Procedure before Operation

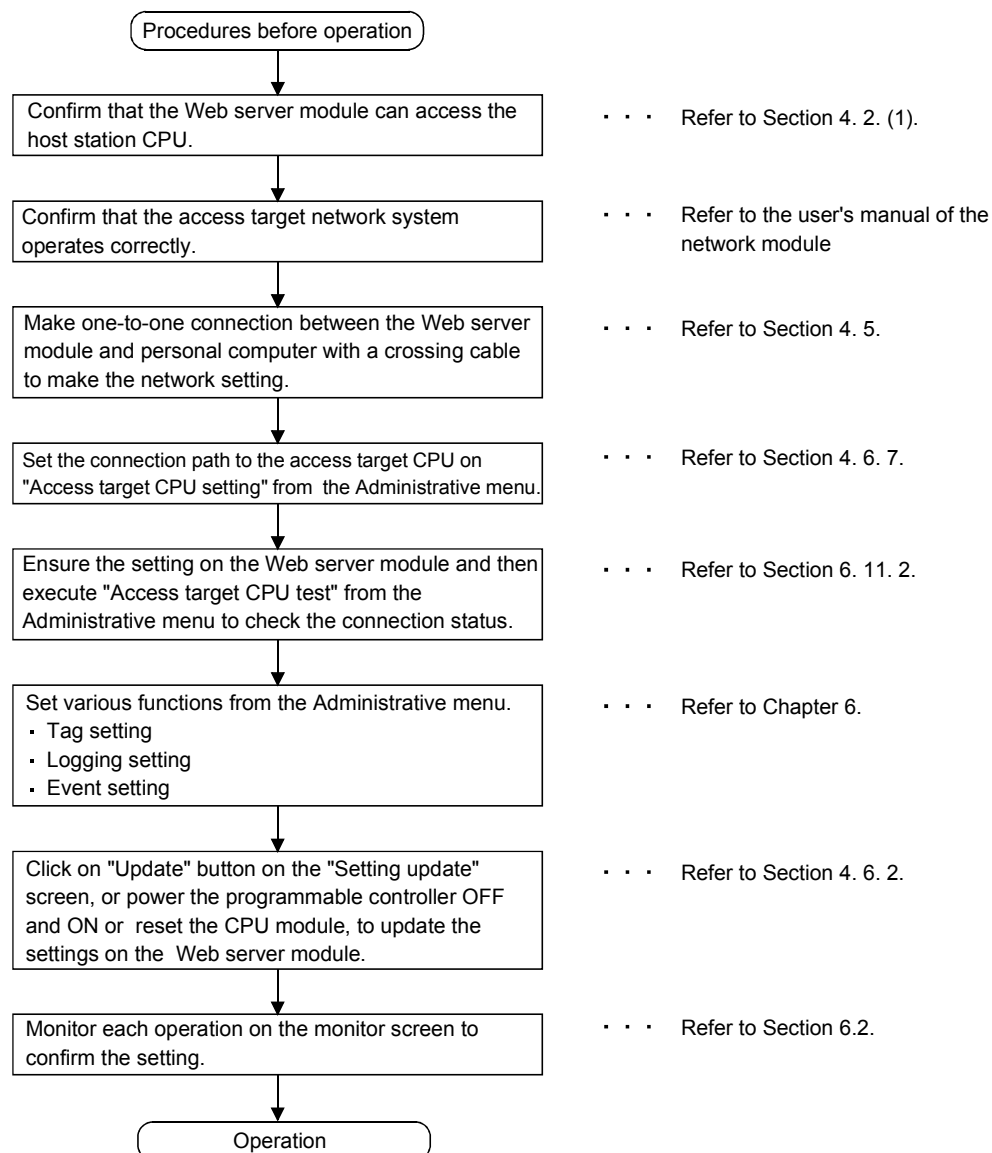
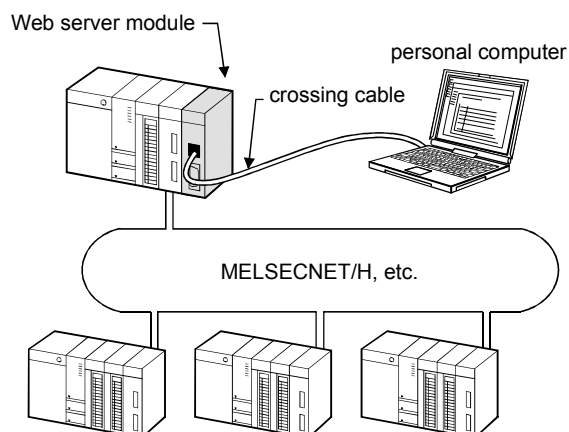
The following provides pre-operation procedure.

(1) Accessing the host CPU from the Web server module

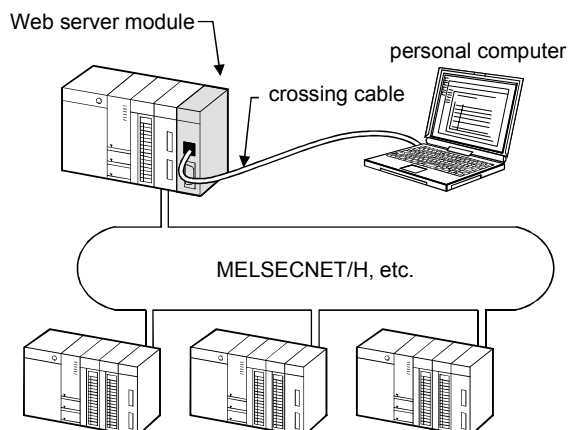


| |
|---|
| POINT |
| The Web server module stores in the standard ROM the setting information, logging data, user HTML, etc. set in the Administrative menu. It is recommended to back up the standard ROM data (setting information, logging data, user HTML, etc.) into the Compact Flash™ card periodically. (Refer to Section 6.10) |

(2) Accessing the other station CPU from the Web server module



(3) Connecting the Web server module to the network



Procedures before operation

Confirm that the Web server module can access the host station CPU and/or other station CPU.

• • • Refer to Section 4. 2. (1). (2).

A contract with the Internet service provider is required prior to the Internet connection.
Create a proper environment for the external device Personal computer so that Internet connection is available.

Make one-to-one connection between the Web server module and personal computer with a crossing cable to make the network setting.

• • • Refer to Section 4. 5.

Make network setting for the Web server module on the following screen from the Administrative menu.

- System setting
- Dial-up setting
- FTP setting
- E-mail setting
- Address notification setting
- Account setting
- IP filter setting

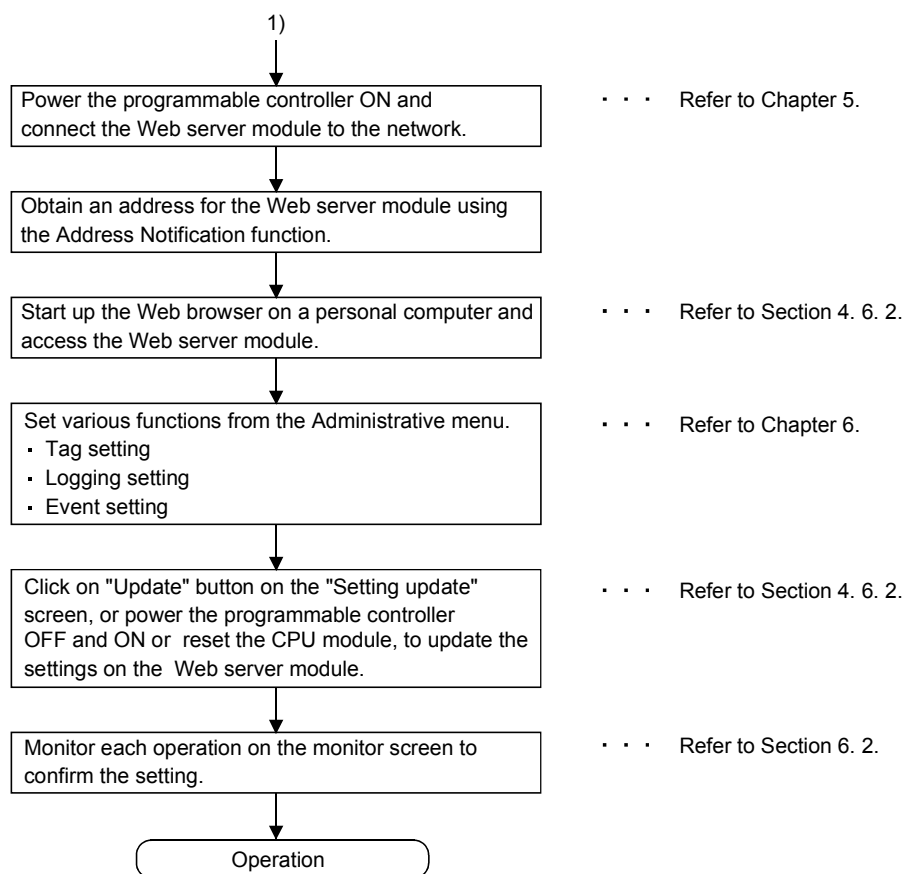
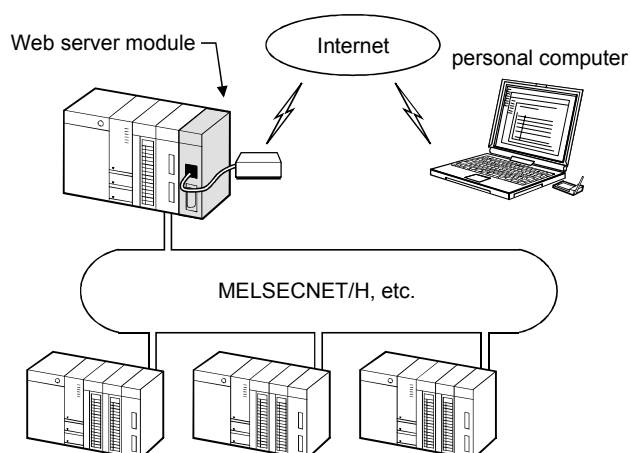
• • • System setting : Refer to Section 4. 6. 3.
Dial-up setting : Refer to Section 4. 6. 4.
FTP setting : Refer to Section 6. 7. 3.
E-mail setting : Refer to Section 6. 6. 3.
Address notification setting: Refer to Section 6. 9. 2.
Account setting : Refer to Section 4. 6. 5.
IP filter setting : Refer to Section 4. 6. 6.

Power off the programmable controller and disconnect the crossing cable from the Web server module.

Connect the Web server module to the LAN, modem, etc.

• • • Refer to Section 4.4.

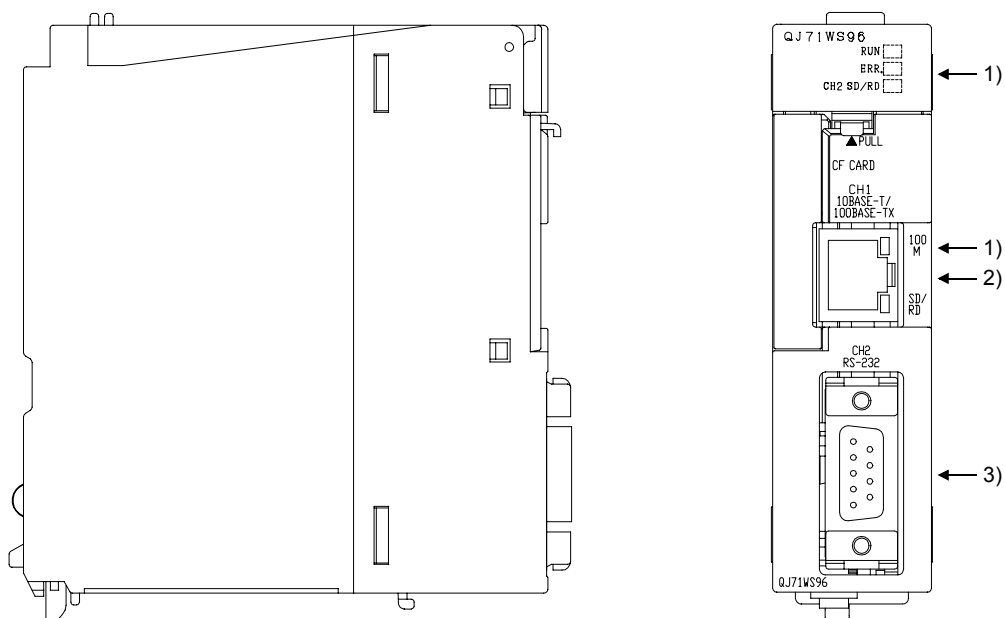
1)



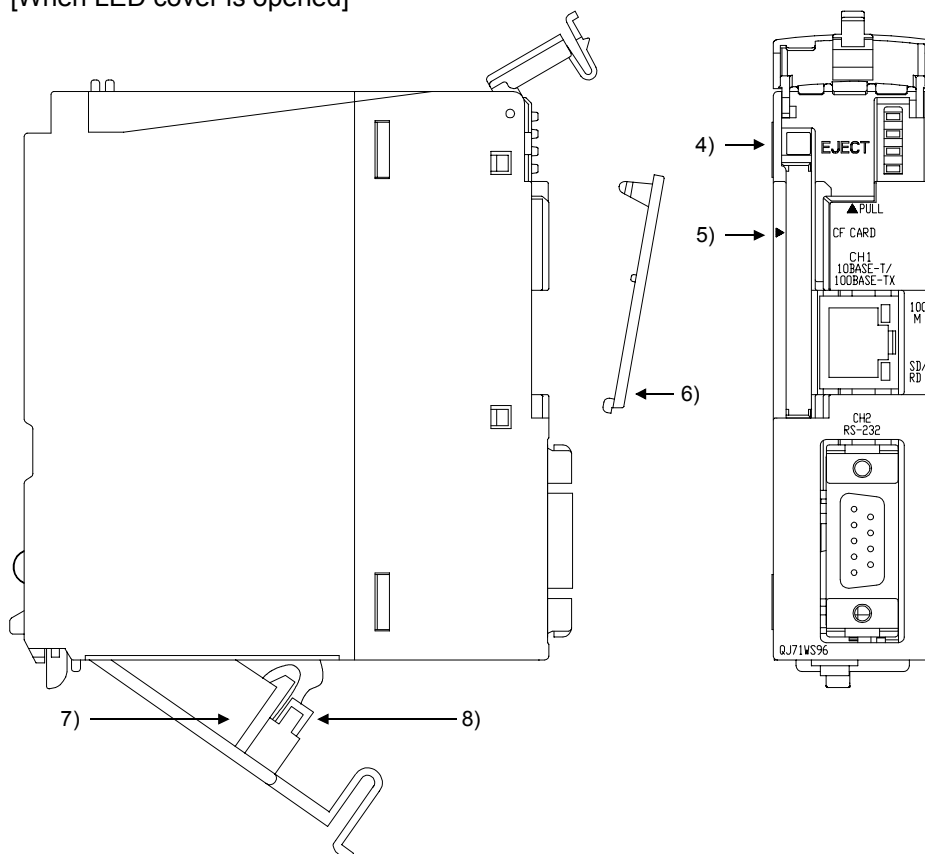
4.3 Part Names and Functions

This section indicates the part names of the Web server module.

[When LED cover is closed]

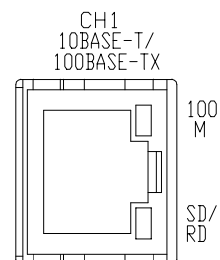
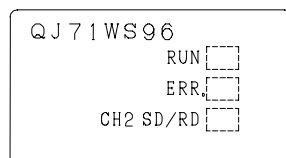


[When LED cover is opened]



| | Name | Description |
|----|---|---|
| 1) | LED Display | Refer to (1) LED display. |
| 2) | 10BASE-T/ 100BASE-TX interface connector (RJ45) | Used for connecting Web server module to 10BASE-T/100BASE-TX. (Web server module recognizes 10BASE-T/100BASE-TX according to the external device.) |
| 3) | RS-232 interface connector | Used for connecting Web server module to RS-232. |
| 4) | EJECT button | Used for ejecting a Compact Flash™ card from Web server module. |
| 5) | Compact Flash™ card mounting slot | Slot for mounting a Compact Flash™ card onto Web server module. |
| 6) | Compact Flash™ card mounting slot cover | Cover for Compact Flash™ card mounting slot. |
| 7) | Battery | Battery for file protection. |
| 8) | Battery connector pin | Connector pin for battery lead. (The battery lead is not connected to the connector at shipment to prevent battery consumption.) |

(1) LED display



| LED name | LED status | Description |
|-----------|------------|---|
| RUN | ON | Normally operating (It may take some time until RUN LED turns ON after the module is started.) |
| | OFF | Watch dog timer error occurrence (Hardware error) |
| ERR. | OFF | Normal operation |
| | ON | Module continue error |
| | Flickering | Module stop error |
| CH2 SD/RD | ON | CH2 side: data receiving or data sending |
| | OFF | Data not transmitted |
| 100M | ON | 100Mbps |
| | OFF | 10Mbps |
| SD/RD | ON | CH1 side: data receiving or data sending |
| | OFF | Data not transmitted |

4.4 Cable Connection

This section explains how to connect cables to the Web server module.

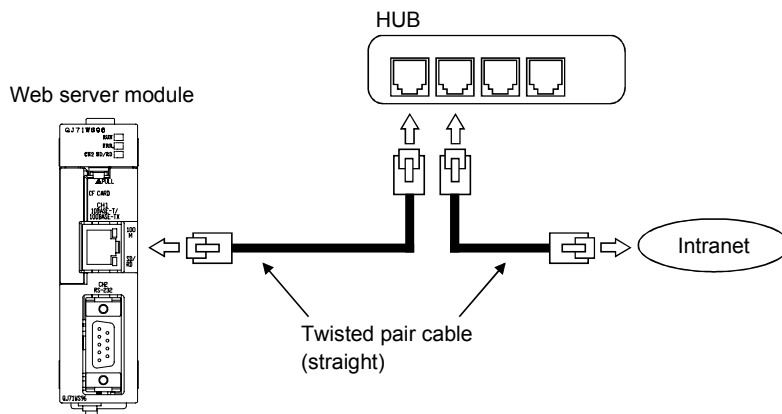
To realize a reliable system and fully utilize the Web server module functions, wiring resistant to external noise is required.

- (1) Ground the RS-232 Cable shield at only one point.
- (2) When connecting to an external device with an RS-232 cable, use a connector shell specified in Section 3.2 for the Web server module side.
- (3) Sufficient safety precautions must be taken when installing the 100BASE-TX and 10BASE-T networks.
Consult a specialist when connecting cable terminals or installing trunk line cables, etc.
- (4) Use a 10BASE-T/100BASE-TX connection cable compliant to the standards shown in Section 2.4.
- (5) The bending radius near the connectors should be four times larger or more than the cable's outside diameter.
- (6) Connect the external device according to its specifications.
- (7) Do not short the FG signal and SG signal of the RS-232 connection cable.
When the FG signal and SG signal are connected inside the external device, do not connect the FG signal to the Web server module.

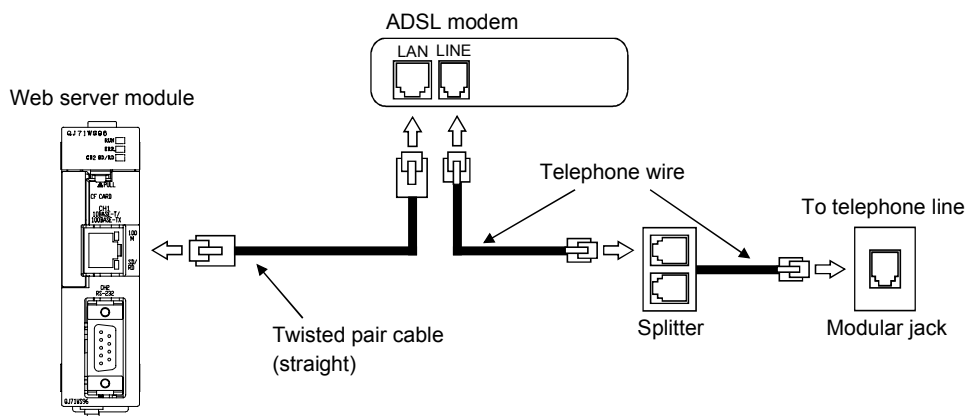
4.4.1 10BASE-T/100BASE-TX connection

This section provides connection examples for use of the 10BASE-T/100BASE-TX interface of the Web server module.

(1) In the case of LAN connection



(2) In the case of Internet connection using ADSL modem

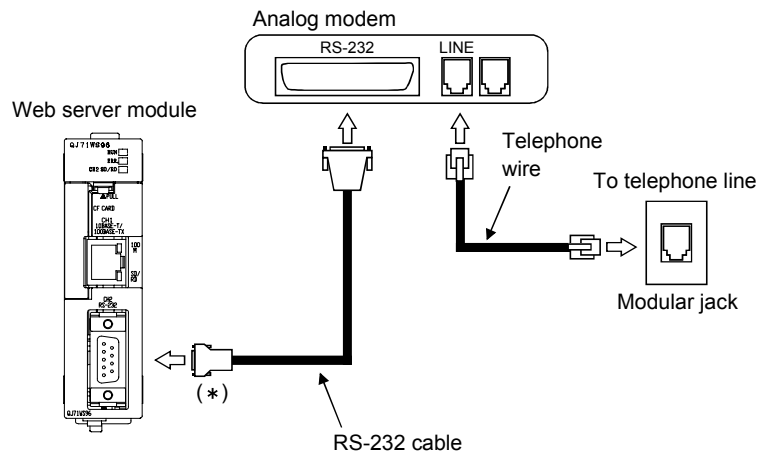
**POINT**

Refer to Section 2.2 and Section 2.4 for the devices required for 10BASE-T/100BASE-TX connection and the system configuration examples.

4.4.2 RS-232 connection

This section provides a connection example for use of the RS-232 interface of the Web server module.

- In the case of Internet connection using analog modem



* For a connector of the web server module, use 9 pin D-sub (Male) fixing type.
(Refer to Section 3. 2.)

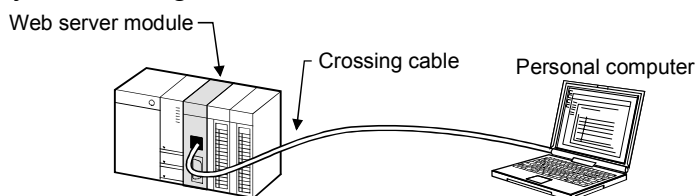
POINT

Refer to Section 2.2 and Section 2.4 for the devices required for RS-232 connection and the system configuration example.

4.5 Network Setting of Personal Computer for One-to-one Connection

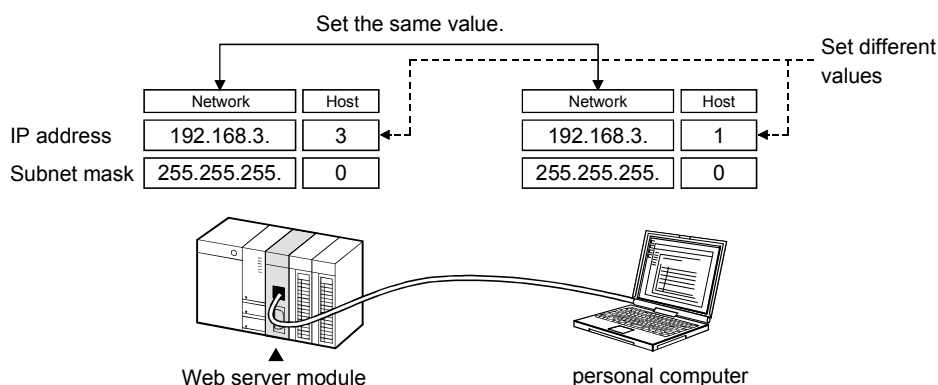
Connect the Web server module with the personal computer on a one-to-one basis, and set the Web server module from the Web browser on the personal computer. This section explains the network setting of the personal computer when the Web server module and personal computer are connected on a one-to-one basis.

(1) System configuration for one-to-one connection



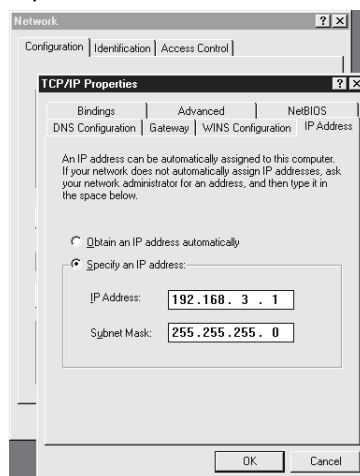
(2) Network setting of personal computer

- (a) Set the personal computer and the Web server module to the same network address.



- (b) Make the network setting of the personal computer on the "TCP/IP Properties" screen.

(Example) In the case of Microsoft® Windows® 98 operating system
[Control panel] → [Network] → <Configuration> tab → "TCP/IP Properties" Screen → <IP Address> tab



- (c) Restart the personal computer to make the network setting valid.

(3) Web browser setting

(a) Local area network [LAN] setting

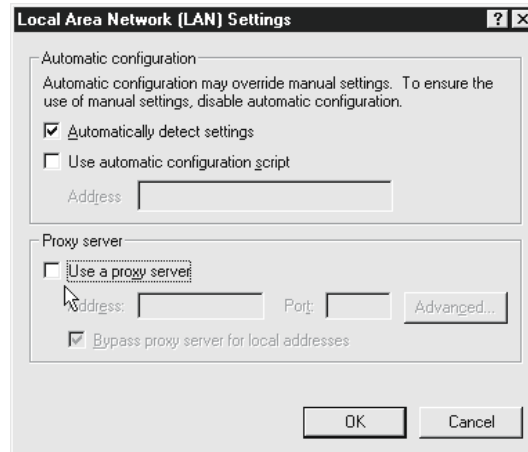
In Local Area Network [LAN] Settings of the Web browser, make setting so that the proxy server is not used at the local address.

(Example) In the case of Microsoft® Windows® 98 operating system or

Microsoft® Corporation's Internet Explorer 5.5

[Tools] → [Internet Options] → <Connections> tab →

LAN Settings... → "Local Area Network [LAN] Settings" Screen



(b) Temporary Internet files settings/delete

- 1) Select any other than "Never" for "Check for newer versions of stored pages" in the temporary Internet files settings of the Web browser. If "Never" is set, the old screen (the one saved in the temporary Internet files) is displayed unchanged when the file is read from the Edit screen, etc.

(Example) In the case of Microsoft® Windows® 98 operating system or

Microsoft® Corporation's Internet Explorer 5.5

[Tools] → [Internet Options] → <General> tab →

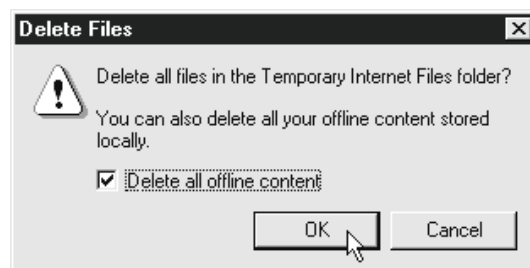
Temporary Internet Files Settings... → "Settings" Screen



- 2) The old screen (the one saved in the temporary Internet files) may be displayed unchanged if the file is read from the User HTML, Edit screen, etc.

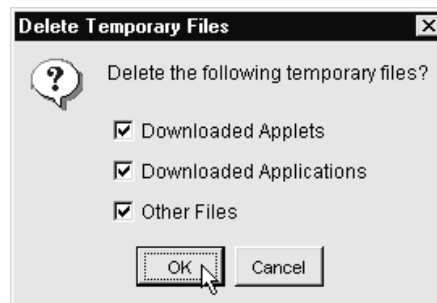
In that case, delete the temporary Internet files (cache) of the Web browser and read the file again.

(Example) In the case of Microsoft® Windows® 98 operating system or Microsoft® Corporation's Internet Explorer 5.5
[Tools] → [Internet Options] → <General> tab →
Temporary Internet Files Delete Files... → "Delete Files" Screen



(Example) When using Java VM of Sun Microsystems Inc. for <applet>

[Control Panel] → [Java] → <General> tab →
Delete Files → "Delete Temporary Files" Screen



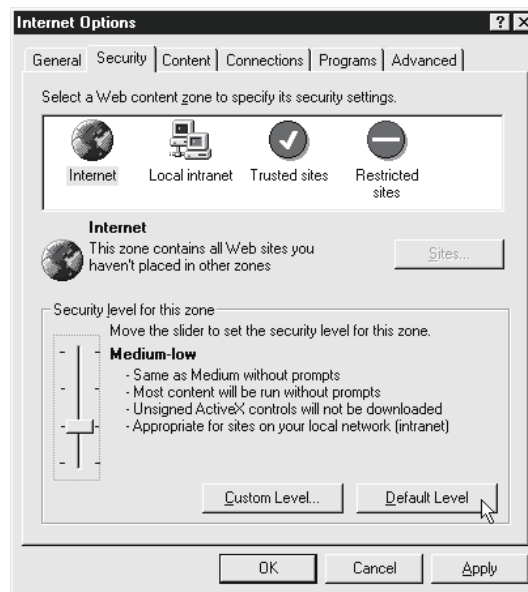
POINT

To shorten the page display time, the Web browser saves one-displayed pages in a special folder (temporary Internet files).

- (c) Security level setting

In the security level setting of the Web browser, set the security level of the Internet and Intranet zones to "Default Level".

(Example) In the case of Microsoft® Windows® 98 operating system or Microsoft® Corporation's Internet Explorer 5.5
[Tools] → [Internet Options] → <Security> tab



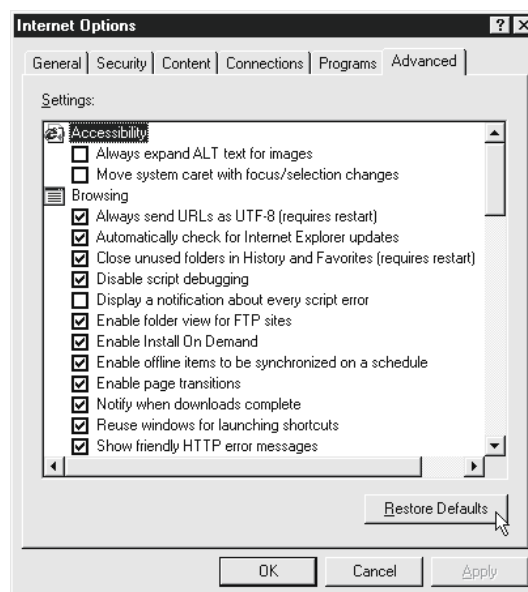
(d) Detailed setting

In the advanced settings of the Web browser, set to "Restore Defaults".

(Example) In the case of Microsoft® Windows® 98 operating system or

Microsoft® Corporation's Internet Explorer 5.5

[Tools] → [Internet Options] → <Advanced> tab



(4) Accessing the Web server module from the personal computer

- (a) Start the Web browser from the personal computer and enter the address of the Web server module as indicated below.

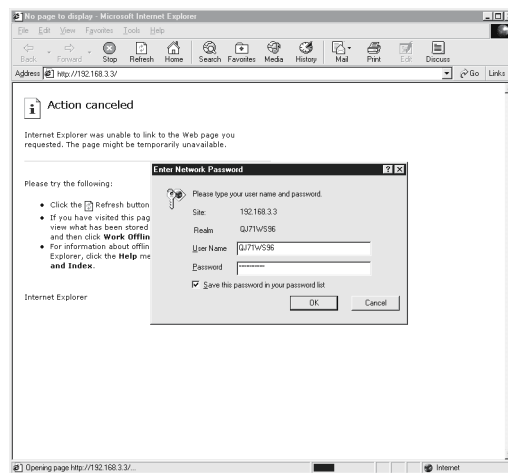
[http://192.168.3.3/]

- (b) As the user authentication screen ("Enter Network password " screen) appears when accessing the Web server module, enter the following.

User name : QJ71WS96 (All in uppercase)

Password : MITSUBISHI (All in uppercase)

- (c) The standard screen appears on the Web browser.
 (Example) In the case of Microsoft® Corporation's Internet Explorer 5.5

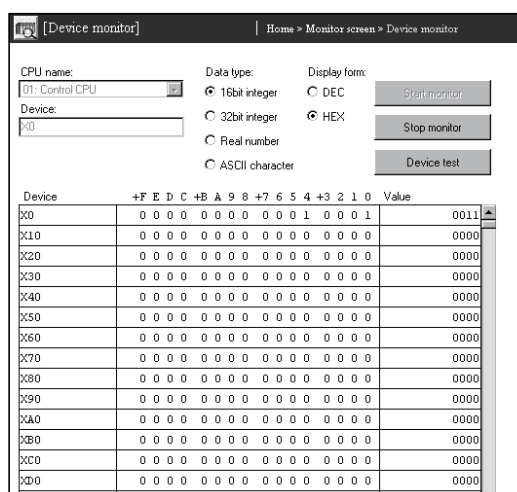


POINT

If access to the Web server module fails, first issue the PING command from the personal computer to the Web server module to check the existence of the Web server module.

Refer to Section 6.11.3 for how to issue the PING command.

- (5) Accessing the host CPU of the Web server module
- Display the "Device monitor" screen Within the Monitor screen.
[Monitor screen] → "Device monitor"
 - Access the host CPU of the Web server module and confirm that the following input signals (X) are on.
Module READY (X0)
Network connection status (X4)



- (c) Since the monitor screens use the Java applet, Java VM is required for the Web browser to execute the applet.
 Refer to Section 3.1 **REMARKS** (2) (3) for how to download Java VM.

4.6 Setting from Web Browser

It is required to make setting from the Web browser to use the Web server module.
The Web server module has the standard screen for setting/monitoring the Web server module.

4.6.1 Display of standard screen

The following shows the display of the standard screen.

Although English and Japanese versions are provided, when a browser in English is used, the standard screen is displayed in English. (The language to be used will be automatically determined according to the language of the browser.)

* When displaying the TOP page of the standard screen using an operating system and a Web browser of English version, do not click on the "Japanese" button provided for link to the Japanese version.

Doing so may display an incorrect screen.



[Menu items]

| Item | Description |
|---------------------|---|
| Top page | This screen is displayed first when the URL of the Web server module is specified. |
| Monitor screen | Monitors device data, tag data, logging data, event historical data, PLC diagnostics and self-diagnostics. |
| Administrative menu | Allows initial setting, various function setting, setting test, etc. for use of the Web server module. Only the user with administrator authority can use the menu. |

(1) Monitor screen

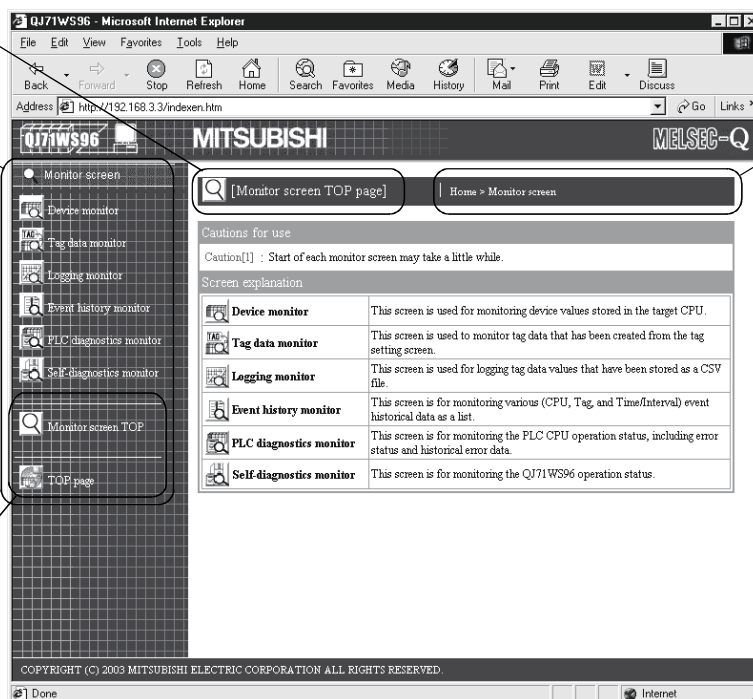
Screen name

Screen name will be displayed.

Menu

Select a monitor screen.

Click on the button to move to the monitor screen top page or the default top page.



Location

Shows the location of the currently displayed screen.

[Menu items]

| Item | Description | Reference Section |
|--------------------------|--|-------------------|
| Device monitor | Monitors device values. | Section 6.2 |
| Tag data monitor | Monitors tag data. | |
| Logging monitor | Monitors logging data. | |
| Event history monitor | Monitors event historical data. | |
| PLC diagnostics monitor | Monitors programmable controller CPU operation status. | |
| Self-diagnostics monitor | Monitors Web server module operation status. | |

(2) Administrative menu

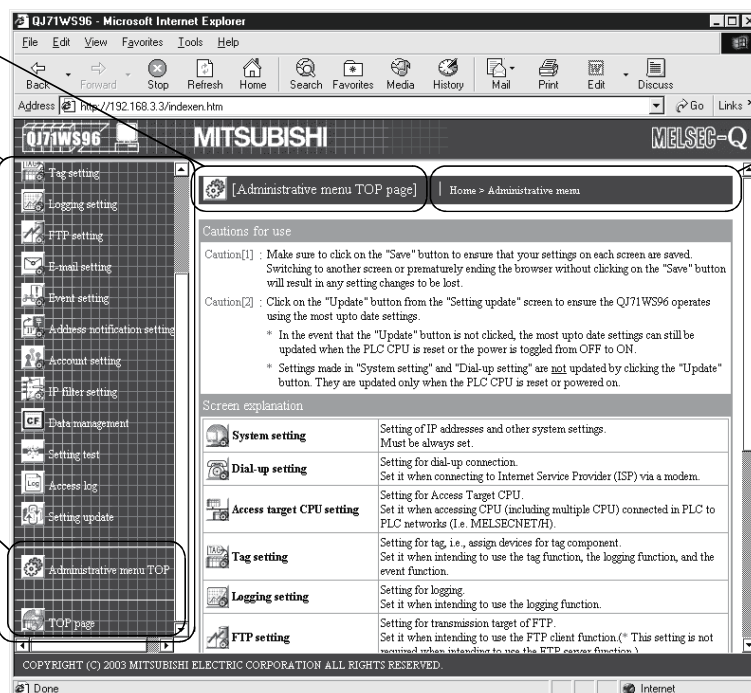
Screen name

Screen name will be displayed.

Menu

Select a setting screen.

Click on the button to move to the Administrative menu top page or the default top page.



Location

Shows the location of the currently displayed screen.

[Menu items]

| Item | Description | Reference Section |
|------------------------------|---|-------------------|
| System setting | Makes the initial setting required for network connection. Be sure to perform this setting to use the Web server module. | Section 4.6.3 |
| Dial-up setting | Makes setting required for Internet connection. | Section 4.6.4 |
| Access target CPU setting | Sets the connection path to the access target CPU. | Section 4.6.7 |
| Tag setting | Makes setting for tag data collection. | Section 6.3 |
| Logging setting | Sets the logging intervals, file capacity, etc. of logging data. | Section 6.4 |
| FTP setting | Makes the setting to log in to the FTP server. | Section 6.7 |
| E-mail setting | Sets the send server, e-mail address, etc. | Section 6.6 |
| Event setting | Sets the event monitor conditions. | Section 6.5 |
| Address notification setting | Makes the setting to notify the external device of the Web server module's URL. | Section 6.9 |
| Account setting | Sets the account for making access to the Web server module. | Section 4.6.5 |
| IP filter setting | Sets the IP address at which access to the Web server module is enabled/disabled. | Section 4.6.6 |
| Data management | Backs up, restores and formats the Compact Flash™ card, and performs CSV export/import. | Section 6.10 |
| Setting test | Conducts connection tests such as e-mail transmission, file transfer and PING tests. | Section 6.11 |
| Access log | Displays the access log to the Web server module. | Section 6.8 |
| Setting update | Updates the setting made in the Administrative menu on the Web server module operation. | Section 4.6.2 (3) |

4.6.2 Common operations for the standard screen

This section explains the common operations for the standard screen.
Refer to the corresponding sections for the monitor and set screens.

(1) Standard screen displaying procedure

- (a) Start the Web browser from the personal computer and enter the Web server module's address. Refer to Section 4.6.3 for the IP address setting. (*1)

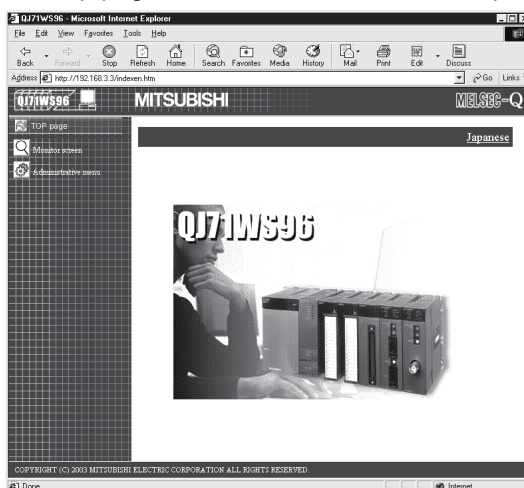


IP address or host name of the web server module

- (b) As the user authentication screen ("Enter Network password" screen) appears when accessing the Web server module, enter the account. Refer to Section 4.6.5 for the account setting. (*2)



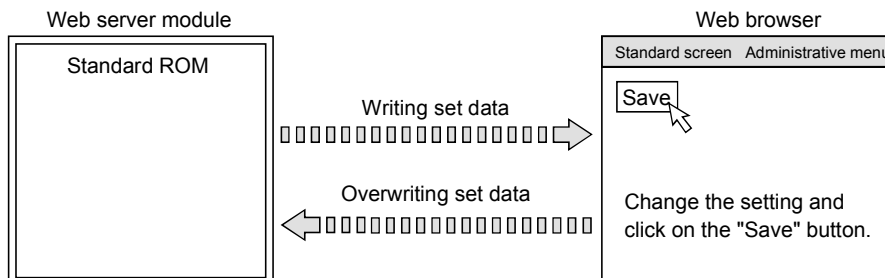
- (c) The top page of the standard screen is displayed on the Web browser. (*3)



- *1 Prior to shipment, the IP address of the Web server module is set as indicated below.
- IP address: 192.168.3.3
 - Subnet mask: 255.255.255.0
- *2 Prior to shipment, the account of the Web server module is set as indicated below.
- User name: QJ71WS96 (All in uppercase)
 - Password: MITSUBISHI (All in uppercase)
 - Access authority: Device write/Tag component write/Administrator
 - Initial screen: Standard screen top page (Top page (/index.htm))
- *3 The top page displayed when the address of the Web server module is specified can be changed on the account setting screen. (Refer to Section 4.6.5)

(2) Saving the Administrative menu settings

- (a) On setting screens of the Administrative menu, change the settings and then click on the "Save" button.
- (b) Clicking on the "Save" button writes the new settings over the set data of the Web server module. (The old data before overwrite are lost.)

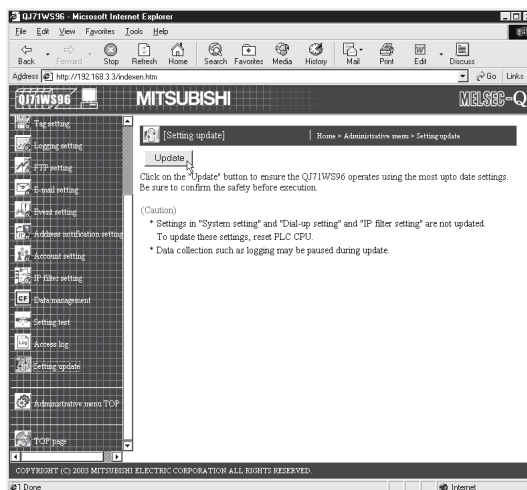
**POINT**

On setting screens of the Administrative menu, make sure to click on the "Save" button after changing the settings.

Switching to another screen or ending the Web browser before clicking on the "Save" button deletes the new settings.

(3) Updating the Administrative menu settings

- (a) Update on the Setting update screen
 - 1) Click on the "Update" button on the Setting update screen to update the settings on the Web server module.



- 2) In the following message box, confirm that the settings have been updated.



- (b) Update by powering off the Web server module and on, or resetting the CPU module

Powering the programmable controller off and then on or resetting the CPU module updates the settings made on the setting screen on the Web server module.

| POINT | |
|-------|--|
| (1) | The system settings, dial-up settings and IP filter settings are not updated by clicking on the "Update" button. Powering the programmable controller off and then on or resetting CPU module makes the settings valid. |
| (2) | Web server module requires preparatory time to communicate with the access target CPU when the "Update" button on the Setting update screen is clicked. Therefore, it may take several minutes before the communication will be available if many access target CPUs are set. In the message box, confirm that setting update has been completed. |
| (3) | Web server module requires preparatory time to communicate with the access target CPU when the programmable controller is powered off and then on, or the CPU module is reset. Therefore, it may take several minutes before the communication will be available if many access target CPUs are set. The Web server module completion can be confirmed by making sure that Module READY (X0) is on. |
| (4) | When access is made from the personal computer to the Web server module during preparation of the Web server module, the "Page cannot be displayed" message is returned to the Web browser. Therefore, after the Web server module has been prepared, make access from the Web browser again. |

4.6.3 System setting

[Setting Purpose]

Makes the initial setting required for the Web server module to connect to the network.

Be sure to make this setting to use the Web server module.

[Start Procedure]

[Administrative menu] → "System setting"

[Setting Screen]

The screenshot shows the 'System setting' page with the following sections:

- Network type setting:** Radio buttons for 'Connecting through LAN or the router' (selected) and 'Dial-up to the network (modem,ADSL,DoPa(Japan only))'.
- IP address setting:** Radio buttons for 'Obtain an IP address automatically' and 'Use the following IP address' (selected). Input fields for IP address (192.168.3.3), Subnet mask (255.255.255.0), and Default gateway.
- DNS server setting:** Radio buttons for 'Obtain a DNS server address automatically' and 'Use the following DNS server address' (selected). Input fields for DNS server address 1 and DNS server address 2.
- Web server setting:** Radio buttons for 'Use the default HTTP port number(80)' (selected) and 'Use the following HTTP port number'. Input field for HTTP port number (1024 to 65535). A checkbox for 'Register the above port No. to the router's NAT'.
- FTP server setting:** Radio buttons for 'Use the default FTP port number(21)' (selected) and 'Use the following FTP port number'. Input field for FTP port number (1024 to 65535). A checkbox for 'Register the above port No. to the router's NAT'.
- System name setting:** Input field for System name (QJ71WS96) with a note '(1 to 32 characters)'.
- Network diagnosis setting:** A checkbox for 'Execute network diagnoses(ping)'. If checked, input fields for Sending interval (60 seconds) and Destination (Gateway or Following external device).
- Automatic network connection setting at start-up:** Radio buttons for 'No connection to network at start-up' and 'Automatic connection to network at start-up' (selected).

[Setting Item]

| Item | Description |
|--|--|
| Network type setting | Sets the connection method of the Web server module to the network. |
| IP address setting | Sets the IP address for the Web server module. |
| DNS server setting | Sets the IP address for the DNS server. |
| Web server setting | Sets the HTTP port number for the Web server module. |
| FTP server setting | Sets the FTP port number of the Web server module. |
| System name setting | Sets the system name. |
| Network diagnosis setting | Sets whether network diagnoses (ping) will be executed or not. |
| Automatic network connection setting at start-up | Set whether automatic network connection will be made or not at a start. |
| Save | Saves the settings. The settings are updated when the programmable controller is powered off and then on, or the CPU module is reset. |
| Cancel | Discards new data and return to the old setting. |

(1) Network type setting

Set the connection method of the Web server module to the network.

- (a) Select the connection method of the Web server module to the network.

| Item | Description |
|--|---|
| Connecting through LAN or the router. | Select this item when connecting through LAN or the router. |
| Dial-up to the network. (Modem, ADSL) | Select this item in the case of Internet connection using dial-up connection. |

- (b) When connecting to the Internet, make the setting necessary for the Internet connection in the dial-up setting. (Refer to Section 4.6.4.)

(2) IP address setting

Set the IP address for the Web server module.

- (a) Select the IP address obtaining method.

| Item | Description |
|-------------------------------------|---|
| Obtain an IP address automatically. | Select this item when obtaining the IP address automatically. |
| Use the following IP address. | Select this item when using the specified IP address. |

- (b) When "Use the following IP address." has been selected, set the IP address, subnet mask and default gateway in decimal number.

1) IP address

Set the IP address for the Web server module.

(Example) 192.168.3.3

2) Subnet mask

Make setting when using a subnet mask.

The devices on the same network must have a common subnet mask.

(Example) 255.255.255.0

3) Default gateway

- Set the default gateway.

- One gateway can be registered for a Web server module.

- (c) Set the IP address, subnet mask and default gateway after consulting the network administrator (person in charge of network planning, IP address management, etc.).

(3) DNS server setting

Set the IP address for the DNS server.

- (a) Select the method of obtaining the IP address of the DNS server.

| Item | Description |
|--|---|
| Obtain a DNS server address automatically. | Select this item when obtaining the IP address of the DNS server automatically. |
| Use the following DNS server address. | Select this item when using the specified DNS server IP address. |

- (b) When "Use the following DNS server address." has been selected, set the IP address of the DNS server in decimal number.
Up to two DNS servers can be registered for a web server module.
When obtaining the IP address from the domain name, retrieve it from the DNS server of the DNS server address 1.
- (c) Make the DNS server setting after consulting the network administrator (person who in charge of network planning, IP address management, etc.).

POINT

The DNS server setting is required when the SMTP server or FTP server is set with the domain name.

(4) Web server setting

Set the HTTP port number for the Web server module.

- (a) Select the HTTP port number for the Web server module.

| Item | Description |
|--|---|
| Use the default HTTP port number (80). | Select this item when using the HTTP port number (80). |
| Use the following HTTP port number | Select this item when using the specified HTTP port number. |

- 1) When "Use the following HTTP port number." has been selected, set the HTTP port number in decimal number.
 - 1024 to 65535: HTTP port number
 - 2) Set the HTTP port number after consulting the network administrator (person in charge of network planning, IP address management, etc.).
- (b) "Register the above port No. to the router's NAT."
When this setting is valid, the packet sent to the HTTP port number (*1) of the router's WAN side (Internet side) is transferred to the HTTP port number (*1) of the Web server module. (For NAT, refer to **REMARKS** (2) in this section.)

*1 Port number set in the Web server setting. (Refer to the above (a).)

POINT

Changing the default port No. and configuring the IP filter setting (Refer to Section 4.6.6.) is recommended for Internet connection.

(5) FTP server setting

Set the FTP port number of the Web server module.

- (a) Select the FTP port number used for the Web server module.

| Item | Description |
|---------------------------------------|--|
| Use the default FTP port number (21). | Select this item when using the FTP port number (21). |
| Use the following FTP port number. | Select this item when using the specified FTP port number. |

- 1) When "Use the following FTP port number." is selected, set the FTP port number in decimal.
 - 1024 to 65535: FTP port number
 - 2) Consult the network administrator (person who plans the network and manages the IP address) before setting the FTP port number.
- (b) "Register the above port No. to the router's NAT."
 When this setting is valid, the packet sent to the FTP port number (*1) of the router's WAN side (Internet side) is transferred to the FTP port number (*1) of the Web server module. (For NAT, refer to **REMARKS** (2) in this section.)
- *1 Port number set in the FTP server setting. (Refer to (5) (a) in this section.)

| |
|--------------|
| POINT |
|--------------|

| |
|---|
| Changing the default port No. and configuring the IP filter setting (Refer to Section 4.6.6.) is recommended for Internet connection. |
|---|

(6) System name setting

Set the system name used for the following. (Up to 32 characters)

- Title of the standard screen (Title bar of the Web browser)
- Name of the e-mail sender

Refer to Appendix 4 (5) for the characters available for the system name.

(7) Network diagnosis setting

Set whether network diagnoses (ping) will be executed or not.

- (a) "Execute network diagnoses (ping)."

When this setting is valid, a Ping packet (1 packet) is sent periodically to diagnose the network.

When no response is given from the destination within 20 seconds, a retry is made once. If there is still no response after that, an error is reported.

Network diagnoses are continuously executed during network connection (while X4 is ON).

When this setting is valid, set the sending interval and destination.

- (b) Sending interval (10 to 3600s)

Set the sending interval of a Ping packet.

When setting, take account of the load on the network.

- (c) Destination

Select the destination of the Ping packet.

- 1) Gateway

The Ping packet is sent to the gateway.

When the dial-up connection is established, it is sent to the server of the Internet service provider.

- 2) Following external device

The Ping packet is sent to the specified external device.

As the external device name, set an IP address or host name.

Refer to Appendix 4 (2) for the characters available for the external device name.

(8) Automatic network connection setting at start-up

Set whether automatic network connection will be made or not at a start.

| Item | Description |
|---|---|
| No connection to network at start-up. | Network connection/disconnection processing is required when continuous connection is not available. (Refer to Section 5.4) |
| Automatic connection to network at start-up | The Web server module automatically connects to the network at a start. |

POINT

After changing the settings, make sure to click on the "Save" button.
The settings in System setting are updated when the programmable controller is powered off and then on, or the CPU module is reset.

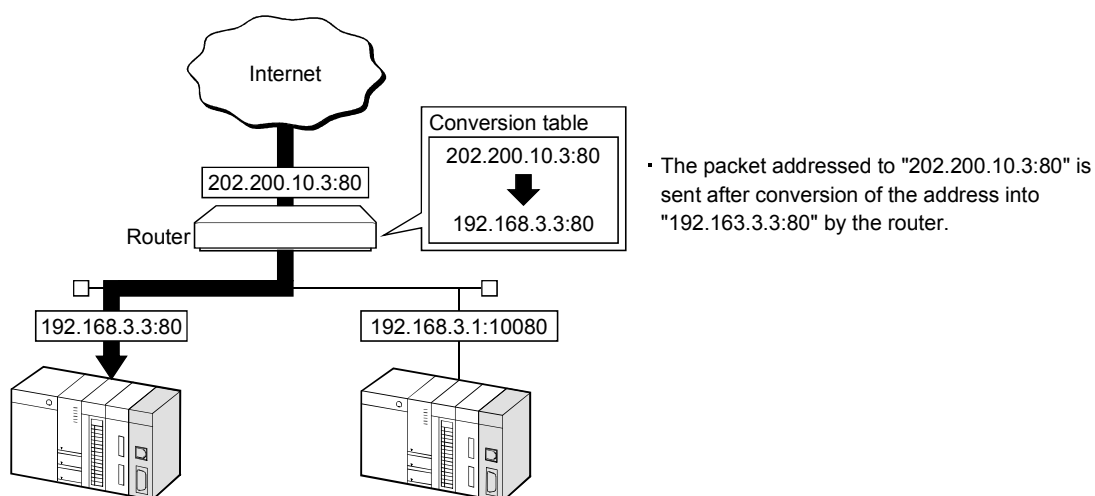
REMARKS

- (1) The following table indicates the default IP address of the Web server module.
(*1) (*2)

| Item | Description |
|-------------|---------------|
| IP address | 192.168.3.3 |
| Subnet mask | 255.255.255.0 |

- *1 When making initial setting, set the IP addresses of the Web server module and personal computer to the same network address.
- *2 Prior to shipment, the Web server module is set as indicated below, including the above default IP address.
- Connecting through LAN or the router.
 - Use the default HTTP port number (80).
 - Use the default FTP port number (21).
 - System name: QJ71WS96
 - Do not execute network diagnoses (ping).
 - Automatic connection to network at start-up.

- (2) NAT is shown below.



4.6.4 Dial-up setting

[Setting Purpose]

Make the setting required for the Web server module to connect to the Internet.

[Start Procedure]

[Administrative menu] → "Dial-up setting"

[Setting Screen]

The screenshot shows the 'Dial-up setting' web page. At the top, there's a breadcrumb trail: Home > Administrative menu > Dial-up setting. Below this are 'Save' and 'Cancel' buttons. The settings are organized into several sections:

- Connection method:** Radio buttons for Modem, ADSL (selected), and DoPa(Japan only).
- Connection account:** Text fields for User name (filled with 'MITSUBISHI'), Password, and Confirm password. Each field has a character count '(1 to 128 characters)'.
- Access point:** Three text fields for Phone number 1, Phone number 2, and Phone number 3.
- Dial method:** Radio buttons for Tone and Pulse.
- Retry:** A text field for 'Number of retries' (filled with '3') and a checkbox for 'Change access point automatically'.
- Modem attribute:**
 - 'Communication speed' dropdown menu (filled with '9600').
 - 'Calling timeout' text field (filled with '90') and unit 'Seconds(90 to 180)'.
 - 'Dial pause time' text field (filled with '3') and unit 'Seconds(1 to 30)'.
 - 'AT command additional setting' text field with unit '(0 to 64 characters)'.
 - 'Call function' radio buttons for Disable and Enable.
 - 'Disconnect function*' radio buttons for Disable and Enable, followed by a text field (filled with '5') and unit '[minutes](1 to 30)'.

A footnote at the bottom states: '* The line is disconnected when there is no access request within the specified time limit.'

[Setting Item]

| Item | Description |
|--------------------|--|
| Connection method | Sets the connecting method of the Web server module. |
| Connection account | Sets the account for connecting to the Internet service provider. |
| Access point | Sets the access point for the Internet service provider. |
| Dial method | Sets the dialling method. |
| Retry | Sets the items related to network connection retries. |
| Modem attribute | Sets the modem attribute. |
| Save | Saves the settings. The settings are updated when the programmable controller is powered off and then on, or the CPU module is reset. |
| Cancel | Discards new data and return to the old setting. |

(1) Connection method

Set the connection method of the Web server module.

- (a) Select the method of connecting the Web server module to the Internet from Modem or ADSL.
- (b) Make the settings of (2) to (6) according to the selected connection method. The items unnecessary for the selected connection method are disabled. Input to the column cannot be made.

(2) Connection account

Set the account for connecting to the Internet service provider.

- (a) Set the account data for connecting to the Internet service provider.
 - 1) User name (1 to 128 characters)
Enter the user name (user ID) registered for the connection target Internet service provider.
Refer to Appendix 4 (2) for the characters applicable to the user name.
 - 2) Password (1 to 128 characters)
Enter the password registered for the connection destination Internet service provider.
Refer to Appendix 4 (2) for the characters applicable to the password.
 - 3) Confirm password
Enter the password again to confirm the password.
- (b) A contract with an Internet service provider is required prior to Internet connection.
Contact the Internet service provider for the available services and the contract.

| |
|-------|
| POINT |
|-------|

| |
|--|
| A contract with an Internet service provider is required prior to Internet connection. |
|--|

(3) Access point

- (a) Set the access point (Phone number) for the Internet service provider.
Refer to Appendix 4 (4) for the characters applicable to the Phone number.
- (b) Up to three access points of the same Internet service provider can be registered. (*)
 - * When setting more than one access point, select "Change access point automatically." in Retry.

(4) Dial method

Set the dialling method.

- Tone
- Pulse

(5) Retry

Set the items related to network connection retries.

- (a) Number of retries (0 to 255 times)
Set the number of connection request retries when connection to the network fails.
- (b) Change access point automatically.
Make this setting when registering more than one access point.
 - 1) The module connections to the access point in due order starting from the Phone number 1.
 - 2) In the case of network connection failure, the Web server module connects to the current access point by the number of retries, and to the next access point.

(6) Modem attribute

Set the specifications of communication between the Web server module and modem.

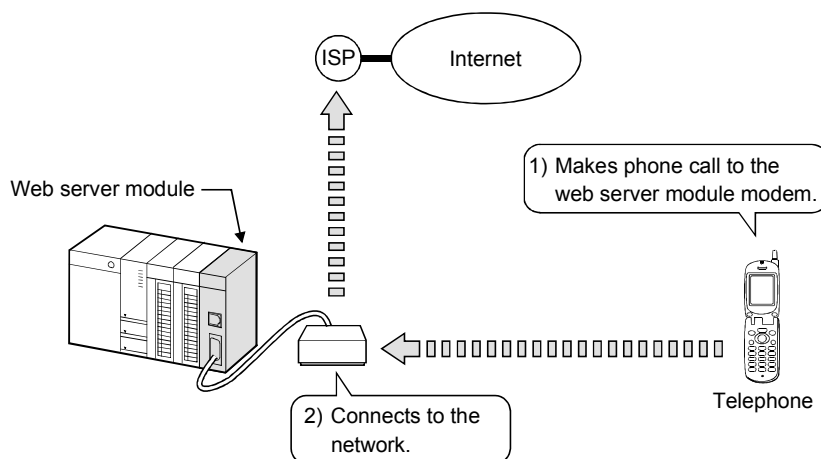
- (a) Communication speed (9600, 19200, 38400, 57600, 115200)
Set the communication speed (bps) according to the modem specifications.
- (b) Calling timeout (90 to 180s)
Set the time from when the Web server module side modem has gone off-hook (line-connected) until a carrier from the external device side modem is detected.
When it is not detected, the modem goes on-hook (line-disconnected).
- (c) Dial pause time (1 to 30s)
Set the waiting time during a dial pause.
- (d) AT command additional setting
 - 1) Set the AT commands to be added.
For the AT commands, refer to the manual of the used modem.
 - 2) The default AT commands for initializing the Web server module side modem are as follows.
 - Common initialization command: "ATZ0E1Q0V1&C1&D2&S0S0=0"

| Command | Description |
|---------|--|
| Z0 | Software reset |
| E1 | With echo back |
| Q0 | With result code |
| V1 | Result code word form |
| &C1 | CD signal follows the carrier of the external device side modem. |
| &D2 | Line is disconnected when the ER signal turns from ON to OFF. |
| &S0 | DR signal always ON |
| S0=0 | Without automatic incoming call |

- Dial pause time Command (Common): "S8=n" (n seconds)
- Dial-up command: "ATDT" (Tone), "ATDP" (Pulse)
- Flow control Command: "AT&K3", or "AT&Q3"

(e) CALL function

- 1) Set whether the CALL function will be enabled or not. (Disable/Enable)
- 2) When using the CALL function, make a call from the telephone to the Web server module side modem. This allows the Web server module to connect to the network.



(f) Disconnect function (*)

* The line is disconnected when there is no access request within the specified time limit.

- 1) Set whether the disconnection function will be enabled or not. (Disable/Enable)
- 2) When the external device makes no access within the set time after connecting the web server module to the network using the disconnection function, the web server module automatically sets the time to disconnect from the network. (1 to 30 minutes) (*1)

*1 No access condition indicates that data is not sent from the personal computer, etc. on the network to the Web server module. However, when the personal computer that sends data periodically exists on the network and unintentional data is sent to the Web server module, the Web server module judges it as access and therefore disconnection may not be made in the preset time.

POINT

- (1) When dial-up connection cannot be made normally, make the default operation setting of the switch setting using GX Developer to examine the setting again. Refer to Section 4.7 for the switch setting using GX Developer.
- (2) After changing the settings, make sure to click on the "Save" button. The settings in Dial-up setting are updated when the programmable controller is powered off and then on, or the CPU module is reset.

REMARKS

The following table indicates the setting necessity of the dial-up setting for the network connection method.

| Item | | Network connection method | |
|--------------------|-------------------------------|---------------------------|------|
| | | Modem | ADSL |
| Connection method | | ○ | ○ |
| Connection account | | ○ | ○ |
| Access point | | ○ | — |
| Dial method | | ○ | — |
| Retry | | ○ | — |
| Modem attribute | Communication speed | ○ | — |
| | Calling timeout | ○ | — |
| | Dial pause time | ○ | — |
| | AT command additional setting | ○ | — |
| | CALL function | ○ | — |
| | Disconnect function | ○ | — |

○: Required —: Not required

4.6.5 Account setting

[Setting Purpose]

- (a) Set the user authentication account that will be confirmed when accessing the Web server module.

When accessing the Web server module, the following user authentication screen ("Enter Network password" screen) appears.



- (b) The following access authorities are available for the user account.
(Multiple access authorities can be selected for one account.)

- 1) Device write authority
- 2) Tag component write authority
- 3) Administrator authority

Depending on the given access authority, access to the Web server module is enabled as indicated below.

| Access | Access authority | | | |
|---|---------------------|---------------------------|----------------------------------|----------------------------|
| | Normal user (*1) | Device write authority | Tag component write authority | Administrator authority |
| Access to monitor screen (standard screen) | ○ | ○ | ○ | ○ |
| Access to user screen | ○ | ○ | ○ | ○ |
| Read of logging file or event history file by FTP operation | ○ | ○ | ○ | ○ |
| Device test from device monitor screen (standard screen) | × | ○ | × | × |
| Tag component test from tag data monitor screen (standard screen) | × | × | ○ | × |
| Write from user screen (write parts) to tag component | × | × | ○ | × |
| Access to administrative menu (standard screen) | × | × | × | ○ |
| Read/write of user screen file by FTP operation | × | × | × | ○ |
| Read/write of user data file by FTP operation | × | × | × | ○ |
| Deletion of logging file or event history file by FTP operation | × | × | × | ○ |

○: Accessible ×: Inaccessible

*1 To the account of the normal user, the device write/tag component write/administrator authority is not given.

[Start Procedure]

[Administrative menu] → "Account setting" (Refer to (1)) → Select the account setting No. to be edited, and click on Edit. → "Edit Screen" (Refer to (2))

(1) Account setting


(a) Make account setting.

Up to 16 accounts can be set.

(b) Prior to shipment, the following default account is registered for the Web server module as the account setting No. 1. (The default account can be edited.)

- User name : QJ71WS96
- Password : MITSUBISHI
- Access authority : Device write/Tag component write/Administrator
- Initial screen : Standard screen top page (Top page (/index.htm))

[Setting screen]


[Account setting]
Home > Administrative menu > Account setting

Edit
Delete

| Item | No. | User name | Access authority | | | Initial screen |
|-----------------------|-----|------------------|------------------|---------------------|---------------|-------------------|
| | | | Device write | Tag component write | Administrator | |
| <input type="radio"/> | 1 | administrator001 | Set | Set | Set | No specification |
| <input type="radio"/> | 2 | user002 | Set | Set | Not set | /USER/toppage.htm |
| <input type="radio"/> | 3 | user003 | Not set | Set | Not set | /USER/toppage.htm |
| <input type="radio"/> | 4 | | | | | |

[Setting item]

| Item | Description |
|---------------------------------------|---|
| Item | Selects the account setting No. to be edited or deleted. |
| User name | The user name is displayed. |
| Access authority | The validity of the device write/tag component write/administrator authority of the account is displayed. |
| Initial screen | The initial screen address for access to the Web server module is displayed. (*) * For "Not specified", the top page of the standard screen is displayed. |
| <input type="button" value="Edit"/> | Edits the selected account. |
| <input type="button" value="Delete"/> | Deletes the selected account. |

Important

- (1) After completion of initial setting, make sure to register at least one account with administrator authority, and then connect to the network.
- (2) Make sure to delete the default account to prevent illegal access.
- (3) The remote password function of the QCPU is not used for the web server module.

POINT

When access to the Web server module cannot be made, e.g. the registered account has been forgotten, make the default setting by the switch setting of GX Developer and make the account setting again.
Refer to Section 4.7 for the switch setting of GX Developer.

(2) Edit screen

Register the account.

[Setting screen]

[Setting item]

| Item | Description |
|---|---|
| User name | Sets the user name. (1 to 20 characters) |
| Password | Sets the password. (8 to 14 characters) |
| Confirm password | Enters the password again. |
| Access authority | Selects device write/tag component write/administrator authority. |
| Initial screen | Sets the initial screen address for access to the Web server module. |
| Save | Saves the settings. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. |
| Back / Cancel | Discards the changed setting and return to the Account setting screen. |
| Select account setting No. and click on Load | Loads the parameters of the No. selected in account setting No. and displays them on the Edit screen. |

- (a) User name
 - 1) Set the user name. (1 to 20 characters)
There is case sensitivity.
 - 2) Refer to Appendix 4 (2) for the characters applicable to the user name.
- (b) Password
 - 1) Set the password. (8 to 14 characters)
There is case sensitivity.
 - 2) Refer to Appendix 4 (2) for the characters applicable to the password.
- (c) Confirm password
Enter the password again.
- (d) Access authority (Device write/Tag component write/Administrator)
Set the device write/tag component write/administrator authority.

(e) Initial screen

- 1) The initial screen can be set to be displayed when the address "http://IP address" of the Web server module is specified from the Web browser.

Make this setting when it is desired to change the top page of the standard screen (refer to Section 4.6.1) to a user-specified screen.

[Setting item]

| Item | Description |
|-----------------------|--|
| Top page (/index.htm) | Select this item to display the top page of the standard screen. |
| User-specified screen | Select this item to display the specified user screen. |

- 2) When "User-specified screen" has been selected, set the address of the user screen to be displayed. (1 to 64 characters) (*1) (*2)
 - User screen of standard ROM
(Example) /USER/xxxx.htm
 - User screen of Compact Flash card
(Example) /CF/USER/xxxx.htm

*1 When the specified file does not exist, the top page of the standard screen is displayed.

*2 To display the top page of the standard screen at the time of login using the account for which the user-specified screen is selected, specify "http://IP address/index.htm" as the URL address of the Web browser.

POINT

After changing the settings, make sure to click on the "Save" button.
The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset.

(3) Security precautions for the Web server module

The Web server module supports the basic authentication by the user name and password (account setting) and the IP filter function (Refer to Section 4.6.6), however, they cannot prevent illegal access from the outside completely.

When it is required to keep the programmable controller system safe against illegal access from the outside, the user should also take preventive measures.

It is recommended to use the Web server module paying attention to the following.

- (a) To prevent illegal access, it is recommended to use the Web server module on a LAN.
When connecting to the Internet, it is advisable to connect it via a router and use the security function of the router.
- (b) If access to the Web server module is not made for dial-up Internet connection, disconnect the Web server module from the network. (Refer to Section 5.4.)
- (c) When making the account setting, pay attention to the following points in order to prevent the account information (user name, password) from missing.
 - 1) Avoid simple setting with alphanumeric characters only. Make sure to add symbols (\$&?), etc. to set unpredictable user name and password.
 - 2) Delete the default account since it may be used to make illegal access.
- (d) Changing the default port No. (Refer to Section 4.6.3.) and configuring the IP filter setting (Refer to Section 4.6.6.) is recommended for Internet connection.

4.6.6 IP filter setting

[Setting Purpose]

The IP filter function identifies the IP address of the access source to restrict access to the Web server module.

The IP filter function applies to all access of the Web, FTP, etc. to the Web server module.

In IP filter setting, make the setting necessary to use the IP filter function.

Configuring the IP filter setting is recommended for Internet connection.

[Start Procedure]

[Administrative menu] → "IP filter setting"

[Setting Screen]

| No. | IP address | Mask bit length | Action |
|------|------------|-----------------|---|
| No.1 | | | <input checked="" type="radio"/> Block <input type="radio"/> Pass |
| No.2 | | | <input checked="" type="radio"/> Block <input type="radio"/> Pass |
| No.3 | | | <input checked="" type="radio"/> Block <input type="radio"/> Pass |
| No.4 | | | <input checked="" type="radio"/> Block <input type="radio"/> Pass |
| No.5 | | | <input checked="" type="radio"/> Block <input type="radio"/> Pass |
| No.6 | | | <input checked="" type="radio"/> Block <input type="radio"/> Pass |
| No.7 | | | <input checked="" type="radio"/> Block <input type="radio"/> Pass |
| No.8 | | | <input checked="" type="radio"/> Block <input type="radio"/> Pass |

[Setting Item]

| Item | Description |
|----------------|--|
| Access setting | Sets the action to be taken when the received IP packet does not meet the filter setting conditions. |
| Filter setting | Sets the IP addresses of the access sources and the actions of the IP filter. |
| Save | Saves the settings. The settings are updated when the programmable controller is powered off and then on, or the CPU module is reset. |
| Cancel | Cancels the new settings and returns to the old settings. |

(1) Access setting

Set the action (pass/block) to be taken when the received IP packet does not meet all the filter setting conditions.

(2) Filter setting

Set the IP addresses of the access sources and the actions of the IP filter. Up to 32 filter settings can be made.

(a) IP address

Set the IP address of the IP filter target.

(b) Mask bit length

Set the valid bit length of the set IP address. (Setting range: 1 to 32)

(c) Action

Set the action (pass/block) to be taken when the received IP packet meets the filter setting condition.

(Example) When the IP address is set to "210.99.88.00", the action becomes valid in the following IP address range.

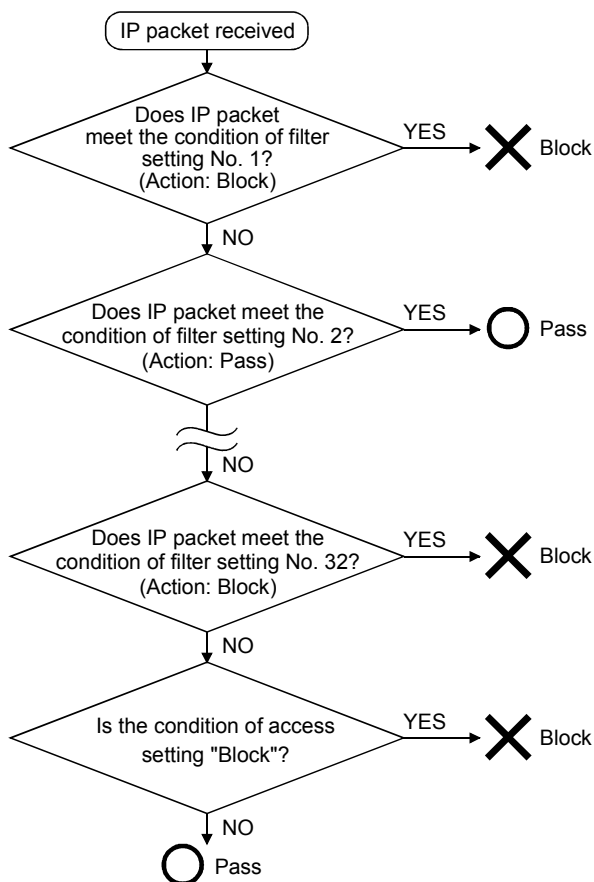
| IP address | Mask bit length | Action | IP address range where access is blocked |
|--------------|-----------------|--------|--|
| 210.99.88.00 | 16 | Block | 210.99.00.00 to 210.99.255.255 |
| | 24 | | 210.99.88.00 to 210.99.88.255 |

(3) IP filter operation

(a) The IP filter is executed in ascending order of the filter setting numbers.

(b) When the received IP packet meets the filter setting condition, the action (pass/block) is executed for the received IP packet.

(c) When the received IP packet does not meet all filter setting conditions, the action (pass/block) set in the access setting is executed.



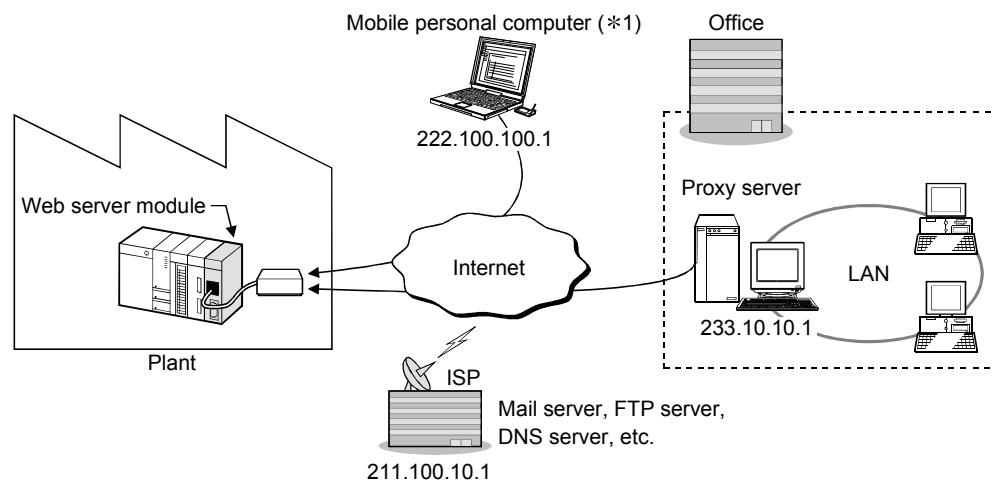
(4) IP filter setting example

When making the IP filter setting, take the precautions given in (5) of this section.

(a) Internet connection

A setting example of enabling access from a mobile personal computer and office is given below.

1) System configuration



2) IP filter setting

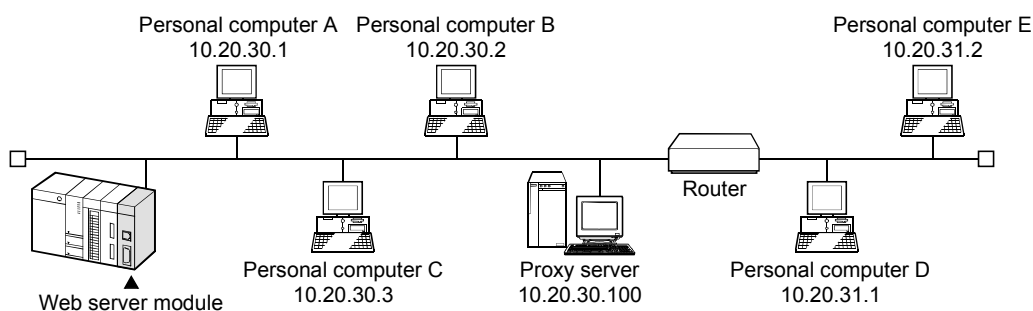
| Access setting | | | |
|--|---------------|-----------------|---|
| <input type="radio"/> Pass the IP packet that has not been set in [Filter setting]. <input checked="" type="radio"/> Block the IP packet that has not been set in [Filter setting]. | | | |
| Filter setting | | | |
| No. | IP address | Mask bit length | Action |
| No.1 | 233.10.10.1 | 1 | <input type="radio"/> Block <input checked="" type="radio"/> Pass |
| No.2 | 222.100.100.1 | 1 | <input type="radio"/> Block <input checked="" type="radio"/> Pass |
| No.3 | 211.100.10.1 | 1 | <input type="radio"/> Block <input checked="" type="radio"/> Pass |

*1 A static IP address is required to set the IP filter to the mobile personal computer.

(b) LAN connection

A setting example of enabling access only from personal computers A, B and C (IP addresses 10.20.30.□) is given below.

1) System configuration



2) IP filter setting

| Access setting | | | |
|--|--------------|-----------------|---|
| <input type="radio"/> Pass the IP packet that has not been set in [Filter setting]. <input checked="" type="radio"/> Block the IP packet that has not been set in [Filter setting]. | | | |
| Filter setting | | | |
| No. | IP address | Mask bit length | Action |
| No.1 | 10.20.30.100 | 1 | <input checked="" type="radio"/> Block <input type="radio"/> Pass |
| No.2 | 10.20.30.0 | 24 | <input type="radio"/> Block <input checked="" type="radio"/> Pass |

(5) Precautions for IP filter setting

- (a) When using a mail server, FTP server, DHCP server, DNS server or router, do not set the IP addresses of these devices to "Block".
If it is blocked, communication with the corresponding device is disabled.
- (b) When a proxy server exists on the LAN, block the IP address of the proxy server.
When the IP packet from the proxy server is passed, access to the Web server module can be made from any personal computer accessible to the proxy server, independently of the other settings.
- (c) When making access from a personal computer on the LAN to the Web server module, do not use a proxy server.

| POINT |
|--|
| <p>(1) After changing the settings, make sure to click on the "Save" button. The settings in IP filter setting are updated when the programmable controller is powered off and then on, or the CPU module is reset.</p> <p>(2) Depending on the IP filter settings, access to the Web server module may not be made. In such a case, make default operation setting by the switch setting of GX Developer, and make the setting again. Refer to Section 4.7 for the switch setting of GX Developer.</p> <p>(3) Changing the default port No. (Refer to Section 4.6.3.) and configuring the IP filter setting is recommended for Internet connection.</p> |

4.6.7 Access target CPU setting

[Setting Purpose]

Sets the connection path to the access target CPU.

When performing device monitor, tag setting, etc., specify the CPU name set in this setting.

[Start Procedure]

[Administrative menu] → "Access target CPU setting" (Refer to (1)) → Select the access target CPU setting No. to be edited, and click on **Edit**. → "Edit Screen" (Refer to (2))

(1) Access target CPU setting

Make access target CPU setting.

Up to 64 access target CPUs can be set.

At shipment, the control CPU is registered for the Web server module as the access target CPU setting No. 1.

The registration of the control CPU as the access target CPU No. 1 is fixed and only the CPU name is changeable.

[Setting screen]

| [Access target CPU setting] Home > Administrative menu > Access target CPU setting | | | | | | | | | | | | |
|--|-----|-------------|---------------|----------------------------|------------------------------------|-----------------------------|-------------|-----------|-------------|---------------------------------|-------------|-----------|
| <div>Edit Delete</div> | | | | | | | | | | | | |
| Item | No. | CPU name | PLC series | Multiple CPU specification | Other station specification | Network communication route | | | | Different network communication | | |
| | | | | | | Network | Network No. | Start I/O | Station No. | Network | Network No. | Start I/O |
| <input type="radio"/> | 1 | Control CPU | QCPU (Q mode) | No specification | No specification | - | - | - | - | - | - | - |
| <input type="radio"/> | 2 | process A | QCPU (Q mode) | No specification | Other Station(Single network) | CC IE Cont, NET/10(H) | 1 | - | 1 | - | - | - |
| <input type="radio"/> | 3 | process B | QCPU (Q mode) | No specification | Other Station(Coexistence network) | CC IE Cont, NET/10(H) | 1 | - | 2 | CC-Link | - | 0 |

[Setting item]

| Item | Description |
|--|---|
| Item | Selects the access target CPU No. to be edited or deleted. |
| CPU name | Displays the CPU name. |
| PLC series | Displays the programmable controller series of the access target CPU. |
| Multiple CPU specification | Displays the CPU No. when the access target CPU is in a multiple CPU system. |
| Other station specification | Displays whether other station is specified or not. |
| Network communication route, coexistence network communication route | Displays the network type, network No., start I/O address and station No. to be accessed when specifying other station. |
| Edit | Edits the selected access target CPU. |
| Delete | Deletes the selected access target CPU. |

(2) Edit screen

Register the access target CPU.

[Setting screen]

The screenshot shows the 'Access target CPU setting' screen. At the top, there are 'Save', 'Cancel', and 'Load' buttons. Below them is a dropdown for 'Access target CPU No.' set to '02'. The main section contains several fields: 'CPU name' (process A), 'PLC series' (QCPU (Q mode)), 'Multiple CPU specification' (No specification), and 'Other station specification' (Other Station(Single network)). There are two sections for network communication: '[Network communication route]' and '[Different network communication route]'. Each section has fields for 'Network' (CC IE Cont NET/10(H)), 'Network No.' (1), 'Start I/O' (0), and 'Station No.' (1).

[Setting item]

| Item | Description |
|--|---|
| CPU name | Sets the access target CPU name. (Within 16 characters) |
| PLC series | Sets the programmable controller series of the access target CPU. |
| Multiple CPU specification | Sets the CPU No. when the access target CPU is in a multiple CPU system. |
| Other station specification | Sets whether other station is specified or not |
| Network communication route, coexistence network communication route | Sets the network, network No., start I/O address and station No. to be accessed when other station is specified. |
| Save | Saves the settings. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. |
| Back / Cancel | Discards the changed setting and returns to the Access target CPU setting screen. |
| Select access target CPU setting No. and click on Load | Loads the parameters of the No. selected in access target CPU setting No. and displays them on the Edit screen. |

- (a) CPU name (within 16 characters)
 - 1) Set an access target CPU name.
 - 2) When performing device monitor, tag setting, etc., specify the CPU name set in this setting.
 - 3) Refer to Appendix 4 (5) for the characters applicable to the CPU name.
- (b) PLC series (QCPU (Q mode), QCPU (A mode), QnACPU, ACPU)
Set the programmable controller series of the access target CPU.
- (c) Multiple CPU specification (No choice mode, CPU No.1 to 4)
When the access target CPU is in a multiple CPU system, set the CPU No.
When "No choice mode" has been set, access is made to the control CPU.

(d) Other station specification

Set whether other station is specified or not.

1) No specification

Select this setting when making access to the host CPU.

2) Other station (Single network)

Select this when accessing a CPU on another station via only one kind of network, such as CC-Link IE controller network, MELSECNET/H, MELSECNET/10 or Ethernet, or via a network consisting of multi-tier systems.

Specify Single network for systems containing the following network:

- CC-Link IE controller network
- MELSECNET/H
- MELSECNET/10
- Ethernet

3) Other station (Different network)

Select this when accessing a CPU on another station via two kinds of networks.

Two kinds of networks represent two different networks such as combination of CC-Link IE controller network, MELSECNET/H, MELSECNET/10 and CC-Link, or Q series C24 and CC-Link IE controller network, MELSECNET/H, MELSECNET/10.

(e) Network communication route, Different network communication route

Set the network type, network No., start I/O address and station No. to be accessed.

The setting items change depending on the set network.

POINT

- (1) For access to the other station CPU, the routing parameters must also be set in addition to this setting.
For the routing parameters, refer to the manual of the network module.
- (2) After changing the settings, make sure to click on the "Save" button.
The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset.

(3) Precautions for access target CPU setting

- (a) Web server module requires preparatory time to communicate with the access target CPU when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. Therefore, it may take several minutes before the communication will be available if many access target CPUs are set. Confirm that the setting update has been completed or the Web server module has been ready (X0 is on), and make access from the personal computer to the Web server module. (*1)

*1 When access is made from the personal computer to the Web server module during preparation of the Web server module, the "Page cannot be displayed" message is returned to the Web browser. Therefore, after the Web server module has been ready, make access from the Web browser again.

- (b) Carefully set the "PLC series" of the access target CPU setting.
A wrong "PLC series" has been set, an error occurs in the programmable controller CPU or module on the route to the access target CPU, and a response time-out error (error code: 0002h) is displayed on the Web server module.
- (c) When accessing a redundant CPU, pay attention to the following.
 - 1) If the Web server module is connected to a redundant CPU, it can access only the CPU of its own station.
Access to the other station's CPU is not allowed.
 - 2) If the Web server module is connected to any other than redundant CPUs, it cannot access redundant CPUs on other stations.

4.7 Intelligent Function Module Switch Setting

[Setting Purpose]

Set the mode, default operation, battery error detection, logging monitor and response monitoring time for Web server module on the "Intelligent function module switch setting" screen.

[Start Procedure]

[GX Developer] → <Project> Window → [Parameter] → [PLC parameter] → <I/O assignment> tab → Switch setting → "Switch setting for I/O and intelligent function module"

Refer to the GX Developer Operating Manual for the screen display method.

[Setting screen]

| | Slot | Type | Model name | Switch 1 | Switch 2 | Switch 3 | Switch 4 | Switch 5 |
|---|--------|----------|------------|----------|----------|----------|----------|----------|
| 0 | PLC | PLC | | | | | | |
| 1 | Q(*-0) | Intelli. | QJ71WS96 | 0000 | 0003 | | | |
| 2 | 1(*-1) | | | | | | | |

[Setting item]

| Item | Description |
|-----------------------|---|
| Switch 1 | Mode setting |
| Switch 2 | Default operation setting/Battery error detection setting/Logging monitor setting |
| Switch 3 (lower byte) | Response monitoring time setting |
| Switch 4 to 5 | For system use (Do not set) |

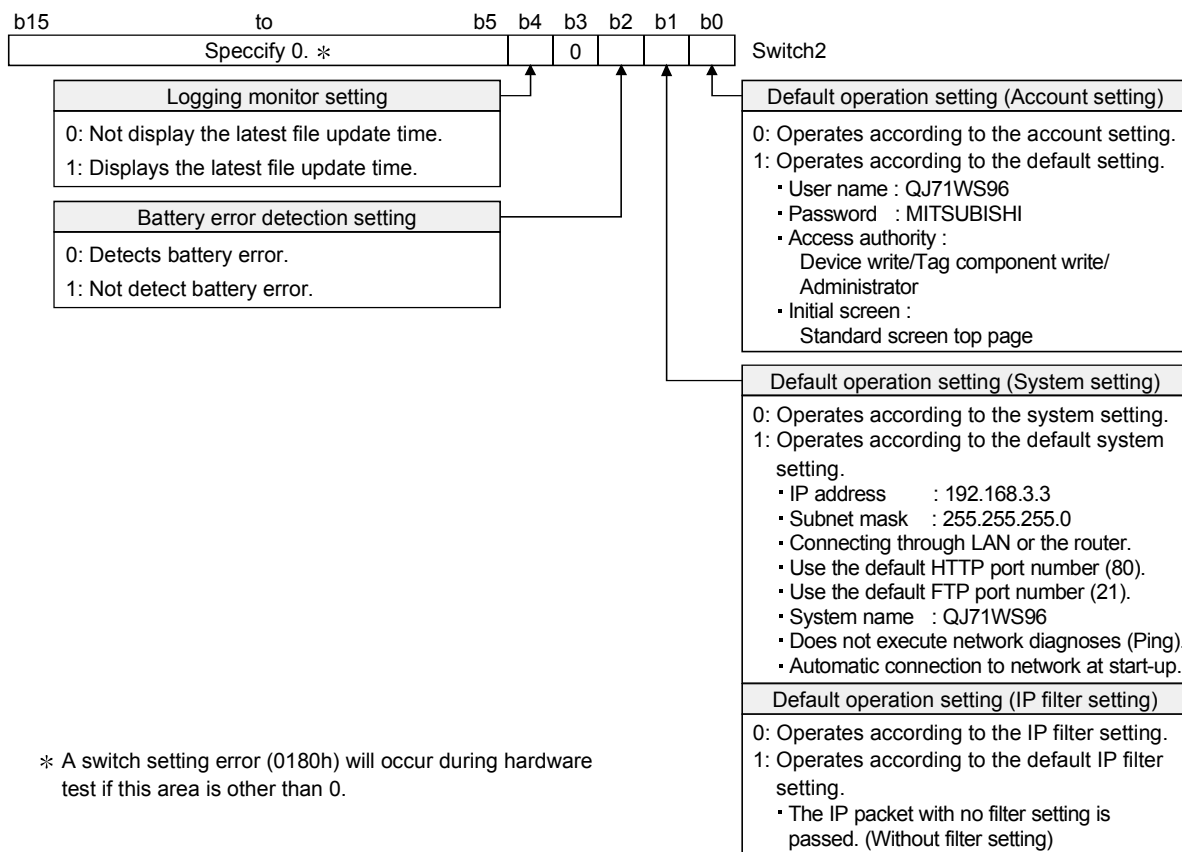
(1) Mode setting (Switch 1)

Select the operation mode for Web server module.

| Setting Number | Item | Description |
|-----------------|----------------------------|---|
| 0000H | Online | Normal operation mode |
| 0001H | Hardware test | Tests the ROM/RAM/switch settings (Refer to Section 4.8.3) |
| 0002H | CH1 Self-loopback test | Tests the self diagnostics for CH1. (Refer to Section 4.8.1) |
| 0003H | CH2 Self-loopback test | Tests the self diagnostics for CH2. (Refer to Section 4.8.2) |
| 9999 (270FH) | Module initialization mode | Initializes the module to default setting. (Refer to Section 4.13) |

(2) Default operation setting/Battery error detection setting/Logging monitor setting (switch 2)

Select the default operation setting/battery error detection setting/logging monitor setting for the Web server module.



- (a) Default operation setting (bit 0, 1)
For the account setting, system setting and IP filter setting, whether the default setting is enabled or not is set in this setting.
- 1) Account setting (bit 0)
 - 0 : Operates according to the account setting.
 - 1 : Operates according to the default setting.
 - 2) System setting and IP filter setting (bit 1)
 - 0 : Operates according to the system setting/IP filter setting.
 - 1 : Operates according to the default setting.

POINT

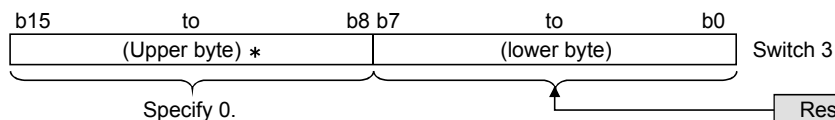
Use the default setting when changing the setting of the Web server module connected with the personal computer on a one-to-one basis.

- (b) Battery error detection setting (bit 2)
 This setting is provided to determine whether battery error detection is enabled or not while the Web server module is operating without battery. (Refer to Section 4.11.)
 0 : Detects battery error.
 1 : Not detect battery error.
- (c) Logging monitor setting (bit 4)
 Whether the latest file update time is displayed or not in the file specification field of the logging monitor is set in this setting. (Refer to Section 6.2.3.)
 0 : Not display the latest file update time.
 1 : Displays the latest file update time.

POINT

- (1) Regardless of the logging monitor setting, the logging file time information can be obtained from the file name. (Refer to Section 6.4.4 (2) (h).)
- (2) When the logging monitor setting is "1", longer time will be required to display the logging monitor if there are many logging files saved.

- (3) Response monitoring time setting (switch 3 (lower byte))
 This is the setting for timeout time (second) from when a module sends a request to the CPU of the accessed device until the CPU responds to it.
 Response timeout error will occur if the CPU of the accessed device does not respond to the request after the set time has passed.
 Setting range: 15 to 255 (second) (default value: 15 seconds)
 Response monitoring time will be automatically default value (15 seconds) if it is not set or set to any of 0 to 14.



* The upper byte is basically ignored. However, a switch setting error (0180h) will occur during hardware test if the upper byte is other than 0.

Response monitoring time setting

15 to 255 (seconds)
 Response monitoring time will be automatically default value (15 seconds) if it is not set or set to any of 0 to 14.

[Operation procedure]

Make setting from the I/O assignment setting screen of GX Developer.

(a) I/O assignment setting screen

Set the following to the slot mounted with the Web server module.

Type : Select "Intelli."

Model name : Enter the model name of the Web server module.

Points : Select 32 points.

Start : Enter the head I/O number of the Web server module.

Detailed setting : Specify the control CPU of the Web server module.

(b) Intelligent function module switch setting screen

Click on the "Switch setting" on the I/O assignment setting screen to display the screen shown on the left, and set Switches.

Setting can be made easily by entering data in hexadecimal number. Enter data after changing the input form into the hexadecimal number.

4.8 Self-diagnostics Function

This section explains the self-diagnostics function designed to check the communication function and hardware of the Web server module

4.8.1 CH1 self-loopback test

Conduct a self-loopback test to check hardware including the communication function of the CH1 (10BASE-T/100BASE-TX interface) of the Web server module.

(1) Operation mode setting for Web server module

- (a) In "Switch setting for I/O and intelligent function module" of GX Developer, set the mode to "CH1 Self-loopback test". (Switch 1: 0002H)
- (b) Write the PLC parameters to the programmable controller CPU.

(2) Execution of CH1 self-loopback test

- (a) When a cable has been connected to the CH1, disconnect it.
- (b) Set the programmable controller CPU to a STOP status.
- (c) Reset the programmable controller CPU.
- (d) After the programmable controller CPU is reset, the following CH1 self-loopback test is executed automatically.
This test checks whether data can be communicated in the Web server module.
During the test, the ERR. LED flickers.

(3) Confirmation of CH1 self-loopback test result

- (a) Check the CH1 self-loopback test result according to the ERR. LED status.

| ERR. LED status | CH1 self-loopback test result |
|-----------------|-------------------------------|
| Off | Completed |
| On | Failed |

- (b) When the test is completed, set the mode to "Online" in "Switch setting for I/O and intelligent function module" of GX Developer, and reset the programmable controller CPU. (Switch 1: 0000H)
- (c) When the test has failed, conduct the CH1 self-loopback test again.
If an error occurs again, a possible cause is the hardware fault of the Web server module.
Please consult your local Mitsubishi service center or representative, explaining a detailed description of the problem.

4.8.2 CH2 self-loopback test

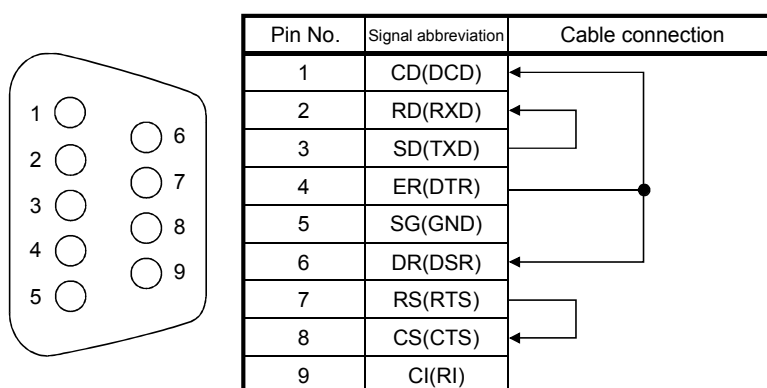
Conduct a self-loopback test to check a hardware including the communication function of the CH2 (RS-232 interface) of the Web server module.

(1) Operation mode setting for Web server module

- (a) In "Switch setting for I/O and intelligent function module" of GX Developer, set the mode "CH2 Self-loopback test". (Switch 1: 0003H)
- (b) Write the PLC parameters to the programmable controller CPU.

(2) Execution of CH2 self-loopback test

- (a) Connect the cable to the CH2 as shown below.



- (b) Set the programmable controller CPU to a STOP status.
- (c) Reset the programmable controller CPU.
- (d) After the programmable controller CPU is reset, the following CH2 self-loopback test is executed automatically.
This test repeats data communication and checks the consistency between the send data and receive data.
During the test, the ERR. LED flickers and the CH2 SD/RD is on.

(3) Confirmation of CH2 self-loopback test result

- (a) Check the CH2 self-loopback test result according to the ERR. LED status.

| ERR. LED status | CH2 self-loopback test result |
|-----------------|-------------------------------|
| Off | Completed |
| On | Failed |

- (b) When the test is completed, set the mode to "Online" in "Switch setting for I/O and intelligent function module" of GX Developer, and reset the programmable controller CPU. (Switch 1: 0000H)
- (c) When the test has failed, reconnect or rewire the cable correctly and conduct the CH2 self-loopback test again to confirm that the test is completed.

4.8.3 Hardware test

Conduct a test related to the ROM/RAM/switch setting of the Web server module.

(1) Operation mode setting for Web server module

- (a) In "Switch setting for I/O and intelligent function module" of GX Developer, set the mode to "Hardware test". (Switch 1: 0001H)
- (b) Write the PLC parameters to the programmable controller CPU.

(2) Execution of hardware test

- (a) Set the programmable controller CPU to a STOP status.
- (b) Reset the programmable controller CPU.
- (c) After the programmable controller CPU is reset, the following hardware test is executed automatically.

During the test, the ERR. LED flickers.

1) ROM check

This test reads the ROM data and conducts sum check.

2) RAM check

This test reads the test data written to the RAM and checks the consistency.

3) Switch setting check

This test checks whether the switch settings are within the allowable ranges or not.

However, "Mode setting" test of Switch 1 is not included.

(3) Confirmation of hardware test result

- (a) Check the hardware test result according to the ERR. LED status.

| ERR. LED status | Hardware test result |
|-----------------|----------------------|
| Off | Completed |
| On | Failed |

- (b) When the test is completed, set the mode to "Online" in "Switch setting for I/O and intelligent function module" of GX Developer, and reset the programmable controller CPU. (Switch 1: 0000H)
- (c) If the test failed, check that the switch settings are set correctly and conduct the hardware test again.
If an error occurs again, a possible cause is the hardware fault of the Web server module.
Please consult your local Mitsubishi service center or representative, explaining a detailed description of the problem.

4.9 Setting/Removal of Compact Flash™ Card and Precautions for Use

This section describes how to set or remove the Compact Flash™ card and precautions for use.

4.9.1 Precautions for using Compact Flash™ card

This section explains precautions for use of the Compact Flash™ card.

- (1) Precautions for removal or replacement of Compact Flash™ card
 - (a) Be sure to stop file access before removing or replacing the Compact Flash™ card. (Refer to Section 4.9.2)
 - (b) Failure to observe the procedures indicated in Section 4.9.2 may result in erasure of logging data during processing, corruption of data in the Compact Flash™ card during access, or a file system fault.
 - (c) If a Compact Flash™ card fault has occurred, refer to Section 9.1 (9) and restore the card.
- (2) Precautions on diagnostic time of Compact Flash™ card
 - (a) The Web server module executes diagnosis (including file restoration) of the Compact Flash™ card when:
 - 1) Power is turned OFF and ON, or the CPU module is reset.
 - 2) The Compact Flash™ card is inserted while the power is ON.
 - (b) The diagnostic time of the Compact Flash™ card is lengthened if many files are stored in the card.
It takes approx. 5 seconds for 100 files, and approx. 10 seconds for 1000 files.
 - (c) Since the following times may be lengthened due to too many files, delete unnecessary files.
 - 1) Rising time of the Compact Flash™ card setting status. (X1)
 - 2) Web server module's ready time. (Rising time of the Module READY (X0))
- (3) Precautions for formatting Compact Flash™ card
 - (a) Use the formatting function of the Web server module to format the Compact Flash™ card. (Refer to Section 6.10.2.)
 - (b) Do not format the Compact Flash card™ on Windows® .
If it is formatted on Windows® by mistake, recover it according to the manual of the Compact Flash™ card.

(4) Precaution for Compact Flash™ card lifetime (limited number of writes)

The Compact Flash™ card has its own lifetime (the limited number of writes). For details, check the specifications of each product.

Since the lifetime of the Compact Flash™ card generally varies depending on its free space, it is advisable to use the card with sufficient free space.

For the size of the data written to the Compact Flash™ card, refer to Appendix 7.2.

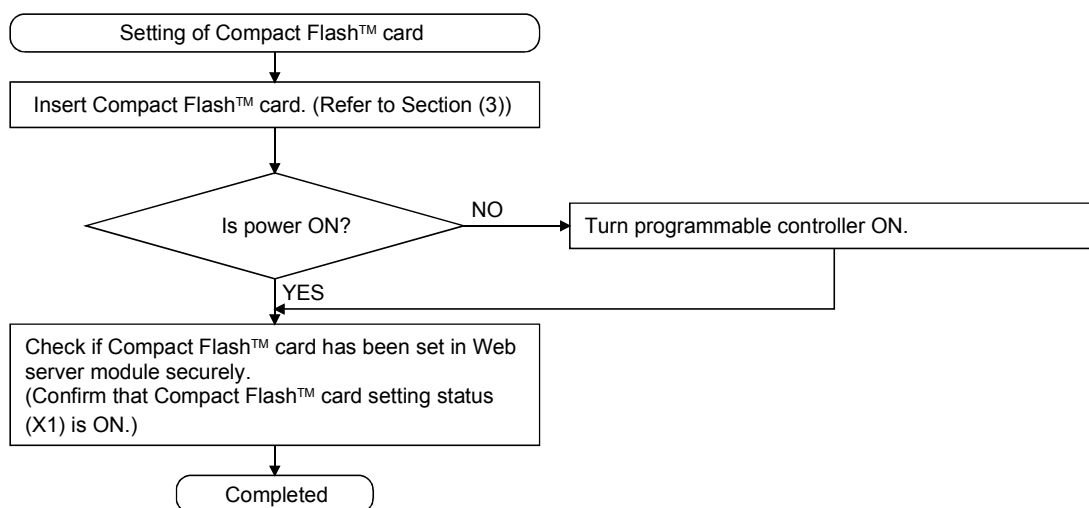
REMARKS

When the power is turned off while data are being written to the Compact Flash™ card, the writing will not be completed. However, as the Web server module automatically executes file restoration when powered on again, usually the power can be turned off without performing the file access stop.

4.9.2 Setting/Removal of Compact Flash™ card

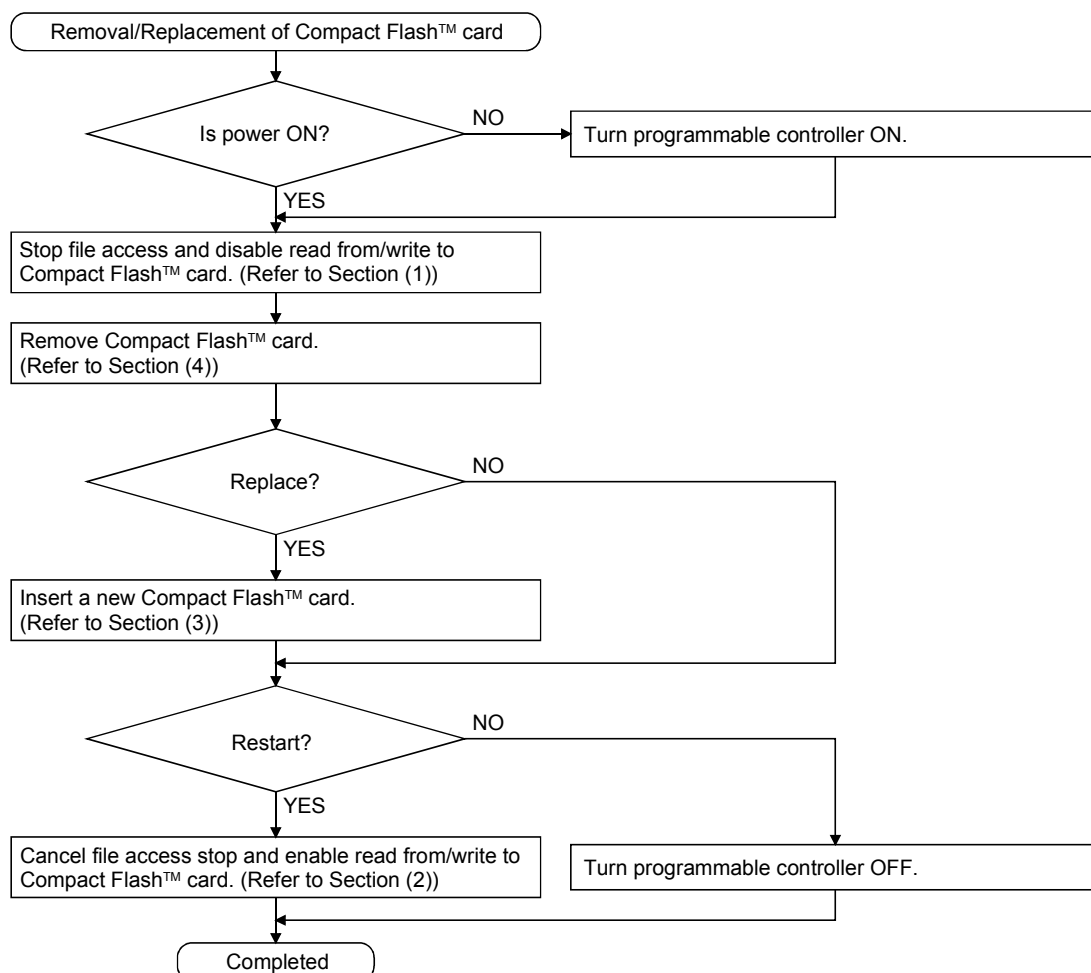
This section explains the setting/removal of the Compact Flash™ card.

[Setting the Compact Flash™ Card]



[Removing or Replacing the Compact Flash™ Card]

Before removing or replacing the Compact Flash™ card, be sure to stop the file access by the following procedures.

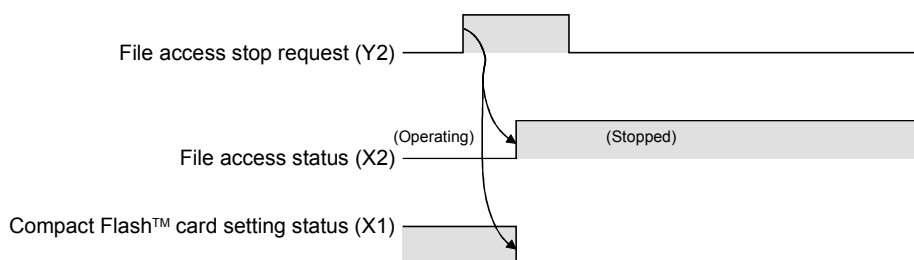
**Important**

Failure to observe the above procedure may cause erasure of logging data during processing, corruption of data in the Compact Flash™ card during access, or a file system fault.

For a Compact Flash™ card fault, refer to Section 9.1 (9).

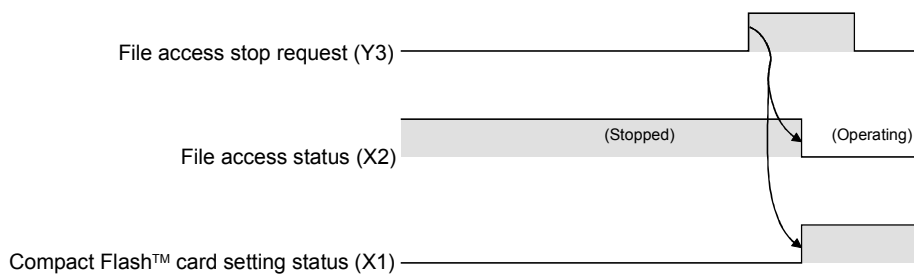
(1) Stopping file access

- (a) Stop a file access.
 - 1) Turn File access stop request (Y2) from OFF to ON.
- (b) Confirm that file access has stopped.
 - 1) Compact Flash™ card setting status (X1) is OFF.
 - 2) File access status (X2) is ON.
 - 3) Turn File access stop request (Y2) from ON to OFF.



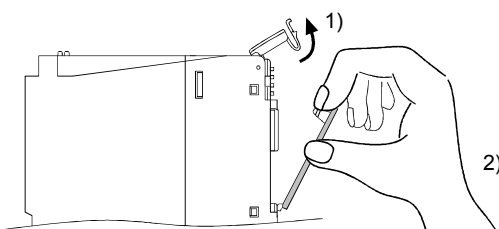
(2) Canceling file access stop status

- (a) Cancel the file access stop status.
 - 1) Turn File access stop cancel request (Y3) from OFF to ON.
- (b) Confirm that the file access stop status has been cancelled.
 - 1) Compact Flash™ card setting status (X1) is ON.
 - 2) File access status (X2) is OFF.
 - 3) Turn File access stop cancel request (Y3) from ON to OFF.



(3) Setting Compact Flash™ card

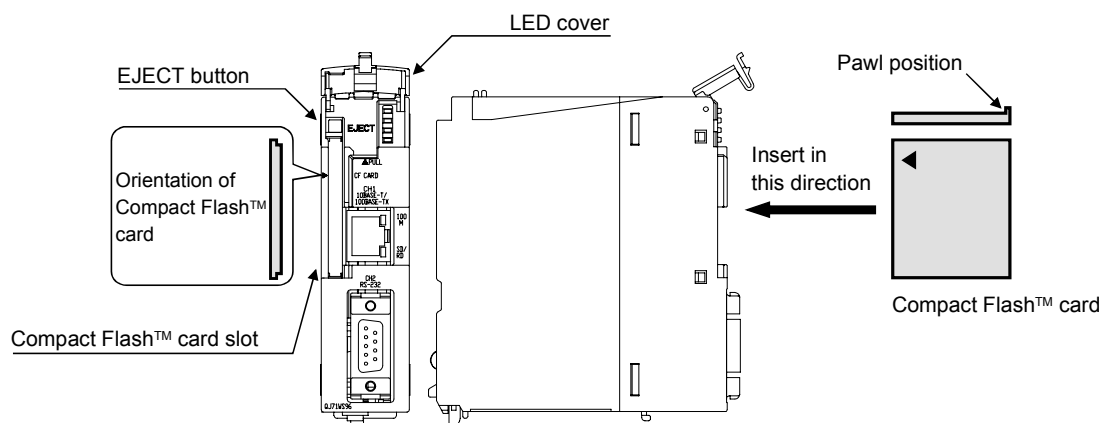
- (a) Open the LED cover, which is situated on the Web server module front, and remove the Compact Flash™ card slot cover.



- 1) Put your finger at the bottom of the LED cover and lift the LED cover open.
 - 2) Put your finger at the top of the Compact Flash™ card slot cover and then remove it.
- (b) Insert the Compact Flash™ card.

When inserting the Compact Flash™ card into the Web server module, pay attention to the orientation of the Compact Flash™ card.

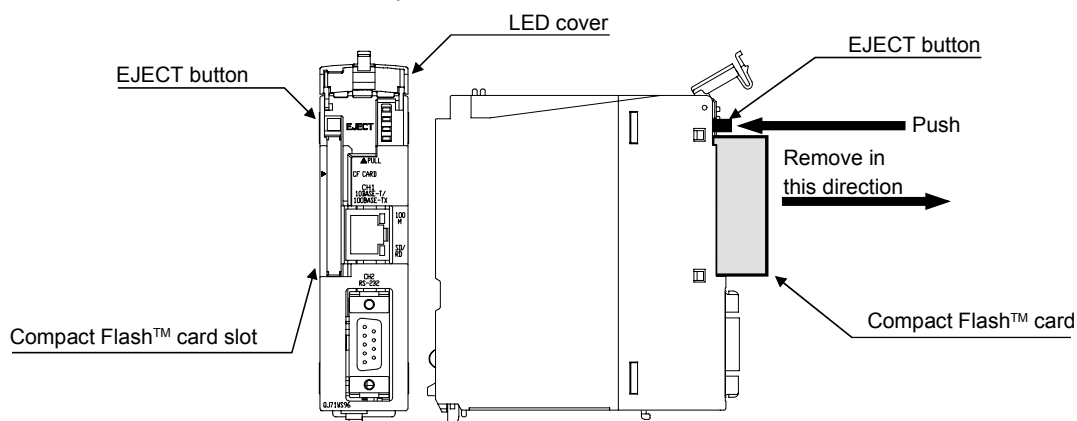
Push the Compact Flash™ card securely into the slot until it is flush with the EJECT button.



- (c) Lower the LED cover until it clicks.
 When the Compact Flash™ card is set, the Compact Flash™ card slot cover cannot be attached to the Web server module.
 Save the removed Compact Flash™ card slot cover carefully.

(4) Removing Compact Flash™ card

- (a) Open the LED cover, which is situated on the Web server module front, and remove the Compact Flash™ card slot cover.



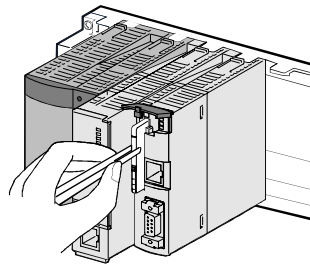
- 1) Put your finger at the bottom of the LED cover and lift the LED cover open.

- 2) When removing the Compact Flash™ card from the Web server module, press the EJECT button to push the Compact Flash™ card out.

| |
|---------|
| REMARKS |
|---------|

When having difficulty in replacing the Compact Flash™ card, the following tweezers are available.

Product : Plastic tweezers
Model name : NK-2539



- (b) Attach the Compact Flash™ card slot cover and close the LED cover.
 - 1) Attach the Compact Flash™ card slot cover.
When the Compact Flash™ card is not set, attach the Compact Flash™ card slot cover.
 - 2) Lower the LED cover until it clicks.

4.10 Mounting and Replacement of Battery

This section explains the mounting and replacement of the battery.

4.10.1 Battery specifications

The following table provides the specifications of the battery for the Web server module.

| Item \ Model | Q6BAT |
|--------------------------|---|
| Type | Manganese dioxide lithium primary battery |
| Initial voltage | 3.0V |
| Nominal current | 1800mAh |
| Storage life | Actual life of 5 years (room temperature) |
| Total power failure time | Refer to Section 4.10.3 |
| Lithium content | 0.49g |
| Application | For file protection |

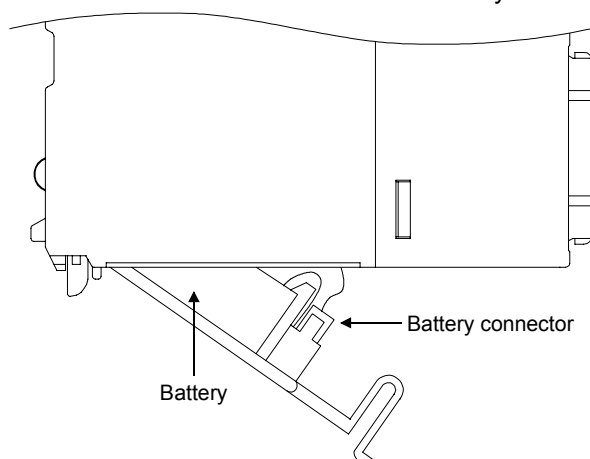
REMARKS

For the battery directive in EU member states, refer to Appendix 9.

4.10.2 Mounting of battery

At shipment, the battery connector is not mounted to the battery of the Web server module. Before using the Web server module, connect the battery connector.

- (1) Open the cover at the bottom of the Web server module.
- (2) Confirm that the battery has been mounted correctly.
- (3) Insert the connector attached to the battery to the connector pin on the case.



Important

When operating the Web server module without the battery, make sure to perform the shut-down operation described in Section 4.11.

Failure to observe the above procedure may cause erasure of logging data during processing, corruption of data in the standard ROM drive/Compact Flash™ card during access, or a file system fault.

