
User's Manual

DXA120 DAQSTANDARD DX-P Hardware Configurator

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This manual explains how to use the software. Please read this manual carefully before operating the software to ensure its correct use.

Notes

- This software cannot connect to a DX100P/DX200P whose style number is S4 or earlier.
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How to Use This Manual

Structure of the Manual

This manual consists of the following five chapters and index.

| Chapter | Title | Content |
|---------|----------------------------------|---|
| 1 | Before using the DAQSTANDARD | Explains the PC system environment required for use of the DAQSTANDARD. Also explains how to install it. |
| 2 | Viewing and Creating Setup Data | Explains how to view DX100P/DX200P setup data and how to create new setup data. |
| 3 | Receiving and Sending Setup Data | Explains how to connect to a DX100P/DX200P through the Ethernet interface and how to send and receive setup data. |
| 4 | Troubleshooting | Gives a list of error messages and corrective measures. |
| Index | | Gives a list of important terms used in this manual. |

Range of Explanation in this Manual

This manual does not explain the basic operations of your PC's operating system (OS). For such descriptions, refer to the Windows User's Guide etc.

Conventions Used in This Manual

- **Unit**
K Indicates "1024". (Example: 100 KB)
- **Menus, commands, dialog boxes and buttons**
Enclosed in [].
- **Note**
Provides useful information regarding operation of the software.

About Images

The images that appear in this manual may be different from those that appear on the software, but not to a degree that interferes with procedural explanations.

Products Covered in This Manual

In this manual, the terms "DX100P" and "DX200P" refer to the following models.

| Terms | Models |
|--------|---|
| DX100P | DX100P DX102P, DX104P, DX106P, and DX112P with release number 4 and later |
| DX200P | DX200P DX204P, DX208P, DX210P, DX220P, and DX230P with release number 4 and later |

Revision History

| Edition | Additions and Changes |
|---------|---|
| 1 | New edition. |
| 2 | Changes to the operating environment (support for Windows 7). Improvements to descriptions. |
| 3 | Changes to the operating environment (Support for Windows XP SP2 is terminated). |
| 4 | Changes to the operating environment (Support for Windows 2000 is terminated, and support for Windows 8). |
| 5 | License free Changes to the operating environment (Support for Windows XP and Vista are terminated.) |
| 6 | Changes to the operating environment (Support for Windows 7 is terminated, and support for Windows 11) The version structure of DAQSTANDARD R9.05.03 is as follows. - Installer version R9.05.03 (can be found in Windows "Programs and Features") - Version information of each software R9.05.02 |

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1.1 Overview of the DAQSTANDARD

The DAQSTANDARD consists of the following three utility programs.

- Launcher
- Hardware Configurator
- DX100P/DX200P Hardware Configurator

This manual explains Viewer.

Viewer

Viewer displays the values and waveforms of the measured data from the recorder and prints them.

Hardware Configurator

Hardware Configurator is a software application for creating setup data for the recorder. It can send setup files that you have created to the recorder and save them to storage media. It can be used with the following recorders: the DX1000, DX1000N, DX2000, DX100, DX200, CX1000, CX2000, MV1000, MV2000, MV100, and MV200.

DX-P Hardware Configurator

DX100P/DX200P Hardware Configurator is a software application for creating setup data for the DX100P/DX200P recorder. It can send setup files that you have created to the recorder and save them to storage media.

About DX-P Hardware Configurator

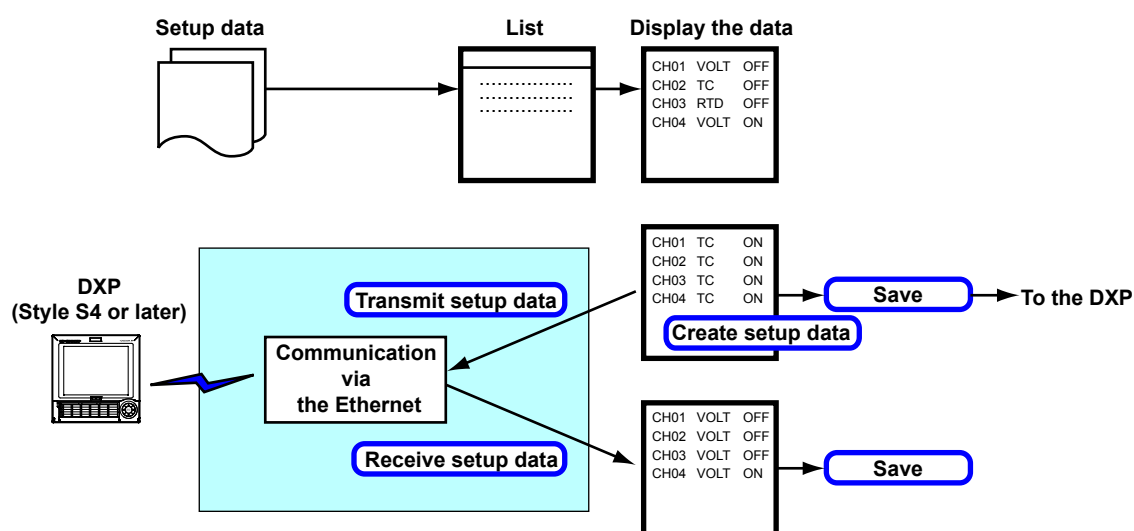
Confirming the Setup Data

You can use the Hardware Configurator to display and confirm the setup data.

Creating Setup Data

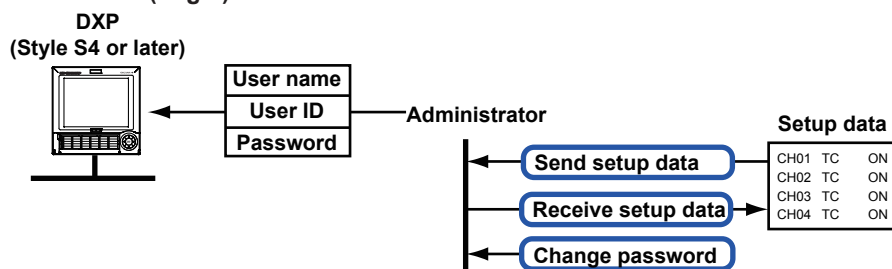
You can create new setup data by editing the opened setup data. **However, the setup data of login information and batch system settings cannot be created.**

- Create new setup data.
- You can also create setup data by changing the system configuration (number of measurement channels, options, etc.) of the opened setup data.
- On the DX200P, you can assign screens to the [4 panel] display and set screen names.
- Load the DX100P/DX200P (hereinafter “the DXP”) setup data via the communication interface. Transmit setup data to the DXP (function available on DXP style S4 or later).



Setup data: Setup data of the DXP (.ppl extension).

Connection (Login) Conditions



- Only the administrators that are registered to the target DXP can log in. The administrator is confirmed using the user name, user ID, and password.
- Connection is not possible if there is a user logged in using the keys on the DXP or if there is a user logged into the setting function of the setting/measurement server via the communication interface (see IM04L05A01-17E).
- Connection is not possible using a user name that is already connected.

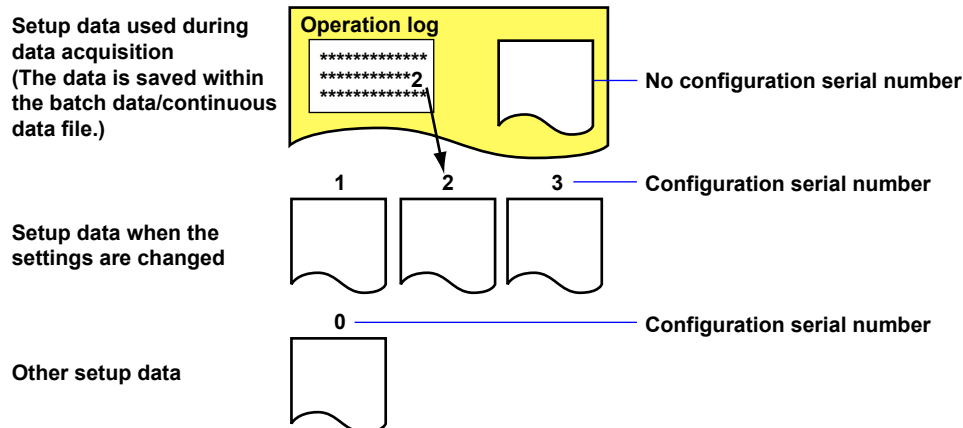
Transmitting and Receiving Setup Data

You can load DXP setup data. You cannot view the login information and batch/system settings.

You can send setup data to the DXP. The contents of [Login information], [Batch system settings], and [IP Address] are not transmitted.

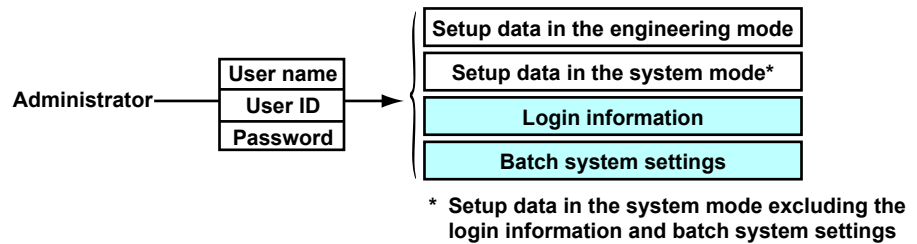
How Data Is Managed

The setup data is assigned a “configuration serial number” in the order of occurrence. This number is recorded in the batch data/continuous data as a part of the operation log of setting changes. Includes setup data saved using keys on the DXP, setup data saved using the DX-P Hardware Configurator, and setup data received using the Communication Function. The configuration serial number is “0.”



Viewing the Contents of the Login Information and Batch System Settings

Only the administrator that was registered at the time the data was acquired can view the contents of the login information and batch system settings of the data. The administrator is confirmed using the user name, user ID, and password.



- Login information: Contents of the registered administrators and users
- Batch system settings: Contents of the login function and the electronic signature function

User Locked

A user is invalidated if a wrong password is entered three consecutive times at the password prompt. An invalidated user cannot apply electronic signature to the data. In addition, the user cannot view the contents of the login information and batch system settings of the relevant batch data and continuous data.

1.2 Required PC System Environment

Hardware

Personal Computer

A computer which runs on Windows 8.1, Windows 10, or Windows 11.

CPU and Main Memory

For Windows 8.1 and Windows 10

Intel Core2 Duo E6300 or faster x64 or x86 processor, 2 GB or more

For Windows 11

Intel Core i5 or faster, and 8th generation or later Intel processor, 8 GB or more

Hard Disk

For Windows 8.1 and Windows 10

Free space of 100 MB or more (more space may be required, depending on the amount of data stored)

For Windows 11

Free space of 64 GB or more (more space may be required, depending on the amount of data stored)

Mouse

A mouse supported by Windows.

Monitor

A video card that is recommended for the OS and a display that is supported by the OS, has a resolution of 1024×768 or higher, and that can show 65,536 colors (16-bit, high color) or more.

Interface Port

An RS-232 port or an Ethernet port supported by the OS.

Printer

A printer supported by Windows is required. An appropriate printer driver is also required.

Operating System (OS)

| OS | Version | Service Pack |
|-------------|--|--------------|
| Windows 8.1 | 32-bit and 64-bit editions (Supports the desktop mode) | Update |
| | Pro 32-bit and 64-bit editions (Supports the desktop mode) | Update |
| Windows 10 | Home (32-bit, 64-bit editions) | 21H2 |
| | Pro (32-bit, 64-bit editions) | 21H2 |
| | Enterprise (32-bit edition and 64-bit editions) | 21H2 |
| | Enterprise LTSCB (32-bit edition and 64-bit editions) | 21H2 |
| | Enterprise LTSC (32-bit edition and 64-bit editions) | 21H2 |
| Windows 11 | Home (64-bit edition) | 21H2 |
| | Pro (64-bit edition) | 21H2 |
| | Enterprise (64-bit edition) | 21H2 |

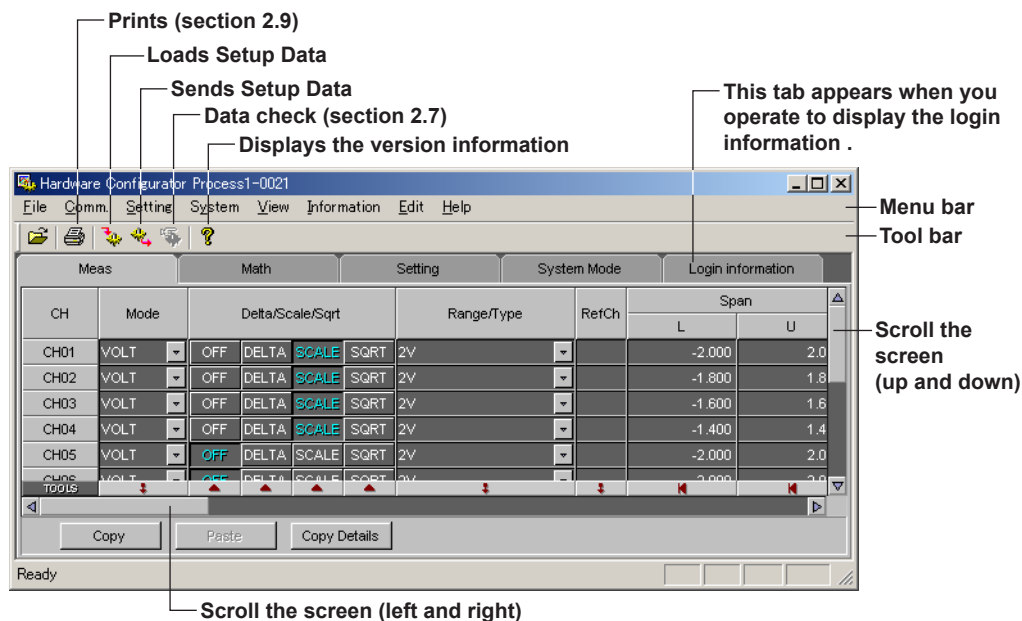
Note

- The time zone can be set in [Date/Time] which can be opened from [Control Panel].
- If daylight saving time is used, mark the check box of "Automatically adjust clock for daylight saving changes".
- The time zone should not be set using the autoexec.bat file. If "TZ=GMT0" is set in the file, specify "rem" to disable it.
- Data created in 2038 or later cannot be handled.
- The font "Courier New" needs to be installed on your personal computer.

2.1 Confirming the Setup Data

Starting the DX-P Hardware Configurator

From the Start menu, select **[Programs] - [DAQSTANDARD] - [DX-P Hardware Configurator]**. You can also start DX-P Hardware Configurator from Viewer. The login information and the batch system settings (in the system mode tab) can be displayed when you operate properly.



