
User's Manual

DXA170 DAQStudio

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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 DAQStudio	Explanation of the function outline for DAQStudio. Sample images of screens which actually produced are shown.
2	Creating a Monitor Screen with DAQStudio	Explanation of the operation method for creation of an original monitor screen. Explanation of the operation methods for efficient creation and the methods for saving and opening created display data.
3	Detailed Information for Attributes of Screens and Components	Detailed explanation of the individual attributes of screens and parts.
4	Communication with the DX Recorder	Explanation of the methods for receiving custom display screen data from the DX1000/DX1000N/DX2000 recorder and for sending display data which have produced/edited by DAQStudio to the DX1000/DX1000N/DX2000 recorder via Ethernet.
5	Messages, Handling Methods, and Version Information	Message list and explanation of the confirmation method for the DAQStudio version. Also explains the correspondence between DX recorders that can be connected and the screen version of this software.
Index		Gives a list of important terms used in this manual.

Scope of the Manual

This manual does not explain the basic operations of your PC's operating system (OS). For information regarding the basic operations of Windows, see the user's guide that came with Windows.

Conventions Used in This Manual

Unit

K Denotes 1024	Example: 100 KB
M Denotes 1024K	Example: 10 MB
G Denotes 1024M	Example: 2 GB

Bolded Items

Items set in boldface mainly refer to on-screen interface elements such as menus, commands, dialog boxes, attributes, buttons, or keys on the keyboard.

Markings

- This mark is used to indicate a reference to a related procedure or explanation.
Example : ► Section 4.1

Symbols used in operational explanation

In the pages explaining operation (chapter 1 to 4), the following symbols are used to distinguish the descriptions.

Procedure

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

Explanation

Explanation gives information such as limitations related the procedure.

Note

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

Manual Revision History

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Edition	Revised	Description of Revisions and DAQStudio Software Version
1st	January, 2009	New, R1.01
2nd	April 4, 2009	Corrections, new software display languages added (Chinese, German, French, Russian, Korean), R1.02
3rd	March, 2010	Added components, changed screens, and added/changed component attributes to support DXAdvanced R4, R2.01.01 Components added: Group name, System icon, Memory bar, Time label, Batch group number, Batch name, and Modbus In. Component attribute name change: Batch number --> Batch group number
4th	August, 2010	Added component attributes to support DXAdvanced firmware version 4.11, R3.01.01 Component attribute added: Batch name components, Communication input components, Modbus in components

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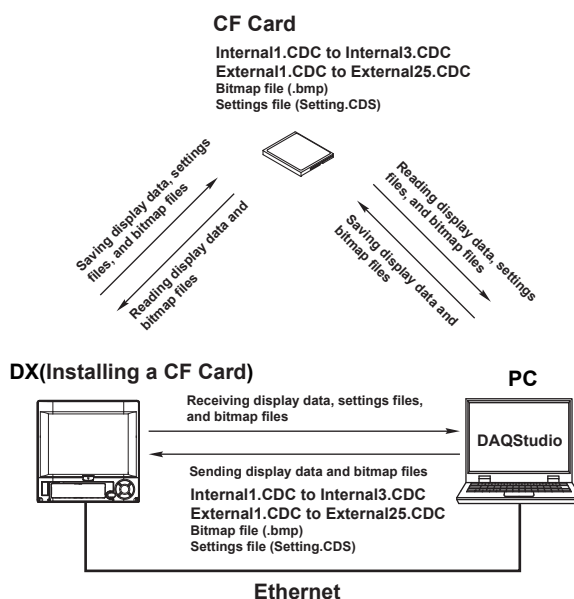
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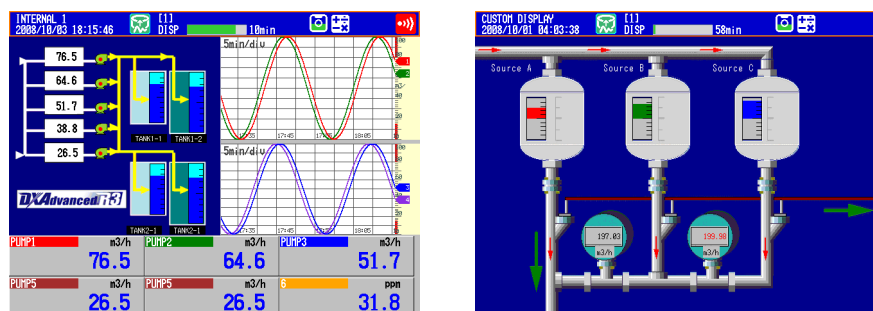
1.1 Overview

DAQStudio is the software for the creation original monitor screens displaying measuring data of DX1000/DX1000N/DX2000 (hereinafter called DX). For monitoring of measuring data, it is possible to assign channels to digital parts, trend parts, etc., and diagram components can be used to create monitor screens matched to site images. Created monitor screens can be displayed by custom display function of the DX recorder. It is also possible to receive custom display screen data from the DX recorder and to edit them or to send display data created with DAQStudio to the DX recorder. Data transmission and reception can be performed via Ethernet or external storage media (CF cards).



Settings files contain DX recorder settings that have been converted to data. When receiving screen data from the DX recorder, screen data and bitmap files are received together. By receiving settings files, the DX recorder's setups can be reproduced on DAQStudio.

Monitor Screen Creation Examples



A screen is composed of multiple parts, and background setting and display of static bitmap images also can be done.

Multiple parts can be related to each other, and parts can be combined with other parts. Measuring channels are allotted to parts. Size, character font, color, unit, group control, and other attributes are set for each created part.

Parts can be laid out freely in the screen display area at screen grid intervals.

Note

- Monitor screens are displayed correctly only when the language kind of the DX recorder and the language kind of DAQStudio are the same.
 - As screens being created with DAQStudio cannot display measuring values, the display differs from the custom display execution screen of the DX recorder.
 - DAQStudio cannot open a connection with the DX recorder if the DX is already communicating with another software program.
-

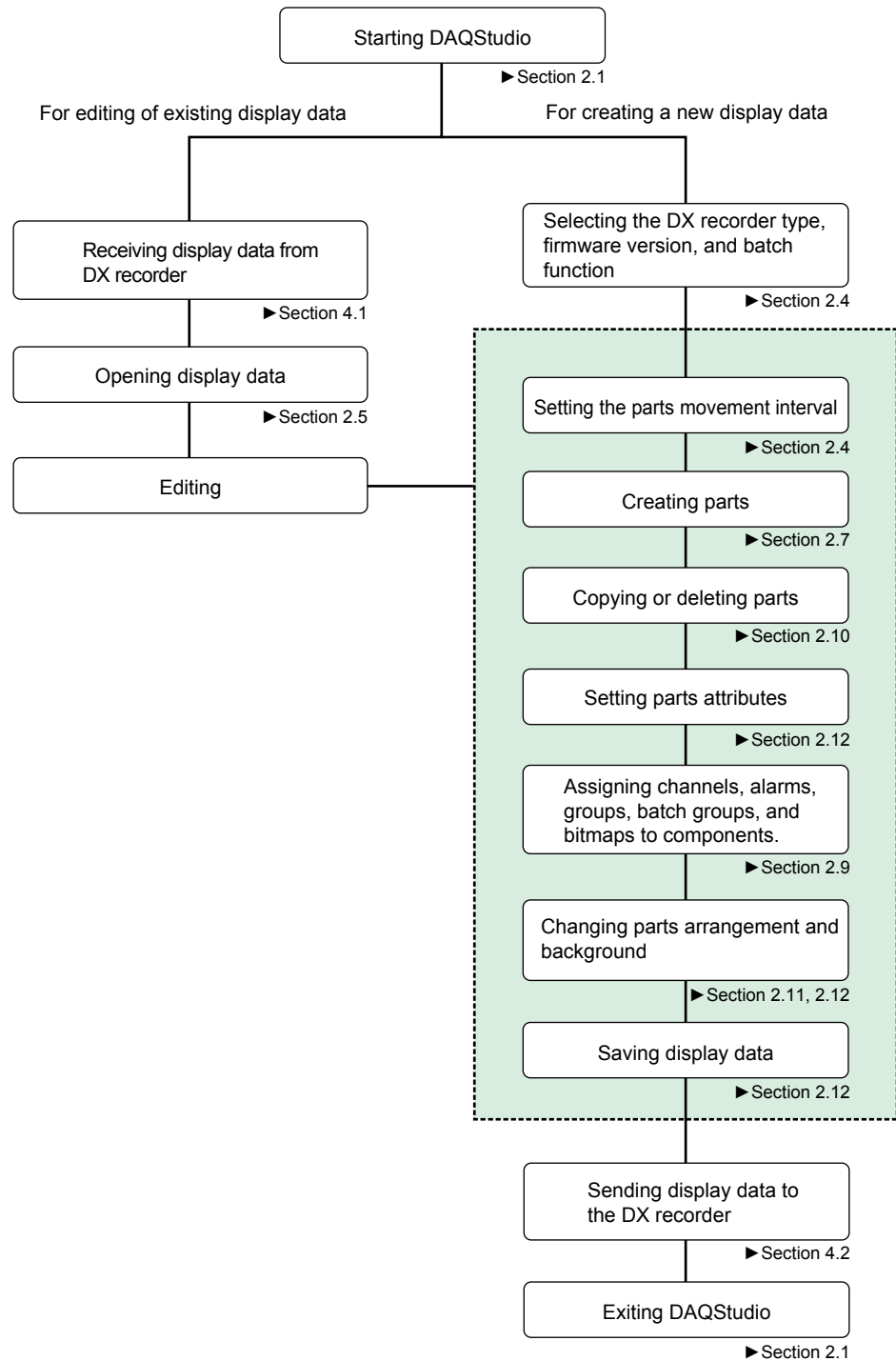
Creating and Saving Screens

An original monitor screen can be created newly or it can be created by receiving display data from the DX recorder and editing them with DAQStudio. The display data from the DX recorder can be retrieved via Ethernet or display data of the DX recorder saved to external storage media (CF card) can be read in.

Edited or created display data are stored on the hard disk of the computer or external storage media (CF card) and are sent to the DX recorder.

Monitor Screen Creation Flow

The monitor screen creation flow is shown below.



1.2 PC System Requirements

PC System

- **Supported Operating Systems (OS)**

Run DAQStudio under any of the following operating systems.

- Windows XP Home Edition SP3
- Windows XP Professional SP3 (excluding Windows XP Professional x64 Edition)
- Windows Vista Home Premium, SP1, SP2 (excluding the 64-bit edition)
- Windows Vista Business, SP1, SP2 (excluding the 64-bit edition)
- Windows 7 Home Premium (32-bit and 64-bit editions)
- Windows 7 Professional (32-bit and 64-bit editions)

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

OS Language	Software Language
Japanese	Japanese
English	English
Chinese	Chinese
German	German
French	French
Russian	Russian
Korean	Korean

- **PC**

Machine type

A PC that runs one of the OS above, and that meets the following CPU and memory requirements.

CPU and main memory capacity

When Using Windows XP

Pentium 4, 1.6 GHz or faster Intel x64 or x86 processor

512 MB or more of memory

When Using Windows Vista

Pentium 4, 3 GHz or faster Intel x64 or x86 processor

2 GB or more of memory

When Using Windows 7

32-bit edition: Intel Pentium 4, 3 GHz or faster x64 or x86 processor, 2 GB or more of memory

64-bit edition: Intel x64 processor that is equivalent to Intel Pentium 4, 3 GHz or faster, 2 GB or more of memory

- **Hard disk**

Free disk space: 100 MB or more

- **CD-ROM Drive (for Use during Installation)**

- **Mouse**

Mouse supported by the OS

- **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.

- **Communication Port**

Ethernet port (10Base-T) supported by the OS. Also, TCP/IP protocol is required to be installed.

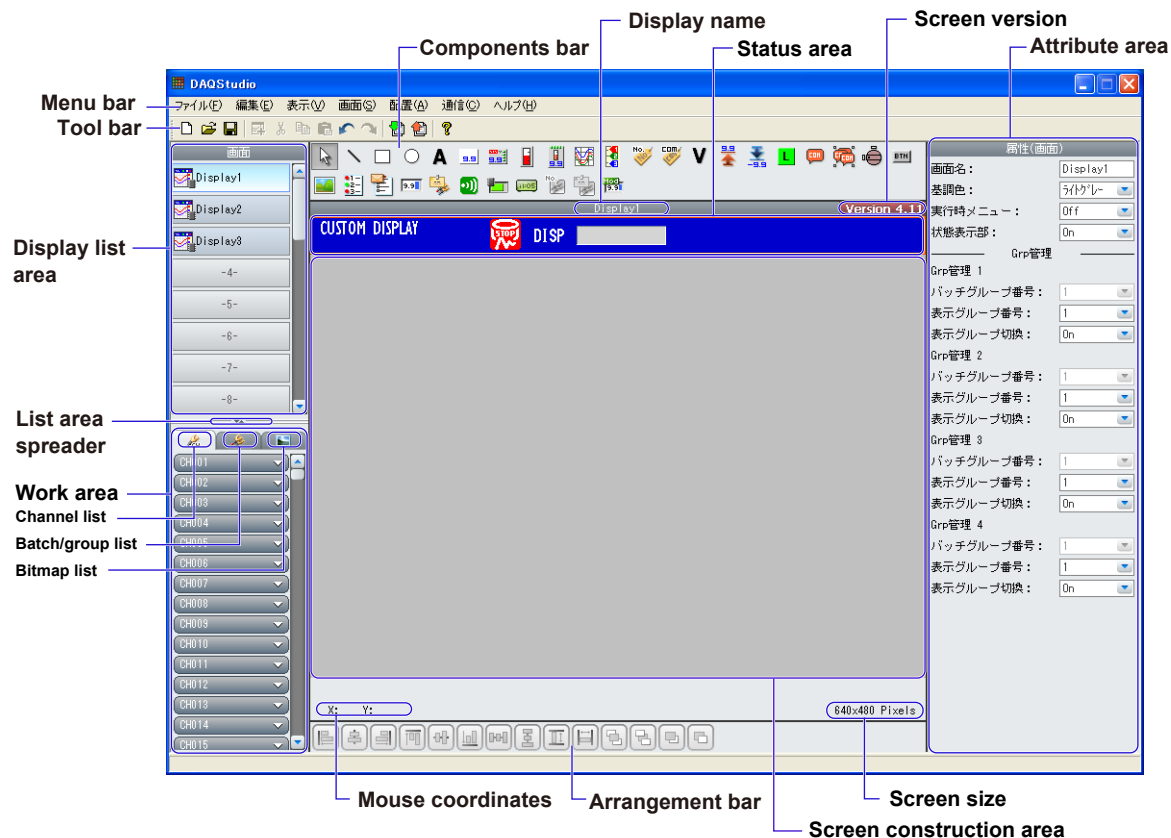
2.1 Starting/Exiting DAQStudio

Starting DAQStudio

Procedure

From the Start menu select **All Programs > DAQStudio > DAQStudio**.

The main screen of DAQStudio appears.



Explanation

The Main screen is composed of Menu bar, Tool bar, Display list area, Channel/Alarm list area, Components bar, Attribute area, Arrangement bar, and Screen construction area.

The main screen size is fixed. The DX2000 screen is displayed as the initial value. Refer to Section 2.2 for details of each component in the Main screen. ► Section 2.2

The following settings are active upon startup.

- Batch function is OFF
- Channel/Alarm list page displayed
- The Group list page is displayed, but not the Batch/Group list page

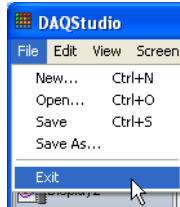
For the display when receiving screen data from the DX recorder ► Section 4.1

When creating a new screen, you can set the DX recorder version and batch. ► Section 2.4

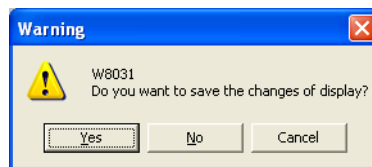
Exiting DAQStudio

Procedure

1. Select **File > Exit** from the menu bar or click the “x” mark at the right top of the Main screen.



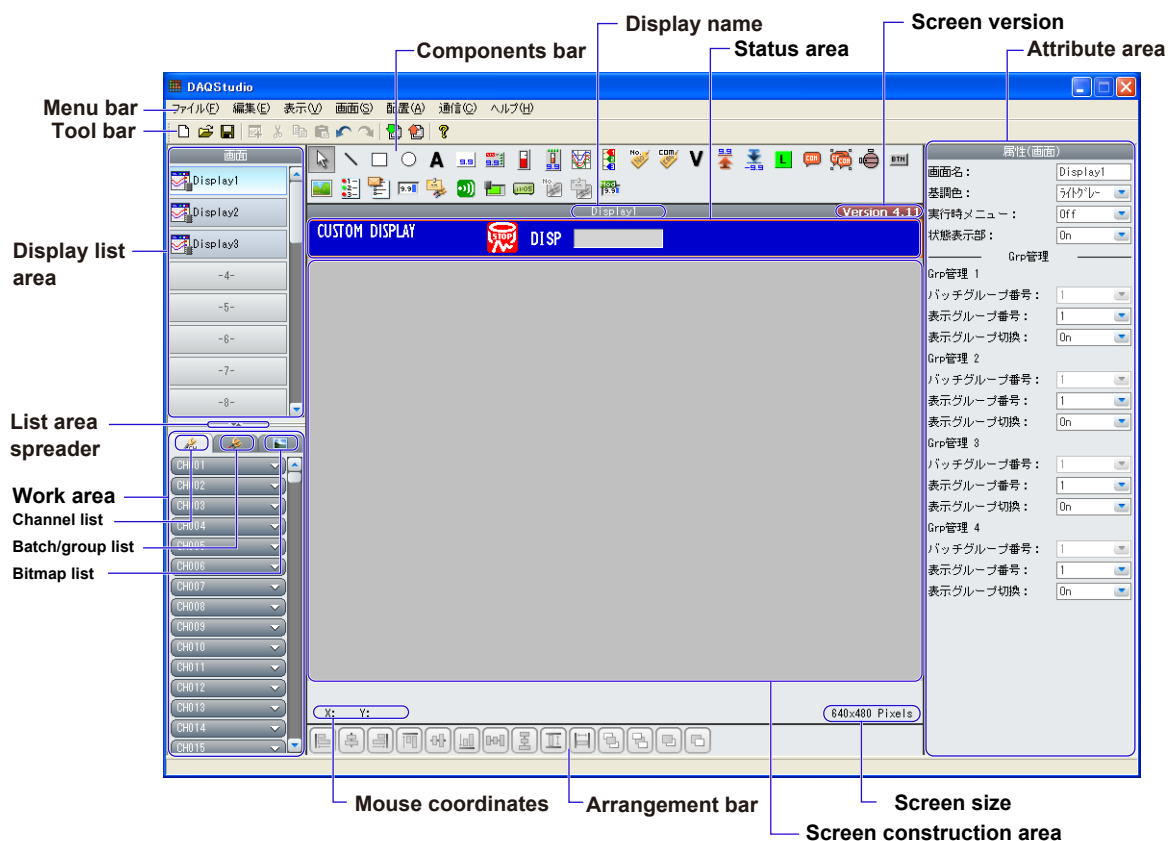
2. Exit from DAQStudio is made when there is no screen being edited.
If there is a screen being edited, a dialog message confirming whether the screen is to be saved or not is displayed.



3. Click **[Yes]** or **[No]**. (Exit operation is cancelled when **[Cancel]** is clicked.)

2.2 Explanation of the Main Screen of DAQStudio

The configuration of the Main screen of DAQStudio is shown below.



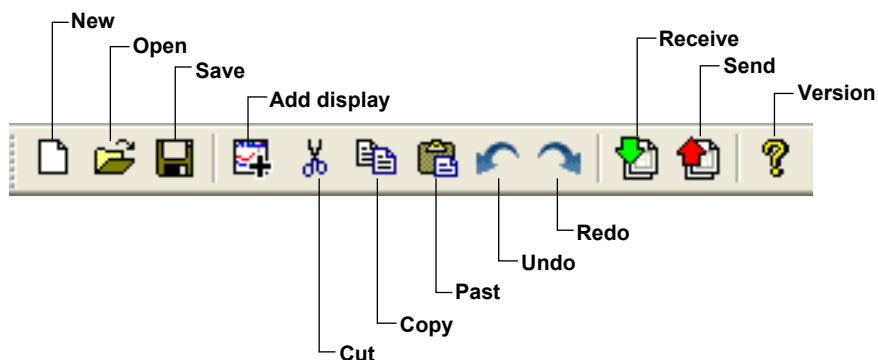
The icon names of each bar are shown below. Refer to Section 2.3 for the icon functions and the shortcut keys.

Menu bar

This is composed of **File**, **Edit**, **View**, **Screen**, **Communication**, and **Help**.

File Edit View Screen Arrangement Communication Help

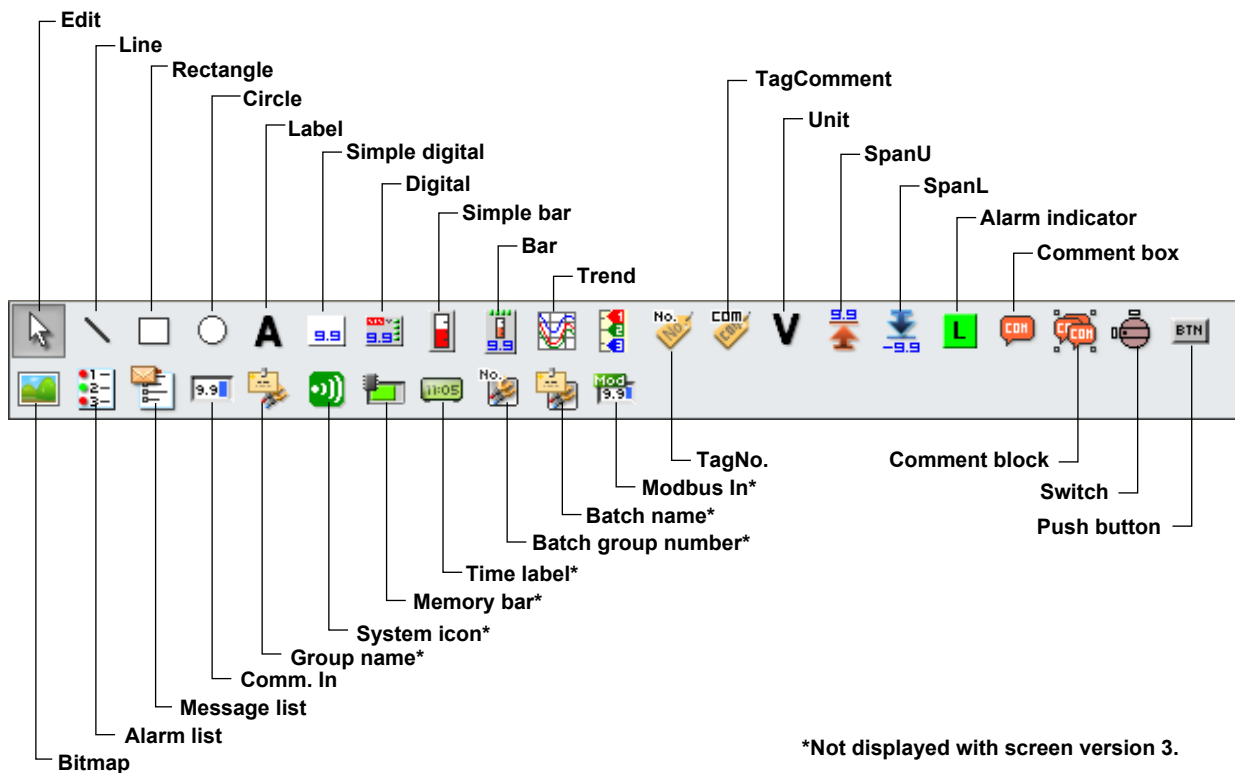
Tool bar



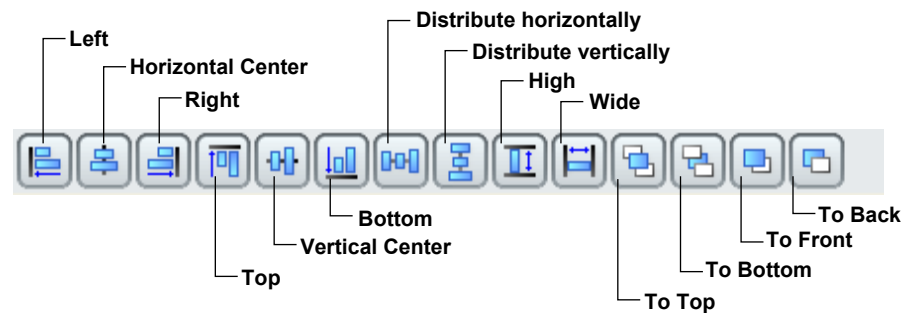
2.2 Explanation of the Main Screen of DAQStudio

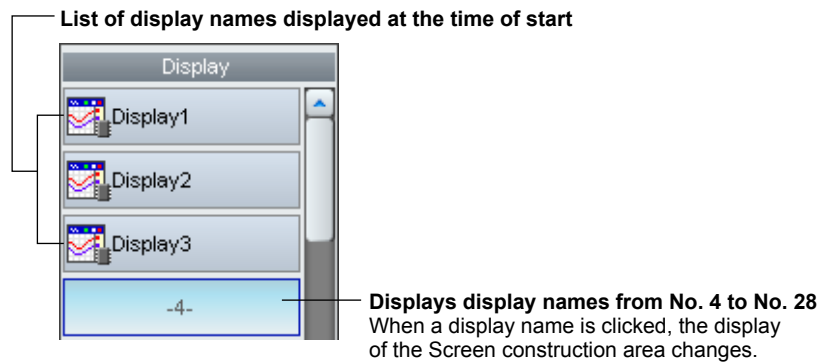
Component bar

The components that are available change when you switch the screen version.



Arrangement bar



Display list area

When a display name in the list is clicked or the up and down arrow keys (↑, ↓) of the keyboard are pressed to select a screen, the screen is displayed in the screen construction area.

When a display name is selected, display editing (Copy, Cut, Paste, Delete) can be done in the display list area.

When a location outside the Display list area is selected, editing of the Screen construction area becomes possible.

Refer to Section 2.10 for the operation procedure.