- (b) The battery (Q6BAT) life is 5 years when it is used without connecting to the Web server module.
- (c) Though the data is retained within the specified time after Battery status area (buffer memory: 7) has turned on, replace the battery as soon as possible.
However, it is recommended to replace the battery periodically according to the usage status, even when the battery error has not yet occurred.

| |
|------------------|
| Important |
|------------------|

| |
|--|
| Failure to replace the battery after battery error occurrence may cause erasure of logging data, corruption of data in the standard ROM drive/Compact Flash™ card during access, or a file system fault. |
|--|

(3) Web server module battery replacement

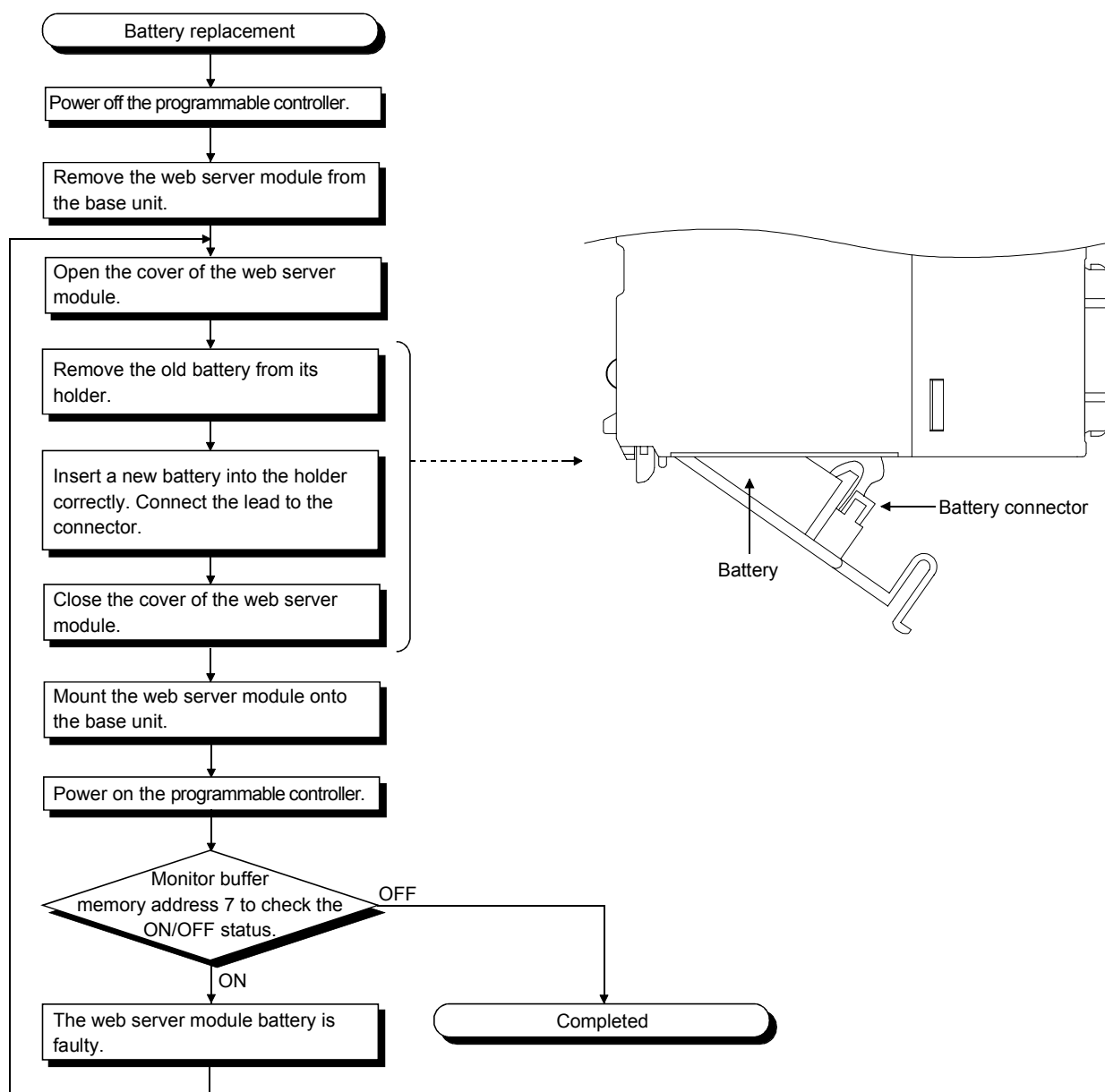
When the Web server module battery has been exhausted, replace the battery with a new one according to the procedure shown below.

The programmable controller must be powered on for 10 minutes or more before removing the battery.

Even if the battery is removed, the memories are backed up by the capacitor for a while. However, if the replacement time exceeds the limit specified in the table below, data stored in the memories may be erased. To prevent this, replace the battery quickly.

Backup time by capacitor

| Backup time by capacitor [min] |
|--------------------------------|
| 3 |



4.11 Operation without Battery Being Mounted

This section explains the operation without the battery being mounted.

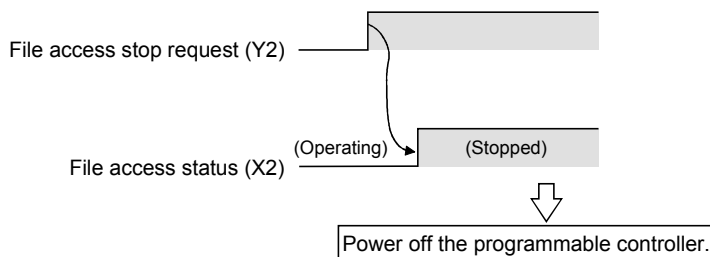
(1) Shut-down operation required when powering off during no battery operation

If the file protection battery is not mounted on the Web server module, make sure to perform shut-down operation at power-off of the programmable controller.

If the Web server module is powered off when the battery is not mounted, saved data such as the setting files and logging data being processed will be lost.

[Operating procedure]

- (a) Stop a file access.
(Turn File access stop request (Y2) from OFF to ON.)
- (b) Confirm that file access has stopped.
(File access status (X2) is ON.)
- (c) Power off the programmable controller.



| |
|------------------|
| Important |
|------------------|

| |
|--|
| <p>Failure to observe the above procedure may cause erasure of logging data during processing, corruption of data in the standard ROM drive/Compact Flash™ card during access, or a file system fault.</p> |
|--|

(2) Making battery error undetected during no battery operation

- (a) A battery error occurs when the file protection battery is not mounted on the Web server module.
 - 1) "1 (ON)" is written to the battery status area (buffer memory: 7).
 - 2) The ERR. LED turns on, and ERR. LED status (X10) and Other error (X1C) turn on.
- (b) By turning "ON" Battery error detection setting (Switch 2 (Bit 2)) in the switch setting of GX Developer, a battery error can be made undetected. Refer to Section 4.7 for the switch setting of GX Developer.

4.12 Removing Battery for Storage

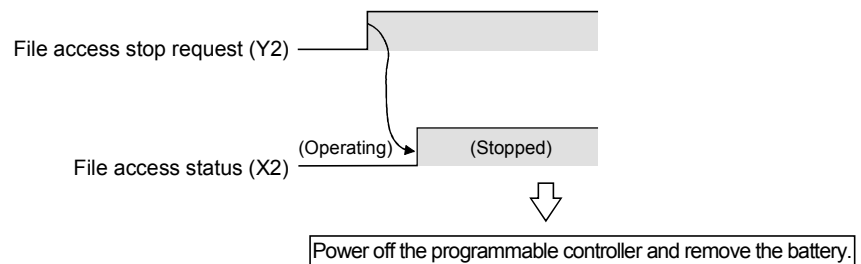
When storing the Web server module with no battery mounted, make sure to perform shut-down operation, then power off the programmable controller, and remove the battery.

Important

Failure to observe the following procedure may cause erasure of logging data during processing, corruption of data in the standard ROM drive/Compact Flash™ card during access, or a file system fault.

[Removing procedure]

- (a) Mount the programmable controller CPU and Web server module on the base unit and power on.
- (b) Stop a file access.
(Turn File access stop request (Y2) from OFF to ON.)
- (c) Confirm that file access has stopped.
(File access status (X2) is ON.)
- (d) Power off the programmable controller.
- (e) Remove the battery from the Web server module.



4.13 Returning the Web Server Module to the Default Setting

The Web server module stores and manages the setting information, logging data, user HTML, event history, etc. as files in the standard ROM.

The operation described in this section initializes the files stored in the Web server module to return the Web server module to the default setting.

In the module initialization mode, access cannot be made by the Web browser.

(1) Processings for module initialization (to default setting)

The following table explains the processings performed during the operation in (2) of this section.

Refer to Appendix 3 for the directory structure of the Web server module.

| Item | Description |
|---|---|
| Restore file system | Restores the file system for the standard ROM drive. |
| Setting file initialization | Returns the current set file to the default settings. |
| Logging file delete | Deletes all logging files. |
| Event history file delete | Deletes all event history files. |
| User HTML file delete and sample file restoration | Deletes all user HTML files. Restores the sample files stored prior to shipment. |

(2) Procedure to return the Web server module to the default setting

- (a) Set to the module initialization mode in the switch setting of GX Developer.
(Set "9999 (Decimal)" to Switch 1.)

Refer to Section 4.7 for the switch setting of GX Developer.

| | Slot | Type | Model name | Switch 1 | Switch 2 | Switch 3 | Switch 4 | Switch 5 |
|---|-------|----------|------------|----------|----------|----------|----------|----------|
| 0 | PLC | PLC | | | | | | |
| 1 | Q(*0) | Intelli. | QJ71WS96 | 9999 | 0 | | | |
| 2 | 1(*1) | | | | | | | |

- (b) After writing the PLC parameters to the programmable controller CPU, power off the programmable controller and then on or reset the CPU module.
"1" is stored into the module initialization request area (buffer memory: 9999). (In the module initialization mode)
- (c) Writing "2" to the module initialization request area (buffer memory: 9999) of the buffer memory executes the initialization processing of the Web server module.
- (d) The following results when the module initialization processing is completed.
- When the processing is normally completed, "3" is stored into the module initialization request area.
 - When the processing has failed, other than "3" is stored into the module initialization request area. (*)
- * Possible cause for processing failure in this operations is the system file corruption in the standard ROM drive or an unrestorable file system fault.
Please consult your local Mitsubishi service center or representative, explaining a detailed description of the problem.

POINT

The module initialization request of the buffer memory is enabled only when "Mode Setting" of the switch setting is the module initialization mode.

5 CONNECTING WEB SERVER MODULE TO NETWORK

This chapter explains procedures for connecting the Web server module to the network by LAN/dial-up connection and procedures for connecting and disconnecting it to/from the network for non-continuous connection.

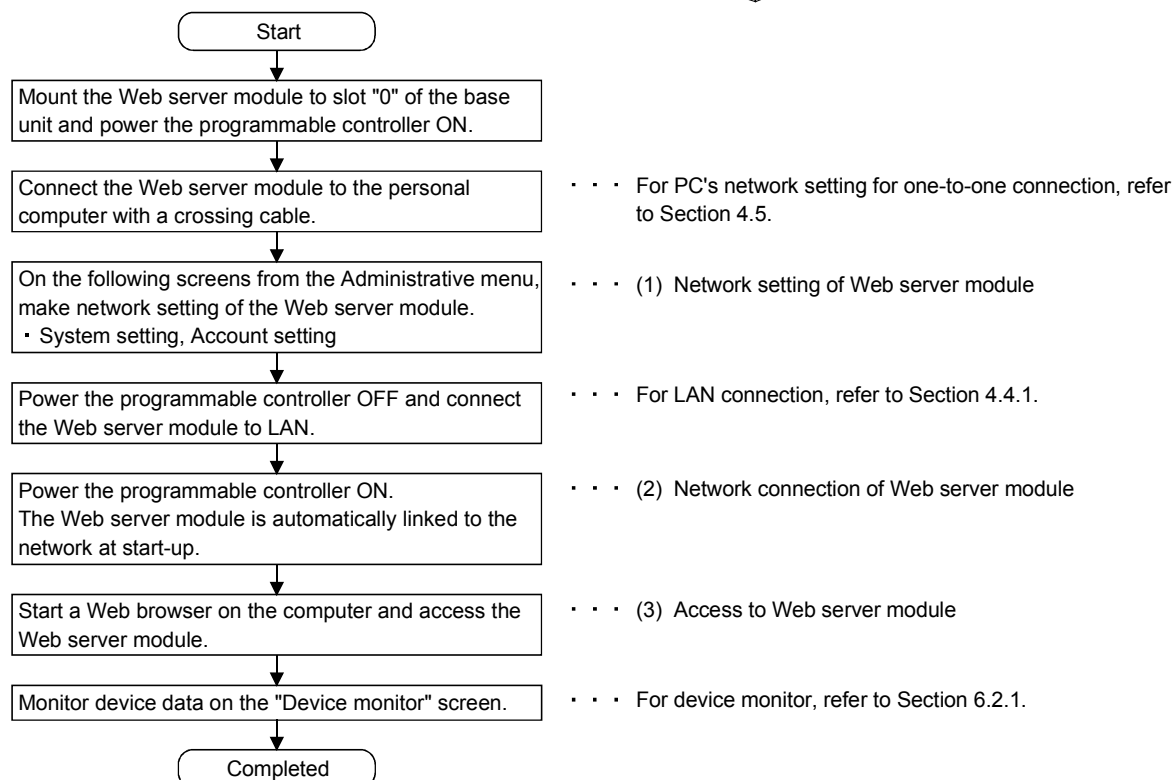
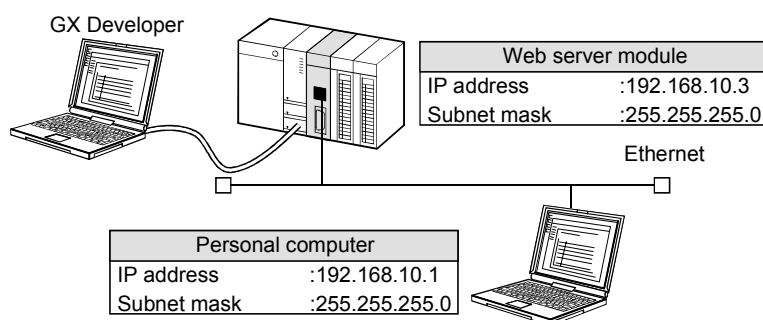
5.1 Network Connection through LAN

This section explains the case where the Web server module is connected to the LAN-connected network.

5.1.1 Access procedure when using static IP address

The following shows how to access from the external device to the programmable controller CPU when a static IP address is assigned to the Web server module.

[System configuration for LAN connection]



(1) Network setting of Web server module

(a) Make setting to connect the Web server module to the network.

(b) From the Administrative menu, set as follows

(For other than the following settings, the default values will be used.):

[Administrative menu] → "System setting" (Refer to 1)) → "Account setting" (Refer to 2))

1) System setting (Refer to Section 4.6.3)

| Item | Set value |
|--|--|
| Network type setting | Select "Connecting through LAN or the router." |
| IP address setting | Select "Use the following IP address." • IP address : 192. 168. 10. 3 • Subnet mask : 255. 255. 255. 0 |
| Automatic network connection setting at start-up | Select "Automatic connection to network at start-up." |

2) Account setting (Refer to Section 4.6.5)

| Item | Set value |
|-----------------------|--|
| Account setting No. 1 | Enter the following setting for the accounting setting No. 1. (Delete the default account.) • User name : administrator001 • Password : (example) QJ71WS96ADMIN • Confirm password : (example) QJ71WS96ADMIN |

5

POINT

After changing the setting, make sure to click on the "Save" button.

The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. (*)

* Note that the setting of the System setting is not updated even if the "Update" button is clicked.

(2) Network connection of Web server module

(a) Since "Automatic connection to network at start-up." is set in the automatic network connection setting at start-up on the "System setting" screen, the Web server module automatically makes network connection at start-up.

(b) Using GX Developer, confirm the following connection status of the Web server module to the network with input signals of the buffer memory and the programmable controller CPU.

1) Module READY (X0) is on.

2) Network connection status (X4) is on.

3) IP address and subnet mask storage areas in the network connection status area

• IP address (buffer memory: 55 to 56)

• Subnet mask (buffer memory: 57 to 58)

- (c) When connection to the network fails, connection error (X19) turns on and an error code is stored into the connection error code area (buffer memory: 30).
Take corrective measures according to the troubleshooting.

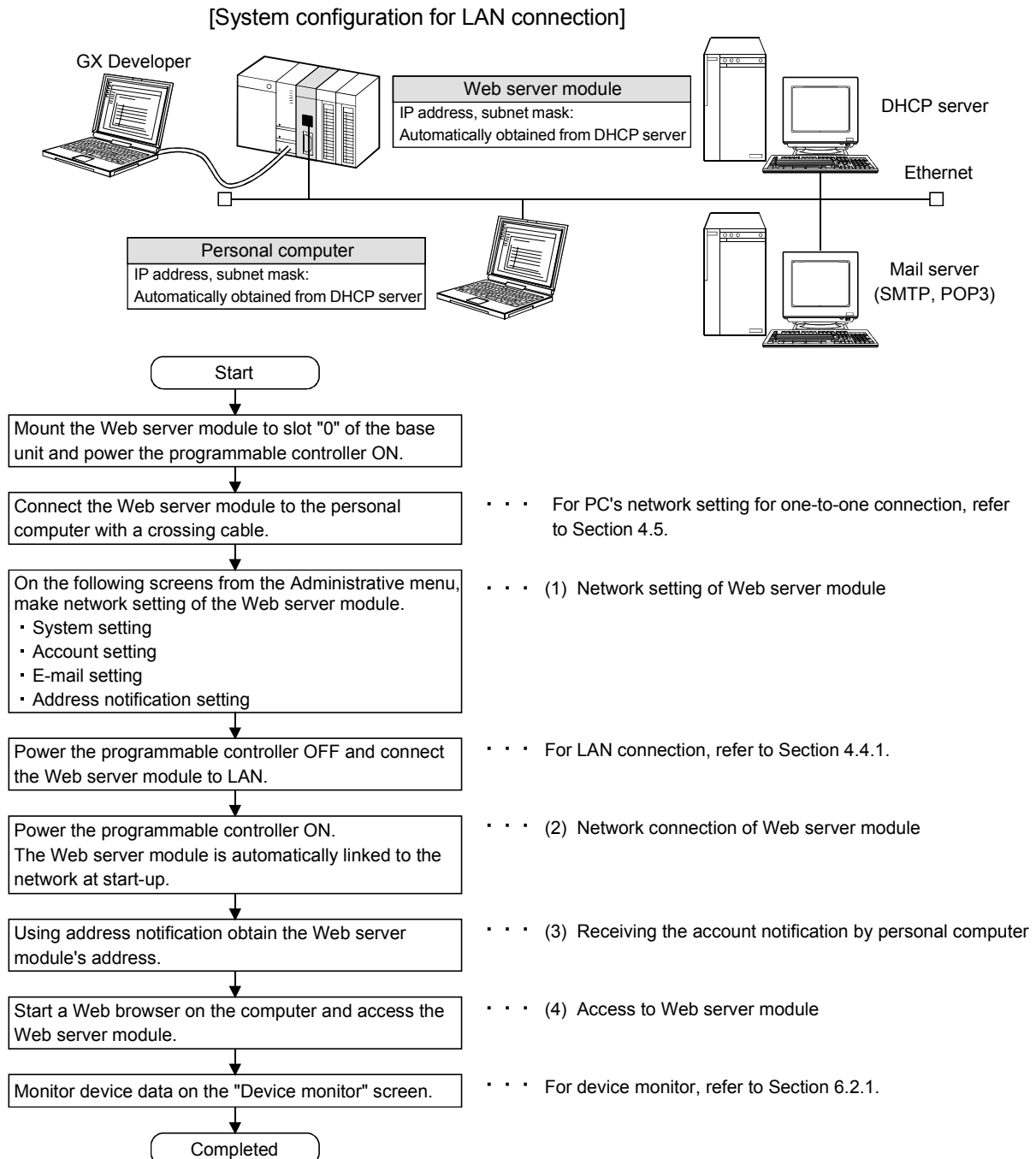
| |
|---|
| POINT |
| In the network connection status area (buffer memory: 28 to 69), the current network connection status of the Web server module can be confirmed. |

(3) Access to Web server module

- (a) Start a Web browser on the personal computer and enter the Web server module address set in the System setting.
IP address : 192. 168. 10. 3
Subnet mask : 255. 255. 255 .0
- (b) When the user authentication screen is displayed at the time of access to the Web server module, enter the account. (Setting in (1) 2))
User name : administrator001
Password : (example) QJ71WS96ADMIN
- (c) The standard screen is displayed in the Web browser.

5.1.2 Access procedure when obtaining IP address from DHCP server

The following shows the procedure for access from the external device to the programmable controller CPU when an IP address for the Web server module is obtained from the DHCP server.



(1) Network setting of Web server module

(a) Make setting to connect the Web server module to the network.

(b) From the Administrative menu, set as follows

(For other than the following settings, the default values will be used.):

[Administrative menu] → "System setting" (Refer to 1)) → "E-mail setting"

(Refer to 2)) → "Address notification setting" (Refer to 3)) → "Account setting"

(Refer to 4))

1) System setting (Refer to Section 4.6.3)

| Item | Set value |
|--|---|
| Network type setting | Select "Connecting through LAN or the router." |
| IP address setting | Select "Obtain an IP address automatically." |
| DNS server setting | Select "Obtain a DNS server address automatically." |
| Automatic network connection setting at start-up | Select "Automatic connection to network at start-up." |

2) E-mail setting (Refer to Section 6.6.3)

| Item | Set value |
|------------------------------|---|
| Send e-mail account setting | Enter the e-mail setting of the Web server module. <ul style="list-style-type: none"> • SMTP server name : (example) mailserver@****.****.ne.jp • E-mail address (From:) : (example) mailaddress@****.****.ne.jp • User name : (example) mitsubishi@****.****.ne.jp • Password : (example) MITSUBISHI • Confirm password : (example) MITSUBISHI |
| E-mail address (To:) setting | Enter an e-mail address (To:) of the personal computer. <ul style="list-style-type: none"> • No. 1 : (example) pcmailaddress@****.****.ne.jp |

3) Address notification setting (Refer to Section 6.9.2)

[IP address setting]

| Item | Set value |
|-------------------------|--|
| Notification IP address | <ul style="list-style-type: none"> • Select "Notify the IP address set in the "System setting" screen." • Select "Notify the HTTP port number set in the "System setting" screen." |

[E-mail notification setting]

| Item | Set value |
|-------------------------|--|
| IP address notification | <ul style="list-style-type: none"> • Select "Notify an IP address at network connection". • Select "E-mail address (TO:) No. 1" as the destination of IP address notification. |

4) Account setting (Refer to Section 4.6.5)

| Item | Set value |
|-----------------------|--|
| Account setting No. 1 | Enter the following setting for the accounting setting No. 1. (Delete the default account.) <ul style="list-style-type: none"> • User name : administrator001 • Password : (example) QJ71WS96ADMIN • Confirm password : (example) QJ71WS96ADMIN |

POINT

After changing the setting, make sure to click on the "Save" button.

The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. (*)

* Note that the setting of the System setting is not updated even if the "Update" button is clicked.

(2) Network connection of Web server module

- (a) Since "Automatic connection to network at start-up." is set in the automatic network connection setting at start-up on the "System setting" screen, the Web server module automatically makes network connection at start-up.
- (b) Using GX Developer, confirm the following connection status of the Web server module to the network with input signals of the buffer memory and the programmable controller CPU.
 - 1) Module READY (X0) is on.
 - 2) Network connection status (X4) is on.
 - 3) IP address and subnet mask storage areas in the network connection status area
 - IP address (buffer memory: 55 to 56)
 - Subnet mask (buffer memory: 57 to 58)
- (c) When connection to the network fails, connection error (X19) turns on and an error code is stored into the connection error code area (buffer memory: 30).
Take corrective measures according to the troubleshooting.

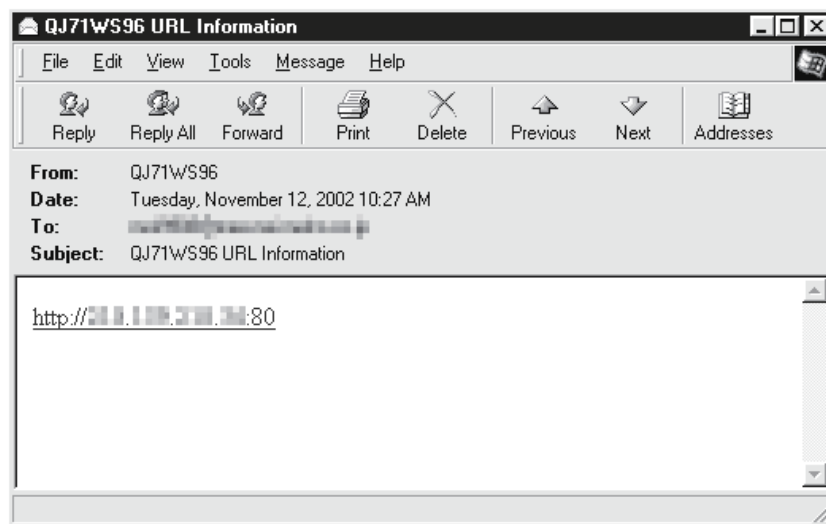
POINT

In the network connection status area (buffer memory: 28 to 69), the current network connection status of the Web server module can be confirmed.

(3) Receiving the account notification by the personal computer

By the address notification setting, the URL of the Web server module is sent by e-mail to the destination e-mail address.

(Example) In the case of Microsoft® Corporation's Outlook® Express 5.5



(4) Access to Web server module

- (a) Start a Web browser on the personal computer and enter the Web server module address obtained by the address notification function.
- (b) When the user authentication screen is displayed at the time of access to the Web server module, enter the account. (Setting in (1) 4))
User name : administrator001
Password : (example) QJ71WS96ADMIN
- (c) The standard screen is displayed in the Web browser.

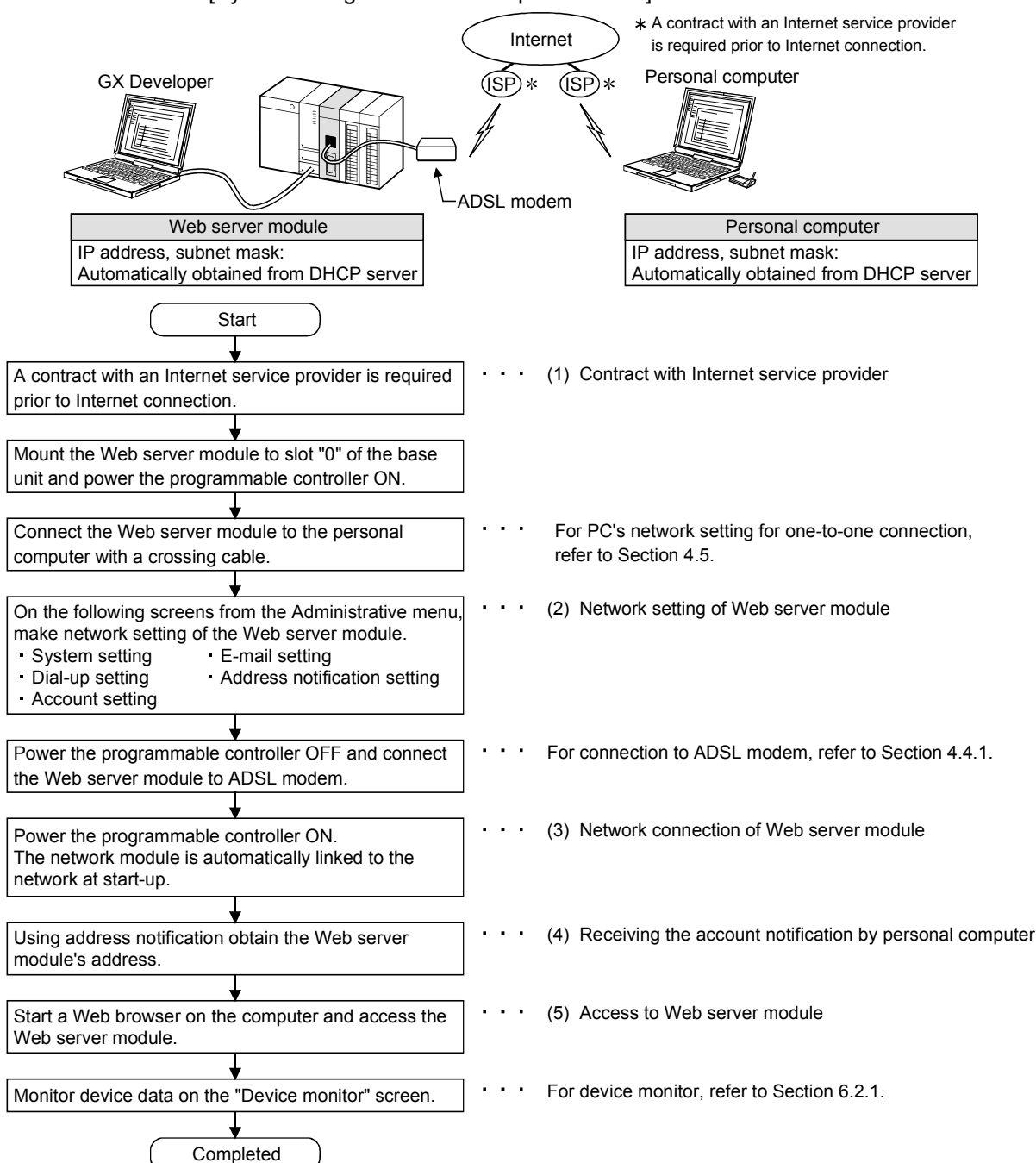
5.2 Network Connection by Dial-up (Modem, ADSL)

This section explains the case where the Web server module is connected to the dial-up-connected network using ADSL.

5.2.1 Access procedure

The following shows the procedure for access from the external device to the programmable controller CPU when an ADSL modem is used for connection.

[System configuration for dial-up connection]



(1) Contract with Internet service provider

- (a) To connect the Web server module to the Internet, a contract with an Internet service provider is required.
Contact the Internet service provider for service details and how to sign up for the service.
- (b) Create a proper environment for the external device (personal computer) so that Internet connection is available.

POINT

It is recommended to confirm in advance that access to the Internet is available from the personal computer, etc. using the connection account of the Web server module.

(2) Network setting of Web server module

- (a) Make setting to connect the Web server module to the network.
- (b) From the Administrative menu, set as follows.
(For other than the following settings, the default values will be used.):

[Administrative menu] → "System setting" (Refer to 1)) → "Dial-up setting" (Refer to 2)) → "E-mail setting" (Refer to 3)) → "Address notification setting" (Refer to 4)) → "Account setting" (Refer to 5))

1) System setting (Refer to Section 4.6.3)

| Item | Set value |
|--|---|
| Network type setting | Select "Dial-up to the network (modem, ADSL)". |
| IP address setting | Select "Obtain an IP address automatically". |
| DNS server setting | Select "Obtain a DNS server address automatically". |
| Automatic network connection setting at start-up | Select "Automatic connection to network at start-up". |

2) Dial-up setting (Refer to Section 4.6.4)

| Item | Set value |
|--------------------|---|
| Connection method | Select "ADSL". |
| Connection account | Enter the account obtained from the Internet service provider. <ul style="list-style-type: none"> • User name : (example) mitsubishi@****.****.ne.jp • Password : (example) MITSUBISHI • Confirm password : (example) MITSUBISHI |

3) E-mail setting (Refer to Section 6.6.3)

| Item | Set value |
|------------------------------|--|
| Send e-mail account setting | Enter the e-mail setting of the Web server module. <ul style="list-style-type: none"> • SMTP server name : (example) mailserver@****.****.ne.jp • E-mail address (From:) : (example) mailaddress@****.****.ne.jp • User name : (example) mitsubishi@****.****.ne.jp • Password : (example) MITSUBISHI • Confirm password : (example) MITSUBISHI |
| E-mail address (To:) setting | Enter an e-mail address (To:) of the personal computer. <ul style="list-style-type: none"> • No. 1 : (example) pcmailaddress@****.****.ne.jp |

4) Address notification setting (Refer to Section 6.9.2)
[IP address setting]

| Item | Set value |
|-------------------------|--|
| Notification IP address | <ul style="list-style-type: none"> • Select "Notify the IP address set in the "System setting" screen." • Select "Notify the HTTP port number set in the "System setting" screen." |

[E-mail notification setting]

| Item | Set value |
|-------------------------|--|
| IP address notification | <ul style="list-style-type: none"> • Select "Notify an IP address at network connection". • Select "E-mail address (TO:) No. 1" as the destination of IP address notification. |

5) Account setting (Refer to Section 4.6.5)

| Item | Set value |
|-----------------------|---|
| Account setting No. 1 | Enter the following setting for the accounting setting No. 1. (Delete the default account.) <ul style="list-style-type: none"> • User name : administrator001 • Password : (example) QJ71WS96ADMIN • Confirm password : (example) QJ71WS96ADMIN |

POINT

After changing the setting, make sure to click on the "Save" button.

The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. (*)

* Note that the settings of the System setting and Dial-up setting are not updated even if the "Update" button is clicked.

(3) Network connection of Web server module

- (a) Since "Automatic connection to network at start-up." is set in the automatic network connection setting at start-up on the "System setting" screen, the Web server module automatically makes network connection at start-up.
 - (b) Using GX Developer, confirm the following connection status of the Web server module to the network with input signals of the buffer memory and the programmable controller CPU.
 - 1) Module READY (X0) is on.
 - 2) Network connection status (X4) is on.
 - 3) IP address and subnet mask storage areas in the network connection status area
 - IP address (buffer memory: 55 to 56)
 - Subnet mask (buffer memory: 57 to 58)
 - (c) When connection to the network fails, connection error (X19) turns on and an error code is stored into the connection error code area (buffer memory: 30).
- Take corrective measures according to the troubleshooting.

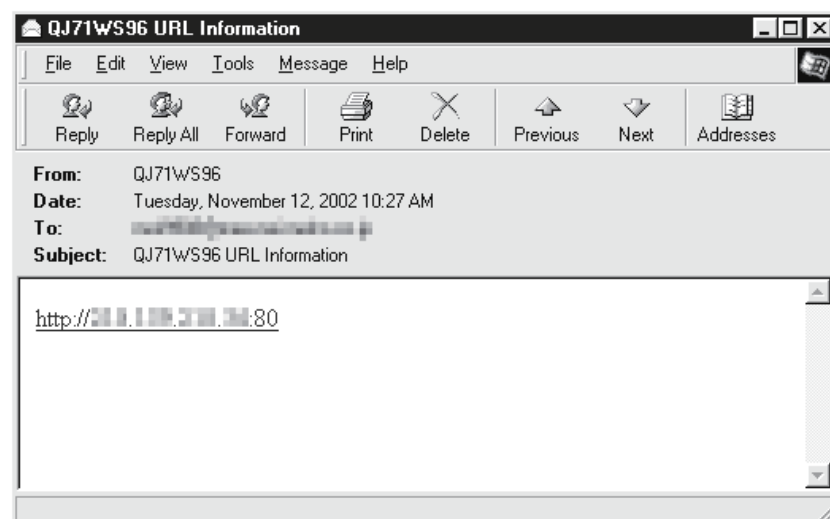
POINT

In the network connection status area (buffer memory: 28 to 69), the current network connection status of the Web server module can be confirmed.

(4) Receiving the account notification by the personal computer

By the address notification setting, the URL of the Web server module is sent by e-mail to the destination e-mail address.

(Example) In the case of Microsoft® Corporation's Outlook® Express 5.5



(5) Access to Web server module

- (a) Start a Web browser on the personal computer and enter the Web server module address obtained by the address notification function.
- (b) When the user authentication screen is displayed at the time of access to the Web server module, enter the account. (Setting in (2) 5))
 - User name : administrator001
 - Password : (example) QJ71WS96ADMIN
- (c) The standard screen is displayed in the Web browser.

REMARKS

When using a modem for connection, make the dial-up setting as shown below.
For other than the following, the setting is the same as the one for ADSL.

| Item | Set value |
|--------------------|---|
| Connection method | Select "Modem". |
| Connection account | Enter the account obtained from the Internet service provider. |
| Access point | Enter the access point of the Internet service provider. • Point phone number 1 : (example) 000111222 |
| Dial method | Select "Tone". |
| Retry | Set the number of retries to "3" times. |
| Modem attribute | Set the communication specifications between the Web server module and the modem. • Communication speed : 115200 bps • Calling timeout : 100 seconds • CALL function : Enable • Disconnect function : Enable, 5 minutes |

5.3 Operation for Returning to One-to-one Connection

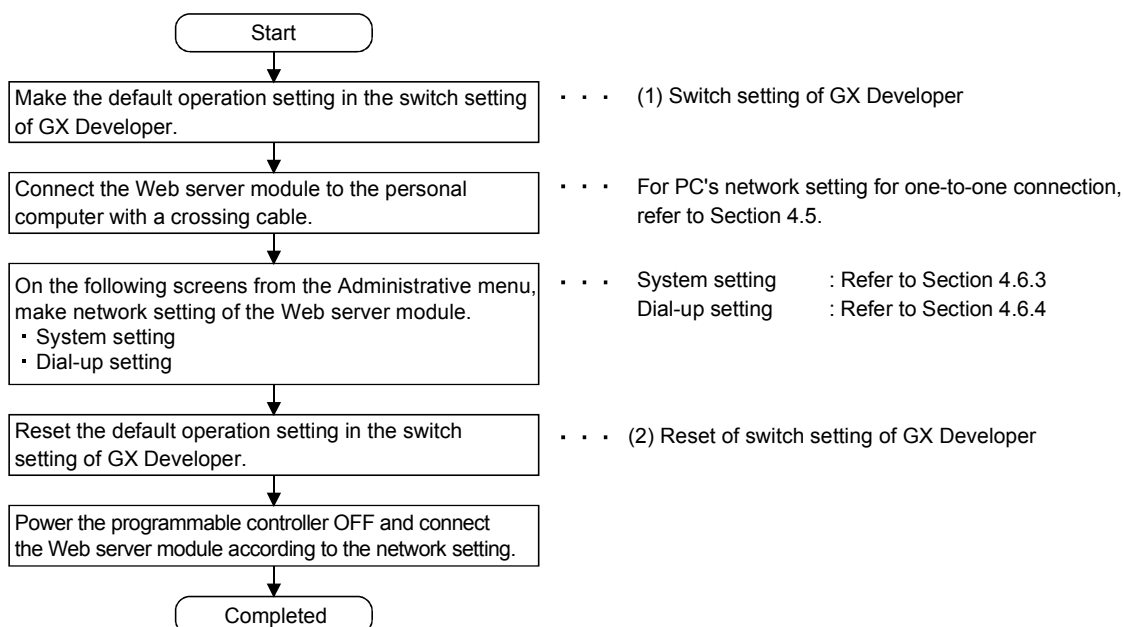
This section explains the operation for returning to one-to-one connection. If connection of the Web server module to the network cannot be made or if the network setting is to be changed, it is required to make one-to-one connection and perform setting with the Web browser.

POINT

The setting of the Web server module can be changed via the network, however, it is recommended to set it back to one-to-one connection.

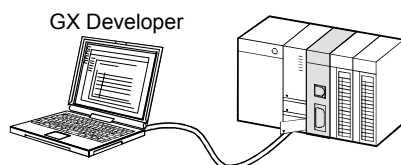
5.3.1 Procedure for returning to one-to-one connection

The following is the operating procedure for returning to one-to-one connection.

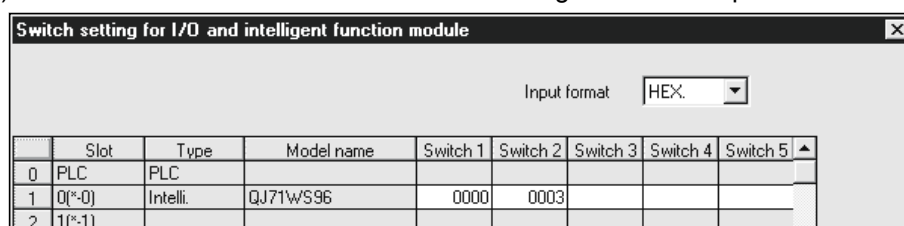


(1) Switch setting of GX Developer

Make the default operation setting in the switch setting of GX Developer. Refer to Section 4.7 for details on the switch setting of GX Developer.



(a) Write "0003H" to Switch 2 in the switch setting of GX Developer.



- (b) After writing the PLC parameters to the programmable controller CPU, power the programmable controller off and then on or reset the CPU module.
- (c) The settings of the Web server module are as follows.
- 1) System setting
 - IP address : 192. 168. 3. 3
 - Subnet mask : 255. 255. 255. 0
 - Connecting through LAN or the router.
 - Use the default HTTP port number (80).
 - Use the default FTP port number (21).
 - System name: QJ71WS96
 - Do not execute network diagnoses (ping).
 - Automatic connection to network at start-up.
 - 2) Account setting
 - User name :QJ71WS96 (All in uppercase)
 - Password :MITSUBISHI (All in uppercase)
 - Access authority :Device write/Tag component write/Administrator
 - Initial screen : Standard screen top page
 - 3) IP filter setting
 - Pass the IP packet that has not been set in [Filter setting]. (Without filter setting)

(2) Reset of switch setting of GX Developer

After setting the Web server module with the Web browser, reset the default setting in the switch setting of GX Developer.

- (a) Write "0000H" to Switch 2 in the switch setting of GX Developer.

| | Slot | Type | Model name | Switch 1 | Switch 2 | Switch 3 | Switch 4 | Switch 5 |
|---|-------|----------|------------|----------|----------|----------|----------|----------|
| 0 | PLC | PLC | | | | | | |
| 1 | 0(*0) | Intelli. | QJ71WS96 | 0000 | 0000 | | | |
| 2 | 1(*1) | | | | | | | |

- (b) After writing the PLC parameters to the programmable controller CPU, power the programmable controller off and then on or reset the CPU module.
- (c) The settings made on the corresponding setting screen of the standard screen of the Web browser are enabled.

5.4 Network connection/disconnection procedures for non-continuous connection

This section explains the network connection and disconnection methods and their combinations and the procedures for connecting to and disconnecting from the network with sequence programs.

5.4.1 Network connection and disconnection methods and their combinations

This section provides the network connection and disconnection methods and their combinations.

(1) Network connection methods

The following indicates how the Web server module connects to the network.

- (a) Automatic connection at start-up
When "Automatic connection to network at start-up." is set in the system setting, the Web server module automatically connects to the network at a start. (Refer to Section 4.6.3.)
- (b) Connection using sequence program
When Network connection request (Y5) turns from OFF to ON in a sequence program, the Web server module connects to the network. (Refer to Section 5.4.2.)
- (c) Automatic connection at execution of dedicated instruction (WMSSEND, FTPPUT, FTPGET)
When the dedicated instruction is executed, the Web server module automatically connects to the network. (Refer to Chapter 8.)
- (d) Automatic connection at e-mail transmission or file transfer by logging function
When e-mail transmission or file transfer is performed, the Web server module automatically connects to the network. (Refer to Section 6.4.)
- (e) Automatic connection at e-mail transmission by event function
When e-mail transmission is performed, the Web server module automatically connects to the network. (Refer to Section 6.5.)
- (f) Connection by Call function (Only when modem is connected)
When the "Call function" is enabled in the dial-up setting, making a phone call from a telephone to the Web server module side modem connects the Web server module to the network. (Refer to Section 4.6.4.)

(2) Network disconnection methods

The following indicates how the Web server module disconnects from the network.

- (a) Disconnection using sequence program
When Network disconnection request (Y7) turns from OFF to ON in a sequence program, the Web server module disconnects from the network. (Refer to Section 5.4.2.)

- (b) Disconnection using line disconnection part
When a button is clicked in a line disconnection part, the Web server module disconnects from the network. (Refer to Section 7.4.3.)
- (c) Disconnection using Disconnect function (Only when modem is connected)
When the "Disconnect function" is enabled in the dial-up setting, the Web server module automatically disconnects from the network if no access is made to the Web server module for the specified period of time. (Refer to Section 4.6.4.)
- (d) Automatic disconnection after completion of dedicated instruction (WMSSEND, FTPPUT, FTPGET)
When the Web server module has automatically connected to the network at execution of the dedicated instruction, it automatically disconnects from the network after the dedicated instruction is completed. (Refer to Chapter 8.)
- (e) Automatic disconnection after e-mail transmission or file transfer by logging function
When the Web server module has automatically connected to the network at e-mail transmission or file transfer, it automatically disconnects from the network after e-mail transmission or file transfer. (Refer to Section 6.4.)
- (f) Automatic disconnection after e-mail transmission by event function
When the Web server module has automatically connected to the network at e-mail transmission with "Disconnect from the network after sending mail." enabled in the event setting, the Web server module automatically disconnects from the network after e-mail transmission. (Refer to Section 6.5.)
When "Disconnect from the network after sending mail." was disabled in the event setting, the Web server module does not disconnect from the network after e-mail transmission.

| | |
|--------------|---|
| POINT | <p>(1) Before the Web server module is disconnected from the network, a measure for the next network connection should have been taken.</p> <p>(2) When the Web server module has automatically connected to the network at execution of any of the following operations, it automatically disconnects from the network after completion of the corresponding operation.</p> <p>However, if any of these is executed with the Web server module connected to the network (Network connection status (X4) is ON), the Web server module does not disconnect from the network after completion of the operation.</p> <ul style="list-style-type: none"> ▪ Execution of dedicated instruction (WMSSEND, FTPPUT, FTPGET) ▪ E-mail transmission/file transfer by logging function ▪ E-mail transmission by event function |
|--------------|---|

(3) Combinations of network connection and disconnection methods

Combinations of the network connection and disconnection methods are indicated below.

| Connection method \ Disconnection method | | Disconnection using sequence program | Disconnection using line disconnection part | Disconnection using Disconnect function (Only when modem is connected) | Automatic disconnection |
|--|-------------------------|--------------------------------------|---|--|-------------------------|
| Automatic connection at start-up | | ○ | ○ | ○ | × |
| Connection using sequence program | | ○ | ○ | ○ | × |
| Automatic connection at execution of dedicated instruction (WMSSEND, FTTPUT, FTPGET) | | × | × | × | ○ |
| Automatic connection at e-mail transmission or file transfer by logging function | | × | × | × | ○ |
| Automatic connection at e-mail transmission by event function | Set to "Disconnect" | × | × | × | ○ |
| | Set to "Not disconnect" | ○ | ○ | ○ | × |
| Connection by Call function (Only when modem is connected) | | ○ | ○ | ○ | × |

○: Can be disconnected ×: Cannot be disconnected

5.4.2 Network Connection/Disconnection Processing Using Sequence Program

The Web server module must be connected to the network for access from the external device.

With the Web server module connected to the network, access from the external device by Web or FTP is available.

(1) Outline of connection/disconnection processing using sequence program

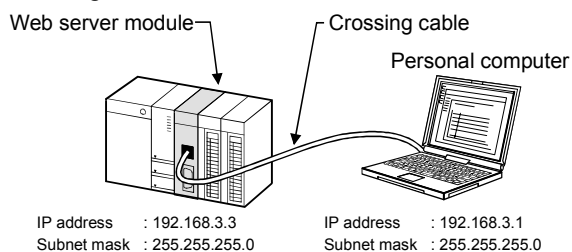
- (a) Connection/disconnection processing to/from the network using a sequence program is required in the following cases:
 - 1) Controlling the timing of connection/disconnection to/from the network or connecting to the network in consideration of time is desired.
 - 2) "No connection to network at start-up." is selected in the automatic network connection setting at start-up on the "System setting" screen.
- (b) When Network connection request (Y5) is turned from OFF to ON, the Web server module starts network connection processing.
Refer to Section 3.6.2 for Network connection request (Y5).
- (c) When Network disconnection request (Y7) is turned from OFF to ON, the Web server module starts network disconnection processing.
Refer to Section 3.6.2 for Network disconnection request (Y7).
- (d) For connection/disconnection processing of the Web server module to/from the network, System setting and Dial-up setting must have been completed.

(2) Program example

This section explains programs for connection/disconnection using sequence programs.

(a) Program execution environment

- 1) Mount the Web server module on Slot "0" of the main base.
- 2) Connect the Web server module and the personal computer with a crossing cable.

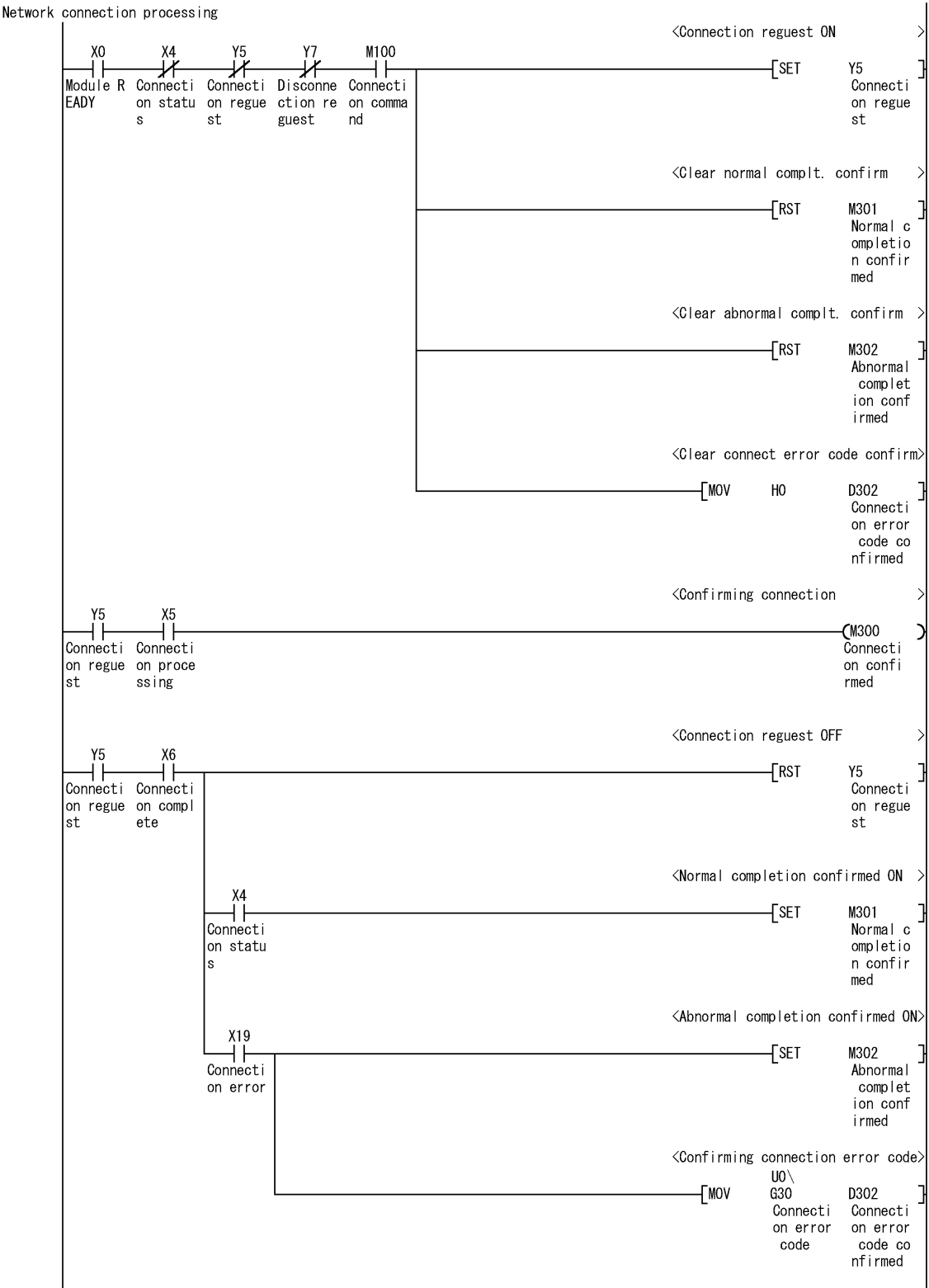


- 3) Make the following network setting of the personal computer.
IP address : 192. 168. 3. 1
Subnet mask : 255. 255. 255. 0
- 4) Make the following Web server module setting with the Web browser.
(Use the default values for other than the following.)
 - System setting (Refer to Section 4.6.3)

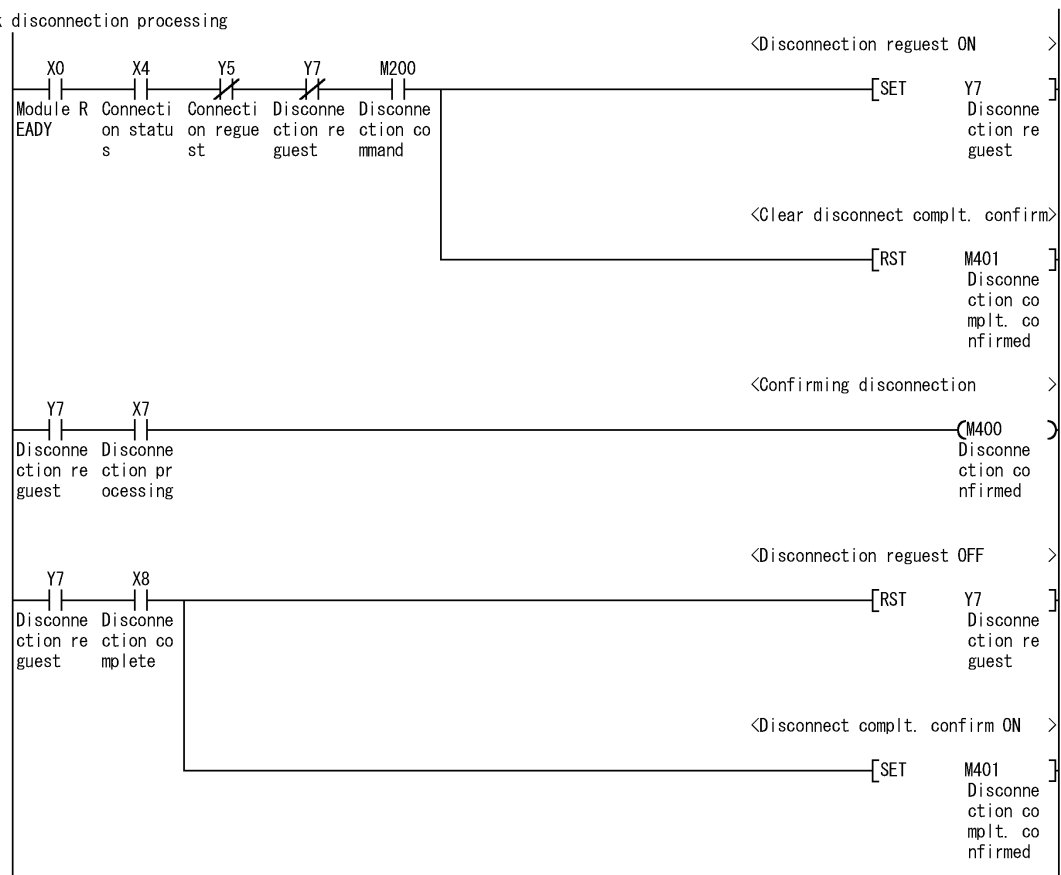
| Item | Set value |
|--|---|
| Network type setting | Select "Connecting through LAN or the router." |
| IP address setting | Select "Use the following IP address." • IP address : 192. 168. 3. 3 • Subnet mask : 255. 255. 255. 0 |
| Automatic network connection setting at start-up | Select "No connection to network at start-up." |

- 5) After writing the sequence program using GX Developer, power the programmable controller off and then on or reset the CPU module.

(b) Program example



Network disconnection processing



6 FUNCTIONS

This chapter explains the functions of the Web server module.

6.1 Function List of Web Server Module

The following is the function list of the Web server module.

| Function | | Description | Reference Section |
|-------------------------------|--------------------------|--|-------------------|
| Monitor Function | Device monitor | Monitors device values. | Section 6.2.1 |
| | Tag data monitor | Monitors tag data. | Section 6.2.2 |
| | Logging monitor | Monitors logging data. | Section 6.2.3 |
| | Event history monitor | Monitors event histories. | Section 6.2.4 |
| | PLC diagnostics monitor | Monitors programmable controller CPU operation status. | Section 6.2.5 |
| | Self-diagnostics monitor | Monitors Web server module operation status. | Section 6.2.6 |
| Tag function | | Stores a set of device data of individual programmable controller CPUs on a network as a tag, and collects those device data in tag unit. Collected data can be displayed in the Web browser. | Section 6.3 |
| Logging function | | Stores tag data as a CSV file in time series at the user-specified execution timing (by setting timing, start/stop condition). The stored file can be displayed in the Web browser or downloaded by FTP operation, etc. | Section 6.4 |
| Event monitor function | | Monitors the programmable controller CPU status (CPU monitor), tag data (tag monitor) and time (time/interval monitor), and stores the historical data of occurred events into CSV files. The stored files can be displayed in the Web browser or downloaded by FTP operation. At event occurrence, e-mail can be sent as necessary. | Section 6.5 |
| E-mail function | | Used to send e-mail. <ul style="list-style-type: none"> ▪ E-mail transmission by programmable controller CPU ▪ E-mail transmission by event monitor function | Section 6.6 |
| FTP function | | Used to transfer a file between the Web server module and external device. <ul style="list-style-type: none"> ▪ FTP server function ▪ FTP client function | Section 6.7 |
| Access log function | | Used to record access from the external device to the Web server module. | Section 6.8 |
| Address notification function | | Used to notify the external device of the Web server module address. | Section 6.9 |
| Data management function | | Backs up/restores the standard ROM, formats the compact flash card, and performs CSV export/import. | Section 6.10 |
| Diagnostic function | | Used to perform self-diagnostics and connection test of the Web server module. | Section 6.11 |
| User screen creation function | | Creates user-original Web screens using the standard-supplied user parts (applet, SSI, CGI). | Chapter 7 |

6.2 Monitor Function

6.2.1 Device monitor

[Setting Purpose]

This monitoring function is used to specify one type of device to execute batch monitor.

Users with the device write authority can write data in word unit or operate ON/OFF data in bit unit.

[Start Procedure]

[Monitor screen] → "Device monitor" (refer to (1)) → **Device test** → "Device test" (refer to (2))

(1) Device monitor

[Setting screen]

| Device | +F | E | D | C | +B | A | 9 | 8 | +7 | 6 | 5 | 4 | +3 | 2 | 1 | 0 | Value |
|--------|----|---|---|---|----|---|---|---|----|---|---|---|----|---|---|---|--------|
| D0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 16961 |
| D1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 17475 |
| D2 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 17989 |
| D3 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 12849 |
| D4 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 13363 |
| D5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D10 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | -16334 |

[Setting Item]

| Item | Description |
|----------------------|--|
| CPU name | Selects the access target CPU. |
| Device | Specifies the device type and actual device number. |
| Data type | Selects the data type. |
| Display form | Selects the display form when the data type is 16 bit integer or 32 bit integer. |
| Start monitor | Starts Device monitor. |
| Stop monitor | Stops Device monitor. |
| Device test | Performs a device test. |

- (a) CPU name
- 1) Set the access target CPU.
 - 2) Select the CPU name set in the access target CPU setting.
(Refer to Section 4.6.7 for the access target CPU setting.)
 - 3) The CPU name drop-down list displays the setting No. and CPU names of the access target CPU setting.
(Example) 01: Control CPU
 - 4) By default, the host CPU of the Web server module is set as the access target CPU setting No. 1.
- (b) Device
- 1) Specify the device type and actual device number of the device.
 - 2) Specify Device specification by qualification (indexing, digit specification, bit specification for word device) is not available.
 - 3) Refer to Appendix 2 for the accessible devices
- (c) Data type
- Select the data type of the word device.
- 16 bit integer : Displayed as a 16 bit integer.
- 32 bit integer : Displayed as a 32 bit (double word) integer.
- Real number : Displayed in real number.
- ASCII character : Displayed in ASCII characters.
- (d) Display form
- Select the display form when the data type is a 16 bit integer or 32 bit integer.
- DEC: Displayed in decimal.
- HEX: Displayed in hexadecimal.
- (e) Monitor form
- The monitor form is indicated below.
- (Example) When the data registers (D0 and later) are displayed as 16 bit integers in decimal

| Device | +F | E | D | C | +B | A | 9 | 8 | +7 | 6 | 5 | 4 | +3 | 2 | 1 | 0 | Value |
|--------|----|---|---|---|----|---|---|---|----|---|---|---|----|---|---|---|--------|
| D0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 16961 |
| D1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 17475 |
| D2 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 17989 |
| D3 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 12849 |
| D4 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 13363 |
| D5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D10 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | -16334 |

1)
2)
3)

- 1) The devices are displayed.
- 2) The bit ON/OFF statuses are displayed. (1: ON, 0: OFF)
- 3) The values stored in the word devices are displayed.
(DEC/HEX display)

(2) Device test

Executing device test turns the bit device of the programmable controller CPU on/off forcibly or changes the current value of the word device.

Only users with the device write authority are allowed to conduct this test.

Refer to Section 4.6.5 for the user authority.

[Setting screen]

(When Data type is 16 bit integer/32 bit integer)

The 'Device test' dialog box shows the following fields: CPU name: 01: Control CPU, Device: D0, Data type: 16bit integer, Input form: DEC, and Setting value: 100. There are 'Set' and 'Cancel' buttons. A warning message 'Warning: Applet Window' is displayed at the bottom.

(When Data type is Bit)

The 'Device test' dialog box shows the following fields: CPU name: 01: Control CPU, Device: M0, Data type: Bit, Input form: DEC, and Setting value: ON (selected) and OFF. There are 'Set' and 'Cancel' buttons. A warning message 'Warning: Applet Window' is displayed at the bottom.

[Setting Item]

| Item | Description |
|---------------|--|
| CPU name | Displays the CPU name on which the device test will be performed. |
| Device | Specifies the device type and actual device number. |
| Data type | Selects the data type of the value to be set. |
| Input form | Selects the input form when the data type is 16 bit integer or 32 bit integer. |
| Setting value | Sets the setting value. |
| <u>Set</u> | Executes the device test. |
| <u>Cancel</u> | Cancels the setting and returns to the Device monitor screen. |

(a) CPU name

The CPU name on which the device test will be performed is displayed.

(b) Device

- 1) Specify the device type and actual device number.
- 2) Device specification by qualification (indexing, digit specification, bit specification for word device) is not available.

(c) Data type

Select the data type of the value to be set.

Bit : Set in bit unit. (Enabled when bit device is used)

16 bit integer : Set as a 16 bit integer. (Enabled when word device is used)

32 bit integer : Set as a 32 bit (double word) integer. (Enabled when word device is used)

(d) Input form

Select the input form when the data type is a 16 bit integer or 32 bit integer.

DEC: Set in decimal.

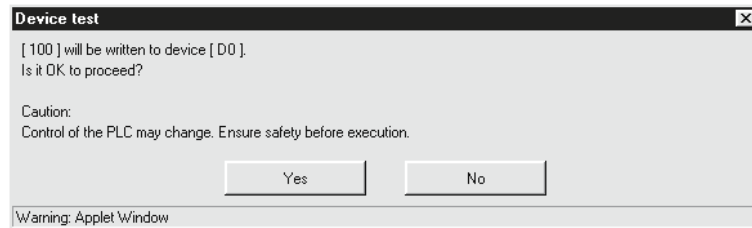
HEX: Set in hexadecimal.

(e) Setting value

- 1) When setting the data type as a 16 bit integer or 32 bit integer, set a new value in accordance with the DEC/HEX input form.
- 2) When setting the data type in bit, set ON/OFF.

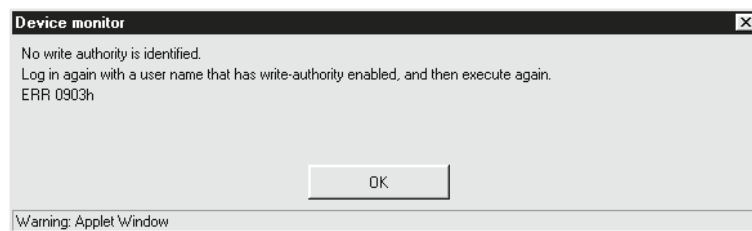
POINT

- (1) The device test may affect the control of the programmable controller. Ensure safety before execution.



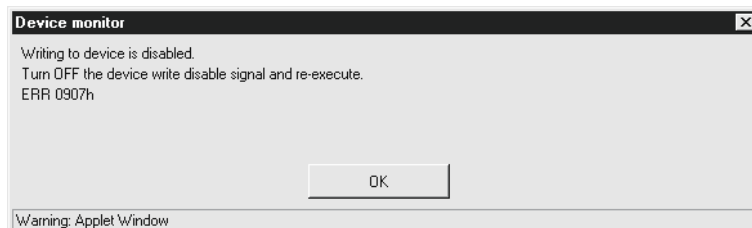
- (2) A user without the device write authority is not allowed to conduct the device test.

When the device test is attempted, the following screen appears.



- (3) When Device write disable request (YA) has been set to "Disable", the device test is not available.

When the device test is attempted, the following screen appears.



6.2.2 Tag data monitor

[Setting Purpose]

This monitoring function is used to monitor the tag data, which have been collected by the Web server module with the tag function, in tag unit.

Refer to Section 6.3 for the tag function.

By conducting a tag component test, users with the tag component write authority can write tag data in the component unit.

[Start Procedure]

[Monitor screen] → "Tag data monitor" (refer to (1)) → **Tag component test** → "Tag component test" (refer to (2))

(1) Tag data monitor

[Setting screen]

| Component name | Value |
|----------------------|-------|
| 01: pres. production | 550 |
| 02: target/day | 1000 |
| 03: temperature | 25.5 |
| 04: pressure | 107 |
| | |
| | |

[Setting Item]

| Item | Description |
|---------------------------|---|
| Tag name | Selects the tag name to perform tag data monitor. |
| Start monitor | Starts tag data monitor. |
| Stop monitor | Stops tag data monitor. |
| Tag component test | Performs a tag component test. |

- (a) Tag name
- 1) Set the tag data to perform tag data monitor.
 - 2) Select the tag name set in the tag setting.
(Refer to Section 6.3.3 for the tag setting.)
 - 3) The Tag name drop-down list displays the setting No. and tag names of the tag setting.

- (b) Monitor form

The monitor form is indicated below.

| Component name | Value |
|---------------------|-------|
| 01: pres.production | 550 |
| 02: target/day | 1000 |
| 03: temperature | 25.5 |
| 04: pressure | 107 |
| | |
| | |

1)
2)

- 1) Components set in the tag are displayed.
- 2) The values stored for the components are displayed.
 - The values stored for the components are displayed in the display form set in "Component setting" of the tag setting.
 - "ERR****h" is displayed when an error has occurred in the collection of the component. (**** indicates the error code.)
 - "NO DATA" is displayed when no component has been collected.

(2) Tag component test

Executing the tag component test changes the current value of the tag data.

Only a user with the tag component write authority is allowed to conduct this test.

Refer to Section 4.6.5 for the user authority.

[Setting screen]

[Setting Item]

| Item | Description |
|----------------|---|
| Tag name | Displays the tag name to perform the tag component test. |
| Component name | Selects a component name to be tested. |
| Data type | Displays the data type of the selected component. |
| Setting value | Sets the setting value. |
| Set | Executes the tag component test. |
| Cancel | Cancels the setting and returns to the Tag data monitor screen. |

(a) Tag name

The tag name to perform the tag component test is displayed.

(b) Component name

- 1) Select the component name set in "Component setting" of the tag setting.
(Refer to Section 6.3.3 for "Component setting" of the tag setting.)
- 2) The Component name drop-down list displays the setting No. and component names of the Component setting.

(c) Data type

The data type of the selected component is displayed.

(d) Setting value

Set the setting value according to the data type of the selected component.

- 1) When the data type is single word, double word or real number, set a new value in decimal. (*1) (*2)
- 2) When the data type is Bit, set ON/OFF.
- 3) When the data type is String, set a character string.

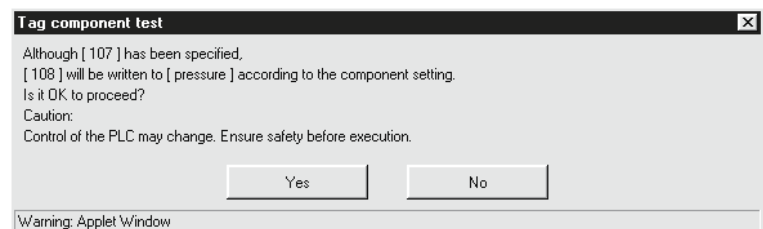
*1 When operation specification has been set to the target component, carry out an inverse operation to operation specification for the setting value and write the result to the device.

(Example) When "100" is set as the setting value for the component in which "Single word" has been set as Data type and "×2" as Operation specification, "100 / 2 = 50" is actually written to the device.

Note that, an error may be produced between the setting value and the actually written component value.

(Example) When "107" is set as the setting value for a component in which "Single word" has been set as Data type and "×2" as Operation specification, "107 / 2 = 54" is actually written to the device.

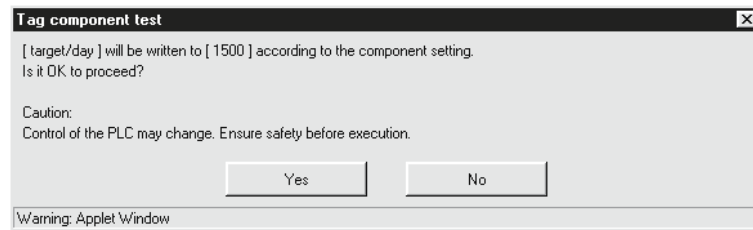
The component value to be displayed on the Tag data monitor is "54 × 2 = 108".



*2 When a real number is written to the target component, a rounding error may be produced.

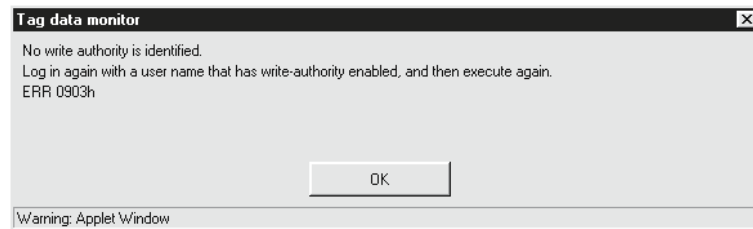
POINT

- (1) The tag component test may affect the control of the programmable controller. Ensure safety before execution.



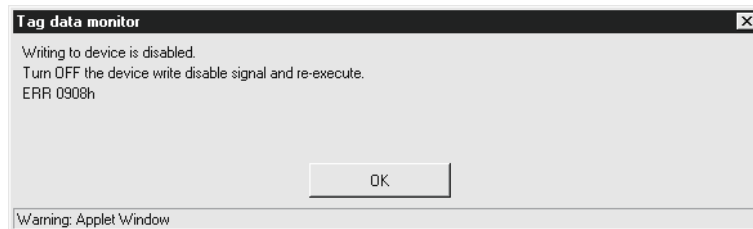
- (2) A user without the tag component write authority is not allowed to conduct the tag component test.

When the tag component test is attempted, the following screen appears.

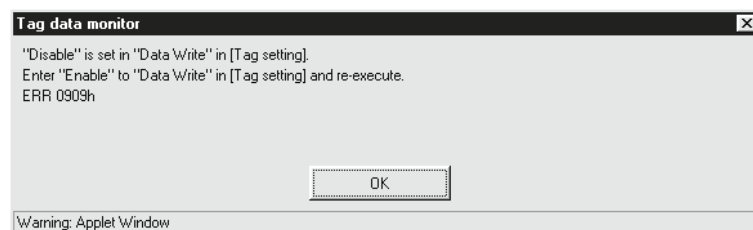


- (3) When Device write disable request (YA) has been set to "Disable", the tag component test is not available.

When the tag component test is attempted, the following screen appears.



- (4) When "Data write" of the tag setting has been set to "Disable", the tag component test is not available. (Refer to Section 6.3.3 for the tag setting.) When the tag component test is attempted, the following screen appears.



6.2.3 Logging monitor

[Setting Purpose]

This monitoring function displays the logging data that have been collected by the Web server module with the logging function.

Refer to Section 6.4 for the logging function.

The display form is selectable from List or Graph.

The contents of the logging file located under /ROM/WWW/LOGGING/ or /CF/LOGGING are displayed.

[Start Procedure]

[Monitor screen] → "Logging monitor" (list) → Select "Graph" as Display form. → "Logging data" (graph)

[Setting screen]

| Date | product A | product B | product C | product D |
|---------------------|-----------|-----------|-----------|-----------|
| 2003/10/08 20:04:02 | 0 | 0 | 0 | 0 |
| 2003/10/08 20:05:02 | 10 | 5 | 2 | 1 |
| 2003/10/08 20:06:02 | 20 | 10 | 4 | 2 |
| 2003/10/08 20:07:02 | 30 | 15 | 6 | 3 |
| 2003/10/08 20:08:02 | 40 | 20 | 8 | 4 |
| 2003/10/08 20:09:02 | 50 | 25 | 10 | 5 |
| 2003/10/08 20:10:02 | 60 | 30 | 12 | 6 |
| 2003/10/08 20:11:02 | 70 | 35 | 14 | 7 |
| 2003/10/08 20:12:02 | 80 | 40 | 16 | 8 |
| 2003/10/08 20:13:02 | 90 | 45 | 18 | 9 |
| 2003/10/08 20:14:02 | 100 | 50 | 20 | 10 |
| 2003/10/08 20:15:02 | 110 | 55 | 22 | 11 |
| 2003/10/08 20:16:02 | 120 | 60 | 24 | 12 |
| 2003/10/08 20:17:02 | 130 | 65 | 26 | 13 |
| 2003/10/08 20:18:02 | 140 | 70 | 28 | 14 |
| 2003/10/08 20:19:02 | 150 | 75 | 30 | 15 |

[Setting Item]

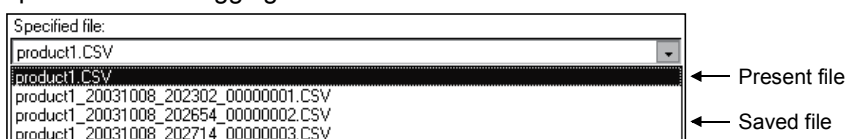
| Item | Description |
|----------------|--|
| Logging name | Selects the logging name to perform the logging monitor. |
| Specified file | Selects the logging data file to perform the logging monitor. |
| Display form | Selects List or Graph. |
| Load | Loads logging data. |
| Open file | Saves the logging file to the personal computer. (File download) |

(1) Logging name

- (a) Set the logging data to perform the logging monitor.
- (b) Select the tag name set in the logging setting.
(Refer to Section 6.4.4 for the logging setting.)
- (c) The Logging name drop-down list displays the setting No. and tag names of the logging setting.

(2) Specified file

- (a) Set the logging data file to perform the logging monitor.
- (b) Select the file from the current file and saved files of the logging data specified as the logging name.



(3) Display form

Select the display form of the logging monitor.

List : Logging data are displayed in list form.

Graph : Logging data are displayed in graph form.

(4) List

Logging data are displayed in list form.

| Date | product A | product B | product C | product D |
|---------------------|-----------|-----------|-----------|-----------|
| 2003/10/08 20:04:02 | 0 | 0 | 0 | 0 |
| 2003/10/08 20:05:02 | 10 | 5 | 2 | 1 |
| 2003/10/08 20:06:02 | 20 | 10 | 4 | 2 |
| 2003/10/08 20:07:02 | 30 | 15 | 6 | 3 |
| 2003/10/08 20:08:02 | 40 | 20 | 8 | 4 |
| 2003/10/08 20:09:02 | 50 | 25 | 10 | 5 |
| 2003/10/08 20:10:02 | 60 | 30 | 12 | 6 |
| 2003/10/08 20:11:02 | 70 | 35 | 14 | 7 |
| 2003/10/08 20:12:02 | 80 | 40 | 16 | 8 |
| 2003/10/08 20:13:02 | 90 | 45 | 18 | 9 |
| 2003/10/08 20:14:02 | 100 | 50 | 20 | 10 |
| 2003/10/08 20:15:02 | 110 | 55 | 22 | 11 |
| 2003/10/08 20:16:02 | 120 | 60 | 24 | 12 |
| 2003/10/08 20:17:02 | 130 | 65 | 26 | 13 |
| 2003/10/08 20:18:02 | 140 | 70 | 28 | 14 |
| 2003/10/08 20:19:02 | 150 | 75 | 30 | 15 |

(a) Data

The logging dates and times are displayed.

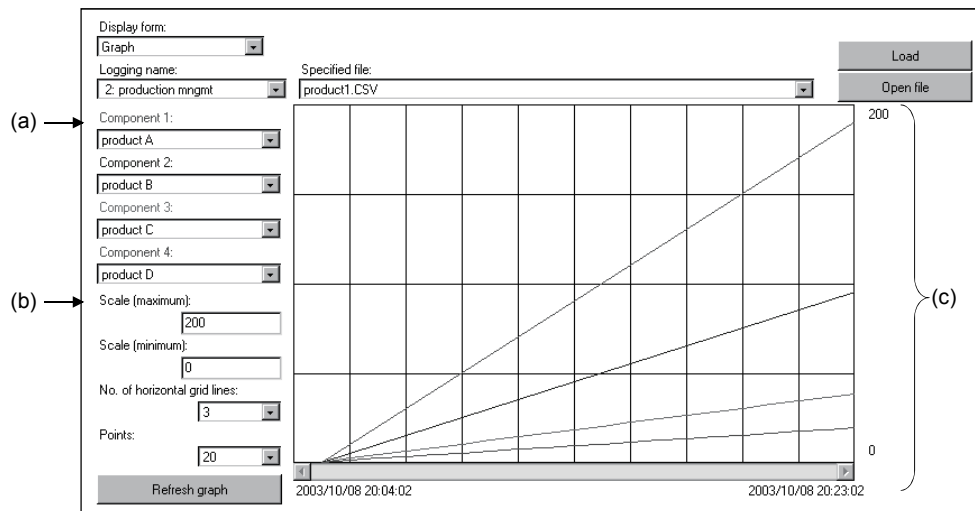
(Example) 2002/08/08 08:58:17

- (b) Select the component to perform the logging monitor. (Up to four components can be selected.)

- (c) The values stored in the components are displayed.

(5) Graph

Logging data are displayed in graph form.



- (a) Specify the component to be monitored. (Up to four components can be specified.) (*1)
- (b) Specify the maximum and minimum values and No. of horizontal grid lines in the graph. (*1)

- 1) Specify the maximum value of the graph.
(Can be entered as a decimal integer or real number form (decimal/exponential form).)
 - 2) Specify the minimum value of the graph.
(Can be entered as a decimal integer or real number form (decimal/exponential form).)
 - 3) Specify the No. of horizontal grid lines in the graph. (Setting range: 0 to 9)
 - 4) Specify the point number of the displayed logging data.
(Setting range: 10, 20, 50, 100, 200, 500, 1000, 2000, 5000, 10000)
 - 5) The graph is refreshed in accordance with the settings of 1) to 4).
- (c) The stored values for the components at the time of logging are displayed.
- 1) Horizontal axis: Logging date and time (example) 2002/08/05 08:58:17
At the left end, the date and time of the oldest data in the graph display range is displayed.
At the right end, the date and time of the latest data in the graph display range is displayed.
 - Vertical axis : Value stored in the component
As the maximum value, the value set in Scale (maximum) is displayed.
As the minimum value, the value set in Scale (minimum) is displayed.
 - 2) The graph lines are displayed in different colors by component.

*1 The specified values are discarded when the logging name is reselected or the logging monitor screen is redisplayed.

6.2.4 Event history monitor

[Setting Purpose]

This monitoring function displays the history of the events occurred in the Web server module and saved with the event monitor function.
Refer to Section 6.5 for the event function.

[Start Procedure]

[Monitor screen] → "Event history monitor" (CPU event) → 1)

1) → Select "Tag event" as Event type. → "Event history monitor (Tag monitor)"

1) → Select "Time/Interval event" as Event type. → "Event history monitor (Time/Interval event)"

[Setting screen]

| Date | Event number | Status | Tag name | Component name | Condition | Trigger value | Component value | E-mail sending |
|---------------------|--------------|------------|----------------------|----------------|-----------|---------------|-----------------|----------------|
| 2002/11/28 20:30:52 | 1 | Occurrence | 02: production mngmt | 01: product A | = | 100 | 100 | None |
| 2002/11/28 20:31:34 | 1 | Occurrence | 02: production mngmt | 01: product A | = | 100 | 100 | None |
| 2002/11/28 20:32:16 | 1 | Occurrence | 02: production mngmt | 01: product A | = | 100 | 100 | None |
| 2002/11/28 20:32:16 | 2 | Occurrence | 02: production mngmt | 02: product B | >= | 50 | 150 | None |
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[Setting Item]

| Item | Description |
|------------|---------------------------|
| Event type | Selects the event type. |
| Load | Loads event history data. |

(1) Event type

Select the event type to be monitored.

- CPU event (Refer to (2))
- Tag event (Refer to (3))
- Time/Interval event (Refer to (4))

(2) CPU event

The CPU event history is monitored.

The contents of /ROM/WWW/EVENT/CPUWATCH.CSV are displayed.

[illegible]

(a) Date

The date and time when the event occurred/was restored is displayed.
(Example) 2002/08/05 08:58:17

(b) Event number

- 1) The event number of the event occurrence/restoration is displayed.
- 2) The event number is the No. set in "CPU event setting" of the event setting.

(c) Status

The occurrence/restoration of the event is displayed.

(d) CPU name

- 1) The name of the CPU where the event occurred/was restored is displayed.
- 2) The setting No. and CPU names set in the access target CPU setting are displayed in the CPU name column.

(e) Operation status

The operation status of the programmable controller CPU in which the event occurred/was restored is displayed.

| Item | Description |
|-------------------|---|
| Normal STOP | The programmable controller CPU is stopped with no error. |
| Normal RUN | The programmable controller CPU is running with no error. |
| PAUSE | The programmable controller CPU is pausing. |
| Warning STOP (*1) | The programmable controller CPU is stopped with a continue error. |
| Warning RUN | The programmable controller CPU is running with a continue error. |
| System error | The programmable controller CPU is in a stop error status or cannot communicate with the target programmable controller CPU (e.g. network error). |

*1 In the QCPU (Q mode) function version A, QCPU (A mode), QnACPU and ACPUC, a warning STOP does not occur when the programmable controller CPU is stopped with a continue error. (A system error occurs.)

(f) E-mail sending

The e-mail transmission status due to event occurrence is displayed.

| Item | Description |
|---|--|
| None | E-mail transmission has not set for the event that occurred. |
| Sending | E-mail is being sent according to the setting for the event that occurred. |
| Complete | E-mail was sent according to the setting for the event that occurred. |
| ERR****h (*indicates the error code) | Since an error occurred, e-mail transmission failed. |

(3) Tag event

The tag event history is monitored.

The contents of /ROM/WWW/EVENT/TAGWATCH.CSV are displayed.

[illegible]

(a) Date

The date and time when the event occurred/was restored is displayed.
(Example) 2002/08/05 08:58:17

- (b) Event number
 - 1) The event number of the event occurrence/restoration is displayed.
 - 2) The event number is the No. set in "Tag event setting" of the event setting.
- (c) Status

The occurrence/restoration of the event is displayed.
- (d) Tag name
 - 1) The name of the tag in which the event occurred/was restored is displayed.
 - 2) The setting No. and tag names set in the tag setting are displayed in the tag name column.
- (e) Component name
 - 1) The name of the component in which the event occurred/was restored is displayed.
 - 2) The setting No. and component names of "Component setting" in the tag setting are displayed in the component name column.
- (f) Condition

The monitor condition for the event occurrence/restoration is displayed.
=, <>, >=, >, <, <=
- (g) Trigger value

The trigger value for the event occurrence/restoration is displayed.
- (h) Component value

The component value at the time of the event occurrence/restoration is displayed.
- (i) E-mail sending

The e-mail transmission status due to event occurrence is displayed.

| Item | Description |
|--|--|
| None | E-mail transmission has not set for the event that occurred. |
| Sending | E-mail is being sent according to the setting for the event that occurred. |
| Complete | E-mail was sent according to the setting for the event that occurred. |
| ERR****h (* indicates the error code) | Since an error occurred, e-mail transmission failed. |

(4) Time/Interval event

The time/interval event history is monitored.

The contents of /ROM/WWW/EVENT/TIMWATCH.CSV are displayed.

Event type:
Time/Interval event

Load

(a) (b) (c)

| Date | Event number | E-mail sending |
|---------------------|--------------|----------------|
| 2002/11/13 18:05:47 | 1 | None |
| 2002/11/13 18:06:47 | 1 | None |
| 2002/11/13 18:07:47 | 1 | None |
| 2002/11/13 18:08:47 | 1 | None |
| 2002/11/13 18:09:47 | 1 | None |
| 2002/11/13 18:10:47 | 1 | None |
| 2002/11/13 18:11:47 | 1 | None |
| 2002/11/13 18:12:47 | 1 | None |
| | | |
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| | | |

(a) Date

The date and time when the event occurred is displayed.

(Example) 2002/08/05 08:58:17

(b) Event number

1) The event number of the event occurrence is displayed.

2) The event number is the No. set in "CPU event setting" of the event setting.

(c) E-mail sending

The e-mail transmission status due to event occurrence is displayed.

| Item | Description |
|--|--|
| None | E-mail transmission has not set for the event that occurred. |
| Sending | E-mail is being sent according to the setting for the event that occurred. |
| Complete | E-mail was sent according to the setting for the event that occurred. |
| ERR****h (* indicates the error code) | Since an error occurred, e-mail transmission failed. |

6.2.5 PLC diagnostics monitor

[Setting Purpose]

This monitoring function is used to monitor the operating status/error information of the programmable controller CPU.

[Start Procedure]

[Monitor screen] → "PLC diagnostics monitor"

[Setting screen]

[Setting Item]

| Item | Description |
|------------------|---|
| CPU name | Selects the access target CPU. |
| Operation status | Displays the operation status and switch status of the programmable controller CPU. |
| Error status | Displays the current error status. |
| Error history | Displays the error history. |
| Start monitor | Starts PLC diagnostics monitor. |
| Stop monitor | Stops PLC diagnostics monitor. |
| Details | Displays the details of an error. |

POINT

For the error definition/corrective action of the error code, refer to the User's Manual (Hardware Design, Maintenance and Inspection) of the CPU module or Help of GX Developer.

(1) CPU name

- (a) Set the access target CPU.
- (b) Select the CPU name set in the access target CPU setting.
(Refer to Section 4.6.7 for the access target CPU setting.)
- (c) The CPU name drop-down list displays the setting No. and CPU names of the access target CPU setting.
(Example) 01: Control CPU
- (d) By default, the host CPU of the Web server module is set as the access target CPU setting No. 1.

(2) Operation status

The operation status and switch information of the programmable controller CPU are displayed.

(3) Error status

The current error status and the time of error occurrence are displayed.

(4) Error history

The history of up to 16 errors is displayed.

(5) Details

The details (error code No., error message, etc.) of the error are displayed.

The screenshot shows a window titled "Error information Details" with a close button in the top right corner. The window contains the following fields and values:

| | |
|-------------------------------|-----------------|
| No.: | 3103 |
| Error message: | LINK PARA ERROR |
| Date: | 2002-11-12 |
| Time: | 13:40:28 |
| Common error information: | |
| Drive | Program memory |
| File name | PARAM .QPA |
| Individual error information: | |
| Nothing | |

At the bottom of the window is a "Close" button. Below the window frame, a warning message reads: "Warning: Applet Window".

6.2.6 Self-diagnostics monitor

[Setting Purpose]

Self-diagnostics monitor monitors the LED status and error status of the Web server module.

[Start Procedure]

[Monitor screen] → "Self-diagnostics monitor"

[Setting Screen]

[Self-diagnostics monitor] | Home > Monitor screen > Self-diagnostics monitor

LED status: RUN ☐

ERROR ☐

Error status:

| No. | Present error | Date | Time |
|------|---|------------|----------|
| 0615 | Excessive number of saved logging files error | 2003-10-09 | 20:40:10 |

Error history:

| No. | Error message | Date | Time |
|------|---|------------|----------|
| 081A | E-mail sending not possible | 2003-10-09 | 20:37:14 |
| 0615 | Excessive number of saved logging files error | 2003-10-09 | 20:39:34 |
| | | | |
| | | | |
| | | | |
| | | | |

[Setting Item]

| Item | Description |
|--|---|
| LED status | Displays the LED status of the Web server module. |
| Error status | Displays the latest error code. |
| <input type="button" value="Clear error status"/> | Turns off the ERR. LED and clears the error status. |
| Error history | Displays a history of errors. |
| <input type="button" value="Clear error history"/> | Clears the error history. |
| <input type="button" value="Start monitor"/> | Starts self-diagnostics monitor. |
| <input type="button" value="Stop monitor"/> | Stops self-diagnostics monitor. |

(1) LED status

- The LED status (RUN LED, ERR. LED) of the Web server module is displayed.
Refer to Section 4.3 (1) for the LED indications.

(2) Error status

- The status of the current error area (address: 140 to 145) of the buffer memory is displayed.
Refer to Section 9.3 for the error code.

(3) [Clear error status] button

- Turns off the ERR. LED, X10 to X19, and X1C.
- Clears the current error area (address: 140 to 145) of the buffer memory.
- Clears "Present Error" displayed in the system monitor of GX Developer. (Refer to Section 9.2.2.)
- A module stop error (ERR. LED flicker) cannot be cleared.

(4) Error history

- The status of the error log area (address: 150 to 247) of the buffer memory is displayed.
Refer to Section 9.3 for the error code.

(5) [Clear error history] button

- Clears the error log area (address: 150 to 247) of the buffer memory.
- Clears "Error Display" displayed in the system monitor of GX Developer. (Refer to Section 9.2.2.)
- A module stop error (ERR. LED flicker) cannot be cleared.

6.2.7 Precautions for using monitor function

This section explains the precautions for using the monitor function.

(1) Precautions for displaying the monitor screen

- (a) Since the monitor screens use the Java applet, Java VM is required for the Web browser to execute the applet.

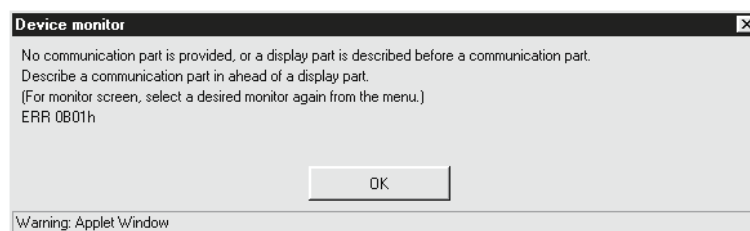
Refer to Section 3.1 **REMARKS** (2) and (3) for how to download Java VM.

- (b) Start of each monitor screen may take a little while.

When displaying a monitor screen on the Web browser, do not switch the monitor screen to another until it is displayed completely.

Failure to observe this instruction may cause an error (error code: B01H), and the following screen appears.

To display the monitor screen, select the monitor screen from the monitor screen menu again.



- (c) If communication is interrupted due to some reason while monitoring the system from a monitor screen, or if monitoring is executed before connecting the Web server module to the network, the monitor screen may not be correctly displayed on the Web browser even after restoration or restart of communications.

To display the monitor screen, select the relevant screen from the monitor screen menu again or restart the Web browser to execute the monitoring.

- (d) Temporary Internet files settings/delete

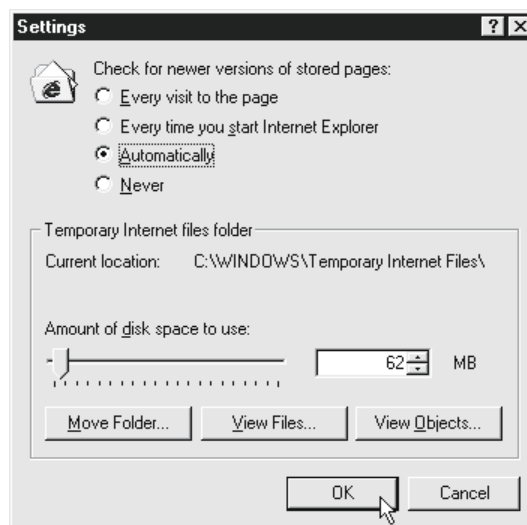
- 1) Select any other than "Never" for "Check for newer versions of stored pages" in temporary Internet files settings of the Web browser.

If "Never" is set, the old screen (the one saved in the temporary Internet files) is displayed unchanged when the file is read from the Edit screen, etc.

(Example) In the case of Microsoft® Windows® 98 operating system or Microsoft® Corporation's Internet Explorer 5.5

[Tools] → [Internet Options] → <General> tab →

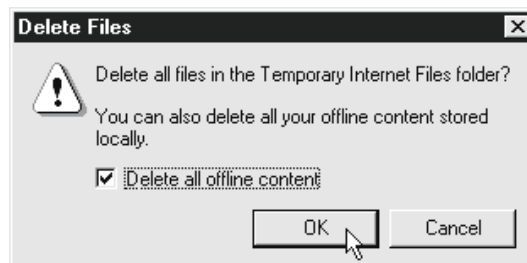
Temporary Internet Files Settings... → "Settings" Screen



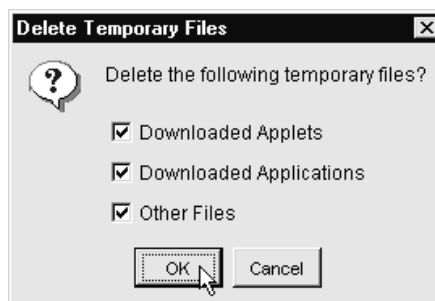
- 2) The old screen (the one saved in the temporary Internet files) may be displayed unchanged if the file is read from the User HTML, Edit screen, etc.

In that case, delete the temporary Internet files (cache) of the Web browser and read the file again.

(Example) In the case of Microsoft® Windows® 98 operating system or Microsoft® Corporation's Internet Explorer 5.5
 [Tools] → [Internet Options] → <General> tab →
 Temporary Internet Files Delete Files... → "Delete Files" Screen



(Example) When using Java VM of Sun Microsystems Inc. for <applet>
 [Control Panel] → [Java] → <General> tab →
 Delete Files → "Delete Temporary Files" Screen



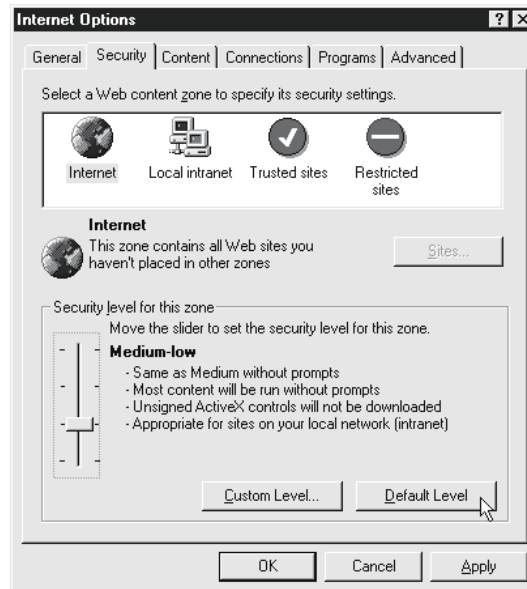
POINT

To shorten the page display time, the Web browser saves one-displayed pages in a special folder (temporary Internet files).

(e) Security level setting

In the security level setting of the Web browser, set the security level of the Internet and Intranet zones to "Default Level".

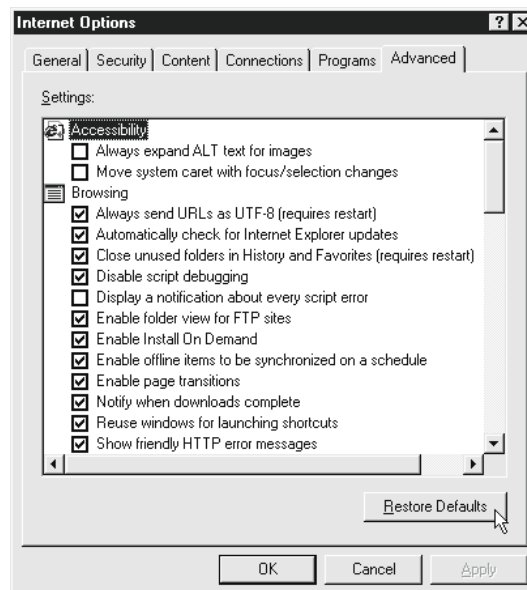
(Example) In the case of Microsoft® Windows® 98 operating system or Microsoft® Corporation's Internet Explorer 5.5
[Tools] → [Internet Options] → <Security> tab



(f) Detailed setting

In the advanced settings of the Web browser, set to "Restore Defaults".

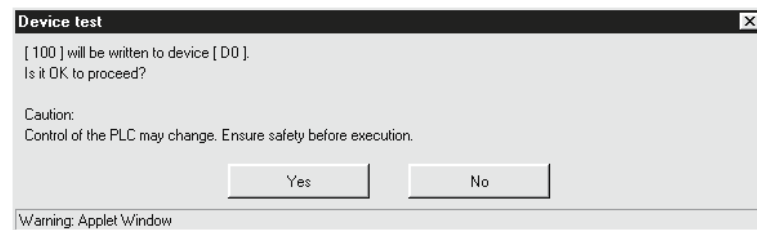
(Example) In the case of Microsoft® Windows® 98 operating system or Microsoft® Corporation's Internet Explorer 5.5
[Tools] → [Internet Options] → <Advanced> tab



(2) Precautions for executing the device test/tag component test

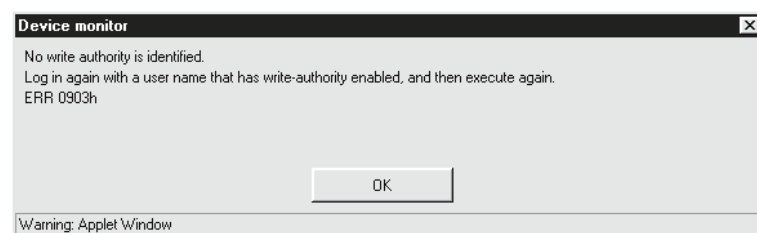
- (a) The device test/tag component test may affect the control of the programmable controller CPU.
Ensure safety before execution.

(Example) When the device test is executed



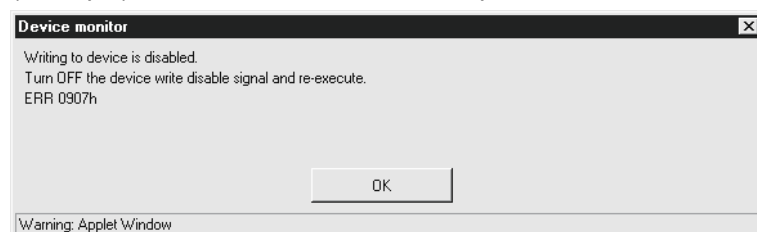
- (b) A user without device write/tag component write authority is not allowed to conduct the device test/tag component test.
When the device test/tag component test is attempted, the following screen appears.

(Example) When the device test is attempted

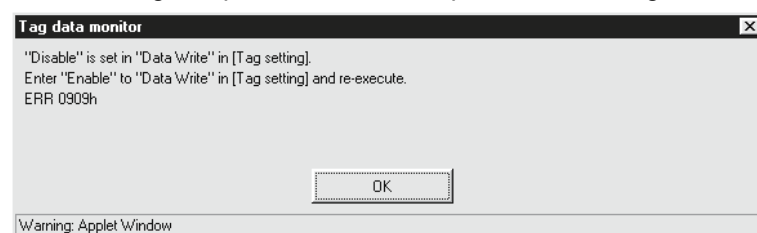


- (c) When Device write disable request (YA) has been set to "Disable", the device test/tag component test is not available.
When the device test/tag component test is attempted, the following screen appears.

(Example) When the device test is attempted



- (d) When "Data write" of the tag setting has been set to "Disable", the tag component test is not available. (Refer to Section 6.3.3 for the tag setting.)
When the tag component test is attempted, the following screen appears.



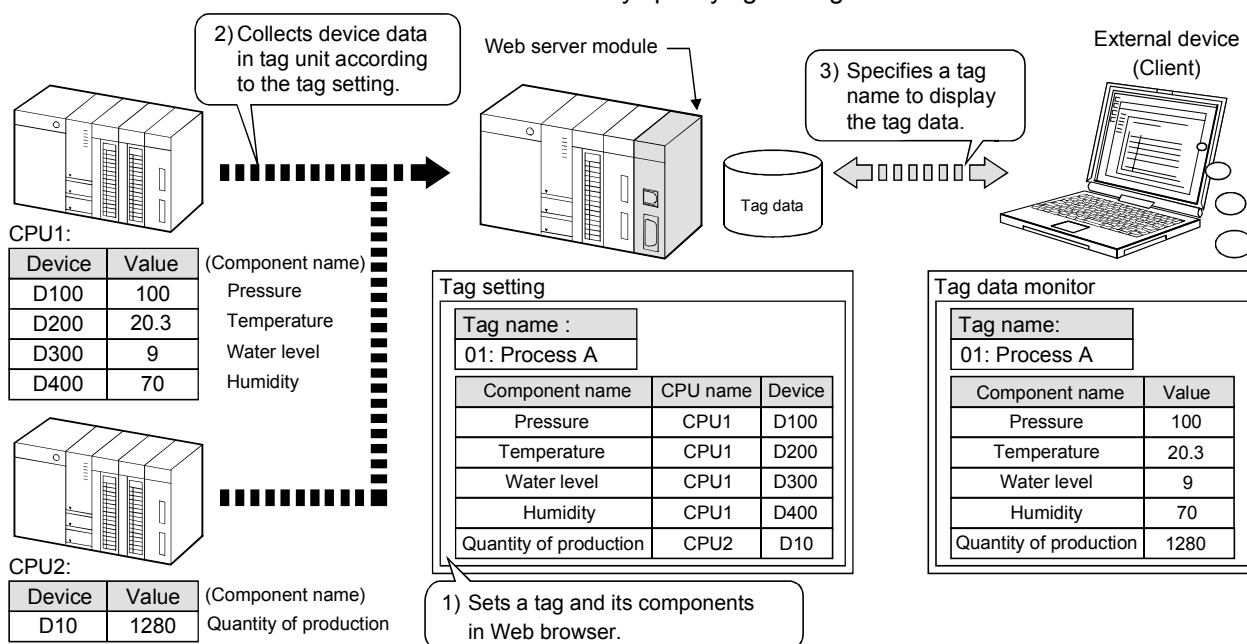
6.3 Tag Function

6.3.1 Tag function

The tag function is designed to store a set device data of individual programmable controller CPUs on the network as a tag, and collect those device data in tag unit.

(1) Tag

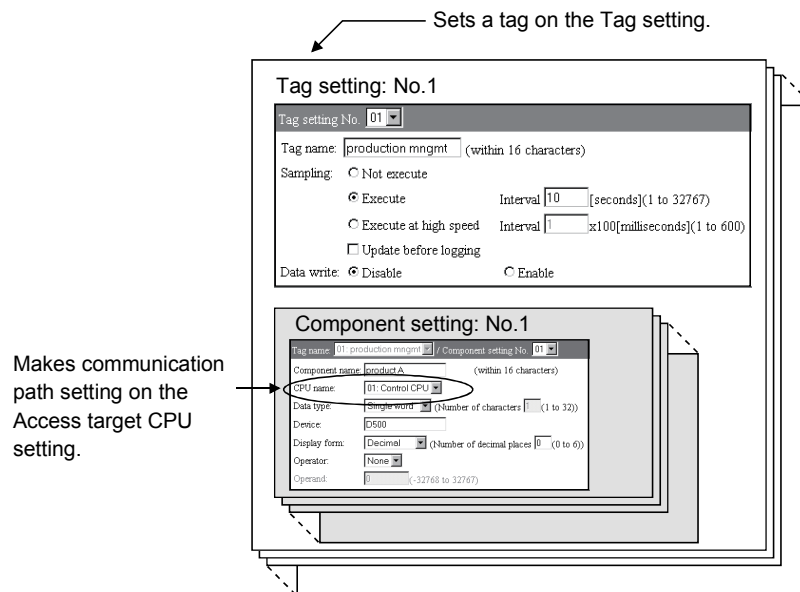
- (a) A tag is a data table contains a set of data (components) required to access the device data of the programmable controller CPUs on the network.
- (b) For component, set the communication path, data type, device, etc. required to access the device data of individual programmable controller CPUs.
- (c) The Web server module collects device data in tag unit at an interval defined in the tag.
- (d) The tag data collected by the Web server module can be monitored from the Web browser by specifying the tag name.



(2) Tag setting

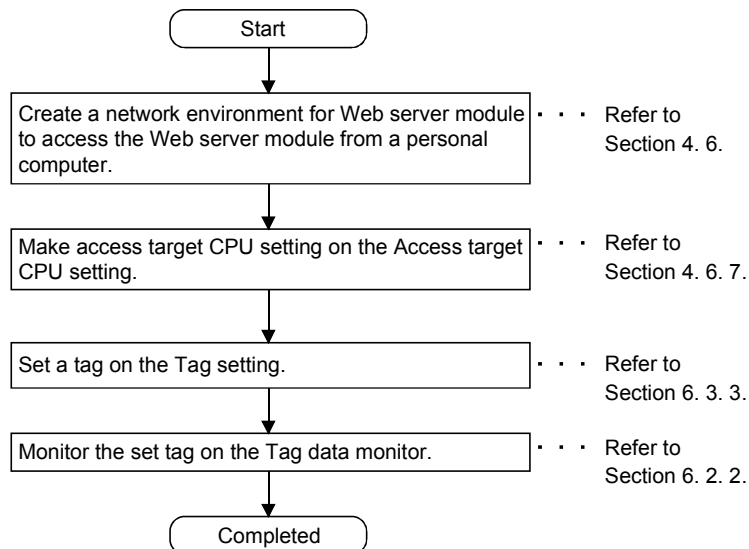
- (a) Set a tag in the tag setting of the Administrative menu. (Refer to Section 6.3.3)
- (b) Up to 64 tags can be registered.
- (c) Up to 64 components can be registered for each tag.
- (d) Set the communication path to access the programmable controller CPU in the access target CPU setting. (Refer to Section 4.6.7 for the access target CPU setting.)

When setting the component, specify the communication path (CPU name) set in the access target CPU setting.



6.3.2 Setting procedure for tag function

The setting procedure for using the tag function is given below.



6.3.3 Tag setting

[Setting Purpose]

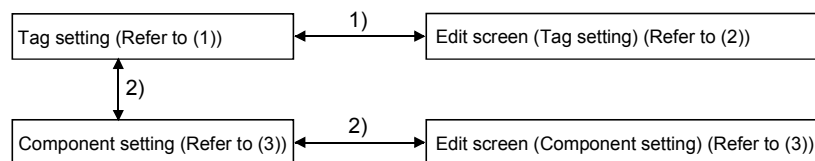
- 1) In the tag setting, set a tag.

On the Edit screen (Tag setting), set the tag name, tag collecting interval, etc.

- 2) In the component setting, set components for each tag.

On the Edit screen (Component setting), set the access target CPU, data type, device, etc.

[Start Procedure]



- 1) Tag setting

[Administrative menu] → "Tag setting" → Select Tag setting No. and click on **Edit** → "Edit screen" (Tag setting)

- 2) Component setting

[Administrative menu] → "Tag setting" → Select Tag setting No. and click on **Component setting** → "Component setting" → Click on **Add**/Select component setting No. and click on **Edit** → "Edit screen (Component setting)"

(1) Tag setting

Make tag setting.

Up to 64 tags can be set.

[Setting screen]

| Item No. | Tag name | Sampling Interval | Update before logging | Data write |
|----------|-----------------|-------------------|-----------------------|------------|
| 1 | line 1 | 10 [seconds] | Not execute | Disable |
| 2 | production mgmt | 10 [seconds] | Not execute | Disable |
| 3 | | | | |

[Setting Item]

| Item | Description |
|--------------------------|--|
| Item | Selects the tag No. that will be edited or deleted or whose component will be set. |
| Tag name | Displays tag names. |
| Sampling interval | Displays the collecting cycle of the tag data. |
| Update before logging | Displays Whether tag collecting is executed or not before logging. |
| Data write | Displays Whether data can be written to the tag or not. |
| Edit | Edits the selected tag. |
| Delete | Deletes the selected tag. |
| Component setting | Sets the component of the selected tag. (Refer to (3)) |

(2) Edit screen (Tag setting)

Set the tag name, tag collecting interval (Sampling), etc.

[Setting screen]

[Setting Item]

| Item | Description |
|---|--|
| Tag name | Sets the tag name. (within 16 characters) |
| Sampling | Sets the collecting interval of the tag data. |
| Data write | Sets whether data can be written to the tag or not. |
| <u>Save</u> | Saves the setting. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. |
| <u>Back</u> / <u>Cancel</u> | Discards the changed setting and returns to the Tag setting screen. |
| Select tag setting No. and click on <u>Load</u> | Loads the parameters of the No. selected in tag setting No. and displays them on the Edit screen. |

(a) Tag name (within 16 characters)

- 1) Set the tag name.
- 2) For tag data monitoring, logging setting, etc., specify the tag name set in this setting.
- 3) Refer to Appendix 4 (5) for the characters applicable to the tag name.

(b) Sampling

Select the tag collection method from among any of the following 1) to 3) and 4).

- 1) Not execute (*1)
 - Tag data are not collected.
 - Select this item when executing tag collection with the dedicated instruction TAG or when making setting only and not executing tag collection.
- 2) Execute (Sampling interval: 1 to 32767s) (*1)

Tag data are collected once when the Web server module is started or the setting is updated, and thereafter are collected at the specified interval.
- 3) Execute at high speed (Sampling interval: 1 to 600 x100ms)

Tag data are collected once when the Web server module is started or the setting is updated, and thereafter are collected at the specified interval.

- 4) Update before logging.
 - When this setting is valid, tag collection is executed before logging, regardless of the settings of the above 1) to 3).
 - Set this item when it is desired to execute tag collection in synchronization with logging.

*1 Regardless of this setting, tag collection is performed when the dedicated instruction TAG is executed.

| POINT | |
|-------|--|
| (1) | When "Execute at high speed" has been selected, be sure to create a user-setting system area in the program memory of the control CPU. In the case of a redundant system, create two user-setting system areas of the same volume for the redundant CPUs in both systems. (Refer to REMARKS in this section.) When the control CPU is the Universal model QCPU, creation of a user specified system area is not required. |
| (2) | "Execute at high speed" can be registered to only one tag. (Multiple setting not allowed) |
| (3) | The access target CPU of the tag component that selected "Execute at high speed" is the access target CPU setting No. 1 (control CPU). (Fixed) |
| (4) | The device of the tag component that selected "Execute at high speed" can be set within a total of 96 points. (Example) When the component data types are all set to "Double word (2 points)", up to 48 component settings can be registered. |
| (5) | If system switching occurs in the redundant CPUs, tag collection may stop for approx. 15 seconds. |

(c) Data write: Disable/Enable

- 1) Set whether data can be written to the tag or not.
Disable: Write to the tag data (device) is disabled.
Enable: Write to the tag data (device) is enabled.
- 2) When "Disable" is selected, the data cannot be written from "Tag component test" in the Tag data monitor or the user screen (write part).

| POINT | |
|-------|---|
| | After changing the settings, make sure to click on the "Save" button. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. |

(3) Component setting

Set components for each tag.

Up to 64 components can be registered for each tag.

Component setting is registered in order of serial numbers starting from the setting No. 1.

Component registration is not valid with any omitted setting.

[Setting screen]

The screenshot shows the 'Tag setting' screen with the breadcrumb 'Home > Administrative menu > Tag setting > Component setting'. It features buttons for 'Add', 'Edit', 'Delete', and 'Back'. The 'Tag name' is set to '02: production mngmt'. Below is a table with 9 columns: Item, No., Component name, CPU name, Data type, Device, Display form, Operator, and Operand. The table lists four components (1-4) and an empty row (5).

| Item | No. | Component name | CPU name | Data type | Device | Display form | Operator | Operand |
|-----------------------|-----|----------------|-----------------|-------------|--------|---------------------------|----------|---------|
| <input type="radio"/> | 1 | product A | 01: Control CPU | Single word | D500 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 2 | product B | 01: Control CPU | Single word | D501 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 3 | product C | 01: Control CPU | Single word | D502 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 4 | product D | 01: Control CPU | Single word | D503 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 5 | | | | | | | |

[Setting Item]

| Item | Description |
|----------------|--|
| Tag name | Displays the setting No. and name of the tag being edited. |
| Item | Selects the component No. that will be edited or deleted. |
| Component name | Displays the component name. |
| CPU name | Displays the access target CPU. |
| Data type | Displays the data type to be collected. |
| Device | Displays the device data to be collected. |
| Display form | Displays the display form of the real number. |
| Operator | Displays whether a mathematical operation is specified for the collected data or not, or the specified mathematical operation. |
| Operand | Displays the addend, subtrahend, multiplier or divisor of the mathematical operation. |
| Add | Adds an component. Clicking on the "Add" button displays the setting edit screen for new component (next No. after the last component). (In the case of the above screen, the edit screen for setting No. 5 is displayed.) |
| Edit | Edits the selected component. |
| Delete | Deletes the selected component. The settings of the components after the deleted setting No. are shifted up. (*) * When the component has been set with the user part of the user screen creation function, reexamine the parameters since the setting No. is changed. (Refer to Chapter 7 for the user part.) |

POINT

- (1) Before making component setting, it is required to make tag setting on the "Edit screen (Tag setting)".
- (2) If any component has a wrong device number in the component setting, the other component that has a device of the same access target CPU will also result in an error.
Reexamine the device numbers set in the component setting.

[Component setting]

| Component name | CPU name | Device |
|----------------|----------------|--------|
| A | 01:Control CPU | D20000 |
| B | 01:Control CPU | D0 |
| C | 05:QCPU001 | D100 |

← Wrong device number.

[Tag data monitor]

| Component name | Value |
|----------------|----------|
| 01:A | ERRFFFEh |
| 02:B | ERRFFFEh |
| 03:C | 100 |

← Device number error (FFFEh)
← As component "A" of the same access target has an error, component "B" also results in error.

- (4) Edit screen (Component setting)
Set the access target CPU, data type, access device, etc.

[Setting screen]

Home > Administrative menu > Tag setting > Edit screen(Component setting)

Save Back Load

Tag name: 02: production mngmt / Component setting No. 01

Component name: product A (within 16 characters)

CPU name: 01: Control CPU

Data type: Single word (Number of characters 1 (1 to 32))

Device: D500

Display form: Decimal (Number of decimal places 0 (0 to 6))

Operator: None

Operand: 0 (-32768 to 32767)

[Setting Item]

| Item | Description |
|--|---|
| Component name | Sets the component name. (within 16 characters) |
| CPU name | Sets the access target CPU name. |
| Data type | Sets the data type to be collected. |
| Device | Sets the device data. |
| Display form | Sets the display form of the real number. |
| Operator | Sets a mathematical operation to be performed for the collected data, or no mathematical operation to be performed. |
| Operand | Set the numeric value to be mathematically operated for the collected data. |
| Save | Saves the setting. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller powered off and then on, or the CPU module is reset. |
| Back / Cancel | Discards the changed setting and returns to the Tag setting screen. |
| Tag name | Displays the tag setting No. and tag name being edited. |
| Select component setting No. and click on Load | Loads the parameters of the No. selected in component setting No. and displays them on the Edit screen. Up to "setting number + 1" can be selected. |

- (a) Component name (within 16 characters)
 - 1) Set the component name.
 - 2) Refer to Appendix 4 (5) for the characters applicable to the component name.
- (b) CPU name
 - 1) Set the access target CPU.
 - 2) Selects the CPU name set in the access target CPU setting.
(Refer to Section 4.6.7 for the access target CPU setting.)
 - 3) The CPU name drop-down list displays the setting No. and CPU names of the access target CPU setting.
(Example) 01: Control CPU
 - 4) By default, the host CPU of the Web server module is set as the access target CPU setting No. 1.
 - 5) When "Sampling: Execute at high speed" is selected in the tag setting, the access target CPU setting No. 1 (control CPU) must be set. (Fixed)
- (c) Data type
 - 1) Select the data type of the collected data (device data).
 - Single word : Set for data of single word.
 - Double word : Set for data of double word.
 - Real number : Set for data of real number.
 - Bit : Set for bit data (Enabled for bit device)
 - String : Set for character string. (*)
 - 2) For a word device, Single word, Double word, Real number or String can be selected.
For a bit device, Bit can be selected.
 - 3) When "Bit" has been selected, data in 1-bit unit (0/1) is handled.
 - 4) When "String" has been selected, set the number of characters. (1 to 32 bytes)
 - * When the data type is "String", the device value is as described below.
 - When the device value is not ASCII code, it is replaced by a "."
(period: 2EH).
 - When the device value is a ",", (comma: 2CH), it is replaced by a "."
(period: 2EH). (To differentiate it from the delimiter of the CSV file)
 - When the device value is a termination character (NULL code: 00H), the subsequent character data are ignored. (The character string is regarded as completed.)
- (d) Device
 - 1) Specify the device type and actual device number.
 - 2) Device specification by qualification (indexing, digit specification, bit specification to word device) is not available.
 - 3) Refer to Appendix 2 for the accessible devices.
 - 4) When "Sampling: Execute at high speed" is selected in the tag setting, set the device within a total of 96 points.