Note

You cannot change the contents of the imported setup file and overwrite the file.

Exiting the DX-P Hardware Configurator

Select **[File] - [Exit]** or click **[x]**. The Hardware Configurator ends.

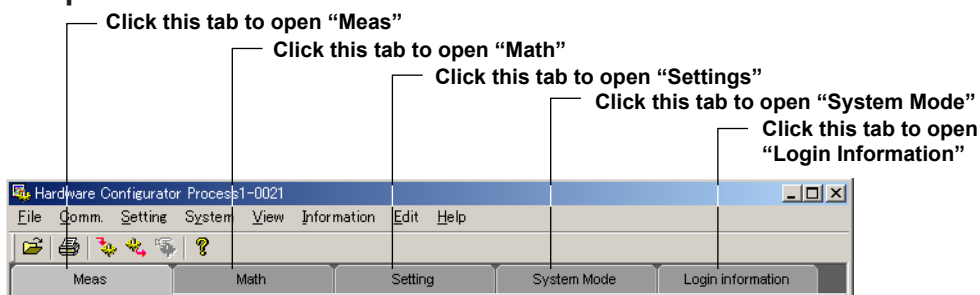
If you changed the settings in any of the windows (see section 2.2), operate as follows:

1. Select **[File] - [Exit]** or click **[x]**.
A message "Save changes to ***?" is displayed.
2. Click **[Yes]**, if you wish to save the new settings and exit the Hardware Configurator.
The **[Save as]** dialog box opens (see section 2.8). Proceed to step 3.

Click **[No]**, if you wish to exit the Hardware Configurator without saving the settings. The Hardware Configurator ends.
3. Set the directory and the file name. Click **[Save]**.
The Hardware Configurator ends.

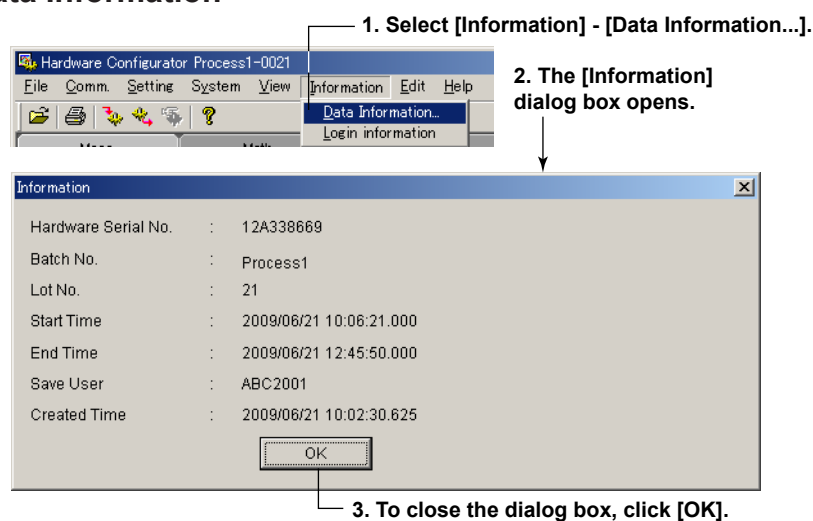
2.1 Confirming the Setup Data

Confirming the Setup Data

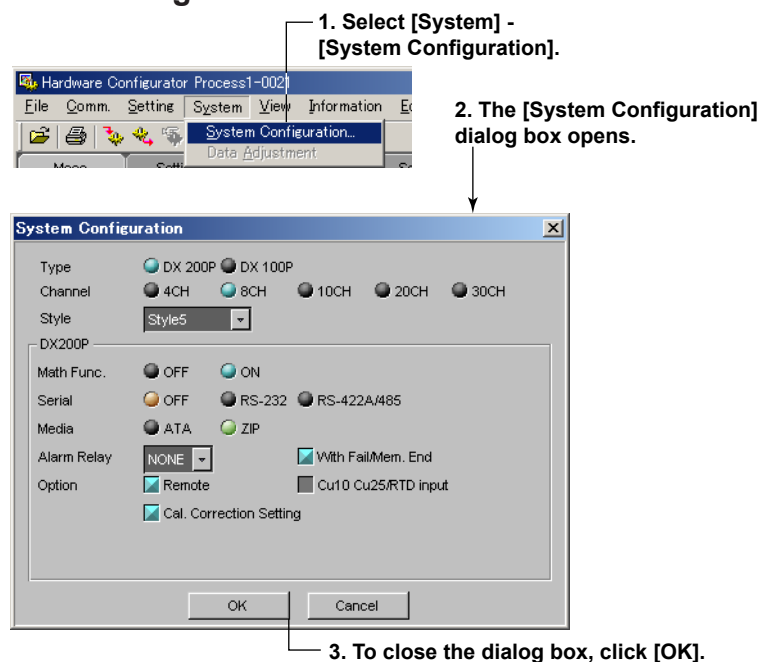


For the detail of the login information and the batch system settings, see next page. For the description of other settings, see sections 2.3 to 2.6.

Confirming the Data Information



Confirming the System Configuration



Confirming the Login Information and the Batch System Settings

To confirm the information other than login information and batch system settings, see section 2.2 and the following sections.

Confirming the Login Information

Administrators

Names of invalidated users are displayed in red.

When the time set expires, the password change is required.

Range of operations permitted (see below).
Administrator: All operations
User: The number shows the range of operations

Click this tab to display the login information.

Menu bar

Tool bar

Scroll the screen.

Users

| No. | User name | User ID | Expire | Login mode | Sign record | Login Method | Cal Correct |
|--------|-----------|---------|--------|------------|---------------|--------------|-------------|
| ADMIN1 | ABC2001 | 5555 | OFF | | Signature all | Key+Com | Use |
| ADMIN2 | A | 1111 | OFF | | Signature all | Key+Com | Use |
| ADMIN3 | | | | | | | |
| USER01 | ope1 | 6666 | 1month | 1 | Off | Key+Com | Not |
| USER02 | ope2 | 7777 | OFF | 2 | Signature 1 | Key+Com | Not |
| USER03 | | | | | | | |
| USER04 | | | | | | | |

| No. | Key | | | | | Alarm ACK | Media eject | Batch | Message |
|--------|-------|------|------|------|------------|-----------|-------------|-------|---------|
| | START | STOP | MENU | USER | DISP/ENTER | | | | |
| ADMIN1 | Free | Free | Free | Free | Free | Free | Free | Free | Free |
| ADMIN2 | Free | Free | Free | Free | Free | Free | Free | Free | Free |
| ADMIN3 | | | | | | | | | |
| USER01 | Free | Free | Free | Free | Free | Free | Free | Free | Free |
| USER02 | Free | Free | Free | Free | Free | Free | Free | Free | Free |

Free: Operation permitted
Lock: Operation prohibited

| Memory | Math | Save data | Load data | E-mail | Other |
|--------|------|-----------|-----------|--------|-------|
| Free | Free | Free | Free | Free | Free |
| Free | Free | Free | Free | Free | Free |
| | | | | | |
| Free | Free | Free | Free | Free | Free |
| Free | Free | Free | Free | Free | Free |

[Other] includes the following operations.

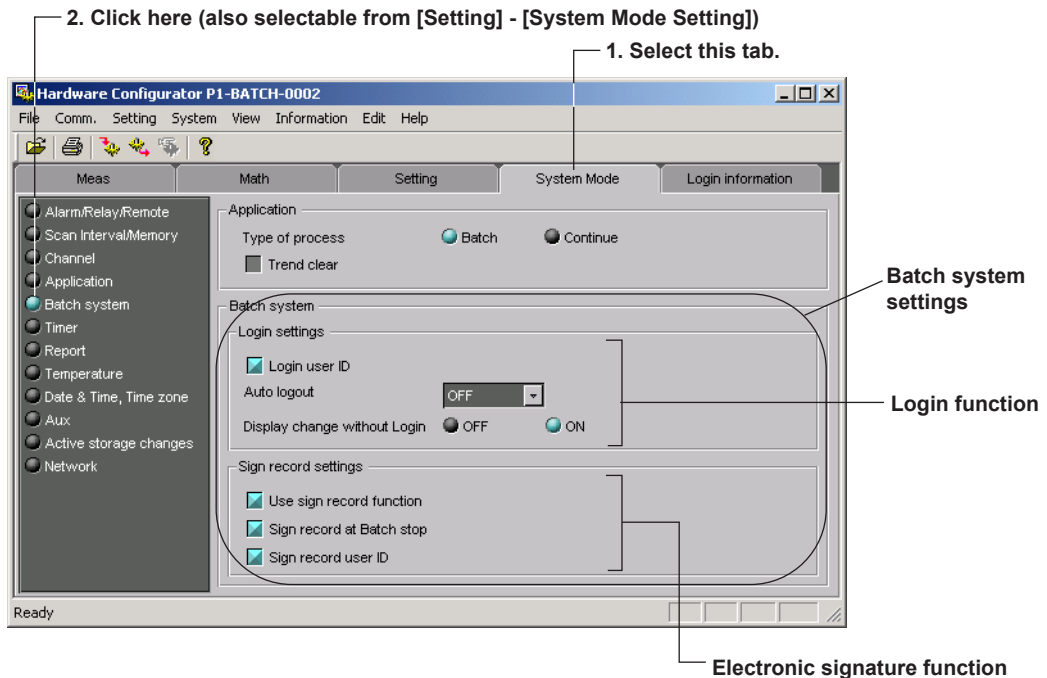
- Displaying the log
- Displaying the file list of the external storage medium.
- Performing an FTP test
- Displaying the Modbus status screen
- Assigning names to 4 screens (DX200P only).

Login Mode

The settings of [Sign record] and [Key] to [Other] are called [Login Mode].

2.1 Confirming the Setup Data

Confirming Batch System Settings



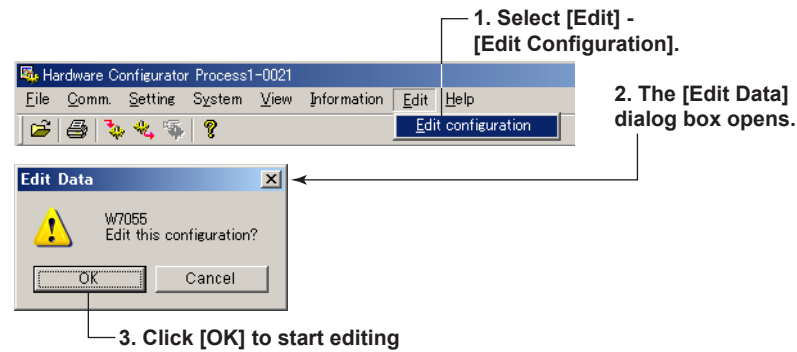
- **Login user ID**
You are requested to enter the user ID when logging in.
- **Auto logout**
If there is no key operation for the specified time, the user is automatically logged out. If [OFF] is selected, the user is logged out only when the logout operation is performed.
- **Display change without Login**
If [ON] is specified, the operation screen can be switched without logging in.
- **Use sign record function**
Use the electronic signature function.
- **Sign record at Batch stop**
Sign record display is automatically displayed when data acquisition is stopped. However, this is invalid if a single batch data is divided into multiple files.
- **Sign record user ID**
You are requested to enter the user ID when applying electronic signature.

2.2 Configuration

This operation is for creating new setup data (excluding the login information and batch system settings).

Starting Editing

This operation enables editing setup data.



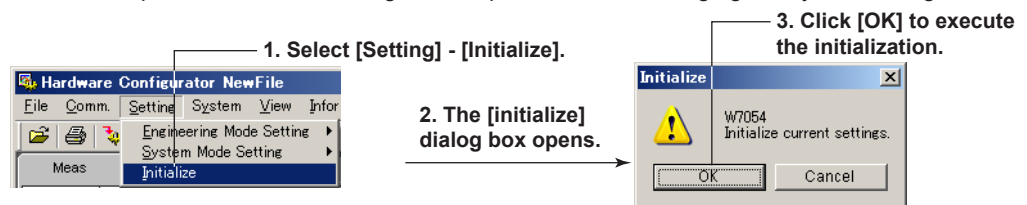
Note

When you start editing, the login information and batch system settings are not displayed.

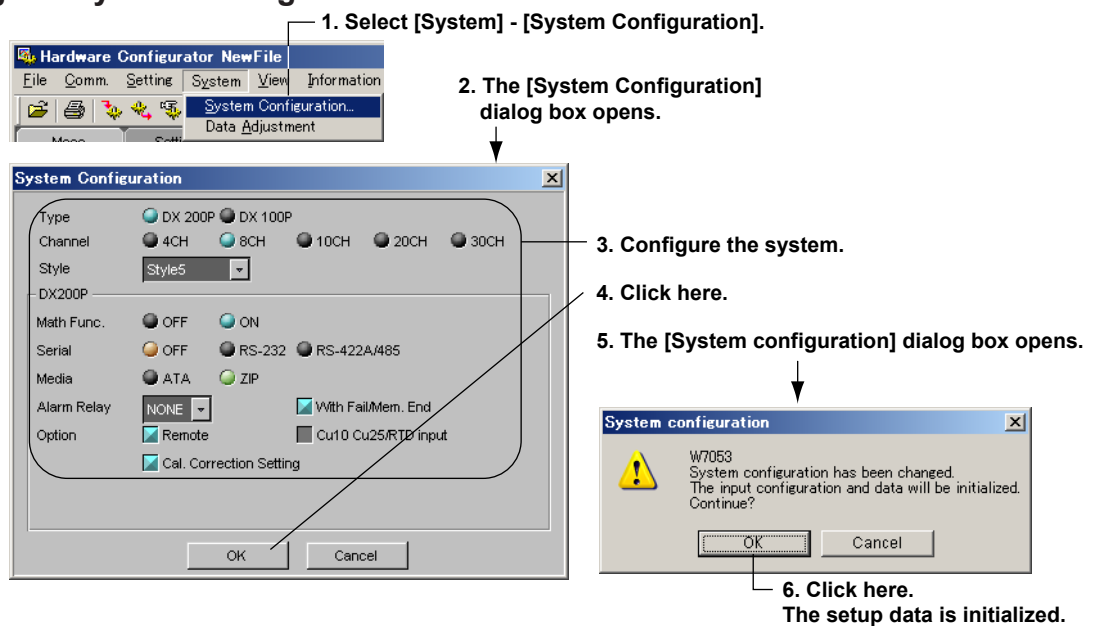
To initialize the setup data without changing the system configuration, proceed to "Initializing the Setup Data." To change the system configuration, proceed to "Changing the System Configuration."