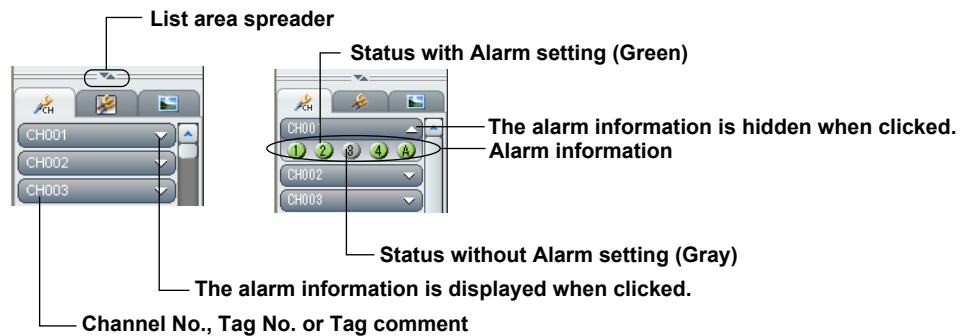
The initial setting at the time of start is for display of blank data for the display names Display1 to Display3.

Work area

The work area contains the tabs below. When screen data is received from the DX recorder, the lists that are displayed vary depending on the information in the settings file.

- Channel/Alarm list**

Channels or alarms can be assigned to components for channel assignment.



The Channel/Alarm information set at the DX recorder is displayed as Channel No., Tag No. or Tag Comment. At this time, the alarm information is included.

Switching of the display format can be selected from the View menu.

When the mouse pointer is placed onto the list area spreader, the mouse pointer changes to an arrow shape. By dragging, the View area can be increased or decreased vertically.

The initial settings for the Main screen at the creating a new screen are shown below.

In case of DX1000: Channels "CH001" to "CH012" and calculation channels "CH101" to "CH124" are displayed.

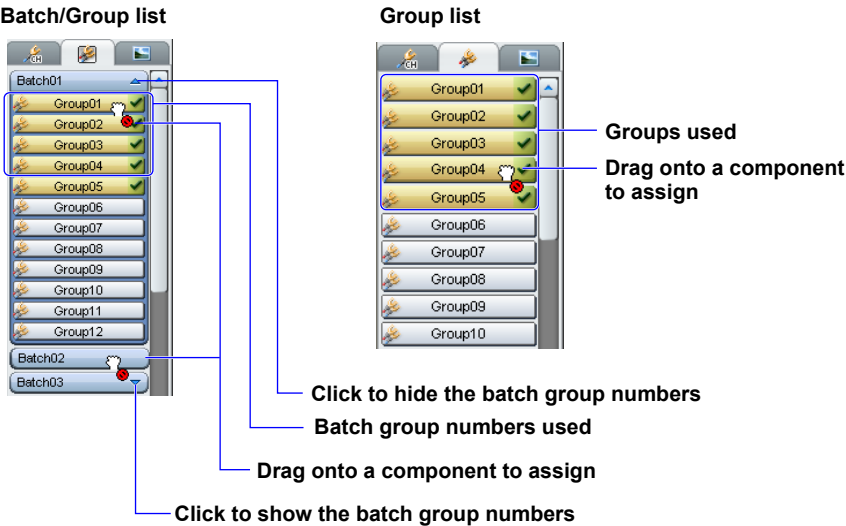
In case of DX2000: Channels "CH001" to "CH048", calculation channels "CH101" to "CH160", and expansion channels "CH201" to "CH440" are displayed.

2.2 Explanation of the Main Screen of DAQStudio

Batch/Group list, or Group list

Shows the batches and groups, and enables assignment of batch or group to components. If MultiBatch is On on the DX recorder the Batch/Group list is displayed, and if Batch is turned Off or On, the Group list is displayed.

- Components to which batch items can be assigned:
- Alarm list, Message list,
Batch group number,
Batch name, Memory bar
- Components to which groups can be assigned:
- Trend, Scale, Group name



Batch and Group display range

Type	Batch	Group
DX1000	[Batch 01] to [Batch 06]	[Group 01] to [Group 06]
DX2000	DX2000 [Batch 01] to [Batch 12]	[Group 01] to [Group 12]

The maximum batch number is the number of multibatches recorded in the DX recorder settings file.

Group display range

Type	Group
DX1000	[Group 01] to [Group 10]
DX2000	[Group 01] to [Group 36]

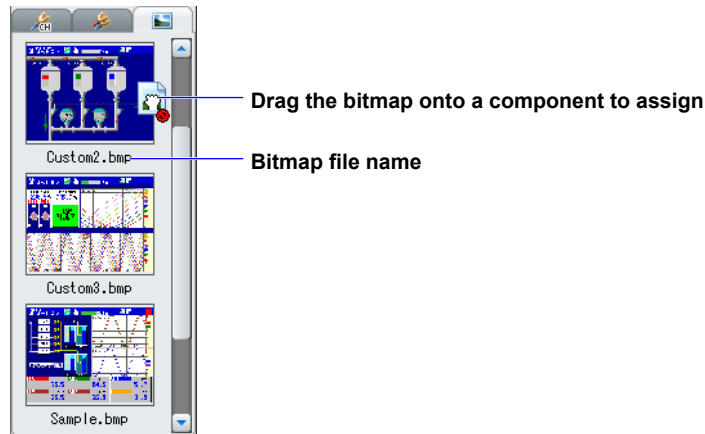
- **Bitmap list**

Displays data from the bitmap folder in a list. Bitmaps can be assigned to bitmap components and scale components.

Bitmap folder: Bitmap files used by DAQStudio must be placed in a single location.

This specific folder is called the bitmap folder.

Components to which bitmaps can be assigned: Bitmap, scale



Only data that can be displayed by DX recorder is shown in the bitmap list. Only bitmaps meeting the following criteria can be displayed by the DX recorder.

- 640 x 480 dots (WxH) or less.
- 256 colors or less, uncompressed.
- The name of the bitmap file, including extension, may not exceed 51 characters.

The list is sorted in order by the character code of the bitmap file name. Immediately after starting DAQStudio, creating a new screen, or receiving screen data from the DX recorder, the bitmap folder is placed in the following location.

Windows XP

[Drv]:\Documents and Settings\[user name]\Application Data\DAQStudio

Windows Vista or Windows 7

[Drv]:\Users\[user name]\AppData\Roaming\DAQStudio.

Where [Drv] is the drive on which the OS was installed.

Where [user name] is the name of the user who is using the OS.

Immediately after a file is saved, or immediately after a file is opened, the bitmap folder becomes the target folder for saving screen construction files.

Immediately after startup, or immediately after a new file is created, the bitmap folder is cleared.

Updating the bitmap list

The bitmap list is updated immediately after startup, immediately after a new file is created, immediately after opening a file, immediately after saving a file, and immediately after receiving screen data from the DX recorder.

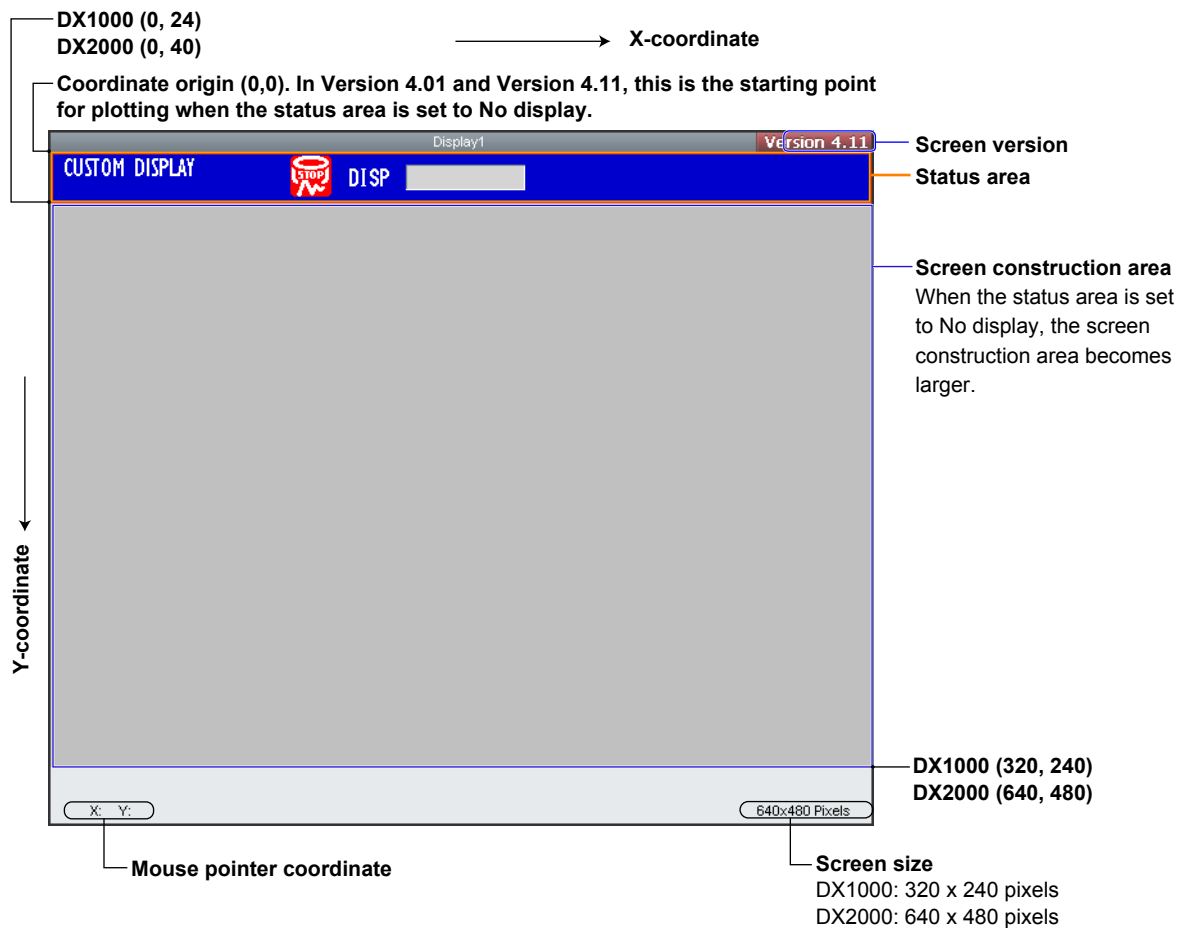
Also, if you specify a folder and bitmap in the attributes of bitmap components and scale components, the specified data is copied to the bitmap folder. Immediately thereafter, the bitmap list is updated.

2.2 Explanation of the Main Screen of DAQStudio

Screen Construction Area

In the screen construction area, there is a Version 3 screen, a Version 4.01 screen and a Version 4.11 screen.

In the Version 4.01 screen and the Version 4.11 screen, the screen construction area is larger if the status area is set to No display.






The initial setting at the time of start is display of the DX2000 screen.






2.3 Explanation of Menus, Icons, and Shortcut Keys

Menu bar contents, icons, and shortcut keys are shown in a list.
The icons are arranged on the Tool bar and on the Arrangement bar.

File menu

Menu name	Icon	Shortcut keys	Explanation
File	—	—	—
New		Ctrl+N	All present screens are discarded and a new screen is created.
Open		Ctrl+O	A screen construction file is loaded.
Save		Ctrl+S	A screen construction file is saved to the save folder by overwriting.
Save as	—	—	A save folder is specified and the screen construction file is saved to that folder.
Exit	—	—	The application is exited.

Edit menu

Menu name	Icon	Shortcut keys	Explanation
Edit	—	—	—
Undo		Ctrl+Z	Undoes the previous edit operation.
Redo		Ctrl+Y	Redoes the undone edit operation.
Cut		Ctrl+X	The object is moved to the clipboard.
Copy		Ctrl+C	The object is copied to the clipboard.
Past		Ctrl+V	The object is copied from the clipboard and moved to the specified location.
Select All	—	Ctrl+A	All components in the Screen construction area are selected.
Delete	—	Delete	The object is deleted.
Add Display	—	—	A new screen is added to the display list

View menu

Menu name	Icon	Shortcut keys	Explanation
View	—	—	—
Channel	—	—	The Channel No. is displayed in the Channel list.
TagNo.	—	—	The Tag No. is displayed in the Channel list.
TagComment	—	—	The Tag Comment is displayed in the Channel list.
Grid	—	—	The Grid interval is displayed.

View – Grid menu















Menu name	Icon	Shortcut keys	Explanation
1Dot	—	—	The screen grid interval is set to 1 dot.
5Dot	—	—	The screen grid interval is set to 5 dots.
10Dot	—	—	The screen grid interval is set to 10 dots.
20Dot	—	—	The screen grid interval is set to 20 dots.
50Dot	—	—	The screen grid interval is set to 50 dots.

Screen menu



Menu name	Icon	Shortcut keys	Explanation
Screen	—	—	—
Version 3(3)	—	—	Sets the screen version to Version 3.
Version 4.01(0)	—	—	Sets the screen version to Version 4.01.
Version 4.11(1)	—	—	Sets the screen version to Version 4.11.

2.3 Explanation of Menus, Icons, and Shortcut Keys


Arrangement menu

Menu name	Icon	Shortcut keys	Explanation
Arrangement	—	—	—
Left		—	The left edge of the selected component is arranged aligned with the left edge of the reference component.
Horizontal Center		—	The center in horizontal direction of the selected component is arranged aligned with the center in horizontal direction of the reference component.
Right		—	The right edge of the selected component is arranged aligned with the right edge of the reference component.
Top		—	The top edge of the selected component is arranged aligned with the top edge of the reference component.
Vertical Center		—	The center in vertical direction of the selected component is arranged aligned with the center in vertical direction of the reference component.
Bottom		—	The bottom edge of the selected components are aligned with the reference component.
Distribute horizontally		—	The selected components are distributed proportionally in the horizontal direction.
Distribute vertically		—	The selected components are distributed proportionally in the vertical direction.
Height		—	The height of the selected component is matched to the height of the reference component.
Width		—	The width of the selected component is matched to the width of the reference component.
To Top		—	The selected component is arranged for display on the foremost plane.
To Bottom		—	The selected component is arranged for display on the rearmost plane.
To Front		—	The selected component is arranged for display one plane to the front.
To Back		—	The selected component is arranged for display one plane to the rear.

Communication menu

Menu name	Icon	Shortcut keys	Explanation
Communication	—	—	—
Receive		—	A screen construction file is received from the DX recorder.
Send		—	A screen construction file is sent to the DX recorder.

Help menu

Menu name	Icon	Shortcut keys	Explanation
Help	—	—	—
User's manual (I)	—	F1	Displays the user's manual.
About		—	The About dialog is displayed.

2.4 Creating New Screens, Setting the Grid Interval, and Switching the Screen Version

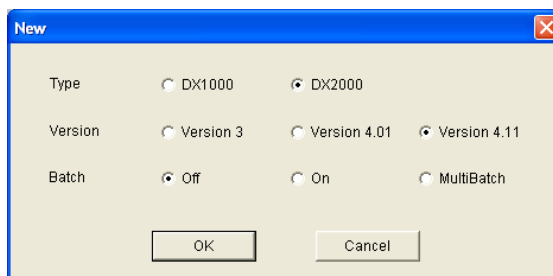
When creating a new screen, you can set the DX recorder type, screen version, and batch, and set the grid interval. The DX recorder settings that can be entered when creating a new screen are limited to the type, DX recorder version, and batch. Because the DX recorder settings file is also received when receiving custom display screen data from the DX recorder, you can edit and create screens starting from the setting conditions of the DX recorder to which you connect.

Specifying the type, DX recorder version, and batch

Specify DX1000 or DX2000 as the target type for the screen data, specify the DX recorder version, and specify a batch setting of On, Off, or MultiBatch.

Procedure

1. Select **File > New** from the menu bar or click the New icon.
The **New** dialog box appears.
The initially set screen is "DX2000."
The initially set screen is [DX2000], [Version 4.11], and [Batch Off].



2. Select the type, DX recorder version, and batch, then click **[OK]**.
OK: The displayed display data are discarded and a new screen is created.
The size of the screen construction area for the selected model is displayed.
Cancel: Return to the Main screen.

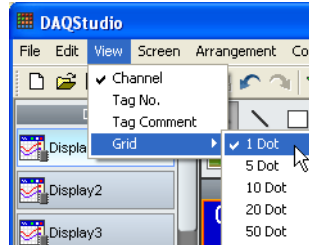
Explanation

When creating a new screen, specify the type, DX recorder version, and batch. The version of the DX recorder you can connect to differs depending on the recorder version set here. See "Switching the Screen Version" in this section. When creating a new screen, the Channel/Alarm list page appears in the work area. When creating a new screen, if MultiBatch is selected under Batch, the Batch/Group list page appears in the work area, and the Group list page is not displayed. When creating a new screen, if On or Off is selected under Batch, the Group list page appears in the work area, and the Batch/Group list page is not displayed.

Grid setting

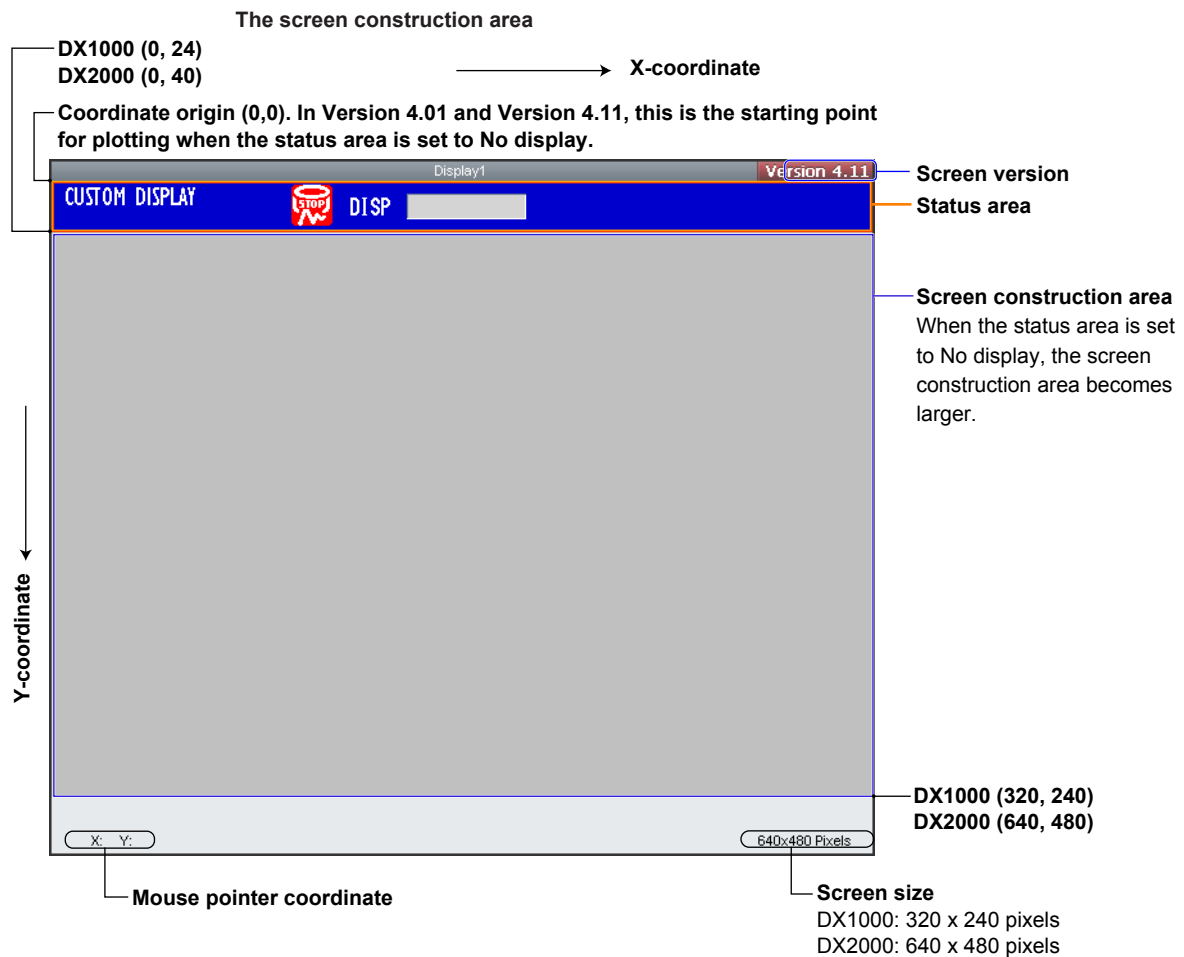
Procedure

1. Select **View > Grid** from the menu bar.
2. Specify the screen grid.



Explanation

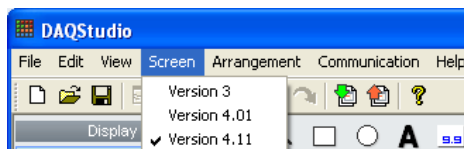
Components can be moved in grid intervals. When components are moved, they can be arranged in a condition with the left apex contacting the grid.



Switching the screen version

Procedure

1. On the menu bar, click **Screen > Version3, Version 4.01, or Version 4.11**
The screen version switches accordingly.



Explanation

The version of the DX recorder you can connect to differs depending on the DAQStudio screen version. See the table below.

Screen version and DX recorder release number

Screen version	Version number of compatible DX recorder
Version 3	3.01, 3.02, 3.03, 3.04
Version 4.01	4.01, 4.02
Version 4.11	4.11

Please take note that switching the screen version between Version 3, Version 4.01, and Version 4.11 can result in incompatible component attribute settings or unsupported components. If switching from a Version3 screen to a Version 4.01 screen, or a Version 4.11 screen, and switching from a Version 4.01 screen to a Version 4.11 screen, the number of setting items for component attributes increases. The added component attributes are set to their defaults.

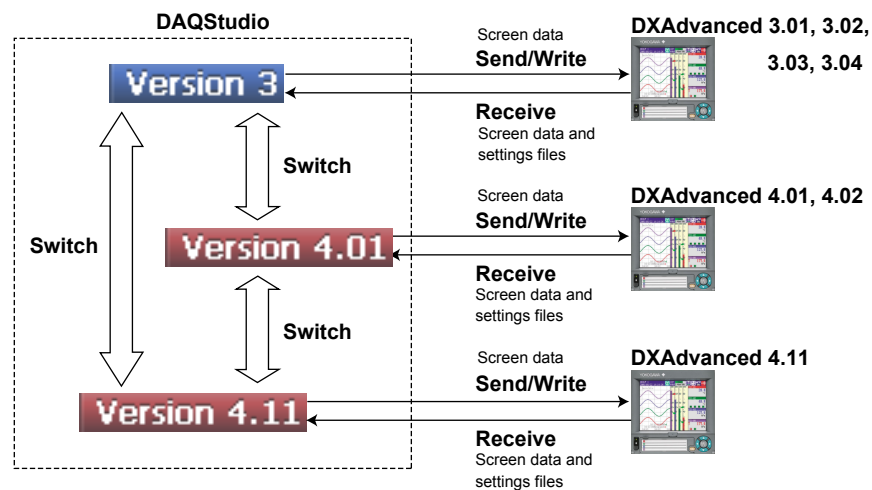
► Section 5.3

2.4 Creating New Screens, Setting the Grid Interval, and Switching the Screen Version

Screen version and DX recorder version data compatibility

DAQStudio R3.01.01 is compatible with screen construction files from DX recorder versions 3.01, 3.02, 3.03, 3.04, 4.01, 4.02, and 4.11

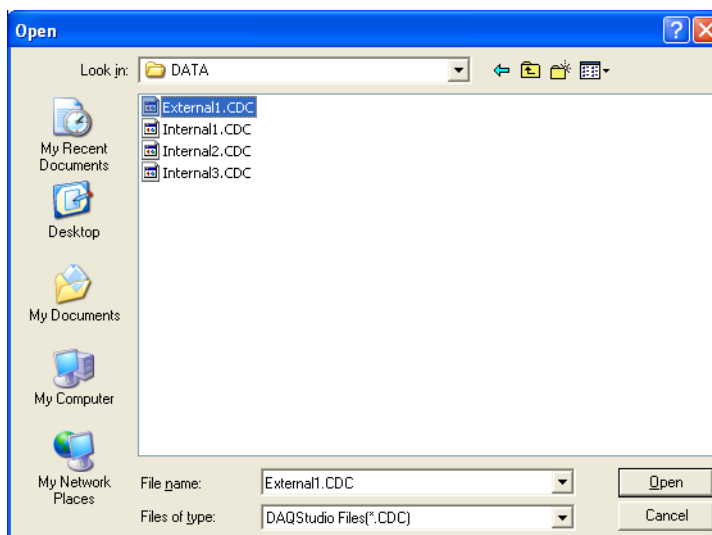
- Communication with an 3.01, 3.02, 3.03, and 3.04 DX recorder is only available when displaying Version3 screens.
- Writing to a Version 3 screen construction file is only possible when displaying Version 3 screens.
- Communication with an 4.01 or 4.02 DX recorder is only available when displaying Version 4.01 screens.
- Writing to a Version 4.01 screen construction file is only possible when displaying Version 4.01 screens.
- Communication with an 4.11 DX recorder is only available when displaying Version 4.11 screens.
- Writing to a Version 4.11 screen construction file is only possible when displaying Version 4.11 screens.



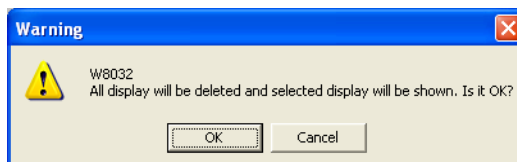
2.5 Open/Save a File

Open a file Procedure

1. Select **File > Open** from the menu bar or click the **Open** icon.
The **Open** dialog box appears.



2. Specify the file location and the file name and click **[Open]**.
When a screen being created is displayed, the following message appears.



3. Click **[OK]** if it is OK to discard the present screen.
The screen construction data are displayed.

Click **[Cancel]** if you do not want to discard the present screen.
File opening is cancelled and return is made to the Main screen.

Explanation

The file names handled by this software are "Internal1.cdc" to "Internal3.cdc" and "External1.cdc" to "External25.cdc."

When a file is specified, all files with the above names are opened in the folder where that files is located.

When a file is opened, the display name of the opened file is displayed in the display list area. The display name can be changed on the attribute of the display (► Section 3.1). When a display data is received from a DX recorder (► Section 4.2), the display name defined on the DX recorder is displayed in the display list area.