- (e) Display form
 - 1) Set the display form of the real number.
Decimal/Exponential
 - 2) Set the number of decimal places. (0 to 6)
 - 3) Enabled when the data type is either of the following.
 - Real number type
 - Single word/Double word (After operation, a numeric value below decimal point may be produced.)
- (f) Operator
Set a mathematical operation to be performed for the collected data, or no mathematical operation to be performed.
(None, +, -, *, /)
- (g) Operand
Set the numeric value to be mathematically operated for the collected data.
(-38768 to 32767)

POINT

- (1) When collecting multiple device data of the same programmable controller CPU, registering them as the components of the same tag will make the collecting operation more efficient than registering them to different tags.
- (2) After changing the settings, make sure to click on the "Save" button.
The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset.

REMARKS

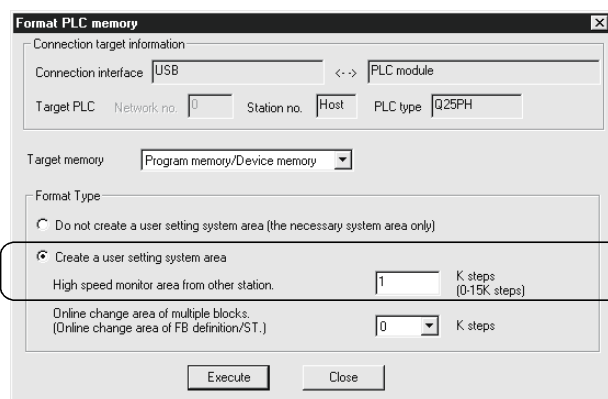
- (1) How to create user setting system area
The following provides how to create a user setting system area in the program memory of the control CPU.

[Start Procedure]

GX Developer → [Online] → "Format PLC memory"

[Operation Procedure]

- 1) Select "Create a user setting system area" as the Format Type on the Format PLC memory screen.
- 2) Secure 1K step of "High speed monitor area from other station" for each Web server module. (*1)
- 3) Format the PLC memory.



*1 The area size of 1K step is required per Web server module separately from the area used for GX Developer and/or GOT.

6.4 Logging Function

6.4.1 Logging function

The logging function stores tag data as a CSV format logging file into standard ROM or Compact Flash™ card in time series at the user-specified execution timing (by setting timing, start/stop condition).

| TIME | product A | product B | product C | product D |
|---------------------|-----------|-----------|-----------|-----------|
| 11/14/2002 16:18:51 | 100 | 695 | 278 | 139 |

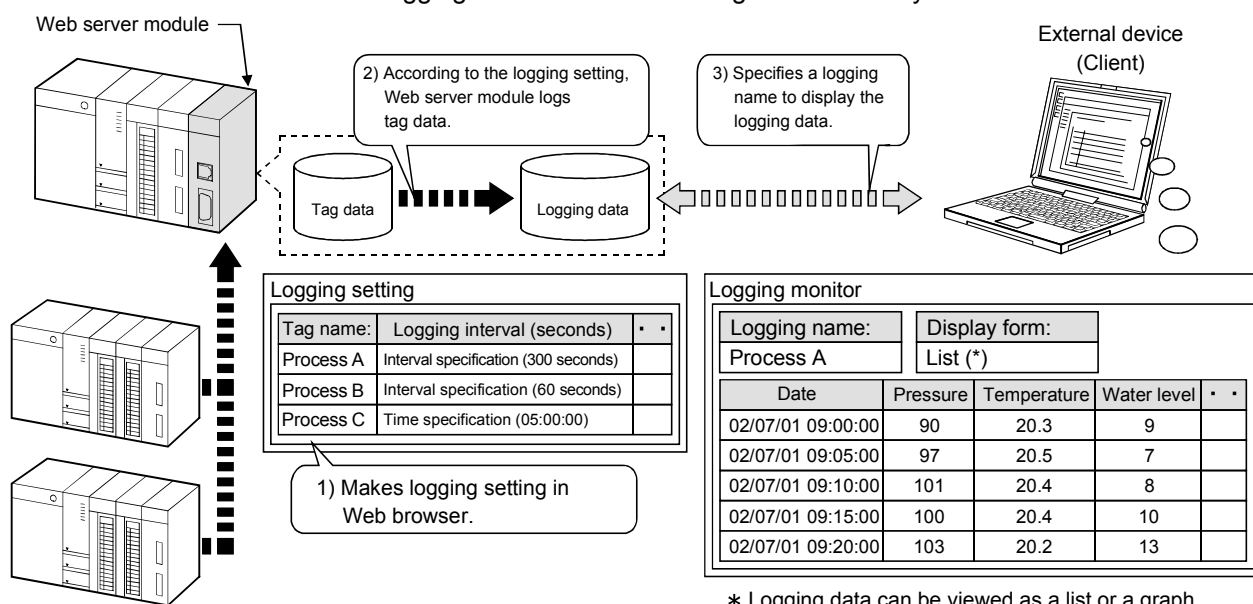
| TIME | product A | product B | product C | product D |
|---------------------|-----------|-----------|-----------|-----------|
| 11/14/2002 16:18:51 | 100 | 695 | 278 | 139 |
| 11/14/2002 16:19:51 | 100 | 700 | 280 | 140 |

Tag data will be logged.

(1) Logging file can be monitored/downloaded

The logging file can be monitored on the logging monitor screen.

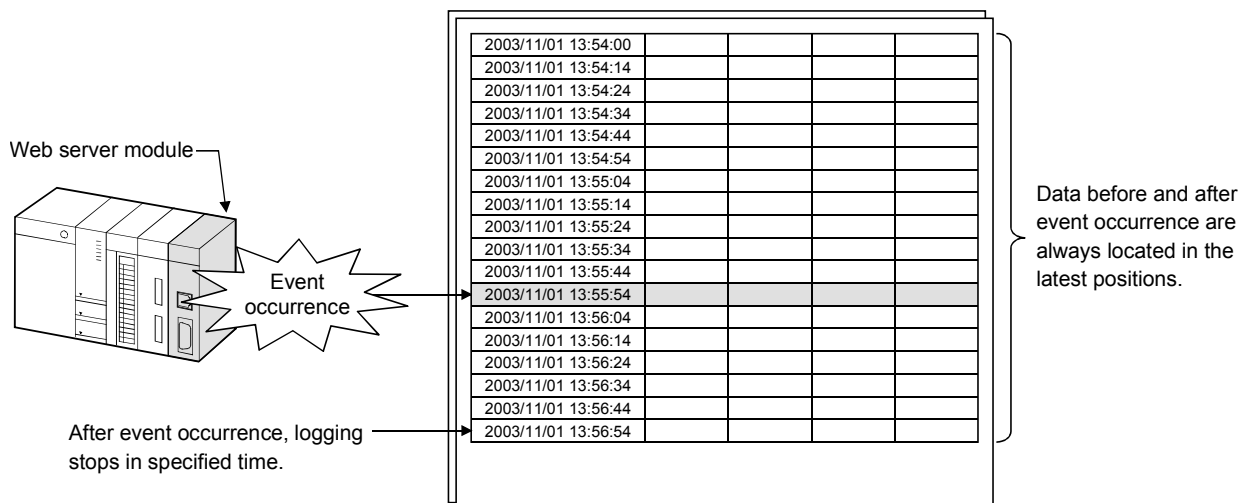
Also, the logging file can be sent to the external device by downloading it from the logging monitor screen or using E-mail delivery/file transfer.



(2) Logging data before and after event occurrence can be stored

By setting the occurrence of an event as the start/stop condition of logging, logging data before and after event occurrence can be stored.

This enables only necessary data to be stored without the logging data before and after event occurrence being buried in the file.

**POINT**

Since the tag data collected by the Web server module are logged, it is required to make tag setting in advance when using the logging function.

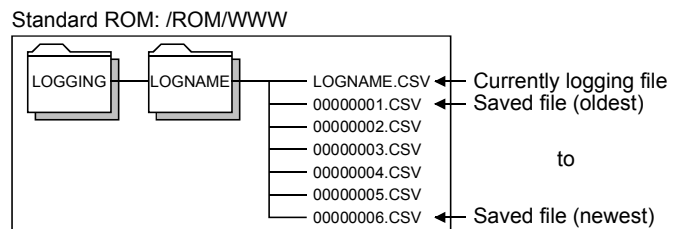
6.4.2 Logging file

This section explains logging files.

(1) Where logging files are saved

- (a) Logging files are stored into standard ROM or Compact Flash™ card.
- (b) When a logging file is created, the directory of the file name set at "File name" in the logging setting is created under the following directory, and the logging file is stored there.
 - 1) When standard ROM is specified : /ROM/WWW/LOGGING
 - 2) When Compact Flash™ card is specified : /CF/LOGGING

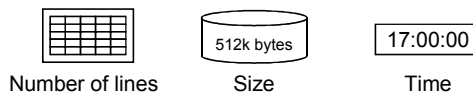
(Example) When the logging file of file name "LOGNAME" is stored into standard ROM



(2) File capacity and processing performed when file becomes full

(a) File capacity

The capacity of a logging file is determined by any of the following.



(b) What file becomes full means

Indicates that the currently logging file has reached the specified file capacity and no more data can be written to that file. (*1)

*1 Regardless of the file capacity setting, a file becomes full when:

- The number of lines reaches 10000;
- The file size reaches 512k bytes; or
- Any tag setting (number of components, component name) change is made to the file that is executing logging.

(c) Processing performed when file becomes full

1) Creating new file and saving current file

When the currently logging file becomes full, a new file is created.

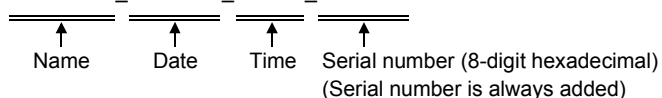
The file that has become full is renamed and saved. (Creation of saved file)

2) Saved files names

Saved files names are consecutively numbered with 8 digits (hexadecimal).

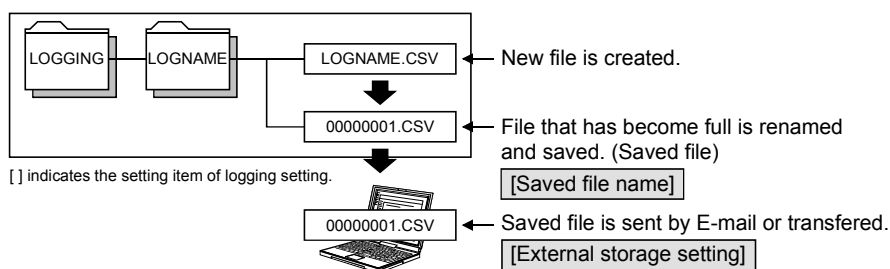
By setting the "Saved files names" in the logging setting, the name, date and time can be added to the saved file name.

(Example) LOGNAME_20030702_201230_00000001.CSV



3) When storing saved file into external device

By setting "External storage setting" in the logging setting, the saved file can be sent by E-mail or transferred when it is stored.



(3) When the number of saved files exceeds the set value

When the number of saved files exceeds the set value, operation is performed according to the setting of "When the number of saved files exceeds the above set value" in the logging setting.

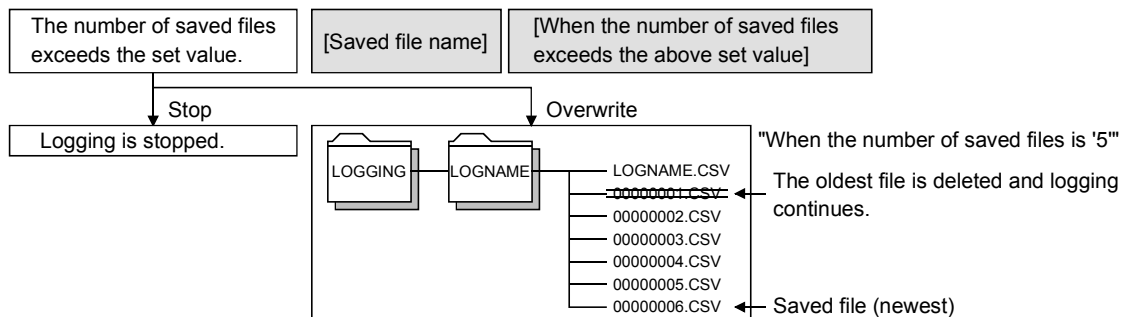
(a) When "Overwrite" is selected

Deletes the oldest file and keeps on logging.

(b) When "Stop" is selected

Stops logging.

A logging saved file number over error (615h) occurs. (Refer to Section 9.3.)



(4) File format

The file format of a logging file is shown below.

| | TIME | Component name 1 | Component name 2 | Component name 3 | Component name 4 | Component name 5 | [CR+LF] |
|------|---------------------|------------------|------------------|------------------|------------------|------------------|---------|
| *1 → | 2002/07/01 09:00:00 | 1 | 100 | 123 | 2.123 | 1280 | [CR+LF] |
| | 2002/07/01 09:05:00 | 2 | 97 | 125 | 2.544 | 1280 | [CR+LF] |
| | 2002/07/01 09:10:00 | 3 | 101 | 125 | 2.343 | 2300 | [CR+LF] |
| | 2002/07/01 09:15:00 | 4 | 100 | 123 | 2.438 | 3504 | [CR+LF] |
| | 2002/07/01 09:20:00 | 5 | 103 | 126 | 2.397 | 5034 | [CR+LF] |

Number of components (Max. 64)

(Example) CSV file display

| TIME | product A | product B | product C | product D |
|---------------------|-----------|-----------|-----------|-----------|
| 11/14/2002 16:18:51 | 100 | 695 | 278 | 139 |
| 11/14/2002 16:19:51 | 100 | 700 | 280 | 140 |
| 11/14/2002 16:20:51 | 100 | 705 | 282 | 141 |
| 11/14/2002 16:21:51 | 100 | 710 | 284 | 142 |
| 11/14/2002 16:22:51 | 100 | 715 | 286 | 143 |

*1 When the tag whose data are collected at high speed is selected, the data are displayed in 100ms units.

(Example) 2003/07/01 09:00:00.1

↑
100ms units (for high speed collection only)

(5) Precautions for displaying CSV file on spreadsheet software

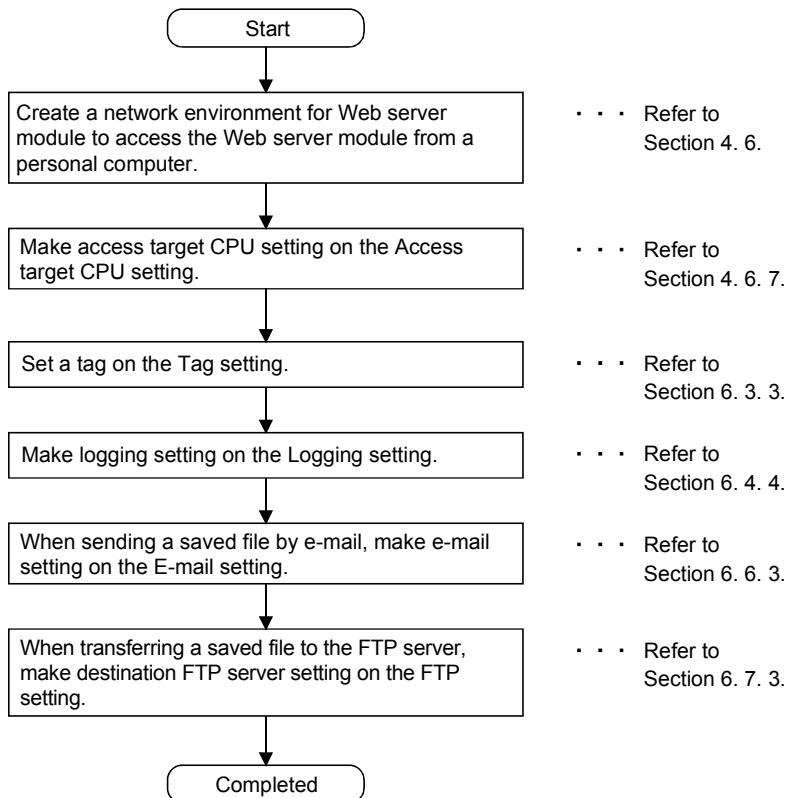
When a CSV file is opened on spreadsheet software, data of date, time and some characters such as "=", +, -, %" may not be correctly displayed due to data conversion.

In this case, first open the CSV file with a text editor and confirm that the logging data are contained correctly.

Then, confirm the specifications of the spreadsheet software and make setting so that the file is displayed correctly.

6.4.3 Setting procedure for logging function

The setting procedure for use of the logging function is indicated below.



6.4.4 Logging setting

[Setting Purpose]

Make the setting for logging tag data.

[Start Procedure]



[Administrative menu] → "Logging setting" (refer to (1)) → Select logging setting No. and click on Edit → "Edit screen" (refer to (2))

(1) Logging setting

Make logging setting.

Up to 64 logging settings can be performed.

[Setting screen]

| [Logging setting] Home > Administrative menu > Logging setting | | | | | | | | | | | | | | |
|--|-----|-----------|--------------|--------------|-----------------------------------|---------------------|----------------------------------|--|------|------|------|----------------------------------|---|-----------------|
| <div>Edit Delete</div> | | | | | | | | | | | | | | |
| Item | No. | Tag name | File name | Save in | Schedule setting | | | Saved file setting | | | | External storage setting | | |
| | | | | | Timing | condition for start | condition for stop | File capacity | Name | Date | Time | Number of saved files(Overwrite) | E-mail address | FTP server |
| <input checked="" type="radio"/> | 1 | process A | processA.CSV | Standard ROM | same as the tag sampling interval | Start at start-up | CPU event No.1(after 60 seconds) | Specification for number of lines(1000Lines) | Add | Add | Add | 100(Overwrite) | 01:   | Do not transfer |
| <input type="radio"/> | 2 | | | | | | | | | | | | | |
| <input type="radio"/> | 3 | | | | | | | | | | | | | |

[Setting Item]

| Item | Description |
|--------------------------|--|
| Item | Selects the logging No. to be edited or deleted. |
| Tag name | Displays the logged tag name. |
| File name | Displays the logging file name. |
| Save in | Displays the location where the logging file will be saved. |
| Schedule setting | Displays the execution timing and conditions for start/stop. |
| Saved file setting | Displays the file capacity, number of saved files, and operation performed when the number of saved files exceeds the set value. |
| External storage setting | Displays whether or not the saved file will be sent by E-mail delivery or file transfer. |
| <u>Edit</u> | Edits the selected logging. |
| <u>Delete</u> | Deletes the selected logging. |

(2) Edit screen

Set the tag to be logged, execution timing, file capacity, etc.

[Setting screen]

[Setting Item]

| Item | Description |
|--|--|
| Logging setting | Sets the tag to be logged, logging file name, and the location where the logging file will be saved. |
| Schedule setting | Sets the execution timing and conditions for start/stop. |
| Saved file setting | Sets the file capacity, number of saved files, and operation performed when the number of saved files exceeds the set value. |
| External storage setting | Sets whether or not the saved file will be sent by E-mail or transferred. |
| Save | Saves the setting. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. |
| Back / Cancel | Discards the changed setting and returns to the Logging setting screen. |
| Select logging setting No. and click on Load | Loads the parameters of the No. selected in logging setting No. and displays on the Edit screen. |

- (a) Tag name
 - 1) Set the tag name to be logged.
 - 2) Select the tag name set in the tag setting.
(Refer to Section 6.3.3 for the tag setting.)
 - 3) When using the logging function, it is required to set the tag in advance.
 - 4) The tag whose data are collected at high speed can be selected in only one logging setting. (Multiple setting not allowed)
For the tag whose data are collected at high speed, its displayed tag name is followed by "(*)".
(Example) 04: Process A(*)
- (b) File name
 - 1) Set the file name of the logging file. (1 to 8 characters)
 - 2) Refer to Appendix 4 (3) for the characters applicable to the file name.
- (c) Save in
 - 1) As the location where the logging file will be saved, select either the standard ROM or Compact Flash™ card.
 - 2) The standard ROM can be selected for only the logging setting No. 1 to 4.
 - For the logging setting No. 5 and later, the file saving location is fixed to the Compact Flash™ card.
 - When the tag whose data are collected at high speed is selected, the file saving location is fixed to the Compact Flash™ card.
- (d) Timing

As the logging execution timing, select any of the following. (*1)

 - 1) Same as the tag sampling interval
 - Logging is executed at the tag sampling interval.
 - When the tag whose data are collected at high speed is selected, the timing is fixed to this timing.
 - 2) Interval specification

Logging is executed once when the Web server module is started or the setting is updated, and thereafter is executed at the specified interval. (1 to 86400s)
 - 3) Time specification
 - Logging is executed at the specified time.
Hour: 0 to 23, "Per"
Minute: 0 to 59, "Per" (Per minute can be specified only when Per hour is specified)
Second: 0 to 59
 - Logging is not executed when the Web server module is started.

*1 Regardless of this setting, logging is performed when the dedicated instruction LOG is executed.

| POINT | |
|-------|---|
| (1) | Depending on the setting of the tag sampling interval and logging timing, the data accumulated for up to the time length of the tag sampling interval are logged. (Example) When the tag sampling interval is 10 seconds and the logging interval is 1 second, the tag data of up to 10 seconds earlier is logged. |
| (2) | By selecting "Sampling: Update before logging." in the tag setting, tag data can be collected in synchronization with the logging timing. |
| (3) | By selecting "Same as the tag sampling interval" in the timing setting, logging can be performed at the tag sampling interval. |

(e) Condition for Start (*1)

As the condition for starting logging, select any of the following.

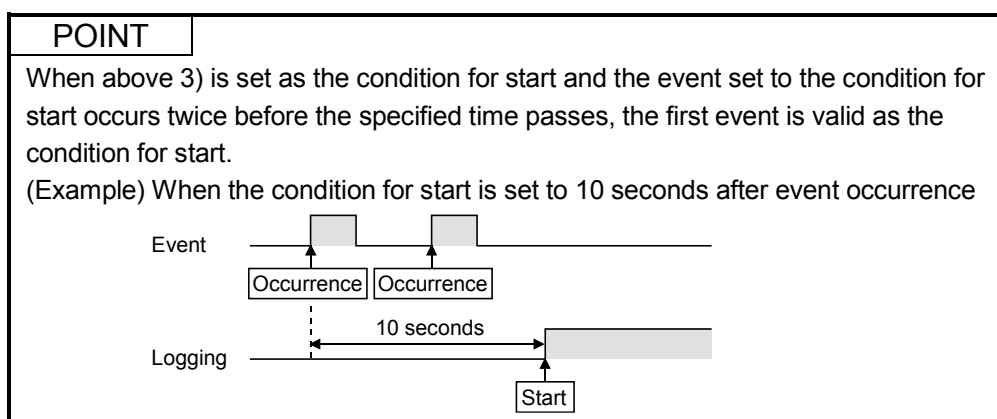
- 1) Start at start-up.
 - Logging starts when the Update button on the Setting update screen is clicked, or when the programmable controller is powered off and then on, or the CPU module is reset.
 - Select this item for continuous logging.
- 2) Do not start.
 - Logging is not started.
 - Select this item when performing logging using the dedicated instruction LOG, or when making setting only and not executing logging.
- 3) Start at the specified time after event occurrence.

Logging is started when the specified time (second) has elapsed after the specified event occurred.

| | | |
|---|--|---|
| <input type="radio"/> Start at the specified time after event occurrence. | <input checked="" type="radio"/> CPU event setting | No. <input type="text" value="01"/> / after <input type="text" value="0"/> seconds (0 to 32767) |
| | <input type="radio"/> Tag event setting | No. <input type="text" value=""/> / after <input type="text" value="0"/> seconds (0 to 32767) |
| | <input type="radio"/> Time/Interval event setting | No. <input type="text" value=""/> / after <input type="text" value="0"/> seconds (0 to 32767) |

↑ 1)
↑ 2)
↑ 3)

- 1) Select any of the event types.
- 2) Select the event setting number.
- 3) Set the logging start time.
(Specify "0" when starting logging at event occurrence.)



- 4) Start at the specified time.
 Logging is started at the specified time.
 Hour: 0 to 23, "Per"
 Minute: 0 to 59, "Per" (Per minute can be specified only when Per hour is specified)
 Second: 0 to 59

*1 Regardless of this setting, logging is performed when the dedicated instruction LOG is executed.

(f) Condition for Stop

As the condition for stopping logging, select any of the following.

- 1) Do not stop.
 - Logging is not stopped.
 - Select this item for continuous logging.
- 2) Stop at the specified time after event occurrence.
 Logging is stopped when the specified time (second) has elapsed after the specified event occurred.

| | | |
|---|--|--|
| <input checked="" type="radio"/> Stop at the specified time after event occurrence. | <input checked="" type="radio"/> CPU event setting | No. <input type="text" value="01"/> / after <input type="text" value="60"/> seconds (0 to 32767) |
| | <input type="radio"/> Tag event setting | No. <input type="text" value=""/> / after <input type="text" value="0"/> seconds (0 to 32767) |
| | <input type="radio"/> Time/Interval event setting | No. <input type="text" value=""/> / after <input type="text" value="0"/> seconds (0 to 32767) |

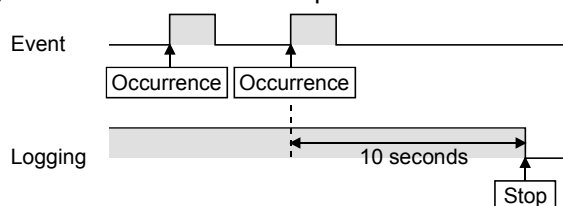
1)
2)
3)

- 1) Select any of the event types.
- 2) Select the event setting number.
- 3) Set the logging stop time.
 (Specify "0" when stopping logging at event occurrence.)

POINT

When above 2) is set as the condition for stop and the event set to the condition for stop occurs twice before the specified time passes, the second event is valid as the condition for stop.

(Example) When the condition for stop is set to 10 seconds after event occurrence



- 3) Stop at the specified time.
 Logging is stopped at the specified time.
 Hour: 0 to 23, "Per"
 Minute: 0 to 59, "Per" (Per minute can be specified only when Per hour is specified)
 Second: 0 to 59

(g) File capacity

As the file capacity, select any of the following.

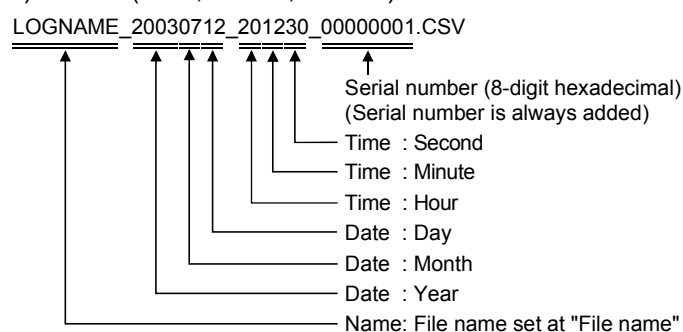
- 1) Specification for number of lines (1 to 10000 lines)/for high-speed logging (100 to 10000 lines)
- 2) Size specification (1 to 512k bytes)/for high-speed logging (10 to 512k bytes)
- 3) Time specification
 Hour: 0 to 23, "Per"
 Minute: 0 to 59, "Per" (Per minute can be specified only when Per hour is specified)
 Second: 0 to 59

(h) Saved files names

As the data to be added to the saved file name, select any of the following.
 (Multiple selection allowed)

The data are added to the saved file name in order of 1) to 3).

- 1) Name (File name set at "File name")
- 2) Date (Year, month, day)
- 3) Time (Hour, minute, second)



(i) Number of saved files

Set the number of saved files. (1 to 1000)

POINT

When browsing the logging file by logging monitor or FTP, reduce the number of saved files.

If the number of saved files is large, it will take several minutes to obtain a file list by logging monitor or FTP.

(For logging monitor, the number of saved files must be reduced only when the last update time of the file is displayed in the file specifying field. (Refer to Section 4.7 (2).)

- (j) When the number of saved files exceeds the above set value
 As the operation to be performed when the number of saved files exceeds the set value, select either of the following.

- 1) Overwrite
- 2) Stop

- (k) E-mail delivery: Send a saved file to the following e-mail address.
 Set whether the saved file will be sent by e-mail or not.

- 1) Not checked
 E-mail is not sent.

- 2) Checked
 - When the file is saved, it is attached to e-mail and sent.
 - Refer to Section 6.6.5 for the e-mail transmission by the logging function.
 - 3) E-mail addresses 1 to 3
Select the e-mail addresses set in the "E-mail address (TO:) setting" of the E-mail setting. (Refer to Section 6.6.3 for the E-mail setting.)
- (l) File transfer: Transfer a saved file to the following FTP server.
Set whether the saved file will be transferred to the FTP server or not.
- 1) Not checked
The file is not transferred.
 - 2) Checked
 - When the file is saved, it is transferred to the FTP server.
 - Refer to Section 6.7.6 for the file transfer by the logging function.
 - 3) Transfer target
Select the FTP server name set in the FTP setting. (Refer to Section 6.7.3 for the FTP setting.)
- (3) Setting method and precautions for high-speed logging
- (a) Setting method for high-speed logging
When performing high-speed logging, make the following settings in the logging setting. Only one high-speed logging can be registered.
For other than the following, the user can set as desired.
 - 1) Tag name : Select the tag set to "Sampling: Execute at high speed"
 - 2) Save in : Fixed to "Compact Flash™ card"
 - 3) Timing : Fixed to "Same as the tag sampling interval"
 - (b) Precautions for high-speed logging
 - 1) Be sure to create a user setting system area in the program memory of the control CPU.
In the case of a redundant system, create two user-setting system areas of the same volume for the redundant CPUs in both systems.
(Refer to Section 6.3.3 **REMARKS**.)
When the control CPU is the Universal model QCPU, creation of a user specified system area is not required.
 - 2) Depending on the scan time of the control CPU and/or the time of access from the peripheral device/intelligent function module to the programmable controller CPU, a time lag may occur in the logging interval.

POINT

After changing the settings, make sure to click on the "Save" button.
The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset.

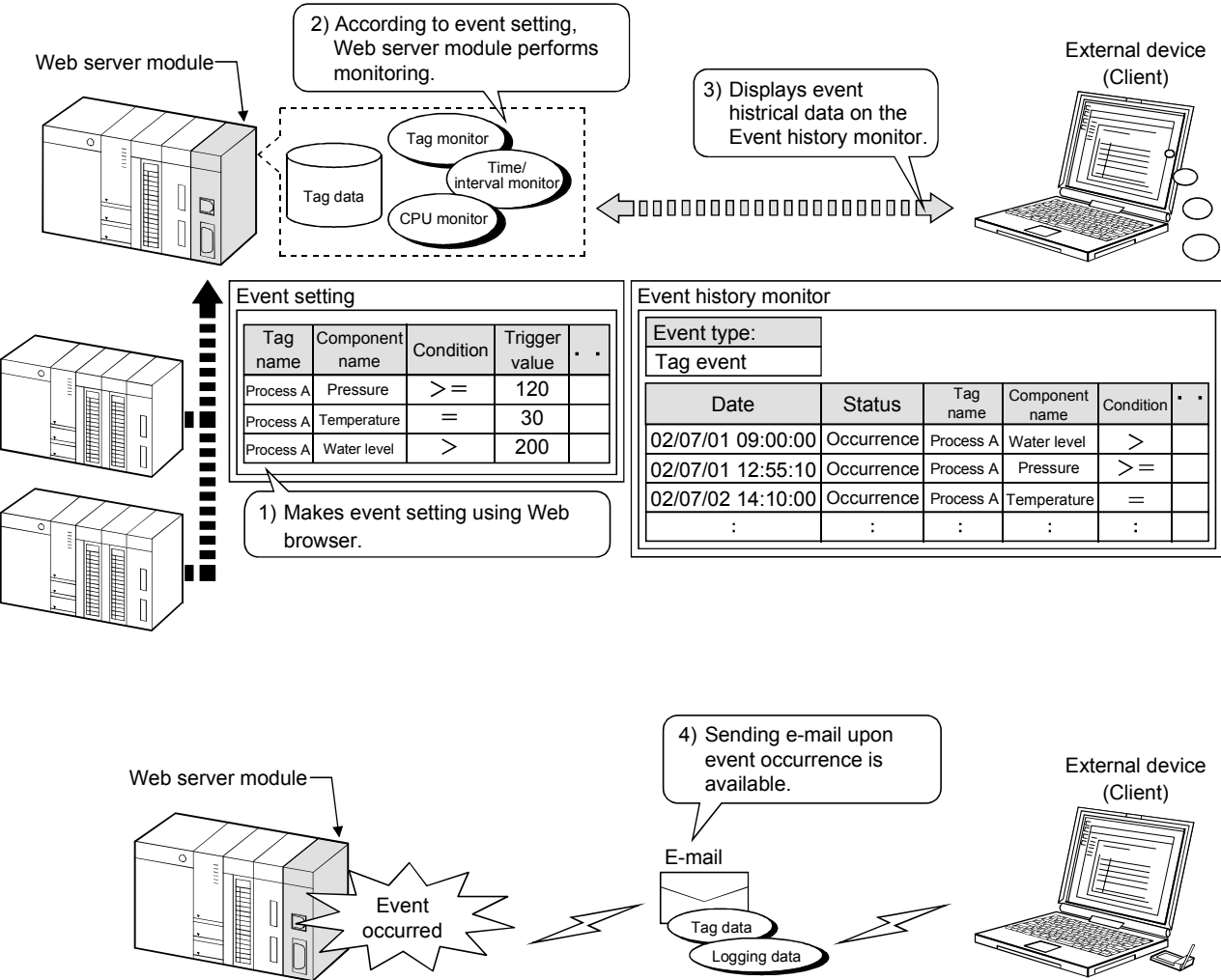
| |
|---------|
| REMARKS |
|---------|

- (1) When the file storage has been set to the standard ROM
When the logging file storage has been set to the standard ROM in the logging setting, pay attention to the setting of the free space of the user area in the standard ROM or the number of write times to standard ROM. (*1) (*2)
- *1 For the free space of the user area, it is required to consider the capacity of the logging file, user HTML file and user data file. (User area capacity of standard ROM: 5MB)
- *2 For the size of the data written to the standard ROM drive, refer to Appendix 7.1.
- (2) Confirming the usage status of the standard ROM drive
The usage status of the standard ROM drive can be confirmed as the number of standard ROM erase execution times in the number of standard ROM erase area (buffer memory: 10 to 11) of the buffer memory.
When the standard ROM has been erased frequently, take preventive measures, e.g. stop logging or change storage place of the logging file to the Compact FlashTM card.

6.5 Event Monitor Function

6.5.1 Event monitor function

The event monitor function monitors the programmable controller CPU status (CPU monitor), tag data (tag monitor) and time (time/interval monitor), and stores the historical data of occurred events into CSV files. The stored files can be displayed in a Web browser or downloaded by FTP operation. Also, e-mail can be sent as required when an event occurs.



(1) Event history file

The following conditions can be set as event history conditions, and an event history file is created for each event history condition.

(a) CPU event

- 1) The programmable controller CPU status (system error, RUN, STOP, PAUSE, etc.) set in "CPU event setting" of the event setting is monitored.
- 2) Storage
 - File name : "CPUWATCH.CSV"
 - Storage location (Standard ROM) : /ROM/WWW/EVENT/
- 3) File format

Refer to Section 6.2.4 (2) for details of each item.

| Data | Event number | Status | CPU name | Operation status | E-mail sending | |
|---------------------|--------------|-------------|----------------|------------------|----------------|---------|
| 2002/11/29 12:15:00 | 1 | Occurrence | 01:Control CPU | Warning RUN | Complete | [CR+LF] |
| 2002/11/29 12:30:00 | 1 | Restoration | 01:Control CPU | Warning STOP | — | [CR+LF] |

(b) Tag event

- 1) The tag data collected by the Web server module and set in "Tag event setting" of the event setting is compared with the condition value (=, <>, <=, <, >, >=).
- 2) Storage
 - File name : "TAGWATCH.CSV"
 - Storage location (Standard ROM) : /ROM/WWW/EVENT/
- 3) File format

Refer to Section 6.2.4 (3) for details of each item.

| Data | Event number | Status | Tag name | Component name | Condition | |
|---------------------|-----------------|----------------|---------------|--------------------|-----------|--|
| 2002/11/29 12:15:00 | 1 | Occurrence | 01:Tag data 1 | 01:Component data1 | >= | |
| 2002/11/29 12:30:00 | 1 | Restoration | 01:Tag data1 | 01:Component data1 | >= | |
| Trigger value | Component value | E-mail sending | | | | |
| 100 | 100 | Complete | | | | |
| 100 | 100 | — | | | | |

(c) Time/Interval event

- 1) The time or interval set in "Time/Interval event setting" of the event setting is monitored.
- 2) Storage
 - File name : "TIMWATCH.CSV"
 - Storage location (Standard ROM) : /ROM/WWW/EVENT/
- 3) File format

Refer to Section 6.2.4 (4) for details of each item.

| Data | Event number | E-mail sending | |
|---------------------|--------------|----------------|---------|
| 2002/11/29 12:15:00 | 1 | Complete | [CR+LF] |
| 2002/11/29 12:30:00 | 1 | None | [CR+LF] |

(2) When the number of event historical data exceeds the limit

In each event history file, the following operation is performed when the number of event historical data set in "Common setting" of the event setting exceeds the limit.

- (a) Half of the event historical data are deleted, starting from the oldest data.
- (b) The latest data are saved into the line after the remaining data.

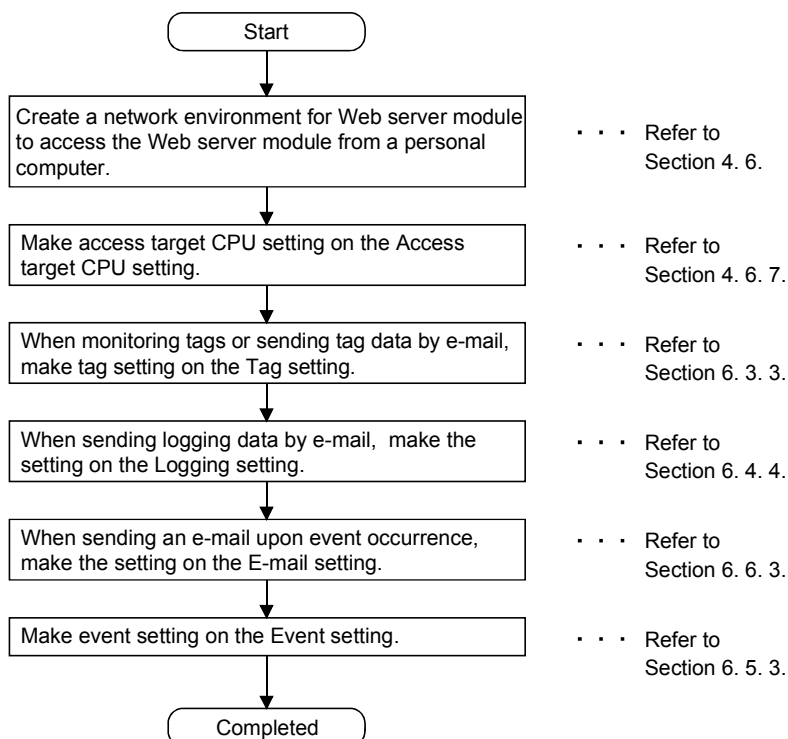
(Example) When the number of CPU event historical data has been set to 10

| Date | Event number | Status | CPU name | Operation status | E-mail sending |
|---------------------|--------------|-------------|-----------------|------------------|----------------|
| 11/07/2002 11:01:55 | 1 | Occurrence | 01: Control CPU | Normal STOP | None |
| 11/07/2002 11:02:00 | 1 | Restoration | 01: Control CPU | Normal RUN | ----- |
| 11/07/2002 11:02:05 | 1 | Occurrence | 01: Control CPU | Normal STOP | None |
| 11/07/2002 11:02:10 | 1 | Restoration | 01: Control CPU | Normal RUN | ----- |
| 11/07/2002 11:02:15 | 1 | Occurrence | 01: Control CPU | Normal STOP | None |
| 11/07/2002 11:02:20 | 1 | Restoration | 01: Control CPU | Normal RUN | ----- |
| 11/07/2002 11:02:25 | 1 | Occurrence | 01: Control CPU | Normal STOP | None |
| 11/07/2002 11:02:30 | 1 | Restoration | 01: Control CPU | Normal RUN | ----- |
| 11/07/2002 11:02:35 | 1 | Occurrence | 01: Control CPU | Normal STOP | None |
| 11/07/2002 11:02:40 | 1 | Restoration | 01: Control CPU | Normal RUN | ----- |
| | | | | | |
| Date | Event number | Status | CPU name | Operation status | E-mail sending |
| 11/07/2002 11:02:20 | 1 | Restoration | 01: Control CPU | Normal RUN | ----- |
| 11/07/2002 11:02:25 | 1 | Occurrence | 01: Control CPU | Normal STOP | None |
| 11/07/2002 11:02:30 | 1 | Restoration | 01: Control CPU | Normal RUN | ----- |
| 11/07/2002 11:02:35 | 1 | Occurrence | 01: Control CPU | Normal STOP | None |
| 11/07/2002 11:02:40 | 1 | Restoration | 01: Control CPU | Normal RUN | ----- |
| 11/07/2002 11:02:45 | 1 | Occurrence | 01: Control CPU | Normal STOP | None |

Five lines of event historical data from the oldest are deleted, and the latest data is stored in the sixth line.

6.5.2 Setting procedure for event monitor function

The setting procedure for using the event monitor function is indicated below.



6.5.3 Event setting

[Setting Purpose]

- 1) In the common setting, set each number of event historical data.
- 2) In the CPU event setting, make setting to monitor the operation status of the programmable controller CPU.
- 3) In the tag event setting, make setting to compare the tag data and condition value.
- 4) In the time/interval event setting, make setting to monitor the time/interval.

[Start Procedure]

- 1) Common setting (Refer to (1))
[Administrative menu] → "Event setting" → <<Common setting>>tab → "Common setting"
- 2) CPU event setting (Refer to (2))
[Administrative menu] → "Event setting" → <<CPU event setting>>tab → "CPU event setting" → Select CPU event setting No. and click on Edit → "Edit screen"
- 3) Tag event setting (Refer to (3))
[Administrative menu] → "Event setting" → <<Tag event setting>>tab → "Tag event setting" → Select tag event setting No. and click on Edit → "Edit screen"
- 4) Time/Interval event setting (Refer to (4))
[Administrative menu] → "Event setting" → <<Time/Interval event setting>>tab → "Time/Interval event setting" → Select time/interval event setting No. and click on Edit → "Edit screen"

(1) Common setting

Make common setting.

[Setting Screen]

[Setting Item]

| Item | Description |
|--|--|
| No. of CPU event historical data | Sets the number of CPU event historical data. |
| No. of tag event historical data | Sets the number of tag event historical data. |
| No. of time/interval event historical data | Sets the number of time/interval event historical data. |
| Clear history | Clears all historical data of each file. |
| Save | Saves the setting. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. |
| Back / Cancel | Discards the changed setting and returns to the Common setting screen. |

(a) No. of CPU event historical data

- 1) Set the number of CPU event historical data. (1 to 1000 lines)
For the processing performed when the number of CPU event historical data is exceeded, refer to Section 6.5.1 (2).
- 2) Clicking on the "Clear history" button clears the historical data of the CPU event history file (CPUWATCH.CSV).

(b) No. of tag event historical data

- 1) Set the number of tag event historical data. (1 to 1000 lines)
For the processing performed when the number of tag event historical data is exceeded, refer to Section 6.5.1 (2).
- 2) Clicking on the "Clear history" button clears the historical data of the tag event history file (TAGWATCH.CSV).

(c) No. of time/interval event historical data

- 1) Set the number of time/interval event historical data. (1 to 1000 lines)
For the processing performed when the number of time/interval event historical data is exceeded, refer to Section 6.5.1 (2).
- 2) Clicking on the "Clear history" button clears the historical of the time/interval event history file (TIMWATCH.CSV).

(2) CPU event setting

Make setting to monitor the operation status of the programmable controller CPU.

Up to 64 CPU event settings are available.

[CPU event setting screen]

| [Event setting] Home > Administrative menu > Event setting > CPU event setting | | | | | | | | | | | |
|--|-----|-----------------|-------------|-------------|------------|--------------|-------------|--------------|---------|-------------|-----------------------------|
| Common setting CPU event setting Tag event setting Time/Interval event setting | | | | | | | | | | | |
| [CPU event setting] [Edit] [Delete] | | | | | | | | | | | |
| Item | No. | CPU name | Interval | Condition | | | | | | E-mail | Attached file |
| | | | | Normal STOP | Normal RUN | Warning STOP | Warning RUN | System error | PAUSE | | |
| <input type="radio"/> | 1 | 01: Control CPU | 5 [seconds] | Set | Not set | Not set | Not set | Not set | Not set | Do not send | - |
| <input type="radio"/> | 2 | 01: Control CPU | 5 [seconds] | Not set | Not set | Set | Not set | Set | Not set | Send | Logging data(01: process A) |
| <input type="radio"/> | 3 | | | | | | | | | | |

[Setting Item]

| Item | Description |
|----------------|--|
| Item | Selects the CPU event setting No. to be edited or deleted. |
| CPU name | Displays the CPU name. |
| Interval | Displays the CPU event interval. |
| Condition | Displays the CPU event conditions. |
| E-mail sending | Displays Whether e-mail will be sent or not upon event occurrence. |
| Attached file | Displays the details of the attached file to e-mail. |
| [Edit] | Edits the selected CPU event. |
| [Delete] | Deletes the selected CPU event. |

[Edit screen]

[Event setting]

Home > Administrative menu > Event setting > CPU event setting > Edit screen

Common setting | CPU event setting | Tag event setting | Time/Interval event setting |

[CPU event setting(edit)]
Save
Back
Load

CPU event setting No. 01

CPU name: 01: Control CPU

Interval: 5 [seconds](1 to 86400)

Condition:
☒ Normal STOP
☐ Normal RUN
☐ Warning STOP
☐ Warning RUN
☐ System error
☐ PAUSE

Mail setting for event occurrence

☐ Send an e-mail when an event occurs.
☒ Disconnect from the network after sending mail.

E-mail main text:

Attached file:
☒ None
☐ Tag data 01: line 1
☐ Logging data 01: process A

Send to:

| E-mail address (To) | Notification | E-mail address (To) | Notification |
|--|--------------------------|---------------------|--------------------------|
| 01: control@melsec.co.jp | <input type="checkbox"/> | 09: | <input type="checkbox"/> |
| 02: tag@melsec.co.jp | <input type="checkbox"/> | 10: | <input type="checkbox"/> |
| 03: log@melsec.co.jp | <input type="checkbox"/> | 11: | <input type="checkbox"/> |
| 04: | <input type="checkbox"/> | 12: | <input type="checkbox"/> |
| 05: | <input type="checkbox"/> | 13: | <input type="checkbox"/> |
| 06: | <input type="checkbox"/> | 14: | <input type="checkbox"/> |
| 07: | <input type="checkbox"/> | 15: | <input type="checkbox"/> |
| 08: | <input type="checkbox"/> | 16: | <input type="checkbox"/> |

[Setting Item]

| Item | Description |
|--|--|
| CPU name | Sets the CPU name. |
| Interval | Sets the CPU event interval. |
| Condition | Sets the CPU event conditions. |
| Mail setting for event occurrence | Makes setting when sending e-mail at event occurrence. |
| Save | Saves the setting. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. |
| Back / Cancel | Discards the changed setting and returns to the CPU event setting screen. |
| Select CPU event setting No. and click on Load | Loads the parameters of the No. selected in CPU event setting No. and displays them on the Edit screen. |

- (a) CPU name
 - 1) Set the CPU name to be monitored.
 - 2) Select the CPU name set in the access target CPU setting.
(Refer to Section 4.6.7 for the access target CPU setting.)
 - 3) The CPU name drop-down list displays the setting No. and CPU names of the access target CPU setting.
(Example) 01: Control CPU
 - 4) By default, the host CPU of the Web server module is set as the access target CPU setting No. 1.
- (b) Interval
 - 1) Set the CPU event monitor interval. (1 to 86400 seconds)
 - 2) A CPU event occurs once when the Web server module starts or the setting is updated, and thereafter at the specified interval.
- (c) Condition
 - 1) Set conditions for monitoring of the CPU event.
More than one conditions can be specified for one programmable controller CPU.
When more than one conditions have been specified, an event occurs if any of them is satisfied.

| Item | Description |
|------------------|---|
| Normal STOP | The programmable controller CPU is stopped with no error. |
| Normal RUN | The programmable controller CPU is running with no error. |
| PAUSE | The programmable controller CPU is pausing. |
| Warning STOP(*1) | The programmable controller CPU is stopped with a continue error. |
| Warning RUN | The programmable controller CPU is running with a continue error. |
| System Error | The programmable controller CPU is in a stop error status or cannot communicate with the target programmable controller CPU (e.g. network error). |

*1 In the QCPU (Q mode) function version A, QCPU (A mode), QnACPU and ACPU, a warning STOP does not occur when the programmable controller CPU is stopped with a continue error. (A system error occurs.)

- 2) When the programmable controller CPU returns to the status other than the specified condition, the event is restored.
When more than one condition have been specified, the event is restored when the programmable controller CPU returns to the status other than all the conditions.
- (d) Send an e-mail when an event occurs.
 - 1) Set whether e-mail will be sent upon event occurrence or not.
 - 2) Refer to Section 6.6.6 for e-mail transmission by the event monitor function.

- (e) Disconnect from the network after sending mail.
Disable this setting when it is not desired to disconnect the network after sending e-mail at event occurrence.
This setting is available when the Web server module is not continuously connected to the network.
Refer to Section 5.4 for the procedures for connecting to and disconnecting from the network for non-continuous connection.
- (f) E-mail main text
 - 1) Enter the main text of e-mail.
(0 to 256 characters)
 - 2) Refer to Appendix 4 (5) for the characters applicable to the e-mail main text.
- (g) Attached file
 - 1) Select the file attached to the e-mail.
(None, Tag data, Logging Data)
 - 2) When attaching tag data, select the tag data set in the tag setting.
(Refer to Section 6.3.3 for the tag setting.)
 - 3) When attaching logging data, select the logging data set in the logging setting. (Refer to Section 6.4.4 for the logging setting.)
- (h) Send to 1 to 16
 - 1) Select the destination of e-mail.
 - 2) Select the e-mail address set in the "E-mail address (TO:) setting" of the E-mail setting. (Refer to Section 6.6.3 for the E-mail setting.)
 - 3) In the selection field for Send to, the setting No. and e-mail address of the "E-mail address (TO:) setting" are displayed.

| POINT |
|---|
| After changing the settings, make sure to click on the "Save" button. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. |

(3) Tag event setting

Make setting to monitor the tag data compared with the trigger value.

Up to 256 tag event settings are available.

Tag event monitoring is executed every time the target tag is collected by the Web server module.

[Tag event setting screen]

| Item | No. | Tag name | Component name | Condition | Trigger value | Restoration value | E-mail | Attached file |
|-----------------------|-----|---------------------|----------------|-----------|---------------|-------------------|-------------|---------------|
| <input type="radio"/> | 1 | 02: production mgmt | 01: product A | = | 100 | - | Do not send | - |
| <input type="radio"/> | 2 | 02: production mgmt | 05: pressure | >= | 80 | 65 | Do not send | - |
| <input type="radio"/> | 3 | | | | | | | |

[Setting Item]

| Item | Description |
|-------------------|---|
| Item | Selects the tag event setting No. to be edited or deleted. |
| Tag name | Displays the tag name. |
| Component name | Displays the component name. |
| Condition | Displays the tag event condition. |
| Trigger value | Displays the trigger value. |
| Restoration value | Displays the restoration value. |
| E-mail sending | Displays whether e-mail will be sent or not upon event occurrence. |
| Attached file | Displays details of the file attached to e-mail. |
| <u>Edit</u> | Edits the selected tag event. |
| <u>Delete</u> | Deletes the selected tag event. |
| Page switching | Switches to the list screen of the corresponding number range by selecting one of them. |

[Edit screen]

[Event setting] | Home > Administrative man > Event setting > Tag event setting > Edit screen

Common setting | CPU event setting | Tag event setting | Time/Interval event setting

[Tag event setting(edit)] Save Back Load

Tag event setting No. 001

Tag name: 02: production mngmt

Component name: 01: product A Single word / Decimal(0 decimal places)

Condition: =

Trigger value: 100

Restoration value: 0

Mail setting for event occurrence

☐ Send an e-mail when an event occurs.

☒ Disconnect from the network after sending mail.

E-mail main text:

Attached file:

☒ None

☒ Tag data 01: line 1

☐ Logging data 01: process A

Send to:

| E-mail address (To:) | Notification | E-mail address (To:) | Notification |
|---------------------------|--------------------------|----------------------|--------------------------|
| 01: 00000000@melsec.co.jp | <input type="checkbox"/> | 09: | <input type="checkbox"/> |
| 02: 00000000@melsec.co.jp | <input type="checkbox"/> | 10: | <input type="checkbox"/> |
| 03: 00000000@melsec.co.jp | <input type="checkbox"/> | 11: | <input type="checkbox"/> |
| 04: | <input type="checkbox"/> | 12: | <input type="checkbox"/> |
| 05: | <input type="checkbox"/> | 13: | <input type="checkbox"/> |
| 06: | <input type="checkbox"/> | 14: | <input type="checkbox"/> |
| 07: | <input type="checkbox"/> | 15: | <input type="checkbox"/> |
| 08: | <input type="checkbox"/> | 16: | <input type="checkbox"/> |

[Setting Item]

| Item | Description |
|--|--|
| Tag name | Sets the tag name. |
| Component name | Sets the component name. |
| Condition | Sets the tag event condition. |
| Trigger value | Sets the trigger value. |
| Restoration value | Sets the restoration value. |
| Mail setting for event occurrence | Makes setting when sending e-mail at event occurrence. |
| Save | Saves the setting. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. |
| Back / Cancel | Discards the changed setting and returns to the tag event setting screen. |
| Select tag event setting No. and click on Load | Loads the parameters of the No. selected in tag event setting No. and displays them on the Edit screen. |

(a) Tag name

- 1) Set the tag name to be monitored.
- 2) Select the tag name set in the tag setting.
(Refer to Section 6.3.3 for the tag setting.)
- 3) The Tag name drop-down list displays the setting No. and tag names of the tag setting.

(b) Component name

- 1) Set the component name to be monitored. (Except the component of which data type is String) (*)
- 2) Select the component name set in "Component setting" of the tag setting.
(Refer to Section 6.3.3 for the tag setting.)
- 3) The Component name drop-down list displays the setting No. and component names of the component setting.

* When the component is displayed in the exponential form, a rounding error is produced in the range outside the number of digits set in the number of decimal places.

Note that setting components in exponential form in the tag event setting may cause incorrect event detection.

(Example) When "Exponential " and "4" are respectively set to "Display form" and "Number of decimal places" for a component.

When the device value is 123456, the component value will be 1.2346E + 05.

When the device value is 123464, the component value will be 1.2346E + 05.

Since the data in the lowest digit is rounded as indicated above, an event occurs in either case when the condition is set to "=" or the trigger value to "123460" in the tag event setting

(c) Condition

Select the condition on which the component of the programmable controller CPU is monitored.

| Item | Description |
|----------------------------|--|
| Component = Trigger value | The component value is equal to the trigger value are the same. |
| Component <> Trigger value | The component value is not equal to the trigger value are different. |
| Component >= Trigger value | The component value is equal to or greater than the trigger value. |
| Component > Trigger value | The component value is greater than the trigger value. |
| Component < Trigger value | The component value is less than the trigger value. |
| Component <= Trigger value | The component value is equal to or less than the trigger value. |

(d) Trigger value

Set the trigger value of the condition.

- (e) Restoration value
- 1) Set the restoration value to make the event disappear.
 - 2) The restoration value can be set when the condition is \geq , $>$, $<$ or \leq .
 - 3) In the following case, the event is restored.

| Condition | Restoration |
|--------------------------------|------------------------------------|
| Component = Trigger value | Component \neq Trigger value |
| Component \neq Trigger value | Component = Trigger value |
| Component \geq Trigger value | Component $<$ Restoration value |
| Component $>$ Trigger value | Component \leq Restoration value |
| Component $<$ Trigger value | Component \geq Restoration value |
| Component \leq Trigger value | Component $>$ Restoration value |

- (f) Send an e-mail when an event occurs.
- 1) Set whether e-mail will be sent upon event occurrence or not.
 - 2) Refer to Section 6.6.6 for e-mail transmission by the event monitor function.
- (g) Disconnect from the network after sending mail.
 Disable this setting when it is not desired to disconnect the network after sending e-mail at event occurrence.
 This setting is available when the Web server module is not continuously connected to the network.
 Refer to Section 5.4 for the procedures for connecting to and disconnecting from the network for non-continuous connection.
- (h) E-mail main text
- 1) Enter the main text of e-mail.
(0 to 256 characters)
 - 2) Refer to Appendix 4 (5) for the characters applicable to the e-mail main text.
- (i) Attached file
- 1) Select the file attached to e-mail.
(None, Tag data, Logging Data)
 - 2) When attaching tag data, select the tag data set in the tag setting.
(Refer to Section 6.3.3 for the tag setting.)
 - 3) When attaching logging data, select the logging data set in the logging setting. (Refer to Section 6.4.4 for the logging setting.)
- (j) Send to 1 to 16
- 1) Select the destination of e-mail.
 - 2) Select the e-mail address set in the "E-mail address (TO:) setting" of the E-mail setting. (Refer to Section 6.6.3 for the E-mail setting.)
 - 3) In the selection field for Send to, the setting No. and e-mail address of the "E-mail address (TO:) setting" are displayed.

| |
|--------------|
| POINT |
|--------------|

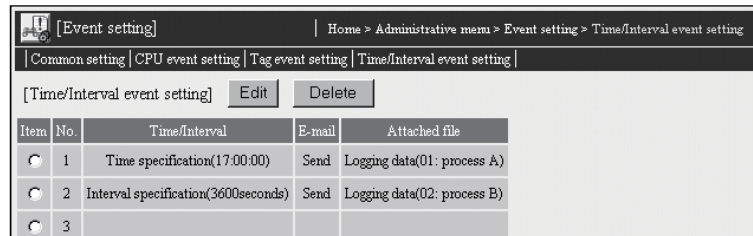
| |
|--|
| <p>After changing the settings, make sure to click on the "Save" button.</p> <p>The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset.</p> |
|--|

(4) Time/Interval event setting

Make setting to monitor the time/interval.

Up to 16 time/interval event settings are available.

[Time/Interval event setting screen]

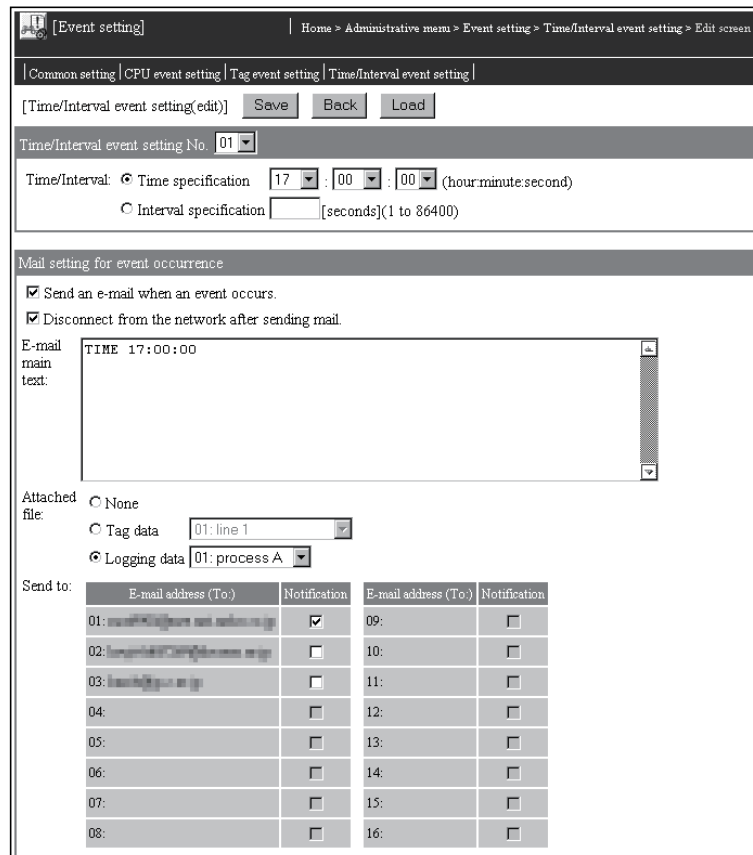


| Item | No. | Time/Interval | E-mail | Attached file |
|-----------------------|-----|-------------------------------------|--------|-----------------------------|
| <input type="radio"/> | 1 | Time specification(17:00:00) | Send | Logging data(01: process A) |
| <input type="radio"/> | 2 | Interval specification(3600seconds) | Send | Logging data(02: process B) |
| <input type="radio"/> | 3 | | | |

[Setting Item]

| Item | Description |
|----------------|--|
| Item | Selects the time/interval event setting No. to be edited or deleted. |
| Time/Interval | Displays the monitoring time/interval. |
| E-mail sending | Displays whether e-mail will be sent or not upon event occurrence. |
| Attached file | Displays the details of the file attached to e-mail. |
| <u>Edit</u> | Edits the selected time/interval event. |
| <u>Delete</u> | Deletes the selected time/interval event. |

[Edit screen]



Time/Interval event setting No. 01

Time/Interval: ☒ Time specification 17 : 00 : 00 (hour:minute:second)
☐ Interval specification [] [seconds](1 to 36400)

Mail setting for event occurrence

☒ Send an e-mail when an event occurs.
☒ Disconnect from the network after sending mail.

E-mail main text: TIME 17:00:00

Attached file: ☐ None
☐ Tag data 01: line 1
☒ Logging data 01: process A

Send to:

| E-mail address (To) | Notification | E-mail address (To) | Notification |
|---------------------|-------------------------------------|---------------------|--------------------------|
| 01: [redacted] | <input checked="" type="checkbox"/> | 09: [redacted] | <input type="checkbox"/> |
| 02: [redacted] | <input type="checkbox"/> | 10: [redacted] | <input type="checkbox"/> |
| 03: [redacted] | <input type="checkbox"/> | 11: [redacted] | <input type="checkbox"/> |
| 04: [redacted] | <input type="checkbox"/> | 12: [redacted] | <input type="checkbox"/> |
| 05: [redacted] | <input type="checkbox"/> | 13: [redacted] | <input type="checkbox"/> |
| 06: [redacted] | <input type="checkbox"/> | 14: [redacted] | <input type="checkbox"/> |
| 07: [redacted] | <input type="checkbox"/> | 15: [redacted] | <input type="checkbox"/> |
| 08: [redacted] | <input type="checkbox"/> | 16: [redacted] | <input type="checkbox"/> |

[Setting Item]

| Item | Description |
|---|--|
| Time/Interval | Sets the monitoring time/interval. |
| Mail setting for event occurrence | Makes setting when sending e-mail at event occurrence. |
| <input type="button" value="Save"/> | Saves the setting. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. |
| <input type="button" value="Back"/> / <input type="button" value="Cancel"/> | Discards the changed setting and returns to the time/interval event setting screen. |
| Select time/interval event setting No. and click on <input type="button" value="Load"/> | Loads the parameters of the No. selected in time/interval event setting No. and displays them on the Edit screen. |

(a) Time/interval

For the timing at which an event occurs, select either of the following.

1) Time specification

- An event occurs at the specified time.

Hour : 0 to 23, "Per"

Minute : 0 to 59, "Per" (Per minute can be specified only when Per hour is specified)

Second : 0 to 59

- An event does not occur when the Web server module is started.

2) Interval specification

An event occurs once when the Web server module is started or when the setting is updated, and thereafter at the specified interval. (1 to 86400 seconds)

(b) Send an e-mail when an event occurs.

1) Set whether e-mail will be sent upon event occurrence or not.

2) Refer to Section 6.6.6 for e-mail transmission by the event monitor function.

(c) Disconnect from the network after sending mail.

Disable this setting when it is not desired to disconnect the network after sending e-mail at event occurrence.

This setting is available when the Web server module is not continuously connected to the network.

Refer to Section 5.4 for the procedures for connecting to and disconnecting from the network for non-continuous connection.

(d) E-mail main text

1) Enter the main text of e-mail.

(0 to 256 characters)

2) Refer to Appendix 4 (5) for the characters applicable to the e-mail main text.

- (e) Attached file
 - 1) Select the file attached to e-mail.
(None, Tag data, Logging Data)
 - 2) When attaching tag data, select the tag data set in the tag setting.
(Refer to Section 6.3.3 for the tag setting.)
 - 3) When attaching logging data, select the logging data set in the logging setting.
(Refer to Section 6.4.4 for the logging setting.)
- (f) Send to 1 to 16
 - 1) Select the destination of e-mail.
 - 2) Select the e-mail address set in the "E-mail address (TO:) setting" of the E-mail setting. (Refer to Section 6.6.3 for the E-mail setting.)
 - 3) In the selection field for Send to, the setting No. and e-mail address of the "E-mail address (TO:) setting" are displayed.

| POINT |
|---|
| After changing the settings, make sure to click on the "Save" button. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. |

6.6 E-mail Function

This section explains the e-mail function.

6.6.1 E-mail function

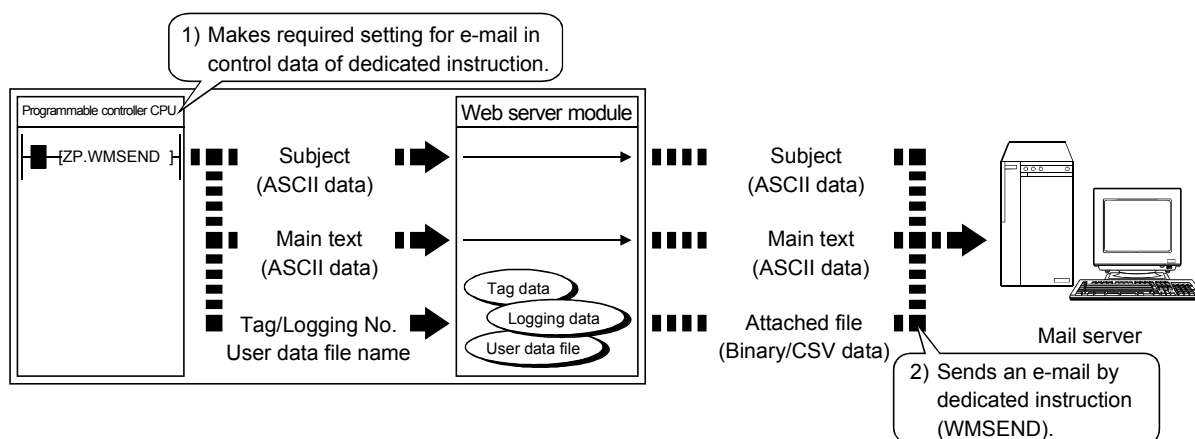
The e-mail function sends the data (tag data, logging data, user data file), which were collected by the Web server module from the programmable controller CPUs, to a remote external device by e-mail.

There are the following four methods for sending e-mail with this function.

(1) E-mail transmission by programmable controller CPU

E-mails are sent by the dedicated instruction (WMSSEND) in a sequence program.

Any subject, any main text, and an attached tag data/logging data/user data file can be sent.

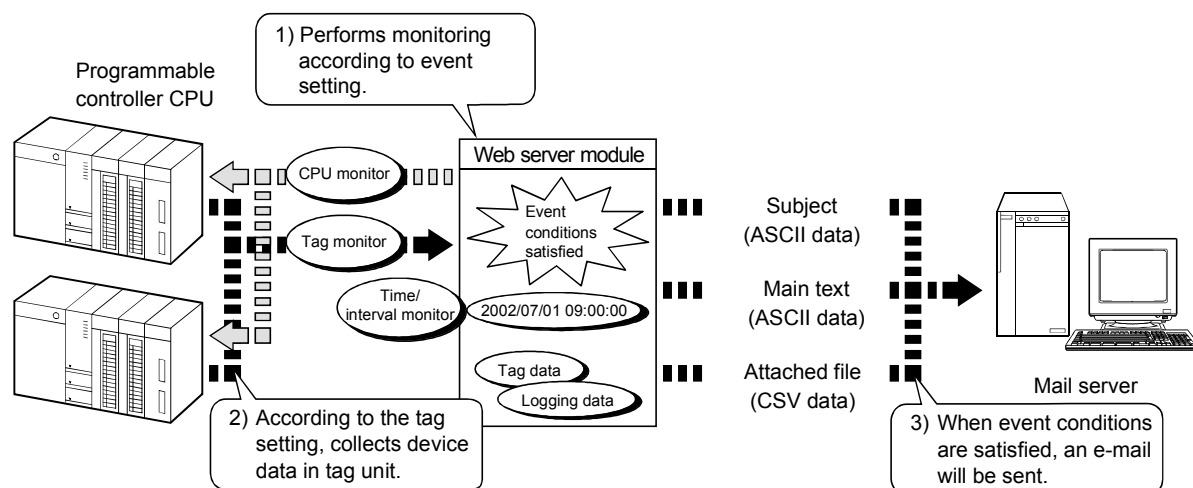


(2) E-mail transmission by event monitor function

E-mails are sent by the Web server module according to the event setting of the Web browser.

An e-mail is sent when an event (CPU event, tag event, time/interval event) occurs.

A fixed subject, any main text, and an attached tag data or logging data file can be sent.

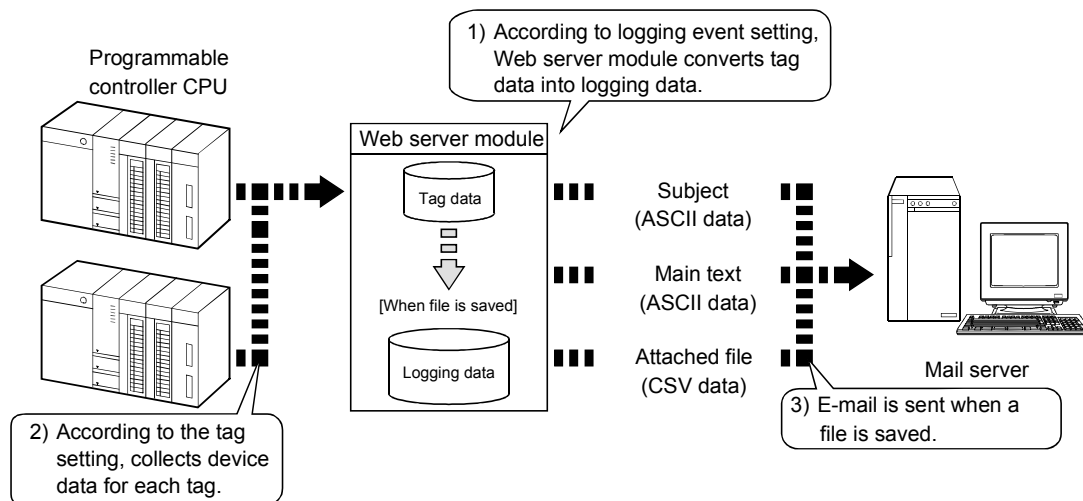


(3) E-mail transmission by logging function

E-mails are sent by the Web server module according to the logging setting of the Web browser.

An e-mail is sent when a file is saved.

A fixed subject, fixed main text and a CSV-format attached file of logging data can be sent.



(4) E-mail transmission by diagnostics function (Refer to Section 6.11.2)

E-mail is sent by the Web server module when the setting test of the Web browser is conducted.

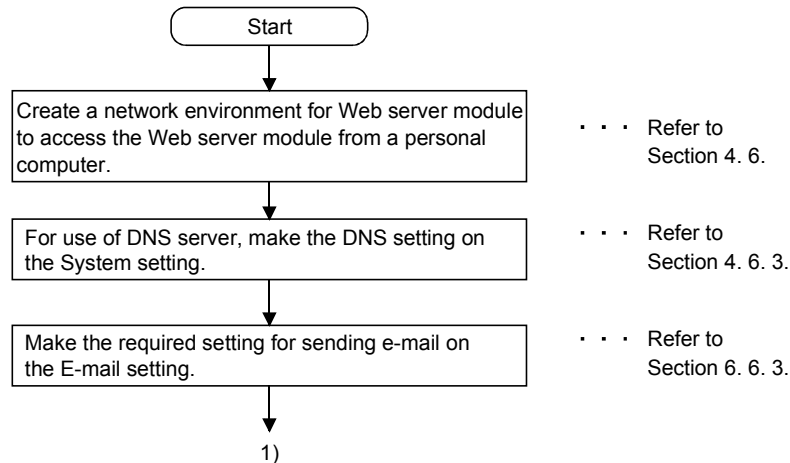
An e-mail including a fixed subject and main text is sent for the e-mail sending test.

6.6.2 Setting procedure for e-mail function

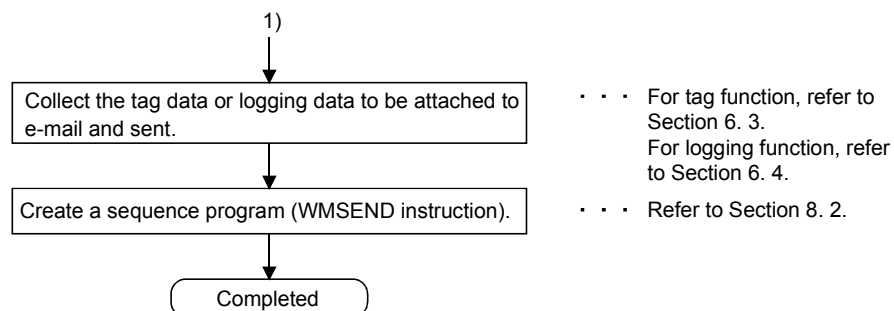
The following is the setting procedure for use of the e-mail function.

(1) Common procedure

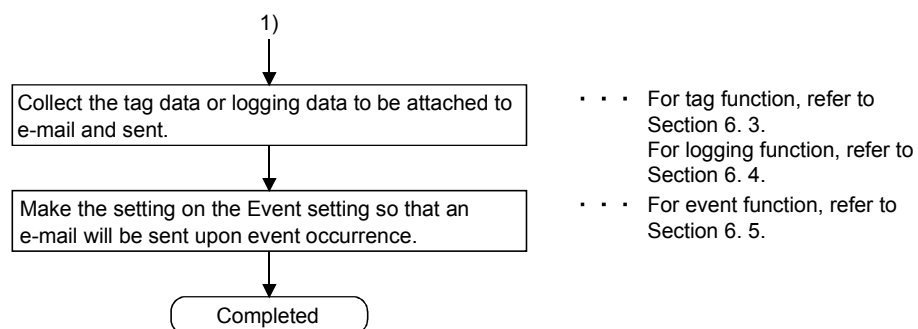
The common procedure for this function is shown below.



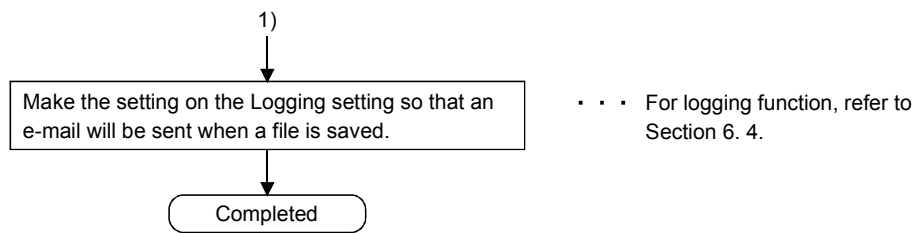
(2) Procedure for sending e-mail by programmable controller CPU



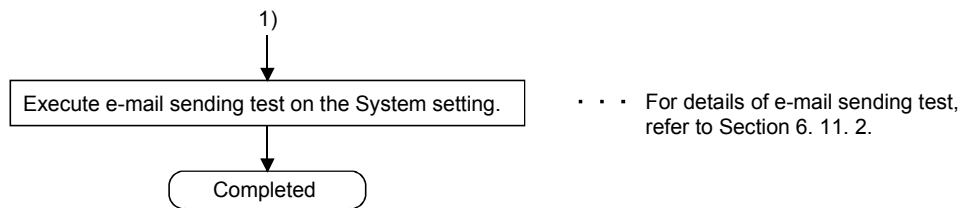
(3) Procedure for sending e-mail by event monitor function



(4) Procedure for sending e-mail by logging function



(5) Procedure for sending e-mail by diagnostics function



6.6.3 E-mail setting

[Setting Purpose]

In the e-mail setting, setting required for e-mail transmission is set.

[Start Procedure]

[Administrative menu] → "E-mail setting"

[Setting Screen]

[Setting Item]

| Item | Description |
|------------------------------|--|
| Send e-mail account setting | Sets the account of the Web server module required to send e-mail. |
| E-mail address (TO:) setting | Sets the destination e-mail address. |
| Option setting | Sets the option related to e-mail. |
| Save | Saves the setting. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. |
| Cancel | Discards the changed setting and returns to the previous setting. |

(1) Send e-mail account setting

The account of the Web server module required to send e-mail is set.
Set the account specified by the Internet service provider and system administrator.

Refer to Appendix 4 (2) for the characters applicable to the send e-mail account setting.

(a) SMTP server name

- 1) Set the SMTP server name using the IP address or domain name.
- 2) When using the domain name, set as follows: (*)

- Enter all the host and domain names into the "SMTP server name" setting column.

(Example) mailserver.****.ne.jp



* When using the domain name, it is required to set the DNS server in "DNS server setting" of the System setting. (Refer to Section 4.6.3)

(b) E-mail address (From:)

Set the e-mail address of the Web server module.

(c) User name

Set the user name for the mail server.

(d) Password, Confirm password

- 1) Set the password for the mail server.
- 2) To confirm the password, set the password again to "Confirm password".

(2) E-mail address (To:) setting

Set the e-mail address of the transmission destination.

Up to 16 destination e-mail addresses can be registered.

Refer to Appendix 4 (2) for the characters applicable to the destination e-mail address.

(3) Option setting

(a) POP before SMTP

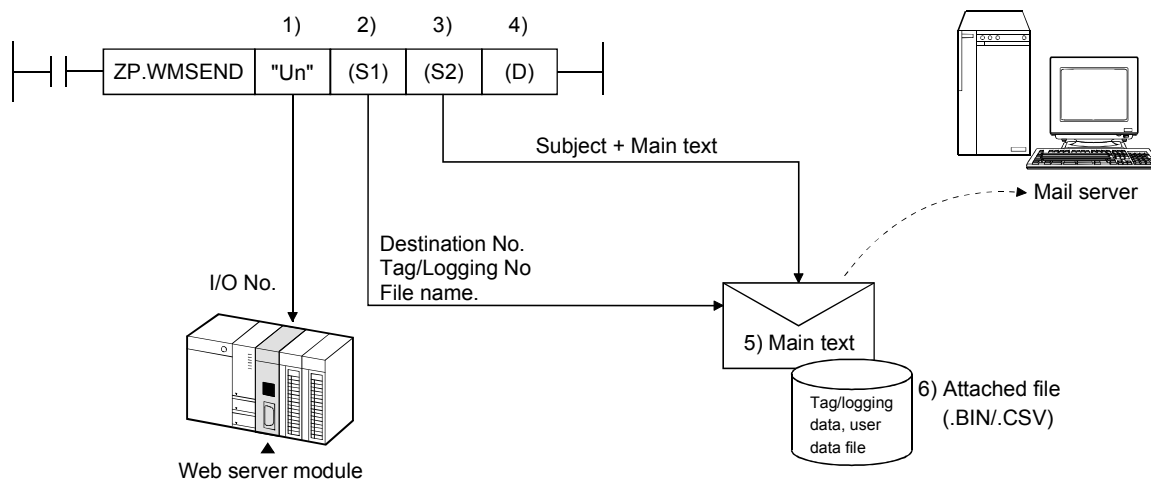
- 1) Enable this setting when the specification of the mail server is POP before SMTP.
- 2) When "POP before SMTP" is selected, set the IP address or domain name as the POP server name.
Refer to the above (1) (a) for the setting method.

POINT

After changing the settings, make sure to click on the "Save" button.
The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset.

6.6.4 E-mail transmission by programmable controller CPU

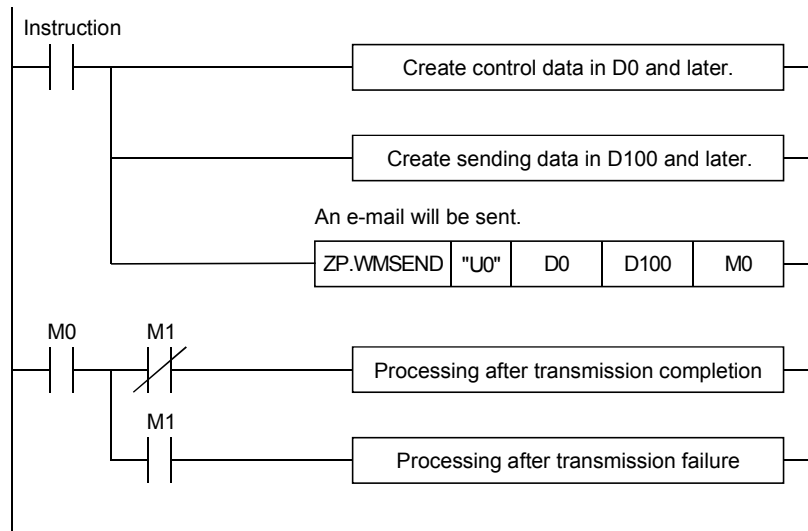
This section explains the WMSSEND instruction used to send e-mail with a sequence program.



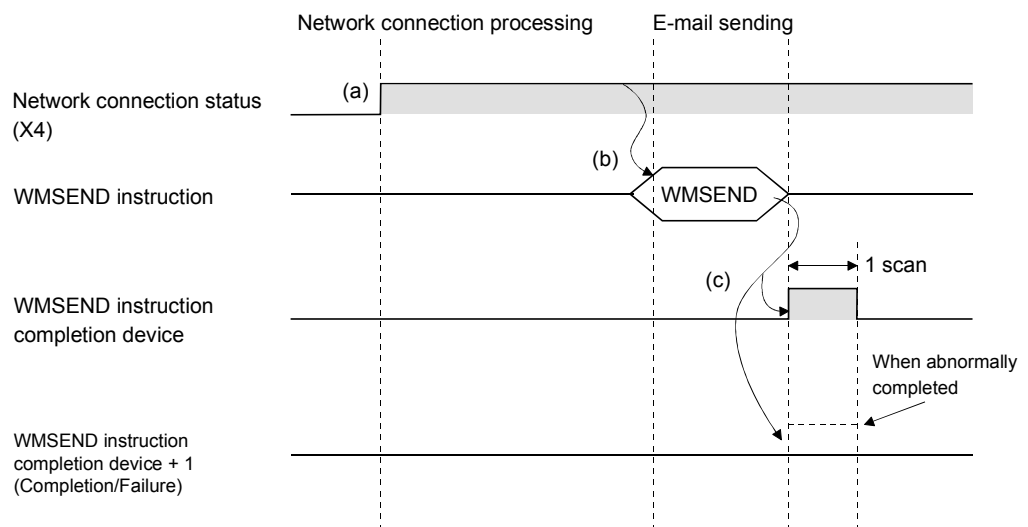
- 1) Head I/O number of Web server module
- 2) Control data (Transmission destination No., tag/logging No, file name, etc.)
Set a destination e-mail address preset in the e-mail setting, an attached tag/logging data or user data file, etc.
- 3) Transmission data (Subject + main text)
Character data set in the sequence program are used.
Since character data is not converted into the ASCII text format, set them as ASCII characters in the sequence program.
- 4) Completed bit
- 5) Main text of e-mail
Character data set in the sequence program are used.
Since character data is not converted into the ASCII text format, set them as ASCII characters in the sequence program.
The following binary coded data is handled as control codes.
 0D0AH : Linefeed code CR + LF
 00H : End of main text
- 6) Attached file
Tag data/logging data/user data file

(1) E-mail transmission by sequence program

The following explains the method for sending e-mail by a sequence program. Refer to Section 8.2 for details of the WMSSEND instruction.



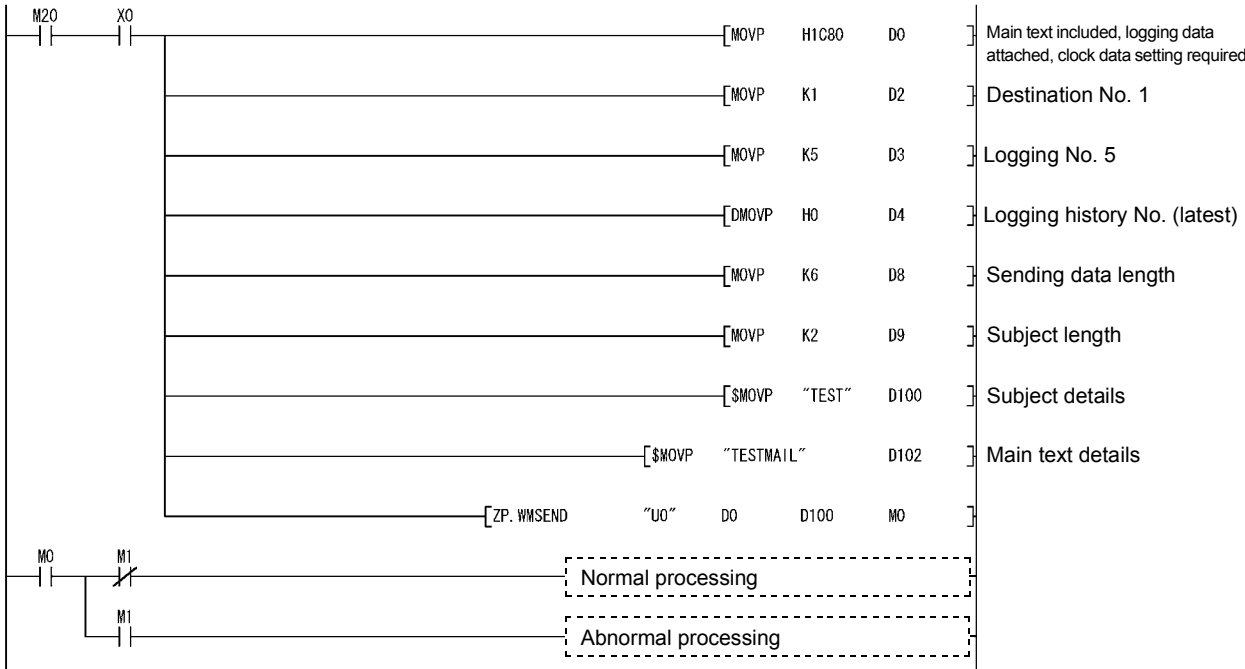
(2) Instruction execution timing



- (a) The Web server module is connected to the network.
When the module is not connected to the network, it is automatically connected during execution of the WMSSEND instruction and disconnected upon completion of the instruction.
- (b) The WMSSEND instruction is executed.
The e-mail specified by the WMSSEND instruction is sent to the mail server.
- (c) When the e-mail transmission to the mail server is completed, the WMSSEND instruction completion device turns on.
When the completion device + 1 turns on (failed), an error code is stored into the control data completion status ((S1) + 1).
Refer to Section 9.3 for the error code.

(3) Sample program

The following is a program in which the Web server module mounted in the position of I/O number X/Y00 to X/Y1F sends e-mail when M20 is turned ON.



(4) Receiving e-mail by personal computer

- (a) The e-mail sent by the Web server module is received by the personal computer.
- (b) The e-mail format used by the Web server module is as follows.

| Item | Description |
|-------------------------|---|
| E-mail address (From:) | E-mail address of the Web server module |
| Subject | Subject set in the control data of the dedicated instruction (1 to 373 words) |
| Main text | Main text set in the control data of the dedicated instruction (0 to 960 words) |
| Attached file name | Tag data : TAG□.CSV (□ indicates the tag setting No.) Logging Data : File name set in the Logging setting (.CSV) User data file : User data file name (.BIN/.CSV) |
| Attached file data (*1) | Tag data/logging data/user data file |
| Attached file capacity | Maximum 512k bytes |

*1 The CSV format file of the tag data is as follows.

Component name 1, Component name 2, Component name 3, . . . [CR+LF]

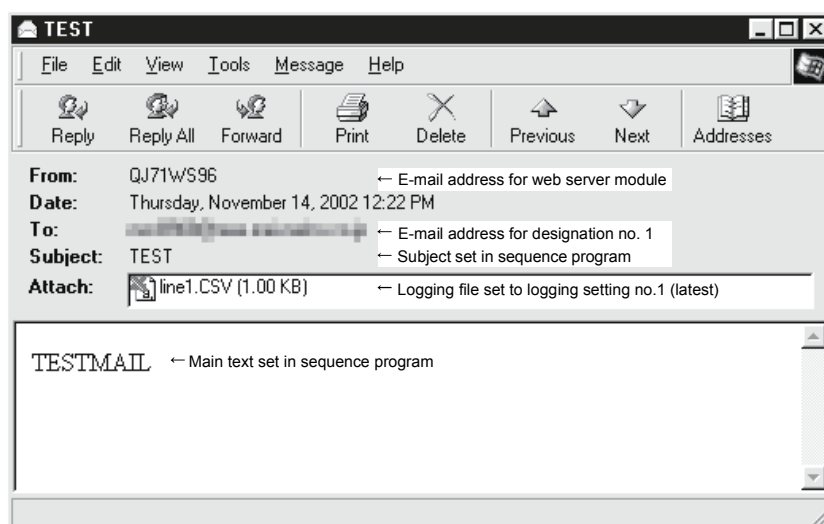
Component value 1, Component value 2, Component value 3, . . . [CR+LF]

(Example)

Product A, Product B, Product C [CR+LF]

100,350,50 [CR+LF]

- (c) The e-mail is received by the personal computer.
- (Example) The following is an example that an e-mail sent by the sample program in (3) is received by the personal computer.
- (In the case of Microsoft® Corporation's Outlook® Express 5.5)



6.6.5 E-mail transmission by logging function

When a file is saved, the Web server module sends an e-mail to the destination e-mail address.

Refer to Section 6.4 for details of the logging function.

(1) Logging setting (Refer to Section 6.4.4)

- (a) In the Logging setting, set "E-mail delivery: Send a saved file to the following e-mail address." and select a destination e-mail address.

External storage setting

E-mail delivery: ☒ Send a saved file to the following e-mail address.

1. 01: [redacted]@melsec.co.jp

2. Do not send

3. Do not send

File transfer: ☐ Transfer a saved file to the following FTP server.

1. Do not transfer

- (b) When a file is saved, an e-mail is sent to the destination e-mail address.

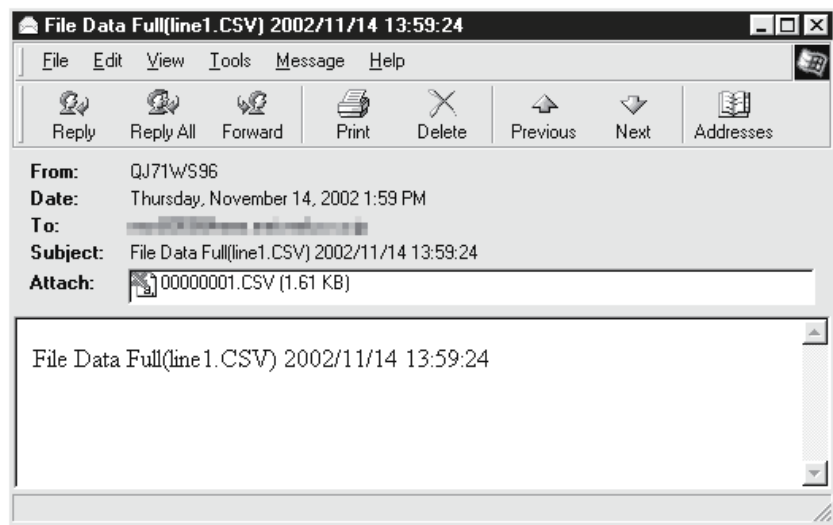
(2) Receiving e-mail by personal computer

- (a) The e-mail sent by the Web server module is received by the personal computer.
- (b) The e-mail format used by the Web server module is as follows.

| Item | Description |
|-------------------------|--|
| E-mail address (From:) | E-mail address of the Web server module |
| Subject | File Data Full (File name.CSV) "Date" File name: File name set in the Logging setting |
| Main text | Same as in the subject |
| Attached file name | Saved file name (Example) 00000009.CSV |
| Attached file data | Saved file |
| Attached file capacity | Maximum 512k bytes |

- (c) The e-mail is received by the personal computer.

(Example) In the case of Microsoft® Corporation's Outlook® Express 5.5



(3) Precautions for sending e-mail by logging function

E-mail transmission requires several to several tens of seconds depending on the network line and data size.

When "When the number of saved files exceeds the above set value: Overwrite" has been set in the Logging setting, an error occurs if the target file is deleted as the oldest file before the e-mail transmission is completed.

Examine and change the settings of the timing, file capacity and number of saved files so that sufficient time is allowed before the file is deleted.

6.6.6 E-mail transmission by event monitor function

Performing CPU monitor, tag monitor and time/interval monitor, the Web server module sends an e-mail to the destination e-mail address when an event occurs. Refer to Section 6.5 for details of the event monitor function.

(1) E-mail transmission by CPU event

(a) CPU event setting (Refer to Section 6.5.3)

- 1) In the CPU event setting, set "Send an e-mail when an event occurs." and set the E-mail main text, Attached file and Send to.

The screenshot shows the 'Event setting' web interface. The breadcrumb trail is 'Home > Administrative menu > Event setting > CPU event setting > Edit screen'. The interface has tabs for 'Common setting', 'CPU event setting', 'Tag event setting', and 'Time/interval event setting'. The 'CPU event setting' tab is active, showing 'CPU event setting(edit)' with 'Save', 'Back', and 'Load' buttons. The 'CPU event setting No.' is 01. The 'CPU name' is '01: Control CPU'. The 'Interval' is 5 seconds. The 'Condition' section has checkboxes for 'Normal STOP' (checked), 'Normal RUN', 'Warning STOP', 'Warning RUN', 'System error', and 'PAUSE'. The 'Mail setting for event occurrence' section has checkboxes for 'Send an e-mail when an event occurs.' (checked) and 'Disconnect from the network after sending mail'. The 'E-mail main text' field contains 'Control CPU' and 'Normal STOP'. The 'Attached file' section has radio buttons for 'None', 'Tag data' (selected), and 'Logging data'. The 'Send to' section is a table with columns for 'E-mail address (To.)' and 'Notification'.

| E-mail address (To.) | Notification | E-mail address (To.) | Notification |
|----------------------|-------------------------------------|----------------------|--------------------------|
| 01: [E-mail address] | <input checked="" type="checkbox"/> | 09: [E-mail address] | <input type="checkbox"/> |
| 02: [E-mail address] | <input type="checkbox"/> | 10: [E-mail address] | <input type="checkbox"/> |
| 03: [E-mail address] | <input type="checkbox"/> | 11: [E-mail address] | <input type="checkbox"/> |
| 04: [E-mail address] | <input type="checkbox"/> | 12: [E-mail address] | <input type="checkbox"/> |
| 05: [E-mail address] | <input type="checkbox"/> | 13: [E-mail address] | <input type="checkbox"/> |
| 06: [E-mail address] | <input type="checkbox"/> | 14: [E-mail address] | <input type="checkbox"/> |
| 07: [E-mail address] | <input type="checkbox"/> | 15: [E-mail address] | <input type="checkbox"/> |
| 08: [E-mail address] | <input type="checkbox"/> | 16: [E-mail address] | <input type="checkbox"/> |

- 2) When a CPU event occurs, an e-mail is sent to the destination e-mail address.

(b) Receiving e-mail by personal computer

- 1) The e-mail sent by the Web server module is received by the personal computer.
- 2) The e-mail format used by the Web server module is as follows.

| Item | Description |
|-------------------------|---|
| E-mail address (From:) | E-mail address of the Web server module |
| Subject (*1) | "CPU name" Status "Status" "Date" |
| Main text | Main text set in "E-mail main text" of the CPU event setting (0 to 128 words) |
| Attached file name | Tag data : TAG□.CSV (□ indicates the tag setting No.) Logging Data : File name set in the Logging setting (.CSV) |
| Attached file data (*2) | Tag data/logging data |
| Attached file capacity | Maximum 512k bytes |

*1 Subject is as follows.

(Example) Control CPU Status STOP 2002/07/24 16:46:23

 ↑ ↑ ↑

 CPU name Status Date

- CPU name

The CPU name preset in the Access target CPU setting is displayed.

- Status

The following table shows the send messages corresponding to the CPU module status.

| CPU Module Status | | Send message |
|-------------------|---------------------------|---|
| Running | Normal operation | RUN |
| | Warning has occurred | RUN (Warning) or RUN (Slight Abnormal) |
| Stopping | Normal operation | STOP |
| | Warning has occurred | STOP (Warning) or STOP (Slight Abnormal) |
| | System error has occurred | STOP (Serious/Fatal Error) or STOP (Abnormal) |
| Pausing | — | PAUSE |

- Date

The date of the event occurrence is displayed.

*2 The CSV format file of the tag data is as follows.

Component name 1, Component name 2, Component name 3, . . . [CR+LF]

Component value 1, Component value 2, Component value 3, . . . [CR+LF]

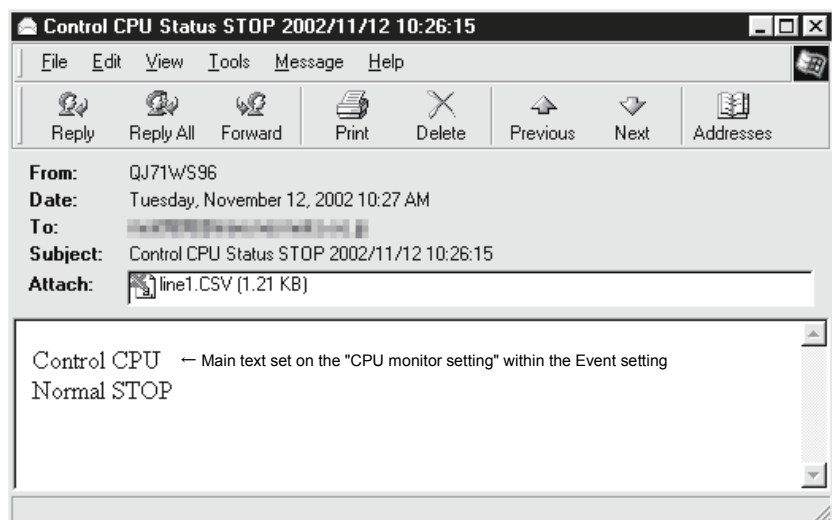
(Example)

Product A, Product B, Product C [CR+LF]

100,350,50 [CR+LF]

- (c) E-mail is received by the personal computer.

(Example) In the case of Microsoft® Corporation's Outlook® Express 5.5



(2) E-mail transmission by tag event

(a) Tag event setting (Refer to Section 6.5.3)

- 1) In the Tag event setting, set "Send an e-mail when an event occurs." and set the E-mail main text, Attached file and Send to.

Home > Administrative menu > Event setting > Tag event setting > Edit screen

Common setting | CPU event setting | Tag event setting | Time/Interval event setting

[Tag event setting(edit)] Save Back Load

Tag event setting No. 001

Tag name: 02: production mngmt

Component name: 01: product A Single word / Decimal(0 decimal places)

Condition: =

Trigger value: 100

Restoration value: 0

Mail setting for event occurrence

☒ Send an e-mail when an event occurs.

☒ Disconnect from the network after sending mail

E-mail main text: Production management
Product A

Attached file:

☐ None

☐ Tag data 01: line 1

☒ Logging data 01: production mngmt

Send to:

| E-mail address (To:) | Notification | E-mail address (To:) | Notification |
|----------------------|-------------------------------------|----------------------|--------------------------|
| 01: [redacted] | <input checked="" type="checkbox"/> | 09: [redacted] | <input type="checkbox"/> |
| 02: [redacted] | <input type="checkbox"/> | 10: [redacted] | <input type="checkbox"/> |
| 03: [redacted] | <input type="checkbox"/> | 11: [redacted] | <input type="checkbox"/> |
| 04: [redacted] | <input type="checkbox"/> | 12: [redacted] | <input type="checkbox"/> |
| 05: [redacted] | <input type="checkbox"/> | 13: [redacted] | <input type="checkbox"/> |
| 06: [redacted] | <input type="checkbox"/> | 14: [redacted] | <input type="checkbox"/> |
| 07: [redacted] | <input type="checkbox"/> | 15: [redacted] | <input type="checkbox"/> |
| 08: [redacted] | <input type="checkbox"/> | 16: [redacted] | <input type="checkbox"/> |

- 2) When a tag event occurs, an e-mail is sent to the destination e-mail address.

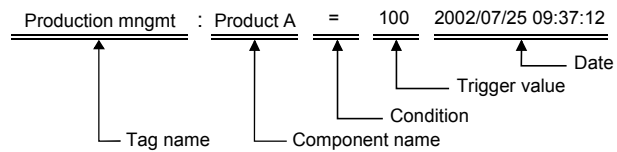
(b) Receiving e-mail by personal computer

- 1) The e-mail sent by the Web server module is received by the personal computer.
- 2) The e-mail format used by the Web server module is as follows.

| Item | Description |
|-------------------------|---|
| E-mail address (From:) | E-mail address of the Web server module |
| Subject (*1) | "Tag name" "Component name" "Condition" "Trigger value" "Date" |
| Main text | Main text set in "E-mail main text" of the Tag event setting (0 to 128 words) |
| Attached file name | Tag data : TAG□.CSV (□ indicates the tag setting No.) Logging Data : File name set in the Logging setting (.CSV) |
| Attached file data (*2) | Tag data/logging data |
| Attached file capacity | Maximum 512k bytes |

*1 Subject is as follows.

(Example)



- Tag name
The tag name set in the Tag setting is displayed.
- Component name
The component name set in "Component setting" of the Tag setting is displayed.
- Condition/Trigger value
The condition and trigger value of the tag event are displayed.
- Date
The date of the event occurrence is displayed.

*2 The CSV format file of the tag data is as follows.

Component name 1, Component name 2, Component name 3, . . . [CR+LF]

Component value 1, Component value 2, Component value 3, . . . [CR+LF]

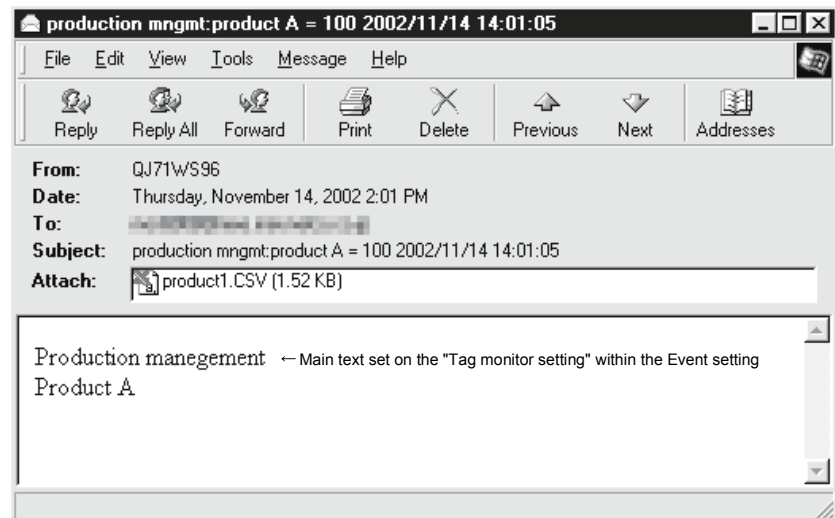
(Example)

Product A, Product B, Product C [CR+LF]

100,350,50 [CR+LF]

(c) The e-mail is received by the personal computer.

(Example) In the case of Microsoft® Corporation's Outlook® Express 5.5



- (3) E-mail transmission by time/interval event
 - (a) Time/Interval event setting (Refer to Section 6.5.3)
 - 1) In the Time/interval event setting, set "Send an e-mail when an event occurs." and set the E-mail main text, Attached file and Send to.

[Event setting]

Home > Administrative menu > Event setting > Time/Interval event setting > Edit screen

Common setting | CPU event setting | Tag event setting | Time/Interval event setting

[Time/Interval event setting(edit)] Save Back Load

Time/Interval event setting No. 01

Time/Interval: ☐ Time specification 00 : 00 : 00 (hour:minute:second)
☒ Interval specification 3600 [seconds](1 to 86400)

Mail setting for event occurrence

☒ Send an e-mail when an event occurs.
☒ Disconnect from the network after sending mail.

E-mail main text: Time/Interval monitoring

Attached file: ☐ None
☐ Tag data 01: line 1
☒ Logging data 01: line 1

Send to:

| E-mail address (To) | Notification | E-mail address (To) | Notification |
|---------------------------|-------------------------------------|---------------------|--------------------------|
| 01: master@xxxxxxxxxxxxxx | <input checked="" type="checkbox"/> | 09: | <input type="checkbox"/> |
| 02: slave1@xxxxxxxxxxxxxx | <input type="checkbox"/> | 10: | <input type="checkbox"/> |
| 03: slave2@xxxxxxxxxxxxxx | <input type="checkbox"/> | 11: | <input type="checkbox"/> |
| 04: | <input type="checkbox"/> | 12: | <input type="checkbox"/> |
| 05: | <input type="checkbox"/> | 13: | <input type="checkbox"/> |
| 06: | <input type="checkbox"/> | 14: | <input type="checkbox"/> |
| 07: | <input type="checkbox"/> | 15: | <input type="checkbox"/> |
| 08: | <input type="checkbox"/> | 16: | <input type="checkbox"/> |

- 2) When a time/interval event occurs, an e-mail is sent to the destination e-mail address.

(b) Receiving e-mail by personal computer

- 1) The e-mail sent by the Web server module is received by the personal computer.
- 2) The e-mail format used by the Web server module is as follows.

| Item | Description |
|-------------------------|---|
| E-mail address (From:) | E-mail address of the Web server module |
| Subject (*1) | Time Event "Date" |
| Main text | Main text set in "E-mail main text" of the Time/Interval event setting (0 to 128 words) |
| Attached file name | Tag data : TAG□.CSV (□ indicates the tag setting No.) Logging Data : File name set in the Logging setting (.CSV) |
| Attached file data (*2) | Tag data/logging data |
| Attached file capacity | Maximum 512k bytes |

*1 Subject is as follows.

(Example) Time Event 2002/07/25 09:39:11
↑ Date

• Date

The date of the event occurrence is displayed.

*2 The CSV format file of the tag data is as follows.

Component name 1, Component name 2, Component name 3, . . . [CR+LF]

Component value 1, Component value 2, Component value 3, . . . [CR+LF]

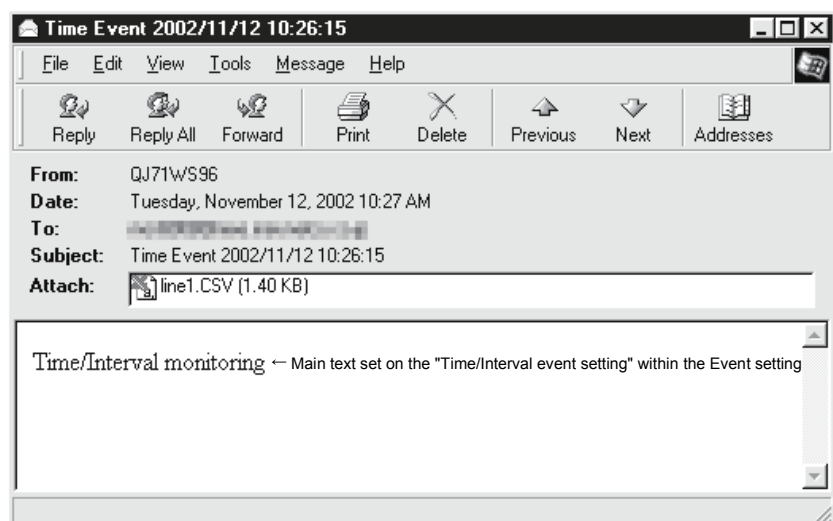
(Example)

Product A, Product B, Product C [CR+LF]

100,350,50 [CR+LF]

(c) The e-mail is received by the personal computer.

(Example) In the case of Microsoft® Corporation's Outlook® Express 5.5



6.7 FTP Function

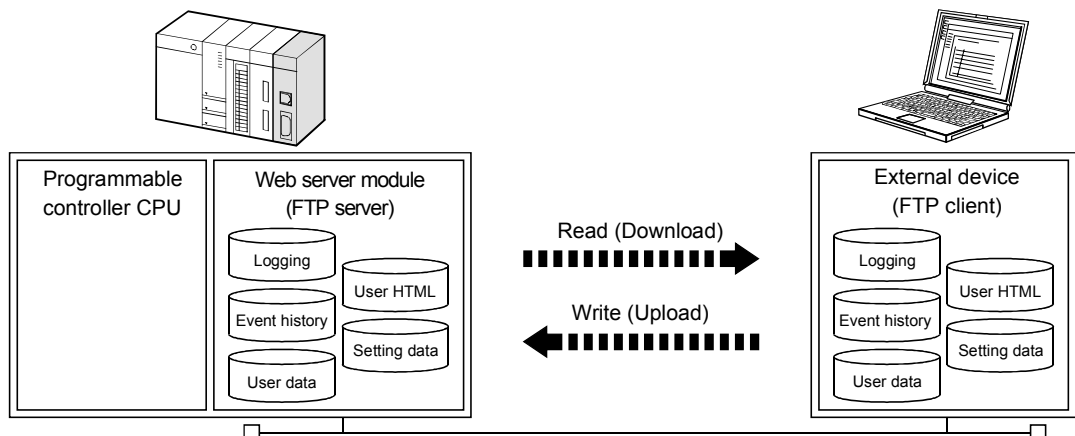
The FTP function is designed to transfer a file between the Web server module and external device.

The FTP function has the FTP server function and FTP client function.

6.7.1 FTP server function

(1) About FTP server function

From the external device (FTP client), the file stored in the Web server module can be read and written.



(2) Account when FTP server access is made

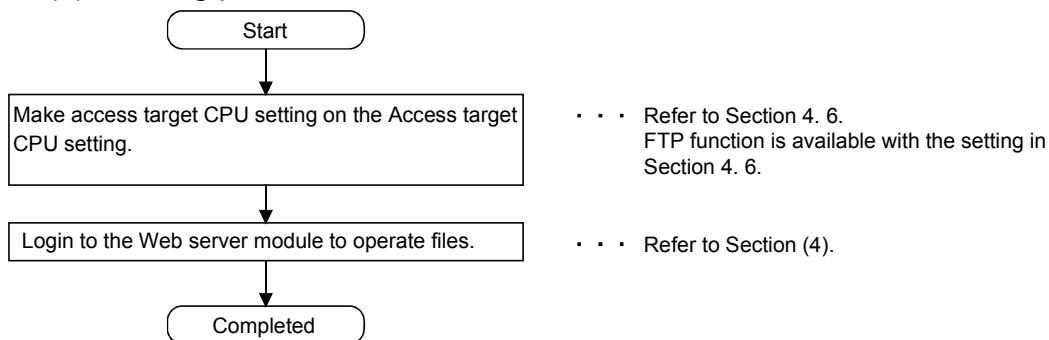
- (a) When access is made from FTP to the Web server module, the account set in the account setting is used.

Refer to Section 4.6.5 for the account setting.

- (b) The range accessible by FTP changes depending on the access authority of the account.

Refer to Appendix 3 for the directory accessible by FTP.

(3) Setting procedure for FTP function



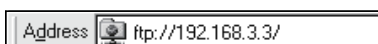
(4) Example of access to FTP server

The following provides an example that a user HTML file is written from Microsoft® Corporation's Internet Explorer 5.5 of the personal computer using the FTP server function of the Web server module.

(a) Log in to the Web server module.

- 1) Start Microsoft® Corporation's Internet Explorer 5.5 and enter the address of the Web server module.

Refer to Section 4.6.3 for the IP address setting.

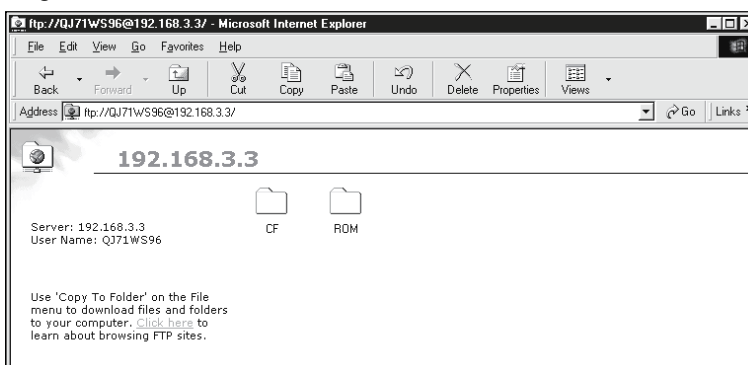


IP address or host name for Web server module

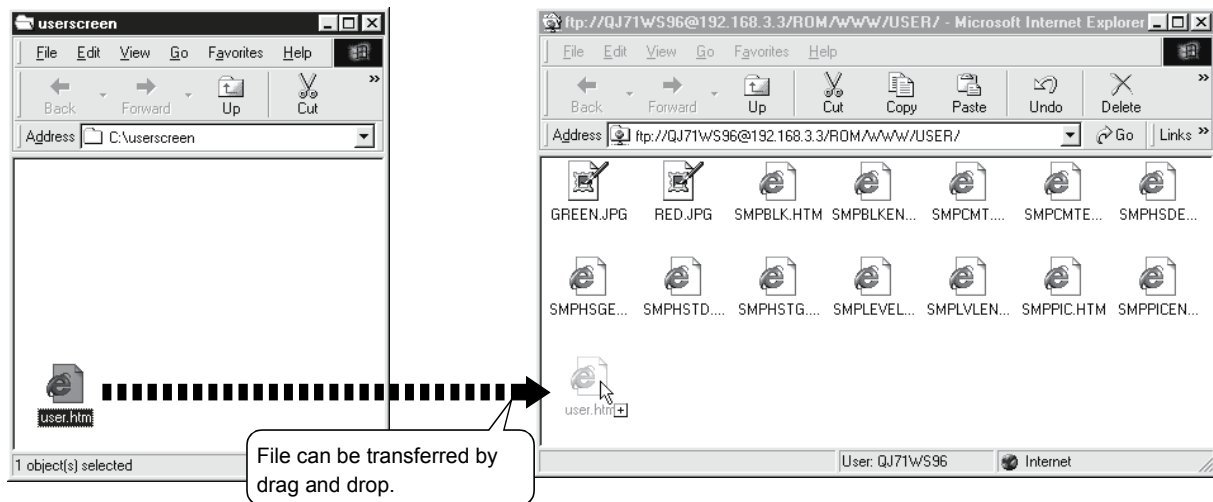
- 2) As the user authentication screen ("Login As" screen) is displayed when access is made to the Web server module, enter the account. Refer to Section 4.6.5 for the account setting.



- 3) Log in to the Web server module.



- (b) After login to the Web server module, write the user HTML file on the personal computer to the USER directory of the Web server module so that normal file operation using Explorer is available.



(5) Precautions for using the FTP server function

- (a) It is required to end the FTP operation once and restart connection to FTP from the beginning if a wrong user name or password is entered to FTP, due to the restrictions on the FTP client side application. Even when the correct user name or password is entered to "user" of the FTP command, FTP may not operate normally.
- (b) The maximum number of simultaneous connections to the FTP server is 10. However, since several internal connections may be made simultaneously depending on the FTP client, login may not be allowed if 10 connections are not reached apparently.
- (c) If many files are transferred at once by FTP, a 426 (Data connection error) error may occur. In that case, transfer the files not at once but several times.
- (d) When a file of the Web server module is overwritten via FTP, the file will be deleted if an error occurs during write of the file. Write the file again via FTP.
- (e) In the case of FTP access by the Internet Explorer, the user authentication screen may not be displayed depending on the Internet Explorer's specifications. In this case, enter the Web server module address as follows:

`ftp://<User name>:<Password>@<Web server module address or host name>/`

(Example) In the case of factory setting:

`ftp://QJ71WS96:MITSUBISHI@192.168.3.3/`

6.7.2 FTP client function

(1) About FTP client function

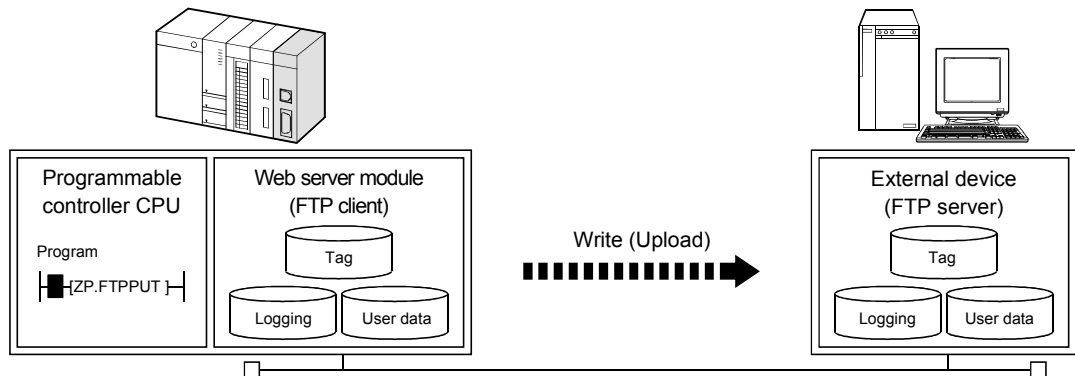
From the Web server module, the file stored in the external device (FTP server) can be read and written.