Initializing the Setup Data

This operation is for initializing the setup data without changing the system configuration.



Changing the System Configuration



2.3 Setting the Measurement Channels

Select this tab
Double-click to set the channel
Select the input mode
Difference computation
Scaling
Square root
Select the range/type
Select the reference for the difference computation
Set the span

| CH | Mode | Delta/Scale/Sqrt | Range/Type | RefCh | Span | |
|------|------|----------------------|------------|-------|--------|-------|
| | | | | | L | U |
| CH01 | VOLT | OFF DELTA SCALE SGRT | 2V | 1 | -2.000 | 2.000 |
| CH02 | VOLT | OFF DELTA SCALE SGRT | 2V | | -2.000 | 2.000 |
| CH03 | VOLT | OFF DELTA SCALE SGRT | 2V | | -2.000 | 2.000 |
| CH04 | VOLT | OFF DELTA SCALE SGRT | 2V | | -2.000 | 2.000 |
| CH05 | VOLT | OFF DELTA SCALE SGRT | 2V | | -2.000 | 2.000 |

Set the selected range at once
Turn OFF at once
Copy the settings of the first channel in the selected range to all other channels
Initialize

Selecting a Range of Channels

You can select a range of channels by dragging the mouse from a channel to another channel in the CH column. Click [CH] to reset the selected range.

Enter the scale
Enter the scale unit
Select the alarm type
Enter the alarm value
Select the relay number

| Point | Scale | | Unit | Alarm 1 | | | |
|-------|-------|--------|------|---------|-------|-------|------|
| | L | U | | Type | Value | Relay | Type |
| 2 | 0.00 | 200.00 | | OFF | 0.000 | NONE | OFF |
| 2 | 0.00 | 200.00 | | OFF | 0.00 | NONE | OFF |
| | | | | OFF | 0.000 | NONE | OFF |
| | | | | OFF | 0.000 | NONE | OFF |

Set the value to the maximum value possible
Set the value to the minimum value possible

Enter the delay period
Enter the tag name

| Alarm 4 | | | Alarm Delay | Moving Ave | Tag |
|---------|-------|-------|-------------|------------|-----|
| Type | Value | Relay | | | |
| OFF | 0.000 | NONE | 10 sec | OFF | |
| OFF | 0.00 | NONE | 10 sec | OFF | |
| OFF | 0.00 | NONE | 10 sec | OFF | |
| OFF | 0.000 | NONE | 10 sec | OFF | |
| OFF | 0.000 | NONE | 10 sec | OFF | |

Select sampling count for the moving average or time constant of the input filter.

Enter the display zone
Select the graph setting
Turn ON/OFF the partial expanded display
Select the channel display color

| Zone | | Graph | | Partial | | Color | | |
|------|-----|-------|----------|-----------|----------|-------|-------|--|
| L | U | Div | Bargraph | Expand(%) | Boundary | | | |
| 0 | 100 | 10 | Normal | 1 | OFF | 50 | 0.000 | |
| 0 | 100 | 10 | Normal | 1 | OFF | 50 | 0.000 | |
| 0 | 100 | 10 | Normal | 1 | OFF | 50 | 0.000 | |
| 0 | 100 | 10 | Normal | 1 | OFF | 50 | 0.000 | |
| 0 | 100 | 10 | Normal | 1 | OFF | 50 | 0.000 | |

Input Type and Span

Mode, Range/Type

Select from the list of choices from the pull-down menu.

| Input Type | Mode | Range/Type |
|---------------------------------|------|---|
| DC Voltage | VOLT | 20 mV, 60 m V, 200 mV, 2 V, 6 V, 20 V, 50 V |
| Thermocouple | TC | TypeR, S, B, E, K, J, T, N, W, L, U |
| Resistance temperature detector | RTD | Pt100, JPt100, Cu10*, Cu25* |
| ON/OFF input | DI | LEVEL (voltage level), CONT (Contact) |
| Measurement/Display OFF | SKIP | None |

* /N1 option

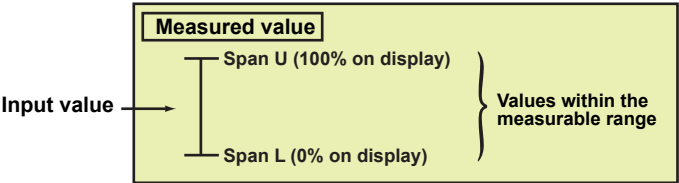
Note

If SKIP is selected, settings such as Delta/Scale/Sqrt and Range/Type are discarded.

Span L, Span U

Sets the upper and lower limits (full scale) of the display.

When a value outside the range is entered or when the span L and span U values are set to the same value, they are corrected when the data are checked.



Difference Computation/Scaling/Square Root Computation

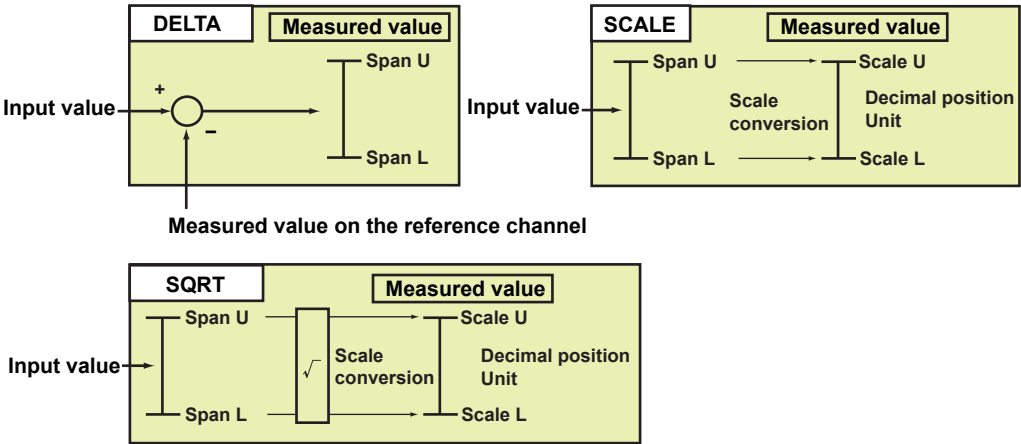
DELTA: Displays the difference between the input and the reference channel.

Note

Difference computation is performed between channels that have different [Mode] and [Range/Type] settings. The decimal position of the computed result is set to that of the channel computing the difference. If the number of digits to the right of the decimal of the reference channel is greater than that of the channel computing the difference, the reference value below the least significant digit of the channel computing difference is rounded beforehand.

SCALE: Converts the input value to a value in the appropriate unit.

SQRT: Computes the square root of the input. The result is converted to a value in the appropriate unit. This setting can be used only when the input mod is set to VOLT.



Span L, Span U

Sets the appropriate upper and lower limits (see figures above).

When a value outside the range is entered or when the span L and span U values are set to the same value, they are corrected when the data are checked.

2.3 Setting the Measurement Channels

Scale L, Scale U, and Decimal Point

Enter the upper and lower limit values to which you wish to convert the input values. Set the decimal position by the number of digits to the right of the decimal point.

When the scale L and scale U values are set to the same value or when a value outside the range is entered, they are corrected when the data are checked.

Unit

Clicking the unit display area enables entering a new unit.

Enter the unit using up to six characters.

Alarm

Four alarms (Alarm 1 to 4) can be specified on each channel.

Type

Select from [H], [L], [h], [l], [R], [r], [T] or [t]. [h] and [l] can be specified on difference computation channels only. Select [OFF] to disable alarm.

Alarm Value

Alarm is generated using the specified value as the boundary. The selectable range of alarm values vary depending on the input mode and range.

Alarm Delay

This applies to delay upper (T) and lower (t) limit alarms.

Alarm is generated when the measured value stays above or below the specified alarm value for the specified time (delay period).

Relay

To output relays, select the output relay number. Otherwise, select [NONE].

Input Filter and Moving Average

Moving average can be specified on models DX106P, DX112P, DX210P, DX220P, and DX230P.

Input filter can be specified on models DX102P, DX104P, DX204P, and DX208P.

Input Filter

To use the input filter, select the time constant (2 s, 5 s, or 10 s).

Moving Average

To use the moving average, select the sampling count (2 to 16).

Tag

Up to 16 characters can be entered for the tag.

You can use the tag name instead of the channel number to be displayed on the screen.

The [System Mode] screen is used to select whether to display the channel number or the tag name on the screen.

Display Zone

You can select the range of the screen in which the waveform of each channel is to be displayed.

Specify positions (%) on the display scale for the upper and lower limits.

The conditions for setting the zones are as follows:

- Range: 0% to 100%
The lower limit must be less than the upper limit
- The difference between the lower and upper limits is at least 5%.

Graph

Divisions

Select the number of scale divisions.

Bar Graph

Select the reference position of the bar graph. Selecting [Center] when the bar graph is vertical produces no effect. It is set back to [Normal] when the data are checked.

Scale

When using scale display on the trend screen, select the position to display the scale. For details related to divisions, bar graph, and scale, see section 5.12 in the DX100P/ DX200P User's Manual.

Partial Expanded Display

ON/OFF

Set whether or not to use the partial expanded display for each channel.

Note

The partial expansion settings take effect when the partial expansion function is set to [Use] in the [Aux] section of the [System Mode] tab.

Position (%)

Set the position to which the boundary value is to be moved. The range is from 1 to 99%.

Boundary

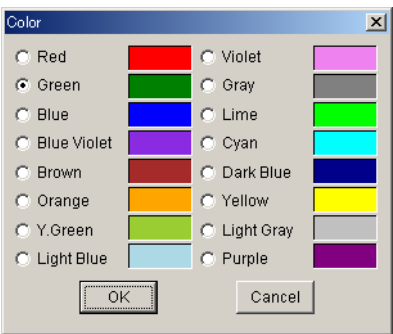
Set the boundary value within the display span.

The conditions used to set the boundary vary depending on the measurement and computation channels as follows:

- Measurement channel
When SCALE and SQRT are not used: $\text{Span L} < \text{boundary} < \text{span U}$
When SCALE and SQRT are used: $\text{Scale L} < \text{boundary} < \text{scale U}$
- Computation channel
 $\text{Span L} < \text{boundary} < \text{span U}$

Display Color

You can select the display color of each channel from 16 colors. Clicking the color area displays the [Color] dialog box. Select a color and click [OK].



2.3 Setting the Measurement Channels

Copying and Pasting Setup Data

The items checked in [Copy Details] can be copied and pasted.

Click the channel number to select the copy source or paste destination. To select multiple channels to be copied, drag the channel number to specify the range to be copied. To select multiple copy destinations, select the range in a similar fashion.

1. Click here.

2. The [Meas. Channel Copy Details] dialog box opens.

3. Select copy items.

4. Click here.

5. Select the copy source.

6. Click here.

7. Select the paste destination.

8. Click here.

The screenshots show the 'Meas' tab interface with a table of channels (CH01-CH04) and their settings (Mode, Delta/Scale/Sqrt, Range). The 'Copy Details' dialog box is shown with various options checked (Input, Unit, Alarm, Filter, Moving Average, Tag, Zone, Graph, Partial, Color). The process involves selecting a source channel (CH02), opening the dialog, selecting items to copy, and then selecting a destination channel (CH03) to paste the data.

Setting One Channel at a Time

The items in the [Meas] tab can be configured for each channel. The items that are configured are the same as those configured on the spreadsheet. For details, see pages 2-6 to 2-9.

1. Double-click the channel you wish to set.

2. The channel setting dialog box opens.

3. Select the tab of the item to be configured.

4. After setting the items, click here.

Apply the settings.

Update according to the changes in the [Meas] sheet.

The screenshots show the 'Meas' tab interface with a table of channels (CH01-CH03). The 'Channel Setting' dialog box is shown for CH01, with various settings (Mode, Range/Type, Span, Point, RefCh, Unit, Alarm, Delay, Tag, Moving Ave) and a 'Valid Span' section. The process involves double-clicking a channel (CH02), opening the dialog, selecting the 'Display' tab, setting the items, and then clicking 'Update' to apply the settings.

2.4 Setting the Computation Channels (/M1 Option)

Double-click when setting each channel.

Turn ON/OFF computation. Select this tab.

Enter the expression

Set the display span.

Enter the unit (6 characters or less). Enter the constant to be used in the expression.

Select the number of digits to the right the decimal.

Set the alarm (section 2.3).

Tools (section 2.3)

Alarm delay time

Enter the tag (section 2.3).

Waveform display zone (section 2.3)

Graphic settings (section 2.3)

Partial expanded display (section 2.3)

Display color (section 2.3)

| CH | ON/OFF | Expression |
|------|--------|------------|
| CH31 | ON | 01 |
| CH32 | ON | 01 |
| CH33 | ON | 01 |
| CH34 | ON | 01 |
| CH35 | ON | 01 |

| Point | L | U | Unit | Type |
|-------|---------|--------|------|------|
| 2 | -200.00 | 200.00 | OFF | |
| 2 | -200.00 | 200.00 | OFF | |
| 2 | -200.00 | 200.00 | OFF | |
| 2 | -200.00 | 200.00 | OFF | |
| 2 | -200.00 | 200.00 | OFF | |

| Constant | Value |
|----------|-------|
| K01 | 1 |
| K02 | 1 |
| K03 | 1 |
| K04 | 1 |
| K05 | 1 |

| Alarm 1 | | | Alarm 2 | | |
|---------|-------|-------|---------|-------|-------|
| Type | Value | Relay | Type | Value | Relay |
| OFF | 0.00 | NONE | OFF | 0.00 | NONE |
| OFF | 0.00 | NONE | OFF | 0.00 | NONE |
| OFF | 0.00 | NONE | OFF | 0.00 | NONE |
| OFF | 0.00 | NONE | OFF | 0.00 | NONE |

| Alarm Delay | | TLOG | | Rolling Average | | Tag |
|-------------|-----------|----------|-------|-----------------|--|-----|
| Timer | Sum Scale | Interval | Times | | | |
| 10 sec | 1 | OFF | 10s | 1 | | |
| 10 sec | 1 | OFF | 10s | 1 | | |
| 10 sec | 1 | OFF | 10s | 1 | | |
| 10 sec | 1 | OFF | 10s | 1 | | |

| Zone | | Graph | | Partial | | Color |
|------|-----|-------|----------|-----------|----------|-------|
| L | U | Div | Bargraph | Expand(%) | Boundary | |
| 0 | 100 | 10 | Normal | 1 | 50 | 0.00 |
| 0 | 100 | 10 | Normal | 1 | 50 | 0.00 |
| 0 | 100 | 10 | Normal | 1 | 50 | 0.00 |
| 0 | 100 | 10 | Normal | 1 | 50 | 0.00 |

Turning ON/OFF Computation

Select whether or not to perform computation for each channel.