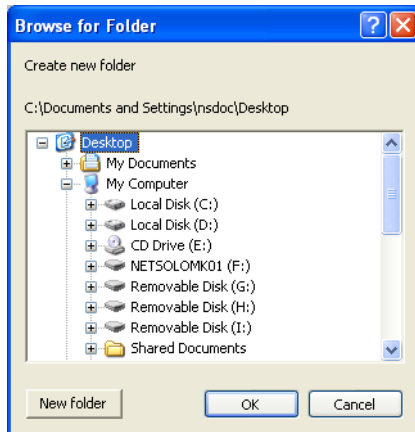
The save destination folder of the opened file becomes the save object folder. When a different file is opened, the save object folder becomes the folder of the opened file.

Save a file

Procedure

Saving a file by specifying a folder

1. Select **File > Save as** from the menu bar.
The **Browse for Folder** dialog box appears.



2. Specify a folder or click the **[New folder]** button to create a folder.
If the **[New folder]** button has been clicked, enter a name for the new folder.

Note

- Network folders or compressed folders cannot be specified at the time of saving a display data.
- Newly created display data must be saved. Bitmap files assigned for components need to be saved in the same folder that the display data will be saved.
- The display data or bitmap file must be saved every time they have been received from DX recorder.

3. Click **[OK]**.
The data are saved.

Saving a file by overwriting

Select **File > Save** from the menu bar or click the **Save** icon.

In an already existing folder, the data will be saved by overwriting. If a new folder is specified, the new folder becomes the target folder for saving files.

Explanation

When the file save folder is specified, the entire information of the Display list area is saved. The file name at the time of saving is as shown below.

Display names in the Display list area at the initial setting*	The file name when the file was saved
Display1	INTERNAL1.cdc
Display2	INTERNAL2.cdc
Display3	INTERNAL3.cdc
-4- (Display4: when adding a new data, "Copy"+ display name: of the copy source)	EXTERNAL1.cdc
-5- (Display5: when adding a new data, "Copy"+ display name: of the copy source)	EXTERNAL2.cdc
...	...
-27- (Display27: when adding a new data, "Copy"+ display name: of the copy source)	EXTERNAL24.cdc
-28- (Display28: when adding a new data, "Copy"+ display name: of the copy source)	EXTERNAL25.cdc

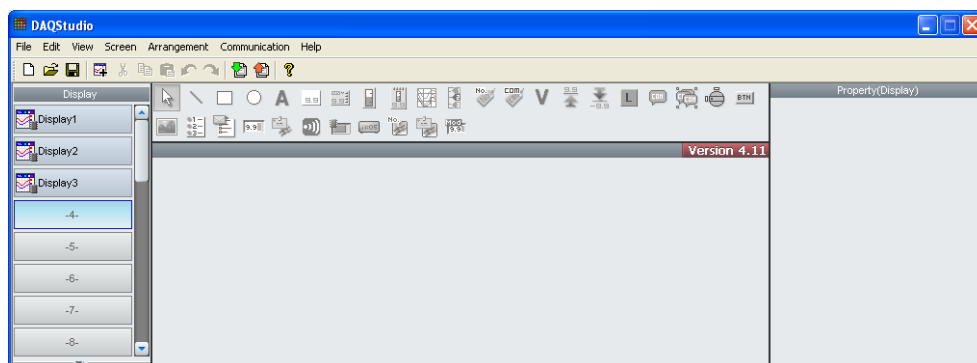
- * The display name can be changed on the attribute of the display (►Section 3.1). When a new display data is added (►Section 2.6) or copied from an existing display data (►Section 2.10), the display data file is saved to the list item number 4 or later.

If the file name is changed to file name other than shown above, the display data cannot be sent to the DX recorder.

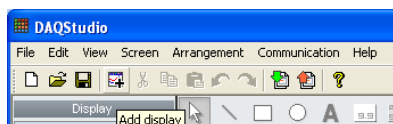
2.6 Adding a Display

Procedure

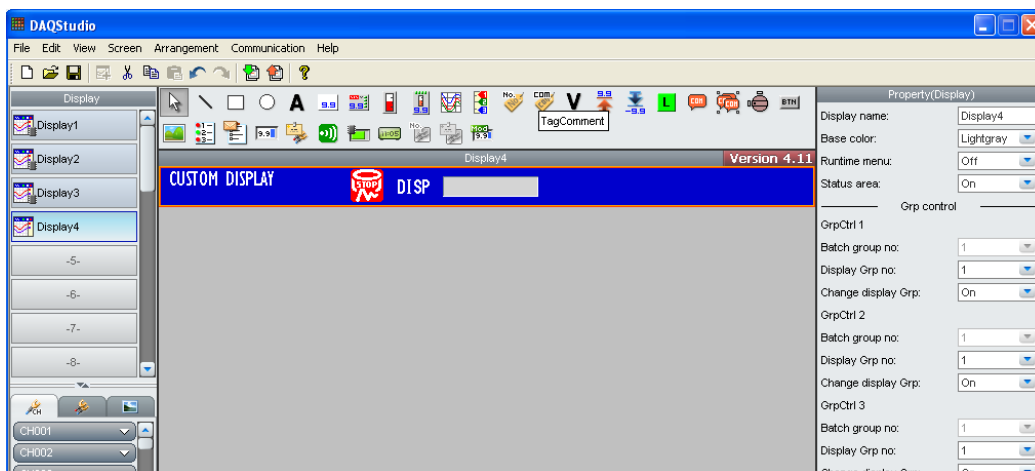
1. Click the Display name in the display list area.
Now the Add Display icon of the Tool bar can be selected.



2. Select **Edit > Add Display** from the menu bar or click **Add Display** icon.



The screen for DX1000 or DX2000 is displayed.



3. Specify DX recorder firmware version (► Section 2.4), and create the screen.

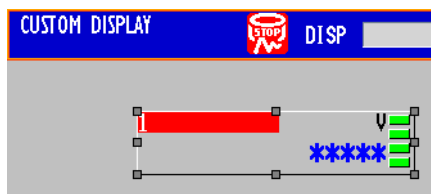
Note

The screens in the display list cannot be of different screen versions. If you switch the screen that you have added (or another screen on the display list) to an earlier version, all the screens on the display list will be switched to the earlier version. Any components that are not supported by the earlier screen version will be deleted.

2.7 Creating Components

Procedure

1. On the Components bar, click the icon for the component to be created.
2. Place the mouse pointer in the screen construction area and drag it.
A component with the dragged size is created.



3. Click the component.
The attributes of the selected components are displayed in the Attribute area.

Component type

**ID numbers are allotted in the order of creation.
The ID number differs depending on the kind of component.
(Refer to Section 3.2.)**

Property(Simple digital) ID=0

Depend ID:	None		
Visible:	On		
X:	97	Y:	81
Width:	124	Height:	63
Group control:	None		
Gr. Ctrl order:	1		
Channel:	CH001		
Font:	Font8		
Color:	Blue		
Alarm color:	ALARM		
Background color:	BASE		
Frame:	None		
BG transparent:	Off		
Synchronize action			
Syncho attribute:	None		
Value:	On		
Syncho target:	Alarm		
Channel:	CH001		
Alarm level:	1		

4. Set each attribute item.
For details, refer to Chapter 3.

Explanation

Notes on Creating Components

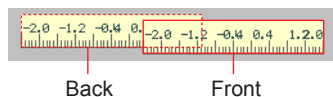
After creating components aligned to the grid, if placed adjacent to each other they overlap by 1 dot even though they do not appear to overlap. Separate components from each other by at least 1 dot.

Display When Components Overlap on the Execution Screen

Limitations (A, B, and C) apply when components overlap on the execution screen. If components with the same overlap restriction are overlapping, components placed under the front component (i.e., in the background) are not displayed.

Overlap restriction	Component name (attribute conditions)
None	Digital, bar, scale (kind: OFF), label, tag No., tag comment, simple digital, simple bar graph, alarm mark, units, alarm indicator, span lower limit, span upper limit, line, rectangle, circle, push button, switch, comment box, comment block, Comm In, Group name, System icon, Memory bar, Time label, Batch group number, Batch name, Modbus In
A	Scale (kind: ON) Alarm list Message list
B	Scale (kind: bitmap), bitmap
C	Trend


























For example, if two components with Overlap restriction A are overlapping on the builder screen, only the front component is displayed on the custom display execution screen of the DX recorder.



2.7 Creating Components








Explanation of the Components

The icons of the component bar are explained.

Component type	Component name	Icon	Explanation
–	Edit		When the Edit icon is clicked, the components of the Screen construction area can be selected.
Diagram components	Line		Create a straight line connecting any two points.
	Rectangle		Create a rectangle with any dragged points at opposite corners.
	Circle		Create a circle in a square with any dragged points at opposite corners.
Components for channel assignment	Simple digital		Create simple digital components displaying digital values of specified channels.
	Digital		Create components displaying digital values with Tag Comment/Tag No./Channel No., Unit, and Alarm indicator.
	Simple bar		Create simple bar components displaying a bar of a specified channel.
	Bar		Create components with tag comment, tag/tag No./channel No., unit, and digital value added to a simple bar.
	TagNo.		Create a component displaying the tag No. of a specified channel.
	TagComment		Create a component displaying the tag comment of a specified channel.
	Unit		Create a component displaying the unit of a specified channel.
	SpanU		Create a component displaying the upper limit value for the span of a specified channel.
	SpanL		Create a component displaying the lower limit value for the span of a specified channel.
	Alarm indicator		Create a component displaying the alarm level of a specified level, a specified channel.
Status display component	Group name		Create a component displaying a group name.
	System icon		Create a component displaying a system icon. The kinds of system icon are: Memory sample, Alarm, CF card, Math, Key lock, Email, Status, Key lock & email, UserLock, and UserLock & status.
	Memory bar		Create a component displaying the progress of memory sampling.
	Time label		Create a component displaying the current date and time.
	Batch group number		Create a component displaying the MultiBatch batch group number.
	Batch name		Create a component displaying the batch name.
Label components	Label		Create a label displaying an arbitrary text string.
Components with action functions	Push button		Create a push button.
	Switch display		Create a switch component displaying the state of an internal switch and performing ON/OFF switching of the internal switch by operation.
	Comm In		Create a component displaying the value of specified communication input data and writing values as communication input data.
	Modbus In		Create a component that displays the input value of the communication channel set by the specified send command number, or that writes temperature controller and other SP values.

Continued on the next page

2.7 Creating Components

Component type	Component name	Icon	Explanation
Components for comment display	Comment box		Create a component displaying a text string set at the DX recorder.
	Comment block		Create a component displaying a comment block text string set at the DX recorder
Components for list display	Alarm list		Create a component displaying an alarm list.
	Message list		Create a component displaying a message list.
Scale components	Scale		Create a scale component displaying a scale plate used together with trend display.
Components for trend display	Trend		Create a trend component displaying the trend of a specified group.
Components for static image display	Bitmap		Create a component displaying a static screen in bitmap format.

Component attributes

Refer to Chapter 3 for the creation number of components, the setting contents of attributes, and the initial values.

2.8 Components Explanation and Creation Examples

This section shows creation examples for components. Components created with DAQStudio and components of the custom display execution screen of the DX recorder differ in the display of measuring data, alarm display, etc. The components creation examples are a mix of components created with DAQStudio and those of the custom display execution screen of the DX recorder.

For components other than lines, the upper left apex of the component is the origin for positioning on the grid, and the lower right apex is positioned at (origin - 1 dot).
For components that enable text label entry, any characters entered exceeding the maximum allowed number are deleted.

Diagram Components

Line

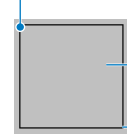


Origin You can draw a line going in the left/right or up/down direction from an origin.

If the start and end points overlap, 1 dot of space along the X axis is inserted. Start and end points are positioned on the grid.

Rectangle

Origin

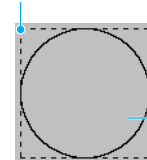


Background color

You can draw a rectangle from an origin toward the lower right.

Circle

Origin



A circle contacting a square from the inside is drawn.

Background color

A circle is drawn by dragging from a point of origin.



Even when a rectangle is specified, a circle is drawn, but an ellipse cannot be drawn.

Components for Channel Assignment

Restrictions on channel assignments

The measured value of the assigned channel is displayed in the DX recorder execution panel.

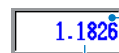
With the Math (/M1) and PROFIBUS-DP (/CP1) options, PROFIBUS-DP always uses the communication input channels in the table below. The channels in the table below cannot be assigned using DAQStudio.

Channels used with the /M1 and /CP1 option

Type	Communication input channels used
DX1000	C01 to C24 (all)
DX2000	C01 to C32

Simple digital

The digital value of the specified channel is displayed.



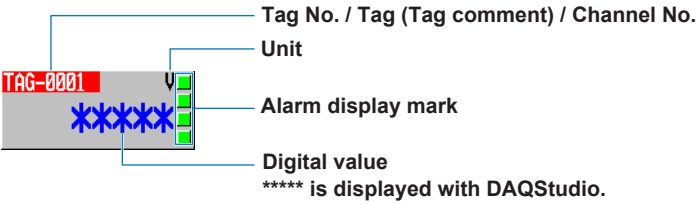
Simple digital display area (Frame: Sunken)

Digital value

***** is displayed with DAQStudio.

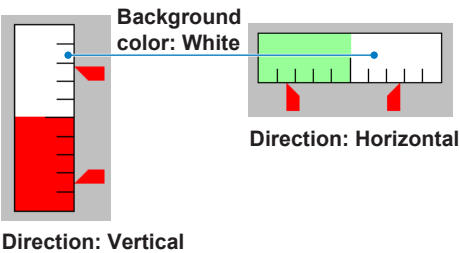
Digital

Tag comment/tag No./channel No. of the measuring channel, unit, alarm indicator, and digital value are displayed.



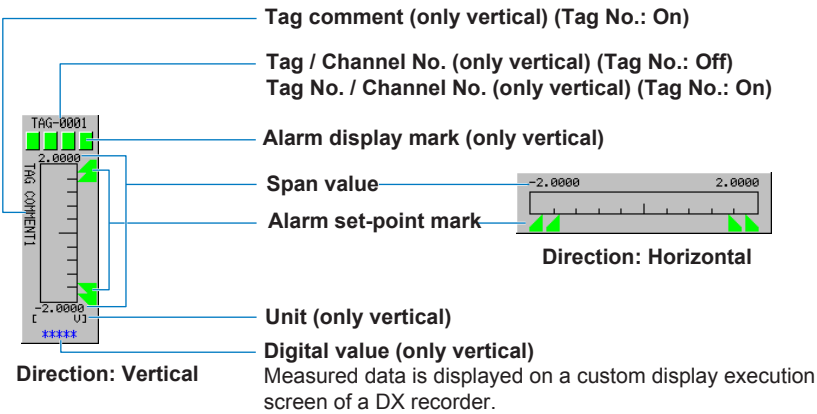
Simple bar graph

Bar graph and alarm mark are displayed.



Bar graph

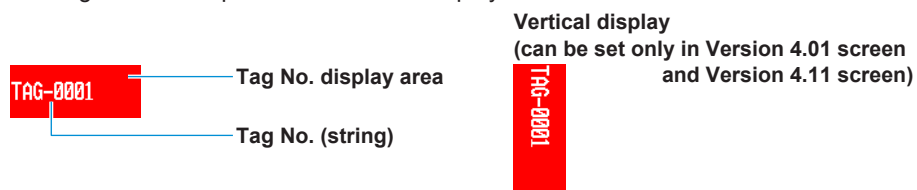
Bar graph, tag comment/tag No./channel No., alarm indicator, span, tag comment, alarm mark, unit, and digital value are displayed.



2.8 Components Explanation and Creation Examples

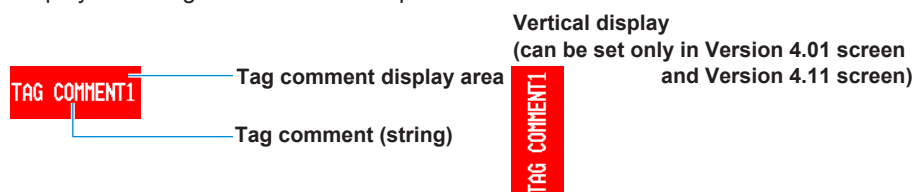
Tag No.

The tag No. of the specified channel is displayed.



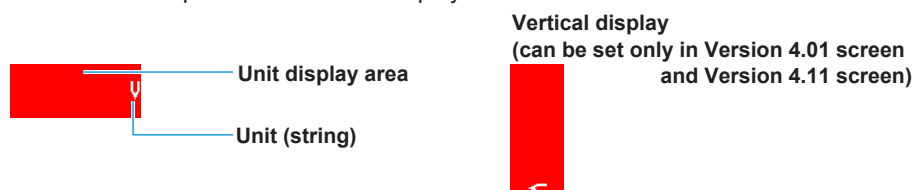
Tag comment

Display of the tag comments of the specified channel



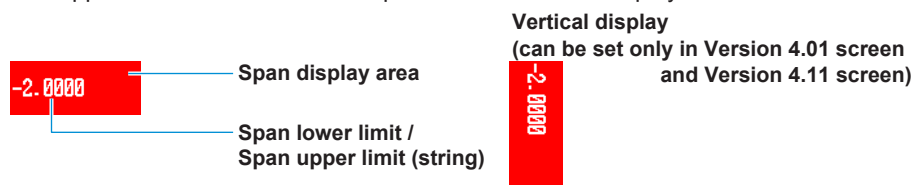
Unit

The unit of the specified channel is displayed.



SpanU, SpanL

The upper/lower limit value of the specified channel are displayed.



Alarm indicator

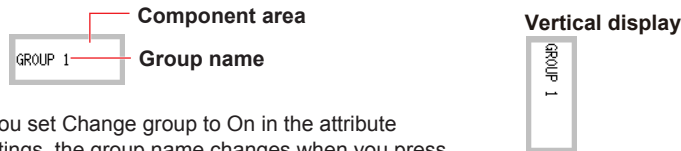
The alarm status of the specified channel is displayed. Refer to the User's Manual (IM 04L41B01-01E or IM 04L42B01-01E) of the DX recorder for the alarm status matching text and display color.



Status display components (can only be set with a Version 4.01 screen and a Version 4.11 screen)

Group name

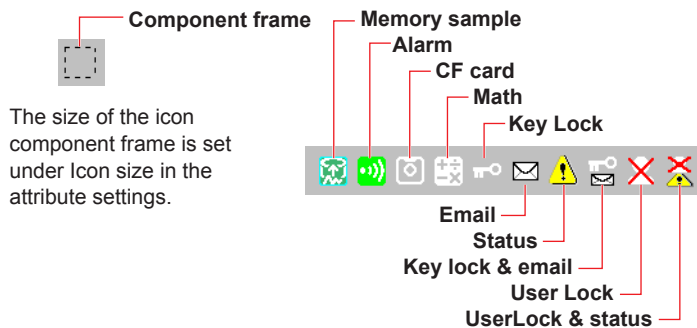
This component displays the group name corresponding to the specified group number. You can create this group name component when you want to display components from multiple groups, or if setting the status area to No display eliminates the group name.



If you set Change group to On in the attribute settings, the group name changes when you press the left/right arrow keys on the execution panel.

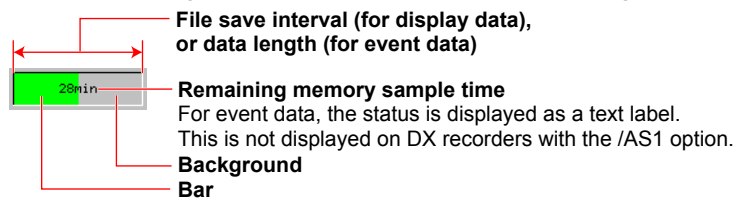
System icon

Creates a system icon for display in the status area. You can create icons that display only the items you wish in the screen, for use when not displaying the status area.



Memory bar

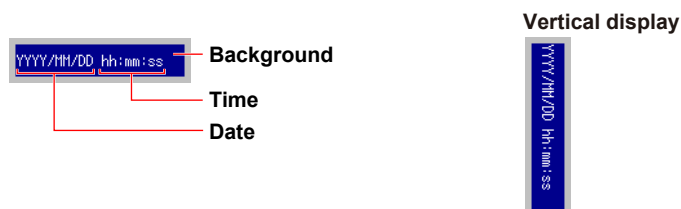
This component appears in the status area and shows the progress of memory sampling. The width of the memory bar component frame represents the file save interval (display data) or data length (event data), and shows the remaining time for memory sampling.



Time label

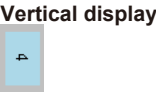
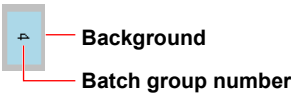
This component displays the current date and time.

You can create this Date and time component if setting the status area to No display eliminates the date and time.



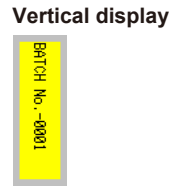
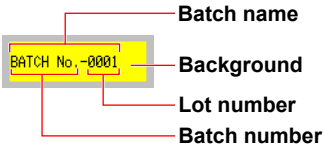
Batch group number

This component displays the batch group number for MultiBatch.
You can create this Batch group number component if setting the status area to No display eliminates the batch group number. The Batch group number component can only be created when the DX recorder is set to use the MultiBatch feature.



Batch name

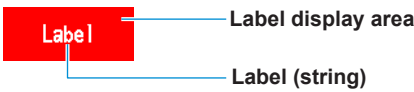
This component displays the batch name.
You can create this Batch name component if setting the status area to No display eliminates the batch name.
The component displays the batch name, batch number, and lot number separated by hyphens. When the width of text exceeds component width, the text wraps at the component width.
The batch and lot numbers shown in the component are the ones in the dialog box that appear on the DX recorder when you press the **FUNC** key followed by the **Batch soft key**.
When Batch is Off, batch name components cannot be created and their attributes cannot be edited.



Label components

Label

Display text.
You can double-click a component to directly input a text label. After directly inputting a text label, press the Enter key or click anywhere outside the component.
The width of the text label entry is the same as that of the component.



Vertical display
(can be set only in Version 4.01 screen and Version 4.11 screen)



Note _____
Text may be displayed as blank (space), depending on the font setting. Refer to Section 3.3 for the character types provided for each font (character size).

Components with action functions

Action functions operate on the custom display execution screen of the DX recorder.

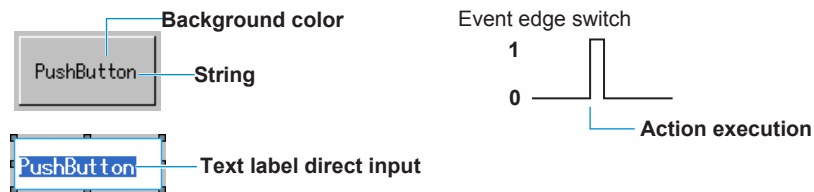
Push button

Display a push button. This has no action function on the builder screen of the DX recorder, and on the custom display execution screen it functions as a push button. (select the event switch number in the component attributes.)

When a component is selected on the execution screen of the DX recorder by pressing the **up and down arrow keys** and then the **DISP/ENTER key** is pressed, the set action is executed.

You can double-click a component to directly input a text label. After directly inputting a text label, press the Enter key or click anywhere outside the component.

The width of the text label entry is the same as that of the component.



Switch

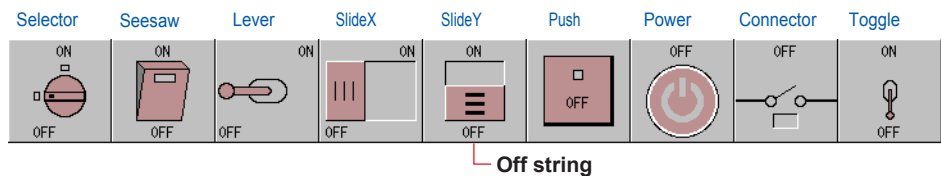
Display switch. The display format of a switch is selected by the item "Style" of the attributes.

This has no action function on the builder screen of the DX recorder, and switch ON/OFF switching is possible on the custom display execution screen.

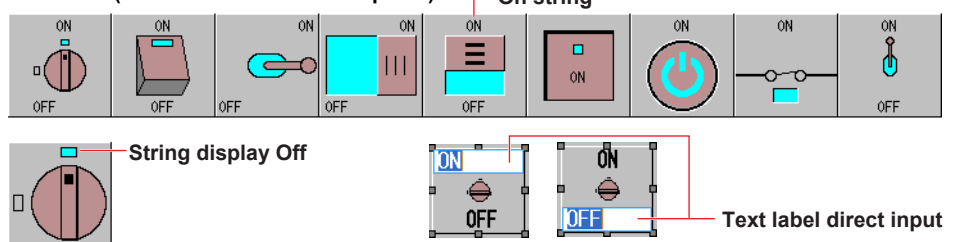
You can enter a text label directly by double-clicking the text label in the component. After directly inputting a text label, press the Enter key or click anywhere outside the component.

The width of the text label entry is the same as that of the component.

Switch Off



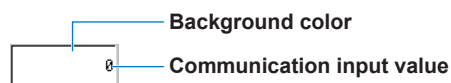
Switch On (DX recorder's execution panel)



2.8 Components Explanation and Creation Examples

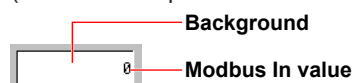
Communication input

This has no function on the builder screen of the DX recorder, and on the custom display execution screen, the value of the specified communication input data can be displayed and values can be entered to communication input data.



Modbus In (can only be set with a Version 4.01 screen and a Version 4.11 screen)

Displays the input value of the communication channel set using the specified send command number. If an action function is executed, numerical values can be entered from a DX recorder custom display, and the values can be written to the write destination (such as a temperature controller SP) set using the specified command number.



Components for comment display

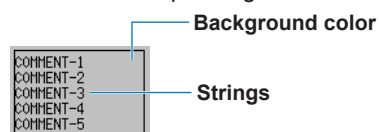
Comment box

The text corresponding to the comment box No. of the DX recorder is displayed.



Comment block

The text corresponding to the comment block No. of the DX recorder is displayed.



Components for list display

Alarm list

An alarm summary is displayed.

Only the header is displayed on the builder screen of the DX recorder.

(0001/0030) Channel		Type	Alarm	Header (quantity, title)
OFF	*ALL CHANNEL*		16:05:59	
ON	5	4L	16:05:05	
ON	4	3L	16:04:51	
ON	6	4L	16:04:05	

Alarm level and type
Tag comment, Tag No. or Channel No.
Alarm event type (mark and string)

Message list

A message summary is displayed.

Only the header is displayed on the builder screen of the DX recorder.