The following three methods are available for transferring a file by this function.

(a) File transfer by programmable controller CPU

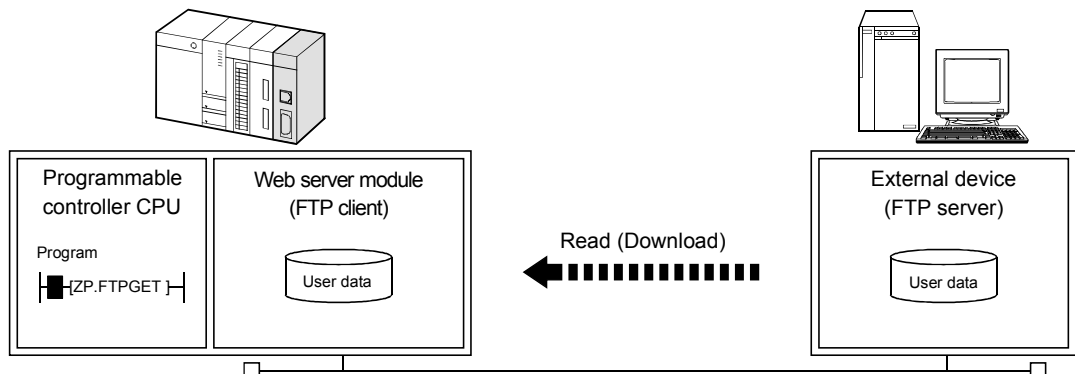
1) FTPPUT instruction

The tag data/logging data/user data file stored in the Web server module can be written to an external device (FTP server).



2) FTPGET instruction

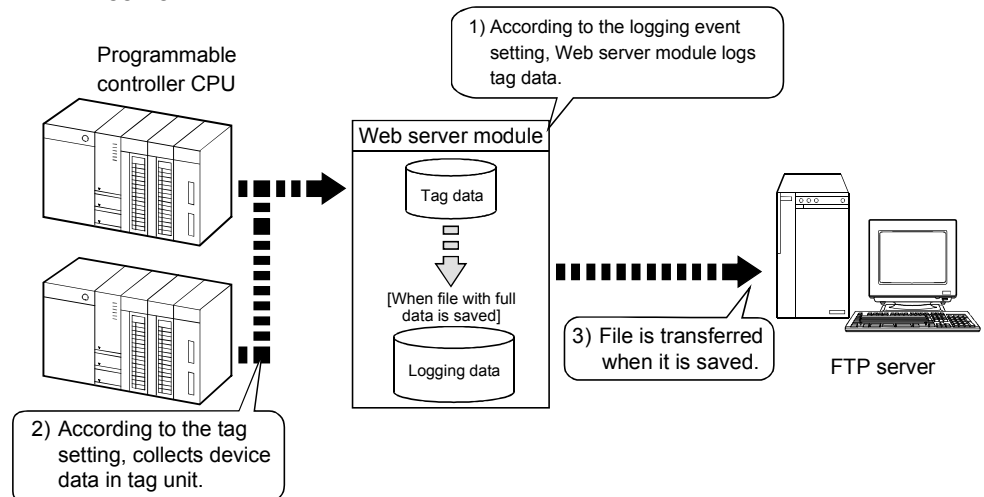
The user data file stored in the external device (FTP server) can be read to the Web server module.



(b) File transfer by logging function

A file is transferred by the Web server module according to the logging setting of the Web browser.

When a file with full data is saved, the logging file is transferred to the FTP server.



(c) File transfer by diagnostics function (refer to Section 6.11.2)

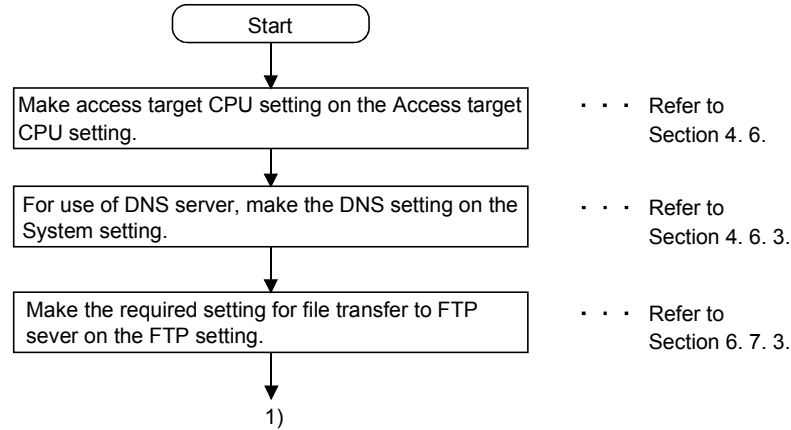
A file is transferred by the Web server module when the setting test of the Web browser is conducted.

The test file is transferred to the FTP server and a file transfer status is confirmed.

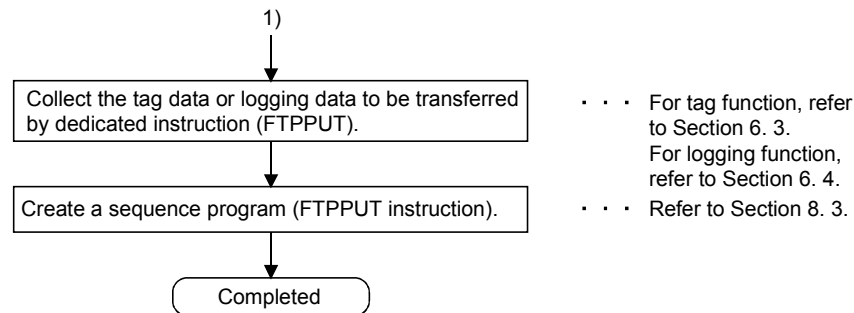
(2) Setting procedure for FTP client function

(a) Common procedure

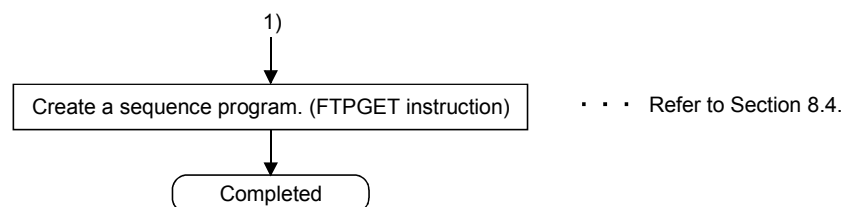
The common procedure required to use the FTP client function is indicated below.



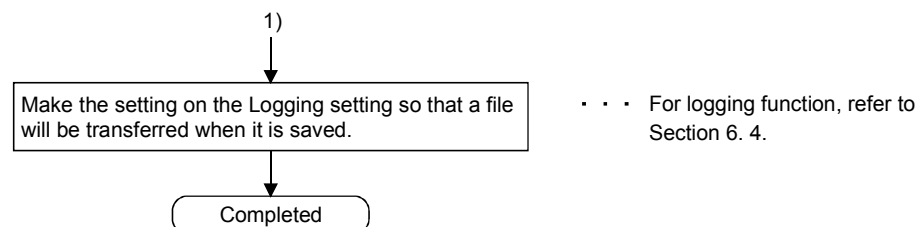
(b) Procedure for transferring (PUT) file by programmable controller CPU



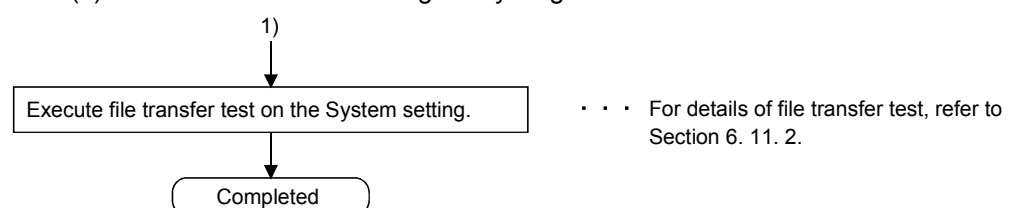
(c) Procedure for transferring (GET) file by programmable controller CPU



(d) Procedure for transferring file by logging function



(e) Procedure for transferring file by diagnostics function



6.7.3 FTP setting

[Setting Purpose]

In the FTP setting, make setting to use the FTP client function.

When the FTP server function is used, this setting is not required.

[Start Procedure]

[Administrative menu] → "FTP setting" (refer to (1)) → Select FTP setting No. and click on **Edit** → (refer to (2))

(1) FTP setting

Make FTP setting.

[Setting Screen]

| Item | No. | FTP server name | User name | Directory path |
|----------------------------------|-----|-----------------|-----------|-----------------|
| <input checked="" type="radio"/> | 1 | 192.168.3.10 | QJ71WS96 | /QJ71WS96/USER/ |
| <input type="radio"/> | 2 | | | |
| <input type="radio"/> | 3 | | | |

[Setting Item]

| Item | Description |
|-----------------|--|
| Item | Selects the FTP setting No. to be edited or deleted. |
| FTP server name | Displays the FTP server name of the file transfer destination. |
| User name | Displays the account (user name). |
| Directory path | Displays the directory path of the FTP server. |
| Edit | Edits the selected FTP setting. |
| Delete | Deletes the selected FTP setting. |

(2) Edit screen

Set the FTP server name, login user name, login password and directory path.

Refer to Appendix 4 (2) for the characters applicables to the FTP setting.

[Setting Screen]

[Setting item]

| Item | Description |
|---|--|
| FTP server name | Sets the FTP server name of the file transfer destination using the IP address or domain name. |
| Login user name | Sets the login user name for the FTP server. |
| Login password | Sets the login password for the FTP server. |
| Confirm login password | Sets the login password again to confirm the login password. |
| Directory path | Sets the directory path of the FTP server. |
| <input type="button" value="Save"/> | Saves the setting. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. |
| <input type="button" value="Back"/> <input type="button" value="Cancel"/> | Discards the changed setting and returns to the FTP setting screen. |
| Select FTP setting No. and click on <input type="button" value="Load"/> | Loads the parameters of the No. selected in FTP setting No. and displays them on the Edit screen. |

(a) FTP server name

- 1) Set the FTP server name using the IP address or domain name.
- 2) When the domain name is used for setting, make setting as described below. (*)

- Enter all the host and domain into the FTP server name setting column.

(Example) ftpsrvr.****.ne.jp

↑ ↑
 Host Domain

* When using the domain name, it is required to set the DNS server in "DNS server setting" of the system setting. (Refer to Section 4.6.3)

(b) Login user name

Set the login user name for the FTP server.

(c) Login password, Confirm login password

- 1) Set the login password for the FTP server.
- 2) To confirm the login password, set the login password again to "Confirm login password".

(d) Directory path

Set the FTP server directory path on the FTP server.

Use "/" as the separation character of the directory.

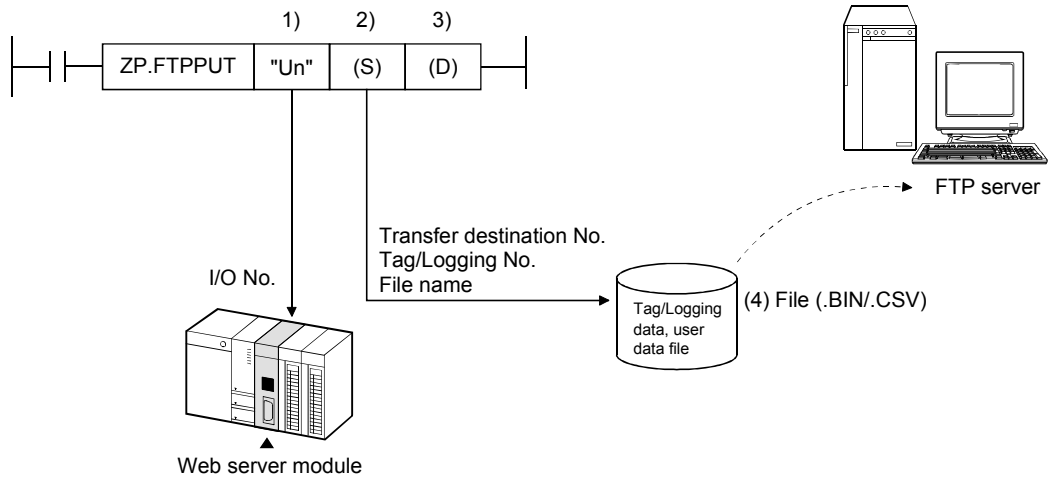
POINT

After changing the settings, make sure to click on the "Save" button.

The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset.

6.7.4 File transfer by programmable controller CPU (PUT)

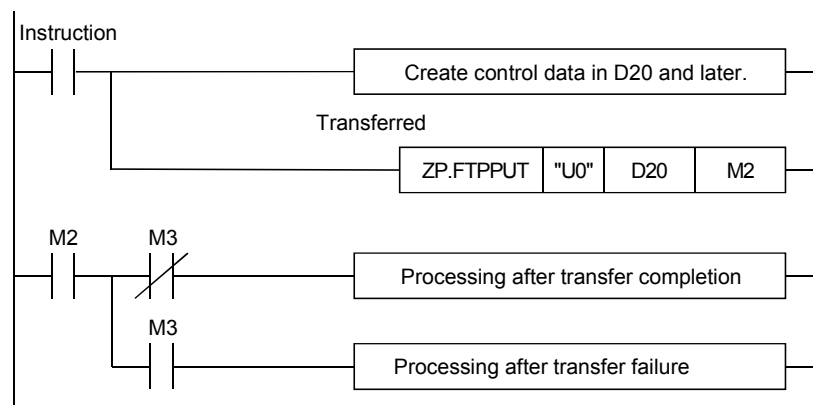
This section explains the FTPPUT instruction used to transfer a file with a sequence program.



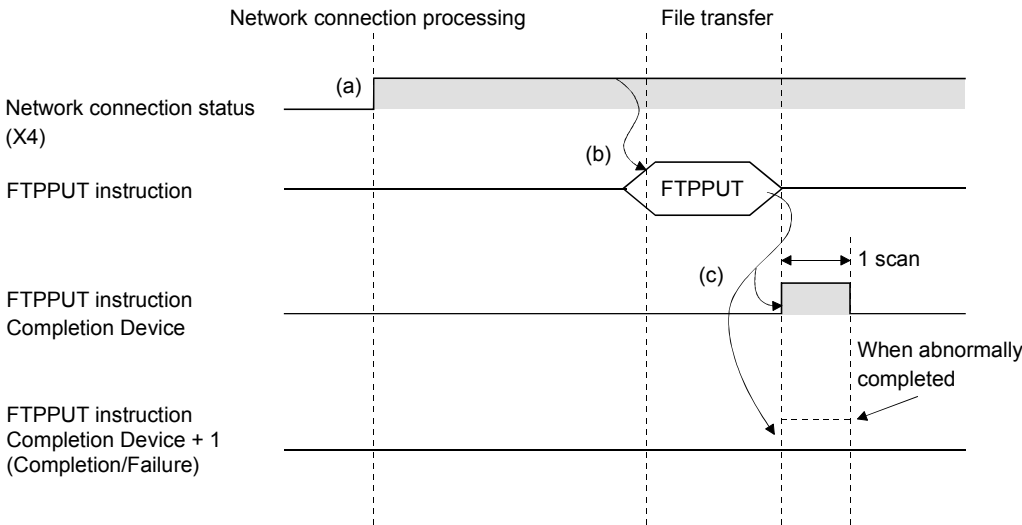
- 1) Head I/O number of Web server module
- 2) Control data (transfer destination No., tag/logging No., etc.)
Set the transfer destination FTP server set in the FTP setting, the tag/logging data of the file to be transferred, etc.
- 3) Completed bit
- 4) File
Tag data/logging data/user data file

(1) File transfer by sequence program

The following explains the method of transferring a file by a sequence program. Refer to Section 8.3 for details of the FTPPUT instruction.



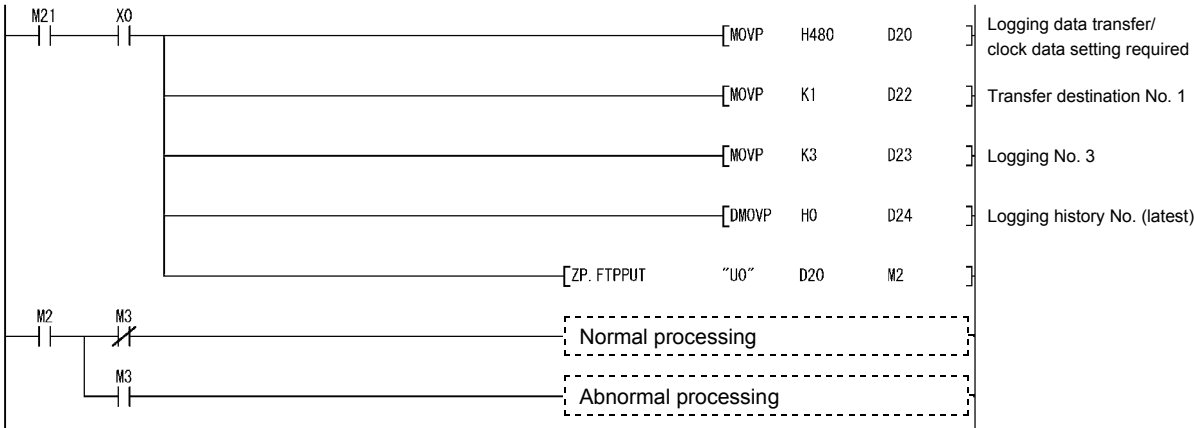
(2) Instruction execution timing



- (a) The Web server module is connected to the network.
When the module is not connected to the network, it is automatically connected during execution of the FTPPUT instruction and disconnected after completion of the instruction.
- (b) The FTPPUT instruction is executed.
The file specified by the FTPPUT instruction is sent to the FTP server.
- (c) When file transfer to the FTP server is completed, the FTPPUT instruction completion device turns on.
When the completion device + 1 turns on (failed), the error code is stored into completion status ((S1)+1).
Refer to Section 9.3 for the error code.

(3) Sample program

The following is a program in which the Web server module mounted in the position of I/O number X/Y00 to X/Y1F transfers (PUT) logging data to the FTP server when M21 is turned ON.



(4) Format of transferred file

The following table shows the form of the file transferred by the Web server module to the FTP server.

| Item | Description |
|----------------|---|
| File name | Tag data: TAG□. CSV (□ indicates the tag setting No.) Logging Data: File name set in the logging setting (.CSV) |
| File data (*1) | Tag data/logging data/user data file |
| File capacity | Maximum 512k bytes |

*1 The CSV format file of the tag data is as follows.

Component name 1, Component name 2, Component name 3, . . . [CR+LF]

Component value 1, Component value 2, Component value 3, . . . [CR+LF]

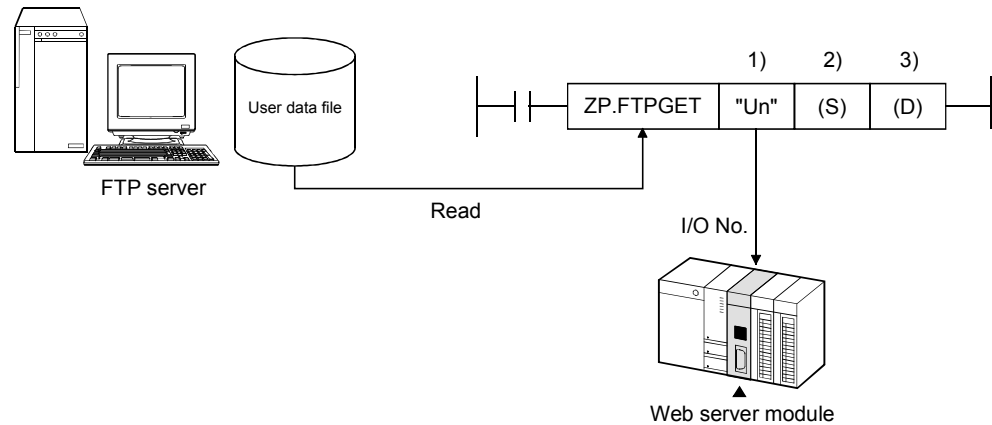
(Example)

Product A, Product B, Product C [CR+LF]

100,350,50 [CR+LF]

6.7.5 File transfer by programmable controller CPU (GET)

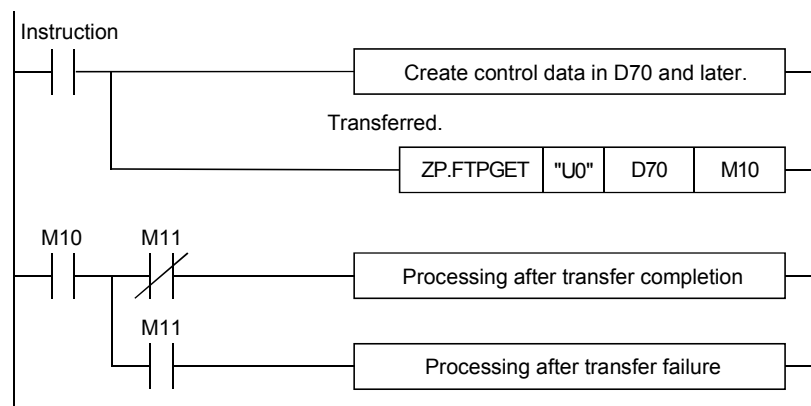
This section explains the FTPGET instruction used to transfer a file with a sequence program.



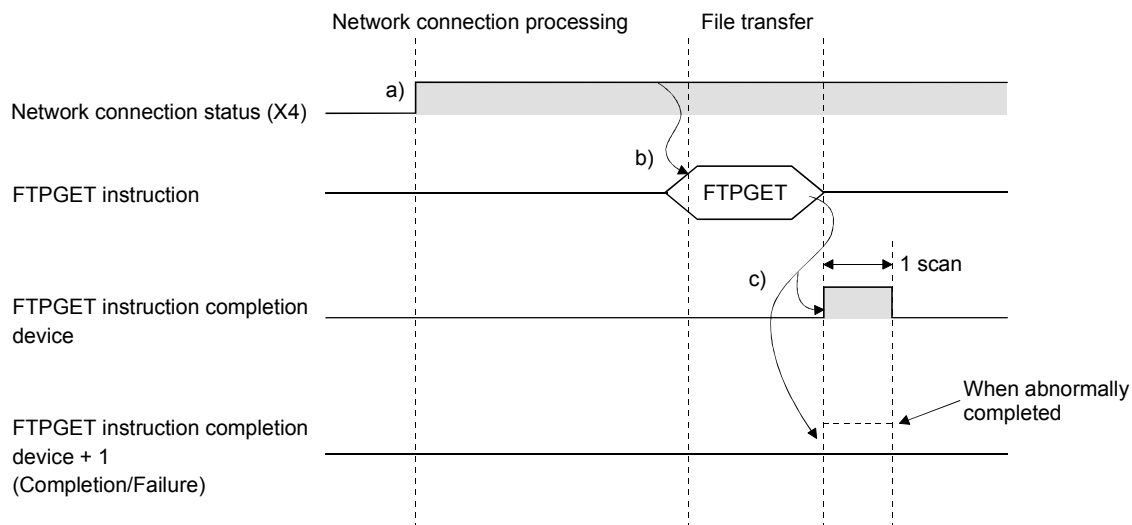
- 1) Head I/O number of Web server module
- 2) Control data (transfer source No., file name, etc.)
Set the transfer source FTP server preset in the FTP setting, the file name to be transferred, etc.
- 3) Completion bit

(1) File transfer by sequence program

The following explains the method of transferring a file by a sequence program. Refer to Section 8.4 for details of the FTPGET instruction.



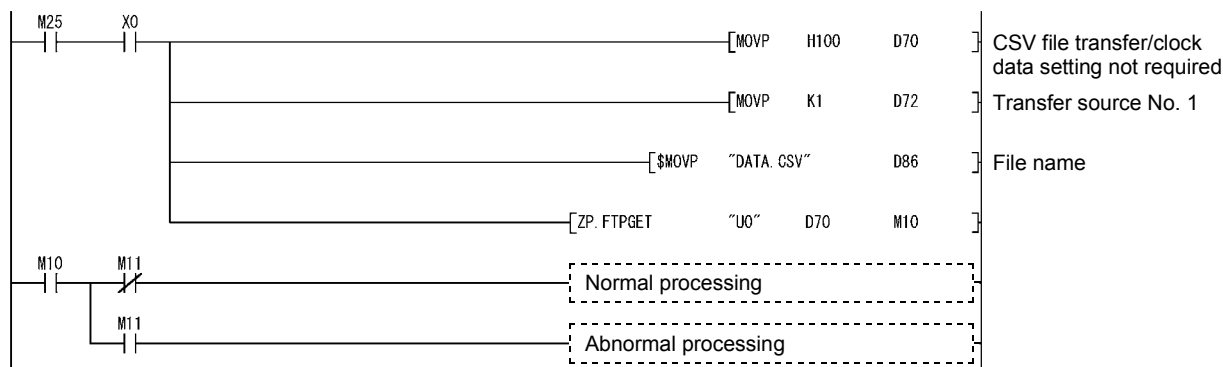
(2) Instruction execution timing



- (a) The Web server module is connected to the network.
When the module is not connected to the network, it is automatically connected during execution of the FTPGET instruction and disconnected after completion of the instruction.
- (b) The FTPGET instruction is executed.
The file specified by the FTPGET instruction is transferred from the FTP server.
- (c) When file transfer from the FTP server is completed, the FTPGET instruction completion device turns on.
When the completion device + 1 turns on (failed), an error code is stored into the completion status ((S1)+1) area of the control data.
Refer to Section 9.3 for the error code.

(3) Sample program

The following is a program in which the Web server module mounted in the position of I/O number X/Y00 to X/Y1F transfers (GET) the user data file "DATA.CSV" from the FTP server when M25 is turned ON.



6.7.6 File transfer by logging function

When a file is saved, the Web server module transfers a logging file to the destination FTP server.

Refer to Section 6.4 for details of the logging function.

(1) Logging setting (Refer to Section 6.4.4)

- (a) In the Logging setting, set "File transfer: Send a saved file to the following FTP server." and select the transfer destination FTP server name.

External storage setting

E-mail delivery: ☐ Send a saved file to the following e-mail address.

1. Do not send

2. Do not send

3. Do not send

File transfer: ☒ Transfer a saved file to the following FTP server.

1. 01: [Server Name]

- (b) When a file is saved, a logging file is transferred to the destination FTP server.

(2) Format of transferred file

The following table shows the format of the file transferred by the Web server module to the FTP server.

| Item | Description |
|---------------|--|
| File name | Saved file name (Example) 00000009.CSV |
| File data | Saved file |
| File capacity | Maximum 512k bytes |

(3) Precautions for transferring a file by logging function

File transfer requires several to several tens of seconds depending on the network line and data size.

When "When the number of saved files exceeds the above set value: Overwrite" has been set in the Logging setting, an error occurs if the target file is deleted as the oldest file before the file transfer is completed.

Examine and change the settings of the timing, file capacity and number of saved files so that sufficient time is allowed before the file is deleted.

6.8 Access Log Function

[Setting Purpose]

Access log is a function to record access from the external device to the Web server module.

It allows users to check the access frequency from the external device and check for the illegal access.

[Start Procedure]

[Administrative menu] → "Access log"

[Setting Screen]

| [Access log] Home > Administrative menu > Access log | | | | |
|--|---------------------|-----------|-------------------|-------------------|
| Clear | | | | |
| No. | Time | User name | Operation | Source IP address |
| 1 | 2002/11/05 20:35:42 | QJ71WS96 | HTTP login | 192.168.3.1 |
| 2 | 2002/11/06 14:20:50 | QJ71WS96 | HTTP login | 192.168.3.1 |
| 3 | 2002/11/06 14:53:17 | QJ71WS96 | FTP login | 192.168.3.1 |
| 4 | 2002/11/06 14:53:19 | QJ71WS96 | FTP login | 192.168.3.1 |
| 5 | 2002/11/06 14:53:24 | QJ71WS96 | FTP login failure | 192.168.3.1 |
| 6 | 2002/11/06 14:53:28 | QJ71WS96 | FTP login failure | 192.168.3.1 |
| 7 | 2002/11/06 14:53:55 | QJ71WS96 | HTTP login | 192.168.3.1 |
| 8 | 2002/11/06 14:54:18 | QJ71WS96 | HTTP login | 192.168.3.1 |
| 9 | 2002/11/06 14:54:21 | QJ71WS96 | HTTP login | 192.168.3.1 |
| 10 | 2002/11/06 16:28:15 | QJ71WS96 | HTTP login | 192.168.3.1 |
| 11 | 2002/11/06 18:45:57 | QJ71WS96 | HTTP login | 192.168.3.1 |
| 12 | 2002/11/07 10:09:09 | QJ71WS96 | HTTP login | 192.168.3.1 |
| 13 | 2002/11/07 10:09:38 | QJ71WS96 | Event setting | 192.168.3.1 |
| 14 | 2002/11/07 10:09:53 | QJ71WS96 | Event setting | 192.168.3.1 |
| 15 | 2002/11/07 10:10:08 | QJ71WS96 | Setting update | 192.168.3.1 |
| 16 | 2002/11/07 10:13:14 | QJ71WS96 | FTP login | 192.168.3.1 |
| 17 | 2002/11/07 10:13:16 | QJ71WS96 | FTP login | 192.168.3.1 |
| 18 | 2002/11/07 10:13:19 | QJ71WS96 | FTP login failure | 192.168.3.1 |
| 19 | 2002/11/07 10:13:24 | QJ71WS96 | FTP login failure | 192.168.3.1 |
| 20 | 2002/11/07 10:14:08 | QJ71WS96 | FTP login | 192.168.3.1 |

[Setting Item]

| Item | Description |
|-------------------|--|
| Time | Displays the time when access was made. |
| User name | Displays the user name who made access. |
| Operation | Displays the operation performed for access. |
| Source IP address | Displays the IP address of the access source. |
| Clear | Clears the access log. Up to 500 records can be saved by the access log. |

(1) Time

The time when access was made is displayed.

(Example) 2002/07/18 19:42:01

(2) User name

- (a) The user name who made access is displayed.
- (b) Set the user name in the account setting.
(Refer to Section 4.6.5 for the account setting.)

(3) Operation

The following table explains the operations performed for access.

| Item | Description |
|------------------------------|--|
| HTTP login | Login to the Web server was executed. |
| HTTP login failure | Login to the Web server failed. |
| Data write | Write to device data or write to tag data was performed. |
| System setting | System setting was made. |
| Dial-up setting | Dial-up setting was made. |
| Access target CPU setting | Access target CPU setting was made. |
| Tag setting | Tag setting was made. |
| Logging setting | Logging setting was made. |
| FTP setting | FTP setting was made. |
| E-mail setting | E-mail setting was made. |
| Event setting | Event setting was made. |
| Address notification setting | Address notification setting was made. |
| Account setting | Account setting was made. |
| IP filter setting | IP filter setting was made. |
| CF backup | Data was backed up by the Compact Flash™ card. |
| CF restore | Data was restored from the Compact Flash™ card. |
| CF format | Compact Flash™ card was formatted. |
| CSV export | Setting data was exported to a CSV file. |
| CSV import | Setting data was imported from a CSV file. |
| Setting update | Setting were updated. |
| FTP login | Login to the FTP server was executed. |
| FTP login failure | Login to the FTP server failed. |

(4) Source IP address

The IP address of the access source is displayed in decimal.
(Example) 192. 168. 3. 1

(5) Precautions for using the access log function.

Though several login records may be registered for one login, it is not an error because several logins have been executed internally.

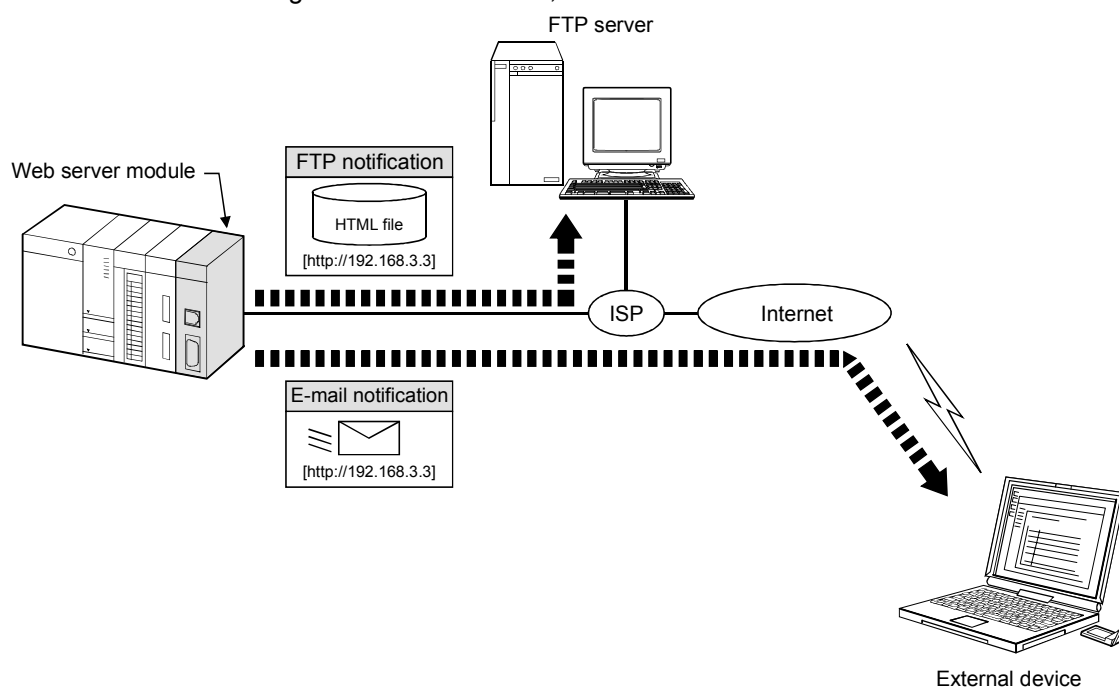
6.9 Address Notification Function

6.9.1 Address notification function

The address notification function notifies the external device of the URL of the Web server module by E-mail or FTP.

When network connection is made, the global IP address is assigned from the Internet service provider to the Web server module.

When the external device is notified of the IP address that the Web server module has obtained through address notification, access to the Web server module is enabled.



6.9.2 Address notification setting

[Setting Purpose]

- 1) In the IP address setting, set the IP address and HTTP port number of which the external device will be notified by E-mail or FTP.
- 2) In the e-mail notification setting, set the destination e-mail address and address notification timing when IP address notification is made by e-mail.
- 3) In the FTP notification setting, set the transfer destination FTP server when IP address notification is made by file transfer.

[Start Procedure]

- 1) IP address setting (refer to (1))
[Administrative menu] → "Address notification setting" → <<IP address setting>> tab → "IP address setting"
- 2) E-mail notification setting (refer to (2))
[Administrative menu] → "Address notification setting" → <<E-mail notification setting>> tab → "E-mail notification setting"
- 3) FTP notification setting (refer to (3))
[Administrative menu] → "Address notification setting" → <<FTP notification setting>> tab → "FTP notification setting"

(1) IP address setting

Make IP address setting.

[Setting Screen]

The screenshot shows a web-based configuration interface. At the top, there's a breadcrumb trail: Home > Administrative menu > Address notification setting > IP address setting. Below this, there are three tabs: 'IP address setting' (selected), 'E-mail notification setting', and 'FTP notification setting'. Under the 'IP address setting' tab, there are 'Save' and 'Cancel' buttons. The main content area is titled 'Notification IP address' and contains two sections. The first section has three radio button options: 'Notify the IP address set in the "System setting" screen.' (selected), 'Notify the global IP address obtained from the router.', and 'Notify the following IP address.' with an adjacent 'IP address:' text box. The second section has two radio button options: 'Notify the HTTP port number set in the "System setting" screen.' (selected) and 'Notify the following HTTP port number.' with an adjacent 'HTTP port number:' text box and a range '(1024 to 65535)'.

[Setting Item]

| Item | Description |
|-------------------------|--|
| Notification IP address | Set the IP address and HTTP port of which the external device will be notified. |
| Save | Saves the setting. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. |
| Cancel | Discards the changed setting and returns to the previous setting. |

(a) Set the notification IP address.

- 1) Select the IP address of which the external device will be notified.

| Item | Description |
|---|---|
| Notify the IP address set in the "System setting" screen. | Select this item when notifying the external device of the IP address set in the system setting. (Refer to Section 4.6.3) |
| Notify the global IP address obtained from the router. (*1) | Select this item when connecting through a router. The WAN side (Internet side) IP address is obtained from the router and notified. |
| Notify the following IP address. | Select this item when notifying the specified IP address. |

*1 When the router is incompatible with UPnP, the Web server module cannot obtain the global IP address from the router.

Obtain the static global IP address from the Internet service provider, and specify the obtained IP address at "Use the following IP address."

- 2) When "Notify the following IP address." has been selected, set the IP address in decimal number.
(Example) 192. 168. 3. 3
- 3) Set the IP address after consulting the network administrator (person in charge of network planning, IP address management, etc.).

(b) Specify the notification HTTP port number.

- 1) Select the HTTP port number of which the external device will be notified.

It is recommended to use the default value (80) of the HTTP port number.

| Item | Description |
|---|---|
| Notify the HTTP port number set in the "System setting" screen. | Select this item when using the HTTP port number set in the system setting. |
| Notify the following HTTP port number. | Select this item when using the specified HTTP port number (1024 to 65535). |

- 2) When "Notify the following HTTP port number." has been selected, set the HTTP port number in decimal number.
1024 to 65535: HTTP port number
- 3) Set the HTTP port number after consulting the network administrator (person in charge of network planning, IP address management, etc.).

POINT

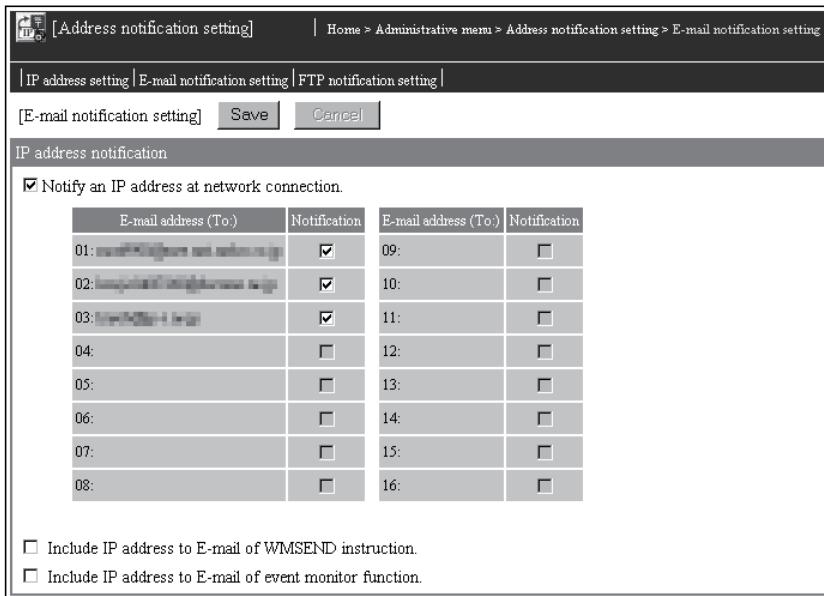
After changing the settings, make sure to click on the "Save" button.

The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset.

(2) E-mail notification setting

Make e-mail notification setting.

[Setting Screen]



[Setting Item]

| Item | Description |
|-------------------------|--|
| IP address notification | Sets the destination e-mail address and address notification timing. |
| Save | Saves the setting. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. |
| Cancel | Discards the changed setting and returns to the previous setting. |

- (a) IP address notification: Notify an IP address at network connection.
 - 1) Address notification is made to the selected destination e-mail address when connecting to network.
 - 2) The destination e-mail address set in the e-mail setting can be selected.
- (b) IP address notification: Include IP address to e-mail of WMSSEND instruction.
When this setting is valid, e-mail is sent by the WMSSEND instruction with URL data attached at the end of the main text.
- (c) IP address notification: Include an IP address to e-mail of event monitor function.
When this setting is valid, e-mail is sent with URL data attached at the end of the main text when an event occurs.

POINT

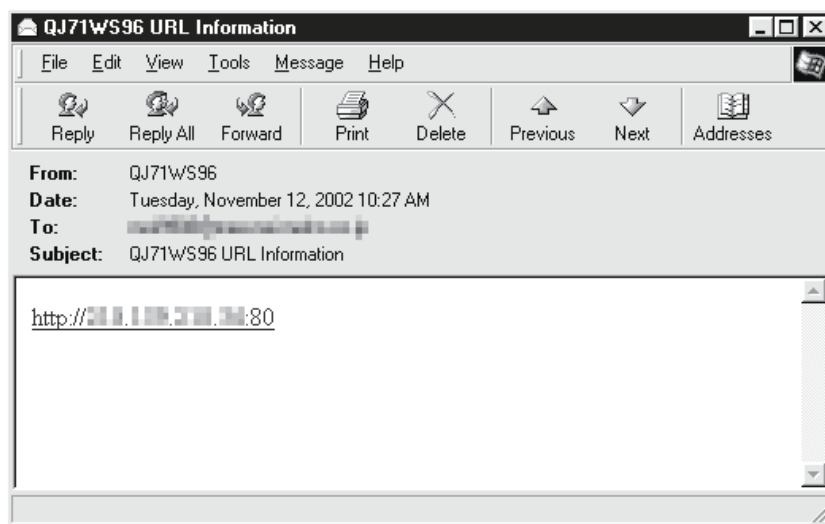
After changing the settings, make sure to click on the "Save" button.
The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset.

[Execution of address notification]

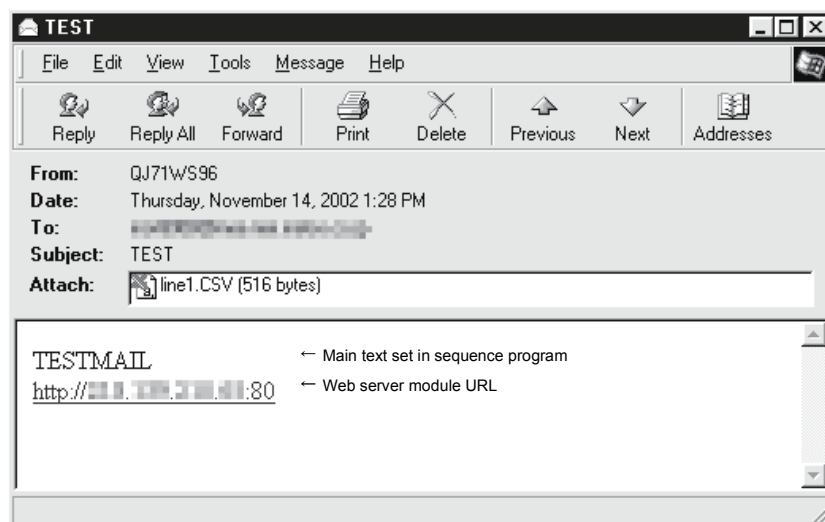
- (a) When the external device is notified of the IP address when network connection is made
- 1) Address notification e-mail is sent to the selected destination e-mail address when network connection is made.
 - 2) The send e-mail form is as indicated below.

| Item | Description |
|------------------------|---|
| E-mail address (From:) | E-mail address of the Web server module |
| Subject | QJ71WS96 URL Information |
| Main text | http://"IP address": "HTTP port number" |
| Attached file | None |

- 3) E-mail is received by the personal computer.
(Example) In the case of Microsoft® Corporation's Outlook® Express 5.5



- (b) When the IP address is attached to the e-mail of the WMSSEND instruction
- 1) When e-mail is sent by the WMSSEND instruction, it is sent with URL data attached at the end of the main text.
 - 2) E-mail is received by the personal computer.
(Example) In the case of Microsoft® Corporation's Outlook® Express 5.5

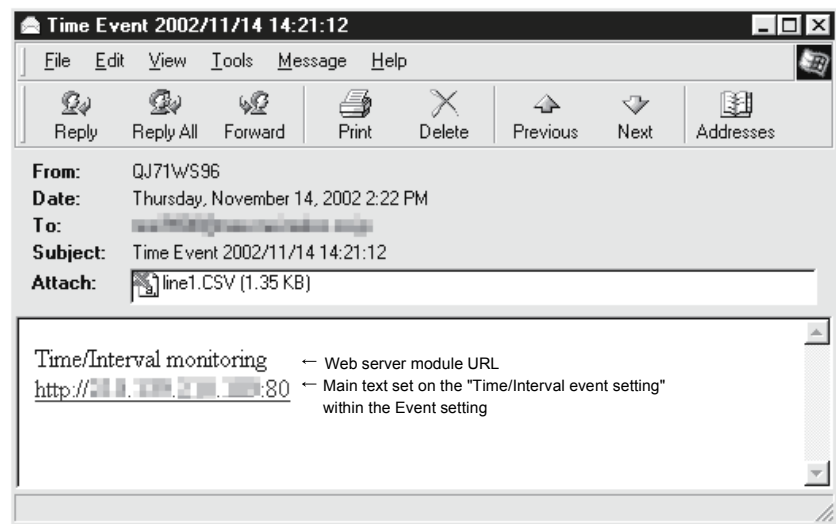


- (c) When the IP address is attached to the e-mail of the event monitor function
- 1) When e-mail is sent at event occurrence, it is sent with URL data attached at the end of the main text.
 - 2) E-mail is received by the personal computer.

The following provides an example when a time/interval event.

(Example) In the case of Microsoft® Corporation's Outlook® Express

5.5



(3) FTP notification setting

Make FTP notification setting.

[Setting Screen]

[Address notification setting] | Home > Administrative menu > Address notification setting > FTP notification setting

IP address setting | E-mail notification setting | FTP notification setting |

[FTP notification setting] [Save] [Cancel]

IP address notification

☒ Notify an IP address at network connection.

| Target FTP server name | Notification | Target FTP server name | Notification |
|------------------------|-------------------------------------|------------------------|--------------------------|
| 01: [FTP server name] | <input checked="" type="checkbox"/> | 09: | <input type="checkbox"/> |
| 02: [FTP server name] | <input checked="" type="checkbox"/> | 10: | <input type="checkbox"/> |
| 03: | <input type="checkbox"/> | 11: | <input type="checkbox"/> |
| 04: | <input type="checkbox"/> | 12: | <input type="checkbox"/> |
| 05: | <input type="checkbox"/> | 13: | <input type="checkbox"/> |
| 06: | <input type="checkbox"/> | 14: | <input type="checkbox"/> |
| 07: | <input type="checkbox"/> | 15: | <input type="checkbox"/> |
| 08: | <input type="checkbox"/> | 16: | <input type="checkbox"/> |

Option setting

Notification file name: [QJ71WS96] .HTM (1 to 8 characters)

Character string for link: [QJ71WS96] (within 64 characters)

[Setting Item]

| Item | Description |
|-------------------------|--|
| IP address notification | Sets the target FTP server. |
| Option setting | Sets the option related to FTP notification. |
| [Save] | Saves the setting. The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset. |
| [Cancel] | Discards the changed setting and returns to the previous setting. |

- (a) IP address notification: Notify an IP address at network connection.
 - 1) Address notification is made to the selected transfer destination FTP server when connecting to network.
 - 2) The target FTP server set in the FTP setting can be selected.
- (b) Option setting
 - 1) Notification file name (1 to 8 characters)
 - Set the file name of the HTML file to be transferred to the FTP server. (Default: QJ71WS96)
 - Refer to Appendix 4 (3) for the characters available for the notification file name.
 - 2) Link character string (Up to 64 characters)
 - Set the character string for link to the Web server module described in the HTML file. (Default: QJ71WS96)
 - Refer to Appendix 4 (2) for the characters available for the link character string.

POINT

After changing the settings, make sure to click on the "Save" button.

The settings are updated when the "Update" button on the Setting update screen is clicked, the programmable controller is powered off and then on, or the CPU module is reset.

[Execution of address notification]

- 1) Address notification is made to the selected transfer destination FTP server when connecting to network.

- 2) The file data transferred to the FTP server is as indicated below.

File name : QJ71WS96.HTM (Set at "Notification file name".)

File data :

```
<html>
<head>
<title>
QJ71WS96 URL Information</title>
</head>
<body>
<a href="http://192.168.3.3:80">QJ71WS96</a>
</body>
</html>
```

Set at "Link character string".

HTTP port number

IP address

6.10 Data Management Function

This section explains the data management function designed to operate the Compact Flash™ card set in the Compact Flash™ card slot of the Web server module.

6.10.1 Backup/Restore function

(1) About backup/restore function

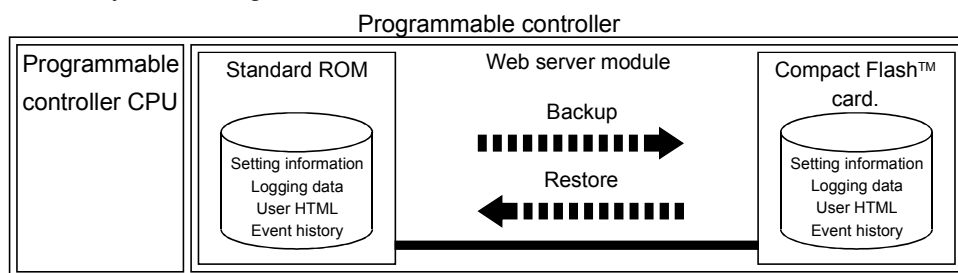
Using the Compact Flash™ card, the setting information, logging data, user HTML and event history stored in the standard ROM can be backed up/restored.

(a) File transfer from standard ROM to Compact Flash™ card (backup)

On the data management screen, back up the setting information, logging data, user HTML and event history stored in the standard ROM by transferring them to the Compact Flash™ card.

(b) File transfer from Compact Flash™ card to standard ROM (restore)

On the data management screen, restore the setting information, logging data, user HTML and event history backed up in the Compact Flash™ card by transferring them to the standard ROM.



(2) Backup/restore target directory

The following table shows the data backup/restore target directory using the Compact Flash™ card.

Refer to Appendix 3 for the directory structure of the Web server module.

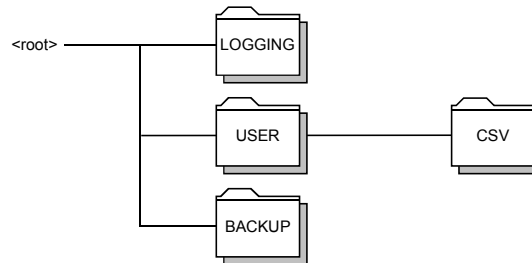
| Stored File | Backup/Restore Target Directory |
|---------------------|---------------------------------|
| Setting information | /ROM/SETTINGS |
| Logging Data | /ROM/WWW/LOGGING |
| User HTML | /ROM/WWW/USER |
| Event history | /ROM/WWW/EVENT |

POINT

The setting data file of the product with first 5 digits of serial No. "05111" or earlier can be restored to the one with first 5 digits of serial No. "05112" or later. However, the setting data file of the product with first 5 digits of serial No. "05112" or later can not be restored to earlier products.

(3) Directory structure on personal computer

The following shows the directory structure when the Compact Flash™ card storing the backup data is confirmed on the personal computer.



Important

Do not change the backup data (files under \BACKUP\).
Using the changed backup data can cause the module to fail or malfunction.

(4) Setting of Compact Flash™ card

Refer to Section 4.9 for the setting method of the Compact Flash™ card.

6.10.2 Format function

(1) About format function

The directory required for use in the Web server module can be created by formatting the Compact Flash™ card.

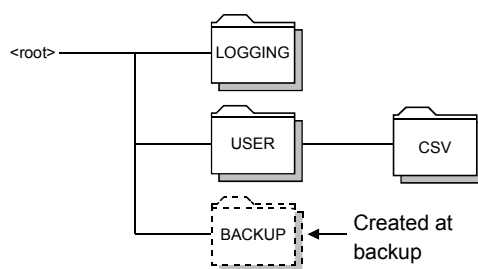
(a) Formatting of Compact Flash™ card

On the data management screen, format the Compact Flash™ card in the MS-DOS media compatible file system form (FAT form) to create the directory required for use in the Web server module.

| POINT |
|--|
| When the Compact Flash™ card is formatted, the data stored in the Compact Flash™ card are all deleted. |

(2) Directory structure of Compact Flash™ card

With the format function, the following directory is created in the Compact Flash™ card.



(3) Setting of Compact Flash™ card

Refer to Section 4.9 for the setting method of the Compact Flash™ card.

6.10.3 CSV export/import function

The setting data (various settings of the administrative menu) of the Web server module can be stored into a CSV file and edited using spreadsheet software, etc. on the personal computer.

The edited CSV file can be read to the Web server module to change the setting data. This function is convenient for editing a screen with many settings, e.g. the component setting.

POINT

The setting data of the Web server module can be set in the Web browser. (Refer to Section 4.6.)

When making setting from the Web browser, it is not necessary to use this function.

(1) CSV export/import function

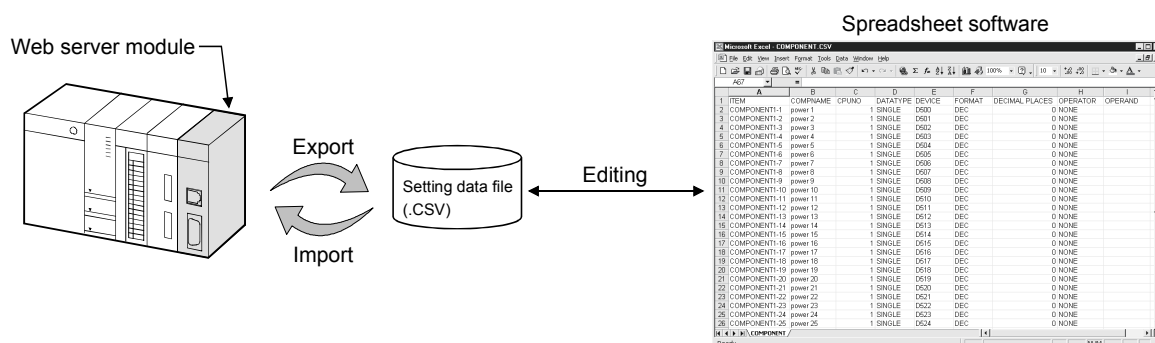
(a) CSV export function

Stores the setting data of the Web server module into standard ROM or Compact Flash™ card as a CSV file on the data management screen.

(b) CSV import function

Reads the CSV file of the standard ROM or Compact Flash™ card to the Web server module as the setting data on the data management screen.

Hereafter, the CSV file created with the CSV export function is referred to as "setting data file".



(2) Precautions for use of the CSV export/CSV import function

(a) When editing the setting data file, make sure that the setting data file was exported by CSV export function.

The user should not create a new setting data file.

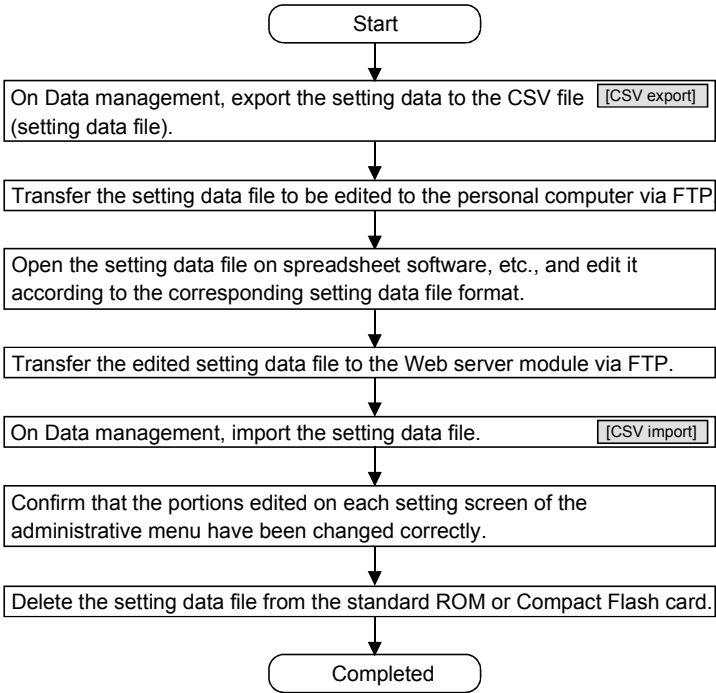
(b) When executing the CSV import of the setting data file, do as in the procedure given in (3).

(c) While CSV export/import is being executed on Data management, do not switch power from ON to OFF, reset the CPU module, or perform operation in the administrative menu.

Performing any of the above operations can cause the setting data file to be corrupted or erased.

(d) To avoid the possibility of illegal data acquirement from the setting data file that contains the password and other data, delete the setting data file from the standard ROM or Compact Flash™ card after the setting is completed.

(3) Operation procedure for CSV export/import function
Refer to the setting example in (4) for an entire sequence.



Refer to Appendix 6 for the setting data file format.

[] indicates the setting item on Data management. (Refer to Section 6.10.4.)

(4) Setting example of CSV export/import function

- (a) In this example, 50 tag components of tag setting No. 1 are registered. The component settings No. 2 to 50 are newly registered to the tag setting No. 1 where the component setting No. 1 has already been registered. (Refer to Section 6.3.3 for tag setting.)

[Before registration]

| [Tag setting] | | | | | | | | |
|--|-----|----------------|-----------------|-------------|--------|---------------------------|----------|---------|
| Home > Administrative menu > Tag setting > Component setting | | | | | | | | |
| <div>Add Edit Delete Back</div> | | | | | | | | |
| Tag name: 01: block A | | | | | | | | |
| Item | No. | Component name | CPU name | Data type | Device | Display form | Operator | Operand |
| <input type="radio"/> | 1 | power 1 | 01: Control CPU | Single word | D500 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 2 | | | | | | | |

[After registration]

| [Tag setting] | | | | | | | | |
|--|-----|----------------|-----------------|-------------|--------|---------------------------|----------|---------|
| Home > Administrative menu > Tag setting > Component setting | | | | | | | | |
| <div>Add Edit Delete Back</div> | | | | | | | | |
| Tag name: 01: block A | | | | | | | | |
| Item | No. | Component name | CPU name | Data type | Device | Display form | Operator | Operand |
| <input type="radio"/> | 1 | power 1 | 01: Control CPU | Single word | D500 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 2 | power 2 | 01: Control CPU | Single word | D501 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 3 | power 3 | 01: Control CPU | Single word | D502 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 4 | power 4 | 01: Control CPU | Single word | D503 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 5 | power 5 | 01: Control CPU | Single word | D504 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 6 | power 6 | 01: Control CPU | Single word | D505 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 7 | power 7 | 01: Control CPU | Single word | D506 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 8 | power 8 | 01: Control CPU | Single word | D507 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 9 | power 9 | 01: Control CPU | Single word | D508 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 10 | power 10 | 01: Control CPU | Single word | D509 | Decimal(0 decimal places) | None | - |
| ⋮ | | | | | | | | |
| <input type="radio"/> | 45 | power 45 | 01: Control CPU | Single word | D544 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 46 | power 46 | 01: Control CPU | Single word | D545 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 47 | power 47 | 01: Control CPU | Single word | D546 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 48 | power 48 | 01: Control CPU | Single word | D547 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 49 | power 49 | 01: Control CPU | Single word | D548 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 50 | power 50 | 01: Control CPU | Single word | D549 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 51 | | | | | | | |

(b) Operation procedure

(Start)

[CSV export] **Execute**

Exporting the setting information to CSV files.

☒ Standard ROM
☐ CompactFlash™ card

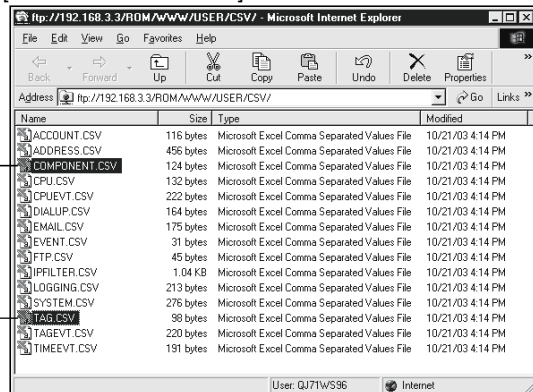
[Status] **Update**

Displaying current data management execution status.

| | |
|---------------|---------------------|
| Start time | 2003/10/20 14:21:19 |
| Complete time | 2003/10/20 14:21:20 |
| Status | Export completed. |
| Drive name | Standard ROM |

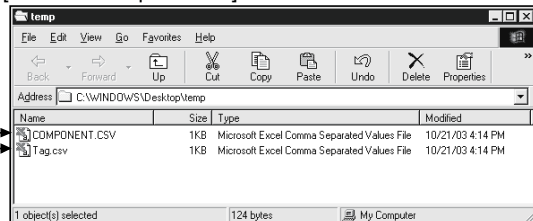
- 1) On Data management, export the setting data file to the standard ROM.
(Refer to Section 6.10.4 (4) for execution of CSV export.)

[Web server module side]



- 2) Transfer TAG.CSV and COMPONENT.CSV on /ROM/WWW/USER/CSV to the personal computer via FTP.
(Refer to Section 6.7.1 for FTP.)

[Personal computer side]



Microsoft Excel - Tag.csv

| | A | B | C | D | E | F | G | H | I |
|---|------|---------|----------|----------|----------------|--------|---------|---|---|
| 1 | ITEM | TAGNAME | SAMPLING | INTERVAL | BEFORE LOGGING | WRITE | COMPNUM | | |
| 2 | TAG1 | block A | EXECUTE | 10 NO | | ENABLE | 1 | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |

- 3) Open TAG.CSV on the spreadsheet software.
(Display example of Microsoft® EXCEL 2000 is shown on the left)

Microsoft Excel - Tag.csv

| | A | B | C | D | E | F | G | H | I |
|---|------|---------|----------|----------|----------------|--------|---------|---|---|
| 1 | ITEM | TAGNAME | SAMPLING | INTERVAL | BEFORE LOGGING | WRITE | COMPNUM | | |
| 2 | TAG1 | block A | EXECUTE | 10 NO | | ENABLE | 50 | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |

- 4) Change COMPNUM of TAG1 from 1 to 50.
- 5) Save new TAG.CSV over old TAG.CSV in CSV format.
(Display example of Microsoft® EXCEL 2000 is shown on the left)

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Microsoft Excel - COMPONENT.CSV

| ITEM | COMPNAME | CPUNO | DATATYPE | DEVICE | FORMAT | DECIMAL PLACES | OPERATOR | OPERAND |
|------|--------------|---------|----------|--------|--------|----------------|----------|---------|
| 1 | COMPONENT1-1 | power 1 | 1 SINGLE | D500 | DEC | | 0 NONE | |

- 6) Open COMPONENT.CSV on the spreadsheet software.

(Display example of Microsoft® EXCEL 2000 is shown on the left)

Microsoft Excel - COMPONENT.CSV

| ITEM | COMPNAME | CPUNO | DATATYPE | DEVICE | FORMAT | DECIMAL PLACES | OPERATOR | OPERAND |
|------|---------------|----------|----------|--------|--------|----------------|----------|---------|
| 1 | COMPONENT1-1 | power 1 | 1 SINGLE | D500 | DEC | | 0 NONE | |
| 2 | COMPONENT1-2 | power 2 | 1 SINGLE | D501 | DEC | | 0 NONE | |
| 3 | COMPONENT1-3 | power 3 | 1 SINGLE | D502 | DEC | | 0 NONE | |
| 4 | COMPONENT1-4 | power 4 | 1 SINGLE | D503 | DEC | | 0 NONE | |
| 5 | COMPONENT1-5 | power 5 | 1 SINGLE | D504 | DEC | | 0 NONE | |
| 6 | COMPONENT1-6 | power 6 | 1 SINGLE | D505 | DEC | | 0 NONE | |
| 7 | COMPONENT1-7 | power 7 | 1 SINGLE | D506 | DEC | | 0 NONE | |
| 8 | COMPONENT1-8 | power 8 | 1 SINGLE | D507 | DEC | | 0 NONE | |
| 9 | COMPONENT1-9 | power 9 | 1 SINGLE | D508 | DEC | | 0 NONE | |
| 10 | COMPONENT1-10 | power 10 | 1 SINGLE | D509 | DEC | | 0 NONE | |
| ... | | | | | | | | |
| 46 | COMPONENT1-45 | power 45 | 1 SINGLE | D544 | DEC | | 0 NONE | |
| 47 | COMPONENT1-46 | power 46 | 1 SINGLE | D545 | DEC | | 0 NONE | |
| 48 | COMPONENT1-47 | power 47 | 1 SINGLE | D546 | DEC | | 0 NONE | |
| 49 | COMPONENT1-48 | power 48 | 1 SINGLE | D547 | DEC | | 0 NONE | |
| 50 | COMPONENT1-49 | power 49 | 1 SINGLE | D548 | DEC | | 0 NONE | |
| 51 | COMPONENT1-50 | power 50 | 1 SINGLE | D549 | DEC | | 0 NONE | |

- 7) Copy the row of COMPONENT1-1 to create COMPONENT1-2 to COMPONENT1-50.
Change COMPNAME and DEVICE on each row.
- 8) Save new COMPONENT.CSV over old COMPONENT.CSV in CSV format.
(Display example of Microsoft® EXCEL 2000 is shown on the left)

[Personal computer side]

temp

Address: C:\WINDOWS\Desktop\temp

| Name | Size | Type | Modified |
|---------------|------|---|------------------|
| COMPONENT.CSV | 3KB | Microsoft Excel Comma Separated Values File | 10/21/03 4:28 PM |
| Tag.csv | 1KB | Microsoft Excel Comma Separated Values File | 10/21/03 4:12 PM |

2 object(s) 2.56KB My Computer

- 9) Transfer TAG.CSV and COMPONENT.CSV on the personal computer to /ROM/WWW/USER/CSV via FTP.
(Refer to Section 6.7.1 for FTP.)

Drag & drop

[Web server module side]

http://192.168.3.3/ROM/WWW/USER/CSV/ - Microsoft Internet Explorer

Address: http://192.168.3.3/ROM/WWW/USER/CSV/

| Name | Size | Type | Modified |
|---------------|-----------|---|------------------|
| ACCOUNT.CSV | 116 bytes | Microsoft Excel Comma Separated Values File | 10/21/03 4:14 PM |
| ADDRESS.CSV | 456 bytes | Microsoft Excel Comma Separated Values File | 10/21/03 4:14 PM |
| COMPONENT.CSV | 2.46 KB | Microsoft Excel Comma Separated Values File | 10/21/03 4:46 PM |
| CPU.CSV | 132 bytes | Microsoft Excel Comma Separated Values File | 10/21/03 4:14 PM |
| CPUVET.CSV | 222 bytes | Microsoft Excel Comma Separated Values File | 10/21/03 4:14 PM |
| DIALUP.CSV | 164 bytes | Microsoft Excel Comma Separated Values File | 10/21/03 4:14 PM |
| EMAIL.CSV | 175 bytes | Microsoft Excel Comma Separated Values File | 10/21/03 4:14 PM |
| EVENT.CSV | 31 bytes | Microsoft Excel Comma Separated Values File | 10/21/03 4:14 PM |
| FTP.CSV | 45 bytes | Microsoft Excel Comma Separated Values File | 10/21/03 4:14 PM |
| IPFILTER.CSV | 1.04 KB | Microsoft Excel Comma Separated Values File | 10/21/03 4:14 PM |
| LOGGING.CSV | 213 bytes | Microsoft Excel Comma Separated Values File | 10/21/03 4:14 PM |
| SYSTEM.CSV | 276 bytes | Microsoft Excel Comma Separated Values File | 10/21/03 4:14 PM |
| TAG.CSV | 99 bytes | Microsoft Excel Comma Separated Values File | 10/21/03 4:46 PM |
| TAGEVT.CSV | 220 bytes | Microsoft Excel Comma Separated Values File | 10/21/03 4:14 PM |
| TIMEVET.CSV | 191 bytes | Microsoft Excel Comma Separated Values File | 10/21/03 4:14 PM |

User: QJ71WS96 Internet

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[CSV import] **Execute**

Importing the setting information from CSV files.

☒ Standard ROM
☐ CompactFlash™ card

[Status] **Update**

Displaying current data management execution status.

| | |
|---------------|---------------------|
| Start time | 2003/10/20 14:26:31 |
| Complete time | 2003/10/20 14:26:32 |
| Status | Import completed. |
| Drive name | Standard ROM |

10) On Data management, import the setting data file from the standard ROM.

(Refer to Section 6.10.4 (5) for execution of CSV import.)

[Tag setting] | Home > Administrative menu > Tag setting > Component setting

Add **Edit** **Delete** **Back**

Tag name: 01: block A

| Item | No. | Component name | CPU name | Data type | Device | Display form | Operator | Operand |
|----------------------------------|-----|----------------|-----------------|-------------|--------|---------------------------|----------|---------|
| <input checked="" type="radio"/> | 1 | power 1 | 01: Control CPU | Single word | D500 | Decimal(0 decimal places) | None | - |
| <input checked="" type="radio"/> | 2 | power 2 | 01: Control CPU | Single word | D501 | Decimal(0 decimal places) | None | - |
| <input checked="" type="radio"/> | 3 | power 3 | 01: Control CPU | Single word | D502 | Decimal(0 decimal places) | None | - |
| <input checked="" type="radio"/> | 4 | power 4 | 01: Control CPU | Single word | D503 | Decimal(0 decimal places) | None | - |
| <input checked="" type="radio"/> | 5 | power 5 | 01: Control CPU | Single word | D504 | Decimal(0 decimal places) | None | - |
| <input checked="" type="radio"/> | 6 | power 6 | 01: Control CPU | Single word | D505 | Decimal(0 decimal places) | None | - |
| <input checked="" type="radio"/> | 7 | power 7 | 01: Control CPU | Single word | D506 | Decimal(0 decimal places) | None | - |
| <input checked="" type="radio"/> | 8 | power 8 | 01: Control CPU | Single word | D507 | Decimal(0 decimal places) | None | - |
| <input checked="" type="radio"/> | 9 | power 9 | 01: Control CPU | Single word | D508 | Decimal(0 decimal places) | None | - |
| <input checked="" type="radio"/> | 10 | power 10 | 01: Control CPU | Single word | D509 | Decimal(0 decimal places) | None | - |
| ⋮ | | | | | | | | |
| <input checked="" type="radio"/> | 45 | power 45 | 01: Control CPU | Single word | D544 | Decimal(0 decimal places) | None | - |
| <input checked="" type="radio"/> | 46 | power 46 | 01: Control CPU | Single word | D545 | Decimal(0 decimal places) | None | - |
| <input checked="" type="radio"/> | 47 | power 47 | 01: Control CPU | Single word | D546 | Decimal(0 decimal places) | None | - |
| <input checked="" type="radio"/> | 48 | power 48 | 01: Control CPU | Single word | D547 | Decimal(0 decimal places) | None | - |
| <input checked="" type="radio"/> | 49 | power 49 | 01: Control CPU | Single word | D548 | Decimal(0 decimal places) | None | - |
| <input checked="" type="radio"/> | 50 | power 50 | 01: Control CPU | Single word | D549 | Decimal(0 decimal places) | None | - |
| <input checked="" type="radio"/> | 51 | | | | | | | |

11) On Tag setting, confirm that the edited portions have been changed correctly.

12) Delete the setting data file from the standard ROM.

(Completed)

6.10.4 Data management

[Setting Purpose]

In data management, the backup/restore/format operation using the Compact Flash™ card and the export/import operation of the setting data file can be performed.

[Start Procedure]

[Administrative menu] → "Data management"

[Setting Screen]

[Setting Item]

| Item | Description |
|------------|---|
| Backup | Backing up the standard ROM data to the Compact Flash™ card. |
| Restore | Restoring the backup data of the Compact Flash™ card to the standard ROM. |
| Format | Formatting the Compact Flash™ card. |
| CSV export | Exporting the setting data to the CSV file. |
| CSV import | Importing the setting data from the CSV file. |
| Status | Displaying current data management execution status. |

(1) Execution of backup

Back up the standard ROM data to the Compact Flash™ card.

- (a) Select the standard ROM data to be backed up.

| | |
|---|---------|
| [Backup] | Execute |
| Backing up data in standard ROM to a CompactFlash™ card. | |
| <input checked="" type="checkbox"/> Setting information <input checked="" type="checkbox"/> Logging data <input checked="" type="checkbox"/> User HTML <input checked="" type="checkbox"/> Event history | |

- (b) Click on the "Execute" button to execute backup.

- (c) On the Status section, confirm the backup execution status.

Click on the "Update" button to confirm the current status.

When "Backing up..." appears, click on the "Update" button again to confirm that the executed operation has been completed.

Backup completed : Backup is completed. Perform the next processing.

Backup failed : According to the error code, confirm the error definition and take corrective action. (Refer to Section 9.3)

| | |
|--|---------------------|
| [Status] | Update |
| Displaying current data management execution status. | |
| Start time | 2002/11/13 18:32:39 |
| Complete time | 2002/11/13 18:32:43 |
| Status | Backup completed. |

(2) Execution of restore

Restore the backup data of the Compact Flash™ card to the standard ROM.

- (a) Select the backup data to be restored.

| | |
|---|---------|
| [Restore] | Execute |
| Restoring data in CompactFlash™ card to a standard ROM. | |
| <input checked="" type="checkbox"/> Setting information <input checked="" type="checkbox"/> Logging data <input checked="" type="checkbox"/> User HTML <input checked="" type="checkbox"/> Event history | |

- (b) Click on the "Execute" button to execute restore.

- (c) On the Status section, confirm the restore execution status.

Click on the "Update" button to confirm the current status.

When "Restoring ..." appears, click on the "Update" button again to confirm that the executed operation has been completed.

Restore completed : Restore is completed. Perform the next processing.

Restore failed : According to the error code, confirm the error definition and take corrective action. (Refer to Section 9.3)

| | |
|--|---------------------|
| [Status] | Update |
| Displaying current data management execution status. | |
| Start time | 2002/11/13 18:33:31 |
| Complete time | 2002/11/13 18:33:36 |
| Status | Restore completed. |

(3) Execution of format

Format the Compact Flash™ card.

- (a) Select "Formatting a Compact Flash™ card."

| | |
|---|---------|
| [Format] | Execute |
| Formatting a CompactFlash™ card. | |
| <input checked="" type="checkbox"/> Please check here to enable formatting of a CompactFlash™ card. | |

- (b) Click on the "Execute" button to execute format.

- (c) On the Status section, confirm the format execution status.

Click on the "Update" button to confirm the current status.

When "Formatting ..." appears, click on the "Update" button again to confirm that the executed operation has been completed.

Format completed : Format is completed. Perform the next processing.

Format failed : According to the error code, confirm the error definition and take corrective action. (Refer to Section 9.3)

| | |
|--|---------------------|
| [Status] | Update |
| Displaying current data management execution status. | |
| Start time | 2002/11/13 18:31:57 |
| Complete time | 2002/11/13 18:31:57 |
| Status | format completed |

POINT

- (1) Depending on the data volume to be backed up/restored, it may take some time until the processing is completed.
Start the next processing after confirming that the executed operation has been completed on the Status section.
- (2) When the Compact Flash™ card is formatted, the data stored in the Compact Flash™ card are all deleted.

(4) Execution of CSV export

Export the setting data to the CSV file.

- (a) Select the standard ROM or Compact Flash™ card, as a location from which the setting data file will be exported.

| | |
|---|---------|
| [CSV export] | Execute |
| Exporting the setting information to CSV files. | |
| <input checked="" type="radio"/> Standard ROM <input type="radio"/> CompactFlash™ card | |

- (b) Click the [Execute] button to execute CSV export.

- (c) On Status, confirm the CSV export execution status.

As the drive name, the destination drive name (standard ROM or Compact Flash card) is displayed.

Click the [Update] button to confirm the current status.

When "CSV export is being executed", click the [Update] button again to confirm that the executed operation is completed.

- 1) When normally completed

CSV export is complete. Start the next processing.

| | |
|--|---------------------|
| [Status] | Update |
| Displaying current data management execution status. | |
| Start time | 2003/10/20 14:21:19 |
| Complete time | 2003/10/20 14:21:20 |
| Status | Export completed. |
| Drive name | Standard ROM |

- 2) When abnormally completed

- According to the error code, confirm the error status and take corrective action. (Refer to Section 9.3.)
- According to the file name, label name or item name, confirm the error-detected location, and reexamine the setting.

| | |
|--|--------------------------|
| [Status] | Update |
| Displaying current data management execution status. | |
| Start time | 2003/10/20 14:25:04 |
| Complete time | 2003/10/20 14:25:05 |
| Status | Export failed[ERR 0430h] |
| Drive name | CompactFlash™ |

(5) Execution of CSV import

Import the setting data from the CSV file.

- (a) Select the standard ROM or Compact Flash™ card, as a location to which the setting data file is imported.

| | |
|---|---------|
| [CSV import] | Execute |
| Importing the setting information from CSV files. | |
| <input checked="" type="radio"/> Standard ROM <input type="radio"/> CompactFlash™ card | |

- (b) Click the [Execute] button to execute CSV import.

- (c) On Status, confirm the CSV import execution status.

As the drive name, the source drive name (standard ROM or Compact Flash card) is displayed.

Click the [Update] button to confirm the current status.

When "CSV import is being executed", click the [Update] button again to confirm that the executed operation is completed.

- 1) When normally completed

CSV import is complete. Start the next processing.

| | |
|--|---------------------|
| [Status] | Update |
| Displaying current data management execution status. | |
| Start time | 2003/10/20 14:26:31 |
| Complete time | 2003/10/20 14:26:32 |
| Status | Import completed. |
| Drive name | Standard ROM |

- 2) When abnormally completed

- According to the error code, confirm the error status and take corrective action. (Refer to Section 9.3.)
- According to the file name, label name or item name, confirm the error-detected location, and reexamine the setting.

| | |
|--|--------------------------|
| [Status] | Update |
| Displaying current data management execution status. | |
| Start time | 2003/10/20 15:46:44 |
| Complete time | 2003/10/20 15:46:44 |
| Status | Import failed[ERR.0436h] |
| Drive name | Standard ROM |
| File name | COMPONENT.CSV |
| Label name | COMPONENT1-2 |
| Item name | CPUNO |

6.11 Diagnostics Function

This section explains the function to diagnose the hardware fault and setting of the Web server module.

6.11.1 Diagnostics function

The following explains the method to diagnose the hardware fault and setting of the Web server module.

- (1) Self-diagnostics test by switch setting of GX Developer (refer to Section 4.8)
A self-diagnostics test can be conducted by switch setting of GX Developer.
 - (a) CH1 self-loopback test (refer to Section 4.8.1)
Conduct a self-loopback test to make a hardware check including the communication function of the CH1 (10BASE-T/100BASE-TX interface).
 - (b) CH2 self-loopback test (refer to Section 4.8.2)
Conduct a self-loopback test to make a hardware check including the communication function of the CH2 (RS-232 interface).
 - (c) Hardware test (refer to Section 4.8.3)
Conduct a test related to the ROM/RAM/switch setting of the Web server module.
- (2) Setting test by Web browser (refer to Section 6.11.2)
On the Setting test screen of the Administrative menu, an access target CPU test, e-mail sending test, etc. can be performed from the Web server module.
 - (a) Access target CPU test
Whether normal access can be made to the access target programmable controller CPU set in the access target CPU setting is confirmed.
 - (b) E-mail sending test
E-mail is sent to the destination e-mail address set in the e-mail setting to confirm the e-mail send status.
 - (c) File transfer test
A test file is transferred to the FTP server set in the FTP setting to confirm the file transfer status.
 - (d) PING test
The PING command is issued to the specified external device (mail server, FTP server, etc.) to confirm the existence of the external device.
- (3) PING test by IBM-PC/AT-compatible personal computer (refer to Section 6.11.3)
The PING command can be issued from the external device (IBM-PC/AT-compatible personal computer) to the Web server module to confirm the existence of the Web server module.

6.11.2 Setting test

[Setting Purpose]

- 1) An access target CPU test confirms whether normal access can be made to the access target programmable controller CPU set in the access target CPU setting.
- 2) An e-mail sending test sends e-mail to the destination e-mail address set in the e-mail setting to confirm the e-mail transmission status.
- 3) A file transfer test transfers a test file to the FTP server set in the FTP setting to confirm the file transfer status.
- 4) A PING test issues the PING command to the specified external device (mail server, FTP server, etc.) to confirm the existence of the external device.

[Start Procedure]

- 1) Access target CPU test (refer to (1))
[Administrative menu] → "Setting test" → <<Access target CPU test>> tab → "Access target CPU test"
- 2) E-mail sending test (refer to (2))
[Administrative menu] → "Setting test" → <<E-mail sending test>> tab → "E-mail sending test"
- 3) File transfer test (refer to (3))
[Administrative menu] → "Setting test" → <<File transfer test>> tab → "File transfer test"
- 4) PING test (refer to (4))
[Administrative menu] → "Setting test" → <<PING test>> tab → "PING test"

(1) Access target CPU test

Conduct an access target CPU test.

[Setting Screen]

[Setting Item]

| Item | Description |
|-------------------|-------------------------------------|
| Access target CPU | Sets the access target CPU. |
| Test | Conducts an access target CPU test. |

[Test execution]

Conduct an access target CPU test.

- 1) Select the access target CPU set in the access target CPU setting.

- 2) Click on the "Test" button to execute the access target CPU test.
- 3) The access target CPU test result is displayed.

When the test has abnormally completed, confirm the error definition and take corrective action according to the error code.

When
normally
completed

When
abnormally
completed

(2) E-mail sending test

Conduct an e-mail sending test.

[Setting Screen]

[Setting Item]

| Item | Description |
|----------------------|--------------------------------------|
| E-mail address (TO:) | Sets the destination e-mail address. |
| Send | Conducts an e-mail sending test. |

[Test execution]

Conduct an e-mail sending test.

- 1) Select the destination e-mail address set in the e-mail setting.

- 2) Click on the "Send" button to execute the e-mail sending test.
- 3) The e-mail sending test result is displayed.

When the test has abnormally completed, confirm the error definition and take corrective action according to the error code.

When
normally
completed

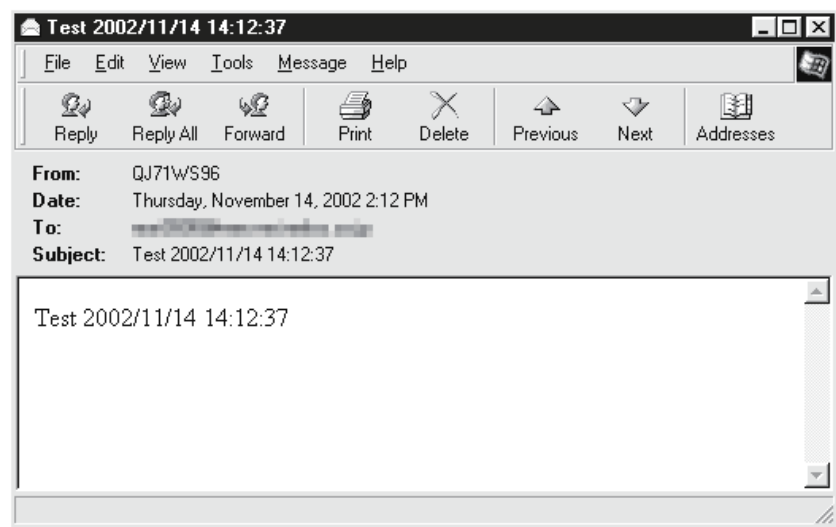
When
abnormally
completed

- 4) E-mail is received by the personal computer.

The e-mail form sent by the Web server module is as indicated below.

| Item | Description |
|---------------|--|
| Subject | Test "Date" (Example) Test 2002/07/22 10:09:15 |
| Main text | Same as in Subject |
| Attached file | None |

(Example) In the case of Microsoft® Corporation's Outlook® Express 5.5



(3) File transfer test

Conduct a file transfer test.

[Setting Screen]

[Setting Item]

| Item | Description |
|-----------------|--------------------------------|
| FTP server name | Sets the FTP server name. |
| Transfer | Conducts a file transfer test. |

[Test execution]

Conduct a file transfer test.

- 1) Select the FTP server name set in the FTP setting.

- 2) Click on the "Transfer" button to execute the file transfer test.
- 3) The file transfer test result is displayed.
When the test has abnormally completed, confirm the error definition and take corrective action according to the error code.

When
normally
completed

When
abnormally
completed

- 4) The file data transferred to the FTP server is as indicated below.
File name : QJ71WS96.HTM
File data : (Example) Test 2002/07/27 14:35:34

(4) PING test

Conduct a PING test.

[Setting Screen]

[Setting Item]

| Item | Description |
|----------------------|--------------------------------|
| External device name | Sets the external device name. |
| Execute | Conducts a PING test. |

[Test execution]

Conduct a PING test.

- 1) Set the external device name using the IP address or host name (domain name).

When using the host name for setting, make the following setting. (*)
Refer to Appendix 4 (2) for the characters applicable to the external device name.

- Enter all the host and domain into the external device name setting column.

(Example) user001.****.ne.jp

↑ ↑
 Host Domain

* When using the host name for setting, it is required to set the DNS server in "DNS server setting" of the system setting. (Refer to Section 4.6.3)

- 2) Click on the "Execute" button to execute the PING test.
- 3) The PING test result is displayed.

When the test has abnormally completed, confirm the following and conduct the PING test again.

- Network setting of the Web server module or external device
- Connection status of the Web server module or external device

When normally completed

When abnormally completed

6.11.3 PING test by IBM-PC/AT-compatible personal computer

The following provides an example that the PING command is issued from the external device (IBM-PC/AT-compatible personal computer) to the Web server module connected to the same Ethernet (LAN) to confirm the existence of the Web server module. (Example of confirming the Web server module by the external device at the same network address)

(1) Specifying method

PING "IP address"

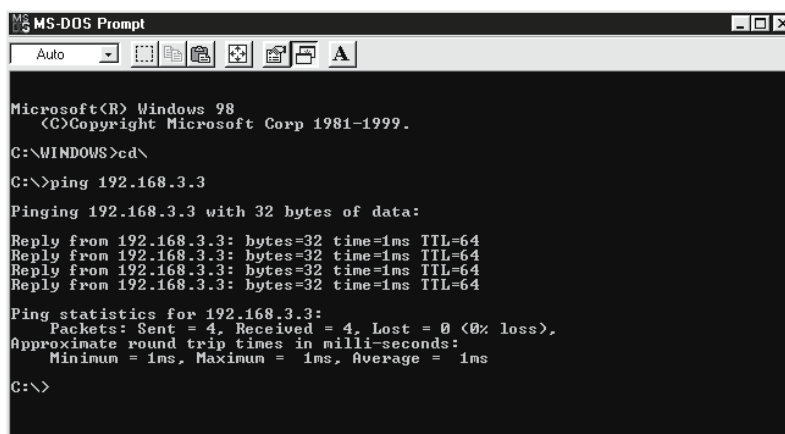
(2) Example of PING test execution

IP address of Web server module: 192. 168. 3.3

When the test has abnormally completed, confirm the following and conduct the PING test again.

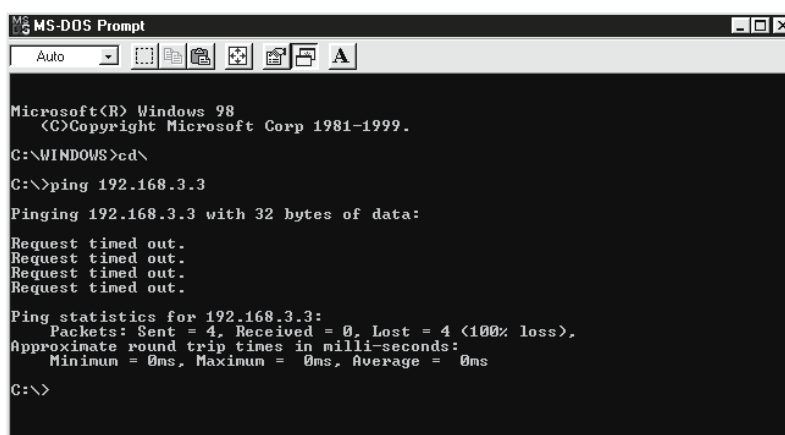
- Network setting of the Web server module or external device
- Connection status of the Web server module or external device

(Example) In the case of Microsoft® Windows® 98 operating system



```
MS-DOS Prompt
Auto
Microsoft(R) Windows 98
(C)Copyright Microsoft Corp 1981-1999.
C:\WINDOWS>cd\
C:\>ping 192.168.3.3
Pinging 192.168.3.3 with 32 bytes of data:
Reply from 192.168.3.3: bytes=32 time=1ms TTL=64
Reply from 192.168.3.3: bytes=32 time=1ms TTL=64
Reply from 192.168.3.3: bytes=32 time=1ms TTL=64
Reply from 192.168.3.3: bytes=32 time=1ms TTL=64
Ping statistics for 192.168.3.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 1ms, Average = 1ms
C:\>
```

When
normally
completed



```
MS-DOS Prompt
Auto
Microsoft(R) Windows 98
(C)Copyright Microsoft Corp 1981-1999.
C:\WINDOWS>cd\
C:\>ping 192.168.3.3
Pinging 192.168.3.3 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 192.168.3.3:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>
```

When
abnormally
completed

7 USER SCREEN CREATION FUNCTION

This chapter explains the user screen creation function.

7.1 User Screen Creation Function

7.1.1 User screen creation function

The user screen creation function allows users to display a user-original monitor screen in the Web browser by creating an HTML file and registering it into the Web server module.

Describing a Mitsubishi-supplied user part (applet, SSI or CGI part) in HTML displays tag data or logging data on the user screen.

The Mitsubishi-supplied user parts are indicated below.

| Part | Outline/Application | Reference Section |
|---|--|-------------------|
| Applet parts | (1) By describing an applet part in HTML, it is downloaded and displayed in the described position. The display is updated automatically. Several seconds to several ten seconds are required to display it first. (2) Used to create a graphical screen. (3) Java VM is required in the client side Web browser. (*1) | Section 7.2 |
| SSI (Server Side Include) parts | (1) By embedding a part in HTML, it is converted into a tag component name/tag component value according to the parameters when it is read by the Web browser. The display is not updated automatically. (2) Used to create a character-based screen. | Section 7.3 |
| CGI (Common Gateway Interface) parts | (1) By linking a part to a button arranged in HTML, a tag component value is written/read when the button is clicked. The display is not updated automatically. (2) Used to create a character-based screen. | Section 7.4 |

*1 For how to download Java VM, refer to Section 3.1 **REMARKS** (2) and (3).

7.1.2 Precautions for user screen creation function

This section provides precautions for the user screen creation function.
Refer to Section 7.1.3 for precautions for the user screen for cellular phone display.

(1) Precautions for describing HTML file on user screen

- (a) Be sure to set the user part parameters that must be set. Failure to do so will result in an error.
- (b) The file name and parameters of a user part are not case sensitive.
- (c) When the contents of the user screen have been changed, delete the temporary Internet files (cache) and then retrieve the user screen using the Web browser. (Refer to Section 6.2.7 (1) for how to delete the temporary Internet files.)

(2) Precautions for sample screens

The Web server module has sample screens for each user part in the /ROM/WWW/USER/ directory.

Before starting actual operation, delete all sample screen files. (To prevent them from being written to the devices that use the sample screens.)

The sample screen can be restored by initializing the module. (Refer to Section 4.13.)

7.2 Applets Parts

This section explains the applet parts (Java applets).
An applet parts list is given below.

| Part Name | File Name | Function | Reference Section |
|--------------------------------|----------------|--|-------------------|
| Communication parts | WSCom.class | <ul style="list-style-type: none"> Integrates the communications of all applet parts in the Web browser to make batch communication. When using applet parts, be sure to describe only one communication part before the applet parts in HTML. | Section 7.2.1 |
| Data block parts | WSDatblk.class | Displays in table form the components as many as the specified blocks within the specified tag data. Writing to the specified tag component is also available. | Section 7.2.2 |
| Level display parts | WSLevel.class | Displays the percentage (%) of the component value to the whole (maximum and minimum range). | Section 7.2.3 |
| Graphic display parts | WSPictur.class | Displays the specified graphic when the component reaches the set value. | Section 7.2.4 |
| Comment display parts | WSCmt.class | Displays the specified comment when the component reaches the set value. | Section 7.2.5 |
| Audio parts | WSAudio.class | Plays the specified audio file when the component reaches the set value. | Section 7.2.6 |
| Historical graph display parts | WSHstgrp.class | Displays the logging data in a time-series line graph. | Section 7.2.7 |
| Historical data display parts | WSHstdat.class | Displays the logging data in table form. | Section 7.2.8 |
| Write button parts | WSWrbtn.class | Writes the specified value to the specified tag component. | Section 7.2.9 |
| Device monitor parts | DevMon.class | Displays a monitor screen in the same display form as in the device monitor of the standard screen. (Refer to Section 6.2.1 for the device monitor.) | Section 7.2.10 |
| Tag data monitor parts | TagMon.class | Displays a monitor screen in the same display form as in the tag data monitor of the standard screen. (Refer to Section 6.2.2 for the tag data monitor.) | Section 7.2.11 |
| Logging monitor parts | LogMon.class | Displays a monitor screen in the same display form as in the logging monitor of the standard screen. (Refer to Section 6.2.3 for the logging monitor.) | Section 7.2.12 |
| Event history monitor parts | EveMon.class | Displays a monitor screen in the same display form as in the event history monitor of the standard screen. (Refer to Section 6.2.4 for the event history monitor.) | Section 7.2.13 |
| PLC diagnostics monitor parts | DiaMon.class | Displays a monitor screen in the same display form as in the PLC diagnostics monitor of the standard screen. (Refer to Section 6.2.5 for the PLC diagnostics monitor.) | Section 7.2.14 |
| Self-diagnostics monitor parts | UniMon.class | Displays a monitor screen in the same display form as in the self-diagnostics monitor of the standard screen. (Refer to Section 6.2.6 for the self-diagnostics monitor.) | Section 7.2.15 |

7.2.1 Method of Describing Applet Parts in HTML

This section explains how to describe the applet parts (Java applets) in HTML.
Describe applet tags in the location within HTML, where the applet parts to be displayed, as shown below.

```
<applet code="WCom.class" codebase="/PARTS/" width="0" height="0">
<param name="INTERVAL" value="setting value">
</applet>
```

· · · (1) Communication Part

```
<applet code="file name" codebase="/PARTS/" width="width" height="height">
1)      2)      3)      4)      5)
<param name="parameter name" value="setting value">
6)      7)      8)
:
:
<param name="parameter name" value="setting value">
</applet>
9)
```

· · · (2) Applet Parts

(1) Communication part

This part is designed to integrate the communications of the applet parts in the Web browser to make batch communication.

When using the applet parts, make sure to describe only one communication part before the applet parts.

(a) Specifications

| Item | Description |
|-----------|-------------|
| File name | WCom. class |

(b) Parameter

| Item | Description | Setting Range | Initial Value |
|----------|---|---------------|---------------|
| INTERVAL | Sets the communication (data update) interval in second unit. However, if the actual communication time is longer than the set seconds, communication is made at the shortest possible interval. | 1 to 100 | 5 |

(2) Applet Parts

| | Item | Description |
|----|----------|---|
| 1) | applet | Indicates the start of the applet tag. |
| 2) | code | Sets the file name (.class) for the Java applet. (Example) code="WSDatblk. class" |
| 3) | codebase | Sets the file storage location (directory path) for the Java applet. Since the Java applet is stored under the PARTS directory, make sure to set as follows: (Refer to Appendix 3 for the directory structure.) [codebase="/PARTS/"] |
| 4) | width | Sets the width of the Java applet in pixel unit. |
| 5) | height | Sets the height of the Java applet in pixel unit. |
| 6) | param | (1) Indicates the parameter lines. (2) Describes PARAM lines when setting more than one parameter. (3) The parameters not described operate at the initial values. |
| 7) | name | Sets the parameter name. Refer to Section 7.2.2 for the parameters of the applet parts. |
| 8) | value | Sets the parameter value. |
| 9) | /applet | Indicates the end of the applet tag. |

(3) Display colors

Set the parameter-set display colors (character color, background color, etc.) by color name or RGB value.

(a) Color name (can be set in either uppercase or lowercase)

| | | | |
|--------|--------|--------|---------|
| White | Black | Red | Green |
| Blue | Yellow | Purple | Aqua |
| Maroon | Navy | Olive | Teal |
| Gray | Silver | Lime | Fuchsia |

(b) RGB value

After #, set the RGB value represented in hexadecimal.

(Example)

#FFFFFF White

#000000 Black

#FF0000 Red

7.2.2 Data block parts

The components as many as the specified blocks within the specified tag data are displayed in table form.

Writing to the specified tag component is also available.

Only the user having the tag component write authority is allowed to write a value to a tag component with the data block part. Refer to Section 4.6.5 for the user authority.

(1) Specifications

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---------|--------|---------|-----|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|-----|---------|-----|--------|--------|--------|--------|--------|-------|------|------|------|-----|--------|--------|--------|--------|---------|-----|------|------|------|-----|
| File name | WSDatblk. class | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of block | Maximum 64 blocks (for the component number) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Component type that can be specified | Single word, Double word, Real number, Bit, String | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Display form | <div><div>Displayed items: TAGNO</div><div><div><div>ELMNO1</div><div>ELMNO2</div><div>:</div><div>:</div></div><table><tr><td>data 1</td><td>10000</td><td>data 6</td><td>150</td></tr><tr><td>data 2</td><td>8000</td><td>data 7</td><td>1000</td></tr><tr><td>data 3</td><td>9000</td><td>data 8</td><td>2000</td></tr><tr><td>data 4</td><td>5000</td><td>data 9</td><td>5000</td></tr><tr><td>data 5</td><td>200</td><td>data 10</td><td>500</td></tr></table></div><div><div>1) Component name display cell</div><div>DIRECTION</div><div>BLKSIZE</div><div>APLCOLOR</div><div>2) Component value display cell</div><div>3) Tag component test dialog box</div></div></div> <div><div>1) Component name display cell:ELMNAME</div><div><div>ELMCOLOR</div><div>ELMALIGN</div><div>Data 1</div><div>ELMBKCOLOR</div><div>ELMWIDTH</div></div></div> <div><div>2) Component value display cell</div><div><div>NUMCOLOR</div><div>DATALIGN</div><div>150</div><div>BKCOLOR</div><div>DATWIDTH</div></div></div> <div>3) Tag component test dialog box : WRITE, LANGUAGE</div> <div>Double-clicking the WRITE or LANGUAGE component value display cell opens the tag component test dialog box. Refer to Section 6.2.2 (2) for the tag component test.</div> <div><div>Tag component test</div><div>Tag name: 01: data block</div><div>Component name: 01: data 1</div><div>Data type: Single word</div><div>Setting value: 100</div><div>Warning: Applet Window</div><div>Set</div><div>Cancel</div></div> | data 1 | 10000 | data 6 | 150 | data 2 | 8000 | data 7 | 1000 | data 3 | 9000 | data 8 | 2000 | data 4 | 5000 | data 9 | 5000 | data 5 | 200 | data 10 | 500 | | | | | | | | | | | | | | | | | | | | |
| data 1 | 10000 | data 6 | 150 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| data 2 | 8000 | data 7 | 1000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| data 3 | 9000 | data 8 | 2000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| data 4 | 5000 | data 9 | 5000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| data 5 | 200 | data 10 | 500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Data direction | <div>The data direction for block display can be set in the parameter (DIRECTION).</div> <div><div>Vertical direction (DIRECTION=0)</div><table><tr><td>data 1</td><td>10000</td><td>data 6</td><td>150</td></tr><tr><td>data 2</td><td>8000</td><td>data 7</td><td>1000</td></tr><tr><td>data 3</td><td>9000</td><td>data 8</td><td>2000</td></tr><tr><td>data 4</td><td>5000</td><td>data 9</td><td>5000</td></tr><tr><td>data 5</td><td>200</td><td>data 10</td><td>500</td></tr></table></div> <div><div>Horizontal direction (DIRECTION=1)</div><table><tr><td>data 1</td><td>data 2</td><td>data 3</td><td>data 4</td><td>data 5</td></tr><tr><td>10000</td><td>8000</td><td>9000</td><td>5000</td><td>200</td></tr><tr><td>data 6</td><td>data 7</td><td>data 8</td><td>data 9</td><td>data 10</td></tr><tr><td>150</td><td>1000</td><td>2000</td><td>5000</td><td>500</td></tr></table></div> | data 1 | 10000 | data 6 | 150 | data 2 | 8000 | data 7 | 1000 | data 3 | 9000 | data 8 | 2000 | data 4 | 5000 | data 9 | 5000 | data 5 | 200 | data 10 | 500 | data 1 | data 2 | data 3 | data 4 | data 5 | 10000 | 8000 | 9000 | 5000 | 200 | data 6 | data 7 | data 8 | data 9 | data 10 | 150 | 1000 | 2000 | 5000 | 500 |
| data 1 | 10000 | data 6 | 150 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| data 2 | 8000 | data 7 | 1000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| data 3 | 9000 | data 8 | 2000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| data 4 | 5000 | data 9 | 5000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| data 5 | 200 | data 10 | 500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| data 1 | data 2 | data 3 | data 4 | data 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10000 | 8000 | 9000 | 5000 | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| data 6 | data 7 | data 8 | data 9 | data 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 150 | 1000 | 2000 | 5000 | 500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

(2) Parameter

| Item | Description | Setting Range | Initial Value |
|--------------------------|---|---------------|---------------------------|
| TAGNO | Sets the tag data for data block display using the tag setting No. (Refer to Section 6.3.3) | 1 to 64 | Must be set |
| ELMNO1 to ELMNO64(*1) | Sets the component for data block display using the component setting No. (Refer to Section 6.3.3) | 1 to 64 | Must be set |
| DIRECTION | Sets the display direction of the block data. 0: Vertical direction 1: Horizontal direction | 0, 1 | 0 (Vertical direction) |
| BLKSIZE | Sets the block size. (1) Vertical direction (DIRECTION = 0) Sets the number of block lines. If the set number of components is greater than the number of block lines, line feed is performed by the number of block lines. (2) Horizontal direction (DIRECTION = 1) Sets the number of block columns. If the set number of components is greater than the number of block columns, line feed is performed by the number of block columns. | 1 to 64 | 5 |
| NUMCOLOR | Sets the character color of the component value display cell. | String | Black |
| BKCOLOR | Sets the background color of the component value display cell. | String | White |
| ELMCOLOR | Sets the character color of the component name display cell. | String | Black |
| ELMBKCOLOR | Sets the background color of the component name display cell. | String | White |
| LNCOLOR | Sets the line color. | String | Black |
| APLCOLOR | Sets the background color (undrawn area) of the Java applet. | String | Gray |
| ELMNAME | Sets whether the component name display cell will be displayed or not. 0: Not displayed 1: Displayed | 0, 1 | 1 (Displayed) |
| DATWIDTH | Sets the width of the data cell. | 1 to 1000 | 110 |
| ELMWIDTH | In the vertical direction (DIRECTION = 0), sets the width of the component name display cell. | 1 to 1000 | 110 |
| DATALIGN | Sets the alignment of the component value display cell. 0: Left 1: Right 2: Centered | 0 to 2 | 1 (Right alignment) |
| ELMALIGN | Sets the alignment of the component name display cell. 0: Left 1: Right 2: Centered | 0 to 2 | 2 (Centered) |
| WRITE | Sets whether data can be written to a tag component or not. 0: Write disabled 1: Write enabled | 0, 1 | 0 (Write disabled) |
| LANGUAGE | Selects the language of the tag component test dialog box. 0: Japanese 1: English | 0, 1 | 1 (English) |

*1 Be sure to set ELMNO1. Failure to do so will result in an error. Set ELMNO1 to ELMNO64 consecutively. Failure to do so will result in an error. (Refer to Section 7.5.)

(3) Sample screen for data block part

The following provides an example of creating the sample screen that displays the data block parts.

The sample screen (SMPBLKEN.HTM) is stored in the USER directory of the Web server module.

(a) Tag setting (refer to Section 6.3.3)

- 1) Set "Data write" in the tag setting No. 1 to "Enable".
- 2) Set the component setting No. 1 to 5 of the tag setting No. 1.

| Item | No. | Component name | CPU name | Data type | Device | Display form | Operator | Operand |
|-----------------------|-----|----------------|-----------------|-------------|--------|---------------------------|----------|---------|
| <input type="radio"/> | 1 | device A | 01: Control CPU | Single word | D0 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 2 | device B | 01: Control CPU | Single word | D1 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 3 | device C | 01: Control CPU | Single word | D2 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 4 | device D | 01: Control CPU | Single word | D3 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 5 | device E | 01: Control CPU | Single word | D4 | Decimal(0 decimal places) | None | - |

- 3) Click on the "Update" button on the Setting update screen to update the setting.

(b) Creation of HTML file (File name: SMPBLKEN.HTM)

The HTML source is indicated below.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
<meta http-equiv="Pragma" content="no-cache">
<title>Sample screen for data block part</title>
</head>
<body>
<h1>Sample screen for data block part</h1>
<!-- Communication part -->
<applet code="WSECom.class" codebase="/PARTS/" width="0" height="0">
<param name="INTERVAL" value="1">
</applet>
<!-- Data block part -->
<applet code="WSDatblk.class" codebase="/PARTS/" width="405" height="65">
<param name="TAGNO" value="1">
<param name="ELMNO1" value="1">
<param name="ELMNO2" value="2">
<param name="ELMNO3" value="3">
<param name="ELMNO4" value="4">
<param name="ELMNO5" value="5">
<param name="DIRECTION" value="0">
<param name="BLKSIZE" value="3">
<param name="NUMCOLOR" value="Black">
<param name="BKCOLOR" value="White">
<param name="ELMCOLOR" value="Black">
<param name="ELMBKCOLOR" value="White">
<param name="LNCOLOR" value="Black">
<param name="APLCOLOR" value="Gray">
```

```

<param name="ELMNAME"      value="1">
<param name="DATWIDTH"    value="100">
<param name="ELMWIDTH"    value="100">
<param name="DATAALIGN"   value="1">
<param name="ELMALIGN"    value="2">
<param name="WRITE"       value="1">
<param name="LANGUAGE"    value="1">
</applet>
</body>
</html>

```

(c) Storage of HTML file

Transfer the HTML file to the Web server module by performing FTP operation.

File storage destination: [/ROM/WWW/USER/SMPBLKEN.HTM]

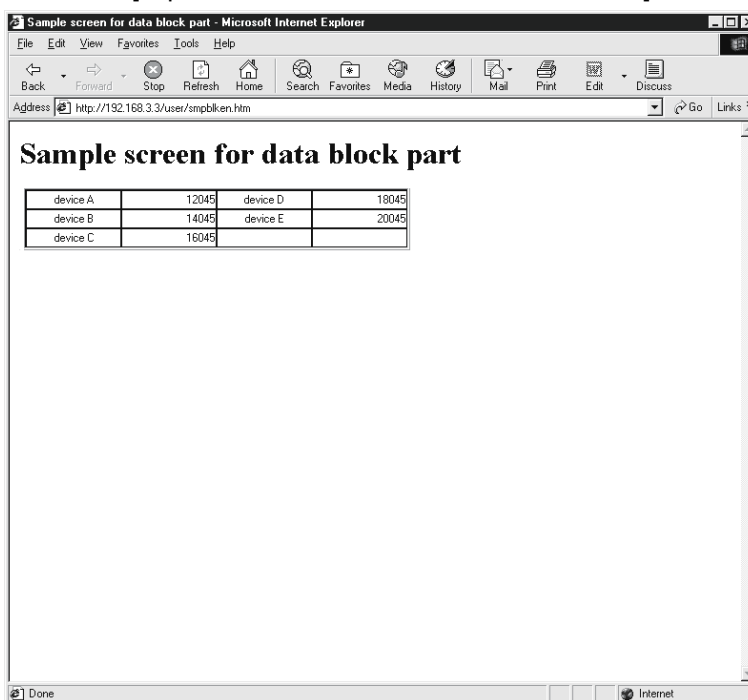
(d) Sample screen display

Display the sample screen.

(Example) When accessing the Web server module by one-to-one connection

Sample screen address:

[<http://192.168.3.3/USER/SMPBLKEN.HTM>]



7.2.3 Level display parts

The percentage (%) of the specified component value to the whole (maximum and minimum range) is displayed.

(1) Specifications

| Item | Description |
|--------------------------------------|---|
| File name | WSLevel. class |
| Display shape | Rectangular display |
| Component type that can be specified | Single word, Double word, Real number (An error occurs when Bit or String is specified.) |
| Display form | <p>Displayed items: TAGNO ELMNO</p> <p>1) Current value display box: DSPDATA</p> <p>2) Alarm line: DSPEMER</p> <p>Normal level Level too high (Max. alarm value is exceeded) Level too low (Min. alarm value is exceeded)</p> <p>LEVCOLOR UPPERCOLOR LOWERCOLOR</p> |
| Display pattern | <p>Vertical display/horizontal display can be set in the parameter (DIRECTION).</p> <p>Vertical display (DIRECTION=0)</p> <p>Horizontal display (DIRECTION=1)</p> |

(2) Parameter

| Item | Description | Setting Range | Initial Value |
|------------|---|---------------------------------|----------------------|
| TAGNO | Sets the tag data for level display using the setting No. (Refer to Section 6.3.3) | 1 to 64 | Must be set |
| ELMNO | Sets the component for level display using the component setting No. (Refer to Section 6.3.3) | 1 to 64 | Must be set |
| DIRECTION | Sets the display direction of the level. 0: Vertical display 1: Horizontal display | 0, 1 | 0 (Vertical display) |
| LEVCOLOR | Sets the filling color of the level display. | String | Blue |
| UPPERCOLOR | Sets the filling color in the case where the maximum alarm value is exceeded. | String | Red |
| LOWERCOLOR | Sets the filling color in the case where the minimum alarm value is exceeded. | String | Red |
| BKCOLOR | Sets the background color of the level display. | String | White |
| UPPER | Sets the maximum limit value. | -2147483648 to 2147483647 | 32767 |
| LOWER | Sets the minimum limit value. | | -32768 |
| UPPEREMER | Sets the maximum alarm value. | | 32767 |
| LOWEREMER | Sets the minimum alarm value. | | -32768 |
| DSPEMER | Sets whether the alarm line will be displayed or not. 0: Not displayed 1: Displayed | 0, 1 | 0 (Not displayed) |
| DSPDATA | Sets whether the current value display box will be displayed or not. 0: Not displayed 1: Displayed | 0, 1 | 0 (Not displayed) |
| DATWIDTH | Sets the width of the current value display box. | 1 to 1000 | 50 |
| DSPCOLOR | Sets the display color of the alarm lines and current value. | String | Black |
| DSPBKCOLOR | Sets the background color of the current value display box. | String | White |
| APLCOLOR | Sets the background color (undrawn area) of the Java applet. | String | Gray |

(3) Sample screen for level display part

The following provides an example of creating the sample screen that displays the level display parts.

The sample screen (SMPLVLN.HTM) is stored in the USER directory of the Web server module.

(a) Tag setting (refer to Section 6.3.3)

- 1) Set the component setting No. 1 of the tag setting No. 1.

| Item | No. | Component name | CPU name | Data type | Device | Display form | Operator | Operand |
|------|-----|----------------|-----------------|-------------|--------|---------------------------|----------|---------|
| | 1 | device A | 01: Control CPU | Single word | D0 | Decimal(0 decimal places) | None | - |

- 2) Click on the "Update" button on the Setting update screen to update the setting.

(b) Creation of HTML file (File name: SMPLVLEN.HTM)

The HTML source is indicated below.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
<meta http-equiv="Pragma" content="no-cache">
<title>Sample screen for level display part</title>
</head>
<body>
<h1>Sample screen for level display part</h1>
<!-- Communication part -->
<applet code="WSCom.class" codebase="/PARTS/" width="0" height="0">
<param name="INTERVAL" value="1">
</applet>
<!-- Level display part -->
<applet code="WSLevel.class" codebase="/PARTS/" width="100" height="200">
<param name="TAGNO" value="1">
<param name="ELMNO" value="1">
<param name="DIRECTION" value="0">
<param name="LEVCOLOR" value="Blue">
<param name="UPPERCOLOR" value="Red">
<param name="LOWERCOLOR" value="Red">
<param name="BKCOLOR" value="White">
<param name="UPPER" value="32767">
<param name="LOWER" value="-32768">
<param name="UPPEREMER" value="20000">
<param name="LOWEREMER" value="-20000">
<param name="DSPEMER" value="1">
<param name="DSPDATA" value="1">
<param name="DATWIDTH" value="100">
<param name="DSPCOLOR" value="Black">
<param name="DSPBKCOLOR" value="White">
<param name="APLCOLOR" value="Gray">
</applet>
</body>
</html>
```

(c) Storage of HTML file

Transfer the HTML file to the Web server module by performing FTP operation.

File storage destination: [/ROM/WWW/USER/SMPLVLEN.HTM]

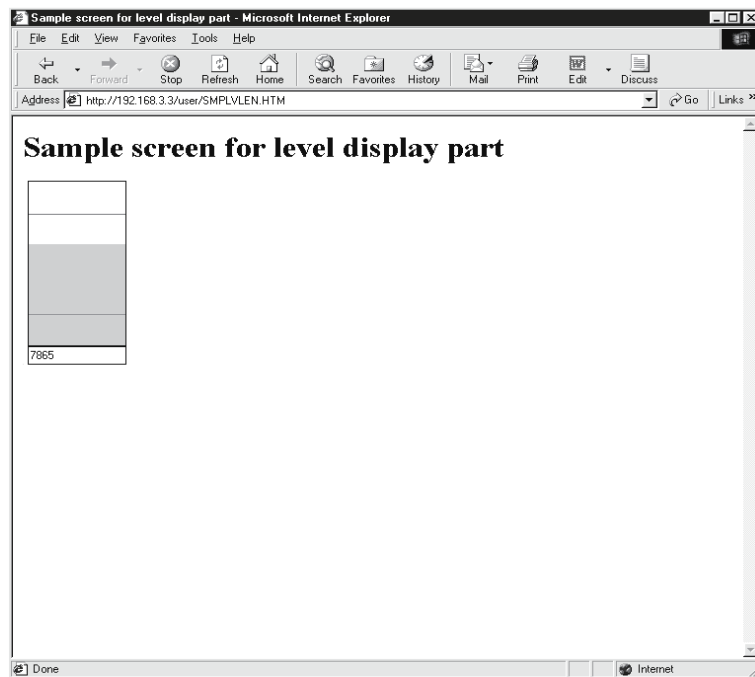
(d) Sample screen display

Display the sample screen.

(Example) When accessing the Web server module by one-to-one connection

Sample screen address:

[<http://192.168.3.3/USER/SMPLVLEN.HTM>]



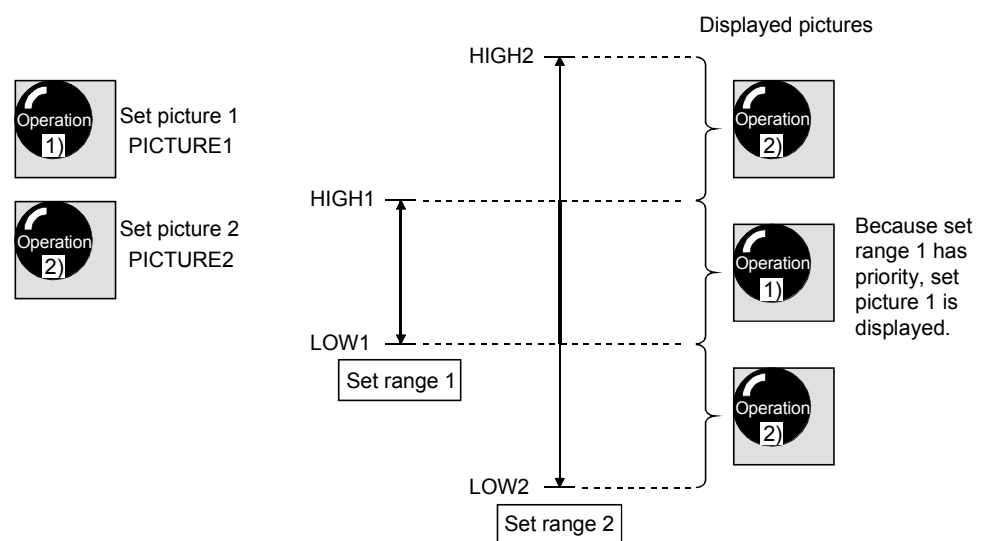
7.2.4 Graphic display parts

The specified graphic is displayed when the component reaches the set value.