Expression

Enter the expression using up to 40 characters. For details related to the expression, see the DX100P/DX200P User's Manual.

Constant

You can set constants to be used in the expression. Up to 12 (DX100P) or 30 (DX200P) constants can be specified. The allowed range is as follows:
 -9.9999E+29 to -1.0000E-30, 0, 1.0000E-30 to 9.9999E+29

Display Span

Sets the upper and lower limits of the display.
The range is from –9999999 to 99999999. Set the number of digits to the right the decimal to four digits or less.

Alarm

You can set up to 4 alarms on each computation channel. The alarm types are upper limit alarm (H), lower limit alarm (L), delay upper limit alarm (T), and delay lower limit alarm (t). For details, see section 2.3.

Tag

The settings are the same as the measurement channels. For details, see section 2.3.

TLOG Computation

Timer

Select one of the timers (1 to 3) set in the setup mode.
The computation interval of TLOG computation is set to the time assigned to the selected timer.

Sum Scale

Set the sum scale.

Rolling Average

Interval

Select the sampling interval when rolling average is activated.

Times (Number of Samples)

Select the number of samples (number of data points used to compute the rolling average).

Display Zone, Graph, Partial Expansion, and Color

The settings are the same as the measurement channels. For details, see section 2.3.


Copying and Pasting Setup Data

The items checked in [Copy Details] can be copied and pasted.
See the operating procedure, see section 2.3.

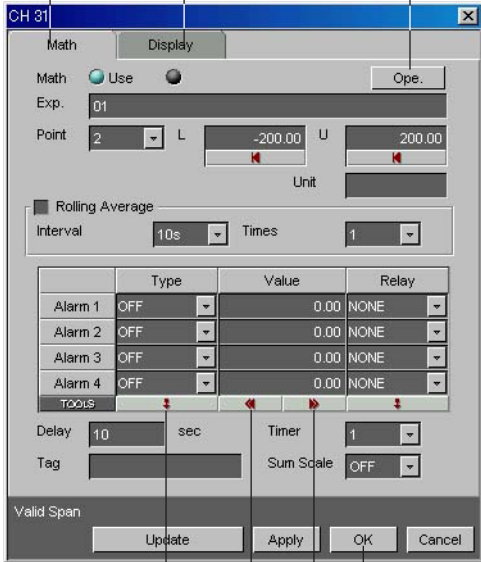
Setting One Computation Channel at a Time

The items in the [Math] tab can be configured for each channel. The items that are configured are the same as those configured on the spreadsheet. For details, see pages 2-11 and 2-12.

1. Double-click the channel you wish to set.



2. The channel setting dialog box opens.



3. Select the tab of the item to be configured.

Click here to enter the operator

The [Select Operator] dialog box opens.


4. After setting the items, click here.

Set the maximum value.

Set the minimum value.

Copy the first setting.

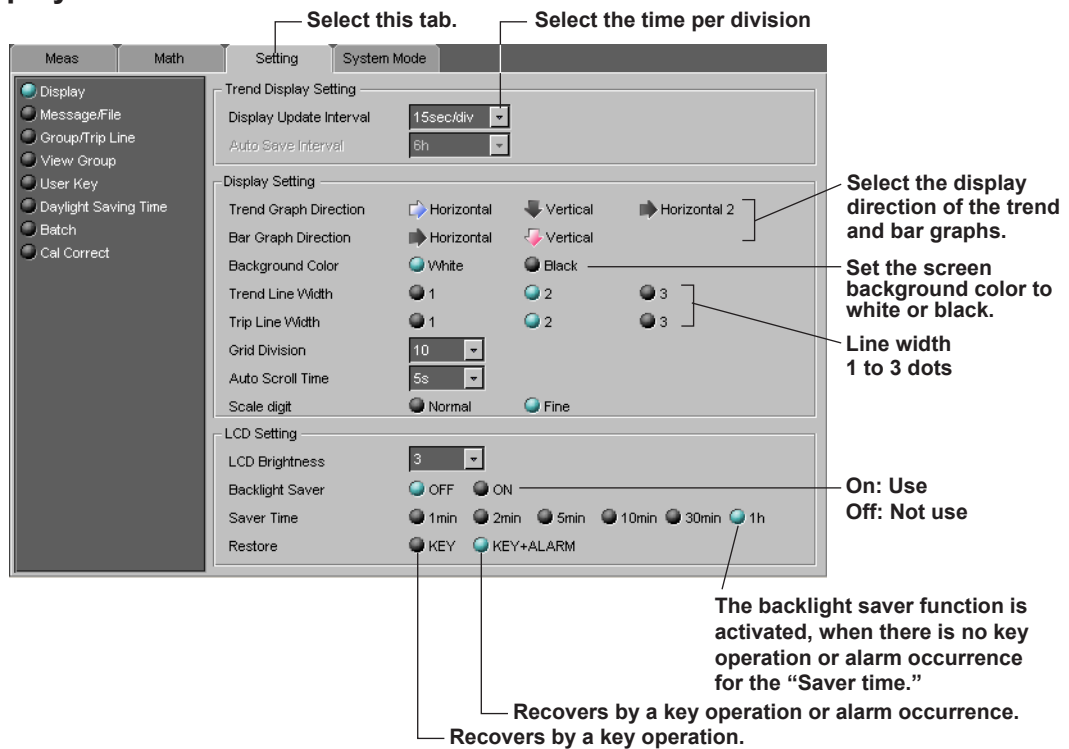
Select the operator type.



Select the operator.

2.5 Configuring the Engineering Mode

Screen Display



Display Update Interval

You can select the display update interval from [1 min/div], [2 min/div], [5 min/div], [10 min/div], [15 min/div*], [20 min/div], [30 min/div], [1 h/div], [2 h/div], [4 h/div], and [10 h/div]. In addition to these selections, [15 sec/div] and [30 sec/div] can also be selected on the DX102P, DX104P, DX204P and DX208P.

* A [15 min/div] is for the DXP style S4 or later only.

Auto Save Interval

You can set the interval, if the data type is set to [DISPLAY] in the memory sample settings of the system mode tab. However, if the type of process is set to [Batch] in the application settings of the system mode tab, the maximum selectable time is automatically entered and cannot be selected.

Grid Division

Select number of grids on the waveform display area from [Auto] or [4] to [12].

Auto: Display the same number of grids as the number of scale divisions of the first assigned channel of the group.

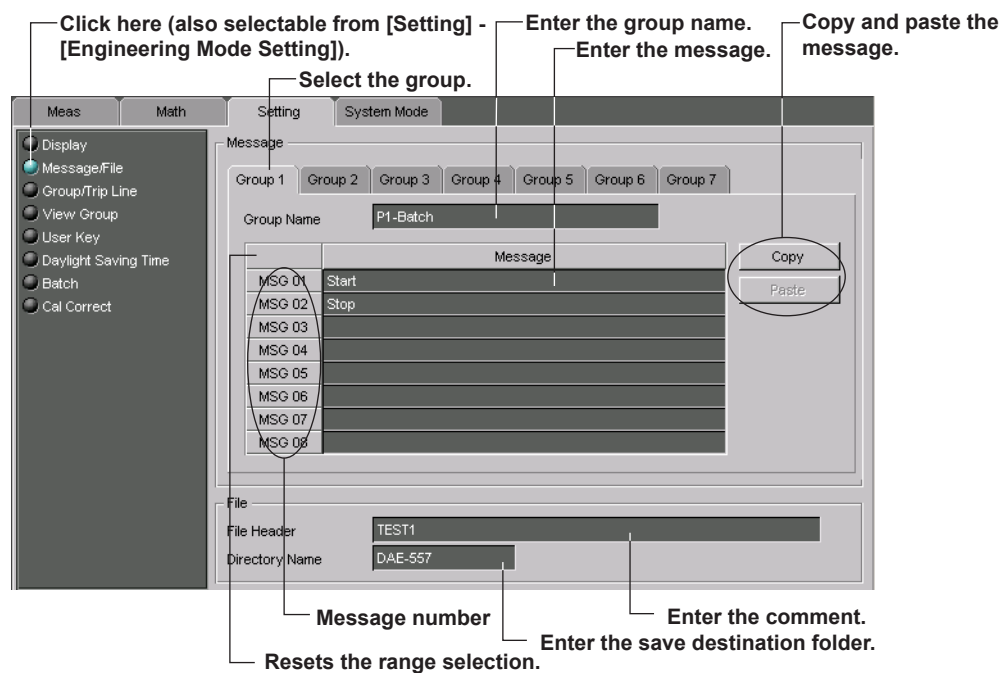
Auto Scroll Time

This is the time period used to automatically switch the displayed group. Select the time period from [5 s], [10 s], [20 s], [30 s], or [1 min].

LCD Brightness

Select the brightness of the screen from [1] to [8] (DX100P), or [1] to [4] (DX200P). A higher value corresponds to a brighter screen setting.

Message/File



Note

Messages 1 to 8 of the message group 7 can be assigned to the USER key and the remote control function (option, /R1).

Group Name

Up to 16 characters can be entered for the message.

Message

Up to 32 characters can be entered for the message.

File Header

Adds a comment (up to 32 characters) to the header section of the measured/computed data file.

Directory Name

Set the name of the folder (up to 8 characters) in which the measured/computed data files is to be saved.

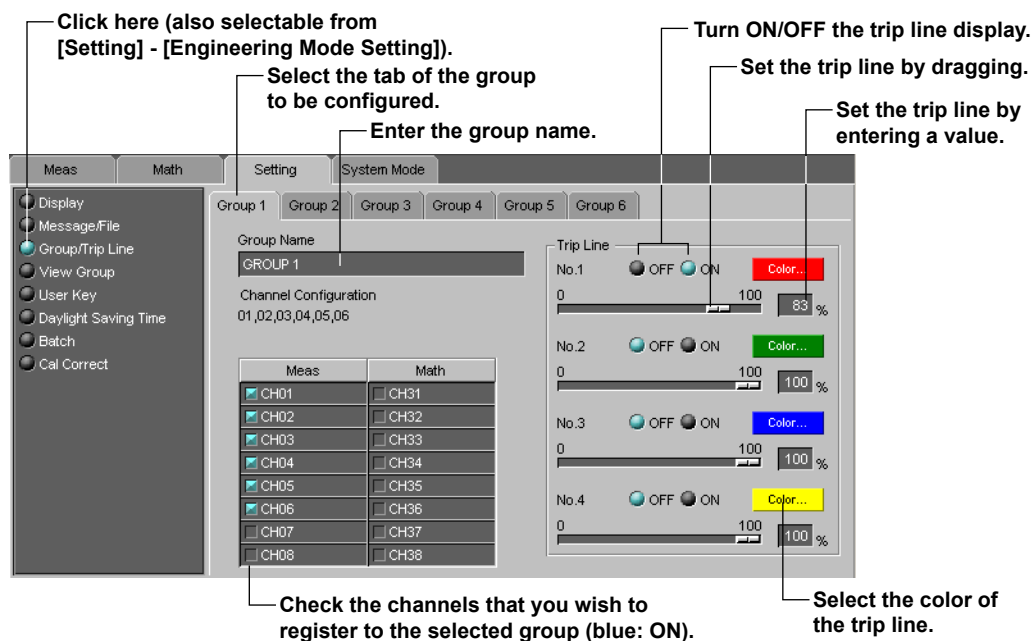
Note

- AUX, CON, PRN, NUL, and CLOCK cannot be used as the directory name.
- If the directory name is not specified, DATA0 (default) is automatically set.

Copying and Pasting the message

1. Click the message number of the copy source. To select multiple messages to be copied, drag the message number to specify the range to be copied.
2. Click [Copy].
3. Click the message number of the paste destination. To select multiple paste destinations, select the range in a similar fashion.
4. Click [Paste].

Group/Trip Line



Group Name

Up to 16 characters can be entered for the group name.

Number of Channels

The maximum number of channels that can be assigned to a group is 6 for the DX100P and 10 for the DX200P. The assigned channels are listed under [Channel Configuration].

Trip Line

Up to four trip lines can be set to one group.

With regard to the trip lines set here, the first and second settings (No.1 and No. 2) refer to the trip lines in the Data Viewer. If you change them here, they will also change in the Data Viewer.

View Group (for the DX200P Only)

View Group

Up to four view groups can be registered.

Group Name

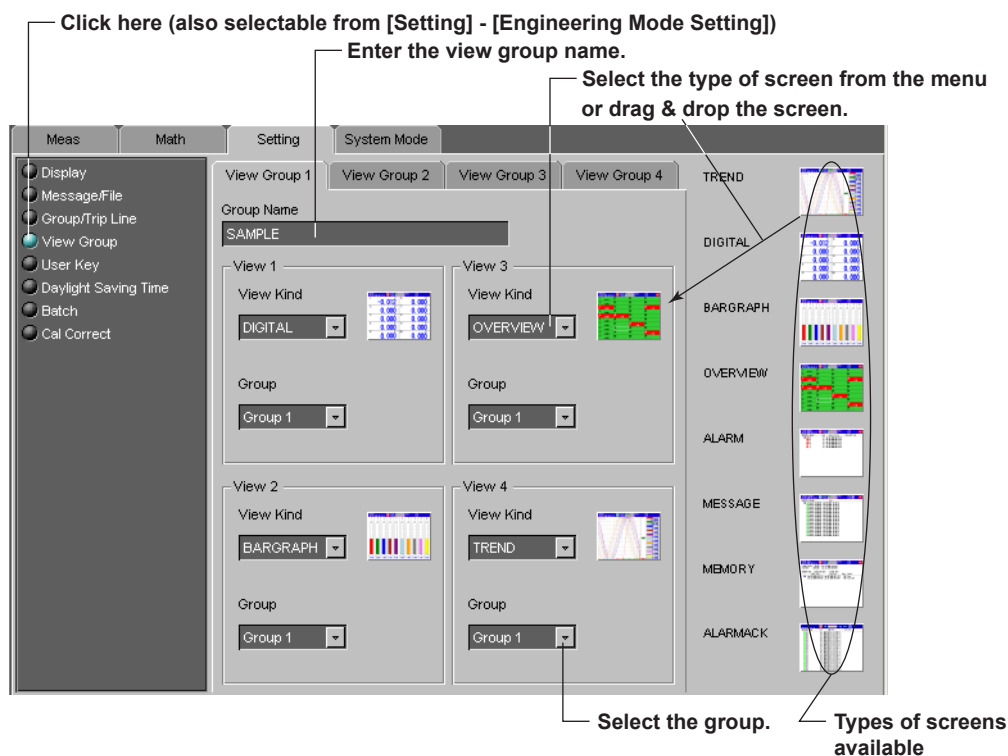
Up to 16 characters can be entered for the group name. The specified group name appears as a sub menu of the [4 Panel] display of the DX200P.