(001/013) Message		Time	Grp	Header (quantity, title)
MESSAGE	002	16:04:33	A	
MESSAGE	009	16:04:12	A	
MESSAGE	006	16:03:48	A	
MESSAGE	003	16:02:53	A	
MESSAGE	001	16:02:01	A	

Message string
Message mark

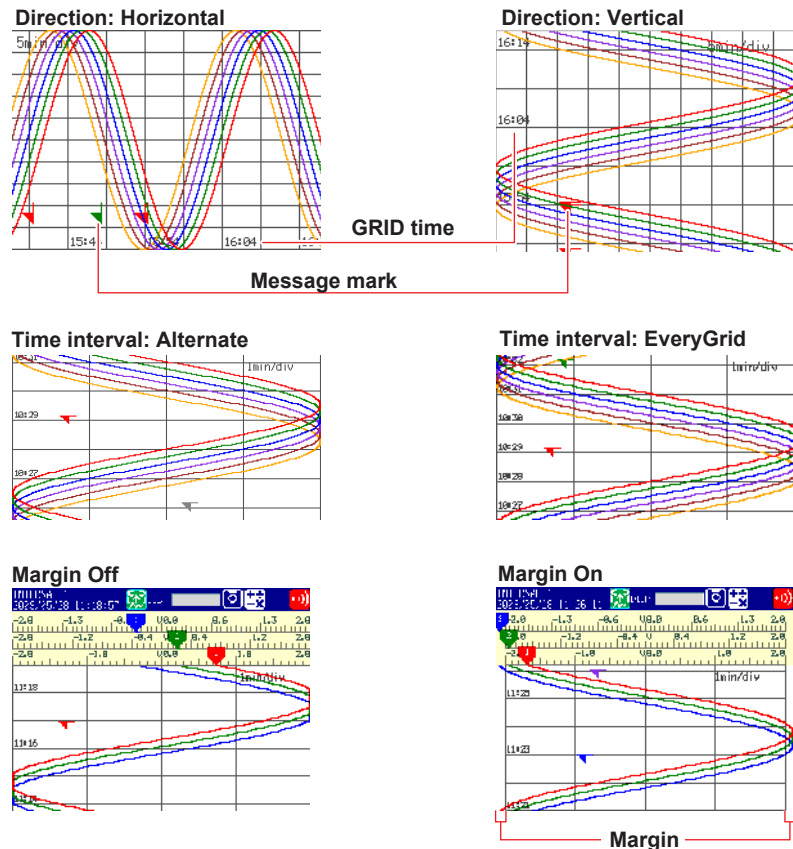
Components for trend display

Trend

The trend of the specified group is displayed.

Only the grid is displayed on the builder screen of the DX recorder.

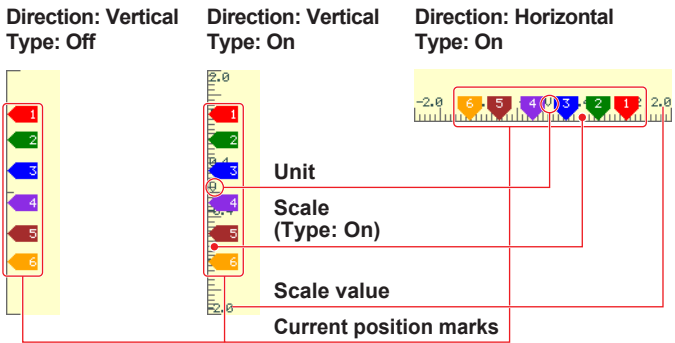
When the time grid display is Off, the trend component time grids are not displayed. If margins are On, a margin of 3% of width is maintained on both sides of the component.



Scale display components

Scale

The scale of the specified group is displayed.
Scale plate, scale value, and unit are displayed.
The present value mark is displayed on the custom display execution screen of the DX recorder.



Bitmap components can be assigned to scale components.
If bitmap components overlap with scale components that display bitmap components, only the bitmap of the component in front is displayed.
If alarm marks overlap, the alarm of highest level is brought to the front and displayed.
If a bitmap file that is not supported by the DX recorder is specified for a scale component, an X appears in the component.
If margins are On, a margin of 3% of width is maintained on both sides of the component.

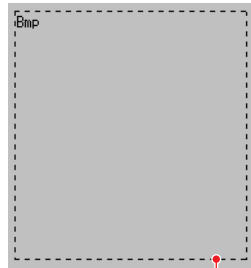
Components for static image display

Bitmap

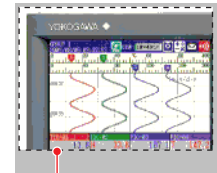
This component displays a bitmap file.

If bitmap components overlap, only the one in front is displayed.

If a bitmap file that is not supported by the DX recorder is specified, an X appears in the component.



Bitmap display area



If the size of bitmap file read goes over the display area, the images out of the area will not be displayed.

Note

Conditions for bitmaps which can be read in


- A format with up to 256 colors (even when less than 256 colors are used, they may not be read in depending on the format).
- A size within 640 (width) x 480 (height) pixels (the file will not be read in even when only one dimension is exceeded).

2.9 Assigning Channels, Alarms, Groups, Batch Groups, and Bitmaps to Components


Assigning a channel to a component

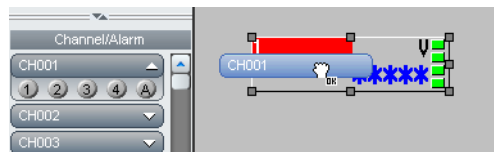
Procedure

1. Select the channel to be assigned in the channel/alarm list, drag it to the component, and drop it there.

If a channel cannot be set, the mouse pointer displays “”.



If a channel can be set, the mouse pointer displays “”.




Explanation

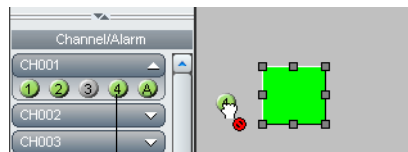
Channel assignment is possible only for components for channel assignment.

Assigning an alarm to a component


Procedure

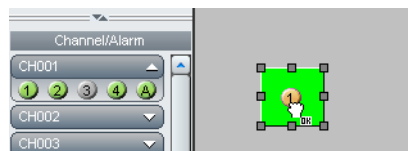
1. Select the channel to be assigned in the channel/alarm list.
The alarm level kind is displayed.
2. Select an alarm level.
3. Drag the alarm to the object to which it is to be assigned and drop it there.
The alarm is assigned.

When an alarm is dragged to an object to which an alarm cannot be assigned, the mouse pointer displays “”.



When this is green, alarm On is set for the DX recorder.

If an alarm can be set, the mouse pointer displays “”.



Explanation

Alarms can be assigned only to alarm indicator components.

Channel alarm numbers for measuring channels of the DX recorder with alarm set to On when custom display screen data are received from the DX recorder are green.

Assigning group numbers to components

Procedure

1. Drag the group you wish to assign from the Group list onto a component. Or, you can display the Group list within a batch group on the Batch list, then drag a group from that list onto a component.

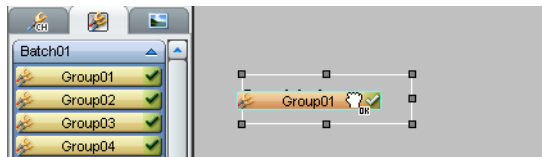
If a group cannot be set, [] appears next to the pointer.



Click here to display a list of group names.



If a group can be set, [] appears next to the pointer.



Explanation

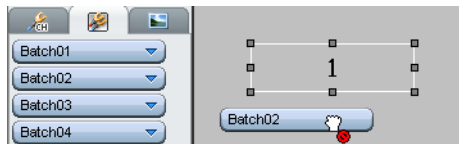
Groups can be assigned to trends, scales, and group names.

Assigning batch numbers to components (when MultiBatch is On)

Procedure

1. On the Batch list, select a non-assigned batch
The batch group numbers are displayed in the list.
2. Select a desired group number, and drag it onto a component.

If a group cannot be set, [] appears next to the pointer.



If a group can be set, [] appears next to the pointer.



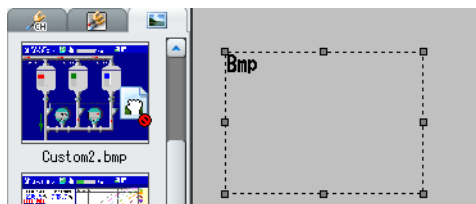
Explanation

Batch group numbers can be assigned to Message lists, Alarm lists, Memory bars, Batch group numbers, and Batch names.

Assigning bitmaps to components

Procedure

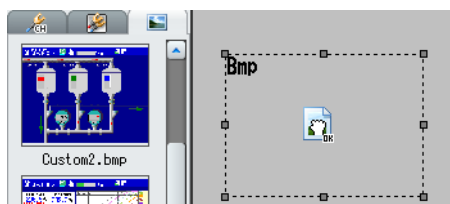
1. Drag a bitmap from the bitmap list



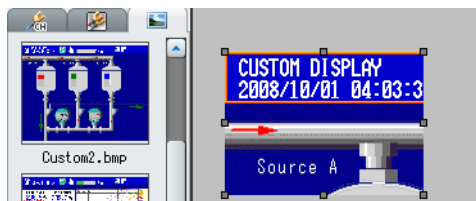
2. Drop the bitmap onto a bitmap or scale component in the screen construction area.

If the bitmap cannot be set, [] appears next to the pointer.

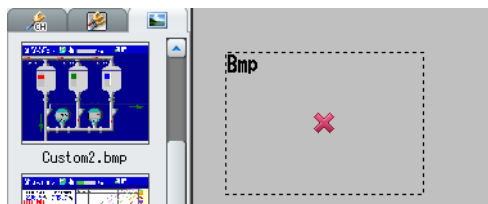
If the bitmap can be set, [] appears next to the pointer.



For bitmap components, bitmaps assigned when [Disp. on editing] was set to On are displayed.



If the bitmap cannot be assigned to the component, an X appears in the component.



Explanation

Restrictions on assigning bitmaps to components

A maximum of 200 bitmap files can be displayed in the Bitmap list. When assigning bitmap components and scale components, only 200 bitmaps are shown no matter how many bitmap files you copy to the bitmap folder.

Note

Bitmap file names created on a PC can become garbled when displayed on the DX.

Supported characters ► Section 3.3

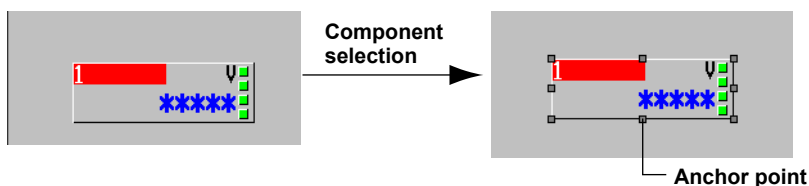
2.10 Editing Components and the Screen

Selection and deselection of components, movement, magnification/contraction

Procedure

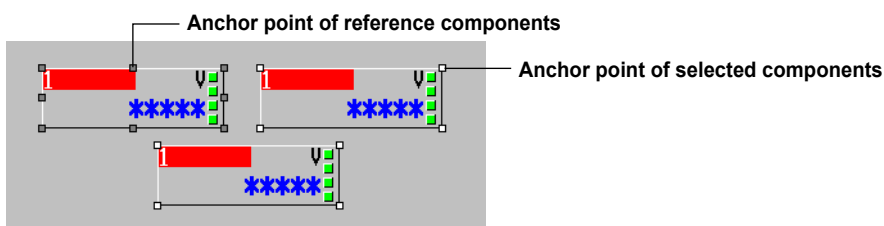
Selecting one component

1. Click the **Edit** icon on the Components bar.
2. Click a component to be selected.
The component becomes selected. A gray anchor point is displayed on the component.



Selecting multiple components

1. Click the **Edit** icon on the Components bar.
2. Click multiple components to be selected while depressing the **SHIFT** key or the **Ctrl** key. You can also drag the screen construction area and create a rectangle with a size to include all components to be selected.
Multiple components are selected. A white and a gray anchor point are displayed on the component. A gray anchor point is displayed on the reference component.



Cancellation of component selection

- Click a selected component with the Shift key depressed.
The anchor point of the component disappears and the selected status is cancelled.

Making a component a reference component

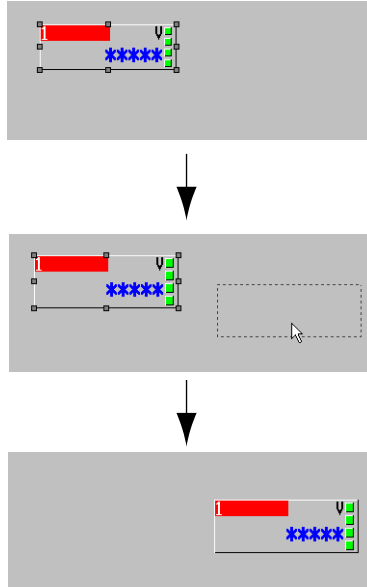
- Click a component with a displayed white anchor point out of a group of selected components while keeping the **Ctrl** key pressed.
The reference component is switched.

Note

For circle and rectangle components, if the background attribute (► section 3.31 and 3.32) is set to [None], drag the component's outline to move it.

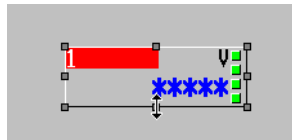
Moving parts

1. Select one or several parts to be moved.
2. Press the **arrow keys** (←↓→↑) on the keyboard to move them by one grid each. Selected components also can be moved by dragging them with the mouse pointer.



Magnifying/contracting components

1. Click the **Edit** icon and then select a component.
2. Move the mouse pointer onto the square anchor point displayed on the circumference of the selected component. The mouse pointer changes to an arrow.



3. Drag in direction of the arrow. The component is magnified/contracted.

Note

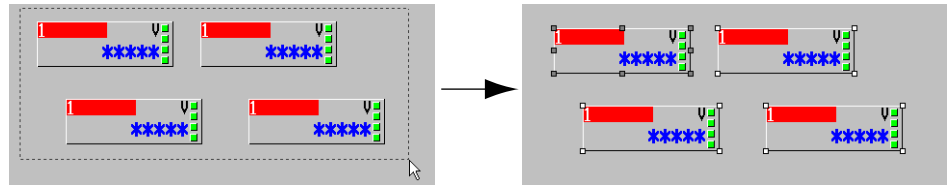
Component magnification/contraction is not possible when multiple components are selected.

Explanation**Reference component**

The anchor point of a reference component is displayed in gray.

When multiple components are selected, the attributes of the reference component are displayed in the attribute area. This becomes the reference for rearrangement of components.

When only one component is selected, that component becomes the reference component. When multiple components are selected, the component with the left top apex coordinates arranged most to the top left becomes the reference component (the Y-coordinate has priority). When the left top apex coordinates of components are the same, the component on the top plane becomes the reference component.



When the reference component of multiple selected components is deleted or the selection is cancelled, the anchor point of the component which becomes the reference component according to the above rule becomes gray.

Moving components**If the reference component is a line component**

The selected component cannot be moved beyond the border of the screen construction area.

The upper left apex of a rectangle joined to a line component moves along the grid, but the other selected components retain their positions relative to the reference component as they move.

If the reference component is not a line component

The selected component cannot be moved beyond the border of the screen construction area.

The upper left apex of the reference component moves along the grid, but the other selected components retain their positions relative to the reference component as they move.

Moving components with the keyboard arrow keys

After selecting a component with the mouse, you can press arrow keys on the keyboard to move the component within the screen construction area by grid intervals. (Not limited to being on the grid.)

Restrictions on zooming in/out on components**For line components**

If the start and end points overlap, the end point is placed 1 dot along the X axis away from the start point.

For components other than lines

The component's minimum height and width is 2 dots.

The upper left apex of the component is placed on the grid, and the lower right apex is positioned at (grid - 1).

Display/No display of the status area

When switching the status area from [No display] to [Display], components overlapping the status area move into the screen display area. Also, if the height of a component exceeds the maximum value for the screen construction area, the height is changed to the maximum value.

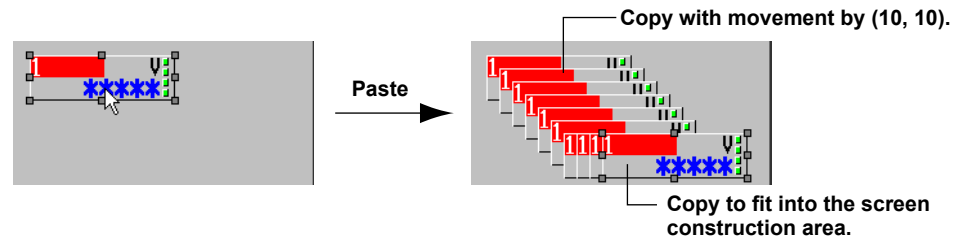
Copy/Cut/Paste/Delete/Add for components and screens

After components or display data have been created, Copy, Cut, Paste, Delete, and Add can be performed for efficient creation of monitor screens.

Procedure

Component Copy and Paste

1. Click the **Edit** icon of the Components bar and click the component to be copied.
2. Select **Edit > Copy** from the menu bar or click the **Copy** icon.
The component is copied to the clipboard.
3. Select **Edit > Paste** from the menu bar or click the **Paste** icon.
The component is pasted to a location moved by (10, 10) from the coordinates of the copied component. With the second paste operation, the component is pasted to a location moved by (10, 10) from the previously copied component.
When coordinates are specified where a part of the components no longer is displayed on the screen construction area, the component is arranged so as to fit into the screen construction area.



Screen Copy and Paste

1. Click the display name to be copied in the display list area.
2. Select **Edit > Copy** from the menu bar or click the **Copy** icon.
The screen is copied to the clipboard.
3. Click any location (copy destination) on the Display list area.
4. Select "Paste" from the Edit menu or click the Paste icon.
The display data are copied. The file name becomes "Copy" + "Display name of the copy source."

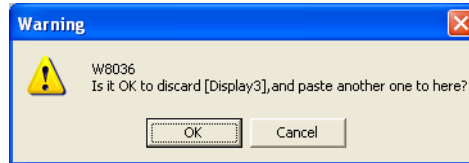


Component Cut and Paste

1. Select one or several components.
2. Select **Edit > Cut** from the menu bar or click the **Cut** icon.
The component is moved to the clipboard.
3. Select **Edit > Paste** from the menu bar or click the **Paste** icon.
The component is pasted into its original position.

Screen Cut and Paste

1. Select a Display name from the Display list.
2. Select **Edit > Cut** from the menu bar or click the **Cut** icon.
The display data are moved to the clipboard.
An item No. is displayed for the display name at the movement source.
3. Select **Edit > Paste** from the menu bar or click the **Paste** icon.
The following message is displayed.



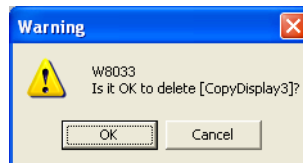
4. Click **[OK]**.
The display data is pasted.
The display name becomes "Copy" + "Display name of the copy source."

Note

Display names from the top through the third in the display list area cannot be cut.

Deleting a component/screen

1. Select the component or display name to be deleted.
2. Select **Edit > Delete** from the menu bar.
The component is deleted.
When display data are deleted, the following message is displayed.



3. Click **[OK]**.
The display data are deleted.

Note

Display names from the top through the third in the display list area cannot be deleted.

Adding a screen

1. Select the position (item No.) in the Display list where a screen is to be added.
2. Select **Edit > Add Display** from the menu bar or click the **Add Display** icon.
The display name of "Display" + "Item No." is displayed in the display list. The data are blank.
Copied or cut display data can be pasted.

Undo/Redo of a screen or component editing operation

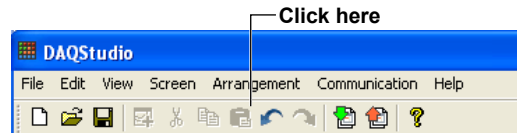
You can undo an edit made to a component or screen. Also, if you undo an edit, you can redo it.

Editing operations also include section 2.11, “Arranging Components.”

Procedure

Undo

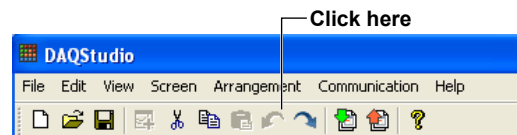
1. On the tool bar, click the [Undo] button, or on the menu bar, click **Edit > Undo**.



The most recent edit operation is undone.

Redo

2. On the tool bar, click the [Redo] button, or on the menu bar, click **Edit > Redo**.



The edit operation is redone.

Explanation

If a component is selected in a screen that is being edited and you switch to a different screen, the component is no longer selected when you return to the original screen. However, the display and functioning of the [Redo] and [Undo] buttons is not affected.

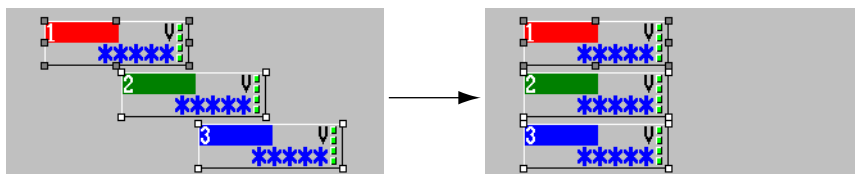
2.11 Arranging Components

Procedure

Use the icons of the Arrangement bar to change the arrangement and the size of components.

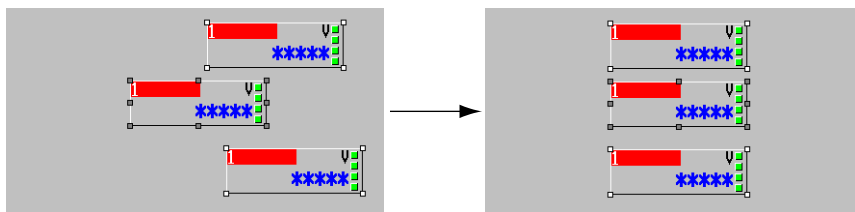
Arranging components aligned with the left edge

1. Select multiple components.
2. Select **Arrangement > Left** from the menu bar or click the **Left** icon on the Arrangement bar.
The selected components are arranged with the left edge of the reference component as reference.



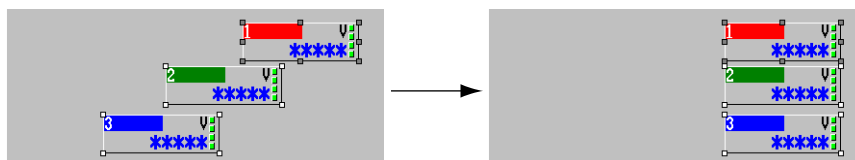
Arranging components at the center of the horizontal direction

1. Select multiple components.
2. Select **Arrangement > Horizontal Center** from the menu bar or click the **Horizontal Center** icon on the Arrangement bar.
The selected components are arranged with the center in X-axis direction of the reference component as reference.



Arranging components aligned with the right edge

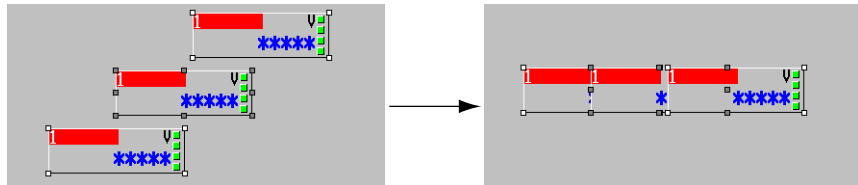
1. Select multiple components.
2. Select **Arrangement > Right** from the menu bar or click the **Right** icon on the Arrangement bar.
The selected components are arranged with the right edge of the reference component as reference.



Arranging components aligned with the top edge

1. Select multiple components.
2. Select **Arrangement > Top** from the menu bar or click the **Top** icon on the Arrangement bar.

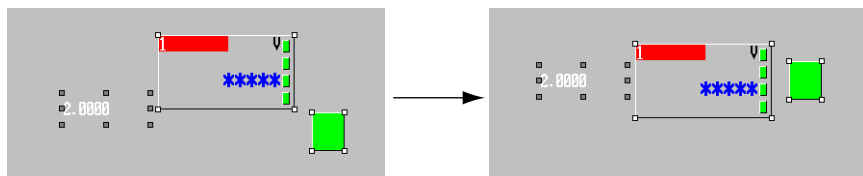
The selected components are arranged with the top edge of the reference component as reference.



Arranging components aligned with the center in vertical direction.

1. Select multiple components.
2. Select **Arrangement > Vertical Center** from the menu bar or click the **Vertical Center** icon on the Arrangement bar.

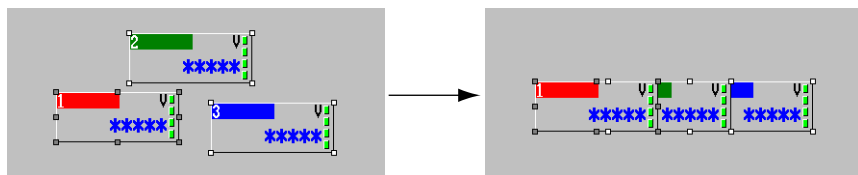
The selected components are arranged with the center in Y-axis direction of the reference component as reference.



Arranging components aligned with the bottom edge

1. Select multiple components.
2. Select **Arrangement > Bottom** from the menu bar or click the **Bottom** icon on the Arrangement bar.

The selected components are arranged with the bottom edge of the reference component as reference.



Proportional horizontal distribution of components

1. Select multiple components.

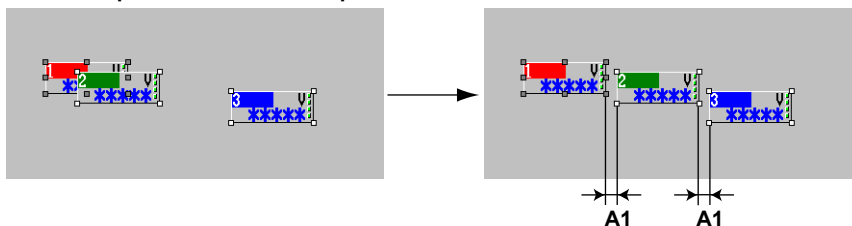
2. On the Arrangement menu, click [Distribute horizontally], or click the distribute horizontally icon on the arrangement bar.

The selected components are arranged with proportional horizontal spacing.