(1) Specifications

| Item | Description |
|---------------------------------------|---|
| File name | WSPictur. class |
| Display file form | JPEG, GIF *2 |
| Component type that can be specified | Single word, Double word, Real number, Bit (An error occurs when String is specified.) |
| Device setting value (range) quantity | Up to 5 graphics may be registered. |
| Display form *1 | <p>Displayed items: TAGNO No. of setting ranges: RANGENO ELMNO</p> <p>Default picture DEFPICTURE Set picture 1 PICTURE1 Set picture 2 PICTURE2 Set picture 3 PICTURE3 Set picture 4 PICTURE4 Set picture 5 PICTURE5</p> <p>APLCOLOR HIGH1 HIGH2 HIGH3 HIGH4 HIGH5</p> <p>Range 1 Range 2 Range 3 Range 4 Range 5</p> <p>LOW1 LOW2 LOW3 LOW4 LOW5</p> <p>• When the component value falls within the setting range, set picture is displayed. • When the component value is out of the setting range, default picture is displayed.</p> |

* 1 If the setting ranges overlap, the graphic having the setting range of the lower number is displayed.



*2 Animation GIFs cannot be used.

(2) Parameter

| Item | | Description | Setting Range | Initial Value |
|-----------------|-----------------------|---|---------------------------------|---------------------------------|
| TAGNO | | Sets the tag data for graphic display using the tag setting No. (Refer to Section 6.3.3) | 1 to 64 | Must be set |
| ELMNO | | Sets the component for graphic display using the component setting No. (Refer to Section 6.3.3) | 1 to 64 | Must be set |
| DEFPICTURE | | Sets the default graphic file (.JPG, .GIF). Displayed when the component value is outside the setting range. It is required for users to prepare the graphic to be set. *2 | String (.JPG, .GIF) | File not set (Not displayed) |
| RANGENO (*1) | | Sets the quantity in the setting range. | 1 to 5 | Must be set |
| Setting range 1 | LOW1 | Sets the minimum limit of the setting range 1. | -2147483648 to 2147483647 | Must be set |
| | HIGH1 | Sets the maximum limit of the setting range 1. | | Must be set |
| | PICTURE1 | Sets the display graphic file (.JPG, .GIF) in the setting range 1. Displayed when the component value is in the setting range 1. It is required for uses to prepare the graphic to be set. *2 | String (.JPG, .GIF) | Must be set |
| Setting range 2 | LOW2, HIGH2, PICTURE2 | Set the setting range 2. (The setting is the same as the setting range 1) *2 | | |
| Setting range 3 | LOW3, HIGH3, PICTURE3 | Set the setting range 3. (The setting is the same as the setting range 1) *2 | | |
| Setting range 4 | LOW4, HIGH4, PICTURE4 | Set the setting range 4. (The setting is the same as the setting range 1) *2 | | |
| Setting range 5 | LOW5, HIGH5, PICTURE5 | Set the setting range 5. (The setting is the same as the setting range 1) *2 | | |
| APLCOLOR | | Set the background color (undrawn area) of the Java applet. | String | Gray |

*1 Be sure to set LOWs, HIGHs and PICTUREs as many as the quantity specified at RANGENO.

Failure to do so will result in an error. (Refer to Section 7.5.)

*2 Animation GIFs cannot be used.

(3) Sample screen for graphic display part

The following provides an example of creating the sample screen that displays the graphic display parts.

The sample screen (SMPPICEN.HTM) is stored in the USER directory of the Web server module.

(a) Tag setting (refer to Section 6.3.3)

1) Set the component setting No. 1 of the tag setting No. 1.

| Item | No. | Component name | CPU name | Data type | Device | Display form | Operator | Operand |
|------|-----|----------------|-----------------|-------------|--------|---------------------------|----------|---------|
| | 1 | device A | 01: Control CPU | Single word | D0 | Decimal(0 decimal places) | None | - |

2) Click on the "Update" button on the Setting update screen to update the setting.

(b) Creation of HTML file (File name: SMPPICEN.HTM)

The HTML source is indicated below.

```

<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
<meta http-equiv="Pragma" content="no-cache">
<title>Sample screen for graphic display part</title>
</head>
<body>
<h1>Sample screen for graphic display part</h1>
<!-- Communication part -->
<applet code="WCom.class" codebase="/PARTS/" width="0" height="0">
<param name="INTERVAL" value="1">
</applet>
<!-- Graphic display part -->
<applet code="WSPictur.class" codebase="/PARTS/" width="100" height="100">
<param name="TAGNO" value="1">
<param name="ELMNO" value="1">
<param name="DEFPICTURE" value="GREEN.JPG">
<param name="RANGENO" value="1">
<param name="LOW1" value="-32768">
<param name="HIGH1" value="0">
<param name="PICTURE1" value="RED.JPG">
<param name="APLCOLOR" value="Gray">
</applet>
</body>
</html>

```

(c) Storage of HTML file

Transfer the HTML file to the Web server module by performing FTP operation.

File storage destination: [/ROM/WWW/USER/SMPPICEN.HTM]

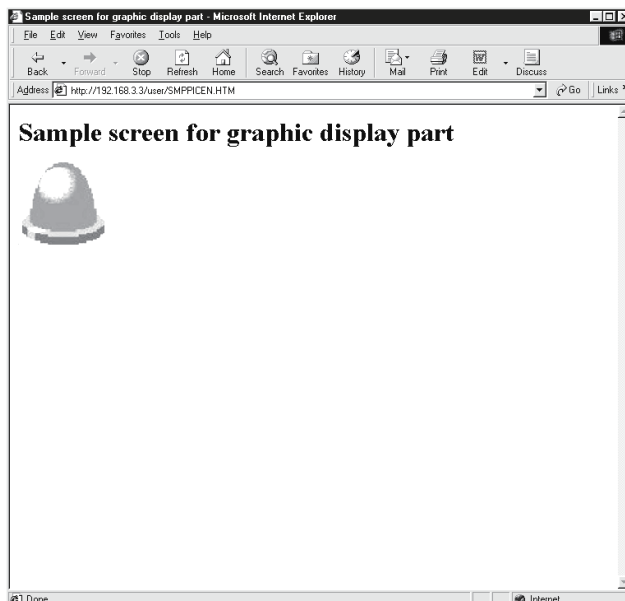
(d) Sample screen display

Display the sample screen.

(Example) When accessing the Web server module by one-to-one connection

Sample screen address:

[<http://192.168.3.3/USER/SMPPICEN.HTM>]



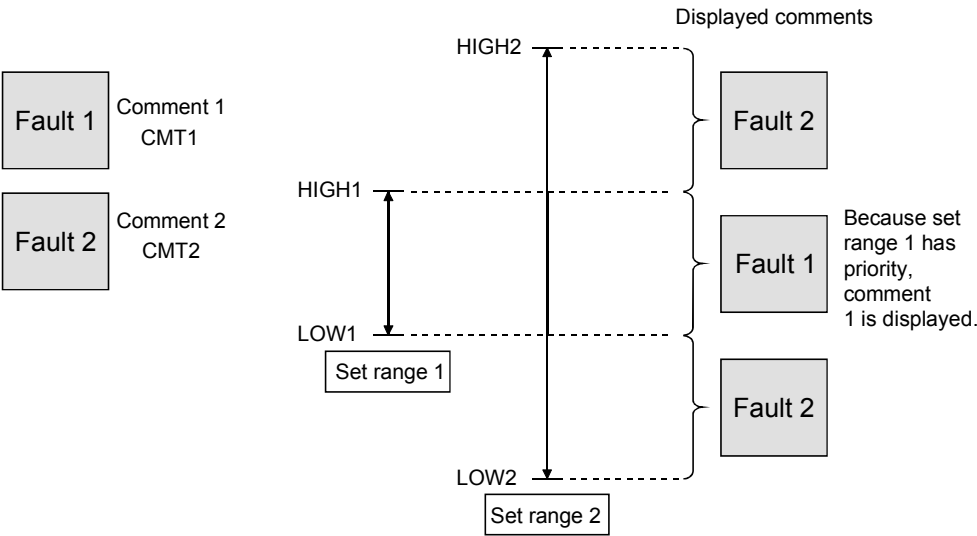
7.2.5 Comment display parts

The specified comment is displayed when the component reaches the set value.

(1) Specifications

| Item | Description |
|---------------------------------------|---|
| File name | WSCmt.class |
| Number of display comment characters | Up to 32 characters |
| Component type that can be specified | Single word, Double word, Real number (An error occurs when String is specified.) |
| Device setting value (range) quantity | Up to 5 graphics may be registered. |
| Display form (*1) | <div>Displayed items: TAGNO Font size: FONTSIZE ELMNO No. of setting ranges: RANGENO</div> <div><div>Default comment DEFCMT DEFCOLOR ↓ Operating ↑ BKCOLOR</div><div>→</div><div>Comment 1 CMT1 COLOR1 ↓ Fault 1 ↑ HIGH1 Range 1 ↓ LOW1</div><div>Comment 2 CMT2 COLOR2 ↓ Fault 2 ↑ HIGH2 Range 2 ↓ LOW2</div><div>Comment 3 CMT3 COLOR3 ↓ Fault 3 ↑ HIGH3 Range 3 ↓ LOW3</div><div>Comment 4 CMT4 COLOR4 ↓ Fault 4 ↑ HIGH4 Range 4 ↓ LOW4</div><div>Comment 5 CMT5 COLOR5 ↓ Fault 5 ↑ HIGH5 Range 5 ↓ LOW5</div></div> <div><ul style="list-style-type: none">• When the component value falls within the setting range, set comment is displayed.• When the component value is out of the setting range, a comment is displayed.</div> |

*1 If the setting ranges overlap, the graphic having the setting range of the lower number is displayed.



(2) Parameter

| Item | | Description | Setting Range | Initial Value |
|-----------------|---------------------------|---|---------------------------------|---------------------------------|
| TAGNO | | Sets the tag data for comment display using the tag setting No. (Refer to Section 6.3.3) | 1 to 64 | Must be set |
| ELMNO | | Sets the component for comment display using the component setting No. (Refer to Section 6.3.3) | 1 to 64 | Must be set |
| FONTSIZE | | Specifies the character size. | 8 to 72 | 20 |
| DEFCMT | | Sets the default comment. Displayed when the component value is outside the setting range. Refer to Appendix 4 (5) for the applicable characters. | String | Comment not set (Not displayed) |
| DEFCOLOR | | Sets the display color of the default comment. | String | Black |
| BKCOLOR | | Sets the background color. | String | White |
| RANGENO (*1) | | Sets the quantity in the setting range. | 1 to 5 | Must be set |
| Setting range 1 | LOW1 | Sets the minimum limit of the setting range 1. | -2147483648 to 2147483647 | Must be set |
| | HIGH1 | Sets the maximum limit of the setting range 1. | | Must be set |
| | CMT1 | Sets the comment in the setting range 1. Displayed when the component value is in the setting range 1. Refer to Appendix 4 (5) for the applicable characters. | String | Must be set |
| | COLOR1 | Sets the display color of the comment in the setting range 1. | String | Red |
| Setting range 2 | LOW2, HIGH2, CMT2, COLOR2 | Sets the setting range 2. (The setting is the same as the setting range 1) | | |
| Setting range 3 | LOW3, HIGH3, CMT3, COLOR3 | Sets the setting range 3. (The setting is the same as the setting range 1) | | |
| Setting range 4 | LOW4, HIGH4, CMT4, COLOR4 | Sets the setting range 4. (The setting is the same as the setting range 1) | | |
| Setting range 5 | LOW5, HIGH5, CMT5, COLOR5 | Sets the setting range 5. (The setting is the same as the setting range 1) | | |

*1 Be sure to set LOWs, HIGHs and CMTs as many as the quantity specified at RANGENO.
Failure to do so will result in an error. (Refer to Section 7.5.)

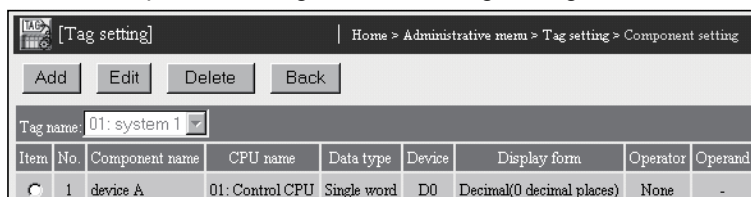
(3) Sample screen for comment display part

The following provides an example of creating the sample screen that displays the comment display parts.

The sample screen (SMPCMTEN.HTM) is stored in the USER directory of the Web server module.

(a) Tag setting (refer to Section 6.3.3)

- 1) Set the component setting No. 1 of the tag setting No. 1.



| Item | No. | Component name | CPU name | Data type | Device | Display form | Operator | Operand |
|-----------------------|-----|----------------|-----------------|-------------|--------|---------------------------|----------|---------|
| <input type="radio"/> | 1 | device A | 01: Control CPU | Single word | D0 | Decimal(0 decimal places) | None | - |

- 2) Click on the "Update" button on the Setting update screen to update the setting.

(b) Creation of HTML file (File name: SMPCMTEN.HTM)

The HTML source is indicated below.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
<meta http-equiv="Pragma" content="no-cache">
<title>Sample screen for comment display part</title>
</head>
<body>
<h1>Sample screen for comment display part</h1>
<!-- Communication part -->
<applet code="WSCCom.class" codebase="/PARTS/" width="0" height="0">
<param name="INTERVAL" value="1">
</applet>
<!-- Comment display part -->
<applet code="WSCmt.class" codebase="/PARTS/" width="500" height="50">
<param name="TAGNO" value="1">
<param name="ELMNO" value="1">
<param name="FONTSIZE" value="30">
<param name="DEFCMT" value="Ready ...">
<param name="DEFCOLOR" value="Black">
<param name="BKCOLOR" value="White">
<param name="RANGENO" value="1">
<param name="LOW1" value="-32768">
<param name="HIGH1" value="0">
<param name="CMT1" value="A trouble occurs in device A.">
<param name="COLOR1" value="Red">
</applet>
</body>
</html>
```

(c) Storage of HTML file

Transfer the HTML file to the Web server module by performing FTP operation.

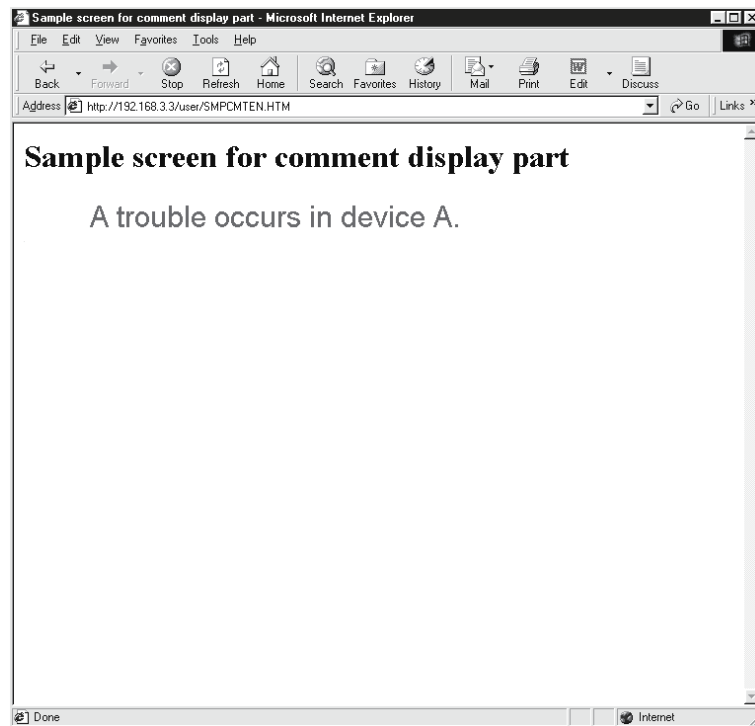
File storage destination: [/ROM/WWW/USER/SMPCMTEN.HTM]

(d) Sample screen display

(Example) When accessing the Web server module by one-to-one connection

Sample screen address:

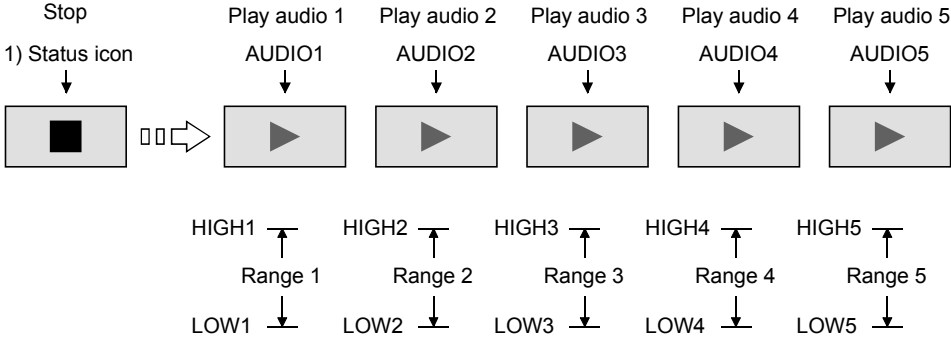
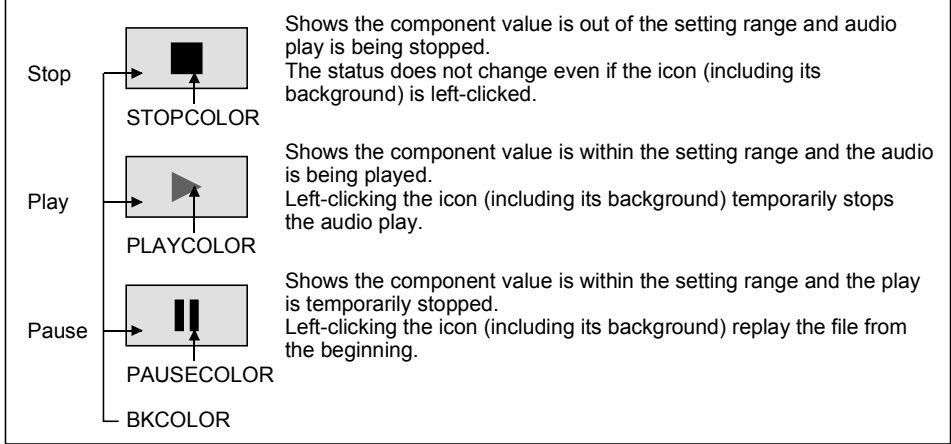
[<http://192.168.3.3/USER/SMPCMTEN.HTM>]



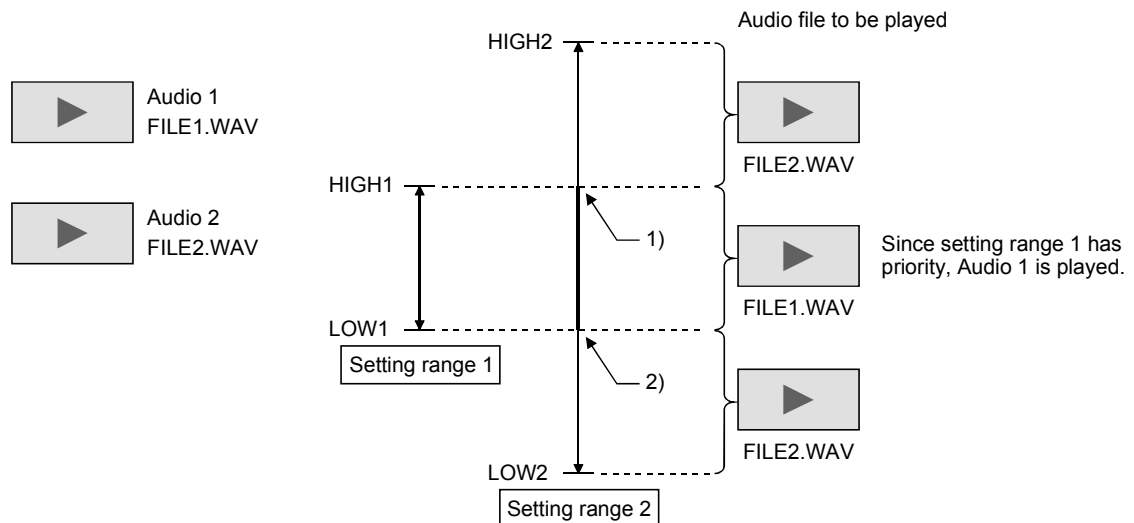
7.2.6 Audio parts

Plays the specified audio file when the component reaches the set value.

(1) Specifications

| Item | Description |
|---------------------------------------|---|
| File name | WSAudio. class |
| Play file form | WAV, AU |
| Component type that can be specified | Single word, Double word, Real number, Bit (An error occurs when String is specified.) |
| Device setting value (range) quantity | Up to 5 values may be registered. |
| Play form (*1) | <p>Displayed items: TAGNO No. of setting ranges :RANGENO ELMNO</p> <p>Stop Play audio 1 Play audio 2 Play audio 3 Play audio 4 Play audio 5 1) Status icon AUDIO1 AUDIO2 AUDIO3 AUDIO4 AUDIO5</p>  <p>1) Status icon</p>  <p>Shows the component value is out of the setting range and audio play is being stopped. The status does not change even if the icon (including its background) is left-clicked.</p> <p>Shows the component value is within the setting range and the audio is being played. Left-clicking the icon (including its background) temporarily stops the audio play.</p> <p>Shows the component value is within the setting range and the play is temporarily stopped. Left-clicking the icon (including its background) replay the file from the beginning.</p> |

*1 If any setting ranges are overlapped, the audio file with the smaller number is played. (For parameter PLAYMODE=0 (Stop))



- 1) When the value enters the Audio 1 setting range during play of Audio 2, the Audio 2 play is stopped and Audio 1 is played.
- 2) When the value goes out of the Audio 1 setting range (within the Audio 2 setting range), replay Audio 2 from the beginning.

(2) Parameter

| Item | | Description | Setting Range | Initial Value |
|-----------------|------------------|---|---------------------------------|---------------|
| TAGNO | | Sets the tag data for playing audio files using the tag setting No. (Refer to Section 6.3.3.) | 1 to 64 | Must be set |
| ELMNO | | Sets the component for playing audio files using the component setting No. (Refer to Section 6.3.3.) | 1 to 64 | Must be set |
| RANGENO (*1) | | Sets the quantity in the setting range. | 1 to 5 | Must be set |
| Setting range 1 | LOW1 | Sets the minimum limit of the setting range 1. | -2147483648 to 2147483647 | Must be set |
| | HIGH1 | Sets the maximum limit of the setting range 1. | | Must be set |
| | AUDIO1 (*2) | Sets the audio file (.WAV, .AU) of setting range 1. When the component value is within setting range 1, the audio file is played. The audio file shall be prepared by the user. | String (.WAV, .AU) | Must be set |
| | REPEAT1 (*3)(*4) | Sets whether the play of the audio file is to be repeated or not. 0: Not repeat 1: Repeat | 0, 1 | 1 (Repeat) |
| | PLAYMODEL1 (*4) | Sets the operation to be performed when the component value exceeds the setting range during audio file play. 0: Stop 1: Continue | 0, 1 | 0 (Stop) |

| Item | | Description | Setting Range | Initial Value |
|-----------------|---|---|---------------|---------------|
| Setting range 2 | LOW2, HIGH2, AUDIO2, REPEAT2, PLAYMODE2 | Set the setting range 2. (The setting is the same as the setting range 1) | | |
| Setting range 3 | LOW3, HIGH3, AUDIO3, REPEAT3, PLAYMODE3 | Set the setting range 3. (The setting is the same as the setting range 1) | | |
| Setting range 4 | LOW4, HIGH4, AUDIO4, REPEAT4, PLAYMODE4 | Set the setting range 4. (The setting is the same as the setting range 1) | | |
| Setting range 5 | LOW5, HIGH5, AUDIO5, REPEAT5, PLAYMODE5 | Set the setting range 5. (The setting is the same as the setting range 1) | | |
| STOPCOLOR | | Set the color of the icon indicating the stop status. | String | Black |
| PLAYCOLOR | | Set the color of the icon indicating the play status. | String | Red |
| PAUSECOLOR | | Set the color of the icon indicating the pause status. | String | Black |
| BKCOLOR | | Set the background color of the icon. | String | Gray |
| LNCOLOR | | Set the border color of the icon. | String | Black |

*1 Be sure to set the values of LOW, HIGH and AUDIO for the same quantity specified in RANGENO. Otherwise, an error occurs. (Refer to Section 7.5.)

*2 When using Microsoft[®] VM, AU files only can be set.

If a WAV file is specified, an audio file format error (0B08h) occurs.

*3 When using Microsoft[®] VM, setting is not allowed.

It operates as REPEAT=1 (Repeat).

Even if setting has been made, it will be ignored.

*4 In the REPEAT and PLAYMODE settings, select any of the following operations.

When an event occurs:

1) Playing the audio file once while the component value is within the setting range

REPEAT=0 (Not repeat), PLAYMODE=0 (Stop)

2) Playing the audio file repeatedly while the component value is within the setting range

REPEAT=1 (Repeat), PLAYMODE=0 (Stop)

3) Playing the audio file when the component value falls within the setting range and

completing the playing to the end even if the value gets out of the range.

REPEAT=0 (Not repeat), PLAYMODE=1 (Continue)

4) Playing the audio file repeatedly and continuously when the component value falls within the setting range.

REPEAT=1 (Repeat), PLAYMODE=1 (Continue)

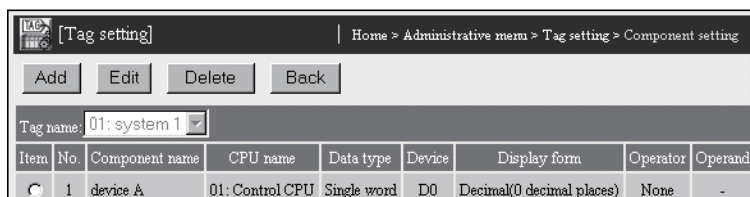
(3) Sample screen for audio parts

The following provides an example of creating the sample screen that displays the audio parts.

The sample screen (SMPAUDEN.HTM) is stored in the USER directory of the Web server module.

(a) Tag setting (refer to Section 6.3.3)

- 1) Set the component setting No. 1 of the tag setting No. 1.



| Item | No. | Component name | CPU name | Data type | Device | Display form | Operator | Operand |
|-----------------------|-----|----------------|-----------------|-------------|--------|---------------------------|----------|---------|
| <input type="radio"/> | 1 | device A | 01: Control CPU | Single word | D0 | Decimal(0 decimal places) | None | - |

- 2) Click on the "Update" button on the Setting update screen to update the setting.

(b) Creation of HTML file (File name: SMPAUDEN.HTM)

The HTML source is indicated below.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
  <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
  <meta http-equiv="Pragma" content="no-cache">
  <title>
    Sample screen for audio part
  </title>
</head>
<body>
  <h1>
    Sample screen for audio part
  </h1><!-- Communication part -->
  <applet code="WSCom.class" codebase="/PARTS/" width="0" height="0">
    <param name="INTERVAL" value="1">
  </applet> <!-- Audio part -->
  <applet code="WSAudio.class" codebase="/PARTS/" width="120" height="40">
    <param name="TAGNO" value="1">
    <param name="ELMNO" value="1">
    <param name="RANGENO" value="1">
    <param name="LOW1" value="-32768">
    <param name="HIGH1" value="0">
    <param name="AUDIO1" value="ALARM.AU">
    <param name="REPEAT1" value="1">
    <param name="PLAYMODE1" value="0">
    <param name="STOPCOLOR" value="Black">
    <param name="PLAYCOLOR" value="Red">
    <param name="PAUSECOLOR" value="Black">
    <param name="BKCOLOR" value="Gray">
    <param name="LNCOLOR" value="Black">
  </applet>
</body>
</html>
```

(c) Storage of HTML file

Transfer the HTML file to the Web server module by performing FTP operation.

File storage destination: [/ROM/WWW/USER/SMPAUDEN.HTM]

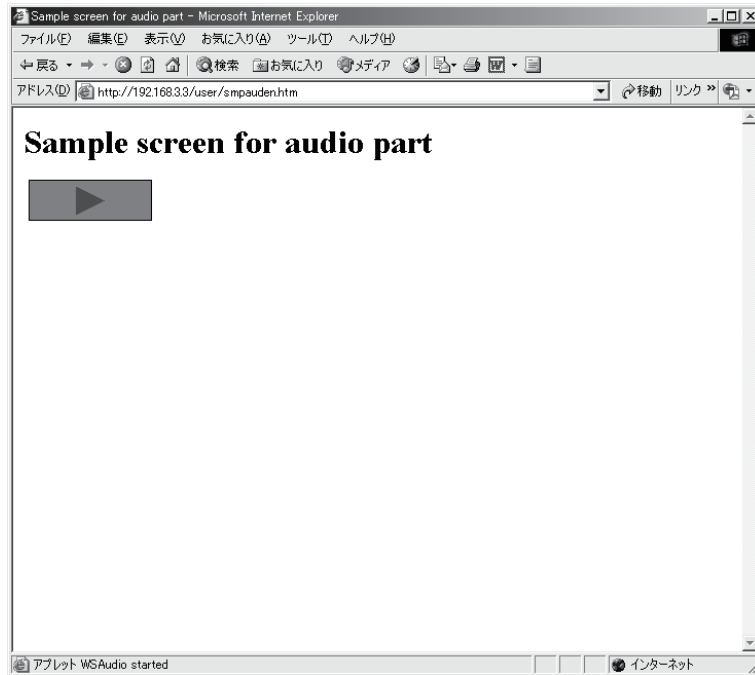
(d) Sample screen display

Display the sample screen.

(Example) When accessing the Web server module by one-to-one connection

Sample screen address:

[<http://192.168.3.3/USER/SMPAUDEN.HTM>]



(4) Precaution for using the audio parts

(a) Applet size

The icons are displayed in the entire applet area.

1) When displaying the status icons

Specify values larger than the following for the applet size.

width=20, height=20

Note that, when the width is less than 200, a space for error code display may not be sufficient in the event of an error.

If this occurs, increase the applet size.

2) When not displaying the status icons

Specify the following values for the applet size.

width=0, height=0

Note that the functions shown below are not available in this case.

- Instruction of play/pause by mouse
- Error code display in the event of an error

(b) Restrictions on use of Microsoft® VM

1) AU files only can be specified as audio files.

If a WAV file is specified, an audio file format error (0B08h) occurs.

2) The parameter, REPEAT cannot be specified.

It operates as REPEAT=1 (Repeat).

Even if setting has been made, it will be ignored.

3) Specifying the same audio file name in multiple audio parts is not allowed.

If this happens, a same file specification error (0B09h) will occur.

4) When the computer does not have any audio playback hardware, or when the audio file is corrupted, no error can be detected. (No error occurs.)

(c) Audio file encoding method

Only the audio files encoded in the PCM format can be played.

This module does not support the compression technology such as ADPCM.

(d) Audio file size

Audio files of 1MB or less only can be played.

If an audio file which size exceeds 1MB is specified, an audio file format error (0B08h) will occur.

(e) Number of audio files

When using multiple audio parts, up to 32 audio files can be specified. (*1)

If more than 32 audio files have been specified, an audio file format error (0B08h) will occur. (*2)

*1 When more than one Web browser has been activated, the total number of all audio files is limited to the maximum of 32.

*2 No error may occur when using Microsoft® VM, however, it may not function properly.

7.2.7 Historical graph display parts

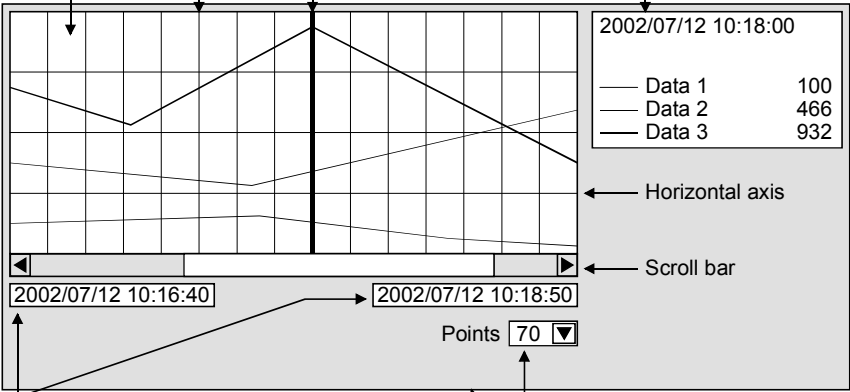
The logging data are displayed in a time-series line graph.

Up to 100 pieces of logging data can be displayed.

The latest logged data is displayed at the right end.

At the rightmost end of the graph, new data is automatically added every time logging is performed. (Old data is erased.)

(1) Specifications

| Item | Description |
|--------------------------------------|--|
| File name | WSHstgrp.class |
| Number of graph lines | Up to 5 graph lines |
| Component type that can be specified | Single word, Double word, Real number (An error occurs when Bit or String is specified.) |
| Display form | <p>Displayed items: LOGNO</p> <ul style="list-style-type: none"> Line for numeric display Set to the position where numeric value is to be displayed. This line position is changeable by clicking on a vertical line. <p>2) Numeric display box Displays component names and current values at the display line position.</p>  <p>1) Graph Vertical axis</p> <p>Horizontal axis</p> <p>Scroll bar</p> <p>2002/07/12 10:16:40 2002/07/12 10:18:50</p> <p>Points 70 ▼</p> <p>4) Logging time display box Leftmost time: Displays the oldest time data within the graph display range. Rightmost time: Displays the current time data within the graph display range.</p> <p>3) Points specification display box Changes the number of points.</p> <p>APLCOLOR</p> |

| Item | Description |
|-------------------------|--|
| Display form (continue) | <p>1) Graphic display</p> <p>No. of graphs: GRAPHNO</p> <p>YLINE</p> <p>DSPLNCOLOR</p> <p>BKCOLOR</p> <p>ELMNO1 GRCOLOR1</p> <p>ELMNO2 GRCOLOR2</p> <p>ELMNO3 GRCOLOR3</p> <p>UPPER</p> <p>XLINE</p> <p>LOWER</p> <p>POINT</p> |
| | <p>2) Numeric display box: DSPDATA</p> <p>DSPCOLOR</p> <p>2002/07/12 10:18:00</p> <p>Data 1 100</p> <p>Data 2 466</p> <p>Data 3 932</p> <p>DSPBKCOLOR</p> |
| | <p>3) Points specification display box: DSPBOX</p> <p>DSPCOLOR</p> <p>Points 70</p> <p>DSPBKCOLOR</p> |
| | <p>4) Logging time display box: DSPTIME</p> <p>DSPCOLOR</p> <p>2002/07/12 10:18:50</p> <p>DSPBKCOLOR</p> |

(2) Parameter

| Item | Description | Setting Range | Initial Value |
|------------------|---|---------------|---------------|
| LOGNO | Sets the logging data for historical graph display using the logging setting No. (Refer to Section 6.4.4) | 1 to 64 | Must be set |
| GRAPHNO(*1) | Sets the number of graph lines. | 1 to 5 | Must be set |
| ELMNO1 to ELMNO5 | Sets the component for historical graph display using the component setting No. (Refer to Section 6.3.3) | 1 to 64 | Must be set |
| GRCOLOR1 | Sets the display color of the first graph. | String | Blue |
| GRCOLOR2 | Sets the display color of the second graph. | String | Red |
| GRCOLOR3 | Sets the display color of the third graph. | String | Green |
| GRCOLOR4 | Sets the display color of the fourth graph. | String | Aqua |
| GRCOLOR5 | Sets the display color of the fifth graph. | String | Maroon |
| BKCOLOR | Sets the background color of the graph display. | String | White |

| Item | Description | Setting Range | Initial Value |
|------------|--|---------------------------------|--------------------------------|
| DSPCOLOR | Sets the character color of the numeric value and time. | String | Black |
| DSPBKCOLOR | Sets the background color of the numeric value and time. | String | White |
| DSPLNCOLOR | Sets the display line color. | String | Red |
| APLCOLOR | Sets the background color (undrawn area) of the Java applet. | String | Gray |
| POINT | Sets the number of logging data (records) to be displayed. | 5 to 100 | 100 |
| UPPER | Sets the maximum limit value. | -2147483648 to 2147483647 | 32767 |
| LOWER | Sets the minimum limit value. | | -32768 |
| YLINE | Sets the number of logging data for the interval in which the vertical axis lines to be drawn. | 0 to 99 | 0 (Without vertical axis line) |
| XLINE | Sets the number of horizontal axis lines. | 0 to 99 | 0 |
| DSPTIME | Sets whether the logging time display box will be displayed or not. 0: Not displayed 1: Displayed | 0, 1 | 0 (Not displayed) |
| DSPDATA | Sets whether the numeric display box will be displayed or not. 0: Not displayed 1: Displayed When "0: Not displayed" is set, the display lines are not displayed. | 0, 1 | 0 (Not displayed) |
| DSPBOX | Sets whether the points specification display box will be displayed or not. 0: Not displayed 1: Displayed | 0, 1 | 0 (Not displayed) |

*1 Be sure to set ELMNOs as many as the graph lines specified at GRAPHNO.

Failure to do so will result in an error. (Refer to Section 7.5.)

(3) Sample screen for historical graph display part

The following provides an example of creating the sample screen that displays the historical graph display parts.

The sample screen (SMPHSGEN.HTM) is stored in the USER directory of the Web server module.

(a) Tag setting (refer to Section 6.3.3), logging setting (refer to Section 6.4.4)

1) Set the component setting No. 1 to 5 of the tag setting No. 1.

| Item | No. | Component name | CPU name | Data type | Device | Display form | Operator | Operand |
|-----------------------|-----|----------------|-----------------|-------------|--------|---------------------------|----------|---------|
| <input type="radio"/> | 1 | device A | 01: Control CPU | Single word | D0 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 2 | device B | 01: Control CPU | Single word | D1 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 3 | device C | 01: Control CPU | Single word | D2 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 4 | device D | 01: Control CPU | Single word | D3 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 5 | device E | 01: Control CPU | Single word | D4 | Decimal(0 decimal places) | None | - |

2) Set the logging setting No. 1.

| Item | No. | Tag name | File name | Save as | Schedule setting | | | Saved file setting | | | | | External storage setting | | |
|-----------------------|-----|----------|-------------|--------------|-----------------------------------|---------------------|--------------------|--|------------|------------|------------|----------------------------------|--------------------------|-------------|-----------------|
| | | | | | Timing | condition for start | condition for stop | File capacity | Name | Date | Time | Number of saved files(Overwrite) | E-mail address | FTP server | |
| <input type="radio"/> | 1 | system 1 | system1.CSV | Standard ROM | same as the tag sampling interval | Start at start-up | Do not stop | Specification for number of lines(1000Lines) | Do not add | Do not add | Do not add | Do not add | 1(Overwrite) | Do not send | Do not transfer |

3) Click on the "Update" button on the Setting update screen to update the setting.

(b) Creation of HTML file (File name: SMPHSGEN.HTM)

The HTML source is indicated below.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
<meta http-equiv="Pragma" content="no-cache">
<title>Sample screen for historical graph display part</title>
</head>
<body>
<h1>Sample screen for historical graph display part</h1>
<!-- Communication part -->
<applet code="WScm.class" codebase="/PARTS/" width="0" height="0">
<param name="INTERVAL" value="1">
</applet>
<!-- Historical graph display part -->
<applet code="WSHstgrp.class" codebase="/PARTS/" width="800" height="400">
<param name="LOGNO" value="1">
<param name="GRAPHNO" value="5">
<param name="ELMNO1" value="1">
<param name="ELMNO2" value="2">
<param name="ELMNO3" value="3">
<param name="ELMNO4" value="4">
<param name="ELMNO5" value="5">
<param name="GRCOLOR1" value="Blue">
<param name="GRCOLOR2" value="Red">
<param name="GRCOLOR3" value="Green">
<param name="GRCOLOR4" value="Aqua">
<param name="GRCOLOR5" value="Maroon">
<param name="BKCOLOR" value="White">
<param name="DSPCOLOR" value="Black">
<param name="DSPBKCOLOR" value="White">
<param name="DSPLNCOLOR" value="Red">
<param name="APLCOLOR" value="Gray">
<param name="POINT" value="100">
<param name="UPPER" value="32767">
<param name="LOWER" value="-32768">
<param name="YLINE" value="10">
<param name="XLINE" value="15">
<param name="DSPTIME" value="1">
<param name="DSPDATA" value="1">
<param name="DSPBOX" value="1">
</applet>
</body>
</html>
```

(c) Storage of HTML file

Transfer the HTML file to the Web server module by performing FTP operation.

File storage destination: [/ROM/WWW/USER/SMPHSGEN.HTM]

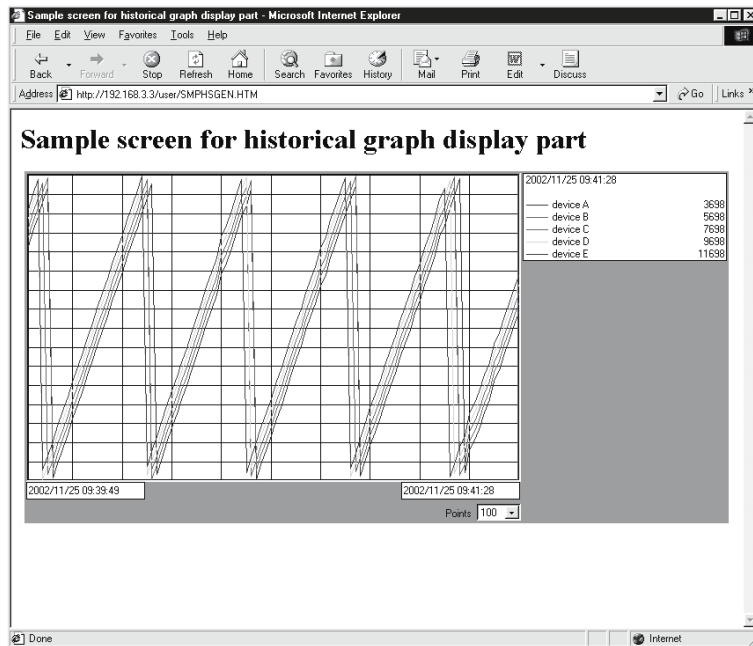
(d) Sample screen display

Display the sample screen.

(Example) When accessing the Web server module by one-to-one connection

Sample screen address:

[<http://192.168.3.3/USER/SMPHSGEN.HTM>]



(4) Precautions for using the historical graph display parts

The vertical axis line intervals of the historical graph parts may not be constant depending on the display resolution and specified width of the historical graph display parts.

The vertical axis line intervals can be made constant by adjusting the width (WIDTH value described in HTML) of the Java applet that displays the historical graph display parts.

Refer to Section 7.2.1 for the HTML description method.

7.2.8 Historical data display parts

The logging data are displayed in the table form.

Up to 100 pieces of logging data can be displayed.

The latest logged data is displayed at the bottom end.

At the lowest end of the graph, new data is automatically added every time logging is performed. (Old data is erased.)

(1) Specifications

| Item | Description |
|---|---|
| File name | WSHst.dat.class |
| Number of components (Column number) | Up to 10 components |
| Display form | <p>Displayed items: LOGNO</p> <p>1) Component name display cell</p> <p>2) Component value display cell</p> <p>3) Logging time display cell</p> <p>1) Component name display cell</p> <p>2) Component value display cell</p> <p>3) Logging time display cell</p> |

(2) Parameter

| Item | Description | Setting Range | Initial Value |
|-------------------|--|---------------|---------------------|
| LOGNO | Sets the logging data for historical data display using the logging setting No. (Refer to Section 6.4.4) | 1 to 64 | Must be set |
| XNO(*1) | Sets the number of item components (columns). | 1 to 10 | Must be set |
| ELMNO1 to ELMNO10 | Sets the component for historical data display using the component setting No. (Refer to Section 6.3.3) | 1 to 64 | Must be set |
| NUMCOLOR | Sets the display color of the component value display cell. | String | Black |
| NMBKCOLOR | Sets the background color of the component value display cell. | String | White |
| ELMCOLOR | Sets the display color of the component name display cell. | String | Black |
| ELMBKCOLOR | Sets the background color of the component name display cell. | String | White |
| TIMECOLOR | Sets the character color of the logging time display cell. | String | Black |
| TMBKCOLOR | Sets the background color of the logging time display cell. | String | White |
| APLCOLOR | Sets the background color (undrawn area) of the Java applet. | String | Gray |
| ITEMWIDTH | Sets the width of the component name/component value display cell. | 1 to 300 | 100 |
| NALIGNMENT | Sets the alignment of the component value display cell. 0: Left 1: Right 2: Centered | 0 to 2 | 1 (Right alignment) |
| IALIGNMENT | Sets the alignment of the component name display cell. 0: Left 1: Right 2: Centered | 0 to 2 | 2 (Centered) |

*1 Be sure to set ELMNOs as many as the quantity specified at XNO.

Failure to do so will result in an error. (Refer to Section 7.5.)

(3) Sample screen for historical data display part

The following provides an example of creating the sample screen that displays the historical data display parts.

The sample screen (SMPHSDEN.HTM) is stored in the USER directory of the Web server module.

(a) Tag setting (refer to Section 6.3.3), logging setting (refer to Section 6.4.4)

1) Set the component setting No. 1 to 5 of the tag setting No. 1.

| Item | No. | Component name | CPU name | Data type | Device | Display form | Operator | Operand |
|-----------------------|-----|----------------|-----------------|-------------|--------|---------------------------|----------|---------|
| <input type="radio"/> | 1 | device A | 01: Control CPU | Single word | D0 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 2 | device B | 01: Control CPU | Single word | D1 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 3 | device C | 01: Control CPU | Single word | D2 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 4 | device D | 01: Control CPU | Single word | D3 | Decimal(0 decimal places) | None | - |
| <input type="radio"/> | 5 | device E | 01: Control CPU | Single word | D4 | Decimal(0 decimal places) | None | - |

2) Set the logging setting No. 1.

| Item | No. | Tag name | File name | Save as | Schedule setting | | | Saved file setting | | | | | External storage setting | |
|-----------------------|-----|----------|-------------|--------------|-----------------------------------|---------------------|--------------------|--|------------|------------|------------|----------------------------------|--------------------------|-----------------|
| | | | | | Timing | condition for start | condition for stop | File capacity | Name | Date | Time | Number of saved files(Overwrite) | E-mail address | FTP server |
| <input type="radio"/> | 1 | system 1 | system1.CSV | Standard ROM | same as the tag sampling interval | Start at start-up | Do not stop | Specification for number of lines(1000Lines) | Do not add | Do not add | Do not add | 1(Overwrite) | Do not send | Do not transfer |

3) Click on the "Update" button on the Setting update screen to update the setting.

(b) Creation of HTML file (File name: SMPHSDEN.HTM)

The HTML source is indicated below.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
<meta http-equiv="Pragma" content="no-cache">
<title>Sample screen for historical data display part</title>
</head>
<body>
<h1>Sample screen for historical data display part</h1>
<!-- Communication part -->
<applet code="WSECom.class" codebase="/PARTS/" width="0" height="0">
<param name="INTERVAL" value="1">
</applet>
<!-- Historical data display part -->
<applet code="WSHstdat.class" codebase="/PARTS/" width="655"
height="400">
<param name="LOGNO" value="1">
<param name="XNO" value="5">
<param name="ELMNO1" value="1">
<param name="ELMNO2" value="2">
<param name="ELMNO3" value="3">
<param name="ELMNO4" value="4">
<param name="ELMNO5" value="5">
<param name="NUMCOLOR" value="Black">
<param name="NMBKCOLOR" value="White">
<param name="ELMCOLOR" value="Black">
<param name="ELMBKCOLOR" value="White">
<param name="TIMECOLOR" value="Black">
<param name="TMBKCOLOR" value="White">
<param name="APLCOLOR" value="Gray">
<param name="ITEMWIDTH" value="100">
<param name="NALIGNMENT" value="1">
<param name="IALIGNMENT" value="2">
</applet>
</body>
</html>
```

(c) Storage of HTML file

Transfer the HTML file to the Web server module by performing FTP operation.

File storage destination: [/ROM/WWW/USER/SMPHSDEN.HTM]

(d) Sample screen display

Display the sample screen.

(Example) When accessing the Web server module by one-to-one connection

Sample screen address:

[<http://192.168.3.3/USER/SMPHSDEN.HTM>]

Sample screen for historical data display part - Microsoft Internet Explorer

Address <http://192.168.3.3/USER/SMPHSDEN.HTM>

Sample screen for historical data display part

| | device A | device B | device C | device D | device E |
|---------------------|----------|----------|----------|----------|----------|
| 2002/11/14 20:04:01 | 4195 | 6195 | 8195 | 10195 | 12195 |
| 2002/11/14 20:04:02 | 7109 | 9109 | 11109 | 13109 | 15109 |
| 2002/11/14 20:04:03 | 10296 | 12296 | 14296 | 16296 | 18296 |
| 2002/11/14 20:04:04 | 13466 | 15466 | 17466 | 19466 | 21466 |
| 2002/11/14 20:04:05 | 17075 | 19075 | 21075 | 23075 | 25075 |
| 2002/11/14 20:04:06 | 19776 | 21776 | 23776 | 25776 | 27776 |
| 2002/11/14 20:04:07 | 22521 | 24521 | 26521 | 28521 | 30521 |
| 2002/11/14 20:04:08 | 26251 | 28251 | 30251 | 32251 | -31285 |
| 2002/11/14 20:04:09 | 29404 | 31404 | -32132 | -30132 | -28132 |
| 2002/11/14 20:04:10 | 32396 | -31140 | -29140 | -27140 | -25140 |
| 2002/11/14 20:04:11 | -29986 | -27986 | -25986 | -23986 | -21986 |
| 2002/11/14 20:04:12 | -26304 | -24304 | -22304 | -20304 | -18304 |
| 2002/11/14 20:04:13 | -23667 | -21667 | -19667 | -17667 | -15667 |
| 2002/11/14 20:04:14 | -20918 | -18918 | -16918 | -14918 | -12918 |
| 2002/11/14 20:04:15 | -17347 | -15347 | -13347 | -11347 | -9347 |
| 2002/11/14 20:04:16 | -14195 | -12195 | -10195 | -8195 | -6195 |
| 2002/11/14 20:04:17 | -11038 | -9038 | -7038 | -5038 | -3038 |
| 2002/11/14 20:04:18 | -7886 | -5886 | -3886 | -1886 | 114 |

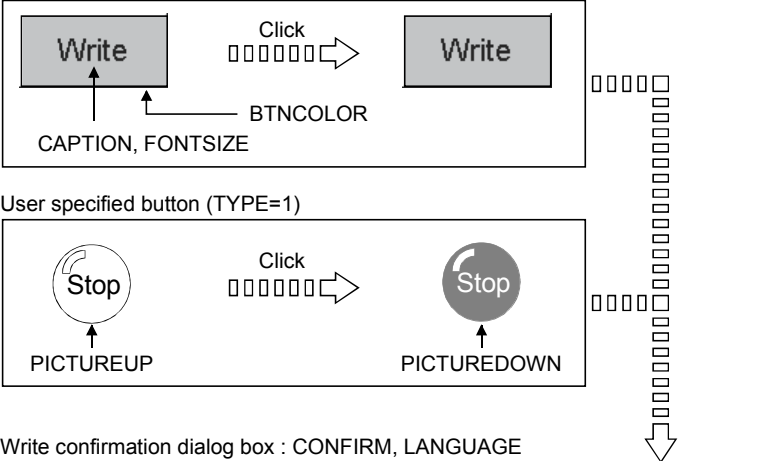
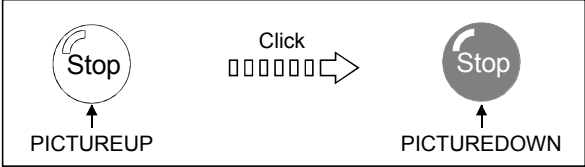
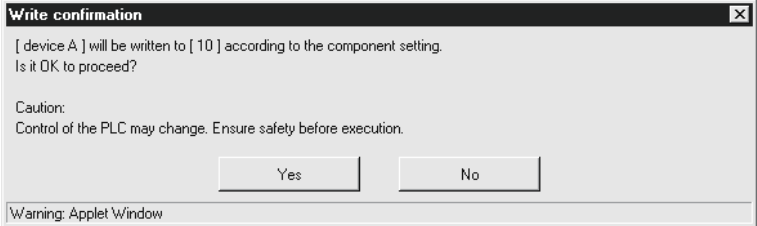
Done Internet

7.2.9 Write button parts

The specified value is written to the specified tag component.

Only the user having the tag component write authority is allowed to write a value to a tag component with the write button part. Refer to Section 4.6.5 for the user authority.

(1) Specifications

| Item | Description |
|--------------------------------------|--|
| File name | WSWrtbtn.class |
| Component type that can be specified | Single word, Double word, Real number, Bit, String |
| Display form | <ul style="list-style-type: none"> • Written items : TAGNO, ELMNO • Set value : DATA • Standard button (TYPE=0)  • User specified button (TYPE=1)  • Write confirmation dialog box : CONFIRM, LANGUAGE  |

(2) Parameter

| Item | Description | Setting Range | Initial Value |
|-------|---|--|---------------|
| TAGNO | Sets the tag, where a value will be written, with the tag setting No. (Refer to Section 6.3.3.) | 1 to 64 | Must be set |
| ELMNO | Sets the component, where a value will be written, with the component setting No. (Refer to Section 6.3.3.) | 1 to 64 | Must be set |
| DATA | Sets the value to be written. (*1) (*2) | Depends on the data type of the specified tag component. | Must be set |
| TYPE | Sets the type of the button to be displayed. 0: Standard 1: User specified | 0, 1 | 0 (Standard) |

| Item | Description | Setting Range | Initial Value |
|-------------|--|------------------------|-------------------------------------|
| CAPTION | Sets the character string to be displayed on the standard button (TYPE=0). (Invalid when the user specified button (TYPE=1) is selected.) | String | File not set (Not displayed). |
| FONTSIZE | Sets the character size to be displayed on the standard button (TYPE=0). | 8 to 72 | 20 |
| BTNCOLOR | Sets the color of the standard button (TYPE=0). (Invalid when the user specified button (TYPE=1) is selected.) | String | Gray |
| PICTUREUP | Sets the file (.JPG, .GIF) to be displayed on the user specified button (TYPE=1). (Invalid when the standard button (TYPE=0) is selected.) | String (.JPG, .GIF) | File not set (Not displayed) |
| PICTUREDOWN | Sets the file (.JPG, .GIF) to be displayed when the user specified button (TYPE=1) is clicked. (Invalid when the standard button (TYPE=0) is selected.) | String (.JPG, .GIF) | Same file as set at PICTUREUP |
| APLCOLOR | Set the background color (undrawn area) of the Java applet. | String | Gray |
| CONFIRM | Sets whether the write confirmation dialog box will be displayed or not. 0: Not displayed 1: Displayed | 0, 1 | 1 (Displayed) |
| LANGUAGE | Selects the language of the write confirmation dialog box. 0: Japanese 1: English | 0, 1 | 1 (English) |

*1 When operation specification has been set to the target component, carry out an inverse operation to operation specification for the setting value and write the result to the device.

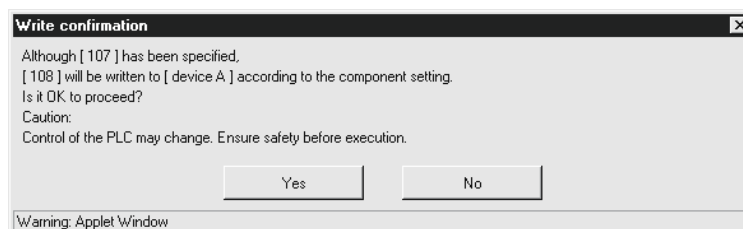
(Example) When "100" is set as the setting value for the component in which "Single word" has been set as Data type and "×2" as Operation specification, "100 / 2 = 50" is actually written to the device.

Note that, an error may be produced between the setting value and the actually written component value.

(Example) When "107" is set as the setting value for a component in which "Single word" has been set as Data type and "×2" as Operation specification, "107 / 2 = 54" is actually written to the device.

The component value to be displayed on the Tag data monitor is "54 × 2 = 108".

In the above case, the following confirmation screen is displayed when CONFIRM = 1.



*2 When a real number is written to the target component, a rounding error may be produced.

(3) Sample screen for write button part

The following provides an example of creating the sample screen that displays the write button parts.

The sample screen (Smpwbten.htm) is stored in the USER directory of the Web server module.

(a) Tag setting (refer to Section 6.3.3)

- 1) Set "Data write" in the tag setting No. 1 to "Enable".
- 2) Set the component setting No. 1 of the tag setting No. 1.

| Item No. | Component name | CPU name | Data type | Device | Display form | Operator | Operand |
|----------|----------------|-----------------|-------------|--------|---------------------------|----------|---------|
| 1 | device A | 01: Control CPU | Single word | D0 | Decimal(0 decimal places) | None | - |

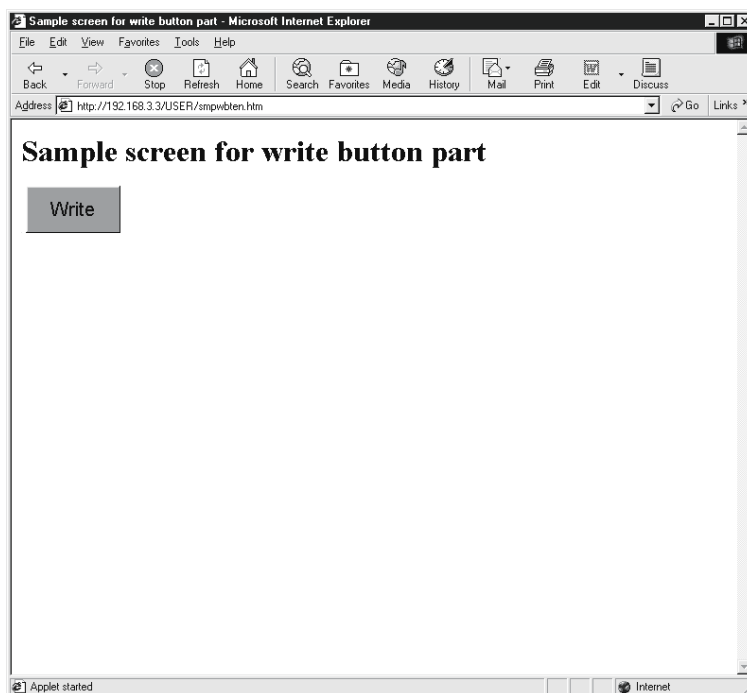
- 3) Click on the "Update" button on the Setting update screen to update the setting.

(b) Creation of HTML file (File name: Smpwbten.htm)

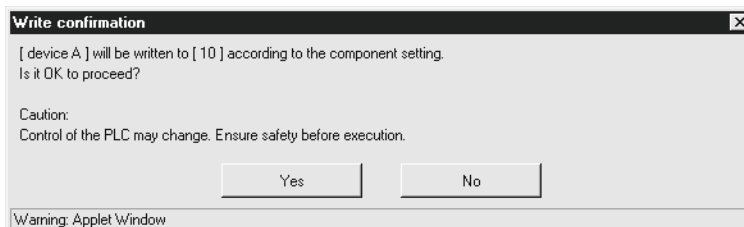
The HTML source is indicated below.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
<meta http-equiv="Pragma" content="no-cache">
<title>
Sample screen for write button part
</title>
</head>
<body>
<h1>
Sample screen for write button part
</h1><!-- Communication part -->
<applet code="WCom.class" codebase="/PARTS/" width="0" height="0">
<param name="INTERVAL" value="1">
</applet> <!-- Write button part -->
<applet code="WSWrbtn.class" codebase="/PARTS/" width="100"
height="50">
<param name="TAGNO" value="1">
<param name="ELMNO" value="1">
<param name="DATA" value="10">
<param name="TYPE" value="0">
<param name="CAPTION" value="Write">
<param name="FONTSIZE" value="20">
<param name="BTNCOLOR" value="Gray">
<param name="APLCOLOR" value="Gray">
<param name="CONFIRM" value="1">
<param name="LANGUAGE" value="1">
</applet>
</body>
</html>
```

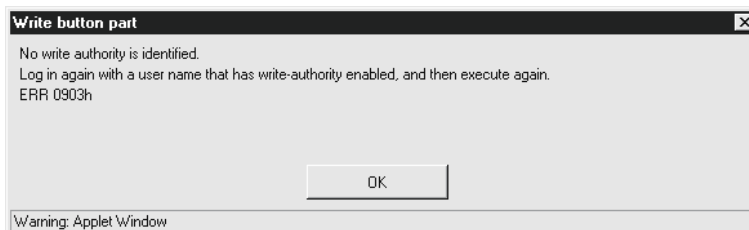
- (c) Storage of HTML file
Transfer the HTML file to the Web server module by performing FTP operation.
File storage destination: [/ROM/WWW/USER/ Smpwbten.htm]
- (d) Sample screen display
Display the sample screen.
(Example) When accessing the Web server module by one-to-one connection
Sample screen address:
[http: //192.168.3.3/USER/ Smpwbten.htm]



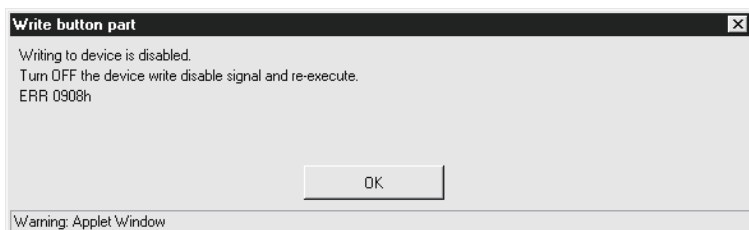
- (e) Precautions for using the write button parts
- 1) Writing a value to a tag component with the write button part may affect the control of the programmable controller CPU. Ensure safety before execution.
When CONFIRM = 1, the following confirmation screen appears.



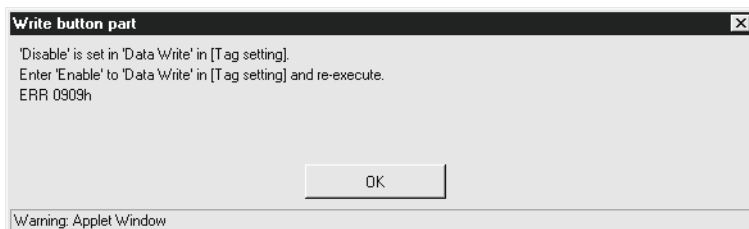
- 2) A user without the tag component write authority is not allowed to write a value to a tag component with the write button part.
When a write is attempted, the following screen appears.



- 3) When Device write disable request (YA) has been set to "Disable", writing to a tag component with the write button part is not available.
When a write is attempted, the following screen appears.



- 4) When "Data write" of the tag setting has been set to "Disable", writing to a tag component with the write button part is not available. (Refer to Section 6.3.3 for the tag setting.)
When a write is attempted, the following screen appears.



7.2.10 Device monitor parts

A monitor screen having the same display form as in the device monitor of the standard screen is displayed.

Refer to Section 6.2.1 for the device monitor.

(1) Specifications

| Item | Description |
|--------------|---|
| File name | DevMon.class |
| Display form | Same as in the device monitor of the standard screen. |

(2) Parameter

| Item | Description | Setting Range | Initial Value |
|----------|---|---------------|---------------|
| BKCOLOR | Sets the background color. | String | Gray |
| LANGUAGE | Selects the display language. 0: Japanese 1: English | 0, 1 | 1 (English) |

(3) Sample screen for device monitor part

The sample screen (Smpdvmen.htm) is stored in the USER directory of the Web server module.

(4) Precautions for using the device monitor parts

Be sure to specify the applet size with the following values.

Refer to Section 7.2.1 for how to describe the applet size.

| Language | Width | Height |
|-----------------------|-------|--------|
| Japanese (LANGUAGE=0) | 500 | 500 |
| English (LANGUAGE=1) | 500 | 500 |

7.2.11 Tag data monitor parts

A monitor screen having the same display form as in the tag data monitor of the standard screen is displayed.

Refer to Section 6.2.2 for the tag data monitor.

(1) Specifications

| Item | Description |
|--------------|---|
| File name | TagMon.class |
| Display form | Same as in the tag data monitor of the standard screen. |

(2) Parameter

| Item | Description | Setting Range | Initial Value |
|----------|---|---------------|---------------|
| BKCOLOR | Sets the background color. | String | Gray |
| LANGUAGE | Selects the display language. 0: Japanese 1: English | 0, 1 | 1 (English) |

(3) Sample screen for tag data monitor part

The sample screen (Smptgmen.htm) is stored in the USER directory of the Web server module.

(4) Precautions for using the tag data monitor parts

Be sure to specify the applet size with the following values.

Refer to Section 7.2.1 for how to describe the applet size.

| Language | Width | Height |
|-----------------------|-------|--------|
| Japanese (LANGUAGE=0) | 600 | 500 |
| English (LANGUAGE=1) | 600 | 500 |

7.2.12 Logging monitor parts

A monitor screen having the same display form as in the logging monitor of the standard screen is displayed.

Refer to Section 6.2.3 for the logging monitor.

(1) Specifications

| Item | Description |
|--------------|--|
| File name | LogMon.class |
| Display form | Same as in the logging monitor of the standard screen. |

(2) Parameter

| Item | Description | Setting Range | Initial Value |
|----------|--|------------------------------|-------------------|
| UPPER | Sets the upper limit of the scale when a graph is displayed. | Decimal integer, real number | Automatic setting |
| LOWER | Sets the lower limit of the scale when a graph is displayed. | Decimal integer, real number | Automatic setting |
| XLIN | Sets the number of horizontal lines on a graph. | 0 to 9 | 3 |
| POINT | Sets the number of display points on a graph. (Setting range: 10, 20, 50, 100, 200, 500, 1000, 2000, 5000, 10000) | (As indicated on the left) | Automatic setting |
| BKCOLOR | Sets the background color. | String | Gray |
| LANGUAGE | Selects the display language. 0: Japanese 1: English | 0, 1 | 1 (English) |

(3) Sample screen for logging monitor part

The sample screen (Smplgmen.htm) is stored in the USER directory of the Web server module.

(4) Precautions for using the logging monitor parts

Be sure to specify the applet size with the following values.

Refer to Section 7.2.1 for how to describe the applet size.

| Language | Width | Height |
|-----------------------|-------|--------|
| Japanese (LANGUAGE=0) | 820 | 500 |
| English (LANGUAGE=1) | 820 | 500 |

7.2.13 Event history monitor parts

A monitor screen having the same display form as in the event history monitor of the standard screen is displayed.

Refer to Section 6.2.4 for the event history monitor.

(1) Specifications

| Item | Description |
|--------------|--|
| File name | EveMon.class |
| Display form | Same as in the event history monitor of the standard screen. |

(2) Parameter

| Item | Description | Setting Range | Initial Value |
|----------|---|---------------|---------------|
| BKCOLOR | Sets the background color. | String | Gray |
| LANGUAGE | Selects the display language. 0: Japanese 1: English | 0, 1 | 1 (English) |

(3) Sample screen for event history monitor part

The sample screen (Smpevmen.htm) is stored in the USER directory of the Web server module.

(4) Precautions for using the event history monitor parts

Be sure to specify the applet size with the following values.

Refer to Section 7.2.1 for how to describe the applet size.

| Language | Width | Height |
|-----------------------|-------|--------|
| Japanese (LANGUAGE=0) | 1054 | 500 |
| English (LANGUAGE=1) | 1054 | 500 |

7.2.14 PLC diagnostics monitor parts

A monitor screen having the same display form as in the PLC diagnostics monitor of the standard screen is displayed.

Refer to Section 6.2.5 for the PLC diagnostics monitor.

(1) Specifications

| Item | Description |
|--------------|--|
| File name | DiaMon.class |
| Display form | Same as in the PLC diagnostics monitor of the standard screen. |

(2) Parameter

| Item | Description | Setting Range | Initial Value |
|----------|---|---------------|---------------|
| BKCOLOR | Sets the background color. | String | Gray |
| LANGUAGE | Selects the display language. 0: Japanese 1: English | 0, 1 | 1 (English) |

(3) Sample screen for PLC diagnostics monitor part

The sample screen (Smpdimen.htm) is stored in the USER directory of the Web server module.

(4) Precautions for using the PLC diagnostics monitor parts

Be sure to specify the applet size with the following values.

Refer to Section 7.2.1 for how to describe the applet size.

| Language | Width | Height |
|-----------------------|-------|--------|
| Japanese (LANGUAGE=0) | 520 | 500 |
| English (LANGUAGE=1) | 520 | 500 |

7.2.15 Self-diagnostics monitor parts

A monitor screen having the same display form as in the self-diagnostics monitor of the standard screen is displayed.

Refer to Section 6.2.6 for the self-diagnostics monitor.

(1) Specifications

| Item | Description |
|--------------|---|
| File name | UniMon.class |
| Display form | Same as in the self-diagnostics monitor of the standard screen. |

(2) Parameter

| Item | Description | Setting Range | Initial Value |
|----------|---|---------------|---------------|
| BKCOLOR | Sets the background color. | String | Gray |
| LANGUAGE | Selects the display language. 0: Japanese 1: English | 0, 1 | 1 (English) |

(3) Sample screen for self-diagnostics monitor part

The sample screen (Smpunmen.htm) is stored in the USER directory of the Web server module.

(4) Precautions for using the self-diagnostics monitor parts

Be sure to specify the applet size with the following values.

Refer to Section 7.2.1 for how to describe the applet size.

| Language | Width | Height |
|-----------------------|-------|--------|
| Japanese (LANGUAGE=0) | 700 | 500 |
| English (LANGUAGE=1) | 1024 | 500 |

7.3 SSI Parts

This section explains the SSI parts.
An SSI parts list is given below.

| Part Name | Function | Reference Section |
|----------------|---|-------------------|
| SSI read parts | By embedding an SSI part in HTML, a tag component name or tag component value is displayed. | Section 7.3.1 |

7.3.1 SSI read parts

By embedding an SSI part in HTML, a tag component name or tag component value is displayed.

(1) Specifications

| Item | Description |
|--------|--|
| Format | <!--#exec cgi="WSReadS.cgi TAGNO=xx, ELMNO=xx, MODE=xx"--> |

(2) Parameter

| Item | Description | Setting Range | Initial Value |
|-------|---|---------------|-------------------------------------|
| TAGNO | Sets the tag to be displayed with the tag setting No. (Refer to Section 6.3.3) | 1 to 64 | Must be set |
| ELMNO | Sets the component to be displayed with the component setting No. (Refer to Section 6.3.3.) | 1 to 64 | Must be set |
| MODE | Selects the data type to be displayed. 0: Display the tag component name 1: Display the tag component value | 0, 1 | 1 (Display the tag component value) |

(3) Sample screen for SSI read part

The following provides an example of creating the sample screen that displays the SSI read parts.

The sample screen (Smprdsen.htm) is stored in the USER directory of the Web server module.

(a) Tag setting (refer to Section 6.3.3)

- 1) Set the component setting No. 1 of the tag setting No. 1.

| Item | No. | Component name | CPU name | Data type | Device | Display form | Operator | Operand |
|----------------------------------|-----|----------------|-----------------|-------------|--------|---------------------------|----------|---------|
| <input checked="" type="radio"/> | 1 | product amount | 01: Control CPU | Single word | D0 | Decimal(0 decimal places) | None | - |

- 2) Click on the "Update" button on the Setting update screen to update the setting.

- (b) Creation of HTML file (File name: Smprdsen.htm)

The HTML source is indicated below.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
  <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
  <meta http-equiv="Pragma" content="no-cache">
  <title>
    Sample screen for SSI read part
  </title>
</head>
<body>
  <h1>
    Sample screen for SSI read part
  </h1>
  <!--#exec cgi="WSReadS.cgi TAGNO=1,ELMNO=1,MODE=0"-->
  is
  <!--#exec cgi="WSReadS.cgi TAGNO=1,ELMNO=1,MODE=1"-->
  now.
</body>
</html>
```

- (c) Storage of HTML file

Transfer the HTML file to the Web server module by performing FTP operation.

File storage destination: [/ROM/WWW/USER/Smprdsen.htm]

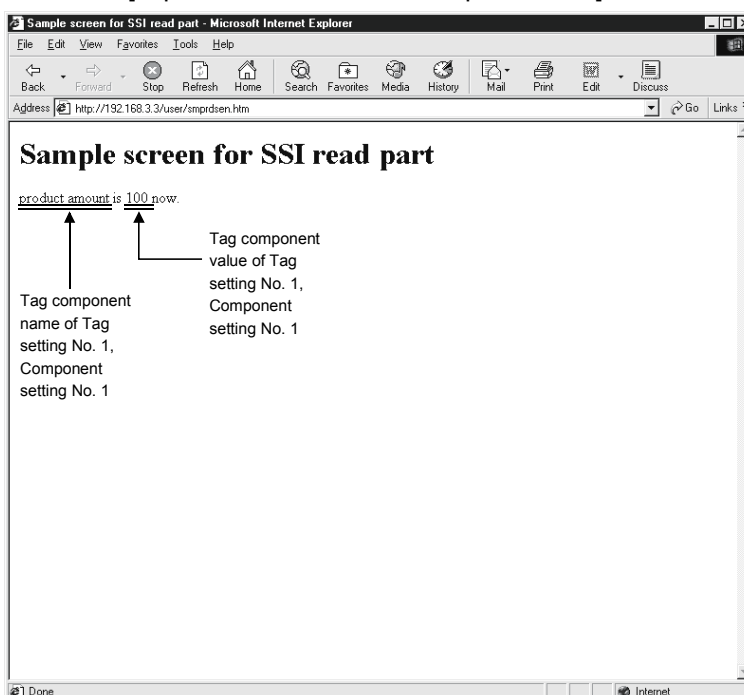
- (d) Sample screen display

Display the sample screen.

(Example) When accessing the Web server module by one-to-one connection

Sample screen address:

[<http://192.168.3.3/USER/Smprdsen.htm>]



7.4 CGI Parts

This section explains the CGI parts.

A CGI parts list is given below.

| Part Name | Function | Reference Section |
|------------------|--|-------------------|
| CGI write parts | When the button is clicked, the specified value is written to the tag component value. | Section 7.4.1 |
| CGI read parts | When the button is clicked, the tag component value is read. | Section 7.4.2 |
| Disconnect parts | When the button is clicked, the Web server module is disconnected from the network. | Section 7.4.3 |

7.4.1 CGI write parts

When the button is clicked, the specified value is written to the tag component value.

Only the user having the tag component write authority is allowed to write a value to a tag component with the CGI write part. Refer to Section 4.6.5 for the user authority.

(1) Specifications

| Item | Description | | | | | | | | | | | | | | | |
|--------|---|--|--|-------|-------------|------|--|------------------------|--|--------|--|--|-----------------------|--------|------------------------|--------------------------|
| Format | <pre><FORM METHOD="POST" ACTION="/WSWriteC. cgi"> <INPUT TYPE="xxxx" NAME="TAGNO" VALUE="yyyy"> <INPUT TYPE="xxxx" NAME="ELMNO" VALUE="yyyy"> <INPUT TYPE="xxxx" NAME="DATA" VALUE="yyyy"> <INPUT TYPE="xxxx" NAME="CONFIRM" VALUE="yyyy"> <INPUT TYPE="xxxx" NAME="RESULT" VALUE="yyyy"> <INPUT TYPE="xxxx" NAME="REFERER" VALUE="yyyy"> <INPUT TYPE="xxxx" NAME="LANGUAGE" VALUE="yyyy"> <INPUT TYPE="submit" VALUE="characters on button"> </FORM></pre> | | | | | | | | | | | | | | | |
| | <ul style="list-style-type: none">• "Specify the TYPE attributes at "xxxx". An example of specifying them is given below. | | | | | | | | | | | | | | | |
| | <table><tr><th>TYPE</th><th>NAME</th><th>VALUE</th><th>DESCRIPTION</th></tr><tr><td>text</td><td>Specify the parameter name. (Refer to ((2))</td><td>Need not be specified.</td><td>The text box is displayed. The value entered into the text box becomes a parameter value.</td></tr><tr><td>hidden</td><td>Specify the parameter name. (Refer to ((2))</td><td>Specify the parameter value at "yyyy".</td><td>Nothing is displayed.</td></tr><tr><td>submit</td><td>Need not be specified.</td><td>Specify the button name.</td><td>The button is displayed.</td></tr></table> | TYPE | NAME | VALUE | DESCRIPTION | text | Specify the parameter name. (Refer to ((2)) | Need not be specified. | The text box is displayed. The value entered into the text box becomes a parameter value. | hidden | Specify the parameter name. (Refer to ((2)) | Specify the parameter value at "yyyy". | Nothing is displayed. | submit | Need not be specified. | Specify the button name. |
| TYPE | NAME | VALUE | DESCRIPTION | | | | | | | | | | | | | |
| text | Specify the parameter name. (Refer to ((2)) | Need not be specified. | The text box is displayed. The value entered into the text box becomes a parameter value. | | | | | | | | | | | | | |
| hidden | Specify the parameter name. (Refer to ((2)) | Specify the parameter value at "yyyy". | Nothing is displayed. | | | | | | | | | | | | | |
| submit | Need not be specified. | Specify the button name. | The button is displayed. | | | | | | | | | | | | | |

(2) Parameter

| Item | Description | Setting Range | Initial Value |
|----------|---|--|--|
| TAGNO | Sets the tag, where a value will be written, with the tag setting No. (Refer to Section 6.3.3.) | 1 to 64 | Must be set |
| ELMNO | Sets the component, where a value will be written, with the component setting No. (Refer to Section 6.3.3.) | 1 to 64 | Must be set |
| DATA | Sets the value to be written. (*1) (*2) | Depends on the data type of the specified tag component. | Must be set |
| CONFIRM | Sets whether the confirmation screen will be displayed or not. 0: Not displayed 1: Displayed | 0, 1 | 1 (Displayed) |
| RESULT | <ul style="list-style-type: none"> Selects how to display the result screen. 0: Display the result screen with the [Return] button 1: Display the result screen with the [Close] button Specify this item when a script is described to open the other window and display the result. | 0, 1 | 0 (Display the screen with the [Return] button) |
| REFERER | <ul style="list-style-type: none"> Specifies the file name of the execution screen with the absolute path. When standard ROM is used: /USER/file name When Compact Flash™ card is used: /CF/USER/file name Clicking the [Return]/[Cancel] button returns to the execution screen. | String | Return to the execution screen. (Refer to (3) (d)) |
| LANGUAGE | Selects the language of the confirmation and result screens. 0: Japanese 1: English | 0, 1 | 1 (English) |

*1 When operation specification has been set to the target component, an inverse operation is performed on the setting value using the operation specification and the result is written to the device.

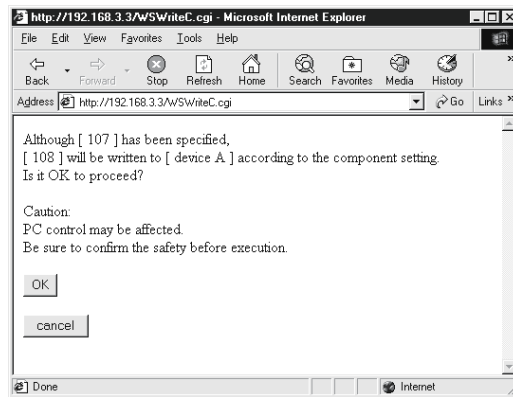
(Example) When "100" is set as the setting value for the component in which "Single word" has been set as Data type and "×2" as Operation specification, "100 / 2 = 50" is actually written to the device.

Note that, an error may be produced between the setting value and the actually written component value.

(Example) When "107" is set as the setting value for a component in which "Single word" has been set as Data type and "×2" as Operation specification, "107 / 2 = 54" is actually written to the device.

The component value to be displayed on the Tag data monitor is "54 × 2 = 108".

In the above case, the following confirmation screen is displayed when CONFIRM = 1.



*2 When a real number is written to the target component, a rounding error may be produced.

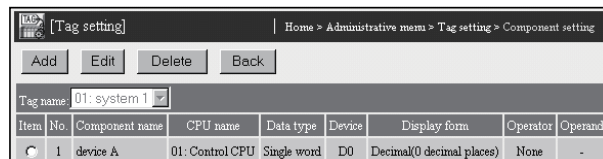
(3) Sample screen for CGI write part

The following provides an example of creating the sample screen that displays the CGI write parts.

The sample screen (Smpwctcen.htm) is stored in the USER directory of the Web server module.

(a) Tag setting (refer to Section 6.3.3)

- 1) Set "Data write" in the tag setting No. 1 to "Enable".
- 2) Set the component setting No. 1 of the tag setting No. 1.



- 3) Click on the "Update" button on the Setting update screen to update the setting.

(b) Creation of HTML file (File name: Smpwctcen.htm)

The HTML source is indicated below.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
  <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
  <meta http-equiv="Pragma" content="no-cache">
  <title>
    Sample screen for CGI write part
  </title>
</head>
<body>
  <h1>
    Sample screen for CGI write part
  </h1>
  <form method="post" action="/WSWriteC.cgi">
```



```

Tag No.<br>
<input type="text" name="TAGNO"><br>
Component No.<br>
<input type="text" name="ELMNO"><br>
Value<br>
<input type="text" name="DATA"><br>
<hr>
<input type="submit" value="Write">
<input type="hidden" name="CONFIRM" value="1">
<input type="hidden" name="RESULT" value="0">
<input type="hidden" name="LANGUAGE" value="1">
<input type="hidden" name="REFERER" value="/user/smpwtcen.htm">
</form>
</body>
</html>

```

(c) Storage of HTML file

Transfer the HTML file to the Web server module by performing FTP operation.

File storage destination: [/ROM/WWW/USER/Smpwtcen.htm]

(d) Sample screen display

Display the sample screen.

(Example) When accessing the Web server module by one-to-one connection

Sample screen address:

[http://192.168.3.3/USER/ Smpwtcen.htm]

[Execution screen]

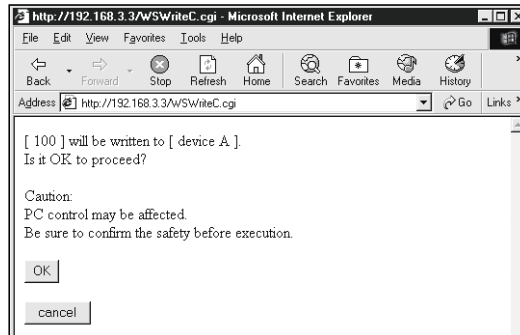
[Confirmation screen]

[Result screen]

(e) Precautions for using the CGI write parts

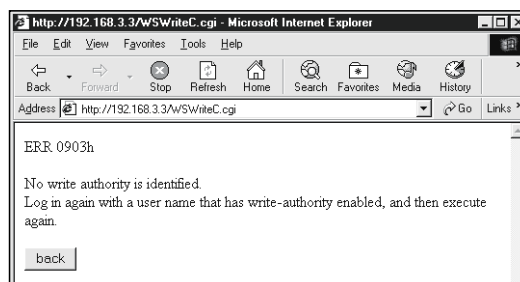
- 1) Writing a value to a tag component with the CGI write part may change the control of the programmable controller CPU. Ensure safety before execution.

When CONFIRM = 1, the following confirmation screen appears.

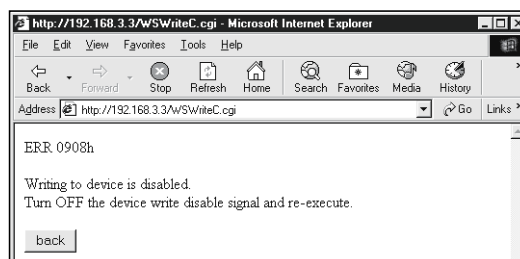


- 2) A user without the tag component write authority is not allowed to write a value to a tag component with the CGI write part.

When a write is attempted, the following screen appears.

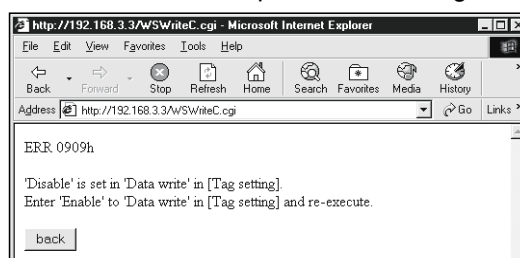


- 3) When Device write disable request (YA) has been set to "Disable", writing to a tag component with the CGI write part is not available. When a write is attempted, the following screen appears.



- 4) When "Data write" of the tag setting has been set to "Disable", writing to a tag component with the CGI write part is not available. (Refer to Section 6.3.3 for the tag setting.)

When a write is attempted, the following screen appears.



7.4.2 CGI read parts

When the button is clicked, the tag component value is read.

(1) Specifications

| Item | Description | | | | | | | | | | | | | | | | |
|--------|---|--|--------------------------|--|-------------|------|--|------------------------|--|--------|--|--|-----------------------|--------|------------------------|--------------------------|--------------------------|
| Format | <FORM METHOD="POST" ACTION="/WSReadC. cgi"> <INPUT TYPE="xxxxx" NAME="TAGNO" VALUE="yyyy"> <INPUT TYPE="xxxxx" NAME="ELMNO" VALUE="yyyy"> <INPUT TYPE="xxxxx" NAME="MODE" VALUE="yyyy"> <INPUT TYPE="xxxxx" NAME="RESULT " VALUE="yyyy"> <INPUT TYPE="xxxxx" NAME="REFERER" VALUE="yyyy"> <INPUT TYPE="xxxxx" NAME="LANGUAGE" VALUE="yyyy"> <INPUT TYPE="submit" VALUE="characters on button"> </FORM> | | | | | | | | | | | | | | | | |
| | • "Specify the TYPE attributes at "xxxxx". An example of specifying them is given below. | | | | | | | | | | | | | | | | |
| | <table><tr><th>TYPE</th><th>NAME</th><th>VALUE</th><th>DESCRIPTION</th></tr><tr><td>text</td><td>Specify the parameter name. (Refer to ((2))</td><td>Need not be specified.</td><td>The text box is displayed. The value entered into the text box becomes a parameter value.</td></tr><tr><td>hidden</td><td>Specify the parameter name. (Refer to ((2))</td><td>Specify the parameter value at "yyyy".</td><td>Nothing is displayed.</td></tr><tr><td>submit</td><td>Need not be specified.</td><td>Specify the button name.</td><td>The button is displayed.</td></tr></table> | TYPE | NAME | VALUE | DESCRIPTION | text | Specify the parameter name. (Refer to ((2)) | Need not be specified. | The text box is displayed. The value entered into the text box becomes a parameter value. | hidden | Specify the parameter name. (Refer to ((2)) | Specify the parameter value at "yyyy". | Nothing is displayed. | submit | Need not be specified. | Specify the button name. | The button is displayed. |
| | TYPE | NAME | VALUE | DESCRIPTION | | | | | | | | | | | | | |
| | text | Specify the parameter name. (Refer to ((2)) | Need not be specified. | The text box is displayed. The value entered into the text box becomes a parameter value. | | | | | | | | | | | | | |
| hidden | Specify the parameter name. (Refer to ((2)) | Specify the parameter value at "yyyy". | Nothing is displayed. | | | | | | | | | | | | | | |
| submit | Need not be specified. | Specify the button name. | The button is displayed. | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

(2) Parameter

| Item | Description | Setting Range | Initial Value |
|----------|---|---------------|---|
| TAGNO | Sets the tag to be read with the tag setting No. (Refer to Section 6.3.3) | 1 to 64 | Must be set |
| ELMNO | Sets the component to be read with the component setting No. (Refer to Section 6.3.3.) | 1 to 64 | Must be set |
| MODE | Selects the data type to be read. 0: Read the tag component name 1: Read the tag component value | 0, 1 | 1 (Read the tag component value) |
| RESULT | <ul style="list-style-type: none"> Selects how to display the result screen. 0: Display the result screen with the [Return] button 1: Display the result screen with the [Close] button Specify this item when a script is described to open the other window and display the result. | 0, 1 | 0 (Display the screen with the [Return] button) |
| REFERER | <ul style="list-style-type: none"> Specifies the file name of the execution screen with the absolute path. When standard ROM is used: /USER/file name When Compact Flash™ card is used: /CF/USER/file name Clicking the [Return] button returns to the execution screen. | String | Return to the execution screen. (Refer to (3) (d)) |
| LANGUAGE | Selects the language of the result screen. 0: Japanese 1: English | 0, 1 | 1 (English) |

(3) Sample screen for CGI read part

The following provides an example of creating the sample screen that displays the CGI read parts.

The sample screen (Smprdcen.htm) is stored in the USER directory of the Web server module.

(a) Tag setting (refer to Section 6.3.3)

- 1) Set the component setting No. 1 of the tag setting No. 1.

| Item | No. | Component name | CPU name | Data type | Device | Display form | Operator | Operand |
|----------------------------------|-----|----------------|-----------------|-------------|--------|---------------------------|----------|---------|
| <input checked="" type="radio"/> | 1 | device A | 01: Control CPU | Single word | D0 | Decimal(0 decimal places) | None | - |

- 2) Click on the "Update" button on the Setting update screen to update the setting.

(b) Creation of HTML file (File name: Smprdcen.htm)

The HTML source is indicated below.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
  <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
  <meta http-equiv="Pragma" content="no-cache">
  <title>
    Sample screen for CGI read part
  </title>
</head>
<body>
  <h1>
    Sample screen for CGI read part
  </h1>
  <form method="post" action="/WSReadC.cgi">
    Tag No.<br>
    <input type="text" size="4" name="TAGNO"><br>
    Component No.<br>
    <input type="text" size="4" name="ELMNO"><br>
    <hr>
    <input type="submit" value="Read">
    <input type="hidden" name="MODE" value="1">
    <input type="hidden" name="RESULT" value="0">
    <input type="hidden" name="LANGUAGE" value="1">
    <input type="hidden" name="REFERER" value="/user/smprdcen.htm">
  </form>
</body>
</html>
```

(c) Storage of HTML file

Transfer the HTML file to the Web server module by performing FTP operation.

File storage destination: [/ROM/WWW/USER/Smprdcen.htm]

(d) Sample screen display

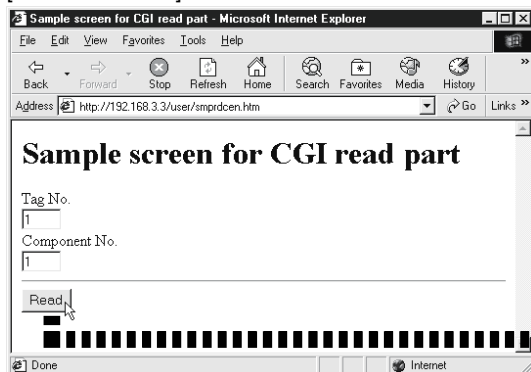
Display the sample screen.

(Example) When accessing the Web server module by one-to-one connection

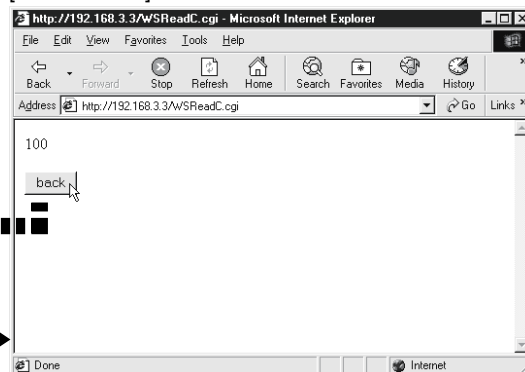
Sample screen address:

[http://192.168.3.3/USER/Smprdcen.htm]

[Execution screen]



[Result screen]



7.4.3 Disconnect parts

When the button is clicked, the Web server module is disconnected from the network.
Refer to Section 5.4 for network connecting/disconnecting processing for non-continuous connection.

(1) Specifications

| Item | Description | | | | | | | | | | | | | | | | |
|--------|---|--|--------------------------|--|-------------|------|--|------------------------|--|--------|--|--|-----------------------|--------|------------------------|--------------------------|--------------------------|
| Format | <FORM METHOD="POST" ACTION="/WSDscntC.cgi"> <INPUT TYPE="xxxxx" NAME="CONFIRM" VALUE="yyyy"> <INPUT TYPE="xxxxx" NAME="REFERER" VALUE="yyyy"> <INPUT TYPE="xxxxx" NAME="LANGUAGE" VALUE="yyyy"> <INPUT TYPE="submit" VALUE="characters on button"> </FORM> | | | | | | | | | | | | | | | | |
| | • "Specify the TYPE attributes at "xxxxx". An example of specifying them is given below. | | | | | | | | | | | | | | | | |
| | <table><tr><th>TYPE</th><th>NAME</th><th>VALUE</th><th>DESCRIPTION</th></tr><tr><td>text</td><td>Specify the parameter name. (Refer to ((2))</td><td>Need not be specified.</td><td>The text box is displayed. The value entered into the text box becomes a parameter value.</td></tr><tr><td>hidden</td><td>Specify the parameter name. (Refer to ((2))</td><td>Specify the parameter value at "yyyy".</td><td>Nothing is displayed.</td></tr><tr><td>submit</td><td>Need not be specified.</td><td>Specify the button name.</td><td>The button is displayed.</td></tr></table> | TYPE | NAME | VALUE | DESCRIPTION | text | Specify the parameter name. (Refer to ((2)) | Need not be specified. | The text box is displayed. The value entered into the text box becomes a parameter value. | hidden | Specify the parameter name. (Refer to ((2)) | Specify the parameter value at "yyyy". | Nothing is displayed. | submit | Need not be specified. | Specify the button name. | The button is displayed. |
| | TYPE | NAME | VALUE | DESCRIPTION | | | | | | | | | | | | | |
| | text | Specify the parameter name. (Refer to ((2)) | Need not be specified. | The text box is displayed. The value entered into the text box becomes a parameter value. | | | | | | | | | | | | | |
| hidden | Specify the parameter name. (Refer to ((2)) | Specify the parameter value at "yyyy". | Nothing is displayed. | | | | | | | | | | | | | | |
| submit | Need not be specified. | Specify the button name. | The button is displayed. | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

(2) Parameter

| Item | Description | Setting Range | Initial Value |
|----------|---|---------------|---|
| CONFIRM | Sets whether the confirmation screen will be displayed or not. 0: Not displayed 1: Displayed | 0, 1 | 1 (Displayed) |
| REFERER | <ul style="list-style-type: none"> Specifies the file name of the execution screen with the absolute path. When standard ROM is used: /USER/file name When Compact Flash™ card is used: /CF/USER/file name Clicking the "Cancel" button returns to the execution screen. | String | Return to the execution screen. (Refer to (3) (c)) |
| LANGUAGE | Selects the language of the confirmation and result screens. 0: Japanese 1: English | 0, 1 | 1 (English) |

(3) Sample screen for disconnect part

The following provides an example of creating the sample screen that displays the disconnect parts.

The sample screen (Smpdscen.htm) is stored in the USER directory of the Web server module.

(a) Creation of HTML file (File name: Smpdscen.htm)

The HTML source is indicated as follows.

```

<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
  <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
  <meta http-equiv="Pragma" content="no-cache">
  <title>
    Sample screen for disconnect part
  </title>
</head>
<body>
  <h1>
    Sample screen for disconnect part
  </h1>
  <form method="post" action="/WSDscntC.cgi">
    <input type="submit" value="Disconnect">
    <input type="hidden" name="CONFIRM" value="1">
    <input type="hidden" name="LANGUAGE" value="1">
    <input type="hidden" name="REFERER" value="/user/smpdscen.htm">
  </form>
</body>
</html>

```

(b) Storage of HTML file

Transfer the HTML file to the Web server module by performing FTP operation.

File storage destination: [/ROM/WWW/USER/Smpdscen.htm]

(c) Sample screen display

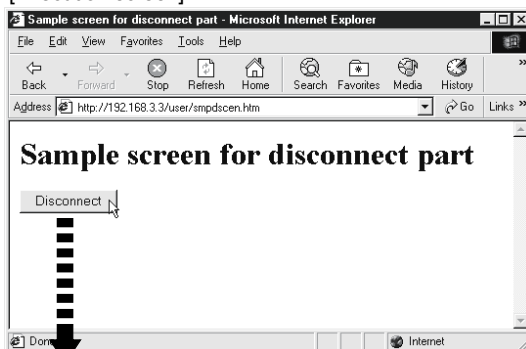
Display the sample screen.

(Example) When accessing the Web server module by one-to-one connection

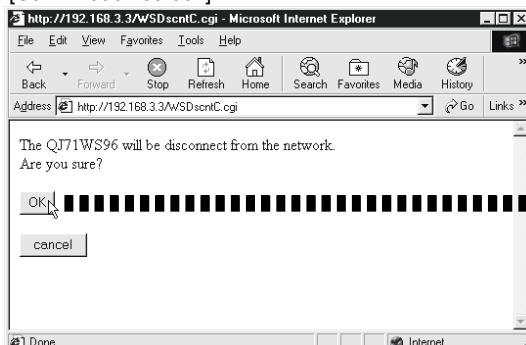
Sample screen address:

[[http://192.168.3.3/USER/ Smpdscen.htm](http://192.168.3.3/USER/Smpdscen.htm)]

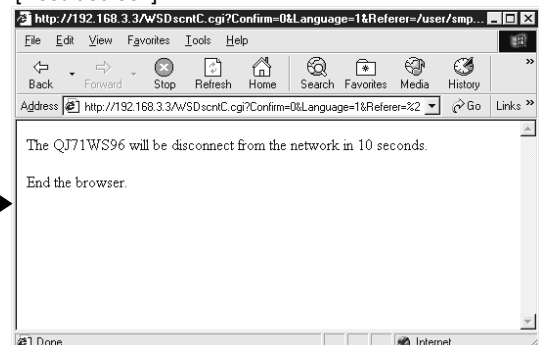
[Execution screen]



[Confirmation screen]



[Result screen]

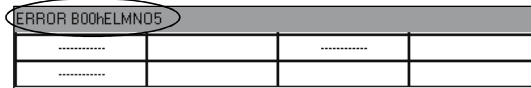


7.5 User Part Errors

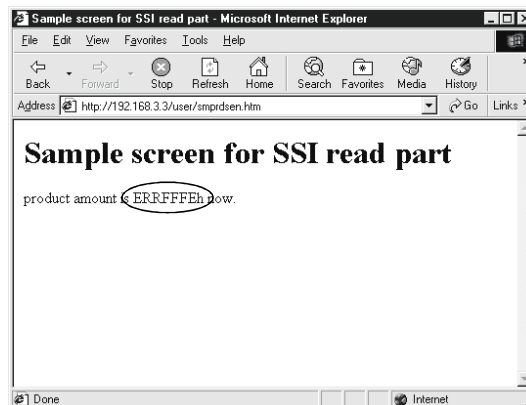
If an error occurs in a user part (setting error, communication error, etc.), the corresponding error code is displayed in the user part display area.

When an error occurred, the user part stops operating.

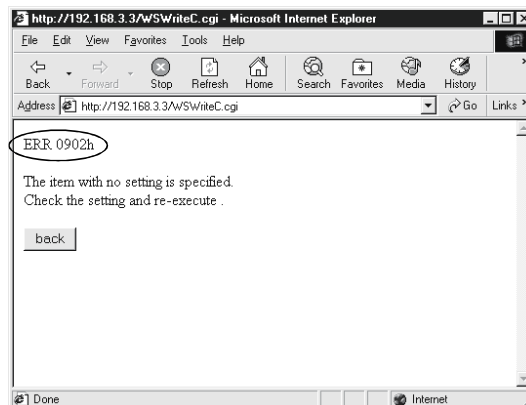
(Example) When an error occurred in a data block part



(Example) When an error occurred in an SSI read part



(Example) When an error occurred in a CGI write part



To restore the user part, eliminate the error cause according to the error code and update the display screen in the Web browser.

Refer to Section 9.3 for the error code.

8 DEDICATED INSTRUCTION

The dedicated instructions are designed to facilitate programming for using the functions of the intelligent function module.

8.1 Dedicated Instruction List and Available Devices

(1) Dedicated instruction list

This chapter explains the following dedicated instructions.

| Application | Instruction | Description | Reference section |
|---------------------|-------------|---|-------------------|
| E-mail transmission | WMSEND | Sends e-mail. | Section 8.2 |
| FTP | FTPPUT | Transfers (PUT) a file to the FTP server. | Section 8.3 |
| | FTPGET | Transfers (GET) a file from the FTP server. | Section 8.4 |
| Tag | TAG | Issues a tag collection command. (Triggers a tag collection) | Section 8.5 |
| Logging | LOG | Issues a logging command. (Triggers a logging) | Section 8.6 |
| | LOGDEL | Deletes a saved file of logging data. | Section 8.7 |
| | WFWRITE | Writes the device data of the programmable controller CPU to the user data file on the Compact Flash™ card. | Section 8.8 |
| | WFREAD | Reads the user data file on the Compact Flash™ card to the device data of the programmable controller CPU. | Section 8.9 |
| | WFDEL | Deletes the user data file on the Compact Flash™ card. | Section 8.10 |

POINT

When changing the data (control data, request data, etc) specified in a dedicated instruction, make sure that execution of the dedicated instruction has been completed.

(2) Available devices

The following devices are available for the dedicated instructions:

| Internal devices | | File register | Constant |
|---------------------|----------------|---------------|----------|
| Bit ^{*1} | Word | | |
| X, Y, M, L, F, V, B | T, ST, C, D, W | R, ZR | — |

*1 Word device bit designation can be used as bit data.

Word device bit designation is done by designating [Word device] . [Bit No.].
(Designation of bit numbers is done in hexadecimal.)

For example, bit 10 of D0 is designated as [D0.A].

However, there can be no bit designation for timers (T), retentive timers (ST) and counters (C).

(3) Precautions for dedicated instructions

When the Web server module is connected to a redundant CPU, dedicated instructions are not executable.

If instruction execution is attempted, an "OPERATION ERROR" will occur in the redundant CPU.

However, some of the dedicated instructions may be executable using the Web server module functionalities.

(a) WMSEND instruction

Please consider sending E-mails by the event monitor function or the logging function. (Refer to Section 6.6.1.)

(b) FTPPUT and FTPGET instructions

Please consider using the FTP server function. (Refer to Section 6.7.1.)

(c) TAG instruction

Please consider collecting tags by the tag setting. (Refer to Section 6.3.3.)

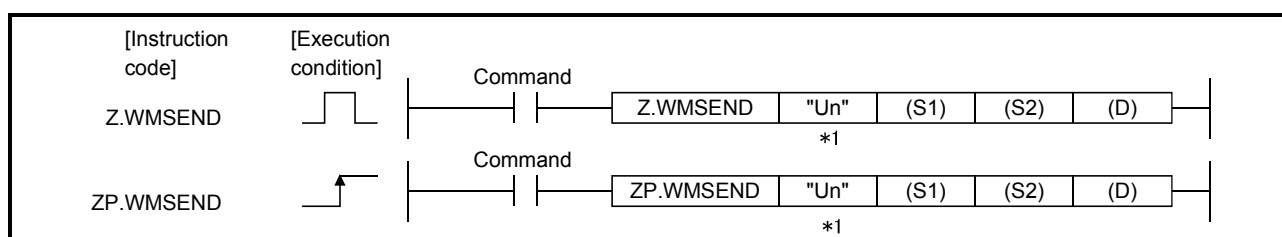
(d) LOG and LOGDEL instructions

Please consider logging data based on the logging setting. (Refer to Section 6.4.4.)

8.2 Z(P).WMSSEND

E-mail is sent with this instruction.

| Setting data | Applicable device | | | | | | | | | |
|--------------|-----------------------------------|------|---------------|------------------------------|------|--|----------------------|----------|----|--------|
| | Internal device (System, User) | | File register | Link direct device J□□\□□ | | Intelligent function module U□□\G□□ | Index register Zn | Constant | | Others |
| | Bit | Word | | Bit | Word | | | K, H | \$ | |
| (S1) | — | ○ | | | — | | | — | — | — |
| (S2) | — | ○ | | | — | | | — | — | — |
| (D) | ○ | ○ | | | — | | | — | — | — |



*1: If the originating station is a Basic model QCPU (function version B or later), or Universal model QCPU, " " (double quotation) of the first argument can be omitted.

Setting data

| Setting data | Description | Setting side(*1) | Data type |
|--------------|---|------------------|---------------------|
| "Un"/Un | Head I/O signal of the module (00 to FE: The first 2 digits when the I/O signal is represented in 3 digits) | User | String/ BIN16bit |
| (S1) | Head number of the device that stores the control data | User, System | Device name |
| (S2) | Head number of the device that stores the e-mail data (subject + main text) to be sent | User | |
| (D) | Head number of the bit device that will be turned on for one scan when the instruction is normally completed. (D)+ 1 also turns on when the instruction is abnormally completed. | System | Bit |

The local devices and the file registers for individual programs do not work as the devices for the setting data.

Control data

| Device | Item | Setting data | Setting range | Setting side (*1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---------------------------|--|---------------|------------------------------|----|----|---------------|---|---|---|---|------------------|---|---|---|---|----------|---|---|---|---|--------------|---|---|---|---|------------------------------|---|---|---|---|---------------------------|------------------|------|
| (S1) + 0 | Completion type/Send form | <div> <div> <div>b15 ~ b13 b12 ~ b8 b7 b6 ~ b0</div> <div>0 2) 1) 0</div> </div> <p>1) Completion type (b7) Set whether or not the clock data will be set to (S1) + 11 to (S1) + 15 in the case of abnormal completion. 0: Not set 1: Set</p> <p>2) Send form (b8 to b12) Set the send form of the e-mail. • Main text (b12) 0: Main text not sent. 1: Main text sent. • Attached file (b8 to b11)</p> <table> <tr> <th>b11</th><th>b10</th><th>b9</th><th>b8</th><th>Attached file</th></tr> <tr> <td>0</td><td>0</td><td>0</td><td>0</td><td>No attached file</td></tr> <tr> <td>1</td><td>0</td><td>0</td><td>0</td><td>Tag data</td></tr> <tr> <td>1</td><td>1</td><td>0</td><td>0</td><td>Logging data</td></tr> <tr> <td>1</td><td>0</td><td>1</td><td>0</td><td>User data file (binary file)</td></tr> <tr> <td>1</td><td>0</td><td>1</td><td>1</td><td>User data file (CSV file)</td></tr> </table> </div> | b11 | b10 | b9 | b8 | Attached file | 0 | 0 | 0 | 0 | No attached file | 1 | 0 | 0 | 0 | Tag data | 1 | 1 | 0 | 0 | Logging data | 1 | 0 | 1 | 0 | User data file (binary file) | 1 | 0 | 1 | 1 | User data file (CSV file) | (As in the left) | User |
| b11 | b10 | b9 | b8 | Attached file | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 0 | 0 | 0 | No attached file | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0 | 0 | 0 | Tag data | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | 0 | 0 | Logging data | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0 | 1 | 0 | User data file (binary file) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0 | 1 | 1 | User data file (CSV file) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (S1) + 1 | Completion status | The status of the instruction completion is stored. 0 : Normal completion Other than 0 : Abnormal completion (Error code)(*2) | — | System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (S1) + 2 | Destination No. | Set the e-mail destination with the set No. of "E-mail address (To:) setting" of the e-mail setting. 1 to 16: Destination No. | 1 to 16 | User | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (S1) + 3 | Tag/Logging No. | Set the tag data or logging data to be attached to the e-mail with the corresponding No. set in the tag setting or logging setting. 1 to 64: Setting No. of tag data or logging data to be attached | 1 to 64 | User | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (S1) + 4 | Logging history | Set the logging data to be attached to the e-mail. 0 : The current (latest) file is attached. 1 to FFFFFFFH: The specified saved file is attached. (Example) When attaching "00000010.CSV", set "00000010H". | 0 to FFFFFFFH | User | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (S1) + 5 | No. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (S1) + 6 | System area | — | — | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (S1) + 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (S1) + 8 | Send data length | Set the data length (for subject + main text) of the e-mail stored in (S2) + 0 to (S2)+n. (Subject: 1 to 373, main text: 1 to 960) 1 to 1333: Data length of e-mail (Word) | 1 to 1333 | User | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (S1) + 9 | Subject length | Specify the data length of the subject of the e-mail stored in (S2) + 0 to (S2) + n. 1 to 373: Data length of subject (Word) | 1 to 373 | User | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (S1) + 10 | System area | — | — | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (S1) + 11 | Clock set flag | Whether the clock data of (S1) + 12 to (S1) + 15 is enabled or disabled is stored. 0: Disable 1: Enable | 0, 1 | System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Device | Item | Setting data | Setting range | Setting side (*1) |
|------------------------|---|---|---------------|-------------------|
| (S1) + 12 | Clock data (Set only when an error occurs) | Upper 8 bit: Month (01 _H to 12 _H), Lower 8 bit: Year (00 _H to 99 _H) Last 2 digits of the year | — | System |
| (S1) + 13 | | Upper 8 bit: Hour (00 _H to 23 _H), Lower 8 bit: Day (01 _H to 31 _H) | | |
| (S1) + 14 | | Upper 8 bit: Second (00 _H to 59 _H), Lower 8 bit: Minute (00 _H to 59 _H) | | |
| (S1) + 15 | | Upper 8 bit: Year (00 _H to 99 _H), First 2 digits of the year Lower 8 bit: Day of the week (00 _H (Sun.) to 06 _H (Sat.)) | | |
| (S1) + 16 to (S1) + 21 | File name | Specify a file name with a character string when attaching a user data file. • Specify a name (8 characters) + period + extension (3 characters) within the specified number of characters. • When omitting an extension, also omit a period ("."). | String | User |

Send data

| Device | Item | Setting data | Setting range | Setting side (*1) |
|----------------------|-----------|--|---------------|-------------------|
| (S2) + 0 to (S2) + n | Send data | Specify the data (subject + main text) of the e-mail to be sent. | — | User |

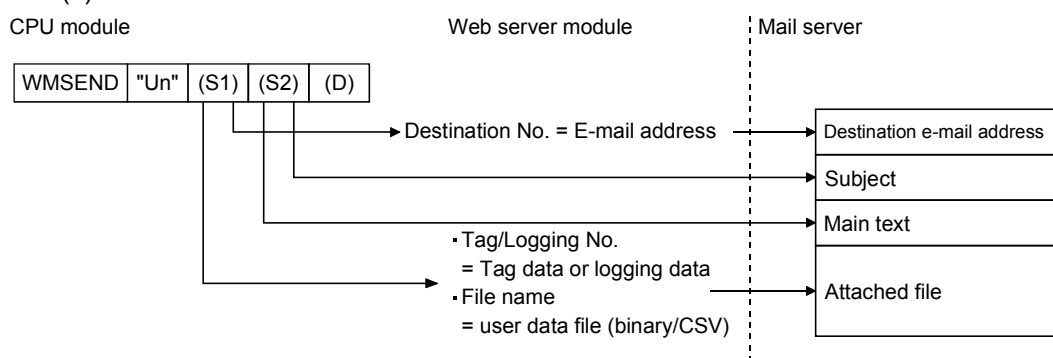
*1 The setting side is as follows.

- User : Data are set by the user before execution of the dedicated instruction.
- System: The execution result of the dedicated instruction is stored by the programmable controller CPU.

*2 Refer to Section 9.3 for the error code.

Function

- (1) An e-mail is sent to the destination e-mail address .

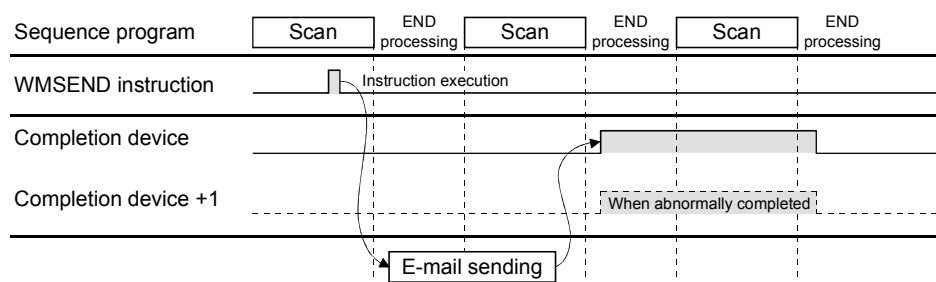


- (2) Executing the same instruction during execution of the instruction is not allowed. (The second instruction will not be processed.)
In this case, even if an error is detected, the completion device ((D) + 0) and completion status indication flag ((D) + 1) do not turn on.
- (3) An error may occur if the same file is concurrently accessed by WMSEND and any other instruction (FTPPUT, FTPGET, WFWRITE, WFREAD, WFDEL). Before executing instructions, provide interlocks between the dedicated instructions that will access the same file.
- (4) This instruction is not available for interrupt programs.
- (5) As the user data file, a file in the "/CF/USER/" directory of the Compact Flash card can be specified.

- (6) The execution and normal/abnormal completion statuses of the WMSSEND instruction can be confirmed using the completion device ((D) + 0) and completion status indication flag ((D) + 1).
- (a) Completion device ((D) + 0)
This device turns on in the END processing of the scan for which the WMSSEND instruction is completed, and turns off in the next END processing.
- (b) Completion status indication flag ((D) + 1)
This device turns on/off according to the completion status of the WMSSEND instruction.
Normally completed : Remains off.
Abnormally completed: Turns on in the END processing of the scan where the WMSSEND instruction is completed, and turns off in the next END processing.

[Operation at execution of WMSSEND instruction]

- (1) When the WMSSEND instruction is completed, the completion device (bit device) set in ((D) + 0) turns on in the END processing of the completed scan, and turns off in the next END processing.
When an error occurs, the completion device set in ((D) + 1) turns on and an error code is stored into the completion status (word device) set in ((S1) + 1).



- (2) The name of the file attached to the e-mail sent by the WMSSEND instruction is as follows.
For tag data : TAG□. CSV (□ indicates tag setting No.)
For logging data (current file): File name set in the logging setting
For logging data (saved file) : Saved file name
- (3) When sending the logging data or user data file, do not delete the target file until its transmission is completed.
A transmission error will occur if the target data, i.e., the data to be sent, is deleted before completion of the transmission.
When deleting, execute it after the completion device ((D) + 0) has turned on.

Error

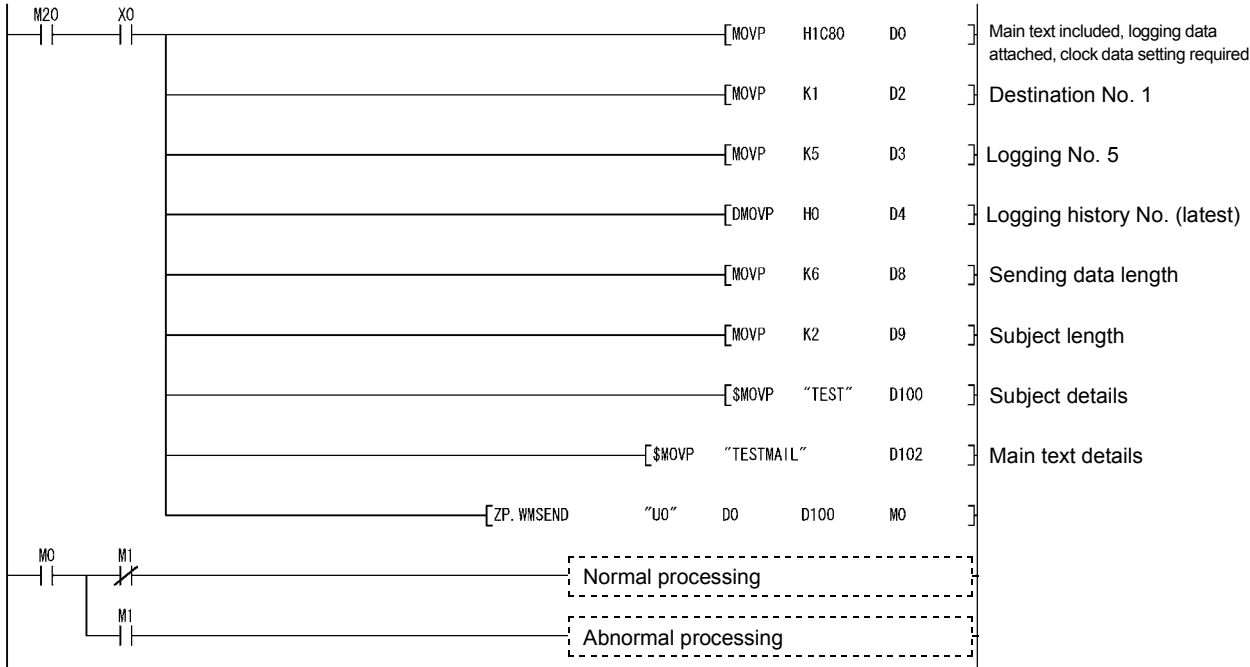
When the dedicated instruction is abnormally completed, the abnormal completion signal ((D) + 1) turns on and a corresponding error code is stored into the completion status ((S1) + 1).

Check the error status according to the error code and take corrective action.

Refer to Section 9.3 for the error code.