Screen Type

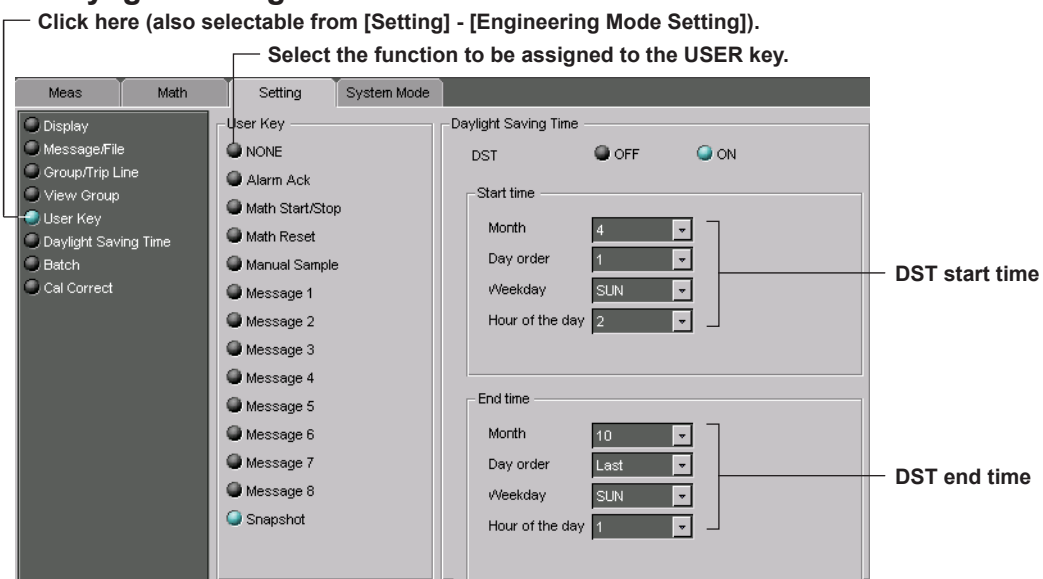
The view group is made up of four screens. Select the type of screen to display in each screen.

Group to Be Displayed

Select the group to be displayed from group 1 to group 6 when the screen type is set to trend, digital, or bar graph.



USER Key and Daylight Saving



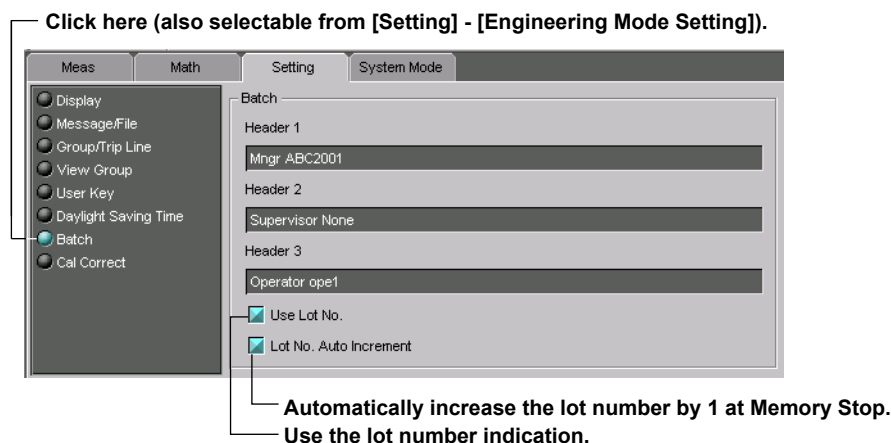
User Key

Assign an action to the USER key. The [Message1] to [Message8] correspond to messages 1 to 8 of the message group 7. Select [NONE] to disable the USER key.

Daylight Saving

Select whether or not to use the daylight savings time adjustment function. Specify the start and end time of the DST.

Batch

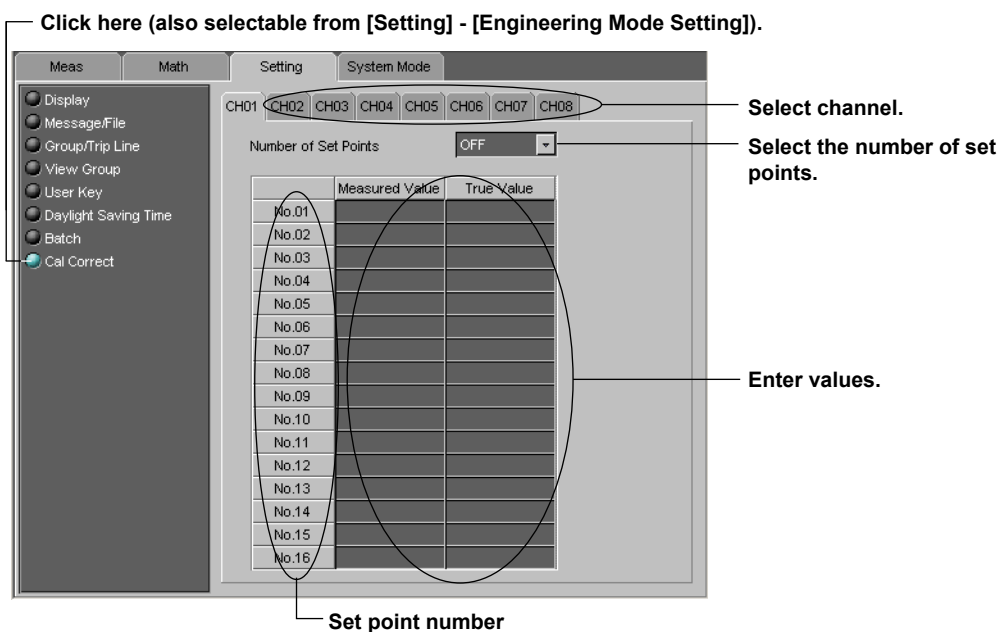


Header 1 to 3

Enter character strings (up to 64 characters) that are written to the batch and continuous data files.

Calibration Correction

Can only be specified on measurement channels.



Number of Set Points

Select the number of set points from [OFF] or [2] to [16].

Select [OFF] if you are not using the correction function.

Selectable Range of Measured and True Values

Channels that are set to scaling or square root computation: -30000 to 30000 (the decimal point position depends on the channel setting)

All other channels: Selectable range in the specified range

For the measured value, set a value that is greater than the previous measured value. If you enter a setting that does not meet these conditions, the [Number of Set Points] is set to [OFF] when you store the setup data, print the setup data, or send the setup data to the DXP using the Communicator.

2.6 Configuring the System Mode

Alarm/Relay/Remote

2. Click here (also selectable from [Setting] - [System Mode Setting]).

1. Select this tab.

Remote control terminal number

Resets the range selection.

Copy and paste the selected range (see page 4-15).

Select actions.

Alarm/Relay

- **Reflash**

When multiple alarms are set to one alarm output relay, this function notifies the succeeding alarms after the first alarm that causes the relay activation.

- **Relay AND**

Set the range of relays (from the first alarm relay) to take the AND logic. All other relays will be set to OR logic. If [NONE] is selected, all relays will operate using the OR logic.

- AND: Activated when all alarms are being generated simultaneously.
- OR: Activated when at least one of the alarms is being generated.

- **Relay Action**

Select whether to energize or de-energize the alarm output relay when the alarm occurs.

- **Alarm Relay Behavior**

- Unhold: Turns OFF the output relay when the cause of the alarm is no longer met.
- Hold: Holds the output relay ON until the alarm acknowledge operation is executed.

- **Alarm Indicator**

Unhold, Hold: See "Alarm Relay Behavior."

When [Alarm Relay Behavior] is set to [Hold], only [Hold] can be selected for the [Alarm Indicator].

- **Rate of Change Increase/Rate of Change Decrease**

Select the time interval for the rate of change alarms in terms of the number of samplings (1 to 15).

Interval = scan interval × number of samplings

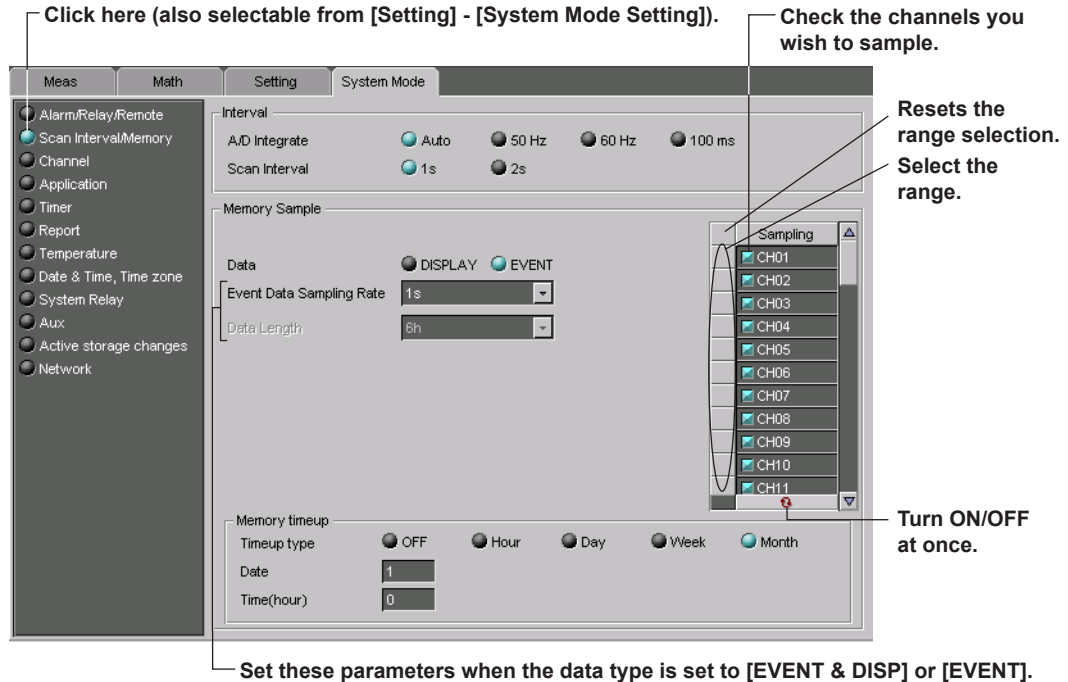
- **Alarm Hysteresis**

A width (hysteresis) of 0.5% of the display span can be specified on the value used to set or release the alarm. This applies to upper (H) and lower (L) limit alarms on measurement channels.

Remote (Option, /R1)

You can assign items to be controlled by the eight remote control terminals. This is possible, if the remote function is available.

Scan Interval/Memory/Memory Timeup



A/D Integrate

100 ms can be selected only when the scan interval is set to [2 s].

Auto: The DXP will automatically switch between [60 Hz] or [50 Hz].

Scan Interval

The selectable scan intervals vary depending on the model as follows:

DX102P, DX104P, DX204P, DX208P: 125 ms and 250

DX106P, DX112P, DX210P, DX220P, DX230P: 1 s and 2 s

Memory Sample (Save Method of Measured/Computed Data)

• Data

When the data type is [EVENT], set [Event Data Sampling Rate] and [Data Length].

The selectable data length vary depending on the sampling rate. However, if the type of process is set to [Batch] in the application settings of the system mode tab (see page 2-22), the maximum selectable time is automatically entered and cannot be selected.

• Sampling

Select the channels whose data is to be saved to the memory.

To collectively select or deselect a specified range, carry out the following procedure.

1. Specify the range by dragging the mouse over the desired range on the column (if you do not carry out this step, all channels are specified). You can reset the range by pressing the Initialize button.
2. The selected/deselected condition of the specified range of channels switch each time the ON/OFF at once button is clicked.

Memory Timeup

Specify the date and time to save the data in the internal memory to the external storage medium.

- **Timeup type**

Time interval to save the data. Set [OFF] to disable the function.

Hour: 1 hour, Day: 1 day, Week: 1 week, Month: 1 month

- **Date**

Date (1 to 28) or the day of the week (SUN, MON, TUE, WED, THU, FRI, and SAT)

- **Time (Hour)**

Hours (00 to 23)

Channel (Setting the Burnout and RJC)

Click here (also selectable from [Setting] - [System Mode Setting]).

Set to the positive side (100%).

Set to the negative side (0%).

Set the reference junction compensation to internal or external.

Channel

| Channel | Burnout | RJC Type | Volt(uV) |
|---------|-------------|-------------------|----------|
| CH01 | OFF UP DOWN | Internal External | 0 |
| CH02 | OFF UP DOWN | Internal External | 0 |
| CH03 | OFF UP DOWN | Internal External | 0 |
| CH04 | OFF UP DOWN | Internal External | 0 |
| CH05 | OFF UP DOWN | Internal External | 0 |
| CH06 | OFF UP DOWN | Internal External | 0 |
| CH07 | OFF UP DOWN | Internal External | 0 |
| CH08 | OFF UP DOWN | Internal External | 0 |
| CH09 | OFF UP DOWN | Internal External | 0 |
| CH10 | OFF UP DOWN | Internal External | 0 |
| CH11 | OFF UP DOWN | Internal External | 0 |
| CH12 | OFF UP DOWN | Internal External | 0 |

TOOLS

Copy Paste Copy Details

Channel number
Select the range by dragging & dropping the mouse.
Resets the range selection.

Copy and paste (see page 4-15).

Tools (see page 4-6)

Burnout

For thermocouple (TC) inputs, select how the measurement results are to be handled when the thermocouple burns out.

RJC Volt (uV)

Internal: Use the DXP's reference junction compensation function

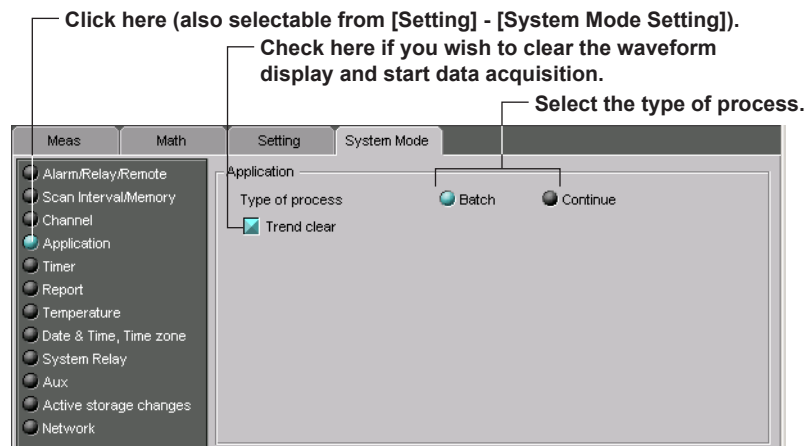
External: Use an external reference junction compensation function.