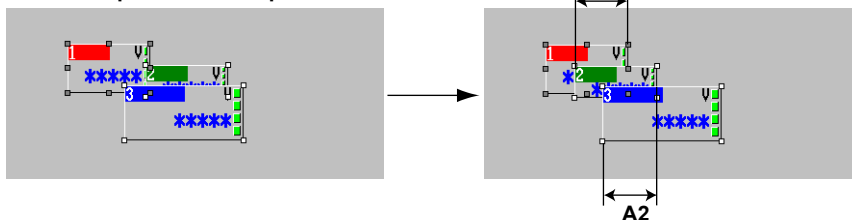
If the X coordinate of multiple selected components is the same, components are arranged to the right in order starting from the component in front.

When distributing components horizontally, spacing errors of 1 dot can occur.

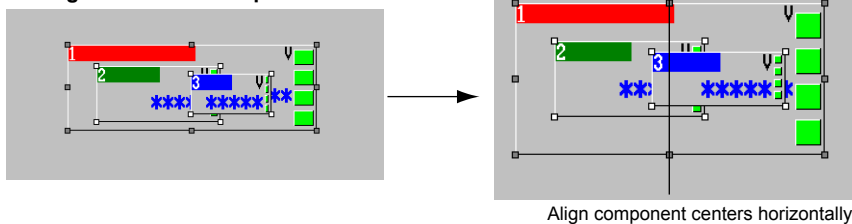
When components do not overlap



When components overlap



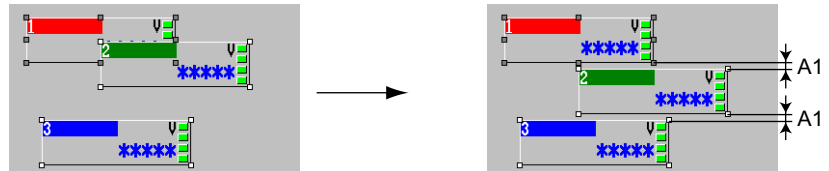
When the left-most and right-most edges belong to the same component



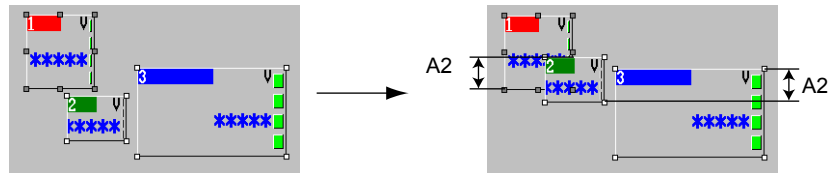
Proportional vertical distribution of components

1. Select multiple components.
2. On the Arrangement menu, click [Distribute vertically], or click the distribute vertically icon on the arrangement bar.
The selected components are arranged with proportional vertical space between them.
If the X coordinate of multiple selected components is the same, components are arranged to the right in order starting from the component in front.
When distributing components vertically, spacing errors of 1 dot can occur.

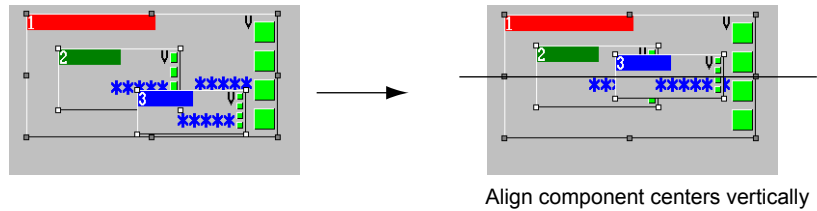
When components do not overlap



When components overlap



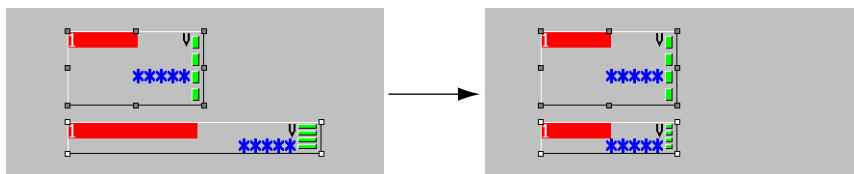
When the top-most and bottom-most edges belong to the same component



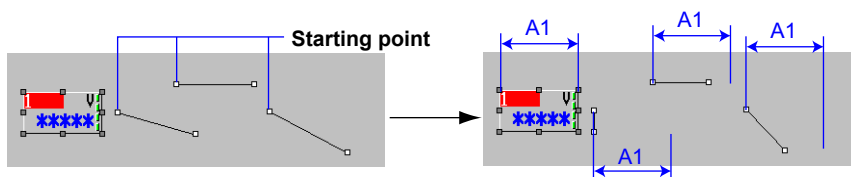
Making the width of components the same as that of the reference component

1. Select multiple components.
2. Select **Arrangement > Width** from the menu bar or click the **Width** icon on the Arrangement bar.

The width of the selected component is made the same as that of the reference component.



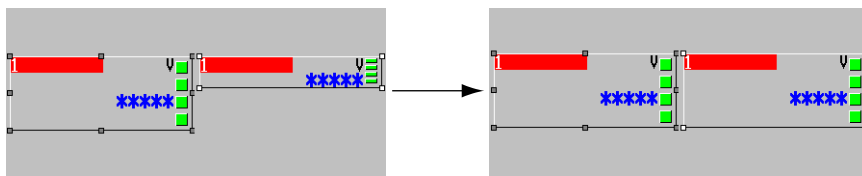
For a line component, keep the start point fixed and adjust the end point to the left or right.



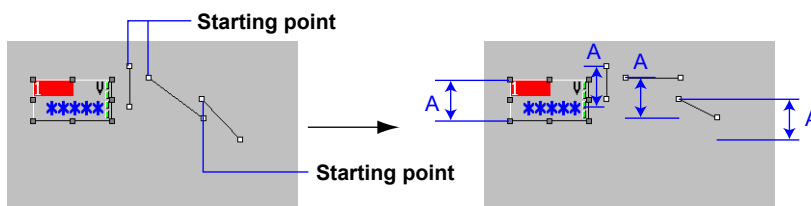
Making the height of components the same as that of the reference component

1. Select multiple components.
2. Select **Arrangement > Height** from the menu bar or click the **Height** icon on the Arrangement bar.

The height of the selected components becomes the same as the height of the reference component.



For a line component, keep the start point fixed and adjust the end point up or down.

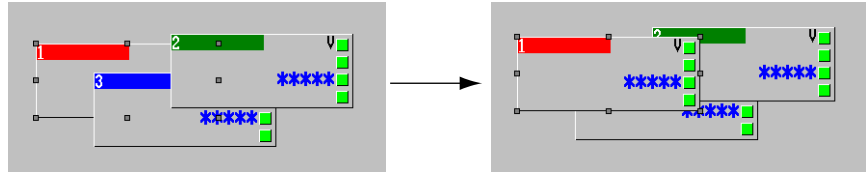


Arranging components to the Top plane

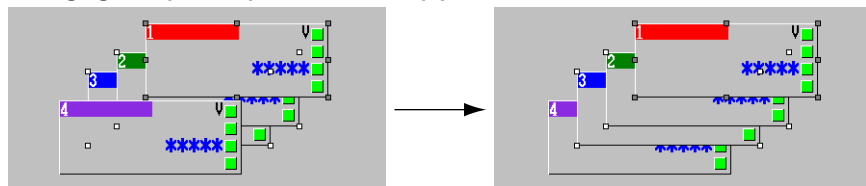
1. Select one or several components.
2. Select **Arrangement > To Top** from the menu bar or click the **To Top** icon on the Arrangement bar.

The selected components are arranged on the top plane. When multiple components have been selected, the display sequence of the components is arranged to the top as it is.

Arranging one component to the top plane



Arranging multiple components to the top plane

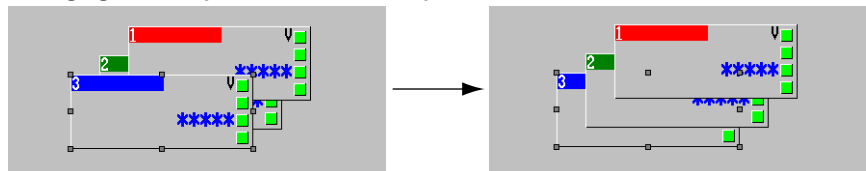


Arranging components to the Bottom plane

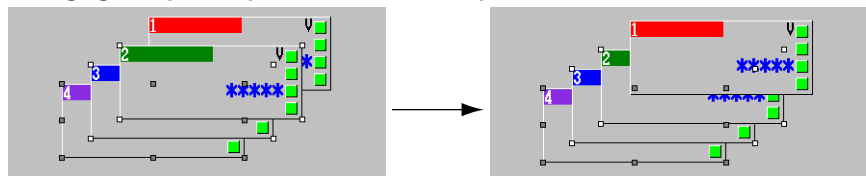
1. Select one or several components.
2. Select **Arrangement > To Bottom** from the menu bar or click the **To Bottom** icon on the Arrangement bar.

The selected components are arranged on the bottom plane. When multiple components have been selected, the display sequence of the components is arranged to the bottom as it is.

Arranging one component to the bottom plane



Arranging multiple components to the bottom plane

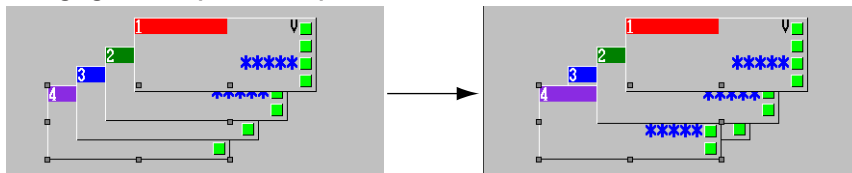


Arranging components to the Front

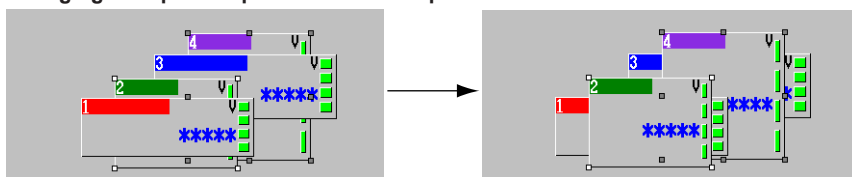
1. Select one or several components.
2. Select **Arrangement > To Front** from the menu bar or click the **To Front** icon on the Arrangement bar.

The selected components are arranged one plane to the front. When multiple components have been selected, each component is arranged one plane to the front.

Arranging one component one plane to the front



Arranging multiple components each one plane to the front

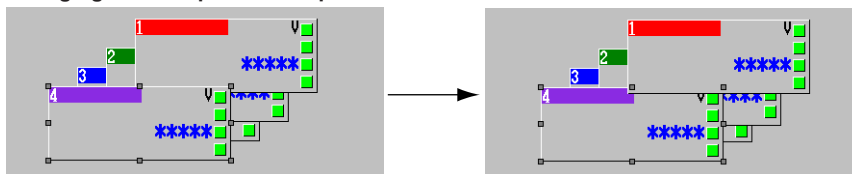


Arranging components one plane to the back

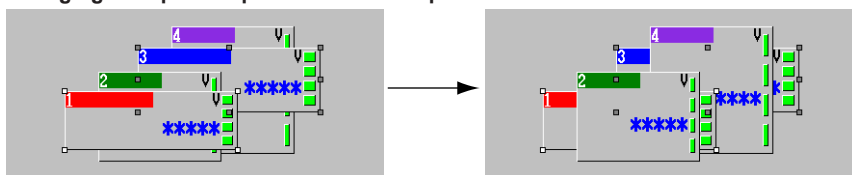
1. Select one or several components.
2. Select **Arrangement > To Back** from the menu bar or click the **To Back** icon on the Arrangement bar.

The selected components are arranged one plane to the back. When multiple components have been selected, each component is arranged one plane to the back.

Arranging one component one plane to the back



Arranging multiple components each one plane to the back



2.12 Setting Attributes

Setting screen attributes

Procedure

1. Click the background part (a place with no components) of the screen construction area.

The attributes of the screen being created are displayed in the attribute area.

The screenshot shows the 'Property(Display)' dialog box. It contains the following fields and controls:

- Display name: Text box with 'Display1'.
- Base color: Dropdown menu with 'Light gray' selected.
- Runtime menu: Dropdown menu with 'Off' selected.
- Status area: Dropdown menu with 'On' selected.
- Grp control section (separated by a line):
 - GrpCtrl 1:
 - Batch group no.: Text box with '1'.
 - Display Grp no.: Text box with '1'.
 - Change display Grp: Dropdown menu with 'On' selected.
 - GrpCtrl 2:
 - Batch group no.: Text box with '1'.
 - Display Grp no.: Text box with '1'.
 - Change display Grp: Dropdown menu with 'On' selected.
 - GrpCtrl 3:
 - Batch group no.: Text box with '1'.
 - Display Grp no.: Text box with '1'.
 - Change display Grp: Dropdown menu with 'On' selected.
 - GrpCtrl 4:
 - Batch group no.: Text box with '1'.
 - Display Grp no.: Text box with '1'.
 - Change display Grp: Dropdown menu with 'On' selected.

2. The screen name can be changed, and the settings for base color and screen menu at the time of execution can be selected from a list box.
Refer to Chapter 3 for details of the setting items.

Setting component attributes

Procedure

1. Select a component.

The attributes of the selected component are displayed in the attribute area.

The screenshot shows the 'Property(Line)' dialog box for a component with ID=92. It contains the following fields and controls:

- Depend ID: Dropdown menu with 'None' selected.
- Visible: Dropdown menu with 'On' selected.
- From X: Text box with '60'.
- From Y: Text box with '83'.
- To X: Text box with '215'.
- To Y: Text box with '95'.
- Line color: Dropdown menu with 'Black' selected.
- Line kind: Dropdown menu with 'Solid' selected.
- Trend grid mode: Dropdown menu with 'Off' selected.
- Synchronize action section (separated by a line):
 - Synchro attribute: Dropdown menu with 'None' selected.
 - Value: Dropdown menu with 'On' selected.
 - Synchro target: Dropdown menu with 'Alarm' selected.
 - Channel: Dropdown menu with 'CH001' selected.
 - Alarm level: Text box with '1'.

2. Values can be entered directly or a list box can be displayed and settings can be changed.
Refer to Chapter 3 for details of the setting items.

3.1 Screen Attributes

The screenshot shows the 'Property(Display)' dialog box. It contains the following fields and options:

- Display name: Display1
- Base color: Light gray
- Runtime menu: Off
- Status area: On
- Grp control section:
 - GrpCtrl 1:
 - Batch group no.: 1
 - Display Grp no.: 1
 - Change display Grp: On
 - GrpCtrl 2:
 - Batch group no.: 1
 - Display Grp no.: 1
 - Change display Grp: On
 - GrpCtrl 3:
 - Batch group no.: 1
 - Display Grp no.: 1
 - Change display Grp: On
 - GrpCtrl 4:
 - Batch group no.: 1
 - Display Grp no.: 1
 - Change display Grp: On

Attribute name	Set value/choice (Underlined items are initial set values)	Description
Display name	Up to 16 single-byte characters	Changes the Display name displayed in the Display list area. This is displayed below the Components bar on the Main screen.
Base color	<u>L</u> ight gray, [Light blue], [L orange], [Aquamarin], [Dark gray], [Dark blue], [Dark green], [White], [Black]	Set the background color of the screen. Components not having a background color are painted with the color set here.
Runtime menu	<u>O</u> ff, [On]	Select display/hide for the soft-key menu of the custom display execution screen of the DX recorder. On: Display the soft-key menu. Off: Hide the soft-key menu.
Status area (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[Off], <u>O</u> n	Select Display/No display for the status area. When set to [Off], the screen construction area becomes larger. The following occurs when switching the status area from No display to Display. When components overlap the status area, they move into the screen display area. Also, if the height of a component exceeds the maximum value for the screen construction area, the height is changed to the maximum value.

Continued on the next page

3.1 Screen Attributes

Attribute name	Set value/choice (Underlined items are initial set values)	Description
Batch group number	Setting range: 1 to multi-batch number set by the basic settings of the DX recorder DX1000: [1] to [6] DX2000 standard memory: [1] to [6] DX2000 expanded memory: [1] to [12]	This is the batch group number that can be selected within the range of the number of multibatches set in the basic settings on the DX recorder. This item cannot be set if MultiBatch is turned Off.
Display Grp no	When multi-batch is Off DX1000: [1] to [10] DX2000: [1] to [36] When multi-batch is On DX1000: [1] to [6] DX2000: [1] to [12]	Group control is performed for components. Display groups can be switched with the left and right arrow keys on the execution screen of the DX recorder. Display on the builder screen of the DX recorder is made as "Group No." For components having a group No. in the attributes (trend and scale), the group No. is switched. For components having only a channel No., the channel No. is switched.
Display group switching (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[Off], <u>[On]</u>	Sets whether or not to switch display groups. Off: Display groups not switched On: Display groups switched

Note

If the status area is set to No display, components move or their heights change. To restore positions, click the [Undo] icon on the tool bar. Only one level of Undo is available in this case.
If the status area is set to No display and even just one edit is made to the screen, you cannot return to state before the status area was set to No display. Please be aware of this.

3.2 Component ID No. and Number of Components which can be Created on one screen

When a component is selected in the screen construction area, the setting items of the selected component are displayed in the attribute list. The items which can be set depend on the selected component. The setting items of the attribute area corresponding to each component are explained in the following sections.

Component ID numbers are assigned separate by component kind in order of creation. Also, assignment is made to different ranges by component kinds. The number of components which can be created on one screen is the same as the number of ID numbers which can be assigned, Please refer to the following table.

(The number of components which can be created on the screen is the same as the number of IDs.)

Component type	Component name	Update cycle	ID number	Number of components which can be created on one screen
Components for channel assignment	Simple digital	1 sec.	0 to 79	80
	Digital	1 sec.		
	Simple bar	1 sec.		
	Bar	1 sec.		
	TagNo.	None		
	TagComment	None		
	Unit	None		
	SpanU	None		
	SpanL	None		
	Alarm indicator	1 sec		
Status display component	System icon	1 sec		
	Memory bar	1 sec		
	Time label	1 sec		
	Batch group number	None		
	Batch name	None		
	Group name	None		
Label components	Label	None		
Components with action functions	Push button	None		
	Switch	1 sec		
	Comm. In	1 sec		
	Modbus In	1 sec		
Components for comment display	Comment box	1 sec		
	Comment block	1 sec		
Components for list display	Alarm list	1 sec	8 to 83	4
	Comm In	1 sec		
Components for trend display	Trend	Trend update cycle	84 to 87	4
Scale components	Scale	Measurement interval	88 to 91	4
Diagram components	Line	None	92 to 131	40
	Rectangle	None		
	Circle	None		
Components for static image display	Bitmap	None	132 to 133	2

* The update cycle is the period in which the display updates when data acquisition begins on the DX recorder.

3.3 Common Attributes of Components

The attributes which can be set for each component have items which are common for multiple components.

This section explains the set values of common attributes, the choices, and the conditions.

Explanation of choices and set values

SET (Set values)

The "SET" displayed for choices are the values which can be set with the setting menu of the DX recorder.

When setting X, Y, width, height, start point X, start point Y, end point X, end point Y, or size, if the setting is invalid it is adjusted automatically.

Font

The following character types are available.

Font (character size)	Description
Font 5	English one-byte characters. ISO8859-1 (Some symbols are not available.)
Font 6	
Font 8	
Font 12	
Font 16	
Font 32	

Special display font

With some fonts, characters appear differently when entering text labels for setting attributes than they do in the screen construction area. This is also true when entering characters directly into components in the screen construction area.

When entering characters in attribute settings	Display in the screen creation area	Related languages
\	¥	English, German, French, Chinese, Russian, and Korean
^	°	
{	μ	English, Japanese, German, French, Chinese, Russian, and Korean
	Ω	
}	Half-width space (blank)	

Explanation of common attributes

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Depend ID	[None], [Component ID]	This is the ID of the component on which the component depends. None: There are no components on which this component depends. Component ID: This is the ID of the component on which the component depends.
Visible	[Off], [<u>On</u>]	Change is not possible in case of dependence on other components. Change is possible when Depend ID is [None]. Off: Not displayed on the execution screen of the DX recorder (always displayed on the builder screen) On: Displayed on the execution screen of the DX recorder
Channel	DX1000: [<u>CH001</u>] to [CH012], [CH101] to [CH124] DX2000: [<u>CH001</u>] to [CH048], [CH101] to [CH160], [CH201] to [CH440]	Set the assigned channel No. Setting is possible when Group control is [None].
Frame	[None], [<u>Black</u>], [White], [<u>Raised</u>], [<u>Sunken</u>]	This is the component frame kind. None: No frame Black: Black frame with a solid line with the width of 1 dot White: White frame with a solid line with the width of 1 dot Raised: Frame with a solid line with the width of 1 dot, appearing raised Sunken: Frame with a solid line with the width of 1 dot, appearing sunken The following are the default settings by component. [None]: Label, Simple digital, Tag No., TagComment, Unit, SpanL, SpanU, Group Name, System icon, Time label, Batch group no., Batch Name [Black]: Comment box, Comment block [Raised]: Digital, Bar, Alarm indicator, Switch, Alarm list, Message list [Sunken]: Memory bar
Group control	[None], [GrpCtrl1], [GrpCtrl2], [GrpCtrl3], [GrpCtrl4]	Indicates group control status. None: No group control GrpCtrl1 to 4: indicates group control for group control 1 to 4.
Gr. Ctrl order	DX1000: [<u>1</u>] to [6] DX2000: [<u>1</u>] to [10]	Indicates the group control order. Setting is not possible when Group control is [None].

Example of Depend ID

For example, if you have the following components whose IDs are 0 to 3 on the [Builder screen], the IDs you will be able to configure are shown in the below table.

ID → 0 1 2 3

**** → **** → **** ****

Depend on 1 Depend on 2

ID	Configurable ID			
0	None	1	2	3
1	None	2	3	
2	None	3		
3	None	0	1	2

Example of Frames



3.3 Common Attributes of Components

Group control and Gr.Ctrl order (Group control order)

Group control displays or sets the control status of the display group. The group control order cannot be set when Group control is set to [None].

When the number of registrations for the Group Control order at the DX recorder has reached 10, that group control order cannot be displayed. When the number of registrations for all group control orders has reached 10, that group control order cannot be displayed.

Sync act (Synchronize action)

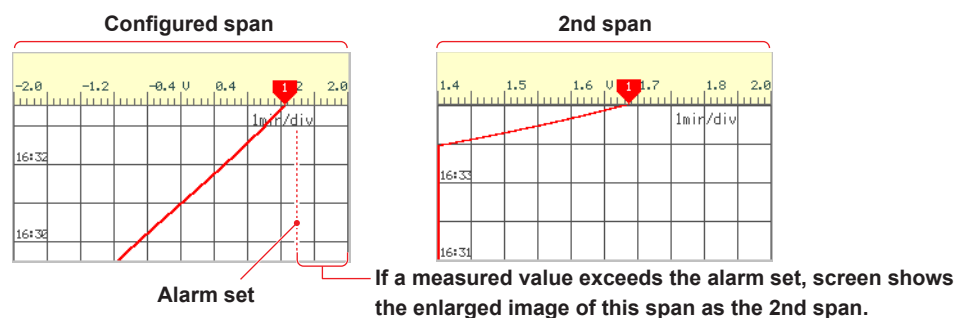
Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Syncro attribute	[None], [Visible], [2nd span]	These are attributes which change with synchronization. None: No synchro attribute Visible: Visible attributes are synchronized. 2nd span is available for trend components and scale components only. Refer to "2nd span" in the following.
Value (switch On)	[Off], [On]	This is the attribute value when the synchronization switch is ON.
Syncro target	[Alarm], [Switch]	This is the object to be synchronized with the component. Alarm: The attribute is synchronized with an alarm. Switch: The attribute is synchronized with a switch.
Channel or Switch no	When the synchro target is [Alarm]: DX1000: [CH001] to [CH012], [CH101] to [CH124] DX2000: [CH001] to [CH048], [CH101] to [CH160], [CH201] to [CH440] When the synchro target is [Switch]: Internal switch No. [1] to [30]	When the synchro target is an alarm: This is the object for attribute synchronization. When the synchro target is [Alarm]: Channel No. to which the attribute is synchronized When the synchro target is [Switch]: Internal switch No. to which the attribute is synchronized
Alarm level	[1], [2], [3], [4], [All]	When the synchro target is [Alarm], the alarm level is specified. 1 to 4: Alarm level All: Synchronization to all alarm levels

2nd span

This is the attribute available with trend components and scale components only. You can enlarge the display of trend and scale by synchronizing the On/Off settings of alarm or internal switch. To validate the 2nd span, configure [2nd span] at the synchro attribute field. Scale and trend shown in the below figure are an example of displaying the 2nd span when the alarm is set to On.

(Example of settings)

- 2nd span: On; 2nd span Lower: 85.0%, 2nd span Upper: 100.0%
- Synchro attribute: 2nd span; Value (switch On): On; Synchro target: alarm, Channel no: 1; Alarm level: 1



3.4 Attributes of Simple Digital Components

Property(Simple digital) ID=0

Depend ID: None

Visible: On

X: 50 Y: 63

Width: 98 Height: 68

Group control: None

Gr. Ctrl order: 1

Channel: CH001

Font: Font8

Color: Blue

Alarm color: ALARM

Background color: BASE

Frame: None

BG transparent: Off

Synchronize action

Synchro attribute: None

Value: On

Synchro target: Alarm

Channel: CH001

Alarm level: 1

The following limitations exist for setting the attributes of simple digital components.

- Setting to Visible is possible only when Depend ID is [None].
- Transparent backgrounds can only be turned ON when simple digital components are completely overlapped by trend components. If the trend component falls outside of the frame, the ON setting becomes invalid.

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. $Y = \text{Min. Y}^{*2}$ for $Y < \text{Min. Y}^{*2}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. $\text{Width} = 2$ for $\text{width} < 2$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $\text{width} < \text{Max. width}^{*1}$ and $(X + \text{Width}) > \text{Max. width}^{*1}$ $\text{Width} = \text{Max. width}^{*1}$, $X = 0$ for $\text{width} \geq \text{Max. width}^{*1}$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

3.4 Attributes of Simple Digital Components

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. Height = 2 for height < 2 $Y = (\text{Min. } Y^2 + \text{Max. height}^3 - \text{Height})$ for height < Max. height ^{*3} and $(Y + \text{Height}) > (\text{Min. } Y^2 + \text{Max. height}^3)$ Height = Max. height ^{*3} , Y = Min. Y ^{*2} for height ≥ Max. height ^{*3}
Font	[Font5], [Font6], [Font8], [Font12], [Font16], [Font32]	This is the character size for the digital value of a component. The initial setting is [Font6] for DX1000 and [Font8] for DX2000.
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [BASE], [CHANNEL]	Color of the digital value BASE: Base color (background color of the screen) CHANNEL: The color set to the specified channel
Alarm color	Color choice, [Alarm color]	This is the display color for the digital value at the time of occurrence of an alarm. Alarm color: This is the alarm display color set for each alarm level.
Background color	Same choice as for "Color"	This is the background color of the digital value area. The initial setting is [BASE].
BG transparent	[Off], [On]	Select display/no display for transparent background. When this is On, the background color of the execution screen becomes transparent (on the execution screen of the DX recorder, frames are displayed by dotted lines to indicate that background transparent display is ON).