Program example

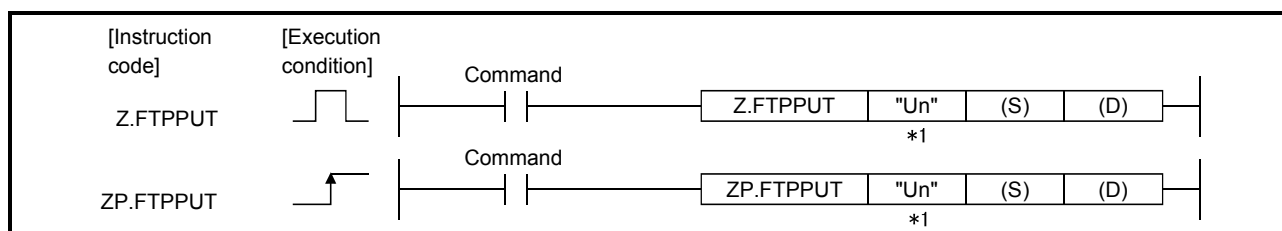
Program with which the Web server module mounted in the position of I/O numbers X/Y00 to X/Y1F sends an e-mail when M20 is turned on.



8.3 Z(P).FTPPUT

A file is transferred (PUT) from the Web server module to the FTP server with this instruction.

| Setting data | Applicable device | | | | | | | | | |
|--------------|-----------------------------------|------|---------------|----------------------------|------|---------------------------------------|----------------------|----------|----|--------|
| | Internal device (System, User) | | File register | Link direct device J□□□ | | Intelligent function module U□□\G□ | Index register Zn | Constant | | Others |
| | Bit | Word | | Bit | Word | | | K, H | \$ | |
| (S) | — | ○ | | | | — | | — | — | — |
| (D) | ○ | ○ | | | | — | | — | — | — |



*1: If the originating station is a Basic model QCPU (function version B or later), or Universal model QCPU, " " (double quotation) of the first argument can be omitted.

Setting data

| Setting data | Description | Setting side (*1) | Data type |
|--------------|--|-------------------|---------------------|
| "Un"/Un | Head I/O signal of the module (00 to FE: The first 2 digits when the I/O signal is represented in 3 digits) | User | String/ BIN16bit |
| (S) | Head number of the device that stores the control data | User, System | Device name |
| (D) | Head number of the bit device that will be turned on for one scan when the instruction is normally completed. (D) + 1 also turns on when the instruction is abnormally completed. | System | Bit |

The local devices and the file registers for individual programs do not work as the devices for the setting data.

Control data

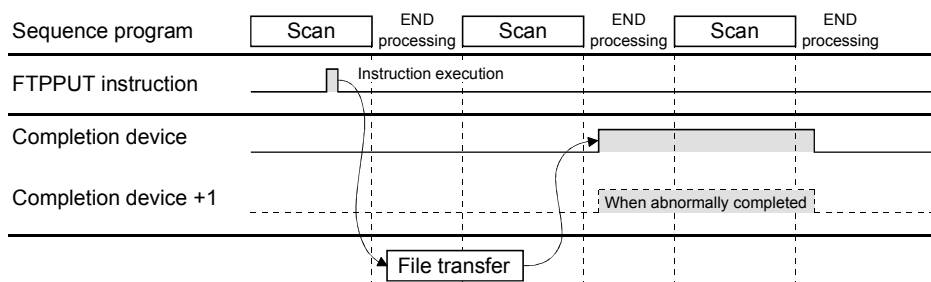
| Device | Item | Setting data | Setting range | Setting side (*1) | | | | | | | | | | | | | | | | | | | | |
|------------------------|---------------------------------|--|------------------------------|-------------------|----|---------------|---|---|---|----------|---|---|---|--------------|---|---|---|------------------------------|---|---|---|---------------------------|------------------|------|
| (S) + 0 | Completion type/transfer form | <div><div><div>b15 ~ b11b10 ~ b8 b7 b6 ~ b0</div><div>02)1)0</div></div><div>1) Completion type (b7) Set whether or not the clock data will be set to (S1) + 11 to (S1) + 15 in the case of abnormal completion. 0: Not set 1: Set</div><div>2) Transfer form (b8 to b10) Specify the transfer file type.</div><table><tr><td>b10</td><td>b9</td><td>b8</td><td>Attached file</td></tr><tr><td>0</td><td>0</td><td>0</td><td>Tag data</td></tr><tr><td>1</td><td>0</td><td>0</td><td>Logging data</td></tr><tr><td>0</td><td>1</td><td>0</td><td>User data file (binary file)</td></tr><tr><td>0</td><td>1</td><td>1</td><td>User data file (CSV file)</td></tr></table></div> | b10 | b9 | b8 | Attached file | 0 | 0 | 0 | Tag data | 1 | 0 | 0 | Logging data | 0 | 1 | 0 | User data file (binary file) | 0 | 1 | 1 | User data file (CSV file) | (As in the left) | User |
| b10 | b9 | b8 | Attached file | | | | | | | | | | | | | | | | | | | | | |
| 0 | 0 | 0 | Tag data | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0 | 0 | Logging data | | | | | | | | | | | | | | | | | | | | | |
| 0 | 1 | 0 | User data file (binary file) | | | | | | | | | | | | | | | | | | | | | |
| 0 | 1 | 1 | User data file (CSV file) | | | | | | | | | | | | | | | | | | | | | |
| (S) + 1 | Completion status | The status of the instruction completion is stored. 0 : Normal completion Other than 0 : Abnormal completion (Error code) (*2) | — | System | | | | | | | | | | | | | | | | | | | | |
| (S) + 2 | Transfer No. | Set the transfer destination of the file with the corresponding setting No. in the FTP setting. 1 to 16: Transfer destination No. | 1 to 16 | User | | | | | | | | | | | | | | | | | | | | |
| (S) + 3 | Tag/Logging No. | Set the tag data or logging data to be transferred with the corresponding No. set in the Tag setting or Logging setting. 1 to 64: Setting No. of tag data or logging data to be transferred | 1 to 64 | User | | | | | | | | | | | | | | | | | | | | |
| (S) + 4 | Logging history | Set the logging data to be transferred as a file. 0 : The current (latest) file is transferred. 1 to FFFFFFFFH: The specified saved file is transferred. (Example) When attaching "00000010.CSV", set "00000010H". | 0 to FFFFFFFFH | User | | | | | | | | | | | | | | | | | | | | |
| (S) + 5 | No. | | | | | | | | | | | | | | | | | | | | | | | |
| (S) + 6 to (S) + 10 | System area | — | — | — | | | | | | | | | | | | | | | | | | | | |
| (S) + 11 | Clock set flag | Whether the clock data of (S1) + 12 to (S1) + 15 is enabled or disabled is stored. 0: Disable 1: Enable | 0, 1 | System | | | | | | | | | | | | | | | | | | | | |
| (S) + 12 | Clock data | Upper 8 bit: Month (01H to 12H), Lower 8 bit: Year (00H to 99H) Last 2 digits of the year | — | System | | | | | | | | | | | | | | | | | | | | |
| (S) + 13 | (Set only when an error occurs) | Upper 8 bit: Hour (00H to 23H), Lower 8 bit: Day (01H to 31H) | | | | | | | | | | | | | | | | | | | | | | |
| (S) + 14 | | Upper 8 bit: Second (00H to 59H), Lower 8 bit: Minute (00H to 59H) | | | | | | | | | | | | | | | | | | | | | | |
| (S) + 15 | | Upper 8 bit: Year (00H to 99H) First 2 digits of the year Lower 8 bit: Day of the week (00H (Sun.) to 06H (Sat.)) | | | | | | | | | | | | | | | | | | | | | | |
| (S1) + 16 to (S1) + 21 | File name | Specify a file name with a character string when attaching a user data file. • Specify a name (8 characters) + period + extension (3 characters) within the specified number of characters. • When omitting an extension, also omit a period ("."). | String | User | | | | | | | | | | | | | | | | | | | | |

Function

- (1) A tag data, logging data or user data file (binary/CSV) is transferred to the specified destination FTP server.
- (2) Executing the same instruction during execution of the instruction is not allowed. (The second instruction will not be processed.)
In this case, even if an error is detected, the completion device ((D) + 0) and completion status indication flag ((D) + 1) do not turn on.
- (3) An error may occur if the same file is concurrently accessed by FTPPUT and any other instruction (WMSEND, FTPGET, WFWRITE, WFREED, WFDEL). Before executing instructions, provide interlocks between the dedicated instructions that will access the same file.
- (4) This instruction is not available for interrupt programs.
- (5) As the user data file, a file in the "/CF/USER/" directory of the Compact Flash™ card can be specified.
- (6) The execution and normal/abnormal completion statuses of the FTPPUT instruction can be confirmed using the completion device ((D) + 0) and completion status indication flag ((D) + 1).
 - (a) Completion device ((D) + 0)
This device turns on in the END processing of the scan for which the FTPPUT instruction is completed, and turns off in the next END processing.
 - (b) Completion status indication flag ((D) + 1)
This device turns on/off according to the completion status of the FTPPUT instruction.
Normally completed : Remains off.
Abnormally completed : Turns on in the END processing of the scan where the FTPPUT instruction is completed, and turns off in the next END processing.

[Operation at execution of FTPPUT instruction]

- (1) When the FTPPUT instruction is completed, the completion device (bit device) set in ((D) + 0) turns on in the END processing of the completed scan, and turns off in the next END processing.
When an error occurs, the completion device set in ((D) + 1) turns on and an error code is stored into the completion status (word device) set in ((S) + 1).



- (2) The name of the file transferred by the FTPPUT instruction is as follows.
 For tag data : TAG□. CSV (□ indicates tag setting No.)
 For logging data (current file): File name set in the logging setting
 For logging data (saved file) : Saved file name
- (3) When sending the logging data or user data file, do not delete the target file until its transmission is completed.
 A transmission error will occur if the target data, i.e., the data to be sent, is deleted before completion of transmission.
 When deleting, execute it after the completed device ((D) + 0) has turned on.

Error

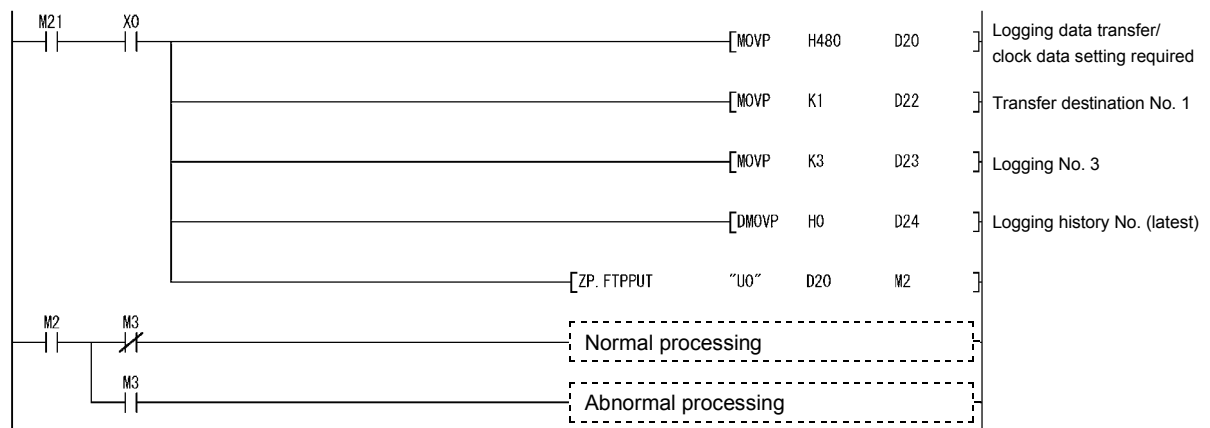
When the dedicated instruction is abnormally completed, the abnormal completion signal ((D) + 1) turns on and a corresponding error code is stored into the completion status ((S) + 1).

Check the error status according to the error code and take corrective action.

Refer to Section 9.3 for the error code.

Program example

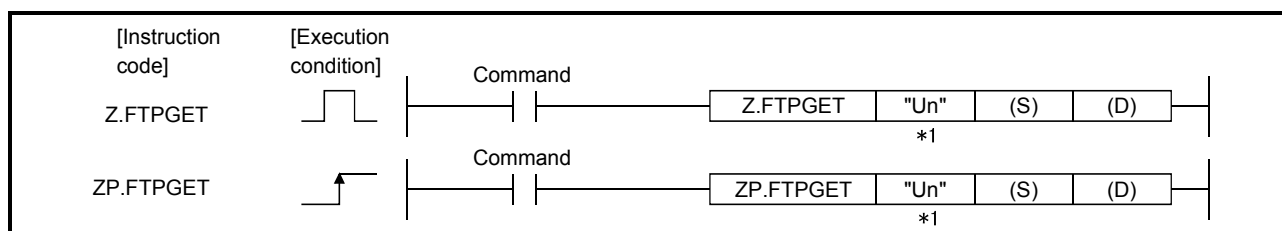
Program with which the Web server module mounted in the position of I/O numbers X/Y00 to X/Y1F transfers (PUT) logging data to the FTP server when M21 is turned on.



8.4 Z(P).FTPGET

A file is transferred (GET) from the FTP server to the Web server module with this instruction.

| Setting data | Applicable device | | | | | | | | | |
|--------------|-----------------------------------|------|---------------|------------------------------|------|--|----------------------|----------|----|--------|
| | Internal device (System, User) | | File register | Link direct device J□□\□□ | | Intelligent function module U□□\G□□ | Index register Zn | Constant | | Others |
| | Bit | Word | | Bit | Word | | | K, H | \$ | |
| (S) | — | ○ | | | — | | | — | — | — |
| (D) | ○ | ○ | | | — | | | — | — | — |



*1: If the originating station is a Basic model QCPU (function version B or later), or Universal model QCPU, " " (double quotation) of the first argument can be omitted.

Setting data

| Setting data | Description | Setting side(*1) | Data type |
|--------------|--|------------------|---------------------|
| "Un"/Un | Head I/O signal of the module (00 to FE: The first 2 digits when the I/O signal is represented in 3 digits) | User | String/ BIN16bit |
| (S) | Head number of the device that stores the control data | User, System | Device name |
| (D) | Head number of the bit device that will be turned on for one scan when the instruction is normally completed. (D) + 1 also turns on when the instruction is abnormally completed. | System | Bit |

The local devices and the file registers for individual programs do not work as the devices for the setting data.

Control data

| Device | Item | Setting data | Setting range | Setting side (*1) |
|------------------------|---|--|------------------|-------------------|
| (S) + 0 | Completion type/transfer form | <div> <div> <div>b15 ~ b9</div> <div>b8 b7 b6 ~ b0</div> <div>0 2) 1) 0</div> </div> <p>1) Completion type (b7) Set whether or not the clock data will be set to (S1) + 11 to (S1) + 15 in the case of abnormal completion. 0: Not set 1: Set</p> <p>2) Transfer form (b8) Specify the transfer file type. 0: A user data file (binary file) is transferred. 1: A user data file (CSV file) is transferred.</p> </div> | (As in the left) | User |
| (S) + 1 | Completion status | The status of the instruction completion is stored. 0 : Normal completion Other than 0 : Abnormal completion (Error code) (*2) | — | System |
| (S) + 2 | Transfer source No. | Set the file transfer source with the setting No. of "FTP setting". 1 to 16: Transfer source No. | 1 to 16 | User |
| (S) + 3 to (S) + 10 | System area | — | — | — |
| (S) + 11 | Clock set flag | Whether the clock data of (S1) + 12 to (S1) + 15 is enabled or disabled is stored. 0: Disable 1: Enable | 0, 1 | System |
| (S) + 12 | Clock data (Set only when an error occurs) | Upper 8 bit: Month (01 _H to 12 _H), Lower 8 bit: Year (00 _H to 99 _H) Last 2 digits of the year | — | System |
| (S) + 13 | | Upper 8 bit: Hour (00 _H to 23 _H), Lower 8 bit: Day (01 _H to 31 _H) | | |
| (S) + 14 | | Upper 8 bit: Second (00 _H to 59 _H), Lower 8 bit: Minute (00 _H to 59 _H) | | |
| (S) + 15 | | Upper 8 bit: Year (00 _H to 99 _H) First 2 digits of the year Lower 8 bit: Day of the week (00 _H (Sun.) to 06 _H (Sat.)) | | |
| (S1) + 16 to (S1) + 21 | File name | Specify a file name with a character string when attaching a user data file. • Specify a name (8 characters) + period + extension (3 characters) within the specified number of characters. • When omitting an extension, also omit a period ("."). | String | User |

*1 The setting side is as follows.

- User : Data are set by the user before execution of the dedicated instruction.
- System: The execution result of the dedicated instruction is stored by the programmable controller CPU.

*2 Refer to Section 9.3 for the error code.

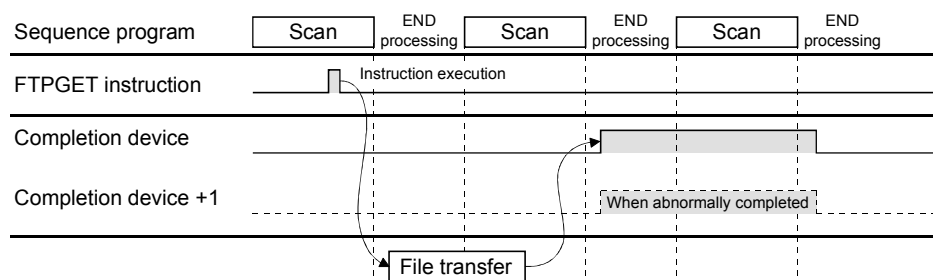
Function

- (1) A user data file (binary/CSV) is transferred from the specified source FTP server to the Web server module.
- (2) Executing the same instruction during execution of the instruction is not allowed. (The second instruction will not be processed.)
In this case, even if an error is detected, the completion device ((D) + 0) and completion status indication flag ((D) + 1) do not turn on.
- (3) An error may occur if the same file is concurrently accessed by FTPGET and any other instruction (WMSEND, FTPPUT, WFWRITE, WFREED, WFDEL). Before executing instructions, provide interlocks between the dedicated instructions that will access the same file.
- (4) This instruction is not available for interrupt programs.
- (5) The file is transferred to the "/CF/USER/" directory of the Compact Flash™ card.
- (6) If a file of the same file name already exists, the old file is overwritten by the new file.
- (7) The execution and normal/abnormal completion statuses of the FTPGET instruction can be confirmed using the completion device ((D) + 0) and completion status indication flag ((D) + 1).
 - (a) Completion device ((D) + 0)
This device turns on in the END processing of the scan for which the FTPGET instruction is completed, and turns off in the next END processing.
 - (b) Completion status indication flag ((D) + 1)
This device turns on/off according to the completion status of the FTPGET instruction.
 Normally completed : Remains off.
 Abnormally completed : Turns on in the END processing of the scan where the FTPGET instruction is completed, and turns off in the next END processing.

[Operation at execution of FTPGET instruction]

When the FTPGET instruction is completed, the completion device (bit device) set in ((D) + 0) turns on in the END processing of the completed scan, and turns off in the next END processing.

When an error occurs, the completion device set in ((D) + 1) turns on and an error code is stored into the completion status (word device) set in ((S) + 1).

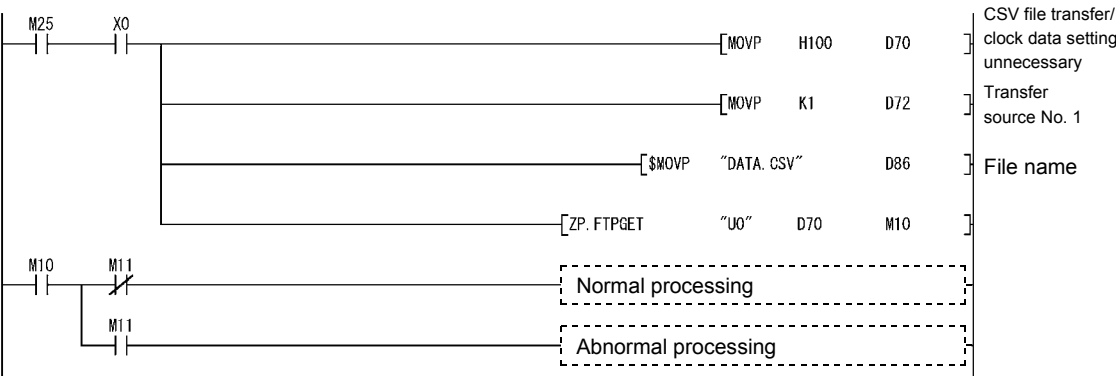


Error

When the dedicated instruction is abnormally completed, the abnormal completion signal ((D) + 1) turns on and a corresponding error code is stored into the completion status ((S) + 1).
Check the error status according to the error code and take corrective action.
Refer to Section 9.3 for the error code.

Program example

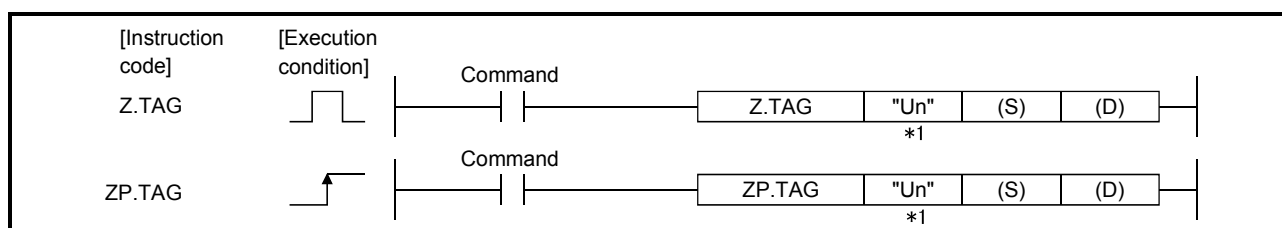
Program with which the Web server module mounted in the position of I/O numbers X/Y00 to X/Y1F transfers (GET) a user data file "DATA.CSV" from the FTP server when M25 is turned on.



8.5 Z(P).TAG

A tag collection command is issued with this command. (A tag collection is triggered.)

| Setting data | Applicable device | | | | | | | | | |
|-----------------|-----------------------------------|------|------------------|----------------------------|------|--|-------------------------|----------|----|--------|
| | Internal device (System, User) | | File register | Link direct device J□\□ | | Intelligent function module U□\G□ | Index register Zn | Constant | | Others |
| | Bit | Word | | Bit | Word | | | K, H | \$ | |
| (S) | — | ○ | | | — | | — | — | — | |
| (D) | ○ | ○ | | | — | | — | — | — | |



*1: If the originating station is a Basic model QCPU (function version B or later), or Universal model QCPU, " " (double quotation) of the first argument can be omitted.

Setting data

| Setting data | Description | Setting side(*1) | Data type |
|--------------|--|------------------|---------------------|
| "Un"/Un | Head I/O signal of the module (00 to FE: The first 2 digits when the I/O signal is represented in 3 digits) | User | String/ BIN16bit |
| (S) | Head number of the device that stores the control data | User, System | Device name |
| (D) | Head number of the bit device that will be turned on for one scan when the instruction is normally completed. (D) + 1 also turns on when the instruction is abnormally completed. | System | Bit |

The local devices and the file registers for individual programs do not work as the devices for the setting data.

Control data

| Device | Item | Setting data | Setting range | Setting side (*1) |
|--------------------------|-------------------|---|---------------|-------------------|
| (S) + 0 | System area | — | — | — |
| (S) + 1 | Completion status | The status of the instruction completion is stored. 0 : Normal completion Other than 0 : Abnormal completion (Error code) (*2) | — | System |
| (S) + 2 to (S) + 5 | Tag specification | Turn on the bit corresponding to the No. of which tag data will be collected by the TAG instruction. 0: Tag data are not collected. 1: Tag data are collected by the TAG instruction. Tag setting No. ((S)+2) b15 b14 b13 b12 b11 b10 b9 b8 b7 b6 b5 b4 b3 b2 b1 b0 → 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 ((S)+3) b15 b14 b13 b12 b11 b10 b9 b8 b7 b6 b5 b4 b3 b2 b1 b0 → 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 ((S)+4) b15 b14 b13 b12 b11 b10 b9 b8 b7 b6 b5 b4 b3 b2 b1 b0 → 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 ((S)+5) b15 b14 b13 b12 b11 b10 b9 b8 b7 b6 b5 b4 b3 b2 b1 b0 → 64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 | 0, 1 | User |

*1 The setting side is as follows.

- User : Data are set by the user before execution of the dedicated instruction.
- System: The execution result of the dedicated instruction is stored by the programmable controller CPU.

*2 Refer to Section 9.3 for the error code.

Function

- (1) The command is issued to the specified tag to collect data (refresh).
- (2) Regardless of the "Sampling" setting in the tag setting, the tag data of the No. set in (S) + 2 to (S) + 5 are collected.
However, the tag set to "Execute at high speed" cannot be specified.
An error will occur if the high speed sampling tag is specified.
- (3) Executing the same instruction during execution of the instruction is not allowed.
(The second instruction will not be processed.)
In this case, even if an error is detected, the completion device ((D) + 0) and completion status indication flag ((D) + 1) do not turn on.
- (4) This instruction is not available for interrupt programs.

(5) The execution and normal/abnormal completion statuses of the TAG instruction can be confirmed using the completion device ((D) + 0) and completion status indication flag ((D) + 1).

(a) Completion device ((D) + 0)

This device turns on in the END processing of the scan for which the TAG instruction is completed, and turns off in the next END processing.

(b) Completion status indication flag ((D) + 1)

This device turns on/off according to the completion status of the TAG instruction.

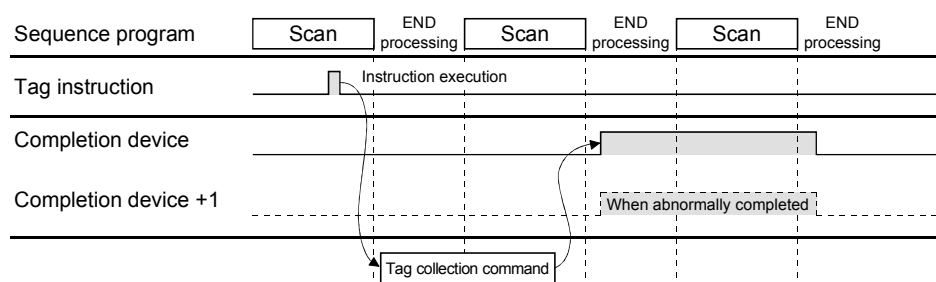
Normally completed : Remains off.

Abnormally completed : Turns on in the END processing of the scan where the TAG instruction is completed, and turns off in the next END processing.

[Operation at execution of TAG instruction]

When the TAG instruction is completion, the completion device (bit device) set in ((D) + 0) turns on in the END processing of the completed scan, and turns off in the next END processing.

When an error occurs, the completion device set in ((D) + 1) turns on and an error code is stored into the completion status (word device) set in ((S) + 1).



Error

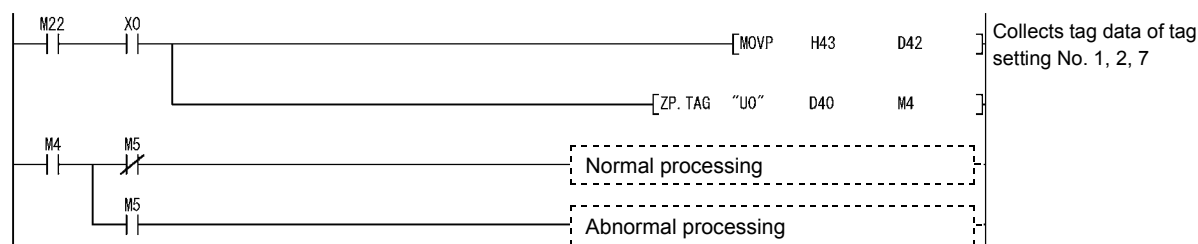
When the dedicated instruction is abnormally completed, the abnormal completion signal ((D) + 1) turns on and a corresponding error code is stored into the completion status ((S) + 1).

Check the error status according to the error code and take corrective action.

Refer to Section 9.3 for the error code.

Program example

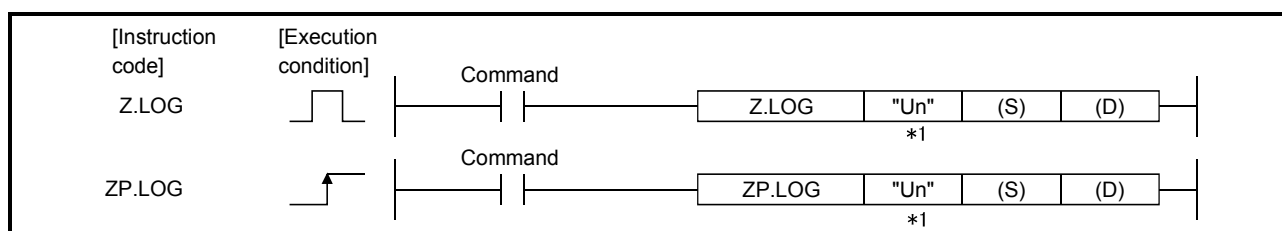
Program with which the Web server module mounted in the position of I/O numbers X/Y00 to X/Y1F collects the data of the tags set in (S)+2 to (S)+5 when M22 is turned on.



8.6 Z(P).LOG

A logging command is issued with this command. (A logging is triggered.)

| Setting data | Applicable device | | | | | | | | | |
|--------------|-----------------------------------|------|---------------|----------------------------|------|--------------------------------------|----------------------|----------|----|--------|
| | Internal device (System, User) | | File register | Link direct device J□\□ | | Intelligent function module U□\G□ | Index register Zn | Constant | | Others |
| | Bit | Word | | Bit | Word | | | K, H | \$ | |
| (S) | — | ○ | | | — | | | — | — | — |
| (D) | ○ | ○ | | | — | | | — | — | — |



*1: If the originating station is a Basic model QCPU (function version B or later), or Universal model QCPU, " " (double quotation) of the first argument can be omitted.

Setting data

| Setting data | Description | Setting side(*1) | Data type |
|--------------|--|------------------|---------------------|
| "Un"/Un | Head I/O signal of the module (00 to FE: The first 2 digits when the I/O signal is represented in 3 digits) | User | String/ BIN16bit |
| (S) | Head number of the device that stores the control data | User, System | Device name |
| (D) | Head number of the bit device that will be turned on for one scan when the instruction is normally completed. (D) + 1 also turns on when the instruction is abnormally completed. | System | Bit |

The local devices and the file registers for individual programs do not work as the devices for the setting data.

Control data

| Device | Item | Setting data | Setting range | Setting side (*1) |
|--------------------------|-----------------------|---|---------------|-------------------|
| (S) + 0 | System area | — | — | — |
| (S) + 1 | Completion status | The status of the instruction completion is stored. 0 : Normal completion Other than 0 : Abnormal completion (Error code) (*2) | — | System |
| (S) + 2 to (S) + 5 | Logging specification | Turn on the bit corresponding to the No. for which logging will be performed by the LOG instruction. 0: Logging is not performed. 1: Logging is performed by the LOG instruction. Logging setting No. ((S)+2) b15 b14 b13 b12 b11 b10 b9 b8 b7 b6 b5 b4 b3 b2 b1 b0 → 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 ((S)+3) b15 b14 b13 b12 b11 b10 b9 b8 b7 b6 b5 b4 b3 b2 b1 b0 → 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 ((S)+4) b15 b14 b13 b12 b11 b10 b9 b8 b7 b6 b5 b4 b3 b2 b1 b0 → 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 ((S)+5) b15 b14 b13 b12 b11 b10 b9 b8 b7 b6 b5 b4 b3 b2 b1 b0 → 64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 | 0, 1 | User |

*1 The setting side is as follows.

- User : Data are set by the user before execution of the dedicated instruction.
- System: The execution result of the dedicated instruction is stored by the programmable controller CPU.

*2 Refer to Section 9.3 for the error code.

Function

- (1) A command is issued to the logging setting to perform one-record logging.
- (2) Regardless of the "Schedule setting" in the logging setting, one-record loggings of the setting No. set in (S) + 2 to (S) + 5 are performed.
However, high speed logging cannot be specified.
An error will occur if high-speed logging is specified.
- (3) Executing the same instruction during execution of the instruction is not allowed.
(The second instruction will not be processed.)
In this case, even if an error is detected, the completion device ((D) + 0) and completion status indication flag ((D) + 1) do not turn on.
- (4) This instruction is not available for interrupt programs.

- (5) The execution and normal/abnormal completion statuses of the LOG instruction can be confirmed using the completion device ((D) + 0) and completion status indication flag ((D) + 1).

(a) Completion device ((D) + 0)

This device turns on in the END processing of the scan for which the LOG instruction is completed, and turns off in the next END processing.

(b) Completion status indication flag ((D) + 1)

This device turns on/off according to the completion status of the LOG instruction.

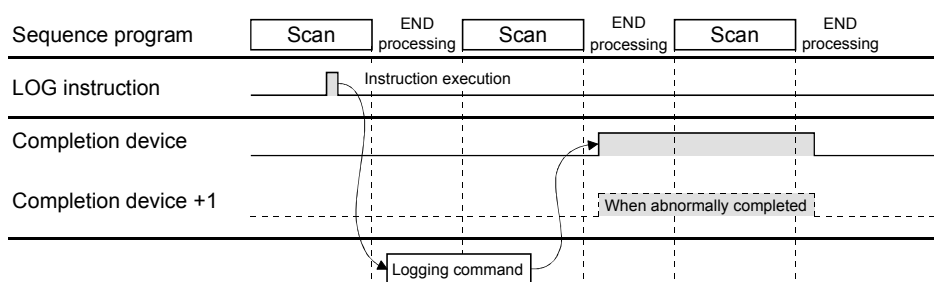
Normally completed : Remains off.

Abnormally completed : Turns on in the END processing of the scan where the LOG instruction is completed, and turns off in the next END processing.

[Operation at execution of LOG instruction]

When the LOG instruction is completed, the completion device (bit device) set in ((D) + 0) turns on in the END processing of the completed scan, and turns off in the next END processing.

When an error occurs, the completion device set in ((D) + 1) turns on and an error code is stored into the completion status (word device) set in ((S) + 1).



Error

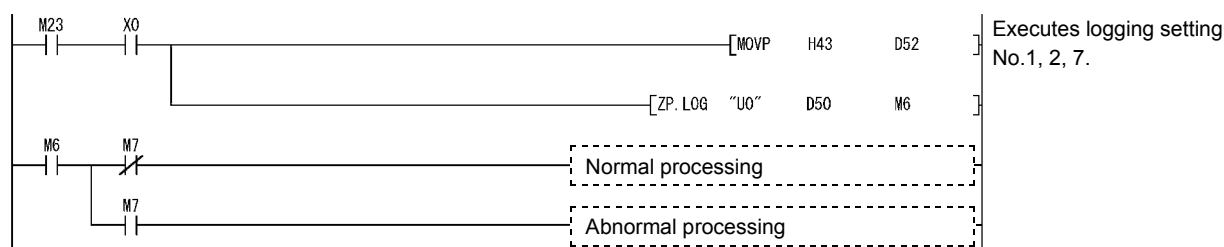
When the dedicated instruction is abnormally completed, the abnormal completion signal ((D)+1) turns on and a corresponding error code is stored into the completion status ((S)+1).

Check the error status according to the error code and take corrective action.

Refer to Section 9.3 for the error code.

Program example

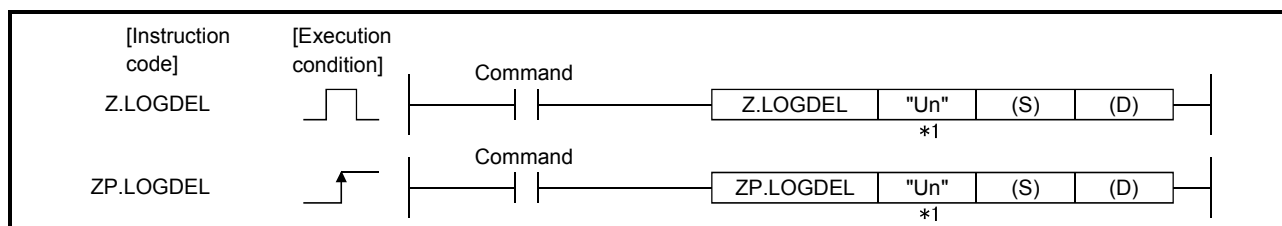
Program with which the Web server module mounted in the position of I/O numbers X/Y00 to X/Y1F logs one record of the logging data set in (S)+2 to (S)+5 when M23 is turned on.



8.7 Z(P).LOGDEL

The saved file of logging data is deleted with this instruction.

| Setting data | Applicable device | | | | | | | | | |
|-----------------|-----------------------------------|------|------------------|-----------------------------|------|--|-------------------------|----------|----|--------|
| | Internal device (System, User) | | File register | Link direct device J□\□□ | | Intelligent function module U□□\G□□ | Index register Zn | Constant | | Others |
| | Bit | Word | | Bit | Word | | | K, H | \$ | |
| (S) | — | ○ | | | — | | | — | — | — |
| (D) | ○ | ○ | | | — | | | — | — | — |



*1: If the originating station is a Basic model QCPU (function version B or later), or Universal model QCPU, " " (double quotation) of the first argument can be omitted.

Setting data

| Setting data | Description | Setting side(*1) | Data type |
|--------------|--|------------------|---------------------|
| "Un"/Un | Head I/O signal of the module (00 to FE: The first 2 digits when the I/O signal is represented in 3 digits) | User | String/ BIN16bit |
| (S) | Head number of the device that stores the control data | User, System | Device name |
| (D) | Head number of the bit device that will be turned on for one scan when the instruction is normally completed. (D) + 1 also turns on when the instruction is abnormally completed. | System | Bit |

The local devices and the file registers for individual programs do not work as the devices for the setting data.

Control data

| Device | Item | Setting data | Setting range | Setting side (*1) |
|---------|-------------------|---|---------------------|-------------------|
| (S) + 0 | Execution type | Set the execution type. (b8) 0: Deletes one saved file of logging data according to the setting made in (S) + 3 to (S) + 4. 1: Deletes all saved files of logging data according to the setting made in (S) + 3 to (S) + 4. | (As in the left) | User |
| (S) + 1 | Completion status | The status of the instruction completion is stored. 0 : Normal completion Other than 0 : Abnormal completion (Error code) (*2) | — | System |
| (S) + 2 | Logging No. | Set the logging data to be deleted with the corresponding No. set in the logging setting. 1 to 64: Setting No. of logging data to be deleted | 1 to 64 | User |
| (S) + 3 | Saved file No. | Set the saved logging data file to be deleted. 0 : The oldest file is deleted. | 0 | User |
| (S) + 4 | | 1 to FFFFFFFFH : The specified saved file is deleted. (Example) When deleting "00000010.CSV", set "00000010H". | 0 to FFFFFFFH | |

*1 The setting side is as follows.

- User : Data are set by the user before execution of the dedicated instruction.
- System: The execution result of the dedicated instruction is stored by the programmable controller CPU.

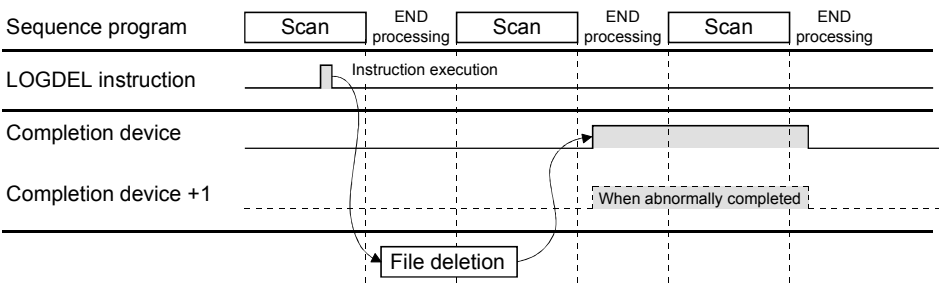
*2 Refer to Section 9.3 for the error code.

Function

- (1) The saved file of the logging data is deleted.
- (2) Executing the same instruction during execution of the instruction is not allowed.
(The second instruction will not be processed.)
In this case, if an error is detected, the completion device ((D) + 0) and completion status indication flag ((D) + 1) do not turn on.
- (3) This instruction is not available for interrupt programs.
- (4) The execution and normal/abnormal completion statuses of the LOGDEL instruction can be confirmed using the completion device ((D) + 0) and completion status indication flag ((D) + 1).
 - (a) Completion device ((D) + 0)
This device turns on in the END processing of the scan for which the LOGDEL instruction is completed, and turns off in the next END processing.
 - (b) Completion status indication flag ((D) + 1)
This device turns on/off according to the completion status of the LOGDEL instruction.
Normally completed : Remains off.
Abnormally completed : Turns on in the END processing of the scan where the LOGDEL instruction is completed, and turns off in the next END processing.

[Operation at execution of LOGDEL instruction]

When the LOGDEL instruction is completed, the completion device (bit device) set in ((D) + 0) turns on in the END processing of the completed scan, and turns off in the next END processing.
When an error occurs, the completion device set in ((D) + 1) turns on and the error code is stored into the completion status (word device) set in ((S) + 1).

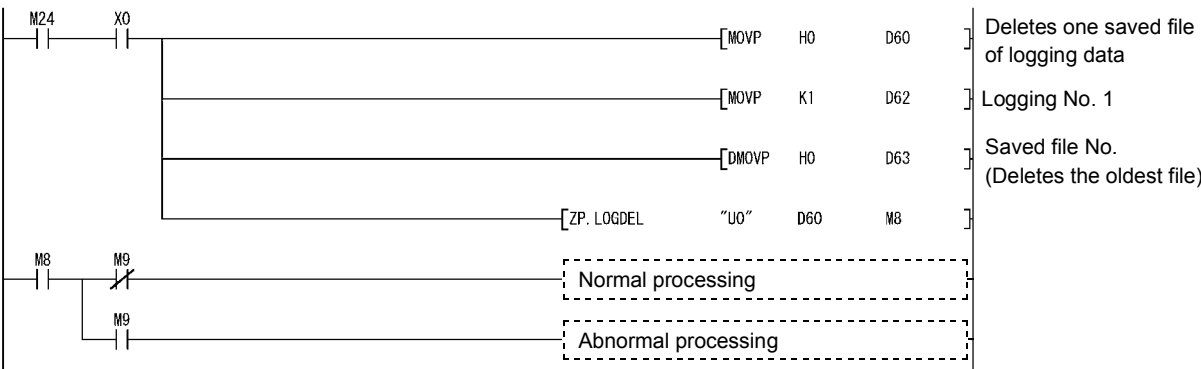


Error

When the dedicated instruction is abnormally completed, the abnormal completion signal ((D) + 1) turns on and an error code is stored into the completion status ((S) + 1).
Check the error status according to the error code and take corrective action.
Refer to Section 9.3 for the error code.

Program example

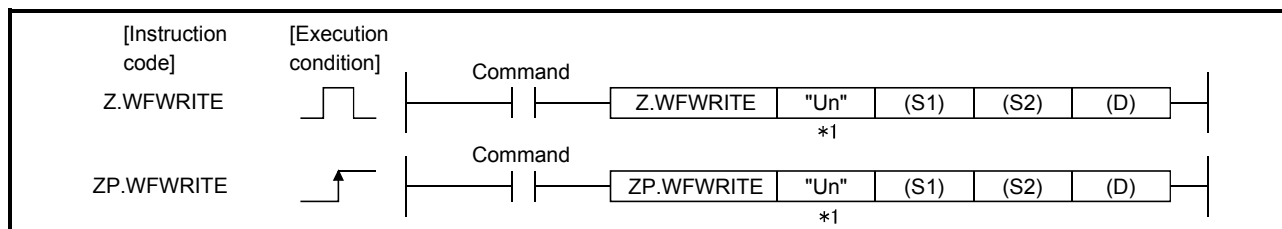
Program with which the Web server module mounted in the position of I/O numbers X/Y00 to X/Y1F deletes the saved file of the logging data when M24 is turned on.



8.8 Z(P).WFWRITE

The device data of the programmable controller CPU are written to the user data file of the Compact Flash™ card.

| Setting data | Applicable device | | | | | | | | | |
|--------------|-----------------------------------|------|---------------|----------------------------|------|--------------------------------------|----------------------|----------|----|--------|
| | Internal device (System, User) | | File register | Link direct device J□\□ | | Intelligent function module U□\G□ | Index register Zn | Constant | | Others |
| | Bit | Word | | Bit | Word | | | K, H | \$ | |
| (S1) | — | ○ | | | | — | | — | — | — |
| (S2) | — | ○ | | | | — | | — | — | — |
| (D) | ○ | ○ | | | | — | | — | — | — |



*1: If the originating station is a Basic model QCPU (function version B or later), or Universal model QCPU, " " (double quotation) of the first argument can be omitted.

Setting data

| Setting data | Description | Setting side(*1) | Data type |
|--------------|---|------------------|---------------------|
| "Un"/Un | Head I/O signal of the module (00 to FE: The first 2 digits when the I/O signal is represented in 3 digits) | User | String/ BIN16bit |
| (S1) | Head number of the device that stores the control data | User, System | Device name |
| (S2) | Head number of the device that stores the data | User | |
| (D) | Head number of the bit device that will be turned on for one scan when the instruction is normally completed. (D)+ 1 also turns on when the instruction is abnormally completed. | System | Bit |

The local devices and the file registers for individual programs do not work as the devices for the setting data.

Control data

| Device | Item | Setting data | Setting range | Setting side (*1) |
|-----------------------------|---------------------------------|--|--|-------------------|
| (S1) + 0 | Execution type | Specify the execution type. 0000 _H : Binary write 0100 _H : CSV format conversion write | 0000 _H 0100 _H | User |
| (S1) + 1 | Completion status | The status of the instruction completion is stored. 0 : Normal completion Other than 0 : Abnormal completion (Error code)(*2) | — | System |
| (S1) + 2 | Number of data to be written | Specify the number of data to be written. (Word unit) When specifying the byte unit in (S1)+7, also set the number of data in word units by converting it into word units. | 1 to 480 | User |
| (S1) + 3 | Write result (Number of data) | With respect to the data specified in (S2), the number of actually written data enters here. • The unit depends on the word/byte specification. | — | System |
| (S1) + 4 | File position | Set the file position where data will be written. • When binary write is specified in (S1)+0 00000000 _H : Written to the file, starting at its beginning. 00000001 _H to FFFFFFFF _H : Written to the file, starting at the specified position. The unit depends on the word/byte specification. FFFFFFFF _H : Added to the end of the file. • When CSV format conversion write is specified in (S1)+0 00000000 _H to FFFFFFFF _H : Written to the file, starting at its beginning. FFFFFFFF _H : Added to the end of the file. | 0 to FFFFFFFF _H | User |
| (S1) + 5 | | | | |
| (S1) + 6 | Number of columns specification | • When binary write is specified in (S1)+0 Always specify "0". • When CSV format conversion write is specified in (S1)+0 Specify the number of columns where data will be written. 0 : Number of columns not specified. Written to 1 row. Other than 0 : Written to the specified number of columns. | 0 to 65535 | User |
| (S1) + 7 | Word/byte specification | Specify the word or byte unit. 0 : Word 1 : Byte | 0, 1 | User |
| (S1) + 8 to (S1) + 13 | File name | Specify a file name with a character string. • Specify a name (8 characters) + period + extension (3 characters) within the specified number of characters. • When omitting an extension, also omit a period ("."). | String | User |

Send data

| Device | Item | Setting data | Setting range | Setting side (*1) |
|----------------------------|--------------|---------------------------------|------------------|-------------------|
| (S2) + 0 to (S2) + n | Written data | Specify the data to be written. | 0 to FFFFH | User |

*1 The setting side is as follows.

- User : Data are set by the user before execution of the dedicated instruction.
- System: The execution result of the dedicated instruction is stored by the programmable controller CPU.

*2 Refer to Section 9.3 for the error code.

Function

- (1) The device data of the programmable controller CPU are written to the user data file of the Compact Flash card in binary or CSV format.
- (2) Executing the same instruction during execution of the instruction is not allowed. (The second instruction will not be processed.)
In this case, even if an error is detected, the completion device ((D) + 0) and completion status indication flag ((D) + 1) do not turn on.
- (3) An error may occur if the same file is accessed by WFWRITE and any other instruction (WMSEND, FTPPUT, FTPGET, WFREED, WFDEL).
Before executing instructions, provide interlocks between the dedicated instructions that will access the same file.
- (4) This instruction is not available for interrupt programs.
- (5) As the user data file, a file in the "/CF/USER/" directory of the Compact Flash™ card can be specified.
- (6) The execution and normal/abnormal completion statuses of the WFWRITE instruction can be confirmed using the completion device ((D) + 0) and completion status indication flag ((D) + 1).
 - (a) Completion device ((D) + 0)
This device turns on in the END processing of the scan for which the WFWRITE instruction is completed, and turns off in the next END processing.
 - (b) Completion status indication flag ((D) + 1)
This device turns on/off according to the completion status of the WFWRITE instruction.
Normally completed : Remains off.
Abnormally completed: Turns on in the END processing of the scan where the WFWRITE instruction is completed, and turns off in the next END processing.

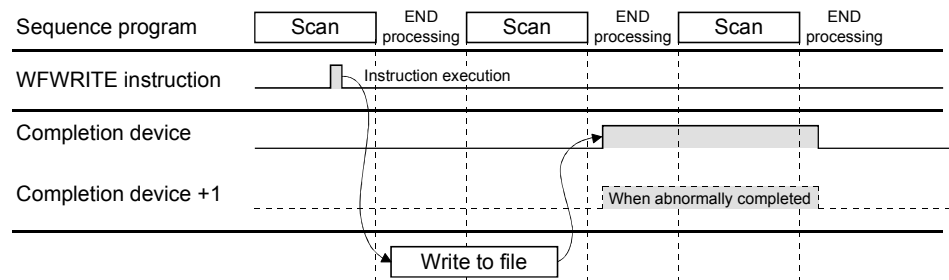
Precaution

- (1) The data written at the CSV setting are decimal values.
When word is specified: -32768 to 32767
When byte is specified: -128 to 127

[Operation at execution of WFWRITE instruction]

- (1) When the WFWRITE instruction is completed, the completion device (bit device) set in $((D) + 0)$ turns on in the END processing of the completed scan, and turns off in the next END processing.

When an error occurs, the completion device set in $((D) + 1)$ turns on and an error code is stored into the completion status (word device) set in $((S1) + 1)$.



- (2) An error will occur if the Compact Flash™ card runs out of a free area during data write to the file. The data already written to the file before error occurrence remain in the Compact Flash card.
- (3) When data are written in binary and the specified file position of data write is beyond the existing file position, the write is completed normally with no data written.
"0" is stored into the write result $((S1)+3)$.

Error

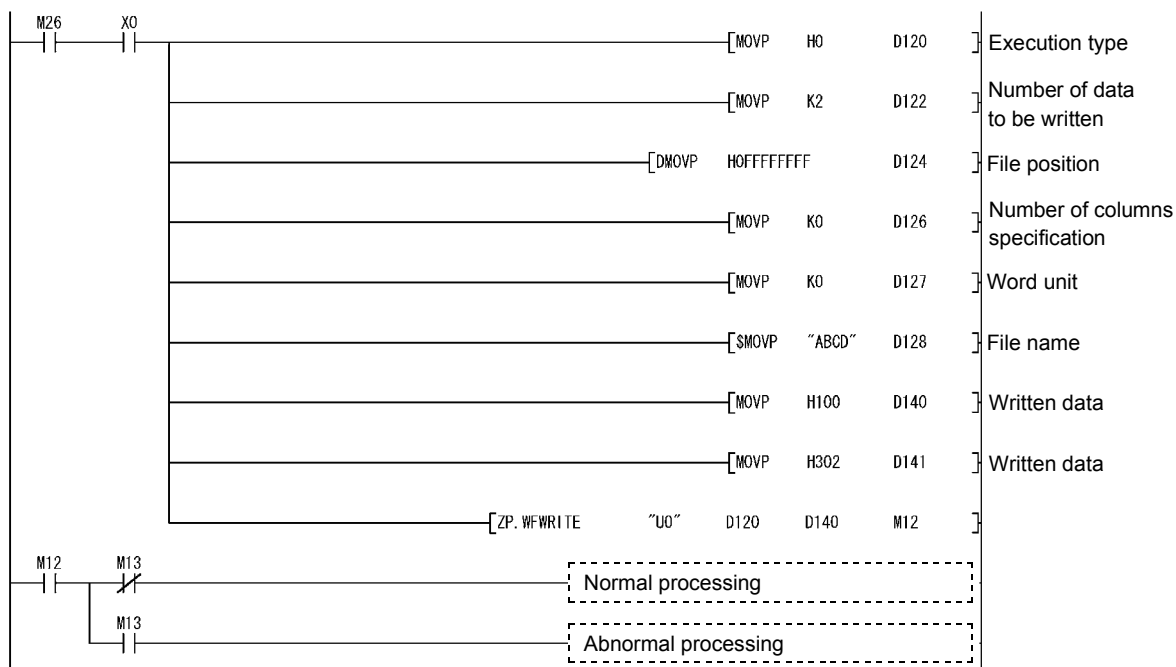
When the dedicated instruction is abnormally completed, the abnormal completion signal $((D) + 1)$ turns on and a corresponding error code is stored into the completion status $((S1) + 1)$.

Check the error status according to the error code and take corrective action.

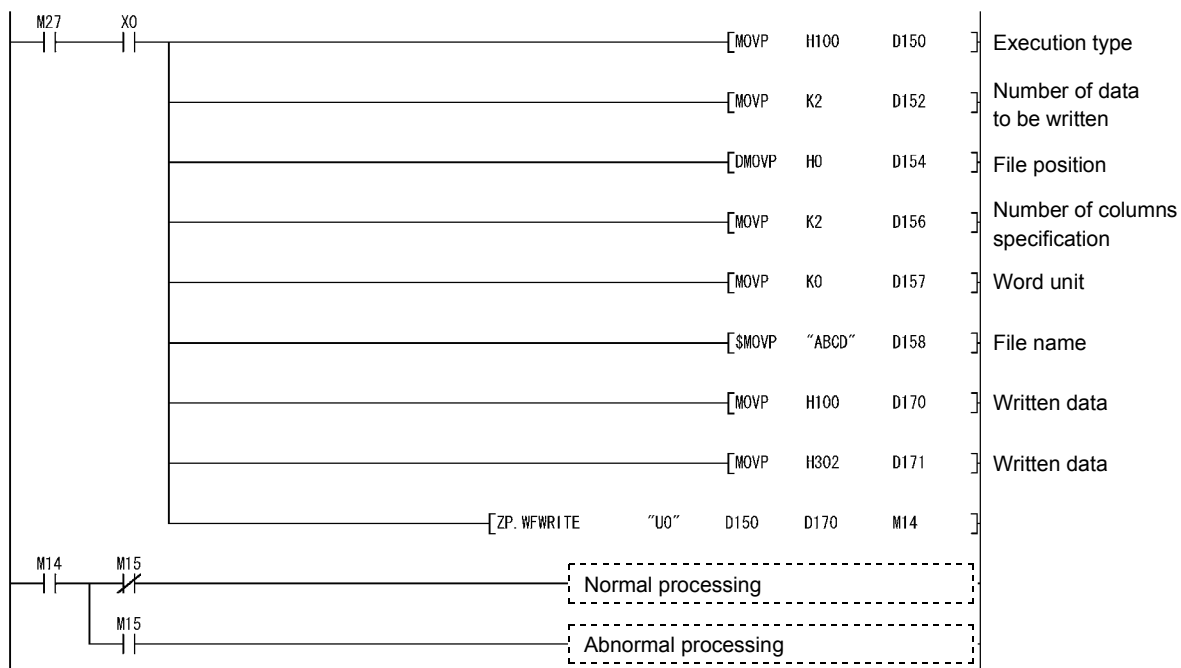
Refer to Section 9.3 for the error code.

Program example

- (1) Program with which the Web server module mounted in the position of I/O numbers X/Y00 to X/Y1F adds 2-word binary data, 0100_H and 0302_H, to "ABCD.BIN" in the "/CF/USER/" directory when M26 is turned on.



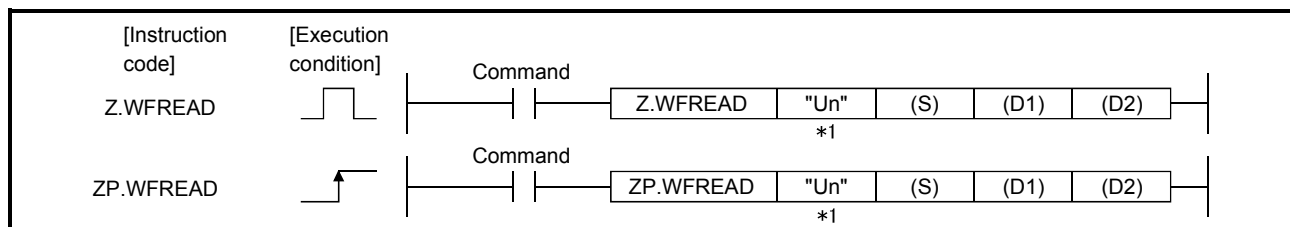
- (2) Program with which the Web server module mounted in the position of I/O numbers X/Y00 to X/Y1F creates 2-word data, 0100_H and 0302_H, as a 2-column CSV format file with a file name "ABCD.CSV" in the "/CF/USER/" directory when M27 is turned on.



8.9 Z(P).WFREAD

The user data file of the Compact Flash™ card is read to the device data of the programmable controller CPU.

| Setting data | Applicable device | | | | | | | | | |
|--------------|-----------------------------------|------|---------------|------------------------------|------|--|----------------------|----------|----|--------|
| | Internal device (System, User) | | File register | Link direct device J□□\□□ | | Intelligent function module U□□\G□□ | Index register Zn | Constant | | Others |
| | Bit | Word | | Bit | Word | | | K, H | \$ | |
| (S) | — | ○ | | | | — | | — | — | — |
| (D1) | — | ○ | | | | — | | — | — | — |
| (D2) | ○ | ○ | | | | — | | — | — | — |



*1: If the originating station is a Basic model QCPU (function version B or later), or Universal model QCPU, " " (double quotation) of the first argument can be omitted.

Setting data

| Setting data | Description | Setting side(*1) | Data type |
|--------------|---|------------------|---------------------|
| "Un"/Un | Head I/O signal of the module (00 to FE: The first 2 digits when the I/O signal is represented in 3 digits) | User | String/ BIN16bit |
| (S) | Head number of the device that stores the control data | User, System | Device name |
| (D1) | Head number of the device that stores the data | User | |
| (D2) | Head number of the bit device that will be turned on for one scan when the instruction is normally completed. (D)+ 1 also turns on when the instruction is abnormally completed. | System | Bit |

The local devices and the file registers for individual programs do not work as the devices for the setting data.

Control data

| Device | Item | Setting data | Setting range | Setting side (*1) |
|---------------------------|---------------------------------|---|--|-------------------|
| (S) + 0 | Execution type | Specify the execution type. 0000 _H : Binary read 0100 _H : CSV format conversion reads | 0000 _H 0100 _H | User |
| (S) + 1 | Completion status | The status of the instruction completion is stored. 0 : Normal completion Other than 0 : Abnormal completion (Error code)(*2) | — | System |
| (S) + 2 | Number of data to be read | Specify the number of data to be read. (Word unit) When specifying the byte unit in (S1)+7, also set the number of data in word units by converting it into word units. | 1 to 480 | User |
| (S) + 3 | Read result (Number of data) | With respect to the data specified in (S2)+2, the number of actually read data enters here. • The unit depends on the word/byte specification. | — | System |
| (S) + 4 | File position | Set the file position from where data will be read. • When binary read is specified in (S)+0 00000000 _H : Read from the beginning of the file. 00000001 _H to FFFFFFFF _H : Read from the specified position of the file. The unit depends on the word/byte specification. FFFFFFFF _H : Cannot be set. | 0 to FFFFFFF _H / FFFFFFF _H | User |
| (S) + 5 | | • When CSV format conversion read is specified in (S)+0 00000000 _H to FFFFFFFF _H : Read from the specified row of the file. FFFFFFFF _H : Read continuously from the previous position. | | |
| (S) + 6 | Number of columns specification | • When binary read is specified in (S)+0 Always specify "0". • When CSV format conversion read is specified in (S)+0 Specify the number of columns from which data will be read. 0 : Number of columns not specified. Written to 1 row. Other than 0 : Written to the specified number of columns. | 0 to 65535 | User |
| (S) + 7 | Word/byte specification | Specify the word or byte unit. 0 : Word 1 : Byte | 0, 1 | User |
| (S) + 8 to (S) + 13 | File name | Specify a file name with a character string. • Specify a name (8 characters) + period + extension (3 characters) within the specified number of characters. • When omitting an extension, also omit a period ("."). | String | User |

Read data

| Device | Item | Setting data | Setting range | Setting side (*1) |
|----------------------------|-----------|---------------------------|---------------|-------------------|
| (D1) + 0 to (D1) + n | Read data | The read data are stored. | — | System |

*1 The setting side is as follows.

- User : Data are set by the user before execution of the dedicated instruction.
- System: The execution result of the dedicated instruction is stored by the programmable controller CPU.

*2 Refer to Section 9.3 for the error code.

Function

- (1) The user data file of the Compact Flash™ card are read to the device data of the programmable controller CPU in binary or CSV format.
- (2) Executing the same instruction during execution of the instruction is not allowed. (The second instruction will not be processed.)
In this case, even if an error is detected, the completion device ((D2) + 0) and completion status indication flag ((D2) + 1) do not turn on.
- (3) An error may occur if the same file is concurrently accessed by WFREAD and any other instruction (WMSSEND, FTPPUT, FTPGET, WFWRITE, WFDEL). Before executing instructions, provide interlocks between the dedicated instructions that will access the same file.
- (4) This instruction is not available for interrupt programs.
- (5) As the user data file, a file in the "/CF/USER/" directory of the Compact Flash™ card can be specified.
- (6) The execution and normal/abnormal completion statuses of the WFREAD instruction can be confirmed using the completion device ((D) + 0) and completion status indication flag ((D) + 1).
 - (a) Completion device ((D) + 0)
This device turns on in the END processing of the scan for which the WFREAD instruction is completed, and turns off in the next END processing.
 - (b) Completion status indication flag ((D) + 1)
This device turns on/off according to the completion status of the WFREAD instruction.
Normally completed : Remains off.
Abnormally completed: Turns on in the END processing of the scan where the WFREAD instruction is completed, and turns off in the next END processing.

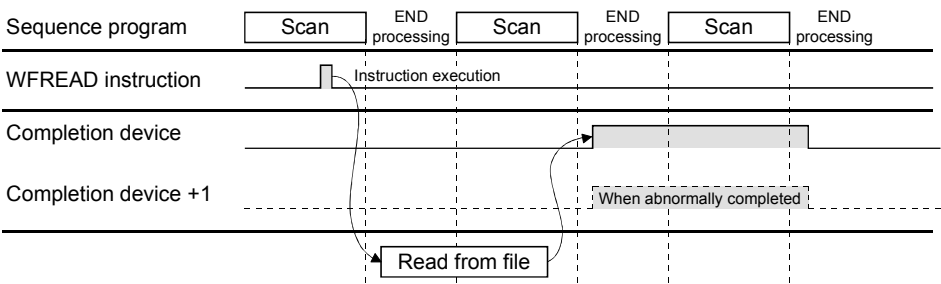
Precaution

- (1) The data read at the CSV setting are decimal values.
When word is specified: -32768 to 32767, 0 to 65535
When byte is specified: -128 to 127, 0 to 255
Any value outside the above range (including characters other than numeric characters) is converted into 0.

[Operation at execution of WFPREAD instruction]

When the WFPREAD instruction is completed, the completion device (bit device) set in ((D2) + 0) turns on in the END processing of the completed scan, and turns off in the next END processing.

When an error occurs, the completion device set in ((D2) + 1) turns on and an error code is stored into the completion status (word device) set in ((S) + 1).



Error

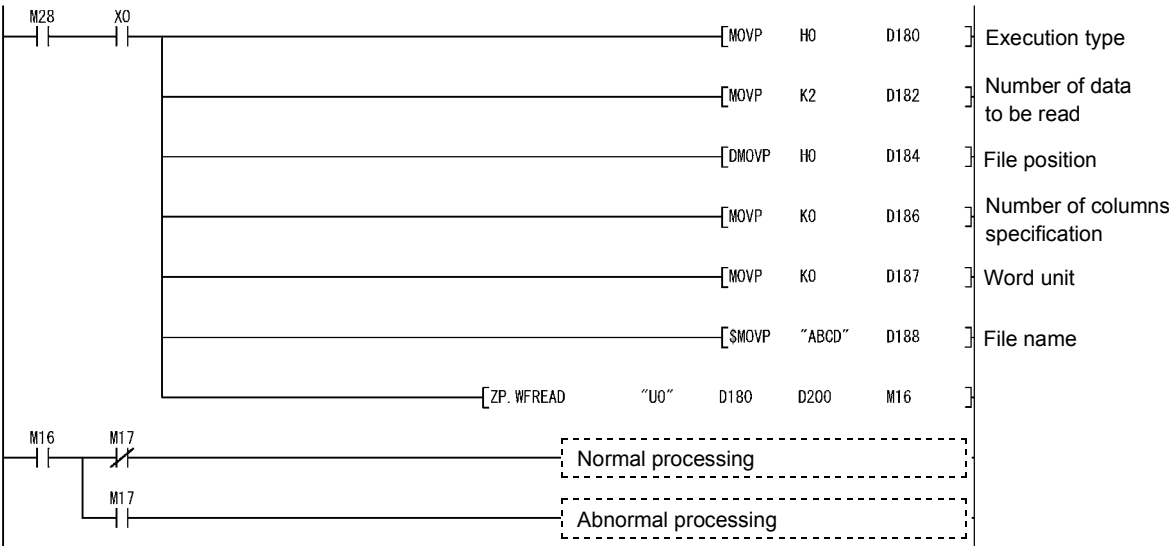
When the dedicated instruction is abnormally completed, the abnormal completion signal ((D2) + 1) turns on and a corresponding error code is stored into the completion status ((S) + 1).

Check the error status according to the error code and take corrective action.

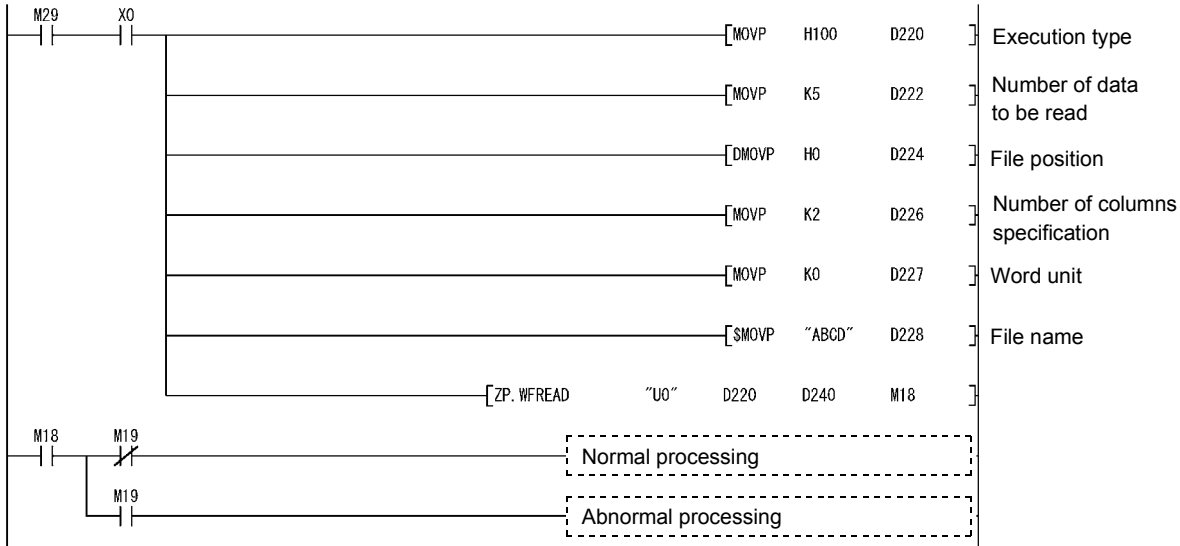
Refer to Section 9.3 for the error code.

Program example

- (1) Program with which the Web server module mounted in the position of I/O numbers X/Y00 to X/Y1F reads 2 words as binary data from the beginning of the "ABCD.BIN" file in the "/CF/USER/" directory when M28 is turned on.



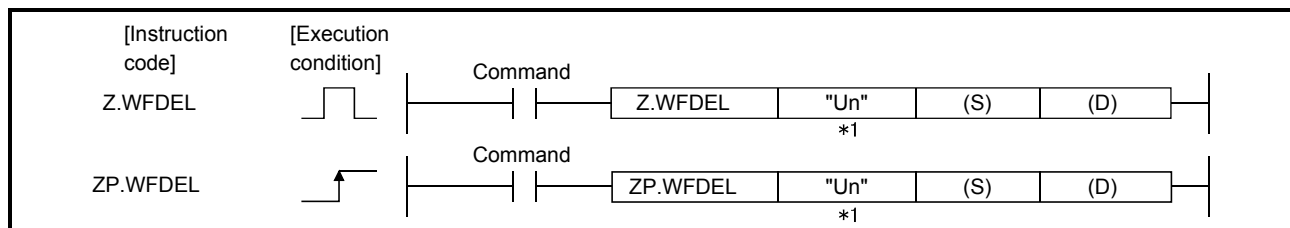
- (2) Program with which the Web server module mounted in the position of I/O numbers X/Y00 to X/Y1F reads the "ABCD.CSV" file in the "/CF/USER/" directory as a 2-column CSV format file when M29 is turned on.



8.10 Z(P).WFDEL

The user data file of the Compact Flash™ card is deleted with this instruction.

| Setting data | Applicable device | | | | | | | | | |
|--------------|-----------------------------------|------|---------------|----------------------------|------|--------------------------------------|----------------------|----------|----|--------|
| | Internal device (System, User) | | File register | Link direct device J□\□ | | Intelligent function module U□\G□ | Index register Zn | Constant | | Others |
| | Bit | Word | | Bit | Word | | | K, H | \$ | |
| (S) | — | ○ | | | — | | | — | — | — |
| (D) | ○ | ○ | | | — | | | — | — | — |



*1: If the originating station is a Basic model QCPU (function version B or later), or Universal model QCPU, " " (double quotation) of the first argument can be omitted.

Setting data

| Setting data | Description | Setting side(*1) | Data type |
|--------------|---|------------------|---------------------|
| "Un"/Un | Head I/O signal of the module (00 to FE: The first 2 digits when the I/O signal is represented in 3 digits) | User | String/ BIN16bit |
| (S) | Head number of the device that stores the control data | User, System | Device name |
| (D) | Head number of the bit device that will be turned on for one scan when the instruction is normally completed. (D)+ 1 also turns on when the instruction is abnormally completed. | System | Bit |

The local devices and the file registers for individual programs do not work as the devices for the setting data.

Control data

| Device | Item | Setting data | Setting range | Setting side (*1) |
|---------------------------|-------------------|---|----------------|-------------------|
| (S) + 0 | Execution type | Specify the execution type. 0000H : Binary file 0100H : CSV format file | 0000H 0100H | User |
| (S) + 1 | Completion status | The status of the instruction completion is stored. 0 : Normal completion Other than 0 : Abnormal completion (Error code)(*2) | — | System |
| (S) + 2 to (S) + 7 | System area | — | — | System |
| (S) + 8 to (S) + 13 | File name | Specify a file name with a character string. • Specify a name (8 characters) + period + extension (3 characters) within the specified number of characters. • When omitting an extension, also omit a period ("."). | String | User |

*1 The setting side is as follows.

- User : Data are set by the user before execution of the dedicated instruction.
- System: The execution result of the dedicated instruction is stored by the programmable controller CPU.

*2 Refer to Section 9.3 for the error code.

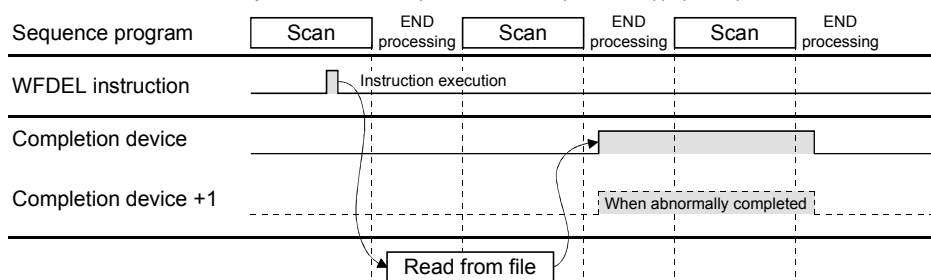
Function

- (1) The user data file of the Compact Flash™ card is deleted.
- (2) Executing the same instruction during execution of the instruction is not allowed.
(The second instruction will not be processed.)
In this case, even if an error is detected, the completion device ((D) + 0) and completion status indication flag ((D) + 1) do not turn on.
- (3) An error may occur if the same file is concurrently accessed by WFDEL and any other instruction (WMSEND, FTPPUT, FTPGET, WFWRITE, WFWREAD).
Before executing instructions, provide interlocks between the dedicated instructions that will access the same file.
- (4) This instruction is not available for interrupt programs.
- (5) As the user data file, a file in the "/CF/USER/" directory of the Compact Flash™ card can be specified.
- (6) The execution and normal/abnormal completion statuses of the WFDEL instruction can be confirmed using the completion device ((D) + 0) and completion status indication flag ((D) + 1).
 - (a) Completion device ((D) + 0)
This device turns on in the END processing of the scan for which the WFDEL instruction is completed, and turns off in the next END processing.
 - (b) Completion status indication flag ((D) + 1)
This device turns on/off according to the completion status of the WFDEL instruction.
Normally completed : Remains off.
Abnormally completed: Turns on in the END processing of the scan where the WFDEL instruction is completed, and turns off in the next END processing.

[Operation at execution of WFDEL instruction]

When the WFDEL instruction is completed, the completion device (bit device) set in ((D) + 0) turns on in the END processing of the completed scan, and turns off in the next END processing.

When an error occurs, the completion device set in ((D) + 1) turns on and an error code is stored into the completion status (word device) set in ((S) + 1).

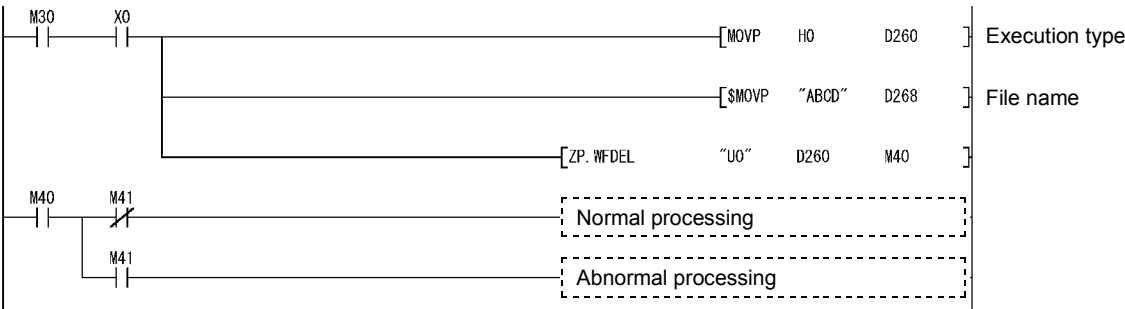


Error

When the dedicated instruction is abnormally completed, the abnormal completion signal ((D) + 1) turns on and a corresponding error code is stored into the completion status ((S) + 1).
Check the error status according to the error code and take corrective action.
Refer to Section 9.3 for the error code.

Program example

Program with which the Web server module mounted in the position of I/O numbers X/Y00 to X/Y1F deletes the "ABCD.BIN" file in the "/CF/USER/" directory when M30 is turned on.



9 TROUBLE SHOOTING

9.1 Trouble Shooting

First check the module status and network connection status of the Web server module according to (1) and (2) in this section, and then read the troubleshooting of the corresponding function.

(1) Troubleshooting on LED display and I/O signal

| Symptom | Check point | Corrective action |
|---|---|---|
| RUN LED does not turn on. | The module is not ready. | <ul style="list-style-type: none"> • Wait until the module starts. |
| | Watch dog timer error (X1F) is on. | <ul style="list-style-type: none"> • If the watch dog timer error is ON, please consult your local Mitsubishi service center or representative, explaining a detailed description of the problem. |
| ERR. LED is on or flickering. | The battery is not connected or the battery voltage has dropped. | <ul style="list-style-type: none"> • Check whether the battery is connected. (Refer to Section 4.10.2) • Replace the battery. (Refer to Section 4.10.3) |
| | Any of Error detection signals (X11 to X19, X1C) is on. X11: Tag collection error X12: Logging error X13: CPU event monitor error X14: Tag event monitor error X15: Time event monitor error X16: Access target CPU error X17: E-mail transmission error X18: FTP transfer error X19: Connection error X1C: Other error | <ul style="list-style-type: none"> • Confirm the error definition and take corrective action according to the error code stored when any of the errors indicated in the left is detected. (Refer to Section 9.2) |
| | Check the error code in "System monitor" of GX Developer. | <ul style="list-style-type: none"> • Confirm the error definition and take corrective action according to the error code. (Refer to Section 9.2) |
| Module READY (X0) does not turn on, or it takes a long time to turn on. | The module is not ready. | <ul style="list-style-type: none"> • Depending the set number in the access target CPU setting, it may take several minutes until X0 turns ON. (Refer to Section 4.6.7 (3)) |
| | Many files are stored in the set Compact Flash™ card. | <ul style="list-style-type: none"> • If many files are stored in the Compact Flash™ card, the time required for X0 to turn ON will be lengthened. (Refer to Section 4.9.1) • Delete unnecessary files in the Compact Flash™ card. |
| Compact Flash™ card setting status (X1) does not turn on, or it takes a long time to turn on. | The file access stop status is active (X2 is on). | <ul style="list-style-type: none"> • Cancel the file access stop status. (Refer to Section 4.9) |
| | Many files are stored in the set Compact Flash™ card. | <ul style="list-style-type: none"> • If many files are stored in the Compact Flash™ card, the time required for X1 to turn ON will be lengthened. (Refer to Section 4.9.1) • Delete unnecessary files in the Compact Flash™ card. |

(2) Troubleshooting on network connection

(a) Common, LAN connection

| Symptom | Check point | Corrective action |
|--|--|--|
| Access to the Web server module cannot be made. (The Web screen is not displayed or a file cannot be transferred to the Web server module.) | The URL is not correct. | • Check the URL. |
| | The mode is not "Online". | • Set the mode to "Online". |
| | The Web server module is not connected to the network. (X4 = ON) | • Connect the Web server module to the network. (Refer to Section 4.6.3) |
| | There is cable disconnection in the connection path. | • Connect the cable securely. |
| | There are the same IP addresses. | • Check the IP address. |
| | There is a firewall or proxy server in the connection path. | • Consult a network administrator for the firewall or proxy server setting. |
| | The personal computer has any problem. Check if the another Web site is displayed correctly or not. | • Replace the personal computer. • Update the Web browser. • Install the OS again. |

(b) Internet connection

| Symptom | Check point | Corrective action |
|--|--|--|
| Connection to the Internet service provider cannot be made. | The Internet service provider setting is not correct. | • Check the Internet service provider setting. |
| | The connection path to the Internet service provider is not correct. | • Check the connection path to the Internet service provider. |
| Connection to the Internet service provider is not stable (e.g. connection not possible sometimes or disrupted.) | A mobile device is used to make connection from a place of weak radio waves. | • Move the Internet service provider connection device to a place of strong radio waves. |
| | There is the influence of noise from the surroundings. | • Take measures against noise in the connection path to the Internet service provider. |

(c) ADSL connection via router

| Symptom | Check point | Corrective action |
|--|--|--|
| ADSL connection via router cannot be made. | "Connecting through LAN or router" was not selected in the system setting. | • Select "Connecting through LAN or router" in the system setting. (Refer to Section 4.6.3.) |
| | When "Register the above port No. to the router's NAT" was selected in the system setting, the router is not compatible with UPnP. | • Use the router compatible with UPnP. |
| | "Register the above port No. to the router's NAT" was not selected in the system setting. | • Set the NAT of the router manually. (Refer to the router manual.) |
| | The information (user name, password) for connection to the Internet service provider was not set to the router. | • Set to the router the information for connection to the Internet service provider. (Refer to the router manual.) |

(3) Troubleshooting on monitor display

| Symptom | Check point | Corrective action |
|---|---|---|
| Web screen is not displayed. (Sounds are not replayed.) | The Web server module is not connected to the network correctly. | <ul style="list-style-type: none"> Check the module status and network connection status of the Web server module. (Refer to (1), (2) in this section.) Restart the Web browser. |
| Web screen is not displayed properly. | The Microsoft® Internet Explorer is not the version specified in the manual. | <ul style="list-style-type: none"> Check the browser. (Refer to Section 3.1.) |
| | The Java VM is not the version specified in the manual. | <ul style="list-style-type: none"> Check the version of the Java VM. (Refer to Section 3.1.) |
| | The Web server module does not support the Java VM being used. | <ul style="list-style-type: none"> Check the serial No. of the Web server module to see whether it supports the Java VM being used. (Refer to Appendix 5.1.) |
| | Setting was made to use "Socks" in the Proxy Settings of Internet Explorer. | <ul style="list-style-type: none"> Make setting not to use "Socks" in the Proxy Settings of Internet Explorer. |
| | The personal computer has any problem. Check if another Web site is displayed correctly or not. | <ul style="list-style-type: none"> Replace the personal computer. Update the Web browser. Install the OS again. |
| | The display setting of the personal computer is not proper. | <ul style="list-style-type: none"> Change the Hardware accelerator setting of the display setting. (Adjust the Hardware accelerator setting in detailed settings on the <<Settings>> tab of "Display Properties" on Microsoft® Windows®.) |
| | The Compact Flash card formatted on Windows® has been set in the Web server module. | <ul style="list-style-type: none"> Recover the Compact Flash card according to its manual. |
| Administrative menu screen is not displayed. | The account with administrator authority (user name/password) is not correct. | <ul style="list-style-type: none"> Use the correct account with administrator authority. (Refer to Section 4.6.5) |
| Devices are not monitored. (Display data are improper.) | The access target CPU setting is not correct. | <ul style="list-style-type: none"> Check the access target CPU setting. (Refer to Section 4.6.7) |
| Tags are not monitored. (Display data are improper.) | The access target CPU setting is not correct. | <ul style="list-style-type: none"> Check the access target CPU setting. (Refer to Section 4.6.7) |
| | Tag setting is not correct. | <ul style="list-style-type: none"> Check the tag setting. (Refer to Section 6.3.3) |
| Monitoring stops during monitor operation. | Correct connection has not been established. | <ul style="list-style-type: none"> Select the displayed monitor screen again and monitor the system. Restart the Web browser and monitor the system. Re-examine the cable connection. |
| | Microsoft® InterDev™ 6.0 (Visual Studio 6.0) has been installed. | <ul style="list-style-type: none"> From [Tools] - [Options] on Microsoft® InterDev™ 6.0, open the Option dialog box, select [Debugger] - [General], and unmark the "Attach to execution program of this machine" setting in the Java items. When Microsoft® InterDev™ 6.0 has already been uninstalled, reinstall it and perform the above operation. |

| Symptom | Check point | Corrective action |
|--------------------------|---|---|
| Run time error occurred. | If "Debug?" is displayed, select "No". Check the statuses of the connection devices such as a modem, cables and the line. Button or other operation was performed before the complete screen was displayed. | <ul style="list-style-type: none"> • Check the statuses of the connection devices such as a modem, cables and the line. • After deleting the temporary Internet files of Internet Explorer, try to connect again. • Start operation after the screen display is completed. |

(4) Troubleshooting on device test and tag component test

| Symptom | Check point | Corrective action |
|---|---|---|
| Device test cannot be conducted. | The account without device write authority was used to access. | • Access using the account with device write authority. (Refer to Section 4.6.5) |
| | Device write disable status is ON (YA is on). | • Enable Device write (turns off YA). |
| Tag component test cannot be conducted. | The account without tag component write authority was used to access. | • Access using the account with tag component write authority. (Refer to Section 4.6.5) |
| | Device write disable status is ON (YA is on). | • Enable Device write (turns off YA). |
| | "Data write" in the tag setting has been set to "Disable". | • Set "Data write" in the tag setting to "Enable". (Refer to Section 6.3.3) |

(5) Troubleshooting on user HTML

* Refer to (3) in this section as well.

| Symptom | Check point | Corrective action |
|---|---|---|
| Created user HTML is not displayed. | The URL is not correct. | • Check the URL. |
| | The created user HTML is not stored. | • Store the created user HTML via FTP. |
| | The applet size in the applet part is not correct. | • Specify the correct applet size. |
| The audio part does not play sounds. | The speaker has not been powered ON. The volume is not correct. | <ul style="list-style-type: none"> • Turn on the speaker. • Adjust the volume. |
| | The personal computer does not have audio playback hardware. | • Use a personal computer that has audio playback hardware. |
| | Other sounds cannot be played on the personal computer being used. | • Use a personal computer that is capable of audio replay. |
| | A WAV format audio file was specified when using Microsoft® VM. | <ul style="list-style-type: none"> • Specify an AU format audio file. • Use Sun Microsystems Inc. Java VM. |
| Display (sounds) does not change even after the tag component value falls within the specified range. | The device value corresponding to the tag component cannot be retained for a time longer than the tag collection interval and communication time. | • Keep the device value corresponding to a tag component for a time longer than the tag collection interval and communication time in the sequence program. |
| Graphical display parts are not displayed. | An animation GIF is used. | • Use a usual GIF file or JPEG file. |

(6) Troubleshooting on logging

| Symptom | Check point | Corrective action |
|--|---|--|
| Logging cannot be performed. (Logging data are improper.) | The access target CPU setting is not correct. | <ul style="list-style-type: none"> • Check the access target CPU setting. (Refer to Section 4.6.7) |
| | Tag setting is not correct. | <ul style="list-style-type: none"> • Check the tag setting. (Refer to Section 6.3.3) |
| | "Not execute" has been set in "Sampling" of the tag setting. | <ul style="list-style-type: none"> • Set "Execute" in "Sampling" of the tag setting. (Refer to Section 6.3.3) |
| | The logging setting is not correct. | <ul style="list-style-type: none"> • Check the logging setting. (Refer to Section 6.4.4) |
| | Storage area of the logging file has no free space. | <ul style="list-style-type: none"> • By FTP operation, delete unnecessary files to make a free area for logging files. (Section 6.7.1) • By the LOGDEL instruction, delete the saved logging files. (Refer to Section 8.6) |
| | The Compact Flash™ card has not been set. | <ul style="list-style-type: none"> • Set the Compact Flash™ card. (Refer to Section 4.9) |
| High speed logging cannot be performed. | The Compact Flash™ card has not been formatted. | <ul style="list-style-type: none"> • Format the Compact Flash™ card. (Refer to Section 6.10.4) |
| | "Sampling: Execute at high speed" was not selected in the tag setting. | <ul style="list-style-type: none"> • Select "Sampling: Execute at high speed" in the tag setting. (Refer to Section 6.3.3.) |
| | A "user setting system area" was not created in the control CPU of the Web server module. | <ul style="list-style-type: none"> • Create a user setting system area using GX Developer. (Refer to Section 6.3.3 <u>REMARKS</u>.) |

(7) Troubleshooting on e-mail

| Symptom | Check point | Corrective action |
|--------------------------|---|---|
| Address is not notified. | The address notification setting is not correct. | <ul style="list-style-type: none"> • Check the address notification setting. (Refer to Section 6.9.2) |
| | <ul style="list-style-type: none"> • Check whether e-mail can be sent to the specified destination with a commercial e-mail software. • Check whether a file can be transferred to the specified destination with commercial FTP client software. | <ul style="list-style-type: none"> • Contact the Internet service provider. • Contact the administrator of the FTP server. |
| | When "Notify the global IP address obtained from the router" was selected in the address notification setting, the router does not support UPnP. | <ul style="list-style-type: none"> • Use a UPnP-enabled router. • Select "Notify the following HTTP port number" in the address notification setting. (Refer to Section 6.9.2.) |
| E-mail is not sent. | The e-mail setting is not correct. | <ul style="list-style-type: none"> • Check the e-mail setting (period, colon, etc.). (Refer to Section 6.6.3) |
| | Check whether e-mail can be sent to the specified destination with commercial e-mail software. | <ul style="list-style-type: none"> • Contact the Internet service provider. |
| | The e-mail account is not correct. | <ul style="list-style-type: none"> • Check the e-mail account assigned by the Internet service provider. |
| | The programmable controller CPU has been powered on right after powered off. | <ul style="list-style-type: none"> • Power on the programmable controller a few minutes after power-off. |
| | The mail server of the Internet service provider requires POP authentication at e-mail transmission. (POP before SMTP) (*) *Contact the Internet service provider for the above. | <ul style="list-style-type: none"> • In the option setting of the e-mail setting, mark "POP before SMTP" check box and set the POP server name. (Refer to Section 6.6.3.) |
| Event is not notified. | The access target CPU setting is not correct. | <ul style="list-style-type: none"> • Check the access target CPU setting. (Refer to Section 4.6.7) |
| | The event setting is not correct. | <ul style="list-style-type: none"> • Check the event setting (condition, etc.). (Refer to Section 6.5.3) |
| | <ul style="list-style-type: none"> • Check whether e-mail can be sent to the specified destination with commercial e-mail software. • Check whether a file can be transferred to the specified destination with commercial FTP client software. | <ul style="list-style-type: none"> • Contact the Internet service provider. • Contact the administrator of the FTP server. |

(8) Troubleshooting on FTP

| Symptom | Check point | Corrective action |
|--|---|--|
| File cannot be transferred to the Web server module. | The Web server module is not connected to the network correctly. | <ul style="list-style-type: none"> Check the module status and network connection status of the Web server module. (Refer to (1), (2) in this section.) |
| File cannot be transferred from the Web server module. | The FTP server setting is not correct. | <ul style="list-style-type: none"> Check the FTP setting. (Refer to Section 6.7.3) |
| | Check whether a file can be transferred to the specified destination with commercial FTP client software. | <ul style="list-style-type: none"> Contact the administrator of the FTP server. |
| | The FTP account is not correct. | <ul style="list-style-type: none"> Check the FTP account assigned by the Internet service provider. |
| | The programmable controller CPU has been powered on right after powered off. | <ul style="list-style-type: none"> Power on the programmable controller a few minutes after power-off. |
| | When accessing by the Internet Explorer, the user authentication screen was not displayed. | <ul style="list-style-type: none"> Enter the Web server module address as follows: [ftp://<User name>:<Password>@<Web server module address or host name>/ (Example) In the case of factory setting: ftp://QJ71WS96.MITSUBISHI@192.168.3.3/ |
| 426 (Data connection error) error occurs during file transfer via FTP. | FTP transfer has been executed with many files specified at one time. | <ul style="list-style-type: none"> Reduce the number of files to be transferred at one time, and execute the FTP instruction again. |

(9) Troubleshooting on data management and Compact Flash™ card

| Symptom | Check point | Corrective action |
|--|--|--|
| Data cannot be backed up onto the Compact Flash™ card. | The Compact Flash™ card has not been formatted. | <ul style="list-style-type: none"> Format the Compact Flash™ card. |
| | The standard ROM or Compact Flash™ card is being accessed. | <ul style="list-style-type: none"> Wait until the access of the standard ROM or Compact Flash™ card is completed. |
| Data cannot be restored from the Compact Flash™ card. | The standard ROM or Compact Flash™ card is being accessed. | <ul style="list-style-type: none"> Wait until the access of the standard ROM or Compact Flash™ card is completed. |
| Compact Flash™ card cannot be formatted. | The Compact Flash™ card is being accessed. | <ul style="list-style-type: none"> Wait until the access of the Compact Flash™ card is completed. |

| Symptom | Check point | Corrective action |
|--|---|--|
| <p>The following occurs when accessing the Compact Flash™ card from a personal computer, etc.</p> <ul style="list-style-type: none"> The file size is displayed as 0 byte. Spaces are added to the end of the file data. A message of file error, file entry error or file size error is displayed and the file cannot be opened. | <p>Whether the power status is ON or OFF, the file access was not stopped before removing or replacing the Compact Flash™ card.</p> | <ul style="list-style-type: none"> Whether the power status is ON or OFF, be sure to execute the file access processing before removing or replacing the Compact Flash™ card. (Refer to Section 4.9) |
| | | <ul style="list-style-type: none"> Execute either of the following to restore the erroneous Compact Flash™ card. <ol style="list-style-type: none"> Set the erroneous Compact Flash™ card into the Web server module again. Execute the file access stop processing and remove the card. (Refer to Section 4.9) Use the chkdsk command at the command prompt of Microsoft® Windows® for restoration. |
| Files on Compact Flash™ card are cleared at power-off. | The Compact Flash™ card is an inapplicable type. | <ul style="list-style-type: none"> Change the Compact Flash™ card. |

(10) Troubleshooting on communication between Web server module and access target CPU

| Symptom | Check point | Corrective action |
|--|--|---|
| Access to other station cannot be made via Q series E71. | A remote password has been set to the GX Developer communication port (UDP/IP) of Q series E71 on the target or relay station. | <ul style="list-style-type: none"> Clear the remote password setting for the GX Developer communication port (UDP/IP) of Q series E71 on the target or relay station. |
| An error occurs when accessing a redundant CPU. | Access was made to the other station's redundant CPU. | <ul style="list-style-type: none"> Mount a Web server module on the extension base unit of the access target redundant CPU. Access to redundant CPUs on other stations is not allowed. |
| | Continuous system switching has occurred. | <ul style="list-style-type: none"> Modify the system so that continuous system switching will not occur. |

(11) Troubleshooting on file system

| Symptom | Check point | Corrective action |
|--|--|--|
| Web server module does not start up. | <ul style="list-style-type: none"> A battery error has occurred. (Refer to Section 4.10) During operation without battery, the programmable controller CPU was powered off with no shut-down operation performed. (Refer to Section 4.11) The battery was disconnected with no shut-down operation performed. (Refer to Section 4.12) | <ul style="list-style-type: none"> When a battery error occurs, replace the battery. Restore the data in the following procedure. <ol style="list-style-type: none"> Return the Web server module to the default status. (Refer to Section 4.13) Restore backup data. (Refer to Section 6.10) |
| Module READY (X0) does not turn on. | | |
| Logging data, user HTML, etc. are destroyed. | | |

9.2 Error Codes

This section explains the error code.

9.2.1 About error code

(1) Checking the ERR. LED on the front of the Web server module

Check the ERR. LED on the front panel of the Web server module for an error.

On : Module continue error has occurred.

Flicker : Module stop error has occurred.

(2) Checking the error code in "System monitor" of GX Developer
(Refer to Section 9.2.2)

When the ERR. LED turns on or flickers, check the error code in "System monitor" of GX Developer.

Confirm the error definition and take corrective action according to the error code.

Refer to Section 9.3 for the error code.

The error code can also be confirmed in the self-diagnostics monitor of the standard screen. (Refer to Section 6.2.6.)

(3) Identifying the erroneous part

Monitor the I/O signals (X11 to X19, X1C) to identify the erroneous part, and confirm the error code at the buffer memory address corresponding to the I/O signal.

| Input Signal | Erroneous part | Buffer memory | | Reference Section |
|--------------|---------------------------|--|-----------------------|-------------------|
| | | Error code storage location | Buffer memory address | |
| X11 | Tag collection error | Tag status area | 1000 to 1075 | Section 3.8.10 |
| X12 | Logging error | Logging status area | 2000 to 2267 | Section 3.8.11 |
| X13 | CPU event monitor error | CPU event monitor status area 1 *1 | 3300 to 3375 | Section 3.8.12 |
| X14 | Tag event monitor error | Tag event monitor status area 1 *2 | 10000 to 10447 | Section 3.8.14 |
| X15 | Time event monitor error | Time /Interval monitor status area | 3200 to 3217 | Section 3.8.16 |
| X16 | Access target CPU error | Access target CPU1 setting status area | 4000 to 4071 | Section 3.8.17 |
| X17 | E-mail transmission error | E-mail transmission status area | 5000 to 5984 | Section 3.8.18 |
| X18 | FTP transmission error | FTP client status (PUT) area | 6002 to 6553 | Section 3.8.20 |
| | | FTP client status (GET) area | 8002 to 8553 | Section 3.8.21 |
| X19 | Connection error | Connection error code | 30 | Section 3.8.2 |
| X1C | Other error | Error log area | 150 to 247 | Section 3.8.6 |

*1 The statuses of CPU event setting No. 1 to 16 are also stored into the CPU event status area 2 (buffer memory: 3000 to 3018). (Refer to Section 3.8.13.)

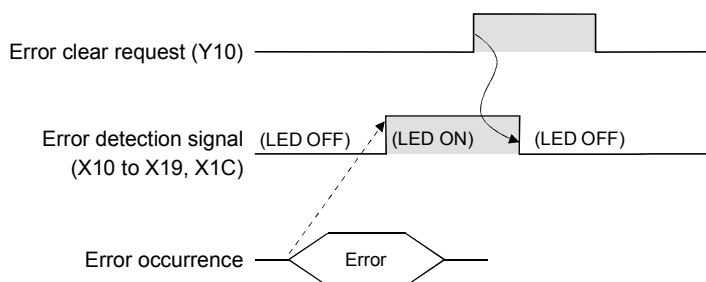
*2 The statuses of tag event setting No. 1 to 16 are also stored into the tag event status area 2 (buffer memory: 3100 to 3118). (Refer to Section 3.8.15.)

| |
|---------|
| REMARKS |
|---------|

How to turn off the ERR. LED is explained below.

- (1) Turning on Error clear request (Y10) during module continue error occurrence (while the ERR. LED is on) turns off the ERR. LED and turns off X10 to X19 and X1C. (*)

* During module stop error occurrence (while the ERR. LED is flickering), turning on Error clear request (Y10) does not turn off the ERR. LED.
In this case, power off the programmable controller and then on or reset the CPU module.



- (2) Turning on Error clear request (Y10) also clears the following areas.
- Current error area (address: 140 to 145) of the buffer memory.
 - Latest error code displayed in the system monitor of GX Developer (refer to Section 9.2.2)

9.2.2 System monitor

The Web server module status can be checked from the System monitor.

(1) Checking the module status and error code on the "Module's Detailed Information" screen of the diagnostics function

[Start-up procedure]

GX Developer → [Diagnostics] → [System monitor] → "Module's detailed information"

| Module's Detailed Information | | | |
|---|-----------------|---------------------------|--|
| Module | | | |
| Module Name | QJ71WS96 | Product information | 04122000000000 - B |
| I/O Address | 0 | | |
| Implementation Position | Main Base 0Slot | | |
| Module Information | | | |
| Module access | Possible | I/O Clear / Hold Settings | ---- |
| Status of External Power Supply | ---- | Noise Filter Setting | ---- |
| Fuse Status | ---- | Input Type | ---- |
| Status of I/O Address Verify | Agree | Remote password setting | ---- |
| Error Display | | | |
| No. | Error | Present Error | No Error |
| | | Error History | Display format: <input checked="" type="radio"/> HEX <input type="radio"/> DEC |
| The display sequence of the error history is from the oldest error. The latest error is displayed in the line as under. | | | |
| H/W Information... | | Start monitor | Stop monitor |
| | | Close | |

[Display details]

- Module

The following data are displayed.

Module name : Mounting module model name
 I/O address : Head I/O signal number of target module
 Implementation position : Slot position where the module is mounted
 Product information : Product information

* The end of the product information indicates the function version of the module.

The Web server module is available with function version B or later.
 (Example) "B" at the end indicates that the module is of function version B.

- Module access

Module access is displayed as possible when Watch dog timer error (X1F) is off.

- Status of I/O address verify

Whether the module set with parameters is consistent with the actually mounted module or not is displayed.

- Present error

The error code of the latest error is displayed.
 Refer to Section 9.3 for the error code.

- Error display

The error codes of the errors that has occurred is displayed.

(2) Checking the LED ON/OFF status and switch setting status on the "H/W Information screen" of the diagnostics function

[Start-up procedure]

GX Developer → [Diagnostics] → [System monitor] → "Module's detailed information" → "H/W information"

H/W Information

Module

Module Name QJ71WS96

Product information 05112000000000 - B

Display format

☒ HEX

☐ DEC

H/W LED Information

| Item | Value | Item | Value |
|------|-------|------|-------|
| RUN | 0001 | | |
| ERR. | 0000 | | |
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H/W SW Information

| Item | Value | Item | Value |
|------|-------|----------|-------|
| | | MODE | 0000 |
| | | OPTION | 0000 |
| | | TIME OUT | 0000 |
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Start monitor

Stop monitor

Close

[Display details]

The Web server module data stored in the following buffer memory areas are displayed.

| No. | Display | Corresponding Buffer Memory | Address |
|-----|---------------------|---|---------|
| 1 | H/W LED information | RUN LED status | 0 |
| 2 | left side | ERR. LED status | 1 |
| 1 | H/W SW information | Switch 1 status (Mode setting) | 2 |
| 2 | | Switch 2 status (Default operation setting/Battery error detection setting/Logging monitor setting) | 3 |
| 3 | | Switch 3 status (Response monitoring time setting) | 4 |

9.3 Error Code List

The error code list is indicated on subsequent pages.

[Error type]

The errors are divided into the following three types.

(1) Module stop error (Displayed as "Stop" in the table)

- (a) The ERR. LED flickers.
- (b) When a module stop error occurs, the following functions of the Web server module will stop.
 - 1) Monitoring function
 - 2) Tag function
 - 3) Logging function
 - 4) Event monitor function
 - 5) Dedicated instructionAccording to the error code, take corrective action for the error, and power the PLC off and then on or reset the CPU module.
- (c) The error code is stored into the buffer memory area corresponding to the erroneous part. Refer to Section 9.2 About error code.

(2) Module continue error (Displayed as "Continue" in the table)

- (a) The ERR. LED turns on.
- (b) When a module continue error occurs, the functions of the Web server module will be maintained.
Taking corrective action according to the error code will rectify the operation.
However, since the ERR. LED remains on, turn it off by Error clear request (Y10).
- (c) The error code is stored into the buffer memory area corresponding to the erroneous part. Refer to Section 9.2 About error code.

(3) Browser display/Dedicated instruction error (Displayed as "Display" in the table)

- (a) The ERR. LED does not turn on/flicker (does not change).
- (b) When a browser display/dedicated instruction error occurs, the functions of the Web server module will be maintained.
- (c) When a browser display/dedicated instruction error occurs, no error code is stored into the buffer memory.
 - 1) When a browser display/dedicated instruction error occurs due to the Web browser operation
The error code is displayed on the Web browser. (Displayed on the applet display screen, etc.)
 - 2) When a browser display/dedicated instruction error occurs due to the dedicated instruction
The error code is stored into Completion status.