Volt(uV): When the type is set to [External], set the compensation value in the range from -20000 to 20000.

Copying and Pasting Setup Data

The items checked in [Copy Details] can be copied and pasted. For the operating procedure, see page 2-5.

Application

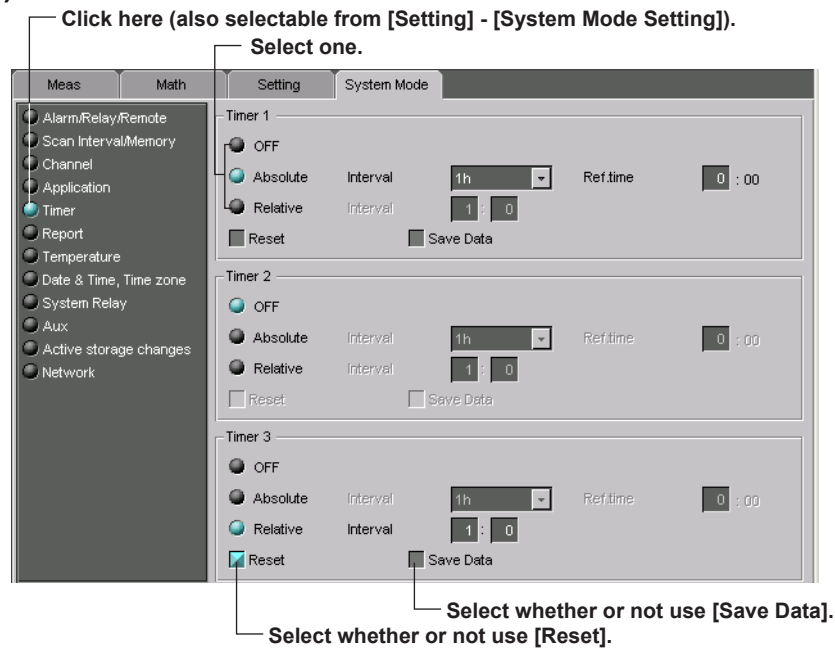


Application

Batch: You can sign the batch data in batch units.

Continue: You can sign the continuous data in units of file

Timer (/M1 Option)



You can set three types of timers. You can have the data saved to a TLOG file or reset the TLOG computation when the specified timeout time elapses.

Timer Mode

There are two timer modes: absolute mode and relative mode. Select [OFF] to disable the timer.

- **Absolute Mode**

Timer expires at times determined from the reference time and the interval.

Interval: Select from [1 min], [2 min], [3 min], [4 min], [5 min], [6 min], [10 min], [12 min], [15 min], [20 min], [30 min], [1 h], [2 h], [3 h], [4 h], [6 h], [8 h], [12 h], and [24 h].
The reference time is specified by the hour (00 to 23).

Ref. time: Select from 0 to 23 hours.

- **Relative Mode**

The timer is started when the computation is started. The timer is repeated at each interval. Interval: 1 min to 24 hours

Reset

Reset the results of TLOG computation when the timer expires.

Save Data

Measured/computed data of all channels can be saved to the external storage medium at intervals specified by a timer (TLOG data).

Report (Creating Hourly/Daily/Weekly/Monthly Reports, Option)

Click here (also selectable from [Setting] - [System Mode Setting]).

Set the date and time at which to create the report.

Tools (see page 4-6)

Select the channel to be reported.

Enable (ON) / Disable (OFF) the report channel settings.

Report channel No.
Select the range by dragging the mouse.

Resets the range selection.

Report Type

Select the type of report to be created. Select [OFF] to create no report.

Report Time

Date (1 to 28) and time (0 to 23) for monthly report, time (0 to 23) for daily report, the day of the week (SUN to SAT) and time (0 to 23) for weekly report.

Report Channel

There are 12 (DX100P) and 30 (DX200P) report channels.

To collectively select or deselect a specified range, carry out the following procedure. Specify the range by dragging the mouse over the desired range on the column (if you do not carry out this step, all report channels are specified). You can reset the range by pressing the reset button.

Converting the Reference Unit Time

Select whether or not to convert the computed results of the TLOG.SUM computation channels to a specified time unit value.

Off: Carry out a simple summation.

Sec: Convert a measured value to a value per second and carry out the summation.

Min: Convert a measured value to a value per minute and carry out the summation.

Hour: Convert a measured value to a value per hour and carry out the summation.

Day: Convert a measured value to a value per day and carry out the summation.

Copy/Paste

The items checked in [Copy Details] can be copied and pasted.

For details related to the copy and paste function, see page 2-10.

Temperature Unit, Time Zone, Time deviation limit, System Relay and Auxiliary Functions

Click here (also selectable from [Setting] - [System Mode Setting]).

Temperature Unit

Select the °C or °F for the temperature unit.

GMT (Time Zone)

Set the time difference from the GMT.

Time deviation limit

If the time deviation between the specified time and the time on the DXP is within \pm (the value specified here) when data acquisition is in progress, the time on the DXP is gradually corrected. Select [OFF], [10s], [20s], [30s], [1min], [2min], [3min], [4min], or [5min].

If [Off] is selected, the time cannot be adjusted when data acquisition is in progress.

System Relay

Assign functions to the system relays 1 and 2.

FAIL: De-energized when failure occurs.

MEMORY END: Energized when the remaining write time of the internal memory is less than or equal to the specified time, or when the free space of the external storage medium is less than or equal to 10% or 6 MB.

BATCH START/STOP: Energized at Memory Start, de-energized at Memory Stop.

USER LOCKED: The relay is energized when user lock occurs.

LOGIN: The relay is energized when there is a user logged into the DXP*.

* Login using keys and login to the setting function via the Ethernet or serial interface.

Aux

• Tag/Channel

Select whether to use the tag name or channel number as the measurement/computation channel label.

• Memory Alarm Time

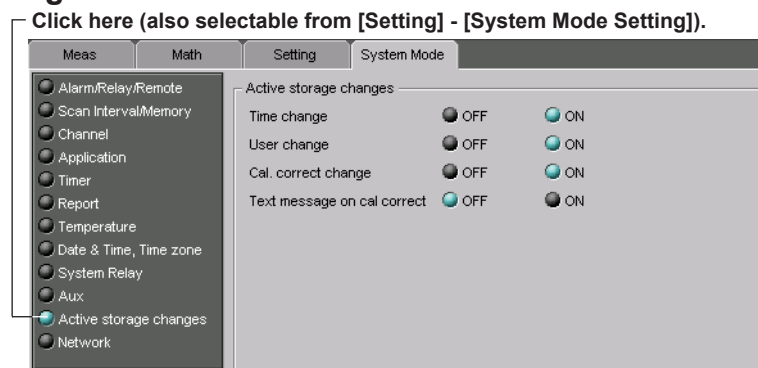
When the remaining time for storing the display or event data in the internal memory falls to the specified time (Memory alarm time), an alarm is generated via e-mail or the relay contact output (/F1 option).

Memory Alarm: 1 h, 2 h, 5 h, 10 h, 20 h, 50 h, or 100 h

OFF: Do not use the memory end function.

- **Displayed Language**
Select the language to be used on the display.
- **Partial Expanded Display**
If the partial expanded display is set to [Not], the partial expanded display settings of the Meas/Math tab are void.
- **Remote Controller ID (/KB1, /KB2 option)**
Select the remote controller ID from [0] to [31]. Select [Off] if you do not use the remote control terminal.
- **Media FIFO**
Select [ON] when using the storage area of the storage medium cyclically (FIFO).

Active Storage Change



Turn [ON] the setting changes that are allowed when data acquisition is in progress.

Time change

The time can be changed.

User change

Users can be registered or the registration information can be corrected.

Cal. correct change (/CC1 option)

The calibration correction setting can be changed.

Text message on cal correct (/CC1 option)

Selectable when [Cal. correct change] is set to [ON]. If the calibration correction setting is changed when acquisition is in progress, a message "Cal Correct Setting" is written.

Network

The "Memory Data Out" setting is void on the DX100P/DX200P.

Setting the TCP/IP

1. Click here (also selectable from [Setting] - [System Mode Setting])

2. Select this tab

The screenshot shows the 'Setting' tab selected in the top menu. On the left, a sidebar lists various settings, with 'Network' highlighted. The main area displays the 'TCP/IP' configuration. It includes fields for IP Address, Subnet Mask, and Default Gateway, each with a numeric keypad. Below these are DNS settings, including a toggle for DNS (OFF/ON), Primary and Secondary Server IP Addresses, and fields for Host Name, Domain Name, and two Domain Suffixes. At the bottom, there are toggles for 'Keep Alive' and 'Timeout', a 'Communication Input Available User' dropdown menu, and a 'Memory Data Out' section with radio buttons for Ethernet and Serial. Annotations with arrows point to specific fields: 'Set the IP address' points to the IP Address field; 'Set these addresses when using the DNS' points to the Primary and Secondary Server IP Address fields; and 'Enter the timeout value when turned ON' points to the 'Timeout' dropdown menu.

DNS setting

You must set the DNS, if you are using a host name to specify the destination server of the file transfer on an FTP client or the server of the e-mail recipient.

Host Name, Domain Name, Domain Suffix: Up to 64 characters

Keep Alive

This function forcibly drops the connection if there are no responses to the test packets that are sent periodically (every 30 seconds) at the TCP level.

Timeout

This function drops the connection if no data transfer is detected between the PC and the DXP over a predetermined period of time. This applies to data transfer at the application level only.

To use this function, select [ON] and enter a time period (1 to 120 min).

Communication Input Available User

Specify a user that uses the communication input data (DX100P: C01 to C12, DX200P: C01 to C30) from [Admin 1] to [User 30], and [Serial] (/C2 or /C3 option).

Serial: The communication input data can be used via the serial communication.

Memory Data Out

Select [Ethernet].

FTP Connection

Specify the primary and secondary file transfer destinations (FTP servers).

2. Select the primary or secondary tab.

1. Select this tab.

FTP Connection

Server Name

Port Number 21

Login Name

Password Unspecified

Account

PASV ☒ Not ☐ Use

Initial Path

Disp & Event Data ☒ OFF ☐ ON

Report ☒ OFF ☐ ON

Snapshot ☒ OFF ☐ ON

Memory Data Out ☒ Ethernet ☐ Serial

Select the file transfer destination

- Server Name**
 Set the FTP server name using up to 64 alphanumeric characters. You can also specify the IP address. In this case, DNS is not necessary.
- Port Number**
 Set the port number of the destination FTP server in the range from 1 to 65535. The default setting is [21].
- Login Name, Password, Account**
 Set the login name (up to 32 characters), the password (up to 32 characters), and the account (the ID number, up to 32 characters) to use when accessing the FTP server.
- PASV**
 When using the DXP behind a firewall that requires the PASV mode, turn this mode [On].
- Initial Path**
 Set the destination directory for the file transfer using up to 64 alphanumeric characters.
 Example: /home/data
- Disp & Event Data**
 Display data files and event data files are automatically transferred to the specified destination at specified intervals.
- Report**
 A Report file is automatically transferred to the specified destination when it is created.
- Snapshot**
 A screen image data file is automatically transferred to the specified destination when a snapshot is executed.

Setting the Serial Communication

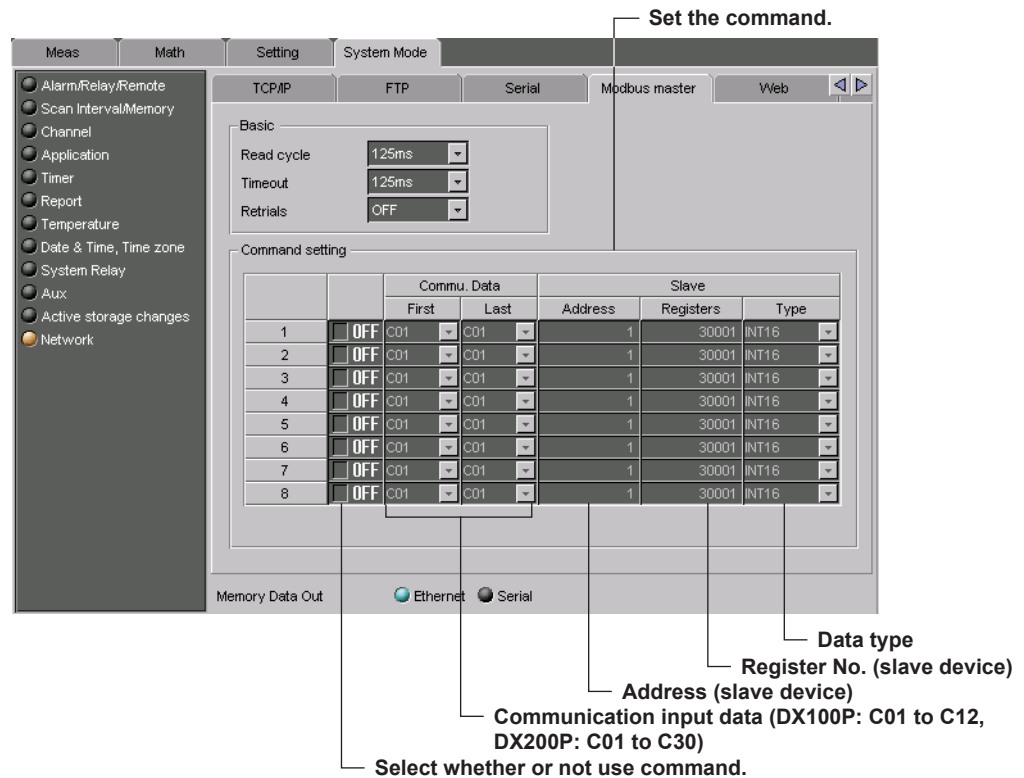
The screenshot shows the 'Setting the Serial Communication' window. The 'Setting' tab is selected, and the 'Serial' sub-tab is active. The configuration options are as follows:

- Baud Rate:** Radio buttons for 1200, 2400, 4800, 9600, 19200, and 38400. 9600 is selected.
- Data Length:** Radio buttons for 7 and 8. 8 is selected.
- Parity:** Radio buttons for NONE, ODD, and EVEN. EVEN is selected.
- RS232 Handshaking:** Radio buttons for OFF:OFF, XON:XON, XON:RS, and CS:RS. OFF:OFF is selected.
- RS422A/485 Address:** A dropdown menu showing the value 1.
- RS422A/485 Protocol:** Radio buttons for OFF, NORMAL, MODBUS, MODBUS MASTER, and BARCODE. NORMAL is selected.