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Synchronize action

► Section 3.3

3.5 Attributes of Digital Components

The screenshot shows the 'Property(Digital)' dialog box with the following settings:

- Depend ID: None
- Visible: On
- X: 178, Y: 57
- Width: 100, Height: 74
- Group control: None
- Gr. Ctrl order: 1
- Channel: CH001
- Digital font: Font12
- Channel font: Font8
- Unit display: On
- Unit font: Font8
- Frame: Raised
- Alarm display: On
- 2 Line display: Off
- Synchronize action:
 - Synchro attribute: None
 - Value: On
 - Synchro target: Alarm
 - Channel: CH001
 - Alarm level: 1

The following limitations exist for setting of attributes for digital components.

- [Visible] can only be set when [Depend ID] is set to [None].
- Unit font setting is not possible when Unit display is [Off].
- When the synchro target is [Switch], alarm level setting is not possible.
- When Group control is [None], the group control order cannot be set.

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. X = 0 for X < 0 X = (Max. width ^{*1} – Width) for (X + Width) > Max. width ^{*1}
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. Y = Min. Y ^{*2} for Y < Min. Y ^{*2} Y = (Min. Y ^{*2} + Max. height ^{*3} – Height) for (Y + Height) > (Min. Y ^{*2} + Max. height ^{*3})
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. Width = 2 for width < 2 X = (Max. width ^{*1} – Width) for width < Max. width ^{*1} and (X + Width) > Max. width ^{*1} Width = Max. width ^{*1} , X = 0 for width ≥ Max. width ^{*1}

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

3.5 Attributes of Digital Components

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. Height = 2 for height < 2 $Y = (\text{Min. } Y^{*2} + \text{Max. height}^{*3} - \text{Height})$ for height < Max. height ^{*3} and $(Y + \text{Height}) > (\text{Min. } Y^{*2} + \text{Max. height}^{*3})$ Height = Max. height ^{*3} , $Y = \text{Min. } Y^{*2}$ for height ≥ Max. height ^{*3}
Digital font	[Font5], [Font6], [Font8], [Font12], [Font16], [Font32]	This is the character size for the digital value of a component. The initial setting is [Font8] for DX1000 and [Font12] for DX2000.
Channel font	TagNo./Channel : [Font5], [Font6], [Font8], [Font12], [Font16] TagNo.: [Font5], [Font12], [Font16]	This sets the character size for Tag No., Tag Comment, and Channel No. The initial setting is [Font6] for DX1000 and [Font8] for DX2000.
Unit display	[Off], [On]	Display/No display is selected for the component unit.
Unit font	[Font5], [Font6], [Font8], [Font12], [Font16]	This is the character size for Unit display. Setting is not possible when "Unit display" is [Off]. The initial setting is [Font6] for DX1000 and [Font8] for DX2000.
Alarm display	[Off], [On]	This selects display/no display for the alarm indicator. The alarm display marks correspond to level 1, level 2, level 3, and level 4 from the top. Display is made in the lime color when Alarm is Off and in the color set for each level (red, orange, yellow or pink) when Alarm is On.
2 Line display	[Off], [On]	This selects tag display with division into two lines or no division. Off: Display divided into two lines is not made. On: Display divided into two lines

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Synchronize action

► Section 3.3

3.6 Attributes of Simple Bar Graph Components

The following limitations exist for setting of attributes of simple bar graph components.

- [Visible] can only be set when [Depend ID] is set to [None].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Bar graph tab

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. $Y = \text{Min. Y}^{*2}$ for $Y < \text{Min. Y}^{*2}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. $\text{Width} = 2$ for $\text{width} < 2$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $\text{width} < \text{Max. width}^{*1}$ and $(X + \text{Width}) > \text{Max. width}^{*1}$ $\text{Width} = \text{Max. width}^{*1}$, $X = 0$ for $\text{width} \geq \text{Max. width}^{*1}$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

3.6 Attributes of Simple Bar Graph Components

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. Height = 2 for height < 2 $Y = (\text{Min. } Y^2 + \text{Max. height}^3 - \text{Height})$ for height < Max. height ^{*3} and $(Y + \text{Height}) > (\text{Min. } Y^2 + \text{Max. height}^3)$ Height = Max. height ^{*3} , $Y = \text{Min. } Y^2$ for height ≥ Max. height ^{*3}
Direction	[<u>Horizon</u>], [Vertical]	This is the bar graph display direction. The initial setting depends on the aspect ratio when the bar graph size has been decided. Height at the time of height ≥ Width Width at the time of height < Width
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [BASE], [<u>CHANNEL</u>]	This is the bar color. BASE: Base color (background color of the screen) CHANNEL: The color set to the specified channel
Background color	Same choice as for "Color", [None]	This is the background color of the bar graph area The initial setting is [<u>Background color</u>].
Color scale band	[Off], [<u>SET</u>]	Selection of green band display/no display Off: No green band display SET: Setting of the DX recorder
Base position	[<u>SET</u>], [Normal], [Center], [Lower], [Upper]	This is the base position of the bar graph. SET: Setting of the DX recorder
Color change	[Off], [On]	When On, the bar color changes to the specified color when an alarm has occurred.
Alarm color	Same choice as for "Color", [<u>ALARM</u>]	This sets the bar color when an alarm has occurred.
Scale line	[Off], [<u>On</u>]	On: A scale line is displayed. Off: Only bar and background color are displayed.

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Alarm mark tab

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Use	Checked, <u>Not checked</u>	Checked: Alarm marks are used. Not checked: Alarm marks are not used.
Alarm level	[1], [2], [3], [4]	1 to 4: Alarm level
Style	[<u>Alarm</u>], [Fixed]	This is the alarm mark status. Alarm: Trapezoid Fixed: Triangle
Position	In case of a Vertical Bar Graph [Left], [<u>Right</u>] In case of a Horizontal Bar Graph [Over], [<u>Under</u>]	This set alarm mark setting at top, bottom, left or right of a bar graph. The choices change depending on the bar graph display direction. In case of a Vertical Bar Graph Left: Display on the left side of the bar graph Right: Display on the right side of the graph bar In case of a Horizontal Bar Graph Over: Display above the bar graph Under: Display below the bar graph
Mark size	[<u>Large</u>], [Small]	This is the alarm mark size. Large: Large mark Small: Small mark
color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [<u>Lime</u>], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [CHANNEL]	This is the mark display color. CHANNEL: The color set to the specified channel
Color change	[Off], [<u>On</u>]	Off: The color does not change at the time of alarm occurrence. On: The color of the alarm mark changes when an alarm occurs.
Alarm color	Same choice as for "Color", [<u>ALARM</u>]	This is the mark display color at the time of alarm occurrence. Setting is not possible when "Color change" is [Off]. Alarm color: This is the alarm display color set for each alarm level.

Synchronize action

► Section 3.3

3.7 Attributes of Bar Graph Components

The screenshot shows the 'Property(Bar)' dialog box with ID=4. It contains the following settings:

- Depend ID: None
- Visible: On
- X: 379, Y: 54
- Width: 47, Height: 103
- Direction: Vertical
- Group control: None
- Gr. Ctrl order: 1
- Channel: CH001
- Channel font: Font8
- Tag font: Font6
- Digital display: On
- Digital font: Font8
- Unit display: On
- Unit font: Font5
- Span display: On
- Span font: Font5
- Bar color: CHANNEL
- Frame: Raised
- Base position: SET
- Alarm display: On
- Alarm mark display: On
- 2 Line display: Off
- Synchronize action:
 - Synchro attribute: None
 - Value: On
 - Synchro target: Alarm
 - Channel: CH001
 - Alarm level: 1

The following limitations exist for setting of attributes of bar graph components.

- [Visible] can only be set when [Depend ID] is set to [None].
- Setting of Channel font, Tag font, Digital display, Digital font, Unit display, Unit font, and Alarm display is not possible when Style is [Horizontal].
- Setting of Digital font is not possible when Digital value display is [Off].
- Setting of Unit font is not possible when Unit display is [Off].
- Setting of Span font is not possible when Span display is [Off].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. $Y = \text{Min. Y}^{*2}$ for $Y < \text{Min. Y}^{*2}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. $\text{Width} = 2$ for $\text{width} < 2$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $\text{width} < \text{Max. width}^{*1}$ and $(X + \text{Width}) > \text{Max. width}^{*1}$ $\text{Width} = \text{Max. width}^{*1}$, $X = 0$ for $\text{width} \geq \text{Max. width}^{*1}$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. Height = 2 for height < 2 $Y = (\text{Min. } Y^2 + \text{Max. height}^3 - \text{Height})$ for height < Max. height ^{*3} and $(Y + \text{Height}) > (\text{Min. } Y^2 + \text{Max. height}^3)$ Height = Max. height ^{*3} , $Y = \text{Min. } Y^2$ for height ≥ Max. height ^{*3}
Direction	[Horizontal], [Vertical]	This is the bar graph display direction. The initial setting depends on the aspect ratio when the bar graph size has been decided. Height at the time of height ≥ Width Width at the time of height < Width In case of a Horizontal Bar Graph, Tag No./Channel No., Tag, Unit, Digital value, and Alarm indicator are not displayed.
Channel font	[Font5], [Font6], [Font8], [Font12], [Font16]	This is the font for display of the component tag No./channel No. Setting is not possible when "Direction" is [Horizontal]. The initial setting is [Font6] for DX1000 and [Font8] for DX2000.
Tag font	[Font5], [Font6], [Font8], [Font12], [Font16]	This is the font for display of component tags. Setting is not possible when "Direction" is [Horizontal]. The initial setting is [Font6] for DX1000 and [Font8] for DX2000.
Digital display	[Off], [On]	This selects display/no display of component digital values. Setting is not possible when "Direction" is [Horizontal].
Digital font	[Font5], [Font6], [Font8], [Font12], [Font16], [Font32]	This is the font for display of component digital values. Setting is not possible when "Direction" is [Horizontal] or when "Digital value display" is [Off]. The initial setting is [Font6] for DX1000 and [Font8] for DX2000.
Unit display	[Off], [On]	Display/No display is selected for the component unit. Setting is not possible when "Direction" is [Horizontal].
Unit font	[Font5], [Font6], [Font8], [Font12], [Font16]	This is the font for display of component units. Setting is not possible when "Direction" is [Horizontal] or when Unit display is [Off].
Span display	[Off], [On]	This selects display/no display of the component span.
Span font	[Font5], [Font6], [Font8], [Font12], [Font16]	This is the font for display of component span values. Setting is not possible when "Span display" is [Off].
Bar color	[Green], [CHANNEL]	This is the color of the bar graph. Green: Display is made in the color set for each alarm level when an alarm has occurred (red, orange, yellow, pink). CHANNEL: The color set for the channel
Base position	[SET], [Normal], [Center], [Lower], [Upper]	This is the bar graph display origin. SET: Setting of the DX recorder
Alarm display	[Off], [On]	This selects display/no display for the alarm indicator. Setting is not possible when "Direction" is [Horizontal].
Alarm mark display	[Off], [On]	This selects display/no display of alarm marks.
2 Line display	[Off], [On]	This selects tag display with division into two lines (On) or not (Off).

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. $Y = 24(0)$, DX2000 min. $Y = 40(0)$, () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Synchronize action

► Section 3.3

3.8 Attributes of Tag No. Components

Property(TagNo.) ID=5

Depend ID: None

Visible: On

X: 434 Y: 58

Width: 63 Height: 56

Group control: None

Gr. Ctrl order: 1

Channel: CH001

Vertical display: Off

Font: Font8

Color: White

Background color: BASE

Arrangement: Left

Gap: 0

Frame: None

2 Line display: Off

Synchronize action

Synchro attribute: None

Value: On

Synchro target: Alarm

Channel: CH001

Alarm level: 1

The following limitations exist for setting of attributes of the tag no. components.

- [Visible] can only be set when [Depend ID] is set to [None].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. $Y = \text{Min. Y}^{*2}$ for $Y < \text{Min. Y}^{*2}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. $\text{Width} = 2$ for $\text{width} < 2$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $\text{width} < \text{Max. width}^{*1}$ and $(X + \text{Width}) > \text{Max. width}^{*1}$ $\text{Width} = \text{Max. width}^{*1}$, $X = 0$ for $\text{width} \geq \text{Max. width}^{*1}$
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. $\text{Height} = 2$ for $\text{height} < 2$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $\text{height} < \text{Max. height}^{*3}$ and $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$ $\text{Height} = \text{Max. height}^{*3}$, $Y = \text{Min. Y}^{*2}$ for $\text{height} \geq \text{Max. height}^{*3}$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Vertical display (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[<u>Off</u>], [On]	Sets whether or not to display the tag number vertically. [On]: Rotates the text label 90 degrees clockwise. [Off]: Displays the text label horizontally.
Font	[Font5], [<u>Font6</u>], [<u>Font8</u>], [Font12], [Font16], [Font32]	This is the character size for the Tag no. of a component. The initial setting is [Font6] for DX1000 and [Font8] for DX2000.
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [<u>White</u>], [BASE], [CHANNEL]	This is the bar color. BASE: Base color (background color of the screen) CHANNEL: The color set to the specified channel
Background color	Same choice as for "Color", [None]	This is the background color of the tag number display area. The initial setting is [BASE].
Arrangement	[<u>Left</u>], [Center], [Right]	This is the text arrangement in direction of the X-axis in the tag number display area. The Y-axis direction always is arranged at the center. Left: Text is displayed left-aligned. Center: Text is displayed centered. Right: Text is displayed right-aligned.
Gap	[<u>0</u>] to [15]	The interval between characters is specified in dots.
2 Line display	[<u>Off</u>], [On]	This selects tag display with division into two lines (On) or not (Off).

Synchronize action

► Section 3.3

3.9 Attributes of Tag Comment Components

The screenshot shows a 'Property(TagComment)' dialog box with ID=6. It contains the following settings:

- Depend ID: None
- Visible: On
- X: 530, Y: 60
- Width: 83, Height: 54
- Group control: None
- Gr. Ctrl order: 1
- Channel: CH001
- Vertical display: Off
- Font: Font8
- Color: White
- Background color: BASE
- Arrangement: Left
- Gap: 0
- Frame: None
- 2 Line display: Off
- Synchronize action:
 - Synchro attribute: None
 - Value: On
 - Synchro target: Alarm
 - Channel: CH001
 - Alarm level: 1

The following limitations exist for setting of attributes of tag comment components.

- [Visible] can only be set when [Depend ID] is set to [None].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. X = 0 for X < 0 X = (Max. width ^{*1} – Width) for (X + Width) > Max. width ^{*1}
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the right side of the component. When Y < min. Y ^{*2} , Y = min. Y ^{*2} When (Y + size) > (min. Y ^{*2} + max. height ^{*3}), Y = (min. Y ^{*2} + max. height ^{*3})
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. Width = 2 for width < 2 X = (Max. width ^{*1} – Width) for width < Max. width ^{*1} and (X + Width) > Max. width ^{*1} Width = Max. width ^{*1} , X = 0 for width ≥ Max. width ^{*1}
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. Height = 2 for height < 2 Y = (Min. Y ^{*2} + Max. height ^{*3} – Height) for height < Max. height ^{*3} and (Y + Height) > (Min. Y ^{*2} + Max. height ^{*3}) Height = Max. height ^{*3} , Y = Min. Y ^{*2} for height ≥ Max. height ^{*3}

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Vertical display (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[<u>Off</u>], [On]	Sets whether or not to display the tag comment vertically. [On]: Rotates the text label 90 degrees clockwise. [Off]: Displays the text label horizontally.
Font	[[Font5], [<u>Font6</u>], [<u>Font8</u>], [Font12], [Font16]	This is the character size for the Tag no. of a component. The initial setting is [<u>Font6</u>] for DX1000 and [<u>Font8</u>] for DX2000.
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [<u>White</u>], [BASE], [CHANNEL]	The color for display of text. BASE: Base color (background color of the screen) CHANNEL: The color set to the specified channel
Background color	Same choice as for "Color", [None]	This is the background color of the tag comment display area. The initial setting is [<u>BASE</u>]. None: No painting of the background color
Arrangement	[<u>Left</u>], [Center], [Right]	This is the text arrangement in direction of the X-axis in the tag comment display area. The Y-axis direction always is arranged at the center. Left: Text is displayed left-aligned. Center: Text is displayed centered. Right: Text is displayed right-aligned.
Gap	[0] to [15]	The interval between characters is specified in dots.
2 Line display	[<u>Off</u>], [On]	This selects tag display with division into two lines (On) or not (Off).

Synchronize action

► Section 3.3

3.10 Attributes of Unit Components

Property(Unit) ID=7

Depend ID: None

Visible: On

X: 17 Y: 159

Width: 42 Height: 36

Group control: None

Gr. Ctrl order: 1

Channel: CH001

Vertical display: Off

Font: Font8

Color: White

Background color: BASE

Arrangement: Right

Gap: 0

Frame: None

— Synchronize action —

Synchro attribute: None

Value: On

Synchro target: Alarm

Channel: CH001

Alarm level: 1

The following limitations exist for setting of attributes of unit components.

- [Visible] can only be set when [Depend ID] is set to [None].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the right side of the component. When $Y < \text{min. Y}^{*2}$, $Y = \text{min. Y}^{*2}$ When $(Y + \text{size}) > (\text{min. Y}^{*2} + \text{max. height}^{*3})$, $Y = (\text{min. Y}^{*2} + \text{max. height}^{*3})$
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. $\text{Width} = 2$ for $\text{width} < 2$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $\text{width} < \text{Max. width}^{*1}$ and $(X + \text{Width}) > \text{Max. width}^{*1}$ $\text{Width} = \text{Max. width}^{*1}$, $X = 0$ for $\text{width} \geq \text{Max. width}^{*1}$
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. $\text{Height} = 2$ for $\text{height} < 2$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $\text{height} < \text{Max. height}^{*3}$ and $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$ $\text{Height} = \text{Max. height}^{*3}$, $Y = \text{Min. Y}^{*2}$ for $\text{height} \geq \text{Max. height}^{*3}$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Vertical display (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[<u>Off</u>], [On]	Sets whether or not to display the units vertically. [On]: Rotates the text label 90 degrees clockwise. [Off]: Displays the text label horizontally.
Font	[Font5], [<u>Font6</u>], [<u>Font8</u>], [Font12], [Font16]	This is the font for display of unit components. The initial setting is [<u>Font6</u>] for DX1000 and [<u>Font8</u>] for DX2000.
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [<u>Violet</u>], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [<u>White</u>], [BASE], [CHANNEL]	The color for display of text. BASE: Base color (background color of the screen) CHANNEL: The color set to the specified channel
Background color	Same choice as for "Color", [<u>None</u>]	This is the background color of the unit display area. The initial setting is [<u>BASE</u>]. None: No background painting
Arrangement	[Left], [Center], [<u>Right</u>]	This is the text arrangement in direction of the X-axis in the unit display area. The Y-axis direction always is arranged at the center. Left: Text is displayed left-aligned. Center: Text is displayed centered. Right: Text is displayed right-aligned.
Gap	[<u>0</u>] to [15]	The interval between characters is specified in dots.

Synchronize action

► Section 3.3

3.11 Attributes of Span Upper Limit Components / Span Lower Limit Components

Property(SpanU) ID=8

Depend ID:

Visible:

X: Y:

Width: Height:

Group control:

Gr. Ctrl order:

Channel:

Vertical display:

Font:

Color:

Background color:

Arrangement:

Gap:

Frame:

— Synchronize action —

Synchro attribute:

Value:

Synchro target:

Channel:

Alarm level:

Property(SpanL) ID=9

Depend ID:

Visible:

X: Y:

Width: Height:

Group control:

Gr. Ctrl order:

Channel:

Vertical display:

Font:

Color:

Background color:

Arrangement:

Gap:

Frame:

— Synchronize action —

Synchro attribute:

Value:

Synchro target:

Channel:

Alarm level:

The following limitations exist for setting of attributes of span upper limit components/ span lower limit components.

- [Visible] can only be set when [Depend ID] is set to [None].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the right side of the component. When $Y < \text{min. Y}^{*2}$, $Y = \text{min. Y}^{*2}$ When $(Y + \text{size}) > (\text{min. Y}^{*2} + \text{max. height}^{*3})$, $Y = (\text{min. Y}^{*2} + \text{max. height}^{*3})$
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. $\text{Width} = 2$ for $\text{width} < 2$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $\text{width} < \text{Max. width}^{*1}$ and $(X + \text{Width}) > \text{Max. width}^{*1}$ $\text{Width} = \text{Max. width}^{*1}$, $X = 0$ for $\text{width} \geq \text{Max. width}^{*1}$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

3.11 Attributes of Span Upper Limit Components / Span Lower Limit Components

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. Height = 2 for height < 2 $Y = (\text{Min. } Y^2 + \text{Max. height}^3 - \text{Height})$ for height < Max. height ^{*3} and $(Y + \text{Height}) > (\text{Min. } Y^2 + \text{Max. height}^3)$ Height = Max. height ^{*3} , Y = Min. Y ^{*2} for height ≥ Max. height ^{*3}
Vertical display (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[Off], [On]	Sets whether or not to display the span display vertically. [On]: Rotates the text label 90 degrees clockwise. [Off]: Displays the text label horizontally.
Font	[Font5], [Font6], [Font8], [Font12], [Font16]	This is the font for display of span upper limit components/span lower limit components. The initial setting is [Font6] for DX1000 and [Font8] for DX2000.
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [BASE], [CHANNEL]	The color for display of text. BASE: Base color (background color of the screen) CHANNEL: The color set to the specified channel
Background color	Same choice as for "Color", [None]	This is the background color for the span display area. The initial setting is [BASE]. None: No background painting
Arrangement	[Left], [Center], [Right]	This is the text arrangement in direction of the X-axis in the span display area. The Y-axis direction always is arranged at the center. Left: Text is displayed left-aligned. Center: Text is displayed centered. Right: Text is displayed right-aligned.
Gap	[0] to [15]	The interval between characters is specified in dots.

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Synchronize action

► Section 3.3

3.12 Attributes of Alarm Indicator Components

Property(Alarm indicator) ID=10

Depend ID:

Visible:

X: Y:

Width: Height:

Group control:

Gr. Ctrl order:

Channel:

Alarm level:

Color:

Alarm color

Level 1:

Level 2:

Level 3:

Level 4:

Frame:

Alarm kind display:

Synchronize action

Synchro attribute:

Value:

Synchro target:

Channel:

Alarm level:

The following limitations exist for setting of attributes of alarm indicator components.

- [Visible] can only be set when [Depend ID] is set to [None].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 639	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the right side of the component. When $Y < \text{min. Y}^{*2}$, $Y = \text{min. Y}^{*2}$ When $(Y + \text{size}) > (\text{min. Y}^{*2} + \text{max. height}^{*3})$, $Y = (\text{min. Y}^{*2} + \text{max. height}^{*3})$
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. $\text{Width} = 2$ for $\text{width} < 2$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $\text{width} < \text{Max. width}^{*1}$ and $(X + \text{Width}) > \text{Max. width}^{*1}$ $\text{Width} = \text{Max. width}^{*1}$, $X = 0$ for $\text{width} \geq \text{Max. width}^{*1}$
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. $\text{Height} = 2$ for $\text{height} < 2$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $\text{height} < \text{Max. height}^{*3}$ and $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$ $\text{Height} = \text{Max. height}^{*3}$, $Y = \text{Min. Y}^{*2}$ for $\text{height} \geq \text{Max. height}^{*3}$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Alarm level	[<u>1</u>], [2], [3], [4], [All]	The assigned alarm level is set. All: This becomes ON when an alarm occurs for any one of Alarm level 1 to 4. Text indicating the alarm kind is not displayed. Text showing the alarm kind is not displayed when Channel alarm is OFF.
Color	[Red], [Orange], [<u>Lime</u>], [Yellow], [Pink], [Black], [White]	This is the color for display when no alarm has occurred.
Level 1	[Red], [Orange], [<u>Lime</u>], [Yellow], [Pink], [Black], [White], [<u>ALARM</u>]	This is the character color for display at the time of occurrence of a level 1 alarm. ALARM: This is the alarm display color set for each alarm level. The alarm levels are [1] and [All].
Level 2	Same choice as for "level 1"	This is the character color for display at the time of occurrence of a level 2 alarm. ALARM: This is the alarm display color set for each alarm level. The alarm levels are [2] and [All].
Level 3	Same choice as for "level 1"	This is the character color for display at the time of occurrence of a level 3 alarm. ALARM: This is the alarm display color set for each alarm level. The alarm levels are [3] and [All].
Level 4	Same choice as for "level 1"	This is the character color for display at the time of occurrence of a level 4 alarm. ALARM: This is the alarm display color set for each alarm level. The alarm levels are [4] and [All].
Alarm kind display	[Off], [<u>On</u>]	This selects display (On) / no display (Off) of strings that indicate alarm kind.

Synchronize action

► Section 3.3

3.13 System Icon Component Attribute

(Can only be set with a Version 4.01 screen and a Version 4.11 screen)

Property(System icon) ID=11

Depend ID:

Visible:

X: Y:

Type:

Icon size:

Background color:

Frame:

BG transparent:

— Synchronize action —

Synchro attribute:

Value:

Synchro target:

Channel:

Alarm level:

The following restrictions apply to the attribute settings of system icon components.

- [Visible] can only be set when [Depend ID] is set to [None].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. When $X < 0$, $X = 0$ When $(X + \text{size}) > \text{max. width}^*1$, $X = (\text{max. width} - \text{size})$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the right side of the component. When $Y < \text{min. Y}^*2$, $Y = \text{min. Y}^*2$ When $(Y + \text{size}) > (\text{min. Y}^*2 + \text{max. height}^*3)$, $Y = (\text{min. Y}^*2 + \text{max. height}^*3 - \text{size})$
Type	[Memory sample], [<u>Alarm</u>], [CF card], [Math], [Key lock], [Email], [Status], [Key & email], [UserLock], [User & status]	Selects the kind of system icon to display.