Table Error Code List

| Error code | Error name | Error definition | Corrective action | Error type |
|------------|---------------------------------|---|---|------------|
| 0001h | System error | — | • System error (*1) | Continue |
| 0002h | Response time-out error | No response from the external station. | <ul style="list-style-type: none"> • Check the access target CPU setting. (Refer to Section 4.6.7) • Check the communication cable status and access target CPU status. | Continue |
| 0041h | System error | — | • System error (*1) | Continue |
| 0042h | | | | |
| 0043h | | | | |
| 0044h | | | | |
| 0045h | Processing code error | An unsupported processing code was issued. | • Check the CPU in the access path. | Continue |
| 0046h | Station No. specification error | The specified station No. is incorrect. | • Check the station No. setting in the access target CPU setting. (Refer to Section 4.6.7) | Continue |
| 0047h | Receive data error | Data are not received. | • Check the CPU in the access path. | Continue |
| 0048h | System error | — | • System error (*1) | Continue |
| 0049h | | | | |
| 004Dh | | | | |
| 004Eh | | | | |
| 0050h | | | | |
| 0051h | | | | |
| 0055h | Channel number error | The Ethernet module is set so that its write is disabled at RUN time. | • Check the Ethernet module setting of the target CPU. | Continue |
| 0064h | System error | — | • System error (*1) | Continue |
| 0065h | Routing parameter error | No routing parameters are set. | • Set routing parameters to the CC-Link IE controller network, MELSECNET/H, and/or MELSECNET/10 module(s). | Continue |
| 0066h | Data send error | Failed to send data. | • Check the CPU in the access path. | Continue |
| 0067h | Data receive error | Failed to receive data. | • Check the CPU in the access path. | Continue |
| 0080h | Read size error | The read size is abnormal. | • Check the CPU in the access path. | Continue |
| 0081h | Device type error | The specified device type is invalid. | • Check the device type entered in device monitor or component setting. | Continue |
| 0082h | Device number error | The specified device number is outside the range. | • Check the device No. entered in device monitor or component setting. | Continue |

(Continued on the next page)

(From the previous page)

| Error code | Error name | Error definition | Corrective action | Error type |
|------------|---|--|--|------------|
| 0083h | Device point error | The number of device points is abnormal. | • Check the CPU in the access path. | Continue |
| 0084h | Write size error | The write size is abnormal. | • Check the CPU in the access path. | Continue |
| 0085h | Link parameter error | The link parameters are destroyed. | • Re-set the link parameters for programmable controller CPUs on the access route. | Continue |
| 0087h | System error | — | • System error (*1) | Continue |
| 0088h | | | | |
| 0089h | | | | |
| 00D2h | RUN time disable error | A request disabled during RUN time was issued. | • Check the CPU in the access path. | Continue |
| 00D4h | System error | — | • System error (*1) | Continue |
| 00D7h | Receive data length error | The receive data length or byte length is outside the range. | • Check the cables connected on the access route. | Continue |
| 00D8h | Protocol error | The communication procedure is improper. | • Check the cables connected on the access route. | Continue |
| 00D9h | Address error | The address is abnormal. | • Check the CPU in the access path. | Continue |
| 00DBh | Write error | Data cannot be written. | • Check the CPU in the access path. | Continue |
| 00E0h | Station No. error | The specified station No. does not exist. | • Check the station No. setting in the access target CPU setting. (Refer to Section 4.6.7) | Continue |
| 00E1h | Processing mode error | A request invalid for the access target CPU was sent. | • Check "PLC series" in the access target CPU setting. (Refer to Section 4.6.7) | Continue |
| 00E2h | Intelligent function module specification error | The specified intelligent (special) function module is faulty. | • Check the "U□□G□" of the buffer memory specified in Device monitor or Component setting. | Continue |
| 00E3h | Other data error | Request data is erroneous. | • Check the CPU in the access path. | Continue |
| 00E4h | Link specification error | The request sent to the link module on the access route is invalid. (Unsupported access route) | • Review the access route referring to the accessible range. (Refer to Appendix 2) | Continue |
| 00E8h | System error | — | • System error (*1) | Continue |
| 00E9h | Link time-out | The link interruption has occurred at the access target during processing. | • Make the module return to the link on the access route. | Continue |

(Continued on the next page)

(From the previous page)

| Error code | Error name | Error definition | Corrective action | Error type |
|------------|-----------------------------|--|---|------------|
| 00EAh | Special module BUSY | The receive buffer of the access target is full or is not ready for reception. | <ul style="list-style-type: none"> Check the hardware of the intelligent (special) function module. | Continue |
| 00ECh | Access target BUSY | The receive buffer of the access target is full or is not ready for reception. | <ul style="list-style-type: none"> Check the access target. | Continue |
| 00F0h | Link error | The request was sent to a link-stopped station. | <ul style="list-style-type: none"> Make the module return to the link on the access route. | Continue |
| 00F1h | Special module bus error | The specified intelligent (special) function module is not ready for processing. | <ul style="list-style-type: none"> Check the hardware of the intelligent (special) function module. | Continue |
| 00F2h | Special module time-out | No response from the specified intelligent (special) function module. | <ul style="list-style-type: none"> Check the hardware of the intelligent (special) function module. | Continue |
| 0100h | System Error | — | <ul style="list-style-type: none"> System Error (*1) | Stop |
| 0101h | | | | |
| 0102h | | | | |
| 0110h | | | | |
| 0112h | | | | |
| 0180h | Switch setting error | A switch setting error was detected in the hardware test. | <ul style="list-style-type: none"> Check the switch setting. (Refer to Section 4.7) Perform the hardware test again. (*2) | Stop |
| 0181h | ROM check sum error | A ROM error was detected in the hardware test. | <ul style="list-style-type: none"> Perform the hardware test again. (*2) | Stop |
| 0182h | RAM test error | A RAM error was detected in the hardware test. | <ul style="list-style-type: none"> Perform the hardware test again. (*2) | Stop |
| 0188h | CH2 overrun error | An error occurred in the CH2 self-loopback test. | <ul style="list-style-type: none"> Check the wiring Hardware fault (*3) | Stop |
| 0189h | CH2 parity error | | | |
| 018Ah | CH2 framing error | | | |
| 018Bh | CH2 time-out error | | | |
| 018Ch | CH2 data error | | | |
| 0190h | CH1 time-out error | An error occurred in the CH1 self-loopback test. | <ul style="list-style-type: none"> Hardware fault (*3) | Stop |
| 0191h | CH1 communication error | | | |
| 0192h | CH1 comparison error | | | |
| 0193h | CH1 in-frame position error | | | |
| 0200h | System error | — | <ul style="list-style-type: none"> System error (*1) | Stop |
| 0201h | | | | |
| 0202h | | | | |
| 0203h | | | | |
| 0210h | | | | |
| 0300h | | | | |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|----------------------------------|--|---|------------|
| 0301h | System setting file read error | Failed to read the system setting file. (The setting file is destroyed.) | <ul style="list-style-type: none"> After initialization of the module is complete (Refer to Section 4.13), make the system setting (refer to Section 4.6.3). | Stop |
| 0302h | Dial-up setting file read error | Failed to read the dial-up setting file. (The setting file is destroyed.) | <ul style="list-style-type: none"> After initialization of the module is complete (refer to Section 4.13), make the dial-up setting (Refer to Section 4.6.4). | Stop |
| 0303h | PPP negotiation error | Failed in authentication at the time of dial-up connection. | <ul style="list-style-type: none"> Check the dial-up setting (whether the user name and password are correct). (Refer to Section 4.6.4) Check the power supply of the modem, cable and line status. Check the system setting (whether "Obtain an IP address automatically." has been selected). (Refer to Section 4.6.3) | Continue |
| 0304h | DHCP parameter acquisition error | Failed to obtain the network parameter data from the DHCP server when "Obtain an IP address automatically." is set for LAN connection. | <ul style="list-style-type: none"> Check the status of connection with the DHCP server. Check the cable. Check the DHCP server setting. | Continue |
| 0305h | System error | — | <ul style="list-style-type: none"> System error (*1) | Stop |
| 0306h | | | | Continue |
| 0307h | | | | Continue |
| 0308h | | | | Continue |
| 0310h | Modem initialization error | Failed to issue AT command for modem initialization, at the time of dial-up connection. | <ul style="list-style-type: none"> Check the power supply of the modem and cable status. Check the dial-up setting (whether the communication speed matches the modem specifications). (Refer to Section 4.6.4) | Continue |
| 0311h | Addition command error | Failed to issue the Additional command (AT command) at the time of dial-up connection. | <ul style="list-style-type: none"> Check whether the additional command set in "AT command additional setting" of the dial-up setting is applicable to the modem to be used. (Refer to Section 4.6.4) | Continue |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|----------------------------|---|---|------------|
| 0312h | Flow control command error | The modem is not compatible with the flow control command. | <ul style="list-style-type: none"> Replace the modem with the one that is compatible with the flow control command. (Refer to Section 4.6.4 (6)) Set the flow control command in "AT command additional setting" of the dial-up setting. (Refer to Section 4.6.4) | Continue |
| 0313h | Dial pause command error | The modem is not compatible with the dial pause command. | <ul style="list-style-type: none"> Replace the modem with the one that is compatible with the dial pause command. (Refer to Section 4.6.4 (6)) Set the dial pause command in "AT command additional setting" of the dial-up setting. (Refer to Section 4.6.4) | Continue |
| 0314h | Dial-up error | Failed to establish dial-up connection. | <ul style="list-style-type: none"> Check the power supply of the modem, cable and line status. Check the dial-up setting (whether the access point and dial pause time are correct). (Refer to Section 4.6.4) | Continue |
| 0315h | CALL connection error | Failed to connect the line by CALL function. | <ul style="list-style-type: none"> Check the power supply of the modem, cable and line status. Check the dial-up setting (whether the access point, user name and password are correct). (Refer to Section 4.6.4) Check the system setting (whether "Obtain an IP address automatically." is selected). (Refer to Section 4.6.3) | Continue |
| 0316h | Line disconnection error | The line was disrupted unexpectedly. (due to cable breakage, power-off of the modem or line disruption by the service provider) | <ul style="list-style-type: none"> Check the power supply of the modem, cable and line status. | Continue |
| 0317h | Modem DR signal error | The DR signal of the modem turned off. | <ul style="list-style-type: none"> Check the power supply of the modem and cable status. | Continue |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|----------------------------------|--|--|------------|
| 0318h | Access point specification error | The phone number of the access point has not specified. | <ul style="list-style-type: none"> Input the phone number in "Access point" of the dial-up setting and try to connect again. (Refer to Section 4.6.4) | Continue |
| 0319h | Network reconnection error | Failed to reconnect the line in the case of unexpected line disruption. | <ul style="list-style-type: none"> Check the power supply of the modem, cable and line status. | Continue |
| | | Failed to automatically update the lease period of the IP address obtained from the DHCP server. | <ul style="list-style-type: none"> Check the cable and DHCP server status (start-up status, whether the assigned IP address is reserved). | |
| 031Ah | Network diagnosis error | Failed to run network diagnostics (ping transmission). | <ul style="list-style-type: none"> Check the cable and external device status. Check whether the transmission destination is correct or not in the "Network diagnosis setting" of the system setting. (Refer to Section 4.6.3.) | Continue |
| 0320h | PPPoE negotiation error | Failed in authentication at the time of ADSL connection. | <ul style="list-style-type: none"> Check the dial-up setting. (Refer to Section 4.6.4) Check the power supply of the modem, cable and line status. If ADSL disconnection has not correctly processed due to the unexpected cause such as power-off or cable disconnection, make sure to increase the connection time interval by 5 minutes or more. | Continue |
| 0321h | System error | — | <ul style="list-style-type: none"> System error (*1) | Stop |
| 0322h | | | | |
| 0323h | | | | |
| 0330h | | | | |
| 0340h | UPnP communication timeout | Timeout occurred in the communication with the UPnP router. | <ul style="list-style-type: none"> Check whether the UPnP router is powered on. Check the cable connected to up to the UPnP router. Confirm that the router supports UPnP. Power on the Web server module when the UPnP router is ready. | Continue |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|-------------------------------|---|---|------------|
| 0341h | UPnP router detection fault | Failed to detect the UPnP router. | <ul style="list-style-type: none"> • Check whether the UPnP router is powered on. • Check the cable connected to up to the UPnP router. • Confirm that the router supports UPnP. | Continue |
| 0342h | UPnP faulty response detected | An error response was received from the UPnP router. | <ul style="list-style-type: none"> • Check whether the UPnP router is connected to WAN (Internet). • Power on the Web server module when the UPnP router is ready. | Continue |
| 034Fh | System error | — | • System error (*1) | Stop |
| 0360h | IP filter setting file fault | The IP filter setting file does not exist or is corrupted. | • After initializing the module (refer to Section 4.13), make IP filter setting (refer to Section 4.6.6) again. | Stop |
| 0361h | System error | — | • System error (*1) | Stop |
| 0400h | Standard ROM format error | Data cannot be written to the standard ROM. (The standard ROM has no free space.) | • Delete unnecessary files by FTP operation and re-execute. (Refer to Section 6.7) | Continue |
| 0401h | System error | — | • System error (*1) | Stop |
| 0402h | | | | |
| 0430h | CF card absence error | The CF card has not been set. | • Set the CF card and re-execute. | Display |
| 0431h | CSV export error | The CF card does not have sufficient free space or is corrupted. | • Delete unnecessary files on the CF card, or set another CF card and execute CSV export again. (Refer to Section 6.10.4.) | Display |
| 0432h | Import file error | There are not all CSV files necessary for import, or there is a file that cannot be read. | • Add the file displayed in Status on the data management screen, and execute CSV import again. (Refer to Section 6.10.4.) | Display |
| 0433h | Label error | The label that must be set does not exist. | • Add a necessary label to the file displayed in Status on the data management screen, and execute CSV import again. (Refer to Section 6.10.4, Appendix 6.) | Display |
| 0435h | Out of range error | The item value is outside the setting range or the item does not exist. | • Check the item of the file displayed in Status on the data management screen, and execute CSV import again. (Refer to Section 6.10.4, Appendix 6.) | Display |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|-----------------------------------|---|---|------------|
| 0436h | Reference error | The setting referred to by the item value does not exist. | <ul style="list-style-type: none"> Check the item of the file displayed in Status on the data management screen, and execute CSV import again. (Refer to Section 6.10.4, Appendix 6.) | Display |
| 0437h | Duplicate label error | The same labels exist. | <ul style="list-style-type: none"> Check the label of the file displayed in Status on the data management screen, and execute CSV import again. (Refer to Section 6.10.4, Appendix 6.) | Display |
| 0438h | Component type error | A string type component was specified in the tag event setting. | <ul style="list-style-type: none"> Check the contents of TAGEVT.CSV and execute CSV import again. (Refer to Section 6.10.4, Appendix 6.6) | Display |
| 0480h | CF card initialization error | The CF card cannot be initialized. | <ul style="list-style-type: none"> Check whether the CF card has been set securely. (Refer to Section 4.9) Replace the CF card. | Continue |
| 0481h | CF card drive data retrieve error | The drive data of the CF card cannot be read. | <ul style="list-style-type: none"> Check whether the CF card has been set securely. (Refer to Section 4.9) Replace the CF card. | Continue |
| 0490h | System error | — | <ul style="list-style-type: none"> System error (*1) | Stop |
| 0491h | | | | |
| 0492h | | | | |
| 0493h | | | | |
| 0494h | CF card format error | Failed to format the CF card. | <ul style="list-style-type: none"> Check whether the CF card is set securely. (Refer to Section 4.9) Check the CF card for a fault. (Perform disk check and formatting on the personal computer.) | Display |
| 0495h | CF card check error | Failed to check the CF card. | <ul style="list-style-type: none"> Check whether the CF card is faulty. (Execute Check disk or format on the personal computer, etc.) | Display |
| 0496h | CF card response error | A time-out occurred during waiting for a response from the CF card when access was made to the CF card. (CF card failure) | <ul style="list-style-type: none"> Replace the CF card. | Continue |

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| Error code | Error name | Error definition | Corrective action | Error type |
|----------------|------------------------------|---|---|------------|
| 04A0h to 04AFh | Backup error | An error occurred during execution of "backup" of the data management. The lower 4 bits indicate the data where the error occurred. Bit0: Setting information Bit1: Logging Data Bit2: User HTML Bit3: Event history | <ul style="list-style-type: none"> • Check the free space of the CF card. • Check whether the CF card is set securely. (Refer to Section 4.9) • Check the CF card for a fault. (Perform disk check and formatting on the personal computer.) | Display |
| 04B0h to 04BFh | Restore error | An error occurred during execution of "restore" for the data management. The lower 4 bits indicate the data where the error occurred. Bit0: Setting information Bit1: Logging Data Bit2: User HTML Bit3: Event history | <ul style="list-style-type: none"> • Check that the backup data exists in the "backup" folder of the CF card. • Check whether the CF card is set securely. (Refer to Section 4.9) • Check the CF card for a fault. (Perform disk check and formatting on the personal computer.) | Display |
| 04C0h | Restore file structure error | The setting information file structure of the restore source CF card is not correct. An attempt was made to restore the backup data of a new version. | <ul style="list-style-type: none"> • Use the CF card backed up correctly. (Refer to Section 6.10.) • Confirm the serial No. of the module. (Refer to Appendix 5.2.) | Display |
| 04C1h | Data management operating | Before the processing being executed in the data management was completed, the next processing was executed. | <ul style="list-style-type: none"> • After confirming that the processing being executed is completed in "Status" of the data management, execute the next processing. (Refer to Section 6.10.4) | Display |
| 04D0h | Battery error | A battery voltage has been dropped or battery connector is disconnected. | <ul style="list-style-type: none"> • Replace the battery. (Refer to Section 4.10.3) • Check the connection status of the battery. (Refer to Section 4.10) | Continue |
| 0500h | System error | — | <ul style="list-style-type: none"> • System error (*1) | Stop |
| 0501h | | | | Stop |
| | | | | Continue |
| 0502h | APS mismatch | The request packet and the response packet are mismatched in APS. | <ul style="list-style-type: none"> • Retry to send the data. | Continue |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|-----------------------------|---|---|------------|
| 0600h | Tag non-setting error | At start-up or setting update, the following was detected. <ul style="list-style-type: none"> • The tag name with no setting was specified in the logging setting or tag event setting. • The tag name specified in the logging setting or tag event setting was deleted. | <ul style="list-style-type: none"> • Specify the tag name set in the tag setting, or make the tag setting. (refer to Section 6.3.3) | Stop |
| | | At other than a start or setting update, the following was detected. <ul style="list-style-type: none"> • The tag name with no setting was specified in the logging setting or tag event setting. • The tag name specified in the logging setting or tag event setting was deleted. | | Display |
| 0601h | Component non-setting error | The component name with no setting was specified in the tag event setting, or the component name specified in the tag event setting was deleted. | <ul style="list-style-type: none"> • Specify the component name set in the component setting, or make the component setting. (refer to Section 6.3.3) | Display |
| 0602h | Logging non-setting error | The logging with no setting was specified for the Web browser or dedicated instruction. | <ul style="list-style-type: none"> • Specify the logging preset in the logging setting. (refer to Section 6.4.4) | Display |
| 0603h | Tag non-sampling error | Though tag data monitor or logging was performed, the target tag was not sampled. | <ul style="list-style-type: none"> • Execute again after a while. • Select "Execute" in Sampling of the tag setting. (Refer to Section 6.3.3) | Display |
| 0604h | Tag setting file error | The tag setting file is missing or destroyed. | <ul style="list-style-type: none"> • After initializing the module (refer to Section 4.13), make the tag setting (refer to Section 6.3.3) again. | Stop |
| 0605h | Logging setting file error | The logging setting file is missing or destroyed. | <ul style="list-style-type: none"> • After initializing the module (refer to Section 4.13), make the logging setting (refer to Section 6.4.4) again. | Stop |
| 0606h | Event setting file error | The event setting file is missing or destroyed. | <ul style="list-style-type: none"> • After initializing the module (refer to Section 4.12), make the event setting (refer to Section 6.5.3) again. | Stop |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|--------------------------------------|--|---|------------|
| 0607h | Access target CPU setting file error | The access target CPU setting file is missing or destroyed. | <ul style="list-style-type: none"> After initializing the module (refer to Section 4.13), make the access target CPU setting (refer to Section 4.6.7) again. | Stop |
| 0609h | Component setting error | Bits were specified for a word device in the component setting. | <ul style="list-style-type: none"> Check the component setting. (Refer to Section 6.3.3) | Stop |
| 060Ah | Component device error | The device name specified in the component setting is incorrect, or an unusable device was specified. | <ul style="list-style-type: none"> Check the device of the component setting. (Refer to Section 6.3.3) | Stop |
| 060Bh | Logging setting error | The logging setting file is destroyed. | <ul style="list-style-type: none"> After initializing the module (refer to Section 4.13), perform the logging setting (refer to Section 6.4.5) again. | Stop |
| 060Dh | CPU event setting error | The event setting file is destroyed. | <ul style="list-style-type: none"> After initializing the module (refer to Section 4.13), perform the CPU event setting (refer to Section 6.5.3) again. | Stop |
| 060Eh | Tag event setting error | The event setting file is destroyed. | <ul style="list-style-type: none"> After initializing the module (refer to Section 4.13), perform the tag event setting (refer to Section 6.5.3) again. | Stop |
| 060Fh | Time/Interval event setting error | The event setting file is destroyed. | <ul style="list-style-type: none"> After initializing the module (refer to Section 4.13), perform the time/interval event setting (refer to Section 6.5.3) again. | Stop |
| 0610h | Access target CPU setting error | The data of the network path of the access target CPU setting is destroyed. | <ul style="list-style-type: none"> After initializing the module (refer to Section 4.13), perform the access target CPU setting (refer to Section 4.6.7) again. | Stop |
| 0611h | File open error | At start-up or setting update, the following was detected. <ul style="list-style-type: none"> Failed to open the logging file or event history file. | <ul style="list-style-type: none"> By FTP operation (refer to Section 6.7), delete unnecessary files to secure a free space in the standard ROM. Check the CF card. (Refer to Section 9.1 (9).) | Stop |
| | | At other than start-up or setting update, the following was detected. <ul style="list-style-type: none"> Failed to open the logging file or event history file. | | Continue |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|---|--|--|------------|
| 0612h | File creation error | At start-up or setting update, the following was detected. • Failed to create a file. | <ul style="list-style-type: none"> By FTP operation (refer to Section 6.7), delete unnecessary files to secure a free space in the standard ROM or CF card. Check the CF card. (Refer to Section 9.1 (9).) | Stop |
| | | At other than start-up or setting update, the following was detected. • Failed to create a file. | | Continue |
| 0613h | File write error | At start-up or setting update, the following was detected. • Failed to write a file. | <ul style="list-style-type: none"> By FTP operation (refer to Section 6.7), delete unnecessary files to secure a free space in the standard ROM or CF card. Check the CF card. (Refer to Section 9.1 (9).) | Stop |
| | | At other than start-up or setting update, the following was detected. • Failed to write a file. | | Continue |
| 0614h | Directory creation error | At start-up or setting update, the following was detected. • Failed to create a directory. | <ul style="list-style-type: none"> By FTP operation (refer to Section 6.7), delete unnecessary files to secure a free space in the standard ROM or CF card. Check the CF card. (Refer to Section 9.1 (9).) | Stop |
| | | At other than start-up or setting update, the following was detected. • Failed to create a directory. | | Continue |
| 0615h | Excessive number of saved logging files error | At start-up or setting update, the following was detected. • When "When the number of saved files exceeds the above set value: Stop" has been set in the logging setting, logging was stopped since the set number of saved files was reached. | <ul style="list-style-type: none"> Delete logging files by FTP operation (refer to Section 6.7) or LOGDEL instruction (refer to Section 8.7). | Stop |
| | | At other than start-up or setting update, the following was detected. • When "When the number of saved files exceeds the above set value: Stop" has been set in the logging setting, logging was stopped since the set number of saved files was reached. | | Continue |
| 0616h | Send queue error | The queue for e-mail or FTP transmission has become full. | <ul style="list-style-type: none"> Reduce the frequency of e-mail or FTP transmission. | Continue |
| 0617h | Module stop error | Processing is not available since a module stop error is on. | <ul style="list-style-type: none"> Remove causes of the module stop error and reset the CPU module. | Stop |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|-------------------------------|--|---|------------|
| 0618h | Setting update time-out error | Since the module load is too high the time for setting update ran out. | <ul style="list-style-type: none"> • Update the setting again. • Reduce the load for tag/logging/event monitor function and reset the CPU module. | Display |
| 0619h | Device name error | The device name specified in the device monitor or device test is faulty or that of an unusable device. | <ul style="list-style-type: none"> • Refer to the accessible device list and enter the device name. (Refer to Appendix 2) | Display |
| 0620h | File access stopped error | At start-up or setting update, the following was detected. <ul style="list-style-type: none"> • Operation involving file writing was attempted during file access stop. | <ul style="list-style-type: none"> • Turn on File access stop cancel request (Y3), and execute again after File access status (X2) has turned off. (Refer to Section 3.6.2 (X2)) | Stop |
| | | At other than start-up or setting update, the following was detected in the logging function, event monitor function or dedicated instruction. <ul style="list-style-type: none"> • Operation involving file writing was attempted during file access stop. | | Continue |
| | | At other than start-up or setting update, the following was detected in the dedicated instruction. <ul style="list-style-type: none"> • Operation involving file writing was attempted during file access stop. | | Display |
| 0621h | No CF card error | At start-up or setting update, the following was detected. <ul style="list-style-type: none"> • Accessing the CF card was attempted with no CF card set. | <ul style="list-style-type: none"> • Execute after setting the CF card. (Refer to Section 4.9) | Stop |
| | | At other than start-up or setting update, the following was detected in the logging function or dedicated instruction. <ul style="list-style-type: none"> • Accessing the CF card was attempted with no CF card set. | | Continue |
| | | At other than start-up or setting update, the following was detected in the dedicated instruction, or user display parts. <ul style="list-style-type: none"> • Accessing the CF card was attempted with no CF card set. | | Display |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|---------------------------|--|---|------------|
| 0622h | Unformatted CF card error | At start-up or setting update, the following was detected. • Accessing an unformatted CF card was attempted. | • Execute after formatting the CF card. (Refer to Section 6.10) | Stop |
| | | At other than start-up or setting update, the following was detected in the logging function, dedicated instruction or user parts. • Accessing an unformatted CF card was attempted. | | Continue |
| | | At other than start-up or setting update, the following was detected in the dedicated instruction, or user parts. • Accessing an unformatted CF card was attempted. | | Display |
| 0623h | CF card formatting ... | At start-up or setting update, the following was detected. • Accessing the CF card was attempted during CF card formatting. | • Execute after formatting the CF card. (Refer to Section 6.10) | Stop |
| | | At other than start-up or setting update, the following was detected in the logging function or dedicated instruction. • Accessing the CF card was attempted during CF card formatting. | | Continue |
| | | At other than start-up or setting update, the following was detected in the dedicated instruction, or user parts. • Accessing the CF card was attempted during CF card formatting. | | Display |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|----------------------------|--|---|------------|
| 0624h | Backing up ... | At start-up or setting update, the following was detected. • File access was attempted during "backup" in Data management. | • Execute after confirming completion of backup in "Status" of Data management. (Refer to Section 6.10.4) | Stop |
| | | At other than start-up or setting update, the following was detected in the logging function or dedicated instruction. • File access was attempted during "backup" in Data management. | | Continue |
| | | At other than start-up or setting update, the following was detected in the dedicated instruction, or user parts. • File access was attempted during "backup" in Data management. | | Display |
| 0625h | Restoring ... | At start-up or setting update, the following was detected. • File access was attempted during "restore" in Data management. | • Execute after confirming completion of restoration in "Status" of Data management. (Refer to Section 6.10.4) | Stop |
| | | At other than start-up or setting update, the following was detected in the logging function or dedicated instruction. • File access was attempted during "restore" in Data management. | | Continue |
| | | At other than start-up or setting update, the following was detected in the dedicated instruction, or user parts. • File access was attempted during "restore" in Data management. | | Display |
| 0626h | Multiple CPU setting error | Invalid setting was made in "Multiple CPU specification" of the access target CPU setting. | • Check the access target CPU setting. (Refer to Section 4.6.7) | Stop |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|--|---|--|------------|
| 0627h | Network communication route error | The network No., start I/O address, or station No. set in "Network communication route" of the access target CPU setting is outside the range. | <ul style="list-style-type: none"> Check the access target CPU setting. (Refer to Section 4.6.7) | Stop |
| 0628h | Tag sampling interval setting error | Invalid setting was made in "Sampling Interval" of the tag setting. | <ul style="list-style-type: none"> Check the tag setting. (Refer to Section 6.3.3) | Stop |
| 0629h | Update-before-logging setting error | Invalid setting was made in "Update before logging" of the tag setting, or the tag setting file is destroyed. | <ul style="list-style-type: none"> After initializing the module (refer to Section 4.13), perform the tag setting (refer to Section 6.3.3) again. | Stop |
| 062Ah | Data write setting error | Invalid setting was made in "Data write" of the tag setting, or the tag setting file is destroyed. | <ul style="list-style-type: none"> After initializing the module (refer to Section 4.13), perform the tag setting (refer to Section 6.3.3) again. | Stop |
| 062Bh | File name setting error | Invalid setting was made in "File name" of the logging setting. | <ul style="list-style-type: none"> Check the logging setting. (Refer to Section 6.4.4) | Stop |
| 062Ch | Component setting error | Invalid setting was made in "Component setting" of the tag setting, or the tag setting file is destroyed. | <ul style="list-style-type: none"> After initializing the module (refer to Section 4.13), perform the tag setting (refer to Section 6.3.3) again. | Stop |
| 062Dh | No CPU specification error | The access target CPU specified in the component setting does not exist, or the access target CPU has been deleted. | <ul style="list-style-type: none"> Specify the existing access target CPU. | Stop |
| 062Eh | Data type incorrect error | The device specified in the component setting is not consistent with the data type. (A device other than a bit device was specified as a bit device or vice versa.) | <ul style="list-style-type: none"> Check the component setting. (Refer to Section 6.3.3) | Stop |
| 062Fh | Excessive number of characters error | The number of characters specified in the component setting is outside the range. | <ul style="list-style-type: none"> Check the component setting. (Refer to Section 6.3.3) | Stop |
| 0630h | Decimal/Exponential form setting error | Invalid setting was made in "Display form" of the component setting. | <ul style="list-style-type: none"> Check the component setting. (Refer to Section 6.3.3) | Stop |
| 0631h | Operation setting error | Invalid setting was made in "Operator/Operand" of the component setting. | <ul style="list-style-type: none"> Check the component setting. (Refer to Section 6.3.3) | Stop |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|--|---|--|------------|
| 0632h | Logging specification error | Invalid setting was made in "Timing" of the logging setting, or the logging setting file is destroyed. | <ul style="list-style-type: none"> After initializing the module (refer to Section 4.13), perform the logging setting (refer to Section 6.4.4) again. | Stop |
| 0633h | Logging time setting error | Invalid setting was made in "Time/Interval specification" of the logging setting. | <ul style="list-style-type: none"> Check the logging setting. (Refer to Section 6.4.4) | Stop |
| 0634h | Logging storage setting error | Invalid setting was made in "Save in" of the logging setting, or the logging setting file is destroyed. | <ul style="list-style-type: none"> After initializing the module (refer to Section 4.13), perform the logging setting (refer to Section 6.4.4) again. | Stop |
| 0635h | Logging capacity setting error | Invalid setting was made in "File capacity" of the logging setting. | <ul style="list-style-type: none"> Check the logging setting. (Refer to Section 6.4.4) | Stop |
| 0636h | Number of saved files setting error | Invalid setting was made in "No. of saved files" of the logging setting. | <ul style="list-style-type: none"> Check the logging setting. (Refer to Section 6.4.4) | Stop |
| 0637h | CPU event historical data number error | Invalid setting was made in "No. of CPU event historical data" of the event setting. | <ul style="list-style-type: none"> Check the event setting (Common setting). (Refer to Section 6.5.3) | Stop |
| 0638h | Tag event historical data number error | Invalid setting was made in "No. of tag event historical data" of the event setting. | <ul style="list-style-type: none"> Check the event setting (Common setting). (Refer to Section 6.5.3) | Stop |
| 0639h | Time/Interval monitor historical data number error | Invalid setting was made in "No. of time/interval event historical data" of the event setting. | <ul style="list-style-type: none"> Check the event setting (Common setting). (Refer to Section 6.5.3) | Stop |
| 063Ah | No specified CPU error | The access target CPU specified in the CPU event setting does not exist, or the access target CPU has been deleted. | <ul style="list-style-type: none"> Specify the existing access target CPU. | Stop |
| 063Bh | CPU event interval setting error | Invalid setting was made in "Interval" of the CPU event setting. | <ul style="list-style-type: none"> Check the CPU event setting. (Refer to Section 6.5.3) | Stop |
| 063Ch | CPU event condition setting error | Invalid setting was made in "Condition" of the CPU event setting, or the event setting file is destroyed. | <ul style="list-style-type: none"> After initializing the module (refer to Section 4.13), perform the event setting (refer to Section 6.5.3) again. | Stop |
| 063Dh | CPU event monitor attached file error | Invalid setting was made in "Attached file" of the CPU event setting. | <ul style="list-style-type: none"> Check the CPU event setting. (Refer to Section 6.5.3) | Stop |
| 063Eh | Tag event monitor tag non-setting error | The tag specified in "Tag name" of the tag event setting does not exist. | <ul style="list-style-type: none"> Check the tag event setting. (Refer to Section 6.5.3) | Stop |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|---|---|--|------------|
| 063Fh | Tag event monitor component non-setting error | The component specified in "Component name" of the tag event setting does not exist. | <ul style="list-style-type: none"> Check the tag event setting. (Refer to Section 6.5.3) | Stop |
| 0640h | Tag event monitor component type error | The data type of the component specified in "Component name" of the tag event setting is a string type. | <ul style="list-style-type: none"> Check the tag event setting. (Refer to Section 6.5.3) | Stop |
| 0641h | Tag event condition setting error | Invalid setting was made in "Condition" of the tag event setting, or the event setting file is destroyed. | <ul style="list-style-type: none"> After initializing the module (refer to Section 4.13), perform the event setting (refer to Section 6.5.3) again. | Stop |
| 0642h | Tag event monitor attached file error | Invalid setting was made in "Attached file" of the tag event setting. | <ul style="list-style-type: none"> Check the tag event setting. (Refer to Section 6.5.3) | Stop |
| 0643h | Time/Interval event monitor time setting error | Invalid setting was made in "Time/Interval" of the time/interval event setting. | <ul style="list-style-type: none"> Check the time/interval event setting. (Refer to Section 6.5.3) | Stop |
| 0644h | Time/Interval event monitor attached file error | Invalid setting was made in "Attached file" of the time/interval event setting. | <ul style="list-style-type: none"> Check the time/interval event setting. (Refer to Section 6.5.3) | Stop |
| 0645h | CPU event e-mail setting error | Though the e-mail setting was made in the CPU event setting, the destination was not specified in the common setting. | <ul style="list-style-type: none"> Check the CPU event setting. (Refer to Section 6.5.3) | Stop |
| 0646h | Tag event e-mail setting error | Though the e-mail setting was made in the tag event setting, the destination was not specified in the common setting. | <ul style="list-style-type: none"> Check the tag event setting. (Refer to Section 6.5.3) | Stop |
| 0647h | Time/Interval event e-mail setting error | Though the e-mail setting was made in the time/interval event setting, the destination was not specified in the common setting. | <ul style="list-style-type: none"> Check the time/interval event setting. (Refer to Section 6.5.3) | Stop |
| 0648h | Setting mismatch error | Setting update was performed after the monitor screen was displayed. | <ul style="list-style-type: none"> Display the monitor screen again after selecting the monitor screen to be executed from the monitor screen menu again. | Display |
| 0649h | Duplicate high speed tag specification error | The tag setting file is corrupted. | <ul style="list-style-type: none"> Initialize the module (refer to Section 4.13) and then make the tag setting (refer to Section 6.3.3) again. | Stop |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|---|---|--|-------------------|
| 064Ah | Duplicate high speed logging specification error | There are more than one logging setting in which high speed sampling tag is specified. The logging setting file is corrupted. | <ul style="list-style-type: none"> • Check the logging setting. (Refer to Section 6.4.4) • Initialize the module (refer to Section 4.13) and then make the tag setting (refer to Section 6.3.3) again. | Stop |
| 064Bh | Excessive number of device points for high speed sampling tag | Total device points of the high speed sampling tag exceeds 96 points. | <ul style="list-style-type: none"> • Check the component setting of the high speed sampling tag (refer to Section 6.3.3) and make setting so that the total device points do not exceed 96 points. | Stop |
| 064Ch | High speed sampling tag component registration error | Failed to register the component device of the high speed sampling tag to the control CPU. | <ul style="list-style-type: none"> • Create or increase a user setting system area by GX Developer. (Refer to Section 6.3.3 REMARKS.) • For redundant CPUs, check their system areas in both systems. | Stop |
| 064Dh | High speed sampling tag specification error | The high speed sampling tag was specified in the TAG instruction. | <ul style="list-style-type: none"> • Check the control data of the TAG instruction. (Refer to Section 8.5.) | Display |
| 064Eh | High speed logging specification error | The high speed sampling logging was specified in the LOG instruction. | <ul style="list-style-type: none"> • Check the control data of the LOG instruction. (Refer to Section 8.6.) | Display |
| 064Fh | No specified event error | The event specified in the logging setting does not exist or the event monitor setting was deleted. | <ul style="list-style-type: none"> • Specify an existing event. | Stop |
| 0650h | High speed sampling tag CPU specification error | The CPU of other than the access target CPU setting No. 1 was specified for the component of the high speed sampling tag, or the tag setting file is corrupted. | <ul style="list-style-type: none"> • Initialize the module (refer to Section 4.13) and then make the tag setting (refer to Section 6.3.3) again. | Stop |
| 0651h | High speed logging storage setting error | "Standard ROM" was selected in [Save in] of the high speed logging. | <ul style="list-style-type: none"> • Select the CF card. | Stop |
| 0659h | Network communication route error | A nonexistent module was specified for "Start I/O" in "Network communication route" in Access target CPU setting. | <ul style="list-style-type: none"> • Correct the start I/O address in Access target CPU setting. | Continue |
| 065Ah | Unsupported CPU error | A CPU that is not supported by GX RemoteService-I exists as an access target CPU. | <ul style="list-style-type: none"> • Do not use GX RemoteService-I. • Do not access a Universal model QCPU. | Stop/ Continue |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|------------------------------------|---|--|------------|
| 06A0h | System error | — | <ul style="list-style-type: none"> • System error (*1) | Stop |
| 06A1h | | | | Continue |
| 06A2h | | | | Continue |
| 06A3h | Rename error | Failed to change (rename) a logging file into the saved file. | <ul style="list-style-type: none"> • By FTP operation (refer to Section 6.7), delete unnecessary files to secure a free space in the standard ROM or CF card. • Check the CF card. (Refer to Section 9.1 (9).) | Continue |
| 06A4h | System error | — | <ul style="list-style-type: none"> • System error (*1) | Stop |
| 06A5h | | | | Stop |
| 06A6h | | | | Continue |
| 06A7h | | | | Continue |
| 06A8h | | | | Continue |
| 06A9h | | | | Display |
| 06AAh | | | | Stop |
| 06ABh | | | | Continue |
| 06ACh | | | | Continue |
| 06ADh | | | | Stop |
| 0700h | Out-of-range argument error | The argument outside the range was specified in the dedicated instruction. | <ul style="list-style-type: none"> • Specify an argument in the correct range. | Display |
| 0701h | Invalid argument error | The tag No., logging No., e-mail address No. or FTP transfer destination No. specified with the argument in the dedicated instruction does not exist. | <ul style="list-style-type: none"> • Specify existing setting No. | Display |
| 0703h | No specified file error | The file specified in the dedicated instruction does not exist. | <ul style="list-style-type: none"> • Specify the existing file. | Display |
| 0704h | Send queue full error | The queue for e-mail or FTP has become full. | <ul style="list-style-type: none"> • Reduce the frequency of e-mail or FTP transmission. | Display |
| 0705h | Incorrect file name error | The file name includes inapplicable characters. | <ul style="list-style-type: none"> • Check the control data of the dedicated instruction. | Display |
| 0709h | Simultaneous multiple access error | An attempt was made to access the file being used by the other instruction. | <ul style="list-style-type: none"> • Provide interlocks between the instructions that will access the same file. • Change the access target file name. | Display |
| 070Bh | File open error | Failed to create a file. | <ul style="list-style-type: none"> • Check whether the CF card has a USER folder. • Check whether the USER folder of the CF card is write enabled. | Display |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|--|--|--|------------|
| 070Ch | Disk full | The disk has run out of a free area. | <ul style="list-style-type: none"> Delete unnecessary files. Replace the CF card. | Display |
| 070Dh | Read start position fault | The read start position is beyond the file capacity. | <ul style="list-style-type: none"> Check the argument of the read start position. | Display |
| 070Eh | Read range fault | The read range is not within the file. | <ul style="list-style-type: none"> Check whether the read start position + number of read points fall within the file range. | Display |
| 070Fh | File access error | An error occurred when access was made to the file. | <ul style="list-style-type: none"> Check whether the access target file was deleted by external FTP, etc. during execution of the instruction. | Display |
| 07A0h | System error | — | <ul style="list-style-type: none"> System error (*1) | Display |
| 0800h | FTP server setting file error | The FTP setting file is missing or destroyed. | <ul style="list-style-type: none"> After initializing the module (refer to Section 4.13), perform the FTP setting (refer to Section 6.7.3) again. | Stop |
| 0801h | Incorrect FTP transfer destination No. error | The FTP transfer destination No. is outside the setting range. | <ul style="list-style-type: none"> Check the FTP transfer destination No. of the logging setting (refer to Section 6.4.4) or dedicated instruction (refer to Section 8.3, 8.4). | Continue |
| 0802h | FTP transfer destination No. non-setting error | A file send request was issued to the FTP transfer destination No. that has not been set in the FTP setting. | <ul style="list-style-type: none"> Check the FTP transfer destination No. of the logging setting (refer to Section 6.4.4) or dedicated instruction (refer to Section 8.3, 8.4). Check the FTP setting. (Refer to Section 6.7.3) | Continue |
| 0803h | FTP file transfer error | An error occurred during FTP file transfer or the file of the transfer source is missing. | <ul style="list-style-type: none"> Check the FTP setting. (Refer to Section 6.7.3.) Check the connection status with the FTP server. Check the FTP server status of the transfer destination. Check the transmission file specified in the dedicated instruction. (Refer to Section 8.3, 8.4.) Check whether the transfer source file is deleted. Check the logging setting. (Refer to Section 6.7.6 (3).) | Continue |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|---|--|---|------------|
| 0804h | FTP server control port connection error | Failed to connect to the control port of the FTP server. | <ul style="list-style-type: none"> • Check the FTP setting. (Refer to Section 6.7.3) • Check the network connection status by the PING test. (Refer to Section 6.11) • Check the FTP server status of the transfer destination. • Power on the programmable controller a few minutes after power-off. | Continue |
| 0805h | FTP server control port disconnection error | Failed to disconnect the FTP server control port. | <ul style="list-style-type: none"> • Check the connection with the FTP server. • Check the FTP server status of the transfer destination. | Continue |
| 0806h | FTP server login error | Failed to login to the FTP server. | <ul style="list-style-type: none"> • Check the FTP setting. (Refer to Section 6.7.3) • Check the connection with the FTP server. • Check the FTP server status of the transfer destination. | Continue |
| 0807h | FTP server command excute error | Failed to execute the FTP command to the FTP server. | <ul style="list-style-type: none"> • Check the connection with the FTP server. • Check the FTP server status of the transfer destination. • Check that the FTP server of the transfer destination has write authority. | Continue |
| 0808h | FTP server data transferport connection error | Failed to connect to the data transfer port of the FTP server. | <ul style="list-style-type: none"> • Check the FTP setting. (Refer to Section 6.7.3) • Check the connection with the FTP server. • Check the FTP server status of the transfer destination. | Continue |
| 0809h | FTP server data transfer port disconnection error | Failed to disconnect the FTP server data transfer port. | <ul style="list-style-type: none"> • Check the connection with the FTP server. • Check the FTP server status of the transfer destination. | Continue |
| 080Ah | FTP file transfer not allowed | In switch setting, an FTP file transfer request was issued during default operation. | <ul style="list-style-type: none"> • Reset the default operation setting of the switch setting. (Refer to Section 4.7) | Continue |
| 0810h | E-mail setting file error | The e-mail setting file is missing or destroyed. | <ul style="list-style-type: none"> • After initializing the module (refer to Section 4.13), perform the e-mail setting (refer to Section 6.6.3) again. | Stop |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|--------------------------------------|---|--|------------|
| 0811h | Incorrect e-mail address No. error | The e-mail address No. is outside the setting range. | <ul style="list-style-type: none"> Check the e-mail address No. of the logging setting (refer to Section 6.4.4), event setting (refer to Section 6.5.3) or WMSSEND instruction (refer to Section 8.2). | Continue |
| 0812h | E-mail address No. non-setting error | An e-mail sending request was issued to the e-mail address No. that has not been set in the e-mail setting. | <ul style="list-style-type: none"> Check the e-mail address No. of the logging setting (refer to Section 6.4.4), event setting (refer to Section 6.5.3) or WMSSEND instruction (refer to Section 8.2). Check the e-mail setting. (Refer to Section 6.6.3) | Continue |
| 0813h | E-mail transmission error | An error occurred during e-mail transmission. | <ul style="list-style-type: none"> Check the e-mail setting. (Refer to Section 6.6.3) Check the connection with the mail server. Check the mail server status of the send destination. Check whether the Internet service provider in use meets the specification. (Refer to Section 2.4 (8)) Select "POP before SMTP" in the e-mail setting. (Refer to Section 6.6.3.) | Continue |
| 0814h | No attached file error | The specified attached file is missing. | <ul style="list-style-type: none"> Check the specification of the attached file in the WMSSEND instruction. (Refer to Section 8.2) Check that the attached file has not been deleted. Check the logging setting. (Refer to Section 6.6.5 (3).) | Continue |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|-----------------------------|---|---|------------|
| 0815h | SMTP server login error | Failed to connect to the mail server (SMTP server). | <ul style="list-style-type: none"> • Check the E-mail setting. (Refer to Section 6.6.3) • Check the connection with the mail server. • Check the mail server status of the send destination. • Power on the programmable controller a few minutes after power-off. • Check whether the Internet service provider in use meets the specification. (Refer to Section 2.4 (8)) • Select "POP before SMTP" in the e-mail setting. (Refer to Section 6.6.3.) | Continue |
| 0816h | E-mail header send error | Failed to send the e-mail header. | <ul style="list-style-type: none"> • Check the connection with the mail server. • Check the mail server status of the send destination. | Continue |
| 0817h | E-mail main text send error | Failed to send the e-mail main text. | <ul style="list-style-type: none"> • Check the connection with the mail server. • Check the mail server status of the send destination. | Continue |
| 0818h | Attached file send error | Failed to send the attached file. | <ul style="list-style-type: none"> • Check the connection with the mail server. • Check the mail server status of the send destination. • Check the logging setting. (Refer to Section 6.6.5 (3).) | Continue |
| 0819h | SMTP server logout error | Failed to disconnect from the mail server (SMTP server). | <ul style="list-style-type: none"> • Check the connection with the mail server. • Check the mail server status of the send destination. | Continue |
| 081Ah | E-mail sending not possible | In switch setting, an e-mail sending request was issued during default operation. | <ul style="list-style-type: none"> • Reset the default operation setting of the switch setting. (Refer to Section 4.7) | Continue |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|--|--|---|------------|
| 081Bh | POP server login error | Failed to connect to the mail server (POP server). | <ul style="list-style-type: none"> • Check the e-mail setting. (Refer to Section 6.3.3) • Check the connection with the mail server. • Power on the programmable controller a few minutes after power-off. | Continue |
| 0820h | Address notification setting file error | The address notification setting file is missing or destroyed. | <ul style="list-style-type: none"> • After initializing the module (refer to Section 4.13), perform the address notification setting (refer to Section 6.9.2) again. | Stop |
| 0830h | System setting file error | The system setting file is missing or destroyed. | <ul style="list-style-type: none"> • After initializing the module (refer to Section 4.13), perform the system setting (refer to Section 4.6.3) again. | Stop |
| 0831h | Account setting file error | The account setting file is missing or destroyed. | <ul style="list-style-type: none"> • After initializing the module (refer to Section 4.13), perform the account setting (refer to Section 4.6.5) again. | Stop |
| 08A0h | System error | — | <ul style="list-style-type: none"> • System error (*1) | Stop |
| 08A1h | | | | |
| 08A2h | | | | |
| 08A3h | | | | |
| 08B0h | | | | |
| 08B1h | | | | |
| 08C0h | | | | |
| 0900h | | | | |
| 0901h | | | | Display |
| 0902h | Non-set item error | An item that has not been set was specified. | <ul style="list-style-type: none"> • Check the setting and execute again. | Display |
| 0903h | Write authority error | The user who does not have write authority attempted to write. | <ul style="list-style-type: none"> • Log in with the account with write authority, and execute again. | Display |
| 0904h | Outside setting range error | A value outside the setting range was specified. | <ul style="list-style-type: none"> • Check the setting and execute again. | Display |
| 0905h | No specified component error | The component specified in the data does not exist. | <ul style="list-style-type: none"> • Check the setting and execute again. | Display |
| 0906h | Device specification error | An incorrect device (that cannot be handled) was specified. | <ul style="list-style-type: none"> • Check the setting and execute again. | Display |
| 0907h | Device write disable (device test) error | Execution of the device test was attempted when Device write disable request (YA) is on. | <ul style="list-style-type: none"> • Turn off Device write disable request (YA) and execute again. | Display |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|--|---|---|------------|
| 0908h | Device write disable (tag component test) error | Execution of the tag component test was attempted when Device write disable request (YA) is on. | <ul style="list-style-type: none"> • Turn off Device write disable request (YA) and execute again. | Display |
| 0909h | Write disable setting (tag component test) error | Execution of the tag component test when "Disable" was set to "Data write" in the tag setting. | <ul style="list-style-type: none"> • Set "Enable" to "Data write" in the tag setting and execute again. (Refer to Section 6.3.3) | Display |
| 09A0h | System error | — | <ul style="list-style-type: none"> • System error (*1) | Stop |
| 0A00h | | | | Display |
| 0A01h | Access log open error | Failed to open the access log. | <ul style="list-style-type: none"> • Check File access status (X2). • Execute File access stop cancel (Y3). (Refer to Section 3.6.2.) | Display |
| 0A02h | Access log read error | Failed to read the access log. | <ul style="list-style-type: none"> • Check File access status (X2). • Execute File access stop cancel (Y3). (Refer to Section 3.6.2.) | Display |
| 0A03h | Access log registration error | Failed to register the access log. | <ul style="list-style-type: none"> • Check File access status (X2). • Execute File access stop cancel (Y3). (Refer to Section 3.6.2.) | Display |
| 0A04h | Access log close error | Failed to close the access log. | <ul style="list-style-type: none"> • Check File access status (X2). • Execute File access stop cancel (Y3). (Refer to Section 3.6.2.) | Display |
| 0A05h | Access log initialization error | Failed to initialize the access log. | <ul style="list-style-type: none"> • Check File access status (X2). • Execute File access stop cancel (Y3). (Refer to Section 3.6.2.) | Display |
| 0A06h | Illegal access log error | The access log is corrupted. | <ul style="list-style-type: none"> • Check File access status (X2). • Execute File access stop cancel (Y3). (Refer to Section 3.6.2.) | Display |
| 0A07h | Out-of-range setting file access error | Access was made to outside the setting file range. | <ul style="list-style-type: none"> • Check File access status (X2). • Execute File access stop cancel (Y3). (Refer to Section 3.6.2.) | Display |
| 0A08h | New setting file creation error | Failed to create a new setting file. | <ul style="list-style-type: none"> • Check File access status (X2). • Execute File access stop cancel (Y3). (Refer to Section 3.6.2.) | Display |
| 0A09h | Setting file update error | Failed to update the setting file. | <ul style="list-style-type: none"> • Check File access status (X2). • Execute File access stop cancel (Y3). (Refer to Section 3.6.2.) | Display |
| 0A0Ah | Setting file seek error | Failed to seek the setting file. | <ul style="list-style-type: none"> • Check File access status (X2). • Execute File access stop cancel (Y3). (Refer to Section 3.6.2.) | Display |
| 0A0Bh | Setting file close error | Failed to close the setting file. | <ul style="list-style-type: none"> • Check File access status (X2). • Execute File access stop cancel (Y3). (Refer to Section 3.6.2.) | Display |

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| Error code | Error name | Error definition | Corrective action | Error type |
|------------|---|--|--|------------|
| 0A0Ch | Device specification error | An incorrect device (that cannot be handled) was specified in the component setting. | <ul style="list-style-type: none"> Check the device in the component setting. (Refer to Section 6.3.3) | Display |
| 0A0Dh | Device consistency error | Bits were specified for a word device or any other than bits were specified for a bit device. | <ul style="list-style-type: none"> Check the data type of the component setting. (Refer to Section 6.3.3) | Display |
| 0A0Eh | Same account error | The account of the same name already exists. | <ul style="list-style-type: none"> Specify another user name. (Refer to Section 4.6.5) | Display |
| 0A0Fh | No administrator authority error | Deletion of the last user account with administrator authority was attempted. | <ul style="list-style-type: none"> Enter at least one more user account with administrator authority before deletion. (Refer to Section 4.6.5) | Display |
| 0A10h | Same logging file name error | The logging file of the same name already exists. | <ul style="list-style-type: none"> Specify another logging file name. | Display |
| 0A11h | Excessive number of device points for high speed sampling tag | The total device points of the high speed sampling tag exceeds 96 points. | <ul style="list-style-type: none"> Check the component setting of the high speed sampling tag (refer to Section 6.3.3), and make setting so that the total device points do not exceed 96 points. | Display |
| 0A12h | Duplicate high speed sampling tag specification error | The high speed sampling tag is already set. | <ul style="list-style-type: none"> After deleting the already set high speed sampling tag, set it again. | Display |
| 0A13h | High speed sampling tag CPU specification error | The component of other than the access target CPU setting No. 1 exists in the high speed sampling tag. | <ul style="list-style-type: none"> Check the component setting. (Refer to Section 6.3.3) | Display |
| 0A14h | Duplicate high speed logging specification error | The high speed logging is already set. | <ul style="list-style-type: none"> After deleting the already set high speed logging, set it again. | Display |
| 0AA0h | System error | — | <ul style="list-style-type: none"> System error (*1) | Stop |
| 0B00h | Parameter error | The parameter setting of the user part is incorrect. | <ul style="list-style-type: none"> Check the parameter setting of the user part. | Display |
| 0B01h | Communication part error | No communication part is provided or a applet part is described before a communication part. | <ul style="list-style-type: none"> Describe only one communication part in HTML before applet parts. | Display |
| 0B02h | No setting error | Tag monitor was displayed with no tag setting, or logging monitor was displayed with no logging setting. | <ul style="list-style-type: none"> Perform tag setting. (Refer to Section 6.3.3) Perform logging setting. (Refer to Section 6.4.4) | Display |

(Continued on the next page)

(From the previous page)

| Error code | Error name | Error definition | Corrective action | Error type |
|------------|--|---|--|------------|
| 0B03h | Type check error | The data type of the component specified in the user part is incorrect. | <ul style="list-style-type: none"> Check the setting of the component specified in the user part. | Display |
| 0B04h | No file error | The logging file does not exist or the event history file does not exist. | <ul style="list-style-type: none"> Check that the logging file has not been deleted by FTP. Check that the logging file has not been deleted due to excessive number of saved files. Execute history clear from the event setting and create the event history file again. | Display |
| 0B05h | File download error | An error occurred during downloading of the file. | <ul style="list-style-type: none"> Check the network connection status by the PING test. (Refer to Section 6.11) Check the power supply of the modem, cable and line status. | Display |
| 0B06h | Incomplete parameter setting error | The parameters that must be set in the user part have not been set. | <ul style="list-style-type: none"> Add the parameters. | Display |
| 0B07h | Audio error (Not occurs when using Microsoft® VM) | There is no audio replay hardware, or hardware does not respond. | <ul style="list-style-type: none"> Use a personal computer with audio replay hardware built-in. Replace the audio replay hardware. | Display |
| 0B08h | Audio file format error | An audio file of incompatible format was specified. | <ul style="list-style-type: none"> Specify a WAV or AU format audio file. For use of Microsoft® VM, specify an AU format audio file. For specification of a WAV format audio file, use the Sun Microsystems Inc. Java VM. Specify an audio file encoded in PCM format. | Display |
| | | The audio file size exceeds 1MB. | <ul style="list-style-type: none"> Specify an audio file of 1MB or less. | Display |
| | | More than 32 audio files have been specified. | <ul style="list-style-type: none"> Specify 32 audio files or less. | Display |
| | | The audio file is corrupted. (Unable to detect this when using Microsoft® VM) | <ul style="list-style-type: none"> Replace it with a normal audio file. | Display |
| 0B09h | Same file specification error | When using Microsoft® VM, an audio part of the same file name is specified in multiple audio parts. | <ul style="list-style-type: none"> Specify an audio file of a different file name. To specify an audio file of the same file name, use Java VM of Sun Microsystems Inc. | Display |
| | | Before the monitor screen was displayed completely, the screen update was performed. | <ul style="list-style-type: none"> Wait until the monitor screen is displayed completely. | Display |

(Continued on the next page)

(From the previous page)

| Error code | Error name | Error definition | Corrective action | Error type |
|--|---|--|--|------------|
| 0B10h | String format error | The form of the data being monitored is incorrect. | <ul style="list-style-type: none"> Check the setting of the component specified in the user part. | Display |
| 0B11h | Outside device range error | The device No. is outside the range. | <ul style="list-style-type: none"> Confirm the device No. in the tag setting and execute again. Confirm the number of device points of the access target CPU and execute again. | Display |
| 0B12h | Unsupported device error | Unsupported device was specified. | <ul style="list-style-type: none"> Confirm the device name in the tag setting and execute again. Confirm the device supported by the access target CPU and execute again. | Display |
| 0B23h | Communication error | An error occurred during communication. | <ul style="list-style-type: none"> Check the network connection status by the PING test. (Refer to Section 6.11) Check the power supply of the modem, cable and line status. Reexamine the Java VM installation status. (Refer to Section 3.1, REMARKS (3) (c).) | Display |
| 0B24h | Incorrect packet error | The communication packet is corrupted. | <ul style="list-style-type: none"> Check the network connection status by the PING test. (Refer to Section 6.11) Check the power supply of the modem, cable and line status. | Display |
| 0B25h | Communication parts parameter error | The set value for the parameter "INTERVAL" of the communication part is wrong or out of the range. | <ul style="list-style-type: none"> Check the set value for the parameter "INTERVAL" of the communication part. (Refer to Section 7.2.1) | Display |
| 100Eh 2000h to 20FFh | System error | — | <ul style="list-style-type: none"> System error (*1) | Continue |
| 4000h to 4FFFh | Errors detected by the access target CPU Refer to the user's manual of the access target CPU module. | | | Continue |
| 9000h 9006h | System error | — | <ul style="list-style-type: none"> System error (*1) | Display |
| 9008h | Send buffer full | No send buffer is available. | <ul style="list-style-type: none"> Check the CPU in the access path. | Display |
| 9202h 9204h 920Ah 9920h 9922h 9923h | System error | — | <ul style="list-style-type: none"> System error (*1) | Continue |

(Continued on the next page)

(From the previous page)

| Error code | Error name | Error definition | Corrective action | Error type |
|----------------|--|---|---|------------|
| 9E20h | Processing code error | The issued processing code cannot be processed by the target. | • Check the CPU in the access path. | Continue |
| 9E81h | Device type error | The device type specified for the access target station is Invalid. | • Check the device type input in the device monitor or component setting. | Continue |
| 9E82h | Device number error | The device number specified for the access target station is outside the range. | • Check the device number input in the device monitor or component setting. | Continue |
| 9E83h | Number of device points error | The number of device points specified for the access target station is outside the range. | • Check the device number input in the device monitor or component setting. | Continue |
| B000h to BFFFh | Errors detected in the CC-Link system Refer to the CC-Link System Master/Local Module User's Manual. | | | Continue |
| C000h to CFFFh | Errors detected in the Ethernet interface module Refer to the Ethernet Interface Module User's Manual. | | | Continue |
| E000h to EFFFh | Errors detected in the CC-Link IE controller network Refer to the CC-Link IE Controller Network Reference Manual. | | | Continue |
| F000h to FFFFh | Errors detected in the MELSECNET/H, MELSECNET/10 network system Refer to the MELSECNET/H, MELSECNET/10 Network System Reference Manual. | | | Continue |
| FFD0h | System error | — | • System error (*1) | Continue |
| FFD1h | Monitor condition dissatisfied error | Data cannot be read since the monitor condition is not satisfied. | • Delete the monitor condition using GX Developer. | Continue |
| FFD2h | System error | — | • System error (*1) | Continue |
| FFD3h | | | | |
| FFD4h | | | | |
| FFD5h | ROM operation error | T/C set values were written to the programmable controller CPU during ROM operation. | • Change the T/C set values during RAM operation. | Continue |
| FFD6h | System error | — | • System error (*1) | Continue |
| FFD7h | | | | |
| FFD9h | | | | |
| FFDAh | | | | |
| FFDBh | | | | |
| FFDCh | | | | |
| FFDDh | | | | |
| FFDEh | | | | |
| FFDFh | Incorrect access target error | The setting of the access target CPU is incorrect. | • Check the access target CPU setting. (Refer to Section 4.6.7) | Continue |

(Continued on the next page)

(From the previous page)

| Error code | Error name | Error definition | Corrective action | Error type |
|------------|-----------------------------------|--|---|------------|
| FFE0h | System error | — | • System error (*1) | Continue |
| FFE1h | | | | |
| FFEDh | | | | |
| FFEEh | | | | |
| FFEFh | | | | |
| FFF0h | Station No., network number error | The station No. or network number is outside the range or has been set incorrectly. | • Check the station No. or network number of the access target CPU setting. (Refer to Section 4.6.7) | Continue |
| FFF1h | System error | — | • System error (*1) | Continue |
| FFF2h | Memory cassette error | The memory cassette has not been set to the accessed CPU module, or an improper memory cassette has been set. | • Confirm the memory cassette of the access target CPU. | Continue |
| FFF3h | Write protect error | The specified block No. of the extension file register overlaps the write protect area of the memory cassette. | • Check the block No. (device type) of the extension file register. • Check the write protect DIP switch of the memory cassette in the access target CPU. | Continue |
| FFF4h | Block error | The specified block No. of the extension file register is Invalid. | • Check the block No. (device type) of the extension file register. | Continue |
| FFF5h | System error | — | • System error (*1) | Continue |
| FFF8h | | | | |
| FFFAh | | | | |
| FFFBh | Size error | The device is outside the device range. | • Check the device number input in the device monitor or component setting. | Continue |
| FFFCh | CPU error | An Invalid station was specified. | • Check the setting of the network module on the access route. • Check the setting of the station No. in the access target CPU setting. (Refer to Section 4.6.7) | Continue |
| FFFDh | Device type error | The device type is incorrect. | • Check the device type input in the device monitor or component setting. | Continue |
| FFFEh | Device number error | The device number is incorrect. | • Check the device number input in the device monitor or component setting. | Continue |
| FFFFh | System error | — | • System error (*1) | Continue |

*1 The possible cause is a system error of the Web server module.

Please consult your local Mitsubishi service center or representative, explaining a detailed description of the problem.

*2 Conduct the hardware test again. (Refer to Section 4.8.3)

If the error occurs again, the possible cause is a system error of the Web server module.

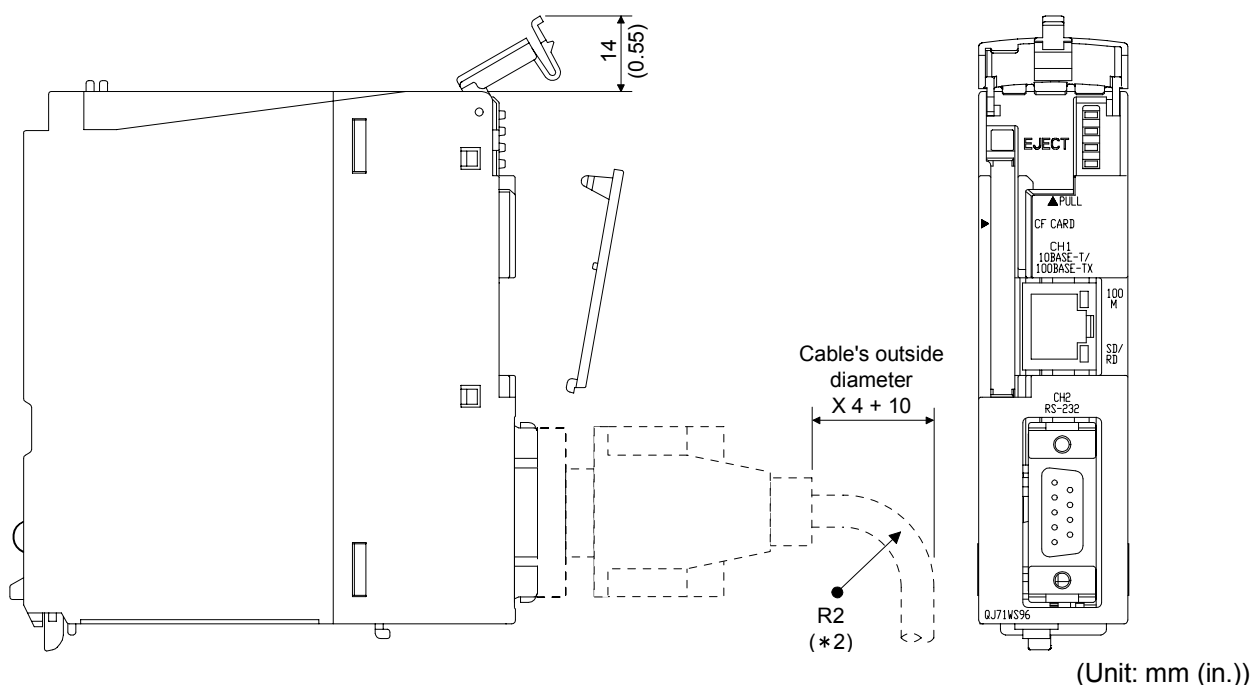
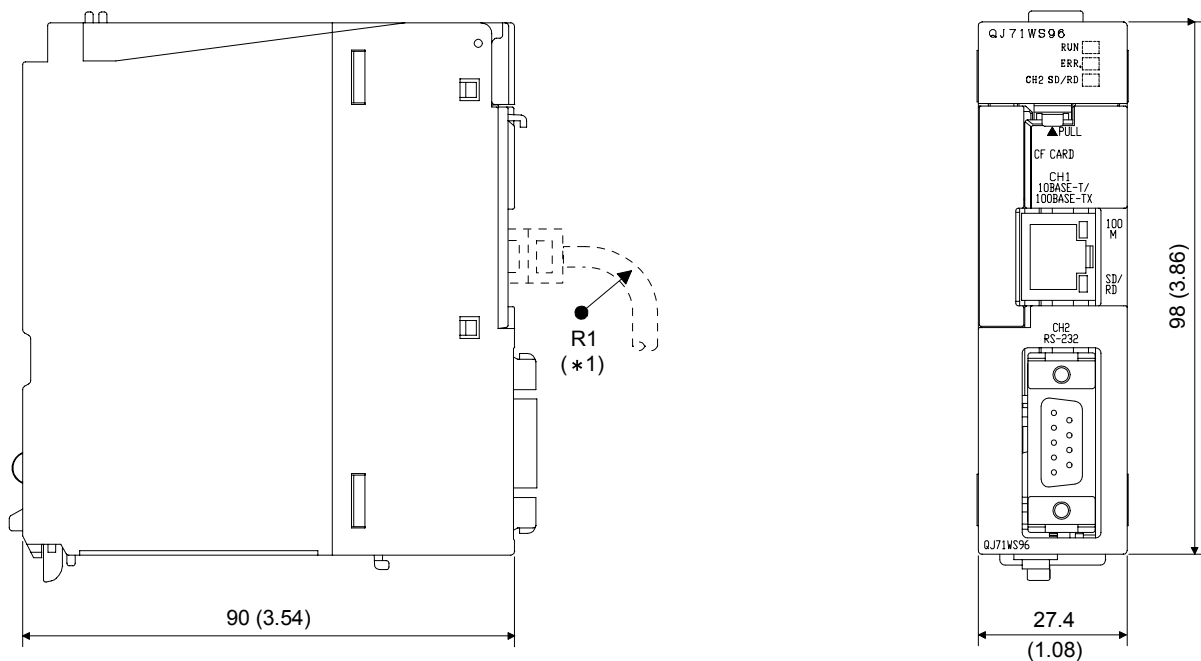
Please consult your local Mitsubishi service center or representative, explaining a detailed description of the problem.

*3 The possible cause is a hardware fault of the Web server module.

Please consult your local Mitsubishi service center or representative, explaining a detailed description of the problem.

APPENDIX

Appendix 1 External Dimensions



*1 The bending radius near the connectors (reference value: R1) should be four times as long as the cable's outside diameter or more when connecting the twisted pair cable.

*2 The bending radius near the connectors (reference value: R2) should be four times as long as the cable's outside diameter or more when connecting the RS-232 cable.

Appendix 2 Accessible Devices and Ranges

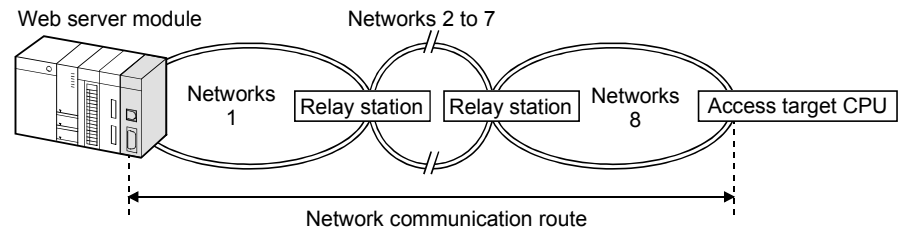
This section provides information on the accessible devices and accessible ranges.

(1) Accessible programmable controller CPU

| PLC series | Model Name |
|---------------|---|
| QCPU (Q mode) | Q00JCPU, Q00CPU, Q01CPU, Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, Q25HCPU, Q02PHCPU, Q06PHCPU, Q12PHCPU, Q25PHCPU, Q12PRHCPU (*1), Q25PRHCPU (*1), Q02UCPU, Q03UDCPU, Q04UDHCPU, Q06UDHCPU, Q13UDHCPU, Q26UDHCPU, Q03UDECPU, Q04UDEHCPU, Q06UDEHCPU, Q13UDEHCPU, Q26UDEHCPU |
| QnACPU | Q2ACPU, Q2ACPU-S1, Q2ASCPU, Q2ASCPU-S1, Q2ASHCPU, Q2ASHCPU-S1, Q3ACPU, Q4ACPU, Q4ARCPU |
| QCPU (A mode) | Q02CPU-A, Q02HCPU-A, Q06HCPU-A |
| ACPU | A1NCPU, A0J2HCPU, A1SCPU, A1SCPU-S1, A1SHCPU, A1SJCPU, A1SJHCPU, A2CCPU, A2CJCPU, A2NCPU, A2NCPU-S1, A2SCPU, A2SCPU-S1, A2SHCPU, A2SHCPU-S1, A2ACPU, A2ACPU-S1, A2UCPU, A2UCPU-S1, A2USCPU, A2USCPU-S1, A2ASCPU, A2ASCPU-S1, A2ASCPU-S30, A2USHCPU-S1, A3NCPU, A3ACPU, A3UCPU, A4UCPU |

*1 Access to redundant CPUs on other stations is not allowed.

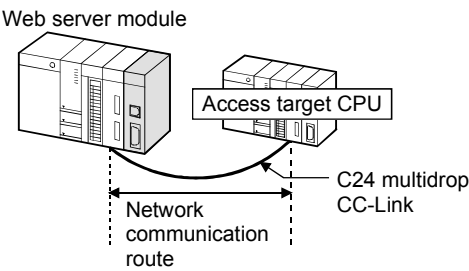
(2) Accessible routes
(a) Single network



- Network indicates CC IE Cont, NET/10(H) or Ethernet.
- Relay station is the QCPU.

| Network communication route | Access target CPU (PLC series) | | |
|-----------------------------|--------------------------------|-------------|---------------------|
| | QCPU (Q mode) | QnACPU | QCPU (A mode), ACPU |
| CC IE Cont, NET/10(H) | ○ | ○ | ○ |
| Ethernet | ○ (*1) | ○ (*1) (*2) | × |

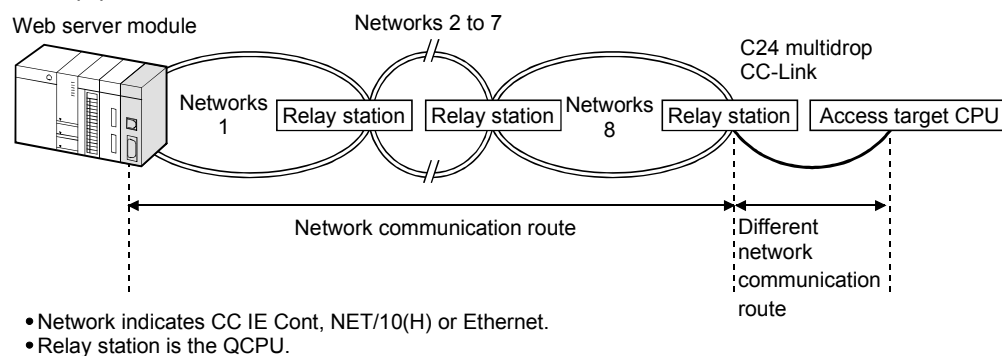
○ : Accessible × : Inaccessible



| Network communication route | Access target CPU (PLC series) | | |
|-----------------------------|--------------------------------|--------|---------------------|
| | QCPU (Q mode) | QnACPU | QCPU (A mode), ACPU |
| CC-Link | ○ | ○ (*3) | ○ (*3) |
| C24 | ○ | ○ | × |

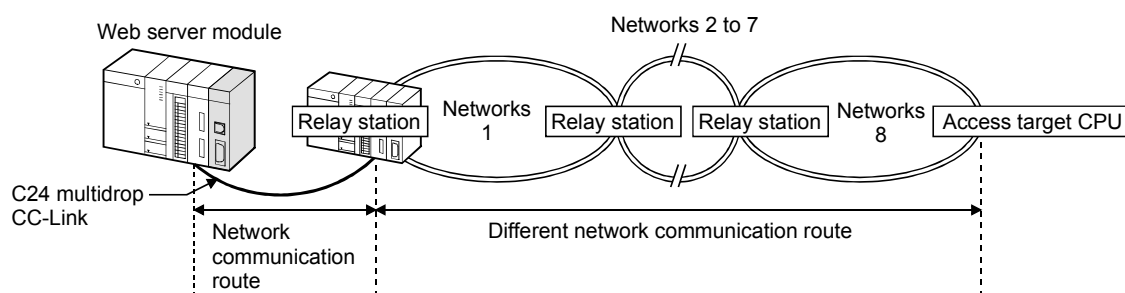
○ : Accessible × : Inaccessible

(b) Different network



| Network communication route | Different network communication route | Access target CPU (PLC series) | | |
|---------------------------------|---------------------------------------|--------------------------------|--------|---------------------|
| | | QCPU (Q mode) | QnACPU | QCPU (A mode), ACPU |
| CC IE Cont, NET/10(H), Ethernet | CC-Link | ○ | ○ (*3) | ○ (*3) |
| | C24 | ○ | × | × |

○ : Accessible × : Inaccessible



| Network communication route | Different network communication route | Access target CPU (PLC series) | | |
|-----------------------------|---------------------------------------|--------------------------------|--------|---------------------|
| | | QCPU (Q mode) | QnACPU | QCPU (A mode), ACPU |
| CC-Link, C24 | CC IE Cont, NET/10(H) | ○ | × | × |
| | Ethernet | ○ (*1) | × | × |

○ : Accessible × : Inaccessible

*1 As the network number and station No., set the parameter values set in the access target CPU side Q series E71 or QE71.

Also set parameters in the "Station No. <-> IP information" of the Q series corresponding E71 or QE71.

At that time, specify any of the IP address computation system, table exchange system and use-together system as the "Station No. <-> IP information system".

*2 Use the access target CPU side QnACPU or QE71 of 9707B (year and month of manufacture) or later.

*3 Use the access target CPU side CC-Link master/local module of software version "S" or later.

(3) Accessible device

| Device *1 (Device name) | | QCPU (Q mode) | QCPU (A mode) | QnACPU | ACPU |
|------------------------------|--------------------------|------------------|------------------|--------|------|
| Function input (FX) | | × | × | × | × |
| Function output (FY) | | × | × | × | × |
| Function register (FD) | | × | × | × | × |
| Special relay (SM) (M) *2 | | ○ | ○ | ○ | ○ |
| Special register (SD) (D) *3 | | ○ | ○ | ○ | ○ |
| Input relay (X) | | ○ | ○ | ○ | ○ |
| Output relay (Y) | | ○ | ○ | ○ | ○ |
| Internal relay (M) *9*11 | | ○ | ○ | ○ | ○ |
| Latch relay (L) *9 | | ○ | ○ | ○ | ○ |
| Annunciator (F) | | ○ | ○ | ○ | ○ |
| Edge relay (V) | | ○ | × | ○ | × |
| Link relay (B) *12 | | ○ | ○ | ○ | ○ |
| Data register (D) | | ○ | ○ | ○ | ○ |
| Link register (W) | | ○ | ○ | ○ | ○ |
| Timer | Contact (TS) | ○ | ○ | ○ | ○ |
| | Coil (TC) | ○ | ○ | ○ | ○ |
| | Current value (T/TN) *4 | ○ | ○ | ○ | ○ |
| Counter | Contact (CS) | ○ | ○ | ○ | ○ |
| | Coil (CC) | ○ | ○ | ○ | ○ |
| | Current value (C/CN) *4 | ○ | ○ | ○ | ○ |
| Retentive timer | Contact (SS) | ○ | × | ○ | × |
| | Coil (SC) | ○ | × | ○ | × |
| | Current value (ST/SN) *4 | ○ | × | ○ | × |
| Special link relay (SB) | | ○ | × | ○ | × |
| Special link register (SW) | | ○ | × | ○ | × |
| Step relay (S) *9 | | × | ○ | × | ○ |
| Direct input (DX) | | × | × | × | × |
| Direct output (DY) | | × | × | × | × |
| Accumulator (A) | | × | × | × | × |
| Index register | (Z) | ○ | × | ○ | × |
| | (V) | × | × | × | × |
| File register | (R) | ○ *8 | ○ | ○ | ○ |
| | (ZR) | ○ *8 | × | ○ | × |
| | (ERn\R) *5*10 | × | ○ | × | ○ |

(Continued on the next page)

(From the previous page)

| Device *1 (Device name) | | QCPU (Q mode) | QCPU (A mode) | QnACPU | ACPU |
|---------------------------------------|-------------------------------------|------------------|------------------|--------|------|
| Link direct device | Link input (Jn\X) *6 | ○ | × | ○ | × |
| | Link output (Jn\Y) *6 | ○ | × | ○ | × |
| | Link relay (Jn\B) *6 | ○ | × | ○ | × |
| | Link special relay (Jn\SB) *6 | ○ | × | ○ | × |
| | Link register (Jn\W) *6 | ○ | × | ○ | × |
| | Link special register (Jn\SW) *6 | ○ | × | ○ | × |
| Intelligent function module device | Buffer register (Un\G0) *7 | ○ | × | ○ | × |

○: Accessible, ×: Inaccessible

- *1 The local devices and the file registers for individual programs of the Q/QnA series programmable controller CPU are not accessible by specifying the program name. Do not use the local device and file registers for individual programs since correct read/write may not be available.
- *2 Specify SM for the QCPU (Q mode)/QnACPU, or specify M9000 or later for the QCPU (A mode)/ACPU.
- *3 Specify SD for the QCPU (Q mode)/QnACPU, or specify D9000 or later for the QCPU (A mode)/ACPU.
- *4 The device name can be specified by using either symbol.
- *5 Specify the block number for "n".
- *6 Specify the network No. for "n".
- *7 Specify the I/O number of the intelligent function module/special function module for "n".
- *8 Not accessible when the Q00JCPU is used.
- *9 The M, L and S devices are in the same area independently of the device setting in the parameters.
- *10 ER0\R cannot be specified.
- *11 M32768 or later cannot be specified.
- *12 B8000 or later cannot be specified

Appendix 3 Directory Structure

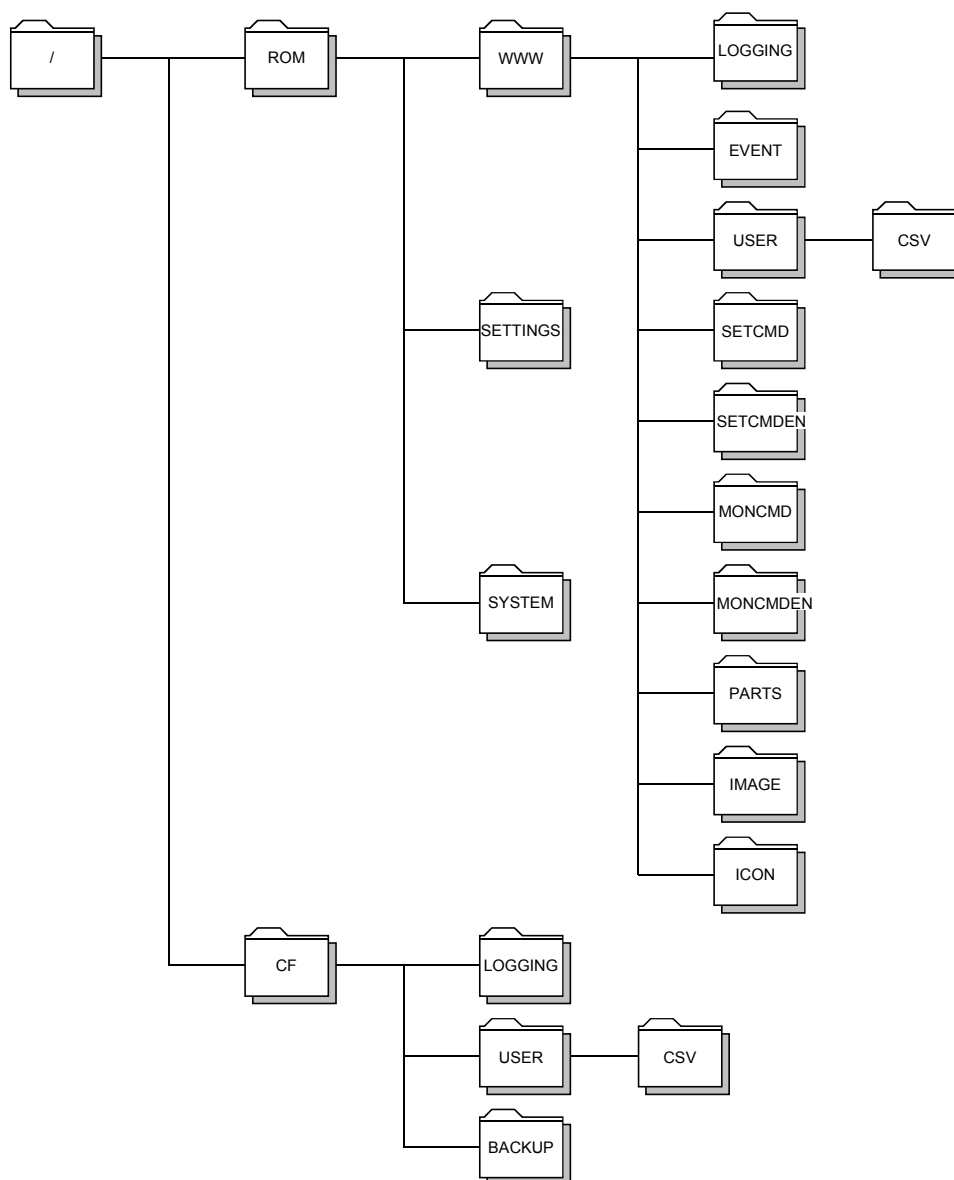
Data such as logging data or event historical data are stored as files in the standard ROM or Compact Flash™ card of the Web server module.

Each file is managed in directory unit, and the access authority is required for the user to access the directory file via Web or FTP. (*)

* For access via Web, users do not have to be conscious of the directory file.

(1) Directory structure

The following shows the directory structure of the Web server module.



(2) Access authority by directory

The following table indicates the access authority by directory.

| Directory Name | Description | With Administrator Authority | | | | Without Administrator Authority | | | |
|----------------|---|------------------------------|----|----|----|---------------------------------|----|----|----|
| | | 1) | 2) | 3) | 4) | 1) | 2) | 3) | 4) |
| / | FTP route | × | ○ | × | × | × | ○ | × | × |
| /ROM/ | Standard ROM | × | ○ | × | × | × | ○ | × | × |
| /WWW/ | HTTP home directory top page storage directory | ○ | ○ | × | × | ○ | ○ | × | × |
| /LOGGING/ | Logging data storage directory | ○ | ○ | ○ | ○ | ○ | ○ | ○ | × |
| /EVENT/ | Event historical data storage directory | ○ | ○ | ○ | ○ | ○ | ○ | ○ | × |
| /USER/ | User-created screen directory Under USER, directories can be created by the user. (The access authority to the created directories is the same as that to USER) | ○ | ○ | ○ | ○ | ○ | × | × | × |
| /CSV/ | Setting information file storage directory | ○ | ○ | ○ | ○ | ○ | × | × | × |
| /SETCMD/ | Setting HTML storage directory (Japanese) | ○ | × | × | × | × | × | × | × |
| /SETCMDEN/ | Setting HTML storage directory (English) | ○ | × | × | × | × | × | × | × |
| /MONCMD/ | Monitor screen HTML storage directory (Japanese) | ○ | × | × | × | ○ | × | × | × |
| /MONCMDEN/ | Monitor screen HTML storage directory (English) | ○ | × | × | × | ○ | × | × | × |
| /PARTS/ | Supplied parts (communication parts, display parts) storage directory | ○ | × | × | × | ○ | × | × | × |
| /IMAGE/ | Image file storage directory | ○ | × | × | × | ○ | × | × | × |
| /ICON/ | Icon storage directory | ○ | × | × | × | ○ | × | × | × |
| /SETTINGS/ | Setting file storage directory | × | × | × | × | × | × | × | × |
| /SYSTEM/ | System file storage directory | × | × | × | × | × | × | × | × |
| /CF/ | Compact Flash™ card | × | ○ | × | × | × | ○ | × | × |
| /LOGGING/ | Logging data storage directory | ○ | ○ | ○ | ○ | ○ | ○ | ○ | × |
| /USER/ | User-created screen directory Under USER, directories can be created by the user. (The access authority to the created directories is the same as that to USER) | ○ | ○ | ○ | ○ | ○ | × | × | × |
| /CSV/ | Setting information file storage directory | ○ | ○ | ○ | ○ | ○ | × | × | × |
| /BACKUP/ | Standard ROM backup data storage directory | × | × | × | × | × | × | × | × |

○ : Allowed × : Not allowed

- 1) Access by HTTP
 2) Access by FTP (transfer to directory)
 3) Reading file by FTP
 4) Writing or deleting file by FTP

Appendix 4 Applicable Characters and ASCII Code Tables by Setting Items

(1) ASCII code table

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|-----|---|------|---|---|---|---|---|
| 0 | NUL | | (SP) | 0 | @ | P | ` | p |
| 1 | | | ! | 1 | A | Q | a | q |
| 2 | | | " | 2 | B | R | b | r |
| 3 | | | # | 3 | C | S | c | s |
| 4 | | | \$ | 4 | D | T | d | t |
| 5 | | | % | 5 | E | U | e | u |
| 6 | | | & | 6 | F | V | f | v |
| 7 | | | ' | 7 | G | W | g | w |
| 8 | | | (| 8 | H | X | h | x |
| 9 | | |) | 9 | I | Y | i | y |
| A | | | * | : | J | Z | j | z |
| B | | | + | ; | K | [| k | { |
| C | | | , | < | L | \ | l | |
| D | | | - | = | M |] | m | } |
| E | | | . | > | N | ^ | n | ~ |
| F | | | / | ? | O | _ | o | |

(2) ASCII characters (User name, password, server name, e-mail address, directory path, external device name, etc.)

Alphanumeric characters can be used.

(However, " (double quotation) is not available.)

The hatched area is available.

(Note that ":" (colon) must not be used in a user name.)

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|-----|---|------|---|---|---|---|---|
| 0 | NUL | | (SP) | 0 | @ | P | ` | p |
| 1 | | | ! | 1 | A | Q | a | q |
| 2 | | | " | 2 | B | R | b | r |
| 3 | | | # | 3 | C | S | c | s |
| 4 | | | \$ | 4 | D | T | d | t |
| 5 | | | % | 5 | E | U | e | u |
| 6 | | | & | 6 | F | V | f | v |
| 7 | | | ' | 7 | G | W | g | w |
| 8 | | | (| 8 | H | X | h | x |
| 9 | | |) | 9 | I | Y | i | y |
| A | | | * | : | J | Z | j | z |
| B | | | + | ; | K | [| k | { |
| C | | | , | < | L | \ | l | |
| D | | | - | = | M |] | m | } |
| E | | | . | > | N | ^ | n | ~ |
| F | | | / | ? | O | _ | o | |

(3) File name, directory name

The ASCII characters other than \ / : , ; * ? " < > | can be used.

The hatched area is available.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|-----|---|------|---|---|---|---|---|
| 0 | NUL | | (SP) | 0 | @ | P | ` | p |
| 1 | | | ! | 1 | A | Q | a | q |
| 2 | | | " | 2 | B | R | b | r |
| 3 | | | # | 3 | C | S | c | s |
| 4 | | | \$ | 4 | D | T | d | t |
| 5 | | | % | 5 | E | U | e | u |
| 6 | | | & | 6 | F | V | f | v |
| 7 | | | ' | 7 | G | W | g | w |
| 8 | | | (| 8 | H | X | h | x |
| 9 | | |) | 9 | I | Y | i | y |
| A | | | * | : | J | Z | j | z |
| B | | | + | ; | K | [| k | { |
| C | | | , | < | L | \ | l | |
| D | | | - | = | M |] | m | } |
| E | | | . | > | N | ^ | n | ~ |
| F | | | / | ? | O | _ | o | |

(4) Phone number

#, *, -, 0 to 9, P and p can be used.

The hatched area is available.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|-----|---|------|---|---|---|---|---|
| 0 | NUL | | (SP) | 0 | @ | P | ` | p |
| 1 | | | ! | 1 | A | Q | a | q |
| 2 | | | " | 2 | B | R | b | r |
| 3 | | | # | 3 | C | S | c | s |
| 4 | | | \$ | 4 | D | T | d | t |
| 5 | | | % | 5 | E | U | e | u |
| 6 | | | & | 6 | F | V | f | v |
| 7 | | | ' | 7 | G | W | g | w |
| 8 | | | (| 8 | H | X | h | x |
| 9 | | |) | 9 | I | Y | i | y |
| A | | | * | : | J | Z | j | z |
| B | | | + | ; | K | [| k | { |
| C | | | , | < | L | \ | l | |
| D | | | - | = | M |] | m | } |
| E | | | . | > | N | ^ | n | ~ |
| F | | | / | ? | O | _ | o | |

(5) Characters

- (a) CPU name, Tag name, Component name and Comment display parts

All characters can be used.

(However, " (double quotation) is not available.)

(Also, "," (comma) is not available (with the exception of the comment display parts.))

- (b) E-mail main text in the event setting, system name

All characters can be used. (However, " (double quotation) is not available.)

Appendix 5 Improvement of Web Server Module Functions

This section explains the functions added to/changed from the old version by the improvement of the Web server module functions, and provides the precautions for replacing the old version with the new version.

Appendix 5.1 Functions added to/changed from old version

This section explains the functions added to/changed from the old version.

(1) Module with first 5 digits of serial No. 05112 or later

| Added/Changed Function | Description | Reference Section |
|--|--|-----------------------------|
| Network connection form | <ul style="list-style-type: none"> The following network connection forms are available. <ol style="list-style-type: none"> 1) Connection via a router type ADSL modem 2) Connection via a bridge type ADSL modem + broadband router | Section 2.2 |
| Connection component | <ul style="list-style-type: none"> The following connection components are available. <ol style="list-style-type: none"> 1) ADSL modem in which the protocol is "PPPoE" or "PPPoA" 2) Broadband router 3) UPnP compatible 4) POP before SMTP compatible | Section 2.4 |
| I/O signal details | <ul style="list-style-type: none"> A change was made to clear the current error area (address: 140 to 145) of the buffer memory by turning on Error clear request (Y10). | Section 3.6.2 |
| Buffer memory list | <ul style="list-style-type: none"> The areas indicated in Section 3.7 (*1) were added. | Section 3.7, Section 3.8 |
| System setting | <ul style="list-style-type: none"> The following setting items were added. <ol style="list-style-type: none"> 1) The "Register the above port No. to the router's NAT" check box was added to the Web server setting. 2) "FTP server setting" 3) "System name setting" 4) "Network diagnosis setting" The following setting items were changed. <ol style="list-style-type: none"> 1) The "Network type setting" setting field was moved to the top. 2) "Connecting through LAN." was changed to "Connecting through LAN or the router". | Section 4.6.3 |
| Account setting | <ul style="list-style-type: none"> "Initial screen" was added to the setting item. "Access authority: Write" was divided into "Device write" and "Tag component write". | Section 4.6.5 |
| IP filter setting | <ul style="list-style-type: none"> This setting screen was added. | Section 4.6.6 |
| Access target CPU setting | <ul style="list-style-type: none"> "Different network communication route" was added as a setting item. | Section 4.6.7 |
| Intelligent function module switch setting | <ul style="list-style-type: none"> A change was made to make the default operation setting (Bit 1 of Switch 2) valid for "IP filter setting". The logging monitor setting (Bit 4 of Switch 2) was added. | Section 4.7 |

(Continued on the next page)

(From the previous page)

| Added/Changed Function | Description | Reference Section |
|------------------------------|--|-------------------|
| Logging monitor | <ul style="list-style-type: none"> The following items were added. <ol style="list-style-type: none"> "Open file" button The "Points" pull-down menu was added to the graph display A change was made to automatically set the upper and lower scale values. A change was made not to display the last update time of the file in the file specifying field. When it is desired to display the last update time of the file, make logging monitor setting. (Refer to Section 4.7 (2).) | Section 6.2.3 |
| Self-diagnostics monitor | <ul style="list-style-type: none"> This monitor screen was added. | Section 6.2.6 |
| Tag setting | <ul style="list-style-type: none"> The "Execute at high speed" radio button was added to the sampling setting. | Section 6.3.3 |
| Logging setting | <ul style="list-style-type: none"> The following setting items were added. <ol style="list-style-type: none"> The "Same as the tag sampling interval" radio button was added to Timing. "Condition for Start" and "Condition for Stop" "Saved file names" The following setting items were changed. <ol style="list-style-type: none"> "Logging specification, Time/Interval" was changed to "Timing". | Section 6.4.4 |
| Event setting | <ul style="list-style-type: none"> The following setting items were added. <ol style="list-style-type: none"> "Send to" was added to Mail setting for event occurrence. "Disconnect from the network after sending mail" was added to Mail setting for event occurrence. The following setting items were changed. <ol style="list-style-type: none"> The No. of CPU event historical data was changed from 16 to 64. The No. of tag event historical data was changed from 16 to 256. From the common setting, E-mail destination specification were moved to the CPU event setting, Tag event setting and Time/Interval event setting. The number of e-mail destinations was changed from "Within 3 common destinations" to "Within 16 destinations for each event setting screen". A change was made to enter the "Trigger value, Restoration value" of the tag event setting according to the data type. | Section 6.5.3 |
| E-mail setting | <ul style="list-style-type: none"> "Option setting" was added. | Section 6.6.3 |
| Address notification setting | <ul style="list-style-type: none"> The "Notify the global IP address obtained from the router" radio button was added. "Use the default HTTP port number (80)" was changed to "Notify the HTTP port number set in the "System setting" screen". | Section 6.9.2(1) |
| E-mail notification setting | <ul style="list-style-type: none"> "Notify an IP address at dial-up" was changed to "Notify an IP address at network connection.". | Section 6.9.2(2) |
| FTP notification setting | <ul style="list-style-type: none"> "Option setting" was added. "Notify an IP address at dial-up" was changed to "Notify an IP address at network connection.". | Section 6.9.2(3) |
| Data management | <ul style="list-style-type: none"> "CSV export, CSV import" was added. | Section 6.10.4 |

(Continued on the next page)

(From the previous page)

| Added/Changed Function | Description | Reference Section |
|-------------------------------|---|---------------------------|
| User screen creation function | <ul style="list-style-type: none"> The following applet parts were added. <ol style="list-style-type: none"> 1) Write button parts 2) Device monitor parts 3) Tag data monitor parts 4) Logging monitor parts 5) Event history monitor parts 6) PLC diagnostics monitor part 7) Self-diagnostics monitor parts The following SSI parts were added. <ol style="list-style-type: none"> 1) SSI read parts The following CGI parts were added. <ol style="list-style-type: none"> 1) CGI write parts 2) CGI read parts 3) Disconnect parts The following user parts were changed. <ol style="list-style-type: none"> 1) Some parameters of the user parts were changed to the items that must be set. (Error occurs if not set) Refer to Appendix 5.2 for the parameters that must be set. 2) In the data block parts, a change was made to enable write to a tag component (parameters WRITE, LANGUAGE were added). 3) "APLCOLOR" was added to the parameters of the graphic display parts. | Chapter 7 Appendix 5.2 |
| Dedicated instruction | <ul style="list-style-type: none"> The following dedicated instructions were added. <ol style="list-style-type: none"> 1) FTPGET instruction 2) WFWRITE instruction 3) WFREAD instruction 4) WFDEL instruction The following dedicated instructions were changed. <ol style="list-style-type: none"> 1) A change was made to enable a user data file to be specified as an attached file in the WMSEND instruction. 2) A change was made to enable a user data file to be specified as a transferred file in the FTPPUT instruction. | Chapter 8 |

(2) Module with first 5 digits of serial No. 07042 or later

| Added/Changed Function | Description | Reference Section |
|-------------------------------|--|-------------------|
| Performance specifications | <ul style="list-style-type: none"> The following browser (Java VM) is supported. Sun Microsystems JRE(J2SE) v1.5 | Section 3.1 |
| User screen creation function | <ul style="list-style-type: none"> The following applet parts were added. <ol style="list-style-type: none"> 1) Audio parts | Section 7.2.6 |

(3) Module with first 5 digits of serial No. 09012 or later

| Added/Changed Function | Description | Reference Section |
|------------------------|--|-------------------|
| System configuration | <ul style="list-style-type: none"> Redundant CPUs were added to applicable systems. | Section 2.1 |

(4) Module with first 5 digits of serial No. 09042 or later

| Added/Changed Function | Description | Reference Section |
|-----------------------------|---|-------------------|
| System configuration | <ul style="list-style-type: none"> Following CPU modules were added to applicable systems. Q02UCPU, Q03UDCPU, Q04UDHCPU, Q06UDHCPU | Section 2.1 |
| Network communication route | <ul style="list-style-type: none"> MELSECNET/G was added in the network communication route. | Appendix 2 |

(5) Module with first 5 digits of serial No. 10012 or later

| Added/Changed Function | Description | Reference Section |
|-----------------------------|---|-------------------|
| System configuration | <ul style="list-style-type: none"> Following CPU modules were added to applicable systems. Q02PHCPU, Q06PHCPU, Q13UDHCPU, Q26UDHCPU, Q03UDECPU, Q04UDEHCPU, Q06UDEHCPU, Q13UDEHCPU, Q26UDEHCPU | Section 2.1 |
| Performance specifications | <ul style="list-style-type: none"> The following browser (Java VM) is supported. Sun Microsystems JRE(J2SE) v1.6 | Section 3.1 |
| Accessible device | <ul style="list-style-type: none"> The following devices are supported. Link direct devices, in and after JnW8000 Extension data register D32728 or later Extension link register W8000 or later | Appendix 2 |
| Network communication route | <ul style="list-style-type: none"> The name of MELSECNET/G was changed to CC-Link IE controller network. | Appendix 2 |

Appendix 5.2 Precautions for replacing the old version with the new version

This section provides the precautions for replacing the module whose first 5 digits of serial No. are 05111 or earlier with the one whose first 5 digits of serial No. are 05112 or later.

(1) Restoration of setting information file

The setting information file of the module with first 5 digits of serial No. 05111 or earlier can be restored to the module with first 5 digits of serial No. 05112 or later. However, the setting information file of the module with first 5 digits of serial No. 05112 or later can not be restored to the module with first 5 digits of serial No. 05111 or earlier. (An error will occur if such restoration is executed.)

(2) User part parameters that must be set

On the module with first 5 digits of serial No. 05112 or later, the following parameters of the user parts have been changed to the items that must be set. When using the following user parts, be sure to set the following parameters. An error will occur unless any of them is set.

| Part name | Parameter that must be set | Initial value of module with first 5 digits of serial No. 05111 or earlier (*1) |
|--------------------------------|-------------------------------|---|
| Data block parts | TAGNO, ELMNO1 to ELMNO64 (*2) | 1 |
| Level display parts | TAGNO, ELMNO | 1 |
| Graphic display parts | TAGNO, ELMNO | 1 |
| | RANGENO (*3) | 1 |
| | LOW1 to LOW5 | 0 |
| | HIGH1 to HIGH5 | 1 |
| | PICTURE1 to PICTURE5 | File not set (not displayed) |
| Comment display parts | TAGNO, ELMNO | 1 |
| | RANGENO (*4) | 1 |
| | LOW1 to LOW5 | 0 |
| | HIGH1 to HIGH5 | 1 |
| | CMT1 to CMT5 | File not set (not displayed) |
| Historical graph display parts | LOGNO | 1 |
| | GRAPHNO (*5) | 1 |
| | ELMNO1 to ELMNO5 | 1 |
| Historical data display parts | LOGNO | 1 |
| | XNO (*6) | 1 |
| | ELMNO1 to ELMNO10 | 1 |

- *1 When the above user parts are used on the module whose first 5 digits of serial No. are 05111 or earlier, they operate with the initial values indicated above.
- *2 Be sure to set ELMNO1. Failure to do so will result in an error. Set ELMNO1 to ELMNO64 consecutively. Failure to do so will result in an error.
- *3 Be sure to set LOWs, HIGHs and PICTUREs as many as the quantity specified at RANGENO. Failure to do so will result in an error.
- *4 Be sure to set LOWs, HIGHs and CMTs as many as the quantity specified at RANGENO. Failure to do so will result in an error.
- *5 Be sure to set ELMNOs as many as the graph lines specified at GRAPHNO. Failure to do so will result in an error.
- *6 Be sure to set ELMNOs as many as the quantity specified at XNO. Failure to do so will result in an error.

(3) Deletion of temporary Internet files

When the Web server module has been replaced, delete the temporary Internet files (cache) and then make access to the Web server module.

(Refer to Section 6.2.7 (1) for how to delete the temporary Internet files.)

Appendix 6 Setting Information File Formats

This section explains the setting information file formats used for the CSV export/import function.

When editing a setting information file using a spreadsheet software, etc., change the setting items according to the corresponding setting information file format indicated in this section.

Refer to Section 6.10.3 for the CSV export/import function.

Appendix 6.1 Setting information file list and storage area

(1) Setting information file list

The following table lists the CSV exported/imported setting information files.

| File name | Description |
|----------------|---|
| SYSTEM. CSV | System setting |
| DIALUP. CSV | Dial-up setting |
| CPU. CSV | Access target CPU setting |
| TAG. CSV | Tag setting |
| COMPONENT. CSV | Tag setting - Component setting |
| LOGGING. CSV | Logging setting |
| FTP. CSV | FTP setting |
| EMAIL. CSV | E-mail setting |
| EVENT. CSV | Event setting - Common setting |
| CPUEVT. CSV | Event setting - CPU event setting |
| TAGEVT. CSV | Event setting - Tag event setting |
| TIMEEVT. CSV | Event setting - Time/Interval event setting |
| ADDRESS. CSV | Address notification setting |
| ACCOUNT. CSV | Account setting |
| IPFILTER. CSV | IP filter setting |

- (a) When CSV export is executed, all the above setting information files are exported to the standard ROM or Compact Flash™ card.
- (b) When CSV import is executed, all the above setting information files are imported from the standard ROM or Compact Flash™ card.
Note that when CSV import is executed, all the above setting information files must exist. (If any one is lacking, an error will result.)

(2) Setting information file storage area

As the setting information file storage area, select either the standard ROM or Compact Flash™ card when executing CSV export/import.

When CSV export is executed, the setting information files are exported to the selected storage area.

When CSV import is executed, the setting information files are imported from the selected storage place.

| Storage area selection | Setting information file storage area |
|---------------------------------------|---------------------------------------|
| When "Standard ROM" is selected | /ROM/WWW/USER/CSV/ |
| When "Compact Flash card" is selected | /CF/USER/CSV/ |

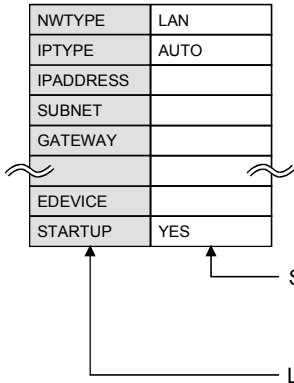
Appendix 6.2 Setting information file formats and editing precautions

This section explains the setting information file formats and editing precautions. The examples given in this section assume that setting information files are displayed on a spreadsheet program.

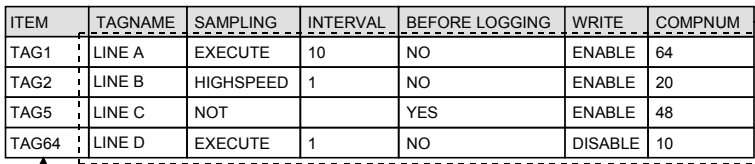
(1) Setting information file formats

There are two different setting information file formats: one consisting of a label column and setting area and the other consisting of a label column, item row and setting area.

(a) Format consisting of label column and setting area

| Item | Description |
|-----------------|---|
| File format |  <p>Setting area : Set by the user. For the setting items of each file, refer to Appendix 6.3 and later.</p> <p>Label column : Cannot be set by the user. (Cannot be edited.)</p> |
| Applicable file | SYSTEM. CSV, DIALUP. CSV, EMAIL. CSV, EVENT. CSV, ADDRESS. CSV, IPFILTER. CSV |

(b) Format consisting of label column, item row and setting area

| Item | Description |
|-----------------|--|
| File format | <p>Item row : Cannot be set by the user. (Cannot be edited.)</p>  <p>Setting area : Set by the user. For the setting items of each file, refer to Appendix 6.3 and later.</p> <p>Label column : Set by the user. For the labels of each file, refer to Appendix 6.3 and later.</p> |
| Applicable file | CPU. CSV, TAG. CSV, COMPONENT. CSV, LOGGING. CSV, FTP. CSV, CPUEVT. CSV, TAGEVT. CSV, TIMEEVT. CSV, ACCOUNT. CSV |

(2) Precautions for editing a setting information file

(a) Space

All spaces are regarded as part of the item.

An error will occur if a space is used in an inapplicable setting item.

(b) Upper case/lower case

The setting information files are case-sensitive.

(c) Special characters

1) "Line feed"

When entering a "Line feed", type "\n".

(Example) An error occurred in Line A. \nTake corrective action.

2) "\" sign

When entering "\", type "\\".

3) "," (Comma)

When entering a ",", enclose an entire item with double quotation marks.

(When EXCEL is used, however, it is not necessary since double quotation marks are automatically added when a file is saved in CSV format.)

(Example) "As the temperature was abnormal, the machine stopped"

(3) How to use the setting information file formats

The following describes how to use the setting information file formats given in this section and later.

APPENDIX MELSEC-Q

Indicates the file name and corresponding setting screen. → Appendix 6.6 TAG.CSV (Tag setting)

Indicates the setting screen corresponding to the label column and item row in the file format, and its explanation.

(1) File format

| Item | Description |
|---------------|--------------------------------------|
| File name | TAG.CSV |
| File contents | Tag setting (Refer to Section 6.3.3) |

File format

| ITEM | TAGNAME | SAMPLING | INTERVAL | BEFORE LOGGING | WRITE | COMPNUM |
|-------|---------|-----------|----------|----------------|---------|---------|
| TAG1 | Line A | EXECUTE | 10 | NO | ENABLE | 64 |
| TAG2 | Line B | HIGHSPEED | 1 | NO | ENABLE | 20 |
| TAG5 | Line C | NOT | 1 | YES | ENABLE | 48 |
| TAG64 | Line D | EXECUTE | 1 | NO | DISABLE | 10 |

File format

Item row : Cannot be set by the user.
Label column, Setting area : Set by the user.

[Tag setting]

Save Back Load

Tag setting No. 1

Tag name: Line 1 (within 16 characters)

Sampling: ☐ Not execute ☒ Execute Interval: 10 (seconds) (1 to 32767)

☐ Execute at high speed Interval: 1 (milliseconds) (1 to 600)

☐ Update before logging ☐ Enable ☒ Disable

(2) Label

| Label | Description |
|-------|---|
| 1 | TAG1 to TAG64 Set the items of tag setting No. 1 to 64. Enter only the necessary labels. (Labels that are not set need not be entered.) |

(3) Setting items

| Item | Description | Set value | Setting requirement |
|------|-------------|---|-----------------------------|
| 2 | TAGNAME | Tag name | Within 16 characters |
| 3 | SAMPLING | Not execute Execute Execute at high speed | NOT EXECUTE HIGHSPEED |

○ : Must be set × : Need not be set (Invalid)

Refer to (a) Refer to (b)

Indicates the setting screen name and set value input condition.

(a) "Set value"

1) Underlined set value ((Example) YES)

Enter alphabetic characters in uppercase.

2) (Blank)

A set value need not be entered.

3) Setting other than above 1) and 2)

Enter any value according to the setting range in the Set value field.

(b) "Setting requirement"

○ : This item must be set. Always enter a value.

× : This item need not be set (invalid). It is not necessary to enter a value.

Appendix 6.3 SYSTEM.CSV (System setting)

(1) File format

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|-------------|----------|-----|---|--------|------|---|-----------|--|---|--------|--|---|---------|--|---|---------|------|---|------|--|---|------|--|---|----------|---------|----|----------|--|----|---------|-----|----|---------|---------|----|----------|--|----|--------|-----|----|------------|----------|----|-----------|----|----|----------|--|----|-------------|--|----|---------|--|----|---------|-----|
| File name | SYSTEM.CSV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File contents | System setting (Refer to Section 4.6.3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File format | <table><tr><td>1</td><td>NWTYPE</td><td>LAN</td></tr><tr><td>2</td><td>IPTYPE</td><td>AUTO</td></tr><tr><td>3</td><td>IPADDRESS</td><td></td></tr><tr><td>4</td><td>SUBNET</td><td></td></tr><tr><td>5</td><td>GATEWAY</td><td></td></tr><tr><td>6</td><td>DNSTYPE</td><td>AUTO</td></tr><tr><td>7</td><td>DNS1</td><td></td></tr><tr><td>8</td><td>DNS2</td><td></td></tr><tr><td>9</td><td>HTTPTYPE</td><td>DEFAULT</td></tr><tr><td>10</td><td>HTTPPORT</td><td></td></tr><tr><td>11</td><td>HTTPNAT</td><td>YES</td></tr><tr><td>12</td><td>FTPTYPE</td><td>DEFAULT</td></tr><tr><td>13</td><td>FTPSPORT</td><td></td></tr><tr><td>14</td><td>FTPNAT</td><td>YES</td></tr><tr><td>15</td><td>SYSTEMNAME</td><td>QJ71WS96</td></tr><tr><td>16</td><td>DIAGNOSIS</td><td>NO</td></tr><tr><td>17</td><td>INTERVAL</td><td></td></tr><tr><td>18</td><td>DESTINATION</td><td></td></tr><tr><td>19</td><td>EDEVICE</td><td></td></tr><tr><td>20</td><td>STARTUP</td><td>YES</td></tr></table> | 1 | NWTYPE | LAN | 2 | IPTYPE | AUTO | 3 | IPADDRESS | | 4 | SUBNET | | 5 | GATEWAY | | 6 | DNSTYPE | AUTO | 7 | DNS1 | | 8 | DNS2 | | 9 | HTTPTYPE | DEFAULT | 10 | HTTPPORT | | 11 | HTTPNAT | YES | 12 | FTPTYPE | DEFAULT | 13 | FTPSPORT | | 14 | FTPNAT | YES | 15 | SYSTEMNAME | QJ71WS96 | 16 | DIAGNOSIS | NO | 17 | INTERVAL | | 18 | DESTINATION | | 19 | EDEVICE | | 20 | STARTUP | YES |
| | 1 | NWTYPE | LAN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | IPTYPE | AUTO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | IPADDRESS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | SUBNET | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | GATEWAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 | DNSTYPE | AUTO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 | DNS1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 | DNS2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 | HTTPTYPE | DEFAULT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10 | HTTPPORT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 11 | HTTPNAT | YES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 12 | FTPTYPE | DEFAULT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13 | FTPSPORT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 14 | FTPNAT | YES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 15 | SYSTEMNAME | QJ71WS96 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 16 | DIAGNOSIS | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 17 | INTERVAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 18 | DESTINATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 19 | EDEVICE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 20 | STARTUP | YES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <div><div></div>Label column : Cannot be set by the user.</div> <div><div></div>Setting area : Set by the user.</div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Item | Description |
|----------------------------|---|
| File format (Continued) | <div> <div>[System setting]</div> <div> <div>Save Cancel</div> <div> <div>1 → Network type setting</div> <div> <input checked="" type="radio"/> Connecting through LAN or the router. <input type="radio"/> Dial-up to the network (modem,ADSL,DoPa(Japan only)) </div> </div> <div> <div>2 → IP address setting</div> <div> <input type="radio"/> Obtain an IP address automatically. <input checked="" type="radio"/> Use the following IP address. </div> <div> <div>3 → IP address: 192.168.3.3</div> <div>4 → Subnet mask: 255.255.255.0</div> <div>5 → Default gateway:</div> </div> </div> <div> <div>6 → DNS server setting</div> <div> <input checked="" type="radio"/> Obtain a DNS server address automatically. <input checked="" type="radio"/> Use the following DNS server address. </div> <div> <div>7 → DNS server address 1:</div> <div>8 → DNS server address 2:</div> </div> </div> <div> <div>9 → Web server setting</div> <div> <input checked="" type="radio"/> Use the default HTTP port number(80). <input type="radio"/> Use the following HTTP port number. </div> <div> <div>10 → HTTP port number: (1024 to 65535)</div> <div>11 → <input type="checkbox"/> Register the above port No. to the router's NAT.</div> </div> <div> <div>12 → FTP server setting</div> <div> <input checked="" type="radio"/> Use the default FTP port number(21). <input type="radio"/> Use the following FTP port number. </div> <div> <div>13 → FTP port number: (1024 to 65535)</div> <div>14 → <input type="checkbox"/> Register the above port No. to the router's NAT.</div> </div> <div> <div>15 → System name setting</div> <div>System name: QJ71WS96 (1 to 32 characters)</div> </div> <div> <div>Network diagnosis setting</div> <div> <div>16 → <input type="checkbox"/> Execute network diagnoses(ping).</div> <div>17 → Sending interval: 60 [seconds] (10 to 3600)</div> <div>18 → Destination: <input checked="" type="radio"/> Gateway <input type="radio"/> Following external device</div> <div>19 → (1 to 64 characters)</div> </div> <div> <div>20 → Automatic network connection setting at start-up</div> <div> <input type="radio"/> No connection to network at start-up. <input checked="" type="radio"/> Automatic connection to network at start-up. </div> </div> </div> </div> </div></div></div> |

(2) Label

| | Label | Description | Set value | Setting requirement |
|---|--------|----------------------|---|---------------------|
| 1 | NWTYPE | Network type setting | <div>Connecting through LAN or the router.</div> <div>Dial-up to the network.(modem,ADSL)</div> | ○ |
| 2 | IPTYPE | IP address setting | <div>Obtain an IP address automatically.</div> <div>Use the following IP address.</div> | ○ |

○ : Must be set × : Need not be set (Invalid)

| | Label | Description | | Set value | Setting requirement |
|----|-----------|--|---|---|---------------------|
| 3 | IPADDRESS | IP address | When "AUTO" is selected at IPTYPE | (Blank) | × |
| | | | When "SPECIFY" is selected at IPTYPE | IP address (decimal) | ○ |
| 4 | SUBNET | Subnet mask | When "AUTO" is selected at IPTYPE | (Blank) | × |
| | | | When "SPECIFY" is selected at IPTYPE | Subnet mask (decimal) | ○ |
| 5 | GATEWAY | Default gateway | When "AUTO" is selected at IPTYPE | (Blank) | × |
| | | | When "SPECIFY" is selected at IPTYPE and "GATEWAY" is selected at DESTINATION | Default gateway (decimal) | ○ |
| | | | When other than the above is selected | Default gateway (decimal) or (blank) | ○ |
| 6 | DNSTYPE | DNS server setting | Obtain a DNS server address automatically. | <u>AUTO</u> | ○ |
| | | | Use the following DNS server address. | <u>SPECIFY</u> | |
| 7 | DNS1 | DNS server address 1 | When "AUTO" is selected at DNSTYPE | (Blank) | × |
| | | | When "SPECIFY" is selected at DNSTYPE | DNS server address 1 (decimal) or (blank) | ○ |
| 8 | DNS2 | DNS server address 2 | When "AUTO" is selected at DNSTYPE | (Blank) | × |
| | | | When "SPECIFY" is selected at DNSTYPE | DNS server address 2 (decimal) or (blank) | ○ |
| 9 | HTTPTYPE | Web server setting | Use the default HTTP port number (80). | <u>DEFAULT</u> | ○ |
| | | | Use the following HTTP port number. | <u>SPECIFY</u> | |
| 10 | HTTPPORT | HTTP port number | When "DEFAULT" is selected at HTTPTYPE | (Blank) | × |
| | | | When "SPECIFY" is selected at HTTPTYPE | 1024 to 65535 | ○ |
| 11 | HTTPNAT | Register the above port No. to the router's NAT. | Mark | <u>YES</u> | ○ |
| | | | Do not mark | <u>NO</u> | |
| 12 | FTPTYPE | FTP server setting | Use the default FTP port number (21). | <u>DEFAULT</u> | ○ |
| | | | Use the following FTP port number. | <u>SPECIFY</u> | |

○ : Must be set × : Need not be set (Invalid)

| | Label | Description | | Set value | Setting requirement |
|----|-------------|--|--|-----------------------------|---------------------|
| 13 | FTPPORT | FTP port number | When " DEFAULT " is selected at FTPTYPE | (Blank) | × |
| | | | When "SPECIFY" is selected at FTPTYPE | 1024 to 65535 | ○ |
| 14 | FTPNAT | Register the above port No. to the router's NAT. | Mark | <u>YES</u> | ○ |
| | | | Do not mark | <u>NO</u> | |
| 15 | SYSTEMNAME | System name setting | System name | Within 32 characters | ○ |
| 16 | DIAGNOSIS | Execute network diagnoses (ping). | Mark | <u>YES</u> | ○ |
| | | | Do not mark | <u>NO</u> | |
| 17 | INTERVAL | Sending interval | When "YES" is selected at DIAGNOSIS | 10 to 3600 (unit : seconds) | ○ |
| | | | When "NO" is selected at DIAGNOSIS | (Blank) | × |
| 18 | DESTINATION | Destination | When "YES" is selected at DIAGNOSIS | Gateway | ○ |
| | | | Following external device | <u>Following</u> | |
| | | | When "NO" is selected at DIAGNOSIS | (Blank) | × |
| 19 | EDEVICE | Following external device | When "YES" is selected at DIAGNOSIS and "FOLLOWING" is selected at DESTINATION | 1 to 64 characters | ○ |
| | | | When other than the above is selected | (Blank) | × |
| 20 | STARTUP | Automatic network connection setting at start-up | No connection to network at start-up. | <u>NO</u> | ○ |
| | | | Automatic connection to network at start-up. | <u>YES</u> | |

○ : Must be set × : Need not be set (Invalid)

Appendix 6.4 DIALUP.CSV (Dial-up setting)

(1) File format

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|-------------|---------------|-------|---|----------|----------|---|----------|----------|---|---------|---------------|---|---------|---------------|---|---------|--|---|---------|------|---|-------|---|---|-------------|-----|----|-------|------|----|---------|----|----|-------|---|----|-----------|--|----|------|----|----|------------|----|----|-------|--|
| File name | DIALUP.CSV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File contents | Dial-up setting (Refer to Section 4.6.4) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File format | <table><tr><td>1</td><td>CMETHOD</td><td>MODEM</td></tr><tr><td>2</td><td>USERNAME</td><td>USERNAME</td></tr><tr><td>3</td><td>PASSWORD</td><td>PASSWORD</td></tr><tr><td>4</td><td>NUMBER1</td><td>012-3456-7890</td></tr><tr><td>5</td><td>NUMBER2</td><td>012-3456-7891</td></tr><tr><td>6</td><td>NUMBER3</td><td></td></tr><tr><td>7</td><td>DMETHOD</td><td>TONE</td></tr><tr><td>8</td><td>RETRY</td><td>3</td></tr><tr><td>9</td><td>CHANGEPOINT</td><td>YES</td></tr><tr><td>10</td><td>SPEED</td><td>9600</td></tr><tr><td>11</td><td>TIMEOUT</td><td>90</td></tr><tr><td>12</td><td>PAUSE</td><td>3</td></tr><tr><td>13</td><td>ATCOMMAND</td><td></td></tr><tr><td>14</td><td>CALL</td><td>NO</td></tr><tr><td>15</td><td>DISCONNECT</td><td>NO</td></tr><tr><td>16</td><td>DTIME</td><td></td></tr></table> | 1 | CMETHOD | MODEM | 2 | USERNAME | USERNAME | 3 | PASSWORD | PASSWORD | 4 | NUMBER1 | 012-3456-7890 | 5 | NUMBER2 | 012-3456-7891 | 6 | NUMBER3 | | 7 | DMETHOD | TONE | 8 | RETRY | 3 | 9 | CHANGEPOINT | YES | 10 | SPEED | 9600 | 11 | TIMEOUT | 90 | 12 | PAUSE | 3 | 13 | ATCOMMAND | | 14 | CALL | NO | 15 | DISCONNECT | NO | 16 | DTIME | |
| | 1 | CMETHOD | MODEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | USERNAME | USERNAME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | PASSWORD | PASSWORD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | NUMBER1 | 012-3456-7890 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | NUMBER2 | 012-3456-7891 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 | NUMBER3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 | DMETHOD | TONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 | RETRY | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 | CHANGEPOINT | YES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10 | SPEED | 9600 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 11 | TIMEOUT | 90 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 12 | PAUSE | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13 | ATCOMMAND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 14 | CALL | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 15 | DISCONNECT | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | DTIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <div><div></div>Label column : Cannot be set by the user.</div> <div><div></div>Setting area : Set by the user.</div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <div>[Dial-up setting]</div> <div><div>[Dial-up setting] Home > Administrative menu > Dial-up setting</div><div><div>Save</div><div>Cancel</div></div><div>1 → Connection method</div><div><div><input type="radio"/> Modem</div><div><input checked="" type="radio"/> ADSL</div><div><input type="radio"/> DoPa(Japan only)</div></div><div>Connection account</div><div>2 → User name: <div>MITSUBISHI</div> (1 to 128 characters)</div><div>3 → Password: <div>XXXXXXXXXX</div> (1 to 128 characters)</div><div>Confirm password: <div>XXXXXXXXXX</div></div><div>Access point</div><div>4 → Phone number 1: <div></div></div><div>5 → Phone number 2: <div></div></div><div>6 → Phone number 3: <div></div></div><div>7 → Dial method</div><div><div><input checked="" type="radio"/> Tone</div><div><input type="radio"/> Pulse</div></div><div>Retry</div><div>8 → Number of retries: <div>3</div> times(0 to 255)</div><div>9 → <input checked="" type="checkbox"/> Change access point automatically.</div><div>Modem attribute</div><div>10 → Communication speed: <div>9600</div></div><div>11 → Calling timeout: <div>90</div> Seconds(90 to 180)</div><div>12 → Dial pause time: <div>3</div> Seconds(1 to 30)</div><div>13 → AT command additional setting: <div></div> (0 to 64 characters)</div><div>14 → Call function: <div><div><input type="radio"/> Disable</div><div><input checked="" type="radio"/> Enable</div></div></div><div>15 → Disconnect function*: <div><div><input type="radio"/> Disable</div><div><input checked="" type="radio"/> Enable</div></div> (<div>5</div> [minutes])(1 to 30)</div><div>16 →</div><div>* The line is disconnected when there is no access request within the specified time limit.</div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

(2) Label

| | Label | Description | | Set value | Setting requirement |
|---|-------------|------------------------------------|--|--|---------------------|
| 1 | CMETHOD | Connection method | Modem | <u>MODEM</u> | ○ |
| | | | ADSL | <u>ADSL</u> | |
| | | | Dopa (Japan only) | <u>DOPA</u> | |
| 2 | USERNAME | User name *1 | | 1 to 128 characters or (Blank) | ○ |
| 3 | PASSWORD | Password *1 | | 1 to 128 characters or (Blank) | ○ |
| 4 | NUMBER1 | Phone number 1 *1*2 | When "MODEM" or "DOPA" is selected at CMETHOD | 1 to 20 (Applicable characters: 0 to 9, P, p, #, *, -) | ○ |
| | | | When "ADSL" is selected at CMETHOD | (Blank) | × |
| 5 | NUMBER2 | Phone number 2 | When "YES" is selected at CHANGEPOINT | 1 to 20 (Applicable characters: 0 to 9, P, p, #, *, -) | ○ |
| | | | When "NO" is selected at CHANGEPOINT | (Blank) | × |
| 6 | NUMBER3 | Phone number 3 | When "YES" is selected at CHANGEPOINT | 1 to 20 (Applicable characters: 0 to 9, P, p, #, *, -) | ○ |
| | | | When "NO" is selected at CHANGEPOINT | (Blank) | × |
| 7 | DMETHOD | Dial method | When "MODEM" is selected at CMETHOD | Tone <u>TONE</u> | ○ |
| | | | Pulse | <u>PULSE</u> | |
| | | | When other than the above is selected at CMETHOD | (Blank) | × |
| 8 | RETRY | Number of retries | When "MODEM" or "DOPA" is selected at CMETHOD | 0 to 255 (unit : times) | ○ |
| | | | When "ADSL" is selected at CMETHOD | (Blank) | × |
| 9 | CHANGEPOINT | Change access point automatically. | When "MODEM" or "DOPA" is selected at CMETHOD | Mark <u>YES</u> | ○ |
| | | | Do not mark | <u>NO</u> | |
| | | | When "ADSL" is selected at CMETHOD | (Blank) | × |

○ : Must be set × : Need not be set (Invalid)

| | Label | Description | | Set value | Setting requirement |
|----|------------|-------------------------------|---|---|---------------------|
| 10 | SPEED | Communication speed | When "MODEM" or "DOPA" is selected at CMETHOD | 9600, 19200, 38400, 57600, 115200 | ○ |
| | | | When "ADSL" is selected at CMETHOD | (Blank) | × |
| 11 | TIMEOUT | Calling timeout | When "MODEM" or "DOPA" is selected at CMETHOD | 90 to 180 (unit : seconds) | ○ |
| | | | When "ADSL" is selected at CMETHOD | (Blank) | × |
| 12 | PAUSE | Dial pause time | When "MODEM" is selected at CMETHOD | 1 to 30 (unit : seconds) | ○ |
| | | | When other than the above is selected at CMETHOD | (Blank) | × |
| 13 | ATCOMMAND | AT command additional setting | When "MODEM" or "DOPA" is selected at CMETHOD | Additional AT command (1 to 64 characters) or (blank) | ○ |
| | | | When "ADSL" is selected at CMETHOD | (Blank) | × |
| 14 | CALL | Call function | When "MODEM" is selected at CMETHOD | Disable <u>NO</u> | ○ |
| | | | Enable <u>YES</u> | | |
| | | | When other than the above is selected at CMETHOD | (Blank) | × |
| 15 | DISCONNECT | Disconnect function | When "MODEM" is selected at CMETHOD | Disable <u>NO</u> | ○ |
| | | | Enable <u>YES</u> | | |
| | | | When other than the above is selected at CMETHOD | (Blank) | × |
| 16 | DTIME | Disconnect time | When "MODEM" is selected at CMETHOD and "YES" is selected at DISCONNECT | 1 to 30 (unit: minutes) | ○ |
| | | | When other than the above is selected | (Blank) | × |

○ : Must be set × : Need not be set (Invalid)

*1 USERNAME, PASSWORD and NUMBER1 can all be blanked.
However, if any one of the three has been set, the other two must also be set. (They cannot be blanked.)