At the bottom of the window, there are three options: 'Memory Data Out', 'Ethernet' (selected), and 'Serial'.

- **Data Length**
Select the data length from the following list. Make sure to select 8 bits when outputting data in binary format.
- **RS232 Handshaking**
Select the handshaking method from the following list. This setting is valid only for the RS-232 interface.
- **RS-422A/485 Address**
Select the address from 1 to 32. This setting is valid for the RS-422A/485 interface and the Modbus protocol.
- **RS-422A/485 Protocol**
OFF: Serial communication is disabled.
NORMAL: Setting/measurement server
MODBUS: Modbus slave
MODBUS MASTER: Modbus master
BARCODE: Bar code input

Setting the Modbus Master



• Basic

Read cycle: The cycle at which data is read from other devices. Select the read cycle from [125 ms], [250 ms], [500 ms], [1 s], [5 s], [2 s], or [10 s]

Timeout: Specify a time period that the DXP waits for a response from the specified slave device after transmitting a command. Select the timeout time from [125 ms], [250 ms], [500 ms], [1 s], [5 s], [2 s], [10 s], or [1 min].

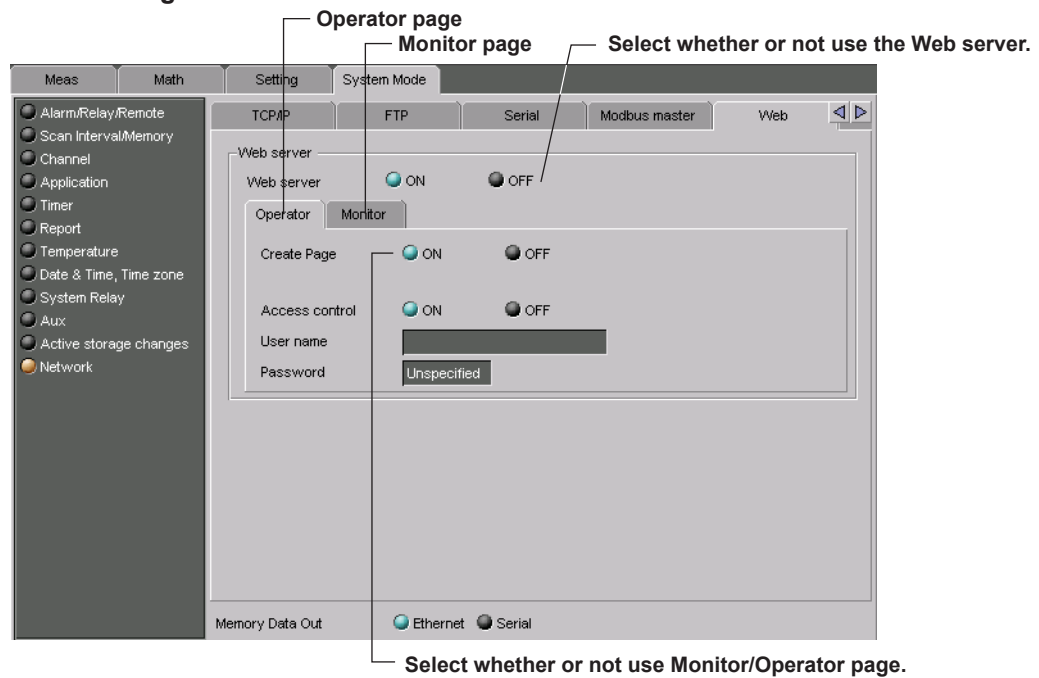
Retrials: The number of times to retransmit the command when there is no response from the specified slave device. Select the number of retrials from [Off] (0), [1], [2], [3], [4], [5], [10] or [20].

• Type

- INT16: 16-bit signed integer
- UINT16: 16-bit unsigned integer
- INT32_B: "32-bit signed integer" is assigned to the Modbus register in the order upper 16 bits followed by the lower 16 bits.
- INT32_L: "32-bit signed integer" is assigned to the Modbus register in the order lower 16 bits followed by the upper 16 bits.
- UINT32_B: "32-bit unsigned integer" is assigned to the Modbus register in the order upper 16 bits followed by the lower 16 bits.
- UINT32_L: "32-bit unsigned integer" is assigned to the Modbus register in the order lower 16 bits followed by the upper 16 bits.
- FLOAT_B: "32-bit floating-point data" is assigned to the Modbus register in the order upper 16 bits followed by the lower 16 bits.
- FLOAT_L: "32-bit floating-point data" is assigned to the Modbus register in the order lower 16 bits followed by the upper 16 bits.

2.6 Configuring the System Mode

Setting the Web Server



- **Access control/User name/Password**

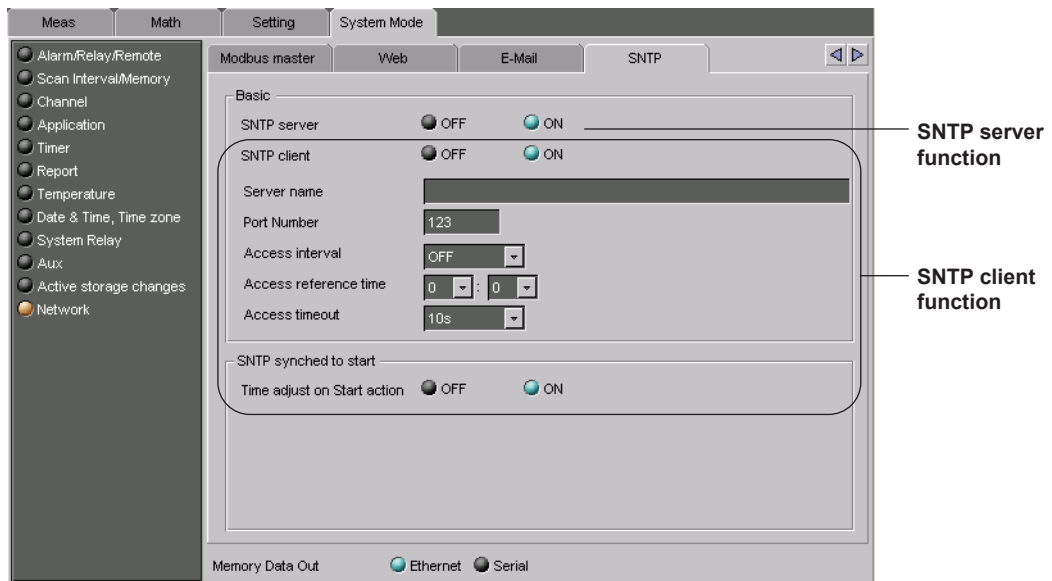
Select whether or not use the access control. To use the access control, enter the user name (up to 20 characters) and password (up to 8 characters) to display the operator or monitor page.

Setting the E-Mail Transmission

The screenshot shows the 'E-Mail' configuration window. The left sidebar lists various settings: Alarm/Relay/Remote, Scan Interval/Memory, Channel, Application, Timer, Report, Temperature, Date & Time, Time zone, System Relay, Aux, Active storage changes, and Network. The main window has tabs for 'Modbus master', 'Web', 'E-Mail', and 'SNTP'. The 'E-Mail' tab is active, showing a 'Basic' section with fields for SMTP server name, Port number (25), Recipient1, Recipient2, and Sender. Below this are tabs for 'Alarm', 'Scheduled', 'System', and 'Report'. The 'Alarm' tab is selected, showing checkboxes for Recipient1, Recipient2, Alarm1, Alarm2, Alarm3, Alarm4, Include INST, and Include source URL. The 'Subject' field is set to '(DXP) Alarm_summary', and there are fields for Header1 and Header2. At the bottom, there are radio buttons for 'Memory Data Out', 'Ethernet', and 'Serial'. Annotations with arrows point to specific fields: 'Transmit e-mail when alarm occurred/released.' points to the 'Alarm' tab; 'Transmit e-mail at specified time.' points to the 'Scheduled' tab; 'Transmit e-mail when storage medium error, etc. are detected.' points to the 'System' tab; 'Transmit e-mail when creating a report.' points to the 'Report' tab; 'Select the recipient' points to the Recipient1/2 checkboxes; 'Select the alarm' points to the Alarm1-4 checkboxes; 'Attach measured/computed data at that time 0' points to the 'Memory Data Out' radio button; and 'Transmit e-mail when creating a report.' points to the 'Report' tab.

- **SMTP server name**
Set the SMTP server name (up to 64 alphanumeric characters) or the IP address of the SMTP server.
- **Port number**
Set the port number to use in the range from 1 to 65535. The default value is [25].
- **Recipient**
Set the transmission destination of the e-mail message using up to 150 alphanumeric characters. You can specify multiple addresses. To specify multiple addresses, delimit the addresses using spaces.
- **Sender**
Set the e-mail address using up to 64 alphanumeric characters. If the address is not set, the first address set in the recipient box is used as the sender's address instead.
- **Alarm**
Transmits an e-mail message when alarm is active/released.
- **Scheduled**
Transmits an e-mail message when the specified time is reached.
- **System**
Transmits an e-mail message during recovery from a power failure, when memory end is detected, or when an error related to the external storage medium and FTP client occurs
- **Report**
Transmits an e-mail message when report is created (only on models with the optional computation function (/M1))
- **Subject, Header1, Header2**
Subject: Set the subject of the e-mail message using up to 32 alphanumeric characters.
Header1 and Header2: Set the string to be attached to the e-mail message using up to 64 alphanumeric characters.

Setting SNTP



- **Basic**

- **SNTP server**

Select [ON] when using the SNTP server function. The DXP sends time information to SNTP clients on the network.

- **SNTP client**

Select [ON] when using the SNTP client function. The DXP queries time information to an SNTP server on the network.

- **Server name**

Set the access destination of time information using up to 64 alphanumeric characters. Set the server host name or IP address.

- **Port Number**

Set the port number of the SNTP server in the range from 1 to 65535. The default value is [123].

- **Access interval**

Select the time interval for querying the time on the SNTP server from [Off], [1h], [8h], [12h], or [24h]. Time is not queried if [Off] is selected.

- **Access reference time**

The time used as a reference for the time query. The time is queried at the specified access interval with respect to this time.

Set the time in the range of 00:00 to 23:59.

- **Access timeout**

The timeout period for a response from the SNTP server. If no response is received within this time period, time query will not be performed.

Select [10s], [30s], or [90s].

- **SNTP synced to start (Time adjust on Start action)**

Set whether to query the time using the SNTP client function (ON/OFF) when data acquisition is started.

2.7 Adjusting the Setup Data (Checking the Data)

Checking the Setup Data

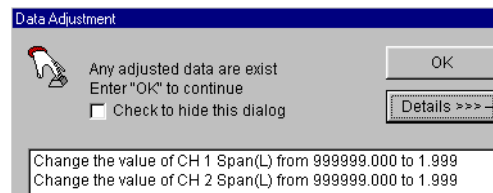


1. Click here ([System] - [Data Adjustment]).

2. If the data are not consistent, they are automatically corrected.

or

2. If the data are not consistent, the [Data Adjustment] dialog box opens (see the description below).



Click here to display the correction list

The data are corrected in the following cases:

- When the values of the items of the Meas/Math tab are outside the range.
- When an invalid character string is used
- When a set point value in the calibration correction setting is wrong.

[Data Adjustment] Dialog Box

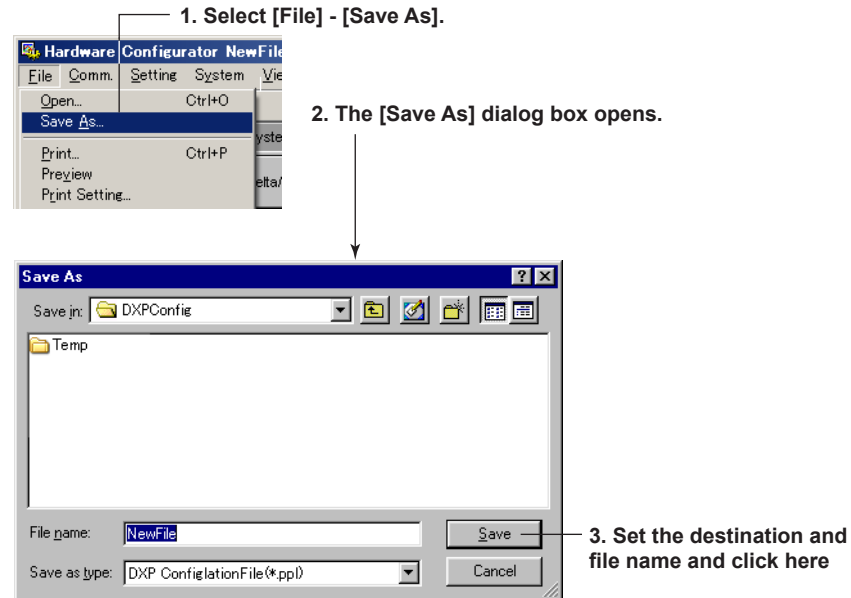
Select [View] - [Data Adjustment Dialog] to use the [Data Adjustment] dialog box.

If [View] - [Data Adjustment Dialog Box] is checked, the [Data Adjustment] dialog box will open when the data are not consistent at the time of the data check or at the time of data transmission.

2.8 Saving the Setup Data

Saving the Setup Data

Saves the setup data by specifying the save destination and file name.



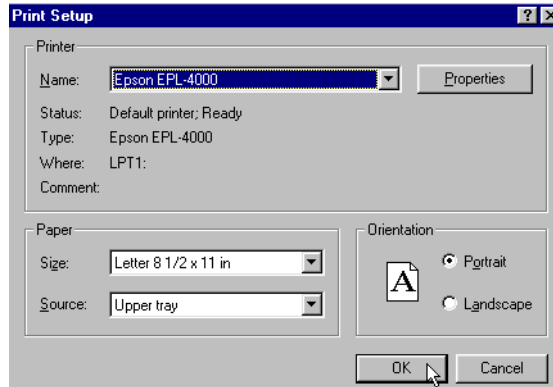
Note

- You cannot save the data using the same file name as the file in the save destination (overwriting the file is not allowed).
- You cannot edit the setup data after saving it. If you wish to change the settings further, start from "Starting Editing" in section 2.2.