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Size	[<u>24</u>], [<u>32</u>]	The size of the displayed icon. When creating components, using length A of the shortest side of the dotted frame as a reference, the size is 24 or 32, whichever is closest. When $A \geq 28$, the size is [32] When $A < 28$, the size is [24]
Background color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [<u>Background color</u>]	This is the color that fills the background of the component.
BG transparent	[<u>Off</u>], [On]	On: The background of the DX recorder execution panel is transparent The software screen construction area shows the frame as a dotted line, and indicates that the background transparency is On. Note: The background transparency is valid when a trend display component exists under the system icon component that completely overlaps with it. The transparency is invalid if the system icon component protrudes from the trend component.

Synchronize action

► Section 3.3

3.14 Attribute of Memory Bar Components

(Can only be set with a Version 4.01 screen and a Version 4.11 screen)

The following restrictions apply to the attribute settings of Memory bar components.

- [Visible] can only be set when [Depend ID] is set to [None].
- When [Data type] is [Display], [Color(pre-Trig)] cannot be set.
- When [Rem. time display] is [Off] and [Data type] is [Display], [Font] and [String color] cannot be set.
- If the Batch function is Off or On in the settings file, [Batch group no.] cannot be set.
- The MultiBatch number specified in the settings file is the maximum value for [Batch group no.].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. When $X < 0$, $X = 0$ When $(X + \text{size}) > \text{max. width}^*1$, $X = (\text{max. width} - \text{size})$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the right side of the component. When $Y < \text{min. Y}^*2$, $Y = \text{min. Y}^*2$ When $(Y + \text{size}) > (\text{min. Y}^*2 + \text{max. height}^*3)$, $Y = (\text{min. Y}^*2 + \text{max. height}^*3 - \text{size})$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. Width = 2 for width < 2 $X = (\text{Max. width}^{*1} - \text{Width})$ for width < Max. width ^{*1} and $(X + \text{Width}) > \text{Max. width}^{*1}$ Width = Max. width ^{*1} , X = 0 for width ≥ Max. width ^{*1}
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. Height = 2 for height < 2 $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for height < Max. height ^{*3} and $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$ Height = Max. height ^{*3} , Y = Min. Y ^{*2} for height ≥ Max. height ^{*3} , Y = min. Y ^{*2}
Batch group number	Setting range: 1 to multi-batch number set by the basic settings of the DX recorder DX1000: [1] to [6] DX2000 standard memory: [1] to [6] DX2000 expanded memory: [1] to [12]	This is the batch group no. which can be selected within the range of the multi-batch number set by the basic settings of the DX recorder. This item is not displayed when multi-batch is Off.
Data type	[Display], [event]	Select the type of data to display in the Memory bar. When the data type specified here is sent to the DX recorder, it automatically changes to a valid setting on the DX recorder. For example, even if you set the Memory bar data type to [Display] and send it to the DX recorder, if the DX recorder's memory type in Basic setting mode is Event, the data type from the memory sample bar is changed to [Event].
Direction	[Vertical], [Horizontal]	Sets the direction of bar graphs. The default value differs depending on the vertical-to-horizontal size ratio of the plotted component. If the component is taller than it is wide, the direction is [Vertical] If the component is wider than it is tall, the direction is [Horizontal] Vertical: The bar expands vertically from bottom to top. Horizontal: The bar expands horizontally from left to right.
Rem. time display	[Off], [On]	Sets whether or not to display the remaining sampling time in the Memory bar. On: Displayed Off: Not displayed
Font	[Font5], [Font6], [Font8], [Font12], [Font16]	This is the display font for the text label that shows the remaining time and event data status.
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [Background color]	The color of the bar graph. Background color: Base color (base color of the screen)
Background color	Same choices as for [Color]	This is the color of the fill for the background. The default setting is [Background color].
Color(pre-Trig)	Same choices as for [Color]	This is the color of the bar during a trigger wait. The default setting is [Orange].
String color	Same choices as for [Color]	This is the display color for the text label that shows the remaining time and event data status. The default setting is [Black].

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Synchronize action

► Section 3.3

3.15 Attributes of Time Label Component

(Can only be set with a Version 4.01 screen and a Version 4.11 screen)

The following restrictions apply to the attribute settings of Time label components.

- [Visible] can only be set when [Depend ID] is set to [None].
- When [NoDate display] is [On], [2 Line display] cannot be set.
- When [Time display] is [Off], [2 Line display] and [Second display] cannot be set.
- When [NoDate display] is [On], [Year display form] cannot be set.

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the right side of the component. When $Y < \text{min. Y}^{*2}$, $Y = \text{min. Y}^{*2}$ When $(Y + \text{size}) > (\text{min. Y}^{*2} + \text{max. height}^{*3})$, $Y = (\text{min. Y}^{*2} + \text{max. height}^{*3} - \text{size})$
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. $\text{Width} = 2$ for $\text{width} < 2$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $\text{width} < \text{Max. width}^{*1}$ and $(X + \text{Width}) > \text{Max. width}^{*1}$ $\text{Width} = \text{Max. width}^{*1}$, $X = 0$ for $\text{width} \geq \text{Max. width}^{*1}$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. Height = 2 for height < 2 $Y = (\text{Min. } Y^2 + \text{Max. height}^3 - \text{Height})$ for height < Max. height ³ and $(Y + \text{Height}) > (\text{Min. } Y^2 + \text{Max. height}^3)$ Height = Max. height ³ , Y = Min. Y ² for height ≥ Max. height ³ , Y = min. Y ²
NoDate display	[Off], [On]	Selects Display/No display for the date. Off: Date is displayed On: Date not displayed
Year display form	[None], [4digits], [2digits]	Selects the number of digits for the year. None: The year is not displayed 4digits: The year is displayed in yyyy format 2digits: The year is displayed in yy format
Time display	[Off], [On]	Select Display/No display for the time. Off: The time is not displayed On: The time is displayed
Second display	[Off], [On]	Selects Display/No display for the seconds. Off: The seconds are not displayed On: The seconds are displayed
Vertical display (can only be set with a Version4 screen)	[Off], [On]	Sets whether or not to display the date time label display vertically. [On]: Rotates the text label 90 degrees clockwise. [Off]: Displays the text label horizontally.
Font	[Font5], [Font6], [Font8], [Font12], [Font16]	This is the font for displaying the time. The default settings are: DX1000 = [Font6]; and DX2000 = [Font8].
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [Background color]	The display color of the time. Background color: Base color (base color of the screen)
Background color	Same choice as for [Color]	This is the color of the fill for the label area. The default setting is [Background color].
Arrangement	[Left], [Center], [Right]	This is the arrangement along the X axis within the label area. It is always centered along the Y-axis. Left: Text label is left justified Center: Text label is centered Right: Text label is right justified
Gap	[0] to [15]	Specifies a distance between characters in dots.
BG transparent	[Off], [On]	On: The background in the DX recorder execution panel is transparent The software screen construction area shows the frame as a dotted line, and indicates that the background transparency is On. Note: The background transparency is valid when a trend display component exists under the Time label component that completely overlaps with it. The transparency is invalid if the time label component protrudes from the trend display component.
2 Line display	[Off], [On]	On: The date and time are displayed in 2 lines in the DX recorder execution panel. The date and time are displayed in 2 lines, respectively. When [NoDate display] is [On], the Time label takes 1 row. Off: 2-line display not used.

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Synchronize action

► Section 3.3

3.16 Attributes of Batch Group Number Components

(Can only be set with a Version 4.01 screen and a Version 4.11 screen)

The following restrictions apply to the attribute settings of batch group number components.

- [Visible] can only be set when [Depend ID] is set to [None].
- The MultiBatch number specified in the settings file is the maximum value for [Batch group no.].
- If the Batch function is Off or On in the settings file, a batch group number component cannot be created. For existing batch group number components, no attributes other than X, Y, Width, and Height can be set.

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the right side of the component. When $Y < \text{min. Y}^{*2}$, $Y = \text{min. Y}^{*2}$ When $(Y + \text{size}) > (\text{min. Y}^{*2} + \text{max. height}^{*3})$, $Y = (\text{min. Y}^{*2} + \text{max. height}^{*3} - \text{size})$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. Width = 2 for width < 2 $X = (\text{Max. width}^{*1} - \text{Width})$ for width < Max. width ^{*1} and $(X + \text{Width}) > \text{Max. width}^{*1}$ Width = Max. width ^{*1} , X = 0 for width ≥ Max. width ^{*1}
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. Height = 2 for height < 2 $Y = (\text{Max. height}^{*3} - \text{Height})$ for height < Max. height ^{*3} and $(Y + \text{Height}) > \text{Max. height}^{*3}$ Height = Max. height ^{*3} , Y = 0 for height ≥ Max. height ^{*3}
Batch group number	Setting range: 1 to multi-batch number set by the basic settings of the DX recorder DX1000: <u>[1]</u> to [6] DX2000 standard memory: <u>[1]</u> to [6] DX2000 expanded memory: <u>[1]</u> to [12]	This is the batch group no. which can be selected within the range of the multi-batch number set by the basic settings of the DX recorder. This item is not displayed when multi-batch is Off.
Disp.in BATOverview	[Off], <u>[On]</u>	Turns the display On/Off for when a screen being displayed is in Common mode. On: Number indicated by the batch group number is displayed Off: Not displayed
Vertical display	<u>[Off]</u> , [On]	Sets whether or not to display the batch group number vertically. [On]: Rotates the text label 90 degrees clockwise. [Off]: Displays the text label horizontally.
Font	[Font5], <u>[Font6]</u> , [Font8], [Font12], [Font16]	This is the font for displaying the batch group number. The default settings are: DX1000 = <u>[Font6]</u> ; and DX2000 = [Font8].
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], <u>[Black]</u> , [White], [Background color]	The color of the text label. Background color: Base color (background color of the screen)
Background color	Same choices as for [Color], and <u>[None]</u>	This is the color of the background. None: No background fill color
Arrangement	[Left], <u>[Center]</u> , [Right]	This is the arrangement of the text label along the X axis of the batch group number. It is always centered along the Y-axis. Left: Text label is left justified Center: Text label is centered Right: Text label is right justified
Gap	<u>[0]</u> to [15]	Specifies a distance between characters in dots.

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Synchronize action

► Section 3.3

3.17 Attributes of Batch Name Components

(Can only be set with a Version 4.01 screen and a Version 4.11 screen)

Property(Batch name)		ID=
Depend ID:	None	
Visible:	On	
X:	256	Y: 166
Width:	125	Height: 120
Batch group no:	1	
Vertical display:	Off	
Font:	Font8	
Color:	Black	
Background color:	BASE	
Arrangement:	Left	
Gap:	0	
Frame:	None	
BG transparent:	Off	
2 Line display:	Off	
Synchronize action		
Syncho attribute:	None	
Value:	On	
Syncho target:	Alarm	
Channel:	CH001	
Alarm level:	1	

The following restrictions apply to the attribute settings of batch name components.

- [Visible] can only be set when [Depend ID] is set to [None].
- When the Batch function is Off in the settings file, no attributes other than X, Y, Width, and Height can be set.
- If the Batch function is On in the settings file, [Batch group no.] cannot be set.
- The MultiBatch number specified in the settings file is the maximum value for [Batch group no.].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the right side of the component. When $Y < \text{min. Y}^{*2}$, $Y = \text{min. Y}^{*2}$ When $(Y + \text{size}) > (\text{min. Y}^{*2} + \text{max. height}^{*3})$, $Y = (\text{min. Y}^{*2} + \text{max. height}^{*3} - \text{size})$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. Width = 2 for width < 2 $X = (\text{Max. width}^{*1} - \text{Width})$ for width < Max. width ^{*1} and $(X + \text{Width}) > \text{Max. width}^{*1}$ Width = Max. width ^{*1} , X = 0 for width ≥ Max. width ^{*1}
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. Height = 2 for height < 2 $Y = (\text{Max. height}^{*3} - \text{Height})$ for height < Max. height ^{*3} and $(Y + \text{Height}) > \text{Max. height}^{*3}$ Height = Max. height ^{*3} , Y = 0 for height ≥ Max. height ^{*3}
Batch group number	Setting range: 1 to multi-batch number set by the basic settings of the DX recorder DX1000: [1] to [6] DX2000 standard memory: [1] to [6] DX2000 expanded memory: [1] to [12]	This is the batch group no. which can be selected within the range of the multi-batch number set by the basic settings of the DX recorder. This item is not displayed when multi-batch is Off.
Vertical display	[Off], [On]	Sets whether or not to display the batch name vertically. [On]: Rotates the text label 90 degrees clockwise. [Off]: Displays the text label horizontally.
Font	[Font5], [Font6], [Font8], [Font12], [Font16]	This is the font for displaying the batch group number. The default settings are: DX1000 = [Font6]; and DX2000 = [Font8].
Gap	[0] to [15]	The interval between characters is specified in dots.
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [Background color]	The color of the text label. Background color: Base color (background color of the screen)
Background color	Same choices as for [Color]	This is the color of the background. The default setting is [Background color].
Arrangement	[Left], [Center], [Right]	This is the arrangement of the text label along the X axis of the batch name. The Y-axis direction always is arranged at the center. Left: Text is displayed left-aligned. Center: Text is displayed centered. Right: Text is displayed right-aligned.
Gap	[0] to [15]	Specifies a distance between characters in dots.
BG transparent (can only be set with a Version 4.11 screen)	[Off], [On]	On: The background of the DX recorder execution panel is transparent The software screen construction area shows the frame as a dotted line, and indicates that the background transparency is On. Note: The background transparency is valid when a trend display component exists under the batch name component that completely overlaps with it. The transparency is invalid if the batch name component protrudes from the trend component.

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

3.17 Attributes of Batch Name Components

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
2 Line display	[<u>Off</u>], [On]	On: Batch name displayed in 2 lines in the DX recorder execution panel. Off: Batch name not displayed in 2 lines in the DX recorder execution panel.

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Synchronize action

► Section 3.3

3.18 Attributes of Group Name Components

(Can only be set with a Version 4.01 screen and a Version 4.11 screen)

If there is no settings file, or if the Batch function is Off or On, the displayed text label is [GROUP] + number.

If there is no settings file, or if the Batch function is MultiBatch, the displayed text label is [BATCH] + batch number + [-] + group number.

The following restrictions apply to the attribute settings of group name components.

- [Visible] can only be set when [Depend ID] is set to [None].
- If the Batch function is Off or On in the settings file, [Batch group no.] cannot be set.
- The MultiBatch number specified in the settings file is the maximum value for [Batch group no.].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the right side of the component. When $Y < \text{min. } Y^{*2}$, $Y = \text{min. } Y^{*2}$ When $(Y + \text{size}) > (\text{min. } Y^{*2} + \text{max. height}^{*3})$, $Y = (\text{min. } Y^{*2} + \text{max. height}^{*3} - \text{size})$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

3.18 Attributes of Group Name Components

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. Width = 2 for width < 2 $X = (\text{Max. width}^{*1} - \text{Width})$ for width < Max. width ^{*1} and $(X + \text{Width}) > \text{Max. width}^{*1}$ Width = Max. width ^{*1} , X = 0 for width ≥ Max. width ^{*1}
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. Height = 2 for height < 2 $Y = (\text{Max. height}^{*3} - \text{Height})$ for height < Max. height ^{*3} and $(Y + \text{Height}) > \text{Max. height}^{*3}$ Height = Max. height ^{*3} , Y = 0 for height ≥ Max. height ^{*3}
Batch group number	Setting range: 1 to multi-batch number set by the basic settings of the DX recorder DX1000: [1] to [6] DX2000 standard memory: [1] to [6] DX2000 expanded memory: [1] to [12]	This is the batch group no. which can be selected within the range of the multi-batch number set by the basic settings of the DX recorder. This item is not displayed when multi-batch is Off.
Group No.	When the Batch function is Off or On DX1000: [1] to [10] DX2000: [1] to [36] When the Batch function is MultiBatch DX1000: [1] to [6] DX2000: [1] to [12]	Sets the Group No. Display on the builder screen of the DX recorder is made as "Group No."
Display group switching ("Group switching" on the DX recorder builder screen)	[Off], [On]	Sets whether or not to switch display groups. Off: Display groups not switched On: Display groups switched
Vertical display	[Off], [On]	Sets whether or not to display the batch group name vertically. [On]: Rotates the text label 90 degrees clockwise. [Off]: Displays the text label horizontally.
Font	[Font5], [Font6], [Font8], [Font12], [Font16]	This is the font for displaying the batch group number. The default settings are: DX1000 = [Font6]; and DX2000 = [Font8].
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [BASE]	The color of the text label. Background color: Base color (background color of the screen)
Background color	Same choice as for "Color", [None]	This is the color of the component area. None: No background fill color
Arrangement	[Left], [Center], [Right]	This is the arrangement of the text label along the X axis of the group name. The Y-axis direction always is arranged at the center. Left: Text is displayed left-aligned. Center: Text is displayed centered. Right: Text is displayed right-aligned.
Gap	[0] to [15]	Specifies a distance between characters in dots.
2 Line display	[Off], [On]	On: Batch name displayed in 2 lines in the DX recorder execution panel. Off: Batch name not displayed in 2 lines in the DX recorder execution panel.

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Synchronize action

► Section 3.3

3.19 Attributes of Label Components

The screenshot shows a 'Property(Label)' dialog box with the following settings:

- Depend ID: None
- Visible: On
- X: 24, Y: 289
- Width: 66, Height: 45
- Text label: Label
- Vertical display: Off
- Font: Font8
- Color: Black
- Background color: None
- Arrangement: Left
- Gap: 0
- Frame: None
- Synchronize action:
 - Synchro attribute: None
 - Value: On
 - Synchro target: Alarm
 - Channel: CH001
 - Alarm level: 1

You can double-click a component to directly input a text label on the component. After input, press the Return key or click the mouse anywhere outside the component to finalize the entry.

If the font is taller than the component, the text label input area becomes as tall as the font.

If the 64-character limit is exceeded, the characters over the limit are deleted.

The following restrictions apply to the attribute settings of label components.

- [Visible] can only be set when [Depend ID] is set to [None].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. $Y = \text{Min. Y}^{*2}$ for $Y < \text{Min. Y}^{*2}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

3.19 Attributes of Label Components

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. Width = 2 for width < 2 $X = (\text{Max. width}^{*1} - \text{Width})$ for width < Max. width ^{*1} and $(X + \text{Width}) > \text{Max. width}^{*1}$ Width = Max. width ^{*1} , X = 0 for width ≥ Max. width ^{*1}
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. Height = 2 for height < 2 $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for height < Max. height ^{*3} and $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$ Height = Max. height ^{*3} , Y = Min. Y ^{*2} for height ≥ Max. height ^{*3}
Text Labels	Label	The text label displayed on screen. Up to 64 characters (or 32 double-byte characters) can be displayed.
Vertical display (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[Off], [On]	Sets whether or not to display the label display vertically. [On]: Rotates the text label 90 degrees clockwise. [Off]: Displays the text label horizontally.
Font	[Font5], [Font6], [Font8], [Font12], [Font16], [Font32]	This is the font for display of component text strings. This is the character size for the Tag no. of a component. The initial setting is [Font6] for DX1000 and [Font8] for DX2000.
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [Background color]	This is the color of the text. Background color: Base color (base color of the screen)
Background color	Same choices as for [Color], and [None]	This is the color of the background of the label area. None: No background fill color
Arrangement	[Left], [Center], [Right]	This is an arrangement kind for text strings in horizontal direction in the label display area. It is always centered along the Y-axis. Left: Text label is left justified Center: Text label is centered Right: Text label is right justified
Gap	[0] to [15]	Specifies a distance between characters in dots.

Synchronize action

► Section 3.3

3.20 Attributes of Push Button Components

Property(Push button) ID=18

Depend ID: None

Visible: On

X: 110 Y: 288

Width: 81 Height: 64

Text label: PushButton

Font: Font8

Event edge switch: 1

Action prompt: On

Arrangement: Center

Color: Black

Background color: BASE

Synchronize action

Synchro attribute: None

Value: On

Synchro target: Alarm

Channel: CH001

Alarm level: 1

You can double-click a component to directly input a text label on the component. After input, press the Return key or click the mouse anywhere outside the component to finalize the entry.

If the font is taller than the component, the text label input area becomes as tall as the font.

If the 64-character limit is exceeded, the characters over the limit are deleted.

The following restrictions apply to the attribute settings of push button components.

- [Visible] can only be set when [Depend ID] is set to [None].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. $Y = \text{Min. Y}^{*2}$ for $Y < \text{Min. Y}^{*2}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

3.20 Attributes of Push Button Components

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. Width = 2 for width < 2 $X = (\text{Max. width}^{*1} - \text{Width})$ for width < Max. width ^{*1} and $(X + \text{Width}) > \text{Max. width}^{*1}$ Width = Max. width ^{*1} , X = 0 for width ≥ Max. width ^{*1}
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. Height = 2 for height < 2 $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for height < Max. height ^{*3} and $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$ Height = Max. height ^{*3} , Y = Min. Y ^{*2} for height ≥ Max. height ^{*3}
Text label	"PushButton"	This is text displayed on a button. Input of max 64 characters is possible.
Font	[Font5], [Font6], [Font8], [Font12], [Font16]	This is the font for display of text strings. The initial setting is [Font6] for DX1000 and [Font8] for DX2000.
Event edge switch	[1] to [30]	—
Action prompt	[Off], [On]	This selects use/no use of dialog boxes confirming execution of an action function. Off: Dialog boxes are not used On: Dialog boxes are used
Arrangement	[Left], [Center], [Right]	This is the text arrangement in direction of the X-axis. The Y-axis direction always is arranged at the center. Left: Text is displayed left-aligned. Center: Text is displayed centered. Right: Text is displayed right-aligned.
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [BASE]	This is the text display color. BASE: Base color (background color of the screen)
Background color	Same choice as for "Color", [BASE]	This is the background color of the push button.

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Synchronize action

► Section 3.3

3.21 Attributes of Switch Components

The screenshot shows the 'Property(Switch)' dialog box with ID=19. The attributes are as follows:

Attribute	Value
Depend ID:	None
Visible:	On
X:	226
Y:	276
Width:	85
Height:	81
Style:	Selector
Event level switch:	1
Action prompt:	On
Color:	L.brown
On color:	Cyan
Off color:	BASE
String display:	On
Font:	Font8
Gap:	0
On string:	ON
Off string:	OFF
Frame:	Raised
Synchronize action	
Synchro attribute:	None
Value:	On
Synchro target:	Alarm
Channel:	CH001
Alarm level:	1

Only when [String display] is [On], you can directly input an On or Off text label. You can change the On and Off text label within the screen construction area of switches whose [Style] is [Selector], [Seesaw], [Lever], [Toggle], [SlideX], or [SlideY].

For switches whose [Style] is [Connector], [Push], or [Power], you can change the Off text label in the screen construction area. The procedure for entering a text label directly is to double-click the text label in the component. After input, press the Return key or click the mouse anywhere outside the component to finalize the entry. If the font is taller than the component, the text label input area becomes as tall as the font.

If more than 8 characters are entered, the characters after the 8th are deleted.

The following limitations exist for setting of attributes of switch components.

- [Visible] can only be set when [Depend ID] is set to [None].
- Setting of Font, Gap, On Text, and Off Text is not possible when Text display is [Off].

3.21 Attributes of Switch Components

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. $Y = \text{Min. Y}^{*2}$ for $Y < \text{Min. Y}^{*2}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. $\text{Width} = 2$ for $\text{width} < 2$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $\text{width} < \text{Max. width}^{*1}$ and $(X + \text{Width}) > \text{Max. width}^{*1}$ $\text{Width} = \text{Max. width}^{*1}$, $X = 0$ for $\text{width} \geq \text{Max. width}^{*1}$
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. $\text{Height} = 2$ for $\text{height} < 2$ $Y = (\text{Max. height}^{*3} - \text{Height})$ for $\text{height} < \text{Max. height}^{*3}$ and $(Y + \text{Height}) > \text{Max. height}^{*3}$ $\text{Height} = \text{Max. height}^{*3}$, $Y = 0$ for $\text{height} \geq \text{Max. height}^{*3}$
Style	[Selector], [Seesaw], [Lever], [SlideX], [SlideY], [Push], [Power], [Connector], [Toggle]	This is the switch display kind.
Event level switch	[1] to [30]	—
Action prompt	[Off], [<u>On</u>]	This selects use/no use of dialog boxes confirming execution of an action function. Off: Dialog boxes are not used On: Dialog boxes are used
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [<u>L.brown</u>], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [BASE]	This is the switch color. BASE: Base color (background color of the screen)
On color	Same choice as for "Color", [<u>Cyan</u>]	This is the color when the switch is ON. The color at the time of ON is not displayed on the builder screen of the DX recorder.
Off color	Same choice as for "Color"	This is the color when the switch is OFF. The initial setting is [<u>BASE</u>].
String display	[Off], [<u>On</u>]	ON: Display of On Text and Off Text Off: No display of On Text and Off Text
Font	[Font5], [<u>Font6</u>], [<u>Font8</u>], Font12, [Font16]	This is the size of On/Off text. The initial setting is [<u>Font6</u>] for DX1000 and [<u>Font8</u>] for DX2000.
Gap	[0] to [15]	The interval between characters is specified in dots.
On string	<u>"ON"</u>	This is text showing ON. Input of max. 8 single-byte characters is possible. ON Text is not displayed on the execution screen of the DX recorder when "Style" is [Push], [Power], or [Connector].
Off string	<u>"OFF"</u>	This is text showing OFF. Input of up to 8 single-byte characters is possible.

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Synchronize action

► Section 3.3

3.22 Attributes of Communication Input Components

The displayed width of the component frame is 1 dot for the DX1000 and 2 dots for the DX2000.

The following limitations exist for attribute setting for communication input components.

- [Visible] can only be set when [Depend ID] is set to [None].
- Switching the max. value and the min. value is not possible.
- If a value smaller than [Minimum] is input for [Maximum], [Minimum] becomes that value.
- If a value larger than [Maximum] is input for [Minimum], [Maximum] becomes that value.