Appendix 6.5 CPU.CSV (Access target CPU setting)

(1) File format

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|----------|-----------|---------------|-----------|---------------|------|------|--------------|------|----|----|--|------|-----------|------|---|--------|----------|------|---------|--------|--|-----------|-------|-------|-------|------|--|--------|--------|--------|-----|----------|------|--------|-----|----------|--|--|--|--|--|--|--|---|--|---|--|--|--|--|---|--|---|--------|--|----|---|--|----|---|--|--|--|--|
| File name | CPU.CSV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File contents | Access target CPU setting (Refer to Section 4.6.7) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File format | <div><div><div><div><div>2</div><div>3</div><div>4</div><div>5</div><div>6</div></div><table><tr><th>ITEM</th><th>CPUNAME</th><th>SERIES</th><th>MULTI CPU</th><th>OTHER STATION</th><th>NET1</th></tr><tr><td>CPU1</td><td>Contorol CPU</td><td>QCPU</td><td>NO</td><td>NO</td><td></td></tr><tr><td>CPU2</td><td>Assembler</td><td>QCPU</td><td>1</td><td>SINGLE</td><td>ETHERNET</td></tr><tr><td>CPU5</td><td>Painter</td><td>QNACPU</td><td></td><td>DIFFERENT</td><td>NET10</td></tr><tr><td>CPU60</td><td>Welde</td><td>ACPU</td><td></td><td>SINGLE</td><td>CCLINK</td></tr></table><div><div>1</div><div>7</div><div>8</div><div>9</div><div>10</div><div>11</div><div>12</div><div>13</div></div><table><tr><th>NETNO1</th><th>IO1</th><th>STATION1</th><th>NET2</th><th>NETNO2</th><th>IO2</th><th>STATION2</th></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>2</td><td></td><td>3</td><td></td><td></td><td></td><td></td></tr><tr><td>3</td><td></td><td>1</td><td>CCLINK</td><td></td><td>20</td><td>2</td></tr><tr><td></td><td>40</td><td>4</td><td></td><td></td><td></td><td></td></tr></table><div><div></div>Item row : Cannot be set by the user.</div><div><div></div>Label column, Setting area : Set by the user.</div></div></div><div><div>[Access target CPU setting]</div><div><div>1</div><div>2</div><div>3</div><div>4</div><div>5</div></div><div><div>Access target CPU No. 02</div><div>CPU name: process A (within 16 characters)</div><div>PLC series: QCPU (Q mode)</div><div>Multiple CPU specification: No specification</div><div>Other station specification: <input type="radio"/> No specification <input checked="" type="radio"/> Other Station(Single network) <input type="radio"/> Other Station(Different network)</div><div><div>[Network communication route]</div><div>Network: <input checked="" type="radio"/> CC IE Cont NET/10(H) <input type="radio"/> CC-Link <input type="radio"/> Ethernet <input type="radio"/> C24</div><div><div>7</div><div>8</div><div>9</div></div><div><div>Network No.: 1 (Network No. on the communication route.)</div><div>Start I/O: 0 (Start I/O of source station)</div><div>Station No.: 1 (Destination station No.)</div></div><div><div>[Different network communication route]</div><div>Network: <input checked="" type="radio"/> CC IE Cont NET/10(H) <input type="radio"/> CC-Link <input type="radio"/> Ethernet <input type="radio"/> C24</div><div><div>11</div><div>12</div><div>13</div></div><div><div>Network No.: 1 (Network No. on the communication route.)</div><div>Start I/O: 0 (Start I/O of source station)</div><div>Station No.: 1 (Destination station No.)</div></div></div></div></div></div></div> | ITEM | CPUNAME | SERIES | MULTI CPU | OTHER STATION | NET1 | CPU1 | Contorol CPU | QCPU | NO | NO | | CPU2 | Assembler | QCPU | 1 | SINGLE | ETHERNET | CPU5 | Painter | QNACPU | | DIFFERENT | NET10 | CPU60 | Welde | ACPU | | SINGLE | CCLINK | NETNO1 | IO1 | STATION1 | NET2 | NETNO2 | IO2 | STATION2 | | | | | | | | 2 | | 3 | | | | | 3 | | 1 | CCLINK | | 20 | 2 | | 40 | 4 | | | | |
| ITEM | CPUNAME | SERIES | MULTI CPU | OTHER STATION | NET1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CPU1 | Contorol CPU | QCPU | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CPU2 | Assembler | QCPU | 1 | SINGLE | ETHERNET | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CPU5 | Painter | QNACPU | | DIFFERENT | NET10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CPU60 | Welde | ACPU | | SINGLE | CCLINK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NETNO1 | IO1 | STATION1 | NET2 | NETNO2 | IO2 | STATION2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | 1 | CCLINK | | 20 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 40 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

(2) Label

| | Label | Description |
|---|---------------|--|
| 1 | CPU1 | Set the items of access target CPU setting No. 1. (Must be set) Only "CPUNAME" can be set. (The settings of the other setting items are invalid.) |
| | CPU2 to CPU64 | Set the items of access target CPU setting No. 2 to 64. Enter only the necessary labels. (Labels that are not set need not be entered.) |

(3) Setting items

| | Item | Description | | Set value | Setting requirement |
|---|---------------|-----------------------------|---|--|---------------------|
| 2 | CPUNAME | CPU name | | Within 16 characters | ○ |
| 3 | SERIES | PLC series | QCPU (Q mode) | <u>QCPU</u> | ○ |
| | | | QCPU (A mode) | <u>QCPUA</u> | |
| | | | QnACPU | <u>QNACPU</u> | |
| | | | ACPU | <u>ACPU</u> | |
| 4 | MULTI CPU | Multiple CPU specification | When "QCPU" is selected at SERIES | No specification | ○ |
| | | | | CPU No.1 | |
| | | | | CPU No.2 | |
| | | | | CPU No.3 | |
| | | | | CPU No.4 | |
| | | | When other than the above is selected at SERIES | (Blank) | × |
| 5 | OTHER STATION | Other station specification | No specification *1 | <u>NO</u> | ○ |
| | | | Other station (Single network) | <u>SINGLE</u> | |
| | | | Other station (Different network) | <u>DIFFERENT</u> | |
| 6 | NET1 | Network | When "SINGLE" or "DIFFERENT" is selected at OTHER STATION *2*3 | CC IE Cont NET/10(H) | ○ |
| | | | | CC-Link | |
| | | | | Ethernet | |
| | | | | C24 | |
| | | | When "NO" is selected at OTHER STATION | (Blank) | × |
| 7 | NETNO1 | Network No. | When "SINGLE" or "DIFFERENT" is selected at OTHER STATION and "NET10" or "ETHERNET" is selected at NET1 | 1 to 239 | ○ |
| | | | When other than the above is selected | (Blank) | × |
| 8 | IO1 | Start I/O | When "SINGLE" or "DIFFERENT" is selected at OTHER STATION and "CCLINK" or "C24" is selected at NET1 | 0 _H to FE0 _H (hexadecimal) | ○ |
| | | | When other than the above is selected | (Blank) | × |

○ : Must be set × : Need not be set (Invalid)

| | Item | Description | | | Set value | Setting requirement |
|----|----------|-------------|---|--|--|---------------------|
| 9 | STATION1 | Station No. | When "SINGLE" or "DIFFERENT" is selected at OTHER STATION | When "NET10" or "ETHERNET" is selected at NET1 | 1 to 120 | ○ |
| | | | | When "CCLINK" is selected at NET1 | 0 to 63 | |
| | | | | When "C24" is selected at NET1 | 0 to 31 | |
| | | | When "NO" is selected at OTHER STATION | | | (Blank) |
| 10 | NET2 | Network | When "DIFFERENT" is selected at OTHER STATION *4*5*6 | CC IE Cont NET/10(H) | <u>NET10</u> | ○ |
| | | | | CC-Link | <u>CCLINK</u> | |
| | | | | Ethernet | <u>ETHERNET</u> | |
| | | | | C24 | <u>C24</u> | |
| | | | When other than the above is selected at OTHER STATION | | | (Blank) |
| 11 | NETNO2 | Network No. | When "DIFFERENT" is selected at OTHER STATION and "NET10" or "ETHERNET" is selected at NET2 | | 1 to 239 | ○ |
| | | | When other than the above is selected | | (Blank) | × |
| 12 | IO2 | Start I/O | When "DIFFERENT" is selected at OTHER STATION and "CCLINK" or "C24" is selected at NET2 | | 0 _H to FE0 _H (hexadecimal) | ○ |
| | | | When other than the above is selected | | (Blank) | × |
| 13 | STATION2 | Station No. | When "DIFFERENT" is selected at OTHER STATION | When "NET10" or "ETHERNET" is selected at NET2 | 1 to 120 | ○ |
| | | | | When "CCLINK" is selected at NET2 | 0 to 63 | |
| | | | | When "C24" is selected at NET2 | 0 to 31 | |
| | | | When other than the above is selected at OTHER STATION | | | (Blank) |

○ : Must be set × : Need not be set (Invalid)

- *1 When other than "QCPU" is selected at SERIES, "NO" cannot be set.
To do so will result in an error.
- *2 When "QNACPU" is selected at SERIES and "DIFFERENT" is selected at OTHER STATION, "CCLINK" and "C24" cannot be set. To do so will result in an error.
- *3 When "QCPUA" or "ACPU" is selected at SERIES
 - 1) When "SINGLE" is selected at OTHER STATION
"ETHERNET" and "C24" cannot be set. To do so will result in an error.
 - 2) When "DIFFERENT" is selected at OTHER STATION
"CCLINK" and "C24" cannot be set. To do so will result in an error.
- *4 When "NET10" or "ETHERNET" is selected at NET1, "NET10" and "ETHERNET" cannot be set. To do so will result in an error.
- *5 When "CCLINK" or "C24" is selected at NET1, "CCLINK" and "C24" cannot be set.
To do so will result in an error.
- *6 When other than "QCPU" is selected at SERIES, "NET10", "ETHERNET" and "C24" cannot be set. To do so will result in an error.

Appendix 6.6 TAG.CSV (Tag setting)

(1) File format

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---------|-----------|----------|----------------|----------------|---------|---------|------|--------|---------|----|----|--------|----|------|--------|-----------|---|----|--------|----|------|--------|-----|--|-----|--------|----|-------|--------|---------|---|----|---------|----|
| File name | TAG.CSV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File contents | Tag setting (Refer to Section 6.3.3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File format | <div><div><div>2</div><div>3</div><div>4</div><div>5</div><div>6</div></div><table><tr><th>ITEM</th><th>TAGNAME</th><th>SAMPLING</th><th>INTERVAL</th><th>BEFORE LOGGING</th><th>WRITE</th><th>COMPNUM</th></tr><tr><td>TAG1</td><td>Line A</td><td>EXECUTE</td><td>10</td><td>NO</td><td>ENABLE</td><td>64</td></tr><tr><td>TAG2</td><td>Line B</td><td>HIGHSPEED</td><td>1</td><td>NO</td><td>ENABLE</td><td>20</td></tr><tr><td>TAG5</td><td>Line C</td><td>NOT</td><td></td><td>YES</td><td>ENABLE</td><td>48</td></tr><tr><td>TAG64</td><td>Line D</td><td>EXECUTE</td><td>1</td><td>NO</td><td>DISABLE</td><td>10</td></tr></table><div><div>1</div></div><div><div><div></div>Item row</div><div>: Cannot be set by the user.</div></div><div><div></div>Label column, Setting area</div><div>: Set by the user.</div></div> | ITEM | TAGNAME | SAMPLING | INTERVAL | BEFORE LOGGING | WRITE | COMPNUM | TAG1 | Line A | EXECUTE | 10 | NO | ENABLE | 64 | TAG2 | Line B | HIGHSPEED | 1 | NO | ENABLE | 20 | TAG5 | Line C | NOT | | YES | ENABLE | 48 | TAG64 | Line D | EXECUTE | 1 | NO | DISABLE | 10 |
| | ITEM | TAGNAME | SAMPLING | INTERVAL | BEFORE LOGGING | WRITE | COMPNUM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TAG1 | Line A | EXECUTE | 10 | NO | ENABLE | 64 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TAG2 | Line B | HIGHSPEED | 1 | NO | ENABLE | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TAG5 | Line C | NOT | | YES | ENABLE | 48 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TAG64 | Line D | EXECUTE | 1 | NO | DISABLE | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | [Tag setting] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <div><div><div>1</div><div>2</div><div>3</div><div>4</div><div>5</div><div>6</div></div><div><div>Tag setting No. 01</div><div>Tag name: line 1 (within 16 characters)</div><div>Sampling: <div><div>Not execute</div><div>Execute</div><div>Execute at high speed</div></div></div><div>Interval 10 [seconds](1 to 32767)</div><div>Interval 1 x100[milliseconds](1 to 600)</div><div><div>Update before logging</div><div>Data write: <div><div>Disable</div><div>Enable</div></div></div></div></div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

(2) Label

| | Label | Description |
|---|---------------|--|
| 1 | TAG1 to TAG64 | Set the items of tag setting No. 1 to 64. Enter only the necessary labels. (Labels that are not set need not be entered.) |

(3) Setting items

| | Item | Description | Set value | Setting requirement |
|---|----------|-------------|--|---------------------|
| 2 | TAGNAME | Tag name | Within 16 characters | ○ |
| 3 | SAMPLING | Sampling | <div>Not execute</div> <div>Execute</div> <div>Execute at high speed</div> | ○ |

○ : Must be set × : Need not be set (Invalid)

| | Item | Description | | Set value | Setting requirement |
|---|----------------|-----------------------|--|-----------------------------|---------------------|
| 4 | INTERVAL | Sampling Interval | When "NOT" is selected at SAMPLING | (Blank) | × |
| | | | When "EXECUTE" is selected at SAMPLING | 1 to 32767 (unit : seconds) | ○ |
| | | | When "HIGHSPEED" is selected at SAMPLING | 1 to 600 (unit: ×100ms) | |
| 5 | BEFORE LOGGING | Update before logging | Mark | <u>YES</u> | ○ |
| | | | Do not mark | <u>NO</u> | |
| 6 | WRITE | Data write | Disable | <u>DISABLE</u> | ○ |
| | | | Enable | <u>ENABLE</u> | |
| — | COMPNUM | Number of components | | 0 to 64 | ○ |

○ : Must be set × : Need not be set (Invalid)

*1 "Execute at high speed" can be registered to only one tag.
An error will result if multiple high speed sampling tags are set.

Appendix 6.7 COMPONENT.CSV (Tag setting - Component setting)

(1) File format

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---------|----------|--------|----------|--------|--------|--------------|-------|---|-----|-----|--|--------------|-----------|---|--------|-------|-----|---------------|----------|---|--------|-------|-----|---------------|-------------|---|------|------|-----|----------------|----------|---------|---|------|--|---|----------|----|---|--------|-----|
| File name | COMPONENT. CSV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File contents | Tag setting - Component setting (Refer to Section 6.3.3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File format | <div><div><div><div><div>2</div><div>3</div><div>4</div><div>5</div><div>6</div></div><table><tr><th>ITEM</th><th>COMPNAME</th><th>CPUNO</th><th>DATATYPE</th><th>DEVICE</th><th>FORMAT</th></tr><tr><td>COMPONENT1-1</td><td>Valve</td><td>1</td><td>BIT</td><td>M12</td><td></td></tr><tr><td>COMPONENT1-2</td><td>Flow rate</td><td>1</td><td>SINGLE</td><td>D1003</td><td>DEC</td></tr><tr><td>COMPONENT64-1</td><td>Pressure</td><td>1</td><td>DOUBLE</td><td>D5000</td><td>DEC</td></tr><tr><td>COMPONENT64-2</td><td>Opening (%)</td><td>2</td><td>REAL</td><td>W100</td><td>EXP</td></tr></table><div><div>1</div><div>7</div><div>8</div><div>9</div></div><table><tr><th>DECIMAL PLACES</th><th>OPERATOR</th><th>OPERAND</th></tr><tr><td>0</td><td>NONE</td><td></td></tr><tr><td>2</td><td>MULTIPLY</td><td>10</td></tr><tr><td>6</td><td>DIVIDE</td><td>100</td></tr></table><div>1)→</div></div><div><div><div></div>Item row</div><div>: Cannot be set by the user.</div><div><div></div>Label column, Setting area</div><div>: Set by the user.</div></div><div><div>Tag setting - Component setting</div><div><div><div>Tag setting</div><div>Home > Administrative menu > Tag setting > Edit screen(Component setting)</div></div><div><div>Save</div><div>Back</div><div>Load</div></div><div><div>1→</div><div>Tag name: 02.production mngmt / Component setting No. 01</div></div><div><div>2→</div><div>Component name: product A (within 16 characters)</div></div><div><div>3→</div><div>CPU name: 01: Control CPU</div></div><div><div>4→</div><div>Data type: Single word (Number of characters 1 (1 to 32))</div></div><div><div>5→</div><div>Device: D500</div></div><div><div>6→</div><div>Display form: Decimal (Number of decimal places 0 (0 to 6))</div><div>7→</div></div><div><div>8→</div><div>Operator: None</div></div><div><div>9→</div><div>Operand: 0 (-32768 to 32767)</div></div></div></div></div></div> | ITEM | COMPNAME | CPUNO | DATATYPE | DEVICE | FORMAT | COMPONENT1-1 | Valve | 1 | BIT | M12 | | COMPONENT1-2 | Flow rate | 1 | SINGLE | D1003 | DEC | COMPONENT64-1 | Pressure | 1 | DOUBLE | D5000 | DEC | COMPONENT64-2 | Opening (%) | 2 | REAL | W100 | EXP | DECIMAL PLACES | OPERATOR | OPERAND | 0 | NONE | | 2 | MULTIPLY | 10 | 6 | DIVIDE | 100 |
| ITEM | COMPNAME | CPUNO | DATATYPE | DEVICE | FORMAT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COMPONENT1-1 | Valve | 1 | BIT | M12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COMPONENT1-2 | Flow rate | 1 | SINGLE | D1003 | DEC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COMPONENT64-1 | Pressure | 1 | DOUBLE | D5000 | DEC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COMPONENT64-2 | Opening (%) | 2 | REAL | W100 | EXP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DECIMAL PLACES | OPERATOR | OPERAND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | MULTIPLY | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | DIVIDE | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

(2) Label

| Label | Description |
|-------|---|
| 1 | <p>COMPONENT1-1 to COMPONENT64-64</p> <ul style="list-style-type: none"> Set the items of component setting No. 1 to 64. COMPONENT64-64 <div style="margin-left: 40px;"> Denotes component setting No. Denotes tag setting No. </div> The labels as many as the number set at "COMPNUM" of TAG.CSV must be set. The setting of more labels is ignored. (Example) When 10 is set at "COMPNUM" of label "TAG5" in TAG.CSV For COMPONENT.CSV, labels COMPONENT5-1 to COMPONENT5-10 must be set. |

(3) Setting items

| | Item | Description | | Set value | Setting requirement |
|---|----------------|---|---|--|---------------------|
| 2 | COMPNAME | Component name | | Within 16 characters | ○ |
| 3 | CPUNO | CPU name (Access target CPU setting No.) *1 | | 1 to 64 (fixed to 1 for high speed sampling tag) | ○ |
| 4 | DATATYPE | Data type | Single word | <u>SINGLE</u> | ○ |
| | | | Double word | <u>DOUBLE</u> | |
| | | | Real number | <u>REAL</u> | |
| | | | Bit | <u>BIT</u> | |
| | | | String (Numeral indicates the number of characters) | <u>STRING1</u> to <u>STRING32</u> | |
| 5 | DEVICE | Device *2 | | Device | ○ |
| 6 | FORMAT | Display form | When "BIT" or "STRING" is selected at DATATYPE | (Blank) | × |
| | | | When other than the above is selected at DATATYPE | Decimal | ○ |
| | | | | Exponential | |
| 7 | DECIMAL PLACES | Number of decimal places | When "BIT" or "STRING" is selected at DATATYPE | (Blank) | × |
| | | | When other than the above is selected at DATATYPE | 0 to 6 | ○ |
| 8 | OPERATOR | Operator | When "BIT" or "STRING" is selected at DATATYPE | (Blank) | × |
| | | | When other than the above is selected at DATATYPE | None | ○ |
| | | | | + | |
| | | | | — | |
| | | | | × | |
| 9 | OPERAND | Operand | When "BIT" or "STRING" is selected at DATATYPE | (Blank) | × |
| | | | When "NONE" is selected at OPERATOR | (Blank) | × |
| | | | When other than the above is selected | -32768 to 32767 | ○ |

○ : Must be set × : Need not be set (Invalid)

*1 Specify the access target CPU setting No. set to the label of CPU.CSV.
An error will occur if the specified access target CPU setting No. does not exist in CPU.CSV.

*2 An error will occur if a non-existing device is set.
An error will occur if a device that does not match the data type is set.

Appendix 6.8 LOGGING.CSV (Logging setting)

(1) File format

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|------------|------------|------------|-----------|-----------|------------|---------|----------|------|-------|-----------|-----|-----|---|----------|------|-------|-----|-----------|-----|----|----------|----------|-------|------|----------|-----------|----------|-----------|------|-------|----|----------|----|------------|----|----|----|----|
| File name | LOGGING.CSV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File contents | Logging setting (Refer to Section 6.4.4) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File format | <div><div>2</div><div>3</div><div>4</div><div>5</div><div>6</div><div>7</div><table><tr><th>ITEM</th><th>TAGNO</th><th>FILENAME</th><th>SAVEIN</th><th>TIMING</th><th>INTERVAL</th><th>TIME</th></tr><tr><td>LOGGING1</td><td>1</td><td>ALINE</td><td>ROM</td><td>TAG</td><td></td><td></td></tr><tr><td>LOGGING2</td><td>3</td><td>BLINE</td><td>ROM</td><td>INTERVAL</td><td>10</td><td></td></tr><tr><td>LOGGING5</td><td>15</td><td>CLINE</td><td>CF</td><td>TIME</td><td></td><td>00:00:00</td></tr><tr><td>LOGGING60</td><td>64</td><td>DLINE</td><td>CF</td><td>TIME</td><td></td><td>PER:PER:00</td></tr></table><div>1</div></div> | ITEM | TAGNO | FILENAME | SAVEIN | TIMING | INTERVAL | TIME | LOGGING1 | 1 | ALINE | ROM | TAG | | | LOGGING2 | 3 | BLINE | ROM | INTERVAL | 10 | | LOGGING5 | 15 | CLINE | CF | TIME | | 00:00:00 | LOGGING60 | 64 | DLINE | CF | TIME | | PER:PER:00 | | | | |
| | ITEM | TAGNO | FILENAME | SAVEIN | TIMING | INTERVAL | TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | LOGGING1 | 1 | ALINE | ROM | TAG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | LOGGING2 | 3 | BLINE | ROM | INTERVAL | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | LOGGING5 | 15 | CLINE | CF | TIME | | 00:00:00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | LOGGING60 | 64 | DLINE | CF | TIME | | PER:PER:00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <div><div>8</div><div>9</div><div>10</div><div>11</div><div>12</div><div>13</div><table><tr><th>START</th><th>STARTEVTNO</th><th>STARTAFTER</th><th>STARTTIME</th><th>STOP</th><th>STOPEVTNO</th></tr><tr><td>STARTUP</td><td></td><td></td><td></td><td>NOT</td><td></td></tr><tr><td>NOT</td><td></td><td></td><td></td><td>NOT</td><td></td></tr><tr><td>TAGEVENT</td><td>3</td><td>0</td><td></td><td>TAGEVENT</td><td>5</td></tr><tr><td>TIME</td><td></td><td></td><td>08:00:00</td><td>TIME</td><td></td></tr></table><div>1)</div><div>2)</div></div> | START | STARTEVTNO | STARTAFTER | STARTTIME | STOP | STOPEVTNO | STARTUP | | | | NOT | | NOT | | | | NOT | | TAGEVENT | 3 | 0 | | TAGEVENT | 5 | TIME | | | 08:00:00 | TIME | | | | | | | | | | |
| | START | STARTEVTNO | STARTAFTER | STARTTIME | STOP | STOPEVTNO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | STARTUP | | | | NOT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NOT | | | | NOT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TAGEVENT | 3 | 0 | | TAGEVENT | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TIME | | | 08:00:00 | TIME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div><div>14</div><div>15</div><div>16</div><div>17</div><div>18</div><div>19</div><div>20</div><table><tr><th>STOPAFTER</th><th>STOPTIME</th><th>CAPACITY</th><th>LINE</th><th>SIZE</th><th>CTIME</th><th>ADDNAME</th></tr><tr><td></td><td></td><td>LINE</td><td>1000</td><td></td><td></td><td>YES</td></tr><tr><td></td><td></td><td>SIZE</td><td></td><td>512</td><td></td><td>YES</td></tr><tr><td>0</td><td></td><td>TIME</td><td></td><td></td><td>17:00:00</td><td>NO</td></tr><tr><td></td><td>17:00:00</td><td>TIME</td><td></td><td></td><td>17:00:00</td><td>NO</td></tr></table><div>2)</div><div>3)</div></div> | STOPAFTER | STOPTIME | CAPACITY | LINE | SIZE | CTIME | ADDNAME | | | LINE | 1000 | | | YES | | | SIZE | | 512 | | YES | 0 | | TIME | | | 17:00:00 | NO | | 17:00:00 | TIME | | | 17:00:00 | NO | | | | | |
| STOPAFTER | STOPTIME | CAPACITY | LINE | SIZE | CTIME | ADDNAME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | LINE | 1000 | | | YES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | SIZE | | 512 | | YES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | TIME | | | 17:00:00 | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 17:00:00 | TIME | | | 17:00:00 | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div><div>21</div><div>22</div><div>23</div><div>24</div><div>25</div><div>26</div><div>27</div><div>28</div><table><tr><th>ADDDATE</th><th>ADDDTIME</th><th>NUMBER</th><th>EXCEED</th><th>E-MAIL1</th><th>E-MAIL2</th><th>E-MAIL3</th><th>FTP1</th></tr><tr><td>YES</td><td>YES</td><td>10</td><td>OVERWRITE</td><td>1</td><td>3</td><td>5</td><td>NO</td></tr><tr><td>NO</td><td>NO</td><td>10</td><td>OVERWRITE</td><td>2</td><td>NO</td><td>NO</td><td>1</td></tr><tr><td>YES</td><td>NO</td><td>20</td><td>OVERWRITE</td><td>NO</td><td>NO</td><td>NO</td><td>2</td></tr><tr><td>NO</td><td>NO</td><td>30</td><td>STOP</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td></tr></table><div>3)</div></div> | ADDDATE | ADDDTIME | NUMBER | EXCEED | E-MAIL1 | E-MAIL2 | E-MAIL3 | FTP1 | YES | YES | 10 | OVERWRITE | 1 | 3 | 5 | NO | NO | NO | 10 | OVERWRITE | 2 | NO | NO | 1 | YES | NO | 20 | OVERWRITE | NO | NO | NO | 2 | NO | NO | 30 | STOP | NO | NO | NO | NO |
| ADDDATE | ADDDTIME | NUMBER | EXCEED | E-MAIL1 | E-MAIL2 | E-MAIL3 | FTP1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| YES | YES | 10 | OVERWRITE | 1 | 3 | 5 | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO | NO | 10 | OVERWRITE | 2 | NO | NO | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| YES | NO | 20 | OVERWRITE | NO | NO | NO | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO | NO | 30 | STOP | NO | NO | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div><div>Item row</div><div>: Cannot be set by the user.</div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div><div>Label column, Setting area</div><div>: Set by the user.</div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Item | Description |
|----------------------------|--|
| File format (Continued) | <p>[Logging setting]</p> <p>1 → Logging setting No. 01</p> <p>2 → Tag name: 04: process A</p> <p>3 → File name: processA (1 to 8 characters)</p> <p>4 → Save in: Standard ROM (Standard ROM can be selected for saving the setting No. 1 to 4 only.)</p> <p>5 → Timing: <input checked="" type="radio"/> Same as the tag sampling interval</p> <p>6 → Interval specification: 60 (seconds) (1 to 86400)</p> <p>7 → Time specification: 00 : 00 : 00 (hour:minute:second)</p> <p>8 → Condition for Start: <input checked="" type="radio"/> Start at start-up</p> <p>9 → CPU event setting No. 01 / after 0 seconds (0 to 32767)</p> <p>10 → Tag event setting No. 01 / after 0 seconds (0 to 32767)</p> <p>11 → Time/Interval event setting No. 01 / after 0 seconds (0 to 32767)</p> <p>12 → Condition for Stop: <input checked="" type="radio"/> Do not stop</p> <p>13 → CPU event setting No. 01 / after 60 seconds (0 to 32767)</p> <p>14 → Tag event setting No. 01 / after 0 seconds (0 to 32767)</p> <p>15 → Time/Interval event setting No. 01 / after 0 seconds (0 to 32767)</p> <p>16 → File capacity: <input checked="" type="radio"/> Specification for number of lines: 1000 (Lines) (1 to 10000) / For high speed logging (100 to 10000)</p> <p>17 → Size specification: 1 (KB) (1 to 512) / For high speed logging (10 to 512)</p> <p>18 → Time specification: 01 : 00 : 00 (day:hour:minute)</p> <p>19 → Saved file name: <input checked="" type="checkbox"/> Add the name specified at [File name]</p> <p>20 → <input checked="" type="checkbox"/> Add the date</p> <p>21 → <input checked="" type="checkbox"/> Add the time</p> <p>22 → Number of saved files: 100 (1 to 1000)</p> <p>23 → When the number of saved files exceeds the above set value: <input checked="" type="radio"/> Overwrite (Delete the oldest file and keep on logging)</p> <p>24 → <input type="radio"/> Stop (Stop logging)</p> <p>External storage setting</p> <p>E-mail delivery: <input checked="" type="checkbox"/> Send a saved file to the following e-mail address.</p> <p>25 → 1: 01: 00: 00: 00: 00 (mail address)</p> <p>26 → 2: Do not send</p> <p>27 → 3: Do not send</p> <p>File transfer: <input type="checkbox"/> Transfer a saved file to the following FTP server.</p> <p>28 → 1: Do not transfer</p> |

(2) Label

| | Label | Description |
|---|-----------------------|--|
| 1 | LOGGING1 to LOGGING64 | Set the items of logging setting No. 1 to 64. Enter only the necessary labels. (Labels that are not set need not be entered.) |

(3) Setting items

| | Item | Description | | Set value | Setting requirement |
|---|----------|--|---|---|---------------------|
| 2 | TAGNO | Tag name (tag setting No.) *1*2 | | 1 to 64 | ○ |
| 3 | FILENAME | File name *3*4 | | 1 to 8 characters | ○ |
| 4 | SAVEIN | Save in *5 | Standard ROM | <u>ROM</u> | ○ |
| | | | Compact Flash card | <u>CF</u> | |
| | | Fixed to "Compact Flash card" when the label is any of LOGGING5 to LOGGING64 or high speed logging has been set. | | <u>CF</u> | × |
| 5 | TIMING | Timing | Same as the tag sampling interval | <u>TAG</u> | ○ |
| | | | Interval specification | <u>INTERVAL</u> | |
| | | | Time specification | <u>TIME</u> | |
| | | Fixed to "Same as the tag sampling interval" when high speed logging has been set. | | <u>TAG</u> | × |
| 6 | INTERVAL | Interval | When "INTERVAL" is selected at TIMING | 1 to 86400 (unit : seconds) | ○ |
| | | | When other than the above is selected at TIMING | (Blank) | × |
| 7 | TIME | Time | When "TIME" is selected at TIMING | <ul style="list-style-type: none"> Hour:Minute:Second format Hour : 00 to 23, PER Minute : 00 to 59, PER (PER can be specified for Minute only when PER is specified for Hour) Second : 00 to 59 (Example) 9:00:00, 17:00:00, PER:PER:00 | ○ |
| | | | When other than the above is selected at TIMING | (Blank) | × |
| 8 | START | Condition for Start | Start at start-up | <u>STARTUP</u> | ○ |
| | | | Do not start | <u>NOT</u> | |
| | | | After CPU event occurrence | <u>CPUEVENT</u> | |
| | | | After tag event occurrence | <u>TAGEVENT</u> | |
| | | | After time event occurrence | <u>TIMEEVENT</u> | |
| | | | Start at the specified time | <u>TIME</u> | |

○ : Must be set × : Need not be set (Invalid)

| | Item | Description | | Set value | Setting requirement |
|----|------------|---|--|--|---------------------|
| 9 | STARTEVTNO | Event setting No. *6 | When "CPUEVENT" is selected at START | 1 to 64 | ○ |
| | | | When "TAGEVENT" is selected at START | 1 to 256 | |
| | | | When "TIMEEVENT" is selected at START | 1 to 16 | |
| | | | When other than the above is selected at START | (Blank) | × |
| 10 | STARTAFTER | The specified time after event occurrence | When "CPUEVENT" is selected at START | 1 to 32767 (unit : seconds) | ○ |
| | | | When "TAGEVENT" is selected at START | | |
| | | | When "TIMEEVENT" is selected at START | | |
| | | | When other than the above is selected at START | (Blank) | × |
| 11 | STARTTIME | Specified time | When "TIME" is selected at START | • Hour:Minute:Second format Hour : 00 to 23, PER Minute : 00 to 59, PER (PER can be specified for Minute only when PER is specified for Hour) Second : 00 to 59 (Example) 9:00:00, 17:00:00, PER:PER:00 | ○ |
| | | | When other than the above is selected at START | (Blank) | × |
| 12 | STOP | Condition for Stop | Do not stop | <u>NOT</u> | ○ |
| | | | After CPU event occurrence | <u>CPUEVENT</u> | |
| | | | After tag event occurrence | <u>TAGEVENT</u> | |
| | | | After time event occurrence | <u>TIMEEVENT</u> | |
| | | | Stop at the specified time | <u>TIME</u> | |
| 13 | STOPEVTNO | Event setting No. *6 | When "CPUEVENT" is selected at STOP | 1 to 64 | ○ |
| | | | When "TAGEVENT" is selected at STOP | 1 to 256 | |
| | | | When "TIMEEVENT" is selected at STOP | 1 to 16 | |
| | | | When other than the above is selected at STOP | (Blank) | × |

○ : Must be set × : Need not be set (Invalid)

| | Item | Description | | Set value | Setting requirement |
|----|-----------|---|---|---|---------------------|
| 14 | STOPAFTER | The specified time after event occurrence | When "CPUEVENT" is selected at STOP | 0 to 32767 (unit : seconds) | ○ |
| | | | When "TAGEVENT" is selected at STOP | | |
| | | | When "TIMEEVENT" is selected at STOP | | |
| | | | When other than the above is selected at STOP | (Blank) | × |
| 15 | STOPTIME | Specified time | When "TIME" is selected at STOP | <ul style="list-style-type: none"> Hour:Minute:Second format Hour : 00 to 23, PER Minute : 00 to 59, PER (PER can be specified for Minute only when PER is specified for Hour) Second : 00 to 59 (Example) 9:00:00, 17:00:00, PER:PER:00 | ○ |
| | | | When other than the above is selected at STOP | (Blank) | × |
| 16 | CAPACITY | File capacity | Specification for number of lines | <u>LINE</u> | ○ |
| | | | Size specification | <u>SIZE</u> | |
| | | | Time specification | <u>TIME</u> | |
| 17 | LINE | Line | When "LINE" is selected at CAPACITY | 1 to 10000 *7 (unit: line) | ○ |
| | | | When other than the above is selected at CAPACITY | (Blank) | × |
| 18 | SIZE | Size | When "SIZE" is selected at CAPACITY | 1 to 512 *8 (unit: k byte) | ○ |
| | | | When other than the above is selected at CAPACITY | (Blank) | × |
| 19 | CTIME | Time | When "TIME" is selected at CAPACITY | <ul style="list-style-type: none"> Hour:Minute:Second format Hour : 00 to 23, PER Minute : 00 to 59, PER (PER can be specified for Minute only when PER is specified for Hour) Second : 00 to 59 (Example) 9:00:00, 17:00:00, PER:PER:00 | ○ |
| | | | When other than the above is selected at CAPACITY | (Blank) | × |

○ : Must be set × : Need not be set (Invalid)

| | Item | Description | | Set value | Setting requirement |
|----|---------|--|--------------------------------------|------------------|-----------------------|
| 20 | ADDNAME | Saved files names : Add the name | Mark | <u>YES</u> | <input type="radio"/> |
| | | | Do not mark | <u>NO</u> | |
| 21 | ADDDATE | Saved files names : Add the date | Mark | <u>YES</u> | <input type="radio"/> |
| | | | Do not mark | <u>NO</u> | |
| 22 | ADDTIME | Saved files names : Add the time | Mark | <u>YES</u> | <input type="radio"/> |
| | | | Do not mark | <u>NO</u> | |
| 23 | NUMBER | Number of saved files | | 1 to 1000 | <input type="radio"/> |
| 24 | EXCEED | When the number of saved files exceeds the above set value | Overwrite | <u>OVERWRITE</u> | <input type="radio"/> |
| | | | Stop | <u>STOP</u> | |
| 25 | E-MAIL1 | E-mail address1 *9 | Do not send | <u>NO</u> | <input type="radio"/> |
| | | | Send to the specified e-mail address | 1 to 16 | |
| 26 | E-MAIL2 | E-mail address2 *9 | Do not send | <u>NO</u> | <input type="radio"/> |
| | | | Send to the specified e-mail address | 1 to 16 | |
| 27 | E-MAIL3 | E-mail address3 *9 | Do not send | <u>NO</u> | <input type="radio"/> |
| | | | Send to the specified e-mail address | 1 to 16 | |
| 28 | FTP1 | FTP server1 *9 | Do not transfer | <u>NO</u> | <input type="radio"/> |
| | | | Transfer to the specified address | 1 to 16 | |

☐ : Must be set ☐ : Need not be set (Invalid)

- *1 Specify the tag setting No. set to the label of TAG.CSV.
An error will occur if the specified tag setting No. does not exist in TAG.CSV.
- *2 High speed logging is performed when "Execute at high speed" is selected for the specified tag setting No.
Only one high speed logging can be registered.
An error will occur if multiple high speed loggings are set.
- *3 An 8-digit hexadecimal numeral cannot be set. (Example) AAAABBBB
- *4 Multiple files of the same name cannot be specified.
An error will occur if files of the same name exist.
- *5 ROM can be selected at only "SAVEIN" of LOGGING1 to LOGGING4.
- *6 Specify the event setting No. set to the label of CPUEVT.CSV, TAGEVT.CSV, or TIMEEVT.CSV.
An error will occur if the specified event setting No. does not exist in CPUEVT.CSV, TAGEVT.CSV, or TIMEEVT.CSV.
- *7 When high speed logging has been set, the setting range is 100 to 1000.
- *8 When high speed logging has been set, the setting range is 10 to 512.
- *9 Specify the e-mail address (To:) setting No. set to the label of EMAIL.CSV.
An error will occur if the specified e-mail address (To:) setting No. does not exist in EMAIL.CSV.
- *10 Specify the FTP server setting No. set to the label of FTP.CSV.
An error will occur if the specified FTP server setting No. does not exist in FTP.CSV.

Appendix 6.9 FTP.CSV (FTP setting)

(1) File format

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|----------|------------|------------|----------|-----------|------|-----------------|-------|-----------|---|------|-------------------|-------|-----------|--------|-------|-------------|-------|-----------|------------|-------|-------------------|-------|-----------|---|
| File name | FTP.CSV | | | | | | | | | | | | | | | | | | | | | | | | | |
| File contents | FTP setting (Refer to Section 6.7.3) | | | | | | | | | | | | | | | | | | | | | | | | | |
| File format | <div><div><div><div>2</div><div>3</div><div>4</div><div>5</div></div><table><tr><th>ITEM</th><th>SERVERNAME</th><th>USERNAME</th><th>PASSWORD</th><th>DIRECTORY</th></tr><tr><td>FTP1</td><td>111.222.111.222</td><td>USER1</td><td>PASSWORD1</td><td>/</td></tr><tr><td>FTP5</td><td>WWW.FTP@abc.ne.jp</td><td>USER2</td><td>PASSWORD2</td><td>/DATA/</td></tr><tr><td>FTP10</td><td>11.22.11.22</td><td>USER3</td><td>PASSWORD3</td><td>/DATA/XYZ/</td></tr><tr><td>FTP16</td><td>WWW.FTP@xyz.ne.jp</td><td>USER4</td><td>PASSWORD4</td><td>/</td></tr></table><div><div>1</div></div><div><div><div></div>Item row</div><div>: Cannot be set by the user.</div><div><div></div>Label column, Setting area</div><div>: Set by the user.</div></div></div><div><div>[FTP setting]</div><div>Home > Administrative menu > FTP setting > Edit screen</div><div><div>Save</div><div>Back</div><div>Load</div></div><div><div>1</div><div>FTP server setting No.</div><div>01</div></div><div><div>2</div><div>FTP server name:</div><div>192.168.3.10</div><div>(1 to 64 characters)</div></div><div><div>3</div><div>Login user name:</div><div>QJ71WS96</div><div>(1 to 32 characters)</div></div><div><div>4</div><div>Login password:</div><div></div><div>(0 to 16 characters)</div></div><div><div></div><div>Confirm login password:</div><div></div></div><div><div>5</div><div>Directory path:</div><div>/QJ71WS96/USER/</div><div>(0 to 64 characters)</div></div></div></div> | ITEM | SERVERNAME | USERNAME | PASSWORD | DIRECTORY | FTP1 | 111.222.111.222 | USER1 | PASSWORD1 | / | FTP5 | WWW.FTP@abc.ne.jp | USER2 | PASSWORD2 | /DATA/ | FTP10 | 11.22.11.22 | USER3 | PASSWORD3 | /DATA/XYZ/ | FTP16 | WWW.FTP@xyz.ne.jp | USER4 | PASSWORD4 | / |
| ITEM | SERVERNAME | USERNAME | PASSWORD | DIRECTORY | | | | | | | | | | | | | | | | | | | | | | |
| FTP1 | 111.222.111.222 | USER1 | PASSWORD1 | / | | | | | | | | | | | | | | | | | | | | | | |
| FTP5 | WWW.FTP@abc.ne.jp | USER2 | PASSWORD2 | /DATA/ | | | | | | | | | | | | | | | | | | | | | | |
| FTP10 | 11.22.11.22 | USER3 | PASSWORD3 | /DATA/XYZ/ | | | | | | | | | | | | | | | | | | | | | | |
| FTP16 | WWW.FTP@xyz.ne.jp | USER4 | PASSWORD4 | / | | | | | | | | | | | | | | | | | | | | | | |

(2) Label

| | Label | Description |
|---|---------------|---|
| 1 | FTP1 to FTP16 | Set the items of FTP server setting No. 1 to 16. Enter only the necessary labels. (Labels that are not set need not be entered.) |

(3) Setting items

| | Item | Description | Set value | Setting requirement |
|---|------------|------------------------|-------------------------------|---------------------|
| 2 | SERVERNAME | Target FTP server name | 1 to 64 characters | ○ |
| 3 | USERNAME | Login user name | 1 to 32 characters | ○ |
| 4 | PASSWORD | Login password | 0 to 16 characters or (Blank) | ○ |
| 5 | DIRECTORY | Directory path | 0 to 64 characters or (Blank) | ○ |

○ : Must be set × : Need not be set (Invalid)

Appendix 6.10 EMAIL.CSV (E-mail setting)

(1) File format

| Item | Description | | |
|---------------|---|---------------|---------------------|
| File name | EMAIL. CSV | | |
| File contents | E-mail setting (Refer to Section 6.6.3) | | |
| File format | 1 | SMTPSERVER | abc.ne.jp |
| | 2 | FROM | webserver@abc.ne.jp |
| | 3 | USERNAME | |
| | 4 | PASSWORD | |
| | 5 | TO1 | address1@abc.ne.jp |
| | 6 | TO2 | address2@abc.ne.jp |
| | 7 | TO3 | |
| | 8 | TO4 | |
| | 9 | TO5 | address5@abc.ne.jp |
| | 10 | TO6 | address6@abc.ne.jp |
| | 11 | TO7 | address7@abc.ne.jp |
| | 12 | TO8 | |
| | 13 | TO9 | |
| | 14 | TO10 | |
| | 15 | TO11 | |
| | 16 | TO12 | |
| | 17 | TO13 | |
| | 18 | TO14 | |
| | 19 | TO15 | |
| | 20 | TO16 | |
| | 21 | POPBEFORESMTP | YES |
| | 22 | POPSERVER | abc.ne.jp |
| | <div><div></div>Label column : Cannot be set by the user.</div> <div><div></div>Setting area : Set by the user.</div> | | |

| Item | Description |
|----------------------------|--|
| File format (Continued) | <div> <div>[E-mail setting]</div> <div> <div> <div>Save</div> <div>Cancel</div> </div> <div>Send e-mail account setting</div> <div> <div>1 SMTP server name: (1 to 64 characters)</div> <div>2 E-mail address (From): (1 to 64 characters)</div> <div>3 User name: (1 to 32 characters)</div> <div>4 Password: (0 to 16 characters)</div> <div>Confirm password:</div> </div> </div> <div> <div>E-mail address (To:) setting</div> <div> <div>5 No. 1 (0 to 64 characters)</div> <div>6 No. 2</div> <div>7 No. 3</div> <div>8 No. 4</div> <div>9 No. 5</div> <div>10 No. 6</div> <div>11 No. 7</div> <div>12 No. 8</div> <div>13 No. 9</div> <div>14 No. 10</div> <div>15 No. 11</div> <div>16 No. 12</div> <div>17 No. 13</div> <div>18 No. 14</div> <div>19 No. 15</div> <div>20 No. 16</div> </div> </div> <div> <div>Option setting</div> <div> <div>21 POP before SMTP</div> <div>22 POP server name: (1 to 64 characters)</div> </div> </div> </div> |

(2) Label

| | Label | Description | Set value | Setting requirement |
|---------|---------------|--|--|---------------------|
| 1 | SMTPSERVER | SMTP server name | 1 to 64 characters | ○ |
| 2 | FROM | E-mail address (From:) | 1 to 64 characters | ○ |
| 3 | USERNAME | User name | 1 to 32 characters | ○ |
| 4 | PASSWORD | Password | 0 to 16 characters or (Blank) | ○ |
| 5 to 20 | T01 to T016 | E-mail address (To:) setting No. 1 to 16 | 0 to 64 characters or (Blank) | ○ |
| 21 | POPBEFORESMTP | POP before SMTP | <div>Mark</div> <div>Do not mark</div> | ○ |
| 22 | POPSERVER | POP server name | <div>When "YES" is selected at POPBEFORESMTP</div> <div>When "NO" is selected at POPBEFORESMTP</div> | ○ |
| | | | 1 to 64 characters | ○ |
| | | | (Blank) | × |

○ : Must be set × : Need not be set (Invalid)

Appendix 6.11 EVENT.CSV (Event setting - Common setting)

(1) File format

| Item | Description |
|---------------|--|
| File name | EVENT.CSV |
| File contents | Event setting - Common setting (Refer to Section 6.5.3) |
| File format | <div> <div> <div>1</div> <div>2</div> <div>3</div> </div> <div> <div>CPUEVT</div> <div>TAGEVT</div> <div>TIMEEVT</div> </div> <div> <div>100</div> <div>1000</div> <div>0</div> </div> </div> <div> <div>Label column : Cannot be set by the user.</div> <div>Setting area : Set by the user.</div> </div> <div> <div>[EVENT.CSV (Event setting - Common setting)]</div> <div> <div>[Event setting]</div> <div>Home > Administrative menu > Event setting > Common setting</div> <div>Common setting CPU event setting Tag event setting Time/Interval event setting</div> <div>[Common setting] Save Cancel</div> <div>Common setting</div> <div> <div>1</div> <div>2</div> <div>3</div> </div> <div> <div>No. of CPU event historical data:</div> <div>0</div> <div>Lines (0 to 1000)</div> <div>Clear history</div> </div> <div> <div>No. of tag event historical data:</div> <div>0</div> <div>Lines (0 to 1000)</div> <div>Clear history</div> </div> <div> <div>No. of time/interval event historical data:</div> <div>0</div> <div>Lines (0 to 1000)</div> <div>Clear history</div> </div> </div> </div> |

(2) Label

| | Label | Description | Set value | Setting requirement |
|---|---------|--|-------------------------|---------------------|
| 1 | CPUEVT | No. of CPU event historical data | 0 to 1000 (unit: lines) | ○ |
| 2 | TAGEVT | No. of tag event historical data | 0 to 1000 (unit: lines) | ○ |
| 3 | TIMEEVT | No. of time/interval event historical data | 0 to 1000 (unit: lines) | ○ |

○ : Must be set × : Need not be set (Invalid)

Appendix 6.12 CPUEVT.CSV (Event setting - CPU event setting)

(1) File format

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---------|------------|----------|---------|---------|---------|--------|--------|---------|---|---|----|----|----|----|-----|---------|---|---|----|----|----|----|-----|---------|----|---|-----|----|-----|----|-----|----------|----|----|----|----|----|----|-----|-------|-------|------------|----|-----|-----|----|-----|----|-----|-----|-----|----|----|--|------|--------|---|------|---|-----|------------------------|---------|--|--|--------|------------|--------|--------|--------|--------|--------|--|--|----|-----|-----|----|----|----|--|-----|----|-----|----|----|--|----|-----|----|-----|----|----|--|--|--|--|--|--|--|--------|--------|--------|--------|---------|---------|---------|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|---------|---------|---------|----|----|----|----|----|----|----|----|----|--|--|--|
| File name | CPUEVT.CSV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File contents | Event setting - CPU event setting (Refer to Section 6.5.3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File format | <div><div>2</div><div>3</div><div>4</div><div>5</div><div>6</div><div>7</div><div>8</div><table><tr><th>ITEM</th><th>CPUNO</th><th>INTERVAL</th><th>NSTOP</th><th>NRUN</th><th>WSTOP</th><th>WRUN</th><th>SERROR</th></tr><tr><td>CPUEVT1</td><td>1</td><td>1</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>YES</td></tr><tr><td>CPUEVT2</td><td>3</td><td>2</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>YES</td></tr><tr><td>CPUEVT5</td><td>15</td><td>5</td><td>YES</td><td>NO</td><td>YES</td><td>NO</td><td>YES</td></tr><tr><td>CPUEVT60</td><td>64</td><td>10</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>YES</td></tr></table><div>1</div><div><div>9</div><div>10</div><div>11</div><table><tr><th>PAUSE</th><th>EMAIL</th><th>DISCONNECT</th></tr><tr><td>NO</td><td>YES</td><td>YES</td></tr><tr><td>NO</td><td>YES</td><td>NO</td></tr><tr><td>YES</td><td>YES</td><td>YES</td></tr><tr><td>NO</td><td>NO</td><td></td></tr></table></div><div>12</div><div>13</div><table><tr><th>BODY</th><th>APPEND</th></tr><tr><td>Error occurred on Line A. \nPerform recovery.</td><td>NONE</td></tr><tr><td>Error occurred on Line B. \nPerform recovery.</td><td>TAG</td></tr><tr><td>Assembly line stopped.</td><td>LOGGING</td></tr><tr><td></td><td></td></tr></table><div>14</div><div>15</div><div>16</div><div>17</div><div>18</div><div>19</div><div>20</div><table><tr><th>APPTAG</th><th>APPLOGGING</th><th>EMAIL1</th><th>EMAIL2</th><th>EMAIL3</th><th>EMAIL4</th><th>EMAIL5</th></tr><tr><td></td><td></td><td>NO</td><td>YES</td><td>YES</td><td>NO</td><td>NO</td></tr><tr><td>15</td><td></td><td>YES</td><td>NO</td><td>YES</td><td>NO</td><td>NO</td></tr><tr><td></td><td>22</td><td>YES</td><td>NO</td><td>YES</td><td>NO</td><td>NO</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table><div>21</div><div>22</div><div>23</div><div>24</div><div>25</div><div>26</div><div>27</div><div>28</div><table><tr><th>EMAIL6</th><th>EMAIL7</th><th>EMAIL8</th><th>EMAIL9</th><th>EMAIL10</th><th>EMAIL11</th><th>EMAIL12</th><th>EMAIL13</th></tr><tr><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td></tr><tr><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td></tr><tr><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table><div>29</div><div>30</div><div>31</div><table><tr><th>EMAIL14</th><th>EMAIL15</th><th>EMAIL16</th></tr><tr><td>NO</td><td>NO</td><td>NO</td></tr><tr><td>NO</td><td>NO</td><td>NO</td></tr><tr><td>NO</td><td>NO</td><td>NO</td></tr><tr><td></td><td></td><td></td></tr></table></div> <div><div>1)→</div><div>2)→</div><div>3)→</div><div>4)→</div><div>5)→</div></div> <div><div>Label column : Cannot be set by the user.</div><div>Setting area : Set by the user.</div></div> | ITEM | CPUNO | INTERVAL | NSTOP | NRUN | WSTOP | WRUN | SERROR | CPUEVT1 | 1 | 1 | NO | NO | NO | NO | YES | CPUEVT2 | 3 | 2 | NO | NO | NO | NO | YES | CPUEVT5 | 15 | 5 | YES | NO | YES | NO | YES | CPUEVT60 | 64 | 10 | NO | NO | NO | NO | YES | PAUSE | EMAIL | DISCONNECT | NO | YES | YES | NO | YES | NO | YES | YES | YES | NO | NO | | BODY | APPEND | Error occurred on Line A. \nPerform recovery. | NONE | Error occurred on Line B. \nPerform recovery. | TAG | Assembly line stopped. | LOGGING | | | APPTAG | APPLOGGING | EMAIL1 | EMAIL2 | EMAIL3 | EMAIL4 | EMAIL5 | | | NO | YES | YES | NO | NO | 15 | | YES | NO | YES | NO | NO | | 22 | YES | NO | YES | NO | NO | | | | | | | | EMAIL6 | EMAIL7 | EMAIL8 | EMAIL9 | EMAIL10 | EMAIL11 | EMAIL12 | EMAIL13 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | | | | | | | | | EMAIL14 | EMAIL15 | EMAIL16 | NO | NO | NO | NO | NO | NO | NO | NO | NO | | | |
| | ITEM | CPUNO | INTERVAL | NSTOP | NRUN | WSTOP | WRUN | SERROR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CPUEVT1 | 1 | 1 | NO | NO | NO | NO | YES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CPUEVT2 | 3 | 2 | NO | NO | NO | NO | YES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CPUEVT5 | 15 | 5 | YES | NO | YES | NO | YES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CPUEVT60 | 64 | 10 | NO | NO | NO | NO | YES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PAUSE | EMAIL | DISCONNECT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NO | YES | YES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NO | YES | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | YES | YES | YES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BODY | APPEND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Error occurred on Line A. \nPerform recovery. | NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Error occurred on Line B. \nPerform recovery. | TAG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Assembly line stopped. | LOGGING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| APPTAG | APPLOGGING | EMAIL1 | EMAIL2 | EMAIL3 | EMAIL4 | EMAIL5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | NO | YES | YES | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | YES | NO | YES | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 22 | YES | NO | YES | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| EMAIL6 | EMAIL7 | EMAIL8 | EMAIL9 | EMAIL10 | EMAIL11 | EMAIL12 | EMAIL13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO | NO | NO | NO | NO | NO | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO | NO | NO | NO | NO | NO | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO | NO | NO | NO | NO | NO | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| EMAIL14 | EMAIL15 | EMAIL16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| NO | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Item | Description |
|----------------------------|--|
| File format (Continued) | <p>[Event setting - CPU event setting]</p> |

(2) Label

| | Label | Description |
|---|------------------------|--|
| 1 | CPUEVT1 to CPUEVT64 | Set the items of CPU event setting No. 1 to 64. Enter only the necessary labels. (Labels that are not set need not be entered.) |

(3) Setting items

| | Item | Description | Set value | Setting requirement |
|---|----------|--|----------------------------|---------------------|
| 2 | CPUNO | CPU name (Access target CPU setting No.) * 1 | 1 to 64 | ○ |
| 3 | INTERVAL | Interval | 1 to 86400 (unit: seconds) | ○ |
| 4 | NSTOP | Normal STOP | Mark Do not mark | ○ |
| 5 | NRUN | Normal RUN | Mark Do not mark | ○ |
| 6 | WSTOP | Warning STOP | Mark Do not mark | ○ |

○ : Must be set × : Need not be set (Invalid)

| | Item | Description | Set value | Setting requirement |
|----------|-------------------|--|---|---------------------|
| 7 | WRUN | Warning RUN | Mark | ○ |
| | | | Do not mark | |
| 8 | SERROR | System error | Mark | ○ |
| | | | Do not mark | |
| 9 | PAUSE | PAUSE | Mark | ○ |
| | | | Do not mark | |
| 10 | EMAIL | Send an e-mail when an event occurs. | Mark | ○ |
| | | | Do not mark | |
| 11 | DISCONNECT | Disconnect from the network after sending mail | When "YES" is selected at EMAIL | ○ |
| | | | Do not mark | |
| | | | When "NO" is selected at EMAIL | × |
| 12 | BODY | E-mail main text *2 | When "YES" is selected at EMAIL | ○ |
| | | | When "NO" is selected at EMAIL | × |
| 13 | APPEND | Attached file | When "YES" is selected at EMAIL | ○ |
| | | | None | |
| | | | Tag data | |
| | | | Logging Data | |
| 14 | APPTAG | Tag setting No. | When "TAG" is selected at APPEND | ○ |
| | | | When other than the above is selected at APPEND | × |
| | | | When "LOGGING" is selected at APPEND | ○ |
| 15 | APPLOGGING | Logging setting No. | When other than the above is selected at APPEND | × |
| | | | When "LOGGING" is selected at APPEND | ○ |
| 16 to 31 | EMAIL1 to EMAIL16 | Destination 1 to 16 *3 | When "YES" is selected at EMAIL | ○ |
| | | | Do not mark | |
| | | | When "NO" is selected at EMAIL | × |

○ : Must be set × : Need not be set (Invalid)

*1 Specify the access target CPU setting No. set to the label of CPU.CSV.

An error will occur if the specified access target CPU setting No. does not exist in CPU.CSV.

*2 Refer to Appendix 6.2 (2) for the precautions for editing the e-mail main text.

*3 Specify the e-mail address (To:) setting No. set to the label of EMAIL.CSV.

An error will occur if the specified e-mail address (To:) setting No. does not exist in EMAIL.CSV.

Appendix 6.13 TAGEVT.CSV (Event setting - Tag event setting)

(1) File format

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|------------|-------------|-------------|-----------|-------------|-------------|---------|---|---|-------|---|--|---------|---|---|--------|---|--|-----------|----|---|----------|-----|----|-----------|----|----|------|---------|---------|-------|------------|-----|-----|-----|----|-----|-----|----|--|------|--------|-----------------------------|------|---------------------------|-----|---|---------|--|--|--------|------------|--------|--------|--------|--------|--------|--|--|----|-----|-----|----|----|----|--|-----|----|-----|----|----|--|----|-----|----|-----|----|----|--|--|--|--|--|--|--|--------|--------|--------|--------|---------|---------|---------|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|---------|---------|---------|----|----|----|----|----|----|----|----|----|--|--|--|
| File name | TAGEVT.CSV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File contents | Event setting - Tag event setting (Refer to Section 6.5.3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File format | <div><div>2</div><div>3</div><div>4</div><div>5</div><div>6</div><table><tr><th>ITEM</th><th>TAGNO</th><th>COMPONENTNO</th><th>CONDITION</th><th>TRIGGER</th><th>RESTORATION</th></tr><tr><td>TAGEVT1</td><td>1</td><td>1</td><td>EQUAL</td><td>1</td><td></td></tr><tr><td>TAGEVT2</td><td>3</td><td>2</td><td>NEQUAL</td><td>1</td><td></td></tr><tr><td>TAGEVT129</td><td>15</td><td>5</td><td>EGREATER</td><td>100</td><td>90</td></tr><tr><td>TAGEVT256</td><td>64</td><td>10</td><td>LESS</td><td>1.0E-10</td><td>1.1E-10</td></tr></table><div>1</div><div><div>7</div><div>8</div><table><tr><th>EMAIL</th><th>DISCONNECT</th></tr><tr><td>YES</td><td>YES</td></tr><tr><td>YES</td><td>NO</td></tr><tr><td>YES</td><td>YES</td></tr><tr><td>NO</td><td></td></tr></table><div>1)→</div><div>→2)</div></div><div><div>9</div><div>10</div><table><tr><th>BODY</th><th>APPEND</th></tr><tr><td>Assembly process A started.</td><td>NONE</td></tr><tr><td>Assembly process A ended.</td><td>TAG</td></tr><tr><td>Pressure level is abnormal. \nOperation stopped. \nCheck.</td><td>LOGGING</td></tr><tr><td></td><td></td></tr></table><div>2)→</div></div><div><div>11</div><div>12</div><div>13</div><div>14</div><div>15</div><div>16</div><div>17</div><table><tr><th>APPTAG</th><th>APPLOGGING</th><th>EMAIL1</th><th>EMAIL2</th><th>EMAIL3</th><th>EMAIL4</th><th>EMAIL5</th></tr><tr><td></td><td></td><td>NO</td><td>YES</td><td>YES</td><td>NO</td><td>NO</td></tr><tr><td>15</td><td></td><td>YES</td><td>NO</td><td>YES</td><td>NO</td><td>NO</td></tr><tr><td></td><td>22</td><td>YES</td><td>NO</td><td>YES</td><td>NO</td><td>NO</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table><div>3)→</div><div>→4)</div></div><div><div>18</div><div>19</div><div>20</div><div>21</div><div>22</div><div>23</div><div>24</div><div>25</div><table><tr><th>EMAIL6</th><th>EMAIL7</th><th>EMAIL8</th><th>EMAIL9</th><th>EMAIL10</th><th>EMAIL11</th><th>EMAIL12</th><th>EMAIL13</th></tr><tr><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td></tr><tr><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td></tr><tr><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td><td>NO</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table><div>4)→</div><div>→5)</div></div><div><div>26</div><div>27</div><div>28</div><table><tr><th>EMAIL14</th><th>EMAIL15</th><th>EMAIL16</th></tr><tr><td>NO</td><td>NO</td><td>NO</td></tr><tr><td>NO</td><td>NO</td><td>NO</td></tr><tr><td>NO</td><td>NO</td><td>NO</td></tr><tr><td></td><td></td><td></td></tr></table><div>5)→</div></div><div><div><div></div>Label column : Cannot be set by the user.</div><div><div></div>Setting area : Set by the user.</div></div></div> | ITEM | TAGNO | COMPONENTNO | CONDITION | TRIGGER | RESTORATION | TAGEVT1 | 1 | 1 | EQUAL | 1 | | TAGEVT2 | 3 | 2 | NEQUAL | 1 | | TAGEVT129 | 15 | 5 | EGREATER | 100 | 90 | TAGEVT256 | 64 | 10 | LESS | 1.0E-10 | 1.1E-10 | EMAIL | DISCONNECT | YES | YES | YES | NO | YES | YES | NO | | BODY | APPEND | Assembly process A started. | NONE | Assembly process A ended. | TAG | Pressure level is abnormal. \nOperation stopped. \nCheck. | LOGGING | | | APPTAG | APPLOGGING | EMAIL1 | EMAIL2 | EMAIL3 | EMAIL4 | EMAIL5 | | | NO | YES | YES | NO | NO | 15 | | YES | NO | YES | NO | NO | | 22 | YES | NO | YES | NO | NO | | | | | | | | EMAIL6 | EMAIL7 | EMAIL8 | EMAIL9 | EMAIL10 | EMAIL11 | EMAIL12 | EMAIL13 | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | | | | | | | | | EMAIL14 | EMAIL15 | EMAIL16 | NO | NO | NO | NO | NO | NO | NO | NO | NO | | | |
| | ITEM | TAGNO | COMPONENTNO | CONDITION | TRIGGER | RESTORATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TAGEVT1 | 1 | 1 | EQUAL | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TAGEVT2 | 3 | 2 | NEQUAL | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TAGEVT129 | 15 | 5 | EGREATER | 100 | 90 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TAGEVT256 | 64 | 10 | LESS | 1.0E-10 | 1.1E-10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | EMAIL | DISCONNECT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | YES | YES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | YES | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | YES | YES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| BODY | APPEND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Assembly process A started. | NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Assembly process A ended. | TAG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pressure level is abnormal. \nOperation stopped. \nCheck. | LOGGING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| APPTAG | APPLOGGING | EMAIL1 | EMAIL2 | EMAIL3 | EMAIL4 | EMAIL5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | NO | YES | YES | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | YES | NO | YES | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 22 | YES | NO | YES | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| EMAIL6 | EMAIL7 | EMAIL8 | EMAIL9 | EMAIL10 | EMAIL11 | EMAIL12 | EMAIL13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO | NO | NO | NO | NO | NO | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO | NO | NO | NO | NO | NO | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO | NO | NO | NO | NO | NO | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EMAIL14 | EMAIL15 | EMAIL16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NO | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|--------------------------|---------------------|--------------------------|---------------------|--------------|----|----------------------|--------------------------|-----|--------------------------|----|----------------------|--------------------------|-----|--------------------------|----|----------------------|--------------------------|-----|--------------------------|----|-----|--------------------------|-----|--------------------------|----|-----|--------------------------|-----|--------------------------|----|-----|--------------------------|-----|--------------------------|----|-----|--------------------------|-----|--------------------------|----|-----|--------------------------|-----|--------------------------|
| File format (Continued) | <div><div>[Event setting - Tag event setting]</div><div><div>[Event setting]</div><div>Home > Administrative menu > Event setting > Tag event setting > Edit screen</div><div>Common setting CPU event setting Tag event setting Time/Interval event setting </div><div>[Tag event setting(edit)] Save Back Load</div><div>1 Tag event setting No. 001</div><div>2 Tag name: 02: production mngmt</div><div>3 Component name: 01: product A Single word / Decimal(0 decimal places)</div><div>4 Condition: =</div><div>5 Trigger value: 100</div><div>6 Restoration value: 0</div><div>Mail setting for event occurrence</div><div>7 Send an e-mail when an event occurs.</div><div>8 Disconnect from the network after sending mail.</div><div>9 E-mail main text:</div><div>10 Attached file:</div><div>None</div><div>Tag data 01: line 1</div><div>Logging data 01: process A</div><div>Send to:</div><table><thead><tr><th></th><th>E-mail address (To)</th><th>Notification</th><th>E-mail address (To)</th><th>Notification</th></tr></thead><tbody><tr><td>13</td><td>01: [E-mail address]</td><td><input type="checkbox"/></td><td>09:</td><td><input type="checkbox"/></td></tr><tr><td>14</td><td>02: [E-mail address]</td><td><input type="checkbox"/></td><td>10:</td><td><input type="checkbox"/></td></tr><tr><td>15</td><td>03: [E-mail address]</td><td><input type="checkbox"/></td><td>11:</td><td><input type="checkbox"/></td></tr><tr><td>16</td><td>04:</td><td><input type="checkbox"/></td><td>12:</td><td><input type="checkbox"/></td></tr><tr><td>17</td><td>05:</td><td><input type="checkbox"/></td><td>13:</td><td><input type="checkbox"/></td></tr><tr><td>18</td><td>06:</td><td><input type="checkbox"/></td><td>14:</td><td><input type="checkbox"/></td></tr><tr><td>19</td><td>07:</td><td><input type="checkbox"/></td><td>15:</td><td><input type="checkbox"/></td></tr><tr><td>20</td><td>08:</td><td><input type="checkbox"/></td><td>16:</td><td><input type="checkbox"/></td></tr></tbody></table></div></div> | | E-mail address (To) | Notification | E-mail address (To) | Notification | 13 | 01: [E-mail address] | <input type="checkbox"/> | 09: | <input type="checkbox"/> | 14 | 02: [E-mail address] | <input type="checkbox"/> | 10: | <input type="checkbox"/> | 15 | 03: [E-mail address] | <input type="checkbox"/> | 11: | <input type="checkbox"/> | 16 | 04: | <input type="checkbox"/> | 12: | <input type="checkbox"/> | 17 | 05: | <input type="checkbox"/> | 13: | <input type="checkbox"/> | 18 | 06: | <input type="checkbox"/> | 14: | <input type="checkbox"/> | 19 | 07: | <input type="checkbox"/> | 15: | <input type="checkbox"/> | 20 | 08: | <input type="checkbox"/> | 16: | <input type="checkbox"/> |
| | E-mail address (To) | Notification | E-mail address (To) | Notification | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | 01: [E-mail address] | <input type="checkbox"/> | 09: | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | 02: [E-mail address] | <input type="checkbox"/> | 10: | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | 03: [E-mail address] | <input type="checkbox"/> | 11: | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | 04: | <input type="checkbox"/> | 12: | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | 05: | <input type="checkbox"/> | 13: | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | 06: | <input type="checkbox"/> | 14: | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | 07: | <input type="checkbox"/> | 15: | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | 08: | <input type="checkbox"/> | 16: | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

(2) Label

| | Label | Description |
|---|-------------------------|---|
| 1 | TAGEVT1 to TAGEVT256 | Set the items of tag event setting No. 1 to 256. Enter only the necessary labels. (Labels that are not set need not be entered.) |

(3) Setting items

| | Item | Description | Set value | Setting requirement |
|---|-------------|--|---|---------------------|
| 2 | TAGNO | Tag name (Tag setting No.) *1 | 1 to 64 | ○ |
| 3 | COMPONENTNO | Component name (Component setting No.) *2 *3 | 1 to 64 | ○ |
| 4 | CONDITION | Condition | <div><div>=</div><div><></div><div>></div><div>>=</div><div><</div><div><=</div></div> <div><div><u>EQUAL</u></div><div><u>NEQUAL</u></div><div><u>GREATER</u></div><div><u>EGREATER</u></div><div><u>LESS</u></div><div><u>ELESS</u></div></div> | ○ |

○ : Must be set × : Need not be set (Invalid)

| | Item | Description | | Set value | Setting requirement |
|----------|-------------------|--|--|--|---------------------|
| 5 | TRIGGER | Trigger value | | Numerical value (integer, real number) | ○ |
| 6 | RESTORATION | Restoration value | When "NEQUAL" or "EQUAL" is selected at CONDITION | (Blank) | × |
| | | | When other than the above is selected at CONDITION | Numerical value (integer, real number) | ○ |
| 7 | EMAIL | Send an e-mail when an event occurs. | Mark | <u>YES</u> | ○ |
| | | | Do not mark | <u>NO</u> | |
| 8 | DISCONNECT | Disconnect from the network after sending mail | When "YES" is selected at EMAIL | Mark | ○ |
| | | | Do not mark | <u>NO</u> | |
| | | | When "NO" is selected at EMAIL | (Blank) | × |
| 9 | BODY | E-mail main text *4 | When "YES" is selected at EMAIL | 0 to 256 characters | ○ |
| | | | When "NO" is selected at EMAIL | (Blank) | × |
| 10 | APPEND | Attached file | When "YES" is selected at EMAIL | None | ○ |
| | | | | Tag data | |
| | | | | Logging Data | |
| | | | When "NO" is selected at EMAIL | (Blank) | × |
| 11 | APPTAG | Tag setting No. | When "TAG" is selected at APPEND | 1 to 64 | ○ |
| | | | When other than the above is selected at APPEND | (Blank) | × |
| 12 | APPLOGGING | Logging setting No. | When "LOGGING" is selected at APPEND | 1 to 64 | ○ |
| | | | When other than the above is selected at APPEND | (Blank) | × |
| 13 to 28 | EMAIL1 to EMAIL16 | Destination 1 to 16*5 | When "YES" is selected at EMAIL | Mark | ○ |
| | | | Do not mark | <u>NO</u> | |
| | | | When "NO" is selected at EMAIL | (Blank) | × |

○ : Must be set × : Need not be set (Invalid)

*1 Specify the tag setting No. set to the label of TAG.CSV.

An error will occur if the specified tag setting No. does not exist in TAG.CSV.

*2 Specify the component setting No. set to the label of COMPONENT.CSV.

An error will occur if the specified component setting No. does not exist in COMPONENT.CSV.

*3 An error will occur if the data type of the specified component setting No. is "String".

*4 Refer to Appendix 6.2 (2) for the precautions for editing the e-mail main text.

*5 Specify the e-mail address (To:) setting No. set to the label of EMAIL.CSV.

An error will occur if the specified e-mail address (To:) setting No. does not exist in EMAIL.CSV.

(1) File format

File format

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|--|----------------------|--------------------------|----------------------|--------------|----------------------|-------------------------------------|----------------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|
| File format (Continued) | <p>[Event setting - Time/Interval event setting]</p> <p>1 Time/Interval event setting No. 01</p> <p>2 Time specification 17 : 00 : 00 (hour:minute:second)</p> <p>3 Interval specification [seconds](1 to 86400)</p> <p>4 Interval specification [seconds](1 to 86400)</p> <p>5 Send an e-mail when an event occurs.</p> <p>6 Disconnect from the network after sending mail.</p> <p>7 E-mail main text: TIME 17:00:00</p> <p>8 Attached file: <input type="radio"/> None <input type="radio"/> Tag data 01: line 1 <input type="radio"/> Logging data 01: process A</p> <p>9 Tag data 01: line 1</p> <p>10 Logging data 01: process A</p> <p>Send to:</p> <table border="1"> <thead> <tr> <th>E-mail address (To.)</th><th>Notification</th><th>E-mail address (To.)</th><th>Notification</th></tr> </thead> <tbody> <tr><td>01: [E-mail address]</td><td><input checked="" type="checkbox"/></td><td>09: [E-mail address]</td><td><input type="checkbox"/></td></tr> <tr><td>02: [E-mail address]</td><td><input type="checkbox"/></td><td>10: [E-mail address]</td><td><input type="checkbox"/></td></tr> <tr><td>03: [E-mail address]</td><td><input type="checkbox"/></td><td>11: [E-mail address]</td><td><input type="checkbox"/></td></tr> <tr><td>04: [E-mail address]</td><td><input type="checkbox"/></td><td>12: [E-mail address]</td><td><input type="checkbox"/></td></tr> <tr><td>05: [E-mail address]</td><td><input type="checkbox"/></td><td>13: [E-mail address]</td><td><input type="checkbox"/></td></tr> <tr><td>06: [E-mail address]</td><td><input type="checkbox"/></td><td>14: [E-mail address]</td><td><input type="checkbox"/></td></tr> <tr><td>07: [E-mail address]</td><td><input type="checkbox"/></td><td>15: [E-mail address]</td><td><input type="checkbox"/></td></tr> <tr><td>08: [E-mail address]</td><td><input type="checkbox"/></td><td>16: [E-mail address]</td><td><input type="checkbox"/></td></tr> </tbody> </table> | E-mail address (To.) | Notification | E-mail address (To.) | Notification | 01: [E-mail address] | <input checked="" type="checkbox"/> | 09: [E-mail address] | <input type="checkbox"/> | 02: [E-mail address] | <input type="checkbox"/> | 10: [E-mail address] | <input type="checkbox"/> | 03: [E-mail address] | <input type="checkbox"/> | 11: [E-mail address] | <input type="checkbox"/> | 04: [E-mail address] | <input type="checkbox"/> | 12: [E-mail address] | <input type="checkbox"/> | 05: [E-mail address] | <input type="checkbox"/> | 13: [E-mail address] | <input type="checkbox"/> | 06: [E-mail address] | <input type="checkbox"/> | 14: [E-mail address] | <input type="checkbox"/> | 07: [E-mail address] | <input type="checkbox"/> | 15: [E-mail address] | <input type="checkbox"/> | 08: [E-mail address] | <input type="checkbox"/> | 16: [E-mail address] | <input type="checkbox"/> |
| E-mail address (To.) | Notification | E-mail address (To.) | Notification | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 01: [E-mail address] | <input checked="" type="checkbox"/> | 09: [E-mail address] | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 02: [E-mail address] | <input type="checkbox"/> | 10: [E-mail address] | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 03: [E-mail address] | <input type="checkbox"/> | 11: [E-mail address] | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04: [E-mail address] | <input type="checkbox"/> | 12: [E-mail address] | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05: [E-mail address] | <input type="checkbox"/> | 13: [E-mail address] | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 06: [E-mail address] | <input type="checkbox"/> | 14: [E-mail address] | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07: [E-mail address] | <input type="checkbox"/> | 15: [E-mail address] | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 08: [E-mail address] | <input type="checkbox"/> | 16: [E-mail address] | <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

(2) Label

| | Label | Description |
|---|-----------------------|--|
| 1 | TIMEEVT1 to TIMEEVT16 | Set the items of time/interval event setting No. 1 to 16. Enter only the necessary labels. (Labels that are not set need not be entered.) |

(3) Setting items

| | Item | Description | Set value | Setting requirement |
|---|------|-------------------------------------|---|---------------------|
| 2 | MODE | Time/Interval | <u>TIME</u> <u>INTERVAL</u> | ○ |
| 3 | TIME | Time | • Hour:Minute:Second format Hour: 00 to 23, PER Minute: 00 to 59, PER (PER can be specified for Minute only when PER is specified for Hour) Second: 00 to 59 (Example) 9:00:00, 17:00:00, PER:PER:00 | ○ |
| | | When "INTERVAL" is selected at MODE | (Blank) | × |

○ : Must be set × : Need not be set (Invalid)

| | Item | Description | | Set value | Setting requirement |
|----------|-------------------|--|---|----------------------------|---------------------|
| 4 | INTERVAL | Interval | When "INTERVAL" is selected at MODE | 1 to 86400 (unit: seconds) | ○ |
| | | | When "TIME" is selected at MODE | (Blank) | × |
| 5 | EMAIL | Send an e-mail when an event occurs. | Mark | <u>YES</u> | ○ |
| | | | Do not mark | <u>NO</u> | |
| 6 | DISCONNECT | Disconnect from the network after sending mail | When "YES" is selected at EMAIL | Mark | ○ |
| | | | Do not mark | <u>NO</u> | |
| | | | When "NO" is selected at EMAIL | (Blank) | × |
| 7 | BODY | E-mail main text *1 | When "YES" is selected at EMAIL | 0 to 256 characters | ○ |
| | | | When "NO" is selected at EMAIL | (Blank) | × |
| 8 | APPEND | Attached file | When "YES" is selected at EMAIL | None | ○ |
| | | | Tag data | <u>TAG</u> | |
| | | | Logging Data | <u>LOGGING</u> | |
| | | | When "NO" is selected at EMAIL | (Blank) | × |
| 9 | APPTAG | Tag setting No. | When "TAG" is selected at APPEND | 1 to 64 | ○ |
| | | | When other than the above is selected at APPEND | (Blank) | × |
| 10 | APPLOGGING | Logging setting No. | When "LOGGING" is selected at APPEND | 1 to 64 | ○ |
| | | | When other than the above is selected at APPEND | (Blank) | × |
| 11 to 26 | EMAIL1 to EMAIL16 | Destination 1 to 16 *2 | When "YES" is selected at EMAIL | Mark | ○ |
| | | | Do not mark | <u>NO</u> | |
| | | | When "NO" is selected at EMAIL | (Blank) | × |

○ : Must be set × : Need not be set (Invalid)

*1 Refer to Appendix 6.2 (2) for the precautions for editing the e-mail main text.

*2 Specify the e-mail address (To:) setting No. set to the label of EMAIL.CSV.

An error will occur if the specified e-mail address (To:) setting No. does not exist in EMAIL.CSV.

Appendix 6.15 ADDRESS.CSV (Address notification setting)

(1) File format

| Item | Description | | |
|---|---|-------------|----------|
| File name | ADDRESS.CSV | | |
| File contents | Address notification setting (Refer to Section 6.9.2) | | |
| File format | 1 | IPTYPE | SYSTEM |
| | 2 | IPADDRESS | |
| | 3 | PORTTYPE | SYSTEM |
| | 4 | PORT | |
| | 5 | ECONNECTION | YES |
| | 6 | EMAIL1 | YES |
| | 7 | EMAIL2 | YES |
| | 8 | EMAIL3 | NO |
| | 9 | EMAIL4 | YES |
| | 10 | EMAIL5 | YES |
| | 11 | EMAIL6 | YES |
| | 12 | EMAIL7 | YES |
| | 13 | EMAIL8 | YES |
| | 14 | EMAIL9 | YES |
| | 15 | EMAIL10 | YES |
| | 16 | EMAIL11 | YES |
| | 17 | EMAIL12 | YES |
| | 18 | EMAIL13 | YES |
| | 19 | EMAIL14 | YES |
| | 20 | EMAIL15 | YES |
| | 21 | EMAIL16 | YES |
| | 22 | WMSEND | NO |
| | 23 | EVENT | YES |
| | 24 | FCONNECTION | NO |
| | 25 | SERVER1 | |
| | 26 | SERVER2 | |
| | 27 | SERVER3 | |
| | 28 | SERVER4 | |
| | 29 | SERVER5 | |
| | 30 | SERVER6 | |
| | 31 | SERVER7 | |
| | 32 | SERVER8 | |
| | 33 | SERVER9 | |
| | 34 | SERVER10 | |
| | 35 | SERVER11 | |
| | 36 | SERVER12 | |
| | 37 | SERVER13 | |
| | 38 | SERVER14 | |
| | 39 | SERVER15 | |
| | 40 | SERVER16 | |
| | 41 | FILENAME | QJ71WS96 |
| | 42 | LINK | QJ71WS96 |
| <div><div></div>Label column : Cannot be set by the user.</div> | | | |
| <div><div></div>Setting area : Set by the user.</div> | | | |

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|---|-------------------------------------|--------------------------|--------------------------|------------------------|--------------|--|----|--------------------------|-------------------------------------|--------------------------|--------------------------|----|----|--------------------------|-------------------------------------|--------------------------|--------------------------|----|----|--------------------------|-------------------------------------|--------------------------|--------------------------|----|----|--------------------------|--------------------------|--------------------------|--------------------------|----|----|--------------------------|--------------------------|--------------------------|--------------------------|----|----|--------------------------|--------------------------|--------------------------|--------------------------|----|----|--------------------------|--------------------------|--------------------------|--------------------------|----|----|--------------------------|--------------------------|--------------------------|--------------------------|----|
| | <div><div>[Address notification setting - IP address setting]</div><div><div>[Address notification setting]</div><div>Home > Administrative menu > Address notification setting > IP address setting</div><div>IP address setting E-mail notification setting FTP notification setting </div><div>[IP address setting] Save Cancel</div><div>Notification IP address</div><div><div>1</div><div><input checked="" type="radio"/> Notify the IP address set in the "System setting" screen.</div></div><div><div>2</div><div><input type="radio"/> Notify the global IP address obtained from the router.</div></div><div><div>3</div><div><input type="radio"/> Notify the following IP address.</div></div><div><div>4</div><div>IP address: <input type="text"/></div></div><div><div>3</div><div><input checked="" type="radio"/> Notify the HTTP port number set in the "System setting" screen.</div></div><div><div>4</div><div><input type="radio"/> Notify the following HTTP port number.</div></div><div><div>4</div><div>HTTP port number: <input type="text"/> (1024 to 65535)</div></div></div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <div><div>[Address notification setting - E-mail notification setting]</div><div><div>[Address notification setting]</div><div>Home > Administrative menu > Address notification setting > E-mail notification setting</div><div>IP address setting E-mail notification setting FTP notification setting </div><div>[E-mail notification setting] Save Cancel</div><div>IP address notification</div><div><div>5</div><div><input checked="" type="checkbox"/> Notify an IP address at network connection.</div></div><div><table><tr><th></th><th>E-mail address (To.)</th><th>Notification</th><th>E-mail address (To.)</th><th>Notification</th><th></th></tr><tr><td>6</td><td>01: <input type="text"/></td><td><input checked="" type="checkbox"/></td><td>09: <input type="text"/></td><td><input type="checkbox"/></td><td>14</td></tr><tr><td>7</td><td>02: <input type="text"/></td><td><input checked="" type="checkbox"/></td><td>10: <input type="text"/></td><td><input type="checkbox"/></td><td>15</td></tr><tr><td>8</td><td>03: <input type="text"/></td><td><input checked="" type="checkbox"/></td><td>11: <input type="text"/></td><td><input type="checkbox"/></td><td>16</td></tr><tr><td>9</td><td>04: <input type="text"/></td><td><input type="checkbox"/></td><td>12: <input type="text"/></td><td><input type="checkbox"/></td><td>17</td></tr><tr><td>10</td><td>05: <input type="text"/></td><td><input type="checkbox"/></td><td>13: <input type="text"/></td><td><input type="checkbox"/></td><td>18</td></tr><tr><td>11</td><td>06: <input type="text"/></td><td><input type="checkbox"/></td><td>14: <input type="text"/></td><td><input type="checkbox"/></td><td>19</td></tr><tr><td>12</td><td>07: <input type="text"/></td><td><input type="checkbox"/></td><td>15: <input type="text"/></td><td><input type="checkbox"/></td><td>20</td></tr><tr><td>13</td><td>08: <input type="text"/></td><td><input type="checkbox"/></td><td>16: <input type="text"/></td><td><input type="checkbox"/></td><td>21</td></tr></table></div><div><div>22</div><div><input type="checkbox"/> Include IP address to E-mail of WMSSEND instruction.</div></div><div><div>23</div><div><input type="checkbox"/> Include IP address to E-mail of event monitor function.</div></div></div></div> | | E-mail address (To.) | Notification | E-mail address (To.) | Notification | | 6 | 01: <input type="text"/> | <input checked="" type="checkbox"/> | 09: <input type="text"/> | <input type="checkbox"/> | 14 | 7 | 02: <input type="text"/> | <input checked="" type="checkbox"/> | 10: <input type="text"/> | <input type="checkbox"/> | 15 | 8 | 03: <input type="text"/> | <input checked="" type="checkbox"/> | 11: <input type="text"/> | <input type="checkbox"/> | 16 | 9 | 04: <input type="text"/> | <input type="checkbox"/> | 12: <input type="text"/> | <input type="checkbox"/> | 17 | 10 | 05: <input type="text"/> | <input type="checkbox"/> | 13: <input type="text"/> | <input type="checkbox"/> | 18 | 11 | 06: <input type="text"/> | <input type="checkbox"/> | 14: <input type="text"/> | <input type="checkbox"/> | 19 | 12 | 07: <input type="text"/> | <input type="checkbox"/> | 15: <input type="text"/> | <input type="checkbox"/> | 20 | 13 | 08: <input type="text"/> | <input type="checkbox"/> | 16: <input type="text"/> | <input type="checkbox"/> | 21 |
| | E-mail address (To.) | Notification | E-mail address (To.) | Notification | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 01: <input type="text"/> | <input checked="" type="checkbox"/> | 09: <input type="text"/> | <input type="checkbox"/> | 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 02: <input type="text"/> | <input checked="" type="checkbox"/> | 10: <input type="text"/> | <input type="checkbox"/> | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 03: <input type="text"/> | <input checked="" type="checkbox"/> | 11: <input type="text"/> | <input type="checkbox"/> | 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 04: <input type="text"/> | <input type="checkbox"/> | 12: <input type="text"/> | <input type="checkbox"/> | 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 05: <input type="text"/> | <input type="checkbox"/> | 13: <input type="text"/> | <input type="checkbox"/> | 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | 06: <input type="text"/> | <input type="checkbox"/> | 14: <input type="text"/> | <input type="checkbox"/> | 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | 07: <input type="text"/> | <input type="checkbox"/> | 15: <input type="text"/> | <input type="checkbox"/> | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | 08: <input type="text"/> | <input type="checkbox"/> | 16: <input type="text"/> | <input type="checkbox"/> | 21 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <div><div>[Address notification setting - FTP notification setting]</div><div><div>[Address notification setting]</div><div>Home > Administrative menu > Address notification setting > FTP notification setting</div><div>IP address setting E-mail notification setting FTP notification setting </div><div>[FTP notification setting] Save Cancel</div><div>IP address notification</div><div><div>24</div><div><input checked="" type="checkbox"/> Notify an IP address at network connection.</div></div><div><table><tr><th></th><th>Target FTP server name</th><th>Notification</th><th>Target FTP server name</th><th>Notification</th><th></th></tr><tr><td>25</td><td>01: <input type="text"/></td><td><input checked="" type="checkbox"/></td><td>09: <input type="text"/></td><td><input type="checkbox"/></td><td>33</td></tr><tr><td>26</td><td>02: <input type="text"/></td><td><input checked="" type="checkbox"/></td><td>10: <input type="text"/></td><td><input type="checkbox"/></td><td>34</td></tr><tr><td>27</td><td>03: <input type="text"/></td><td><input type="checkbox"/></td><td>11: <input type="text"/></td><td><input type="checkbox"/></td><td>35</td></tr><tr><td>28</td><td>04: <input type="text"/></td><td><input type="checkbox"/></td><td>12: <input type="text"/></td><td><input type="checkbox"/></td><td>36</td></tr><tr><td>29</td><td>05: <input type="text"/></td><td><input type="checkbox"/></td><td>13: <input type="text"/></td><td><input type="checkbox"/></td><td>37</td></tr><tr><td>30</td><td>06: <input type="text"/></td><td><input type="checkbox"/></td><td>14: <input type="text"/></td><td><input type="checkbox"/></td><td>38</td></tr><tr><td>31</td><td>07: <input type="text"/></td><td><input type="checkbox"/></td><td>15: <input type="text"/></td><td><input type="checkbox"/></td><td>39</td></tr><tr><td>32</td><td>08: <input type="text"/></td><td><input type="checkbox"/></td><td>16: <input type="text"/></td><td><input type="checkbox"/></td><td>40</td></tr></table></div><div>Option setting</div><div><div>41</div><div>Notification file name: <input type="text"/>.HTM (1 to 8 characters)</div></div><div><div>42</div><div>Character string for link: <input type="text"/> (within 64 characters)</div></div></div></div> | | Target FTP server name | Notification | Target FTP server name | Notification | | 25 | 01: <input type="text"/> | <input checked="" type="checkbox"/> | 09: <input type="text"/> | <input type="checkbox"/> | 33 | 26 | 02: <input type="text"/> | <input checked="" type="checkbox"/> | 10: <input type="text"/> | <input type="checkbox"/> | 34 | 27 | 03: <input type="text"/> | <input type="checkbox"/> | 11: <input type="text"/> | <input type="checkbox"/> | 35 | 28 | 04: <input type="text"/> | <input type="checkbox"/> | 12: <input type="text"/> | <input type="checkbox"/> | 36 | 29 | 05: <input type="text"/> | <input type="checkbox"/> | 13: <input type="text"/> | <input type="checkbox"/> | 37 | 30 | 06: <input type="text"/> | <input type="checkbox"/> | 14: <input type="text"/> | <input type="checkbox"/> | 38 | 31 | 07: <input type="text"/> | <input type="checkbox"/> | 15: <input type="text"/> | <input type="checkbox"/> | 39 | 32 | 08: <input type="text"/> | <input type="checkbox"/> | 16: <input type="text"/> | <input type="checkbox"/> | 40 |
| | Target FTP server name | Notification | Target FTP server name | Notification | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | 01: <input type="text"/> | <input checked="" type="checkbox"/> | 09: <input type="text"/> | <input type="checkbox"/> | 33 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | 02: <input type="text"/> | <input checked="" type="checkbox"/> | 10: <input type="text"/> | <input type="checkbox"/> | 34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | 03: <input type="text"/> | <input type="checkbox"/> | 11: <input type="text"/> | <input type="checkbox"/> | 35 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | 04: <input type="text"/> | <input type="checkbox"/> | 12: <input type="text"/> | <input type="checkbox"/> | 36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | 05: <input type="text"/> | <input type="checkbox"/> | 13: <input type="text"/> | <input type="checkbox"/> | 37 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | 06: <input type="text"/> | <input type="checkbox"/> | 14: <input type="text"/> | <input type="checkbox"/> | 38 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | 07: <input type="text"/> | <input type="checkbox"/> | 15: <input type="text"/> | <input type="checkbox"/> | 39 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | 08: <input type="text"/> | <input type="checkbox"/> | 16: <input type="text"/> | <input type="checkbox"/> | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

File format
(Continued)

(2) Label

| | Label | Description | | Set value | Setting requirement |
|---------|-------------------|---|---|----------------------|---------------------|
| 1 | IPTYPE | Notification IP address | Notify the IP address set in the "System setting" screen. | <u>SYSTEM</u> | ○ |
| | | | Notify the global IP address obtained from the router | <u>ROUTER</u> | |
| | | | Notify the following IP address. | <u>FOLLOWING</u> | |
| 2 | IPADDRESS | IP address | When "FOLLOWING" is selected at IPTYPE | IP address (decimal) | ○ |
| | | | When other than the above is selected at IPTYPE | (Blank) | × |
| 3 | PORTTYPE | Notification HTTP port number | Notify the HTTP port number set in the "System setting" screen. | <u>SYSTEM</u> | ○ |
| | | | Notify the following HTTP port number. | <u>FOLLOWING</u> | |
| 4 | PORT | HTTP port number | When "SYSTEM" is selected at PORTTYPE | (Blank) | × |
| | | | When "FOLLOWING" is selected at PORTTYPE | 1024 to 65535 | ○ |
| 5 | ECONNECTION | Notify an IP address at network connection. | Mark | <u>YES</u> | ○ |
| | | | Do not mark | <u>NO</u> | |
| 6 to 21 | EMAIL1 to EMAIL16 | E-mail address (To:) 1 to 16*1 | When "YES" is selected at ECONNECTION | Mark | ○ |
| | | | Do not mark | <u>NO</u> | |
| | | | When "NO" is selected at ECONNECTION | (Blank) | × |
| 22 | WMSEND | Include IP address to E-mail of WMSEND instruction. | Mark | <u>YES</u> | ○ |
| | | | Do not mark | <u>NO</u> | |
| 23 | EVENT | Include IP address to E-mail of event monitor function. | Mark | <u>YES</u> | ○ |
| | | | Do not mark | <u>NO</u> | |
| 24 | FCONNECTION | Notify an IP address at network connection. | Mark | <u>YES</u> | ○ |
| | | | Do not mark | <u>NO</u> | |

○ : Must be set × : Need not be set (Invalid)

| | Label | Description | | | Set value | Setting requirement |
|----------------|------------------------|--|---|-------------|----------------------|---------------------|
| 25 to 40 | SERVER1 to SERVER16 | Target FTP server name 1 to 16 * 2 | When "YES" is selected at | Mark | <u>YES</u> | ○ |
| | | | FCONNECTION | Do not mark | <u>NO</u> | |
| | | | When "NO" is selected at FCONNECTION | | | (Blank) |
| 41 | FILENAME | Notification file name | | | 1 to 8 characters | ○ |
| 42 | LINK | Character string for link | | | within 64 characters | ○ |

○ : Must be set × : Need not be set (Invalid)

- *1 Specify the e-mail address (To:) setting No. set to the label of EMAIL.CSV.
An error will occur if the specified e-mail address (To:) setting No. does not exist in EMAIL.CSV.
- *2 Specify the FTP server setting No. set to the label of FTP.CSV.
An error will occur if the specified FTP server setting No. does not exist in FTP.CSV.

Appendix 6.16 ACCOUNT.CSV (Account setting)

(1) File format

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|-----------|------------|----------|--------|---------------|---------------|----------|----------|------------|-----|-----|-----|----------|-------|-----------|----|-----|----|-----------|-------|-----------|----|----|----|-----------|-------|-----------|----|----|----|---------|----------|-----|--|-----------|-------------------|-----|--|-----|--|
| File name | ACCOUNT.CSV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File contents | Account setting (Refer to Section 4.6.5) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File format | <div><div><div>2</div><div>3</div><div>4</div><div>5</div><div>6</div></div><table><tr><th>ITEM</th><th>USERNAME</th><th>PASSWORD</th><th>DWRITE</th><th>TWRITE</th><th>ADMINISTRATOR</th></tr><tr><td>ACCOUNT1</td><td>QJ71WS96</td><td>MITSUBISHI</td><td>YES</td><td>YES</td><td>YES</td></tr><tr><td>ACCOUNT2</td><td>USER1</td><td>USERUSER1</td><td>NO</td><td>YES</td><td>NO</td></tr><tr><td>ACCOUNT12</td><td>USER2</td><td>USERUSER2</td><td>NO</td><td>NO</td><td>NO</td></tr><tr><td>ACCOUNT16</td><td>USER3</td><td>USERUSER3</td><td>NO</td><td>NO</td><td>NO</td></tr></table><div><div>1</div><div>7</div><div>8</div></div><table><tr><th>INITIAL</th><th>FILENAME</th></tr><tr><td>TOP</td><td></td></tr><tr><td>FOLLOWING</td><td>/USER/usrindx.htm</td></tr><tr><td>TOP</td><td></td></tr><tr><td>TOP</td><td></td></tr></table><div>1)→</div><div><div><div></div>Item row</div><div>: Cannot be set by the user.</div><div><div></div>Label column, Setting area : Set by the user.</div></div></div> | ITEM | USERNAME | PASSWORD | DWRITE | TWRITE | ADMINISTRATOR | ACCOUNT1 | QJ71WS96 | MITSUBISHI | YES | YES | YES | ACCOUNT2 | USER1 | USERUSER1 | NO | YES | NO | ACCOUNT12 | USER2 | USERUSER2 | NO | NO | NO | ACCOUNT16 | USER3 | USERUSER3 | NO | NO | NO | INITIAL | FILENAME | TOP | | FOLLOWING | /USER/usrindx.htm | TOP | | TOP | |
| | ITEM | USERNAME | PASSWORD | DWRITE | TWRITE | ADMINISTRATOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ACCOUNT1 | QJ71WS96 | MITSUBISHI | YES | YES | YES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ACCOUNT2 | USER1 | USERUSER1 | NO | YES | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ACCOUNT12 | USER2 | USERUSER2 | NO | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ACCOUNT16 | USER3 | USERUSER3 | NO | NO | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| INITIAL | FILENAME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FOLLOWING | /USER/usrindx.htm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <div><div>[Account setting]</div><div>Home > Administrative menu > Account setting > Edit screen</div><div><div>Save</div><div>Back</div><div>Load</div></div><div><div>1</div>Account setting No. 01</div><div><div>2</div>User name: administrator001 (1 to 20 characters)</div><div><div>3</div>Password: (8 to 14 characters)</div><div><div>4</div>Confirm password:</div><div><div>5</div></div><div><div>6</div></div><div><div>7</div>Access authority: <input checked="" type="checkbox"/> Device write <input checked="" type="checkbox"/> Tag component write <input checked="" type="checkbox"/> Administrator</div><div>Initial screen: <input checked="" type="radio"/> TOP page/index.htm <input type="radio"/> User-specified screen (1 to 64 characters)</div><div>8</div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

(2) Label

| | Label | Description |
|---|--------------------------|--|
| 1 | ACCOUNT1 to ACCOUNT16 | Set the items of account setting No. 1 to 16. Enter only the necessary labels. (Labels that are not set need not be entered.) |

(3) Setting items

| | Item | Description | | Set value | Setting requirement |
|---|---------------|--|-------------------------------------|--------------------|---------------------|
| 2 | USERNAME | User name | | 1 to 20 characters | ○ |
| 3 | PASSWORD | Password | | 8 to 14 characters | ○ |
| 4 | DWRITE | Access authority: Device write | Mark | <u>YES</u> | ○ |
| | | | Do not mark | <u>NO</u> | |
| 5 | TWRITE | Access authority: Tag component write | Mark | <u>YES</u> | ○ |
| | | | Do not mark | <u>NO</u> | |
| 6 | ADMINISTRATOR | Access authority: Administrator * 1 | Mark | <u>YES</u> | ○ |
| | | | Do not mark | <u>NO</u> | |
| 7 | INITIAL | Initial screen | Top page (/index.htm) | <u>TOP</u> | ○ |
| | | | User-specified screen | <u>FOLLOWING</u> | ○ |
| 8 | FILENAME | Initial file name | When "TOP" is selected at INITIAL | (Blank) | ○ |
| | | | When "FOLLOWING" is selected at TOP | 1 to 64 characters | ○ |

○ : Must be set × : Need not be set (Invalid)

* 1 An error will occur if no user with administrator authority has been set.

Appendix 6.17 IPFILTER.CSV (IP filter setting)

(1) File format

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|-----------------|--|-----------------|-------------|-------|----|---------|--|------------|-------------|-------|--|---------|------|------------|--|-------|----|---------|--|------------|--|-------|--|---------|--|------------|--|-------|----|---------|--|-------|--|-------------|--|--------|--|----------|--|
| File name | IPFILTER.CSV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File contents | IP filter setting (Refer to Section 4.6.6) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| File format | <div><div><div>1</div><div>2</div><div>3</div><div>4</div></div><table><tr><td>ACCESS</td><td>BLOCK</td></tr><tr><td>IPADDRESS1</td><td>192.168.0.0</td></tr><tr><td>MASK1</td><td>16</td></tr><tr><td>FILTER1</td><td>PASS</td></tr><tr><td>IPADDRESS2</td><td>10.20.30.00</td></tr><tr><td>MASK2</td><td>24</td></tr><tr><td>FILTER2</td><td>PASS</td></tr><tr><td>IPADDRESS3</td><td>10.20.30.40</td></tr><tr><td>MASK3</td><td>32</td></tr><tr><td>FILTER3</td><td>BLOCK</td></tr><tr><td>IPADDRESS4</td><td></td></tr><tr><td>MASK4</td><td></td></tr><tr><td>FILTER4</td><td></td></tr><tr><td>IPADDRESS5</td><td>10.20.30.50</td></tr><tr><td>MASK5</td><td>32</td></tr><tr><td>FILTER5</td><td>BLOCK</td></tr><tr><td colspan="2">~~~~~</td></tr><tr><td>IPADDRESS32</td><td></td></tr><tr><td>MASK32</td><td></td></tr><tr><td>FILTER32</td><td></td></tr></table><div><div></div> Label column : Cannot be set by the user.</div><div><div></div> Setting area : Set by the user.</div></div> | ACCESS | BLOCK | IPADDRESS1 | 192.168.0.0 | MASK1 | 16 | FILTER1 | PASS | IPADDRESS2 | 10.20.30.00 | MASK2 | 24 | FILTER2 | PASS | IPADDRESS3 | 10.20.30.40 | MASK3 | 32 | FILTER3 | BLOCK | IPADDRESS4 | | MASK4 | | FILTER4 | | IPADDRESS5 | 10.20.30.50 | MASK5 | 32 | FILTER5 | BLOCK | ~~~~~ | | IPADDRESS32 | | MASK32 | | FILTER32 | |
| | ACCESS | BLOCK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | IPADDRESS1 | 192.168.0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | MASK1 | 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FILTER1 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | IPADDRESS2 | 10.20.30.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | MASK2 | 24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FILTER2 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | IPADDRESS3 | 10.20.30.40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | MASK3 | 32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILTER3 | BLOCK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IPADDRESS4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MASK4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILTER4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IPADDRESS5 | 10.20.30.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MASK5 | 32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILTER5 | BLOCK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ~~~~~ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IPADDRESS32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MASK32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FILTER32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <div><div>[IP filter setting]</div><div>HOME > Administrative menu > IP filter setting</div><div><div>Save</div><div>Cancel</div></div><div><div>1</div><div>Access setting</div><div><div><div><div><div></div></div><div>Pass the IP packet that has not been set in [Filter setting].</div></div><div><div><div></div></div><div>Block the IP packet that has not been set in [Filter setting].</div></div></div></div><div><div>Filter setting</div><table><tr><th>No.</th><th>IP address</th><th>Mask bit length</th><th>Action</th></tr><tr><td>No.1</td><td></td><td></td><td><div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div></td></tr><tr><td>No.2</td><td></td><td></td><td><div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div></td></tr><tr><td>No.3</td><td></td><td></td><td><div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div></td></tr><tr><td>No.4</td><td></td><td></td><td><div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div></td></tr><tr><td>No.5</td><td></td><td></td><td><div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div></td></tr><tr><td>No.6</td><td></td><td></td><td><div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div></td></tr><tr><td>No.7</td><td></td><td></td><td><div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div></td></tr><tr><td>No.8</td><td></td><td></td><td><div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div></td></tr></table><div><div>2</div><div>3</div><div>4</div></div></div></div></div> | No. | IP address | Mask bit length | Action | No.1 | | | <div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div> | No.2 | | | <div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div> | No.3 | | | <div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div> | No.4 | | | <div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div> | No.5 | | | <div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div> | No.6 | | | <div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div> | No.7 | | | <div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div> | No.8 | | | <div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div> | | | | |
| No. | IP address | Mask bit length | Action | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No.1 | | | <div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No.2 | | | <div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No.3 | | | <div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No.4 | | | <div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No.5 | | | <div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No.6 | | | <div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No.7 | | | <div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No.8 | | | <div><div><div></div></div><div>Block</div></div> <div><div><div></div></div><div>Pass</div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

(2) Label

| | Label | Description | | Set value | Setting requirement |
|---|---------------------------|-----------------------------------|--|----------------------------------|---------------------------|
| 1 | ACCESS | Access setting | Pass the IP packet that has not been set in [Filter setting]. | <u>PASS</u> | ○ |
| | | | Block the IP packet that has not been set in [Filter setting]. | <u>BLOCK</u> | |
| 2 | IPADDRESS1 to IPADDRESS32 | Filter setting No. 1 to 32 * 1 | IP address | IP address (decimal), or (Blank) | ○ |
| 3 | MASK1 to MASK32 | | Mask bit length | 1 to 32 or (Blank) | ○ |
| 4 | FILTER1 to FILTER32 | | Action | Block | <u>BLOCK</u> , or (Blank) |
| | | Pass | | <u>PASS</u> , or (Blank) | |

○ : Must be set × : Need not be set (Invalid)

*1 IPADDRESSn, MASKn and FILTERn (n: 1 to 32) in the IP filter setting can all be blanked.
 However, if any one of the three has been set, the other two must also be set. (They cannot be blanked.)

Appendix 7 Sizes of Data Written to Standard ROM and Compact Flash™ Card

This section explains how to calculate the sizes of data written to the standard ROM and Compact Flash™ card.

Appendix 7.1 Size of data written to standard ROM drive

The size of the data written to the standard ROM drive per day can be calculated as shown below.

| | Formula |
|---|--|
| Size of data written to standard ROM drive per day (*1) | $= (LS_1 \times LN_1) + \dots + (LS_n \times LN_n) \\ + (CPES \times CPEN) + (TGES \times TGEN) + (TMES \times TMEN) + (FSS \times FSN)$ |

*1 Only the loggings which storage location is set to the standard ROM are counted.

LS_n: Size of logging No.n data written to the logging file at one time (Refer to Appendix 7.3.)

LN_n: No. of writes of logging No.n per day (Refer to Appendix 7.3.)

CPES: Size of data written to the event history file in the case where a CPU event occurs (Refer to Appendix 7.4.)

CPEN: No. of CPU events occurred per day

TGES: Size of data written to the event history file in the case where a tag event occurs (Refer to Appendix 7.4.)

TGEN: No. of tag events occurred per day

TMES: Size of data written to the event history file in the case where a time/interval event occurs (Refer to Appendix 7.4.)

TMEN: No. of time/interval events occurred per day

FSS: Size of data written to the file by FTP server function (Refer to Appendix 7.6.)

FSN: No. of writes to the file by FTP server function per day

Appendix 7.2 Size of data written to Compact Flash™ card

The size of the data written to the Compact Flash™ card per day can be calculated as shown below.

| | Formula |
|--|--|
| Size of data written to Compact Flash™ card per day (*1) (*2) (*3) | $= ((\underline{LS}_1 + 1024) \times LN_1) + \dots + ((\underline{LS}_n + 1024) \times LN_n) \\ + ((\underline{WFS} + 1024) \times WFN) + ((\underline{FCS} + 1024) \times FCN) + ((\underline{FSS} + 1024) \times FSN)$ |

*1 Only the loggings which storage location is set to the Compact Flash™ card are counted.

*2 Round up the underlined parts to multiples of 512.

Example) When LS_n = 600, LS_n = 1024

*3 When writing data to a file, data of 1024 bytes are generally rewritten due to file system update.

LS_n: Size of logging No.n data written to the logging file at one time (Refer to Appendix 7.3.)

LN_n: No. of writes of logging No.n per day (Refer to Appendix 7.3.)

WFS: Size of data written to the file using the WFWRITE instruction (Refer to Appendix 7.5.)

WFN: No. of file writings using the WFWRITE instruction per day

FCS: Size of data written to the file using the FTPGET instruction (FTP client function) (Refer to Appendix 7.5.)

FCN: No. of file writings using the FTPGET instruction (FTP client function) per day

FSS: Size of data written to the file by FTP server function (Refer to Appendix 7.6.)

FSN: No. of writes to the file by FTP server function per day

Appendix 7.3 Size of data written to logging file

The size of data written to the logging file can be obtained from the following.

| | Formula |
|---|--|
| Logging cycle is 1 second or more. | $LS_n = \text{Time character string length (19)} + \text{Comma (1)} + \text{TAGL} + \text{Line feed (1)}$ $LN_n = LT_n / INT_n$ $\text{TAGL} = \text{Component 1 character string length (*2)} + \text{Comma (1)} + \text{Component 2 character string length (*2)} + \text{Comma (1)} + \dots + \text{Component n character string length (*2)} + \text{Line feed (1)}$ |
| Logging cycle is less than 1 second. (High-speed logging) (*1) | $LS_n = (\text{Time character string length (19)} + \text{Comma (1)} + \text{TAGL} + \text{Line feed (1)}) / INT_n$ $LN_n = LT_n$ $\text{TAGL} = \text{Component 1 character string length (*2)} + \text{Comma (1)} + \text{Component 2 character string length (*2)} + \text{Comma (1)} + \dots + \text{Component n character string length (*2)} + \text{Line feed (1)}$ |

*1 When high-speed logging is used, data are stored to the Compact FlashTM card once per second.

*2 The character string length of the component is based on the data type set in the component setting as shown below.

| Data type | Data length | Remarks |
|-------------|-------------|--|
| Single word | 1 to 18 | Depends on the specified device value, display form, and operator specification. |
| Double word | 1 to 21 | |
| Real number | 1 to 47 | |
| Bit | 1 | — |
| String | 1 to 32 | Depends on the specified number of characters. |

(Example) When a normal logging setting is made to collect 64 components whose data type is "Single word";

$$LS_n = 19 + 1 + (18 + 1) \times 64 + 1 = 1237 \text{ bytes}$$

LS_n : Size of logging No.n data written to the logging file at one time

LN_n : No. of writes of logging No.n per day

LT_n : Operating time (seconds) of logging No.n per day (In the case of constant operation, $LT_n = 86400$)

INT_n : Logging cycle (seconds)

For the high-speed logging, the unit needs to be changed from milliseconds to seconds.

Example) For the interval of 100 milliseconds, $INT_n = 0.1$ (seconds)

TAGL: Character string length of tag data

Appendix 7.4 Size of data written to event history file

The size of data written to the event history file can be obtained from the following.

| | Formula |
|--|---|
| Size of data written to event history file | $CPES = \text{Data character string length (19)} + \text{Event number (2)} + \text{Status (11)} + \text{CPU name (1 to 16)} + \text{Operation status (12)} + \text{E-mail sending (8)} + \text{Comma/Line feed (7)}$ |
| | $TGES = \text{Data character string length (19)} + \text{Event number (2)} + \text{Status (11)} + \text{Tag name (1 to 16)} + \text{Component name (1 to 16)} + \text{Condition (2)} + \text{Trigger value (1 to 47)} + \text{Component value (1 to 47)} + \text{E-mail sending (8)} + \text{Comma/Line feed (10)}$ |
| | $TMES = \text{Data character string length (19)} + \text{Event number (2)} + \text{E-mail sending (8)} + \text{Comma/Line feed (4)}$ |

CPES: Size of data written to the event history file in the case where a CPU event occurs

TGES: Size of data written to the event history file in the case where a tag event occurs

TMES: Size of data written to the event history file in the case where a time/interval event occurs

Appendix 7.5 Size for file writing by dedicated instruction

The size of data written to the file by a dedicated instruction can be obtained from the following.

(1) WFWRITE instruction

| | | Formula |
|-----------------------|--------------------|---|
| Binary writing | | $WFS = DTN \times 2$ |
| CSV format conversion | Word specification | $WFS = (\text{Data character string length} (*1) + \text{Comma} (1)) \times DTN + \text{Line feed} (1) \times LINE$ $LINE = DTN / \text{No. of columns}$ |
| | Byte specification | $WFS = (\text{Data character string length} (*2) + \text{Comma} (1)) \times DTN \times 2 + \text{Line feed} (1) \times LINE$ $LINE = (DTN \times 2) / \text{No. of columns}$ |

*1 Data character string length is 1 to 6 depending on the specified device value.

*2 Data character string length is 1 to 4 depending on the specified device value.

WFS: Size of data written to the file by the WFWRITE instruction

DTN: No. of request data to be written (in units of words)

LINE: No. of lines

(2) FTPGET instruction

| Formula |
|--|
| $FCS = \text{File size specified by the FTPGET instruction}$ |

FCS: Size of the file to which data are written by the FTPGET instruction (FTP client function)

Appendix 7.6 Size of data written to file by FTP server function

The size of data written to the file by the FTP server function can be obtained from the following.

| Formula |
|--|
| $FSS = \text{Size of the file which transfer is specified on the FTP client side}$ |

FSS: Size of the file written by the FTP server function

Appendix 8 Transportation Precautions

When transporting lithium batteries, make sure to treat them based on the transport regulations

Appendix 8.1 Target models of regulations

The batteries for the Web server module are classified as follows:

| Product name | Model | Product supply status | Classification for transportation |
|------------------|-------|-----------------------|-----------------------------------|
| Q series battery | Q6BAT | Lithium battery | Non-dangerous goods |

Appendix 8.2 Transport guidelines

Comply with IATA Dangerous Goods Regulations, IMDG code and the local transport regulations when transporting products after unpacking or repacking, while Mitsubishi ships products with packages to comply with the transport regulations.
Please consult your carrier for further details.

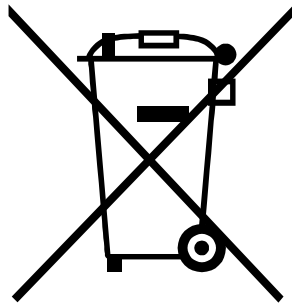
Appendix 9 Handling of Batteries and Devices with Built-in Batteries in EU Member States

This section describes the precautions for disposing of waste batteries in EU member states and exporting batteries and/or devices with built-in batteries to EU member states.

Appendix 9.1 Disposal precautions

In EU member states, there is a separate collection system for waste batteries. Dispose of batteries properly at the local community waste collection/recycling center.

The following symbol is printed on the batteries and packaging of batteries and devices with built-in batteries used for Mitsubishi programmable controllers.



Note: This symbol is for EU member states only.

The symbol is specified in the new EU Battery Directive (2006/66/EC) Article 20 "Information for end-users" and Annex II.

The symbol indicates that batteries need to be disposed of separately from other wastes.

Appendix 9.2 Exportation precautions

The new EU Battery Directive (2006/66/EC) requires the following when marketing or exporting batteries and/or devices with built-in batteries to EU member states.

- To print the symbol on batteries, devices, or their packaging
- To explain the symbol in the manuals of the products

(1) Labelling

To market or export batteries and/or devices with built-in batteries, which have no symbol, to EU member states on September 26, 2008 or later, print the symbol shown on the previous page on the batteries, devices, or their packaging.

(2) Explaining the symbol in the manuals

To export devices incorporating Mitsubishi programmable controller to EU member states on September 26, 2008 or later, provide the latest manuals that include the explanation of the symbol.

If no Mitsubishi manuals or any old manuals without the explanation of the symbol are provided, separately attach an explanatory note regarding the symbol to each manual of the devices.

| POINT |
|---|
| The requirements apply to batteries and/or devices with built-in batteries manufactured before the enforcement date of the new EU Battery Directive (2006/66/EC). |

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WARRANTY

Please confirm the following product warranty details before using this product.

1. Gratis Warranty Term and Gratis Warranty Range

If any faults or defects (hereinafter "Failure") found to be the responsibility of Mitsubishi occurs during use of the product within the gratis warranty term, the product shall be repaired at no cost via the sales representative or Mitsubishi Service Company.

However, if repairs are required onsite at domestic or overseas location, expenses to send an engineer will be solely at the customer's discretion. Mitsubishi shall not be held responsible for any re-commissioning, maintenance, or testing on-site that involves replacement of the failed module.

[Gratis Warranty Term]

The gratis warranty term of the product shall be for one year after the date of purchase or delivery to a designated place.

Note that after manufacture and shipment from Mitsubishi, the maximum distribution period shall be six (6) months, and the longest gratis warranty term after manufacturing shall be eighteen (18) months. The gratis warranty term of repair parts shall not exceed the gratis warranty term before repairs.

[Gratis Warranty Range]

- (1) The range shall be limited to normal use within the usage state, usage methods and usage environment, etc., which follow the conditions and precautions, etc., given in the instruction manual, user's manual and caution labels on the product.
- (2) Even within the gratis warranty term, repairs shall be charged for in the following cases.
 1. Failure occurring from inappropriate storage or handling, carelessness or negligence by the user. Failure caused by the user's hardware or software design.
 2. Failure caused by unapproved modifications, etc., to the product by the user.
 3. When the Mitsubishi product is assembled into a user's device, Failure that could have been avoided if functions or structures, judged as necessary in the legal safety measures the user's device is subject to or as necessary by industry standards, had been provided.
 4. Failure that could have been avoided if consumable parts (battery, backlight, fuse, etc.) designated in the instruction manual had been correctly serviced or replaced.
 5. Failure caused by external irresistible forces such as fires or abnormal voltages, and Failure caused by force majeure such as earthquakes, lightning, wind and water damage.
 6. Failure caused by reasons unpredictable by scientific technology standards at time of shipment from Mitsubishi.
 7. Any other failure found not to be the responsibility of Mitsubishi or that admitted not to be so by the user.

2. Onerous repair term after discontinuation of production

- (1) Mitsubishi shall accept onerous product repairs for seven (7) years after production of the product is discontinued. Discontinuation of production shall be notified with Mitsubishi Technical Bulletins, etc.
- (2) Product supply (including repair parts) is not available after production is discontinued.

3. Overseas service

Overseas, repairs shall be accepted by Mitsubishi's local overseas FA Center. Note that the repair conditions at each FA Center may differ.

4. Exclusion of loss in opportunity and secondary loss from warranty liability

Regardless of the gratis warranty term, Mitsubishi shall not be liable for compensation of damages caused by any cause found not to be the responsibility of Mitsubishi, loss in opportunity, lost profits incurred to the user by Failures of Mitsubishi products, special damages and secondary damages whether foreseeable or not, compensation for accidents, and compensation for damages to products other than Mitsubishi products, replacement by the user, maintenance of on-site equipment, start-up test run and other tasks.

5. Changes in product specifications

The specifications given in the catalogs, manuals or technical documents are subject to change without prior notice.

6. Product application

- (1) In using the Mitsubishi MELSEC programmable controller, the usage conditions shall be that the application will not lead to a major accident even if any problem or fault should occur in the programmable controller device, and that backup and fail-safe functions are systematically provided outside of the device for any problem or fault.
- (2) The Mitsubishi programmable controller has been designed and manufactured for applications in general industries, etc. Thus, applications in which the public could be affected such as in nuclear power plants and other power plants operated by respective power companies, and applications in which a special quality assurance system is required, such as for Railway companies or Public service purposes shall be excluded from the programmable controller applications.

In addition, applications in which human life or property that could be greatly affected, such as in aircraft, medical applications, incineration and fuel devices, manned transportation, equipment for recreation and amusement, and safety devices, shall also be excluded from the programmable controller range of applications.

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Web Server Module

User's Manual

| | |
|---------------------------|-----------------|
| MODEL | QJ71WS96-U-SY-E |
| MODEL CODE | 13JR58 |
| SH(NA)-080320E-I(0809)MEE | |



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