2.9 Printing the Setup Data

Setting the Printer

1. Select [File] - [Print Setup].



2. Set the printer, paper and orientation.

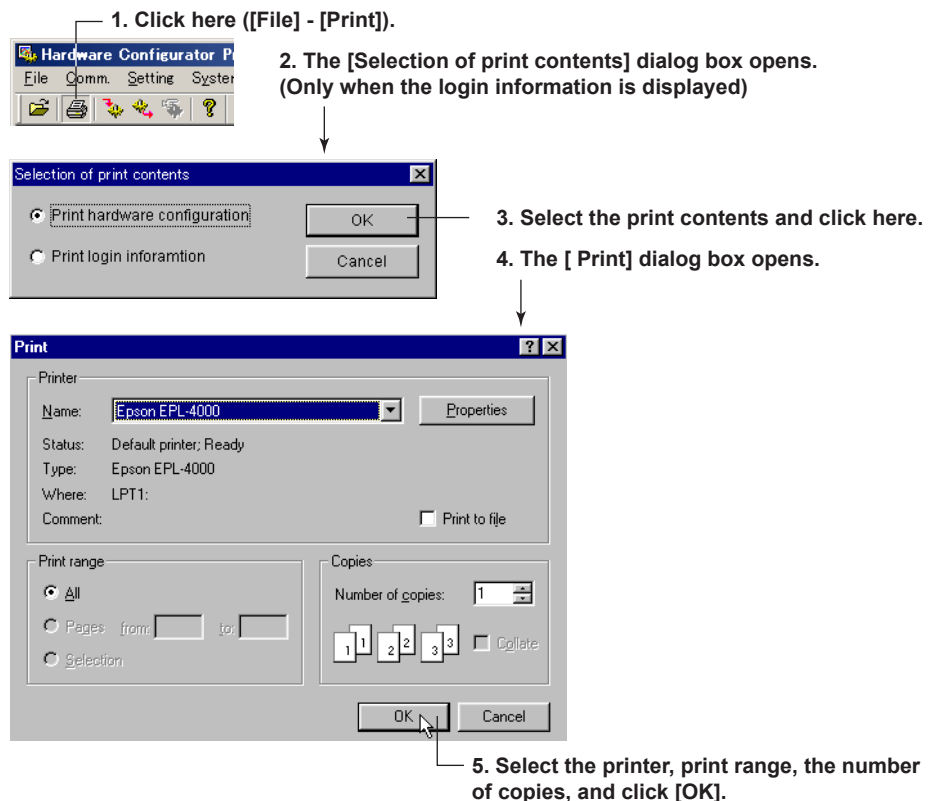
Note

Set the printer according to the environment of the system that you are using.

Print Preview

You can preview the print layout before actually printing the data.
Selecting [File] - [Print Preview] displays the print preview screen.

Printing



2.10 Characters That Can Be Used

The characters in the following table can be used when entering a group name, a view group name, a message, a comment to the file header, a save destination directory name, and parameters such as the user name, user ID, and password for signing.

| SP | # | % | (|) | * | + | - | . | / |
|----|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| A | B | C | D | E | F | G | H | I | J |
| K | L | M | N | O | P | Q | R | S | T |
| U | V | W | X | Y | Z | | | | |
| a | b | c | d | e | f | g | h | i | j |
| k | l | m | n | o | p | q | r | s | t |
| u | v | w | x | y | z | | | | |
| _ | | @ | | | | | | | |

Note

(*), (+), (.), and (/) cannot be used for the name of the directory where files are to be saved.

3.1 Connecting to the DXP

Notes about Sending and Receiving

Note

- The Communicator Software can connect to the DXP style number S4 or later.
- Only the administrators that are registered to the target DXP can connect to it.
- Connection is not possible if there is a user logged in using the keys on the DXP or if there is a user connected to the setting function via the communication interface.
- Connection is not possible if a user with the same user name is already connected via the communication interface (the setting/measurement server, the monitor function of the maintenance/test server, or the FTP server).
- If the DXP is configured not to use the login function (no administrators are registered), you can connect to the DXP by entering the IP address or host name in the IP address box.
- The Manager is locked while connected to the DXP.

Password

Note

Default password

For the following cases, enter the default password in the Password box.

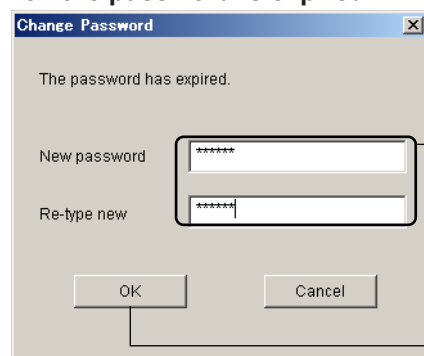
- Connecting for the first time after user registration.
- Connecting for the first time after resetting the password because the user was invalidated.

| User | Default Password |
|----------------------|--|
| Administrator 1 to 3 | Admin1, Admin2, and Admin3 |
| User 01 to 30 | User01, User02, User03, ... , User29, and User30 |

User Locked

The user who is invalidated through the key operation on the DXP cannot log in from the DDX-P Hardware Configurator.

When the password is expired



Enter the password.
For a description of the password,
see "Note" below.

Click here.

Note

New password

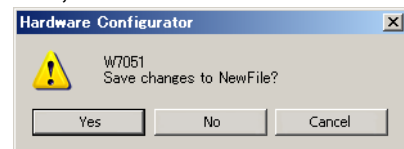
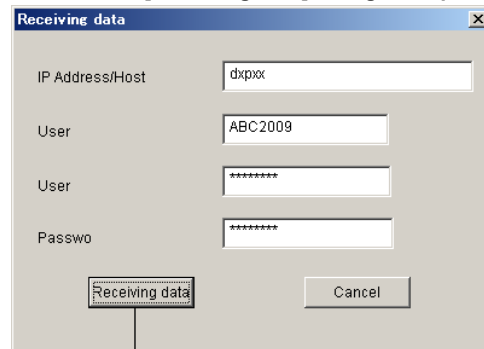
- Enter the password using 6 to 8 characters.
- Spaces are not allowed.
- Combinations of the user ID and password that have been used in the past are not allowed.

3.2 Receiving Setup Data from the DXP

1. Select [Comm.] - [Receive Setting].
2. If the setup data has been edited, a save confirmation message appears. (If the data has not been edited, the Receiving data dialog box opens.) For information about saving setup data, see section 2.8.



3. The [Receiving data] dialog box opens.



4. Enter the IP address, user name, user ID, and password.

5. Click here.

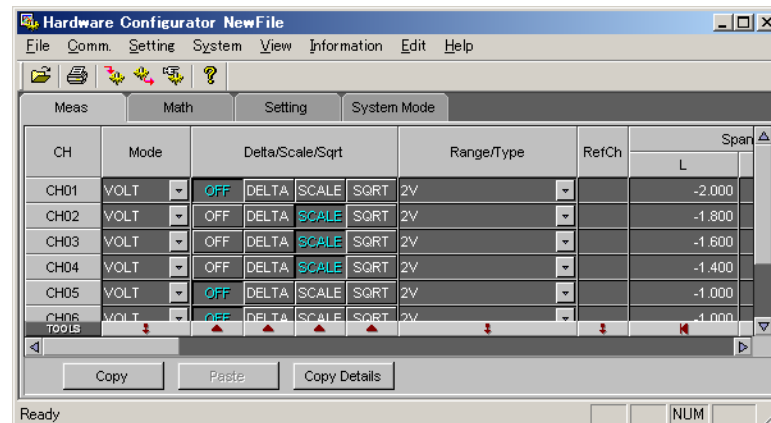
- If the password has expired, see page 3-1. Start reception after you change the password.

6. A progress indicator appears.



- If the data cannot be received, an error message appears.

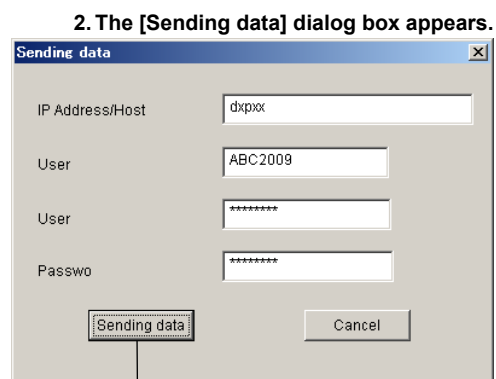
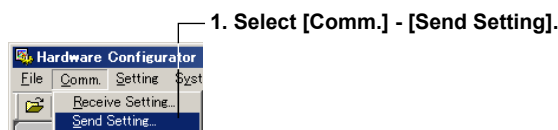
7. The message "Receiving finished" appears and the received setup data is displayed.



Note

- You can edit the setup data that you receive.
- The login information and batch/system settings are not displayed.
- For a description of creating a new setup data based on the loaded setup data, see section 2.2.

3.3 Sending Setup Data to the DXP

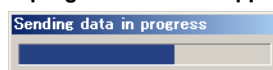


3. Enter the IP address, user name, user ID, and password.

4. Click here.

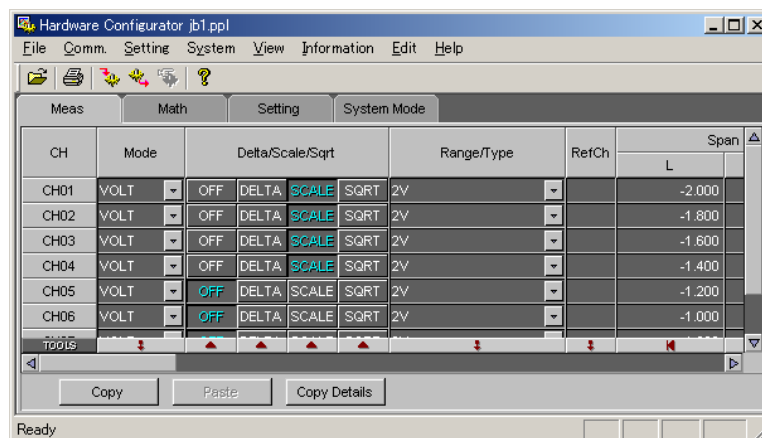
- If the password has expired, see page 3-1.
Start sending after you change the password.

5. A progress indicator appears.



- If the data cannot be sent, an error message appears.

6. The message "Sending finished" appears and the received setup data is displayed.



Note

- The function for sending the setup data to the DXP cannot be used while the DXP is acquiring data or performing computation.
- The contents of [Login information], [Batch system settings], and [IP Address] are not transmitted.
- In the following cases, errors occur and the data cannot be sent to the DXP.
 - When an external storage medium is not inserted in the DXP.
 - When the setup data to be sent does not match the system configuration of the DXP.
- If an error occurs while data is being sent, an error message is displayed, and the DXP returns to the main screen that appears during sending. Start the procedure for sending the data over again. The data sent before the error is not applied on the DXP.

4.1 Messages and Corrective Actions

Messages may appear on the screen during operation. This section explains the meanings of the error messages and how to respond to them.

Error Messages

| Code | Message | Corrective Action/Explanation |
|-------|--|---|
| E7001 | Unreadable file | Select another file. |
| E7002 | Failed to open file. | Try to open the file again. If still not possible, the file may be damaged. Select another file. |
| E7003 | Failed to make file. | Check the free space in the directory. |
| E7004 | A user is already logged in. | This may happen for one of the following reasons. Check the login conditions. <ul style="list-style-type: none"> • Another user with the same user name is already logged into the setting/measurement server, maintenance/test server, or FTP server. • Another user is already logged into the setting function of the setting/measurement server. • Another user has logged in to the DXP through key operations. • Another user who has logged in to the DXP through serial communication commands. |
| E7005 | Unable to login now. | This may happen for one of the following reasons: <ul style="list-style-type: none"> • The user name is invalid. • The user name, user ID, or password is not correct. • The specified user cannot log in through communication commands. |
| E7006 | Password is incorrect. | Check to make sure that the password is correct. |
| E7007 | No system administrator's privilege. | Log in as a system administrator. |
| E7008 | The number of connection has been exceeded. | The maximum number of connections has been exceeded. Close other connections before connecting. |
| E7009 | Communication Error | <ul style="list-style-type: none"> • Check the LAN connection. • Make sure that the IP address and host name settings of the PC and the DXP that you are connecting to match. |
| E7010 | The device's style number is earlier than S4. Can't receive setting. | Use a DXP whose style number is S4 or later. |
| E7011 | This password is not effective or was already used. | Re-enter a different password. |
| E7012 | Now sampling. Can't store settings. | Send the data after the DXP finishes writing to the internal memory. |
| E7013 | Now calculating. Can't store settings. | Send the data after computation finishes. |
| E7014 | Now sampling & calculating. Can't store settings. | Send the data after the DXP finishes writing to the internal memory and computation finishes. |
| E7015 | DXP System configurations are different. | Make sure that the setup information and the DXP system configuration match. |
| E7016 | Operation aborted because an error was found on media. | Check the storage medium. |
| E7017 | Not enough free space on media. | Change the storage medium. |
| E7018 | Media is read-only. | Enable writing to the medium. |
| E7019 | Media has not been inserted. | Insert a storage medium. |
| E7020 | Media is damaged or not formatted. | Change the storage medium or format it. |
| E7021 | An error occurred during send procedure. | Send again. |
| E7022 | An error occurred during receive procedure | Attempt to receive the data again. |
| E7023 | This user name is not registered. | Make sure that you entered the correct user name, user ID, and password. |
| E7024 | 3times password input failure. | Select Login information in the Information menu, and enter the system administrator information. |
| E7025 | 3times password input failure. The user will be disable. | A different system administrator must log in. |
| E7026 | The connected device is not supported! | The connected device is not a DX100P or DX200P. |
| E0250 | Failed to start Adobe Reader. | Make sure that the user's manual exists and that Adobe Acrobat is installed. |

4.1 Messages and Corrective Actions

Warning Messages

| Code | Message | Corrective Action/Explanation |
|-------|--|--|
| W7051 | Save changes to NewFile? | The setup information has been changed, but the file has not been saved. Choose whether or not to save the file. |
| W7052 | File already exist. | Specify a different file name. |
| W7053 | System configuration has been changed. The input configuration and data will be initialized. Continue? | Choose whether or not to change the system configuration. |
| W7054 | Initialize current settings. | Choose whether or not to initialize the current setup data. |
| W7055 | Edit this configuration? | Choose whether or not to edit the data. |

Messages

| Code | Message |
|-------|--|
| M7071 | Data can't be processed after the year 2038. |
| M7072 | Any destroyed A/D converter exists. Any settings may be failed to store. |
| M7073 | Receiving finished |
| M7074 | Sending finished |

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