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. $Y = \text{Min. Y}^{*2}$ for $Y < \text{Min. Y}^{*2}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

3.22 Attributes of Communication Input Components

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. Width = 2 for width < 2 $X = (\text{Max. width}^{*1} - \text{Width})$ for width < Max. width ^{*1} and $(X + \text{Width}) > \text{Max. width}^{*1}$ Width = Max. width ^{*1} , X = 0 for width ≥ Max. width ^{*1}
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. Height = 2 for height < 2 $Y = (\text{Max. height}^{*3} - \text{Height})$ for height < Max. height ^{*3} and $(Y + \text{Height}) > \text{Max. height}^{*3}$ Height = Max. height ^{*3} , Y = 0 for height ≥ Max. height ^{*3}
Commu data no	DX1000: 1 to 24 DX2000: 1 to 60	This is the communication data number that is entered and displayed.
Decimal place (can only be set with a Version 4.11 screen)	0 to 4	This is the decimal place of the device that you have connected using Modbus, which is set by the specification of the number of digits to the right of the decimal point. You can match the decimal place of the DX to the fixed decimal place of the connected device to display input values or, using action functions, write values to the device. If the input value cannot be displayed using five digits, the sixth digit is rounded to display five significant digits in scientific notation. Example: If there are two decimal places Set value:2 Displayed value: 123.45
Minimum	-9.9999E+29 to -1.0000E-30 0 1.0000E-30 to 9.9999E+29	The lower limit value that can be input. If a value greater than the maximum is entered for the minimum, the maximum also becomes that value.
Maximum	-9.9999E+29 to -1.0000E-30 0 1.0000E-30 to <u>9.9999E+29</u>	The upper limit value that can be input. If a value less than the minimum is entered for the maximum, the minimum also becomes that value.
Font	[Font5], [Font6], [Font8], [Font12], [Font16], [Font32]	This is the font for display of Comment block text. The default settings are: DX1000 = [Font6]; and DX2000 = [Font8].
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [Background color]	This is the color for display of numerals. Background color: Base color (background color of the screen)
Background color	Same choices as for [Color]	This is the color of the background of the Comm. In area. The default setting is [White].
Arrangement	[Left], [Center], [<u>Right</u>]	This is the arrangement of the text label along the X axis within the Comm. In area. The Y-axis direction always is arranged at the center. Left: Text is displayed left-aligned. Center: Text is displayed centered. Right: Text is displayed right-aligned.

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Synchronize action

► Section 3.3

3.23 Attributes of Modbus In Component

(Can only be set with a Version 4.01 screen and a Version 4.11 screen)

Property(Modbus In)		ID=C
Depend ID:	None	
Visible:	On	
X:	169	Y: 189
Width:	86	Height: 85
Communication:	Ethernet	
Command no.:	1	
Decimal place:	0	
Minimum:	-9.9999E29	
Maximum:	9.9999E29	
Font:	Font8	
Color:	Black	
Background color:	White	
Arrangement:	Right	
Synchronize action		
Synchro attribute:	None	
Value:	On	
Synchro target:	Alarm	
Channel:	CH001	
Alarm level:	1	

The displayed width of the component frame is 1 dot for the DX1000 and 2 dots for the DX2000.

The following restrictions apply to the attribute settings of Modbus In components.

- [Visible] can only be set when [Depend ID] is set to [None].
- [Maximum] and [Minimum] are not interchangeable.
- If a value smaller than [Minimum] is input for [Maximum], [Minimum] becomes that value.
- If a value larger than [Maximum] is input for [Minimum], [Maximum] becomes that value.

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. $Y = \text{Min. Y}^{*2}$ for $Y < \text{Min. Y}^{*2}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

3.23 Attributes of Modbus In Component

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. Width = 2 for width < 2 $X = (\text{Max. width}^{*1} - \text{Width})$ for width < Max. width ^{*1} and $(X + \text{Width}) > \text{Max. width}^{*1}$ Width = Max. width ^{*1} , X = 0 for width ≥ Max. width ^{*1}
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. Height = 2 for height < 2 $Y = (\text{Max. height}^{*3} - \text{Height})$ for height < Max. height ^{*3} and $(Y + \text{Height}) > \text{Max. height}^{*3}$ Height = Max. height ^{*3} , Y = 0 for height ≥ Max. height ^{*3}
Communication	[Ethernet], [Serial]	Selects a communication kind of [Ethernet] or [Serial]. Ethernet: Uses Modbus client send commands Serial: Uses Modbus master send commands
Command no.	[1] to [16]	Sets the Modbus send command number specified under Communication.
Decimal place (can only be set with a Version 4.11 screen)	0 to 4	This is the decimal place of the device that you have connected using Modbus, which is set by the specification of the number of digits to the right of the decimal point. You can match the decimal place of the DX to the fixed decimal place of the connected device to display input values or, using action functions, write values to the device. If the input value cannot be displayed using five digits, the sixth digit is rounded to display five significant digits in scientific notation. Example: If there are two decimal places Set value:2 Displayed value: 123.45
Minimum	<u>-9.9999E+29</u> to -1.0000E-30 0 1.0000E-30 to 9.9999E+29	The lower limit value that can be input. If a value greater than the maximum is entered for the minimum, the maximum also becomes that value.
Maximum	-9.9999E+29 to <u>-1.0000E-30</u> 0 <u>1.0000E-30</u> to 9.9999E+29	The upper limit value that can be input. If a value less than the minimum is entered for the maximum, the minimum also becomes that value.
Font	[Font5], [Font6], [Font8], [Font12], [Font16], [Font32]	Set the character size of the Modbus input. The default settings are: DX1000 = [Font6]; and DX2000 = [Font8].
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [Background color]	Sets the color of the string showing the Modbus input. Background color: Base color (background color of the screen)
Background color	Same choices as for [Color]	This is the color of the background of the Modbus In area. The default setting is [White].
Arrangement	[Left], [Center], [Right]	This is the arrangement of the text label along the X axis within the Modbus In area. The Y-axis direction always is arranged at the center. Left: Text is displayed left-aligned. Center: Text is displayed centered. Right: Text is displayed right-aligned.

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

3.24 Attributes of Comment Box Components

Property(Comment box) ID=22

Depend ID: None

Visible: On

X: 26 Y: 376

Width: 65 Height: 48

Comment box no: 1

Font: Font8

Gap: 0

Color: Black

Background color: BASE

Arrangement: Left

Frame: Black

———— Synchronize action ————

Synchro attribute: None

Value: On

Synchro target: Alarm

Channel: CH001

Alarm level: 1

The following limitations exist for setting of attributes of comment box components.

- [Visible] can only be set when [Depend ID] is set to [None].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. $Y = \text{Min. } Y^{*2}$ for $Y < \text{Min. } Y^{*2}$ $Y = (\text{Min. } Y^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $(Y + \text{Height}) > (\text{Min. } Y^{*2} + \text{Max. height}^{*3})$
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. $\text{Width} = 2$ for $\text{width} < 2$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $\text{width} < \text{Max. width}^{*1}$ and $(X + \text{Width}) > \text{Max. width}^{*1}$ $\text{Width} = \text{Max. width}^{*1}$, $X = 0$ for $\text{width} \geq \text{Max. width}^{*1}$
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. $\text{Height} = 2$ for $\text{height} < 2$ $Y = (\text{Max. height}^{*3} - \text{Height})$ for $\text{height} < \text{Max. height}^{*3}$ and $(Y + \text{Height}) > \text{Max. height}^{*3}$ $\text{Height} = \text{Max. height}^{*3}$, $Y = 0$ for $\text{height} \geq \text{Max. height}^{*3}$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(480), () = Status area set to No display

3.24 Attributes of Comment Box Components

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Comment box no	DX1000: [1] to [100], DX2000: [<u>1</u>] to [200]	—
Font	[Font5], [<u>Font6</u>], [<u>Font8</u>], [Font12], [Font16]	This is the font for display of Comment block text. The initial setting is [<u>Font6</u>] for DX1000 and [<u>Font8</u>] for DX2000.
Gap	[0] to [15]	The interval between characters is specified in dots.
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [<u>Black</u>], [<u>White</u>], [<u>BASE</u>]	The color for display of text. BASE: Base color (background color of the screen)
Background color	Same choice as for "Color", [None]	This is the background color of the Comment box area. The initial setting is [<u>BASE</u>].
Arrangement	[<u>Left</u>], [Center], [Right]	This is the text arrangement in direction of the X-axis in the comment box area. The Y-axis direction always is arranged at the center. Left: Text is displayed left-aligned. Center: Text is displayed centered. Right: Text is displayed right-aligned.

Synchronize action

► Section 3.3

3.25 Attributes of Comment Block Components

Property(Cmnt block) ID = 12

Depend ID:

Visible:

X: Y:

Width: Height:

Comment block no:

Font:

Gap:

Line space:

Color:

Background color:

Arrangement:

Frame:

— Synchronize action —

Synchro attribute:

Value:

Synchro target:

Channel:

Alarm level:

The following limitations exist for setting of attributes of comment block components.

- [Visible] can only be set when [Depend ID] is set to [None].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. $Y = \text{Min. Y}^{*2}$ for $Y < \text{Min. Y}^{*2}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. $\text{Width} = 2$ for $\text{width} < 2$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $\text{width} < \text{Max. width}^{*1}$ and $(X + \text{Width}) > \text{Max. width}^{*1}$ $\text{Width} = \text{Max. width}^{*1}$, $X = 0$ for $\text{width} \geq \text{Max. width}^{*1}$
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. $\text{Height} = 2$ for $\text{height} < 2$ $Y = (\text{Max. height}^{*3} - \text{Height})$ for $\text{height} < \text{Max. height}^{*3}$ and $(Y + \text{Height}) > \text{Max. height}^{*3}$ $\text{Height} = \text{Max. height}^{*3}$, $Y = 0$ for $\text{height} \geq \text{Max. height}^{*3}$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(480), () = Status area set to No display

3.25 Attributes of Comment Block Components

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Comment block no	DX1000: [1] to [50], DX2000: [1] to [100]	—
Font	[Font5], [Font6], [Font8], [Font12], [Font16]	This is the font for display of Comment block text. The initial setting is [Font6] for DX1000 and [Font8] for DX2000.
Gap	[0] to [15]	The interval between characters is specified in dots.
Line space	[0] to [15]	The text line space is specified in dots.
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [BASE]	This is the text display color. BASE: Base color (background color of the screen)
Background color	Same choice as for "Color", [None]	This is the background color of the Comment block area. The initial setting is [BASE].
Arrangement	[Left], [Center], [Right]	This is the text arrangement in direction of the X-axis in the comment block area. The Y-axis direction always is arranged at the center. Left: Text is displayed left-aligned. Center: Text is displayed centered. Right: Text is displayed right-aligned.

Synchronize action

► Section 3.3

3.26 Attributes of Alarm List Components

Property(Alarm list) ID=80

Depend ID:

Visible:

X: Y:

Width: Height:

Batch group no.:

Font:

BG transparent:

Color:

Background color:

Display mode:

Frame:

Header display:

Mark display:

Lv&Kind display:

Time display:

NoDate display:

2 Line display:

Synchronize action

Synchro attribute:

Value:

Synchro target:

Channel:

Alarm level:

The following limitations exist for setting of attributes of alarm list components.

- [Visible] can only be set when [Depend ID] is set to [None].
- NoDate display is not possible when Time display is [Off].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. $Y = \text{Min. Y}^{*2}$ for $Y < \text{Min. Y}^{*2}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. $\text{Width} = 2$ for $\text{width} < 2$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $\text{width} < \text{Max. width}^{*1}$ and $(X + \text{Width}) > \text{Max. width}^{*1}$ $\text{Width} = \text{Max. width}^{*1}$, $X = 0$ for $\text{width} \geq \text{Max. width}^{*1}$
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. $\text{Height} = 2$ for $\text{height} < 2$ $Y = (\text{Max. height}^{*3} - \text{Height})$ for $\text{height} < \text{Max. height}^{*3}$ and $(Y + \text{Height}) > \text{Max. height}^{*3}$ $\text{Height} = \text{Max. height}^{*3}$, $Y = 0$ for $\text{height} \geq \text{Max. height}^{*3}$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(480), () = Status area set to No display

3.26 Attributes of Alarm List Components

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Batch group number	Setting range: 1 to multi-batch number set by the basic settings of the DX recorder DX1000: [1] to [6] DX2000 standard memory: [1] to [6] DX2000 expanded memory: [1] to [12]	This is the batch group number that can be selected within the range of the number of multibatches set in the basic settings on the DX recorder. This item is not displayed when multi-batch is Off.
Font	[Font6], [Font8]	This is the font for Alarm list display. The initial setting is [Font6] for DX1000 and [Font8] for DX2000.
BG transparent	[Off], [On]	ON: The background color becomes transparent on the execution screen of the DX recorder. In the Screen construction area of this software, frames are displayed by dotted lines to indicate that background transparent display is On. Caution: Background transparent display is effective when trend components are placed completely overlapping under list components. It is not effective when the trend components project beyond the list components.
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [BASE]	The color for display of text. BASE: Base color (background color of the screen)
Background color	[Black], [White]	This is the alarm list background color.
Display mode	[List], [Watch]	This is the mode for display of the alarm list. List: All alarm events are displayed. Watch: Only presently active alarms are displayed.
Header display	[Off], [On]	This selects header display always/not on the execution screen of the DX recorder. On: Display Off: No display
Mark display	[Off], [On]	This selects display/no display of alarm event marks and text on the execution screen of the DX recorder. No display is made on the Screen construction area. On: Display Off: No display
Lv&Kind display	[Off], [On]	This selects display/no display of text showing alarm level and type on the execution screen of the DX recorder. On: Display Off: No display
Time display	[Off], [On]	This selects display/no display of the alarm time on the execution screen of the DX recorder. No display is made in the Screen construction area. On: Display Off: No display
NoDate display	[Off], [On]	This selects time display without or with the date on the execution screen of the DX recorder. No display is made in the Screen construction area. On: The time is displayed without the date. Off: Time and date are displayed.
2 Line display	[Off], [On]	On: One alarm is displayed on two lines on the execution screen of the DX recorder. Channel text and time are displayed separately on two lines. When "Display without date" is [On], the time is displayed on one line. Off: 2 line display is not performed.

Synchronize action

► Section 3.3

3.27 Attributes of Message List Components

Property(Message list) ID=81

Depend ID:

Visible:

X: Y:

Width: Height:

Batch group no.:

Font:

BG transparent:

Color:

Background color:

Frame:

Header display:

Mark display:

Time display:

NoDate display:

Group display:

User display:

2 Line display:

Synchronize action

Synchro attribute:

Value:

Synchro target:

Channel:

Alarm level:

The following limitations exist for setting of attributes of message list components.

- [Visible] can only be set when [Depend ID] is set to [None].
- NoDate display is not possible when Time display is [Off].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. X = 0 for X < 0 X = (Max. width ^{*1} – Width) for (X + Width) > Max. width ^{*1}
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. Y = Min. Y ^{*2} for Y < Min. Y ^{*2} Y = (Min. Y ^{*2} + Max. height ^{*3} – Height) for (Y + Height) > (Min. Y ^{*2} + Max. height ^{*3})
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. Width = 2 for width < 2 X = (Max. width ^{*1} – Width) for width < Max. width ^{*1} and (X + Width) > Max. width ^{*1} Width = Max. width ^{*1} , X = 0 for width ≥ Max. width ^{*1}
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. Height = 2 for height < 2 Y = (Max. height ^{*3} – Height) for height < Max. height ^{*3} and (Y + Height) > Max. height ^{*3} Height = Max. height ^{*3} , Y = 0 for height ≥ Max. height ^{*3}

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

3.27 Attributes of Message List Components

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Batch group number	Setting range: 1 to multi-batch number set by the basic settings of the DX recorder DX1000: [1] to [6] DX2000 standard memory: [1] to [6] DX2000 expanded memory: [1] to [12]	This is the batch group number that can be selected within the range of the number of multibatches set in the basic settings on the DX recorder. This item is not displayed when multi-batch is Off.
Font	[Font6], [Font8]	This is the font for Message list display. The initial setting is [Font6] for DX1000 and [Font8] for DX2000.
BG transparent	[Off], [On]	ON: The background color becomes transparent on the execution screen of the DX recorder. In the Screen construction area of this software, frames are displayed by dotted lines to indicate that background transparent display is On. Caution: Background transparent display is effective when trend components are placed completely overlapping under list components. It is not effective when the trend components project beyond the list components.
Color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [Black], [White], [BASE]	The color for display of text. BASE: Base color (background color of the screen)
Background color	[Black], [White]	This is the background color for the Message list.
Header display	[Off], [On]	This selects header display always/not on the execution screen of the DX recorder. On: Display Off: No display
Mark display	[Off], [On]	This selects display/no display of message marks on the execution screen of the DX recorder. No display is made on the Screen construction area. On: Display Off: No display
Time display	[Off], [On]	This selects display/no display of the message time on the execution screen of the DX recorder. On: Display Off: No display
NoDate display	[Off], [On]	This selects time display without or with the date on the execution screen of the DX recorder. No display is made in the Screen construction area. On: The time is displayed without the date. Off: Time and date are displayed.
Group display	[Off], [On]	This selects display/no display of the message write group on the execution screen of the DX recorder. On: Display Off: No display
User display	[Off], [On]	This selects display/no display of the message write user on the execution screen of the DX recorder. On: Display Off: No display
2 Line display	[Off], [On]	This selects display/no display of messages on two lines on the execution screen of the DX recorder. ON: 2 Line display Off: No 2 Line display

Synchronize action

► Section 3.3

3.28 Attributes of Trend Components

Property(Trend) ID=84

Depend ID:	None
Visible:	On
X:	489
Y:	361
Width:	119
Height:	105
Batch group no.:	1
Display Grp no.:	1
Direction:	SET
Compress ratio:	1
Trend area:	100
Margin:	Off
Change display Grp:	On
Time/div display:	On
Time/div font:	Font8
Time grid display:	On
Time display:	On
Time interval:	Alternate
Time font:	Font5
Scale grid display:	On
Message display:	On
Message mark size:	Large
2nd span:	Off
2nd span Lower:	0.0
2nd span Upper:	100.0
Synchronize action	
Synchro attribute:	None
Value:	On
Synchro target:	Alarm
Channel:	CH001
Alarm level:	1

The following limitations exist for attribute setting for trend components.

- [Visible] can only be set when [Depend ID] is set to [None].
- The time/div font cannot be set when Time/div display is [Off].
- The message mark size cannot be set when message mark display is [Off].
- 2nd span upper limit and 2nd span lower limit cannot be set when 2nd span is [Off].
- 2nd span upper limit and 2nd span lower limit cannot be switched against each other.
- When the synchro target is [Switch], alarm level setting is not possible.
- If the MultiBatch function is not enabled, the [Batch group no.] cannot be set.
- When [Time Grid Display] is [Off], the time grid for trend components is not displayed.
- When [Scale Grid Display] is [Off], the scale grid for trend components is not displayed.
- When the [Time Grid Display] and [Scale Grid Display] are [Off], the background fill color is applied without displaying the frame.
- When the [Time Grid Display] is [Off], the [Time display] is [Off] and cannot be set.
- When the [Time Grid Display] is [Off], the [Time font] and [Time interval] cannot be set.
- When [Time display] is [Off], the [Time interval] and [Time font] cannot be set.

3.28 Attributes of Trend Components

Note

- Some time may be required until display data are displayed. Please do the following if you want to shorten the time.
 - If All Channel display is On, set it to Off.
 - When displaying data compressed in direction of the time axis, lower the compression ratio or reduce the number of trend components.
 - When trend components are arranged superposed with push button components, communication input components, and switch components, arrange the components so that they are not superposed. When parts are arranged without gaps, they can overlap. Keep a gap of at least 1 dot between parts.
- When the "Compress ratio" for trend components is set to [2] or higher, the old waveform screen may disappear and an intermediate waveform may be displayed in case of display switching with trend display at the DX recorder. This is caused by a limitation of the internal memory capacity, and it is no abnormality. The data are written to the internal memory.

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. $Y = \text{Min. Y}^{*2}$ for $Y < \text{Min. Y}^{*2}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. $\text{Width} = 2$ for $\text{width} < 2$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $\text{width} < \text{Max. width}^{*1}$ and $(X + \text{Width}) > \text{Max. width}^{*1}$ $\text{Width} = \text{Max. width}^{*1}$, $X = 0$ for $\text{width} \geq \text{Max. width}^{*1}$
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. $\text{Height} = 2$ for $\text{height} < 2$ $Y = (\text{Max. height}^{*3} - \text{Height})$ for $\text{height} < \text{Max. height}^{*3}$ and $(Y + \text{Height}) > \text{Max. height}^{*3}$ $\text{Height} = \text{Max. height}^{*3}$, $Y = 0$ for $\text{height} \geq \text{Max. height}^{*3}$
Batch group number	Setting range: 1 to multi-batch number set by the basic settings of the DX recorder DX1000: [1] to [6] DX2000 standard memory: [1] to [6] DX2000 expanded memory: [1] to [12]	This is the batch group number that can be selected within the range of the number of multibatches set in the basic settings on the DX recorder. This item cannot be set when multi-batch of the DX recorder is OFF.
Display Grp no	when multi-batch is Off. DX1000: [1] to [10] DX2000: [1] to [36] when multi-batch is On. DX1000: [1] to [6] DX2000: [1] to [12]	Display on the builder screen of the DX recorder is made as "Group No." The group selection range differs according to the batch.
Direction	[SET], [Horizontal], [Vertical]	This is the waveform flow direction. SET: Setting of the DX recorder Vertical: Vertical waveform direction Horizontal: Horizontal waveform direction

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Compress ratio	[<u>1</u>], [2], [4], [5], [6], [7], [8]	This selects the number of data represented by 1 dot.
Trend area	[50], [60], [70], [80], [90], [<u>100</u>]	The rate for the width of the waveform display is calculated with the width in direction of the time axis as 100 %. This is used when "Trend blank" of the DX recorder is ON.
Margin (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[<u>Off</u>], [On]	Sets whether or not to display a margin on both sides in the direction of the span. Off: No margin On: Margin of 3% of component width is added in the direction of the span
Display group switching (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[<u>Off</u>], [On]	Sets whether or not to switch the group display in the DX recorder's execution panel when the left/right keys are pressed. On: Switched Off: Not switched
Time/div display	[<u>Off</u>], [On]	This selects display/no display of Time/div.
Time/div font	[<u>Font6</u>], [Font8]	This is the font for display of Time/div. Setting is not possible when "Time/div display" is [Off]. The initial setting is [Font6] for DX1000 and [Font8] for DX2000.
Time grid display (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[<u>Off</u>], [On]	Sets [On] or [Off] to indicate whether or not the time is displayed. When set to [Off], the [Time display] and [Time font] items cannot be set.
Time display	[<u>Off</u>], [On]	This selects display/no display of the grid time. On: Display Off: No display
Time interval (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[<u>Alternate</u>], [EveryGrid]	Sets the interval for displaying the time. EveryGrid: Displays in all time grids Alternate: Displays in every other time grid
Time font	[<u>Font5</u>], [Font6]	This is the font for display of the grid time. Setting is not possible when "Time display" is [Off].
Scale grid display (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[<u>Off</u>], [On]	Sets whether or not to display the scale grid. On: Displayed Off: Not displayed
Message display	[<u>Off</u>], [On]	This selects display/no display of message marks. On: Display Off: No display
Message mark size	[Small], [<u>Large</u>]	This is the size for display of message marks. Setting is not possible when "Message display" is [Off].
2nd span	[<u>Off</u>], [On]	This selects effective/disabled for 2nd span. On: Effective Off: Disabled
2nd span Lower (On Version3 screens, no decimal places allowed)	[<u>0.0</u>] to [90.0]	The 2nd span lower limit is set between setting span lower limit (0.0 %) and upper limit (100.0 %). Setting is not possible when "2nd span" is [Off].
2nd span Upper (On Version3 screens, no decimal places allowed)	[10.0] to [<u>100.0</u>]	The 2nd span lower limit is set between setting span lower limit (0.0 %) and upper limit (100.0 %). Setting is not possible when "2nd span" is [On].

Synchronize action

► Section 3.3

3.29 Attributes of Scale Components

The screenshot shows a 'Property(Scale)' dialog box with the title 'ID=88'. It contains the following fields and settings:

- Depend ID: None
- Visible: On
- X: 605, Y: 53
- Width: 29, Height: 56
- Batch group no.: 1
- Display Grp no.: 1
- Kind: On
- Bitmap filename: (empty field with a browse button)
- Form: Small
- Indicator: SET
- Indicator type: Standard
- Digit: SET
- Unit: On
- Margin: Off
- Change display Grp: On
- Trend direction: SET
- Alarm mark display: SET
- Alarm mark: SET
- 2nd span: Off
- 2nd span Lower: 0.0
- 2nd span Upper: 100.0
- Synchronize action (header)
- Synchro attribute: None
- Value: On
- Synchro target: Alarm
- Channel: CH001
- Alarm level: 1

Bitmap components can be assigned to scale components.

If bitmap components overlap with scale components that display bitmap components, only the bitmap of the component in front is displayed, and components in back are displayed in a dotted frame.

When scale components are assigned bitmaps that cannot be displayed on the DX recorder, an X appears in the center of the component.

The following restrictions apply to the attribute settings of scale components.

- [Visible] can only be set when [Depend ID] is set to [None].
- If the MultiBatch function is not enabled, the [Batch group no.] cannot be set.
- When [Kind] is [Off], [Bmp filename], [...], [Indicator], [Digit], [Alarm mark display], [Alarm mark], and [Unit] cannot be set.
- When [Kind] is [On], [Bmp filename] and the [...] button cannot be set.
- When [Kind] is [Bmp], [Digit] cannot be set.
- When [Alarm mark display] is [Off], [Alarm mark] cannot be set.
- When [2ndspan] is [Off], [2nd span Lower] and [2nd span Upper] cannot be set.
- When [Unit] is [Off], scale units are not displayed.

Note

- Place bitmap files into the same directory as display data (.CDC). The bitmap files cannot be displayed when the data are in a different directory.
- If you assign a bitmap that cannot be displayed on the DX recorder to a scale component, a "x" is displayed in the center of the component.

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. $Y = \text{Min. Y}^{*2}$ for $Y < \text{Min. Y}^{*2}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. $\text{Width} = 2$ for $\text{width} < 2$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $\text{width} < \text{Max. width}^{*1}$ and $(X + \text{Width}) > \text{Max. width}^{*1}$ $\text{Width} = \text{Max. width}^{*1}$, $X = 0$ for $\text{width} \geq \text{Max. width}^{*1}$
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. $\text{Height} = 2$ for $\text{height} < 2$ $Y = (\text{Max. height}^{*3} - \text{Height})$ for $\text{height} < \text{Max. height}^{*3}$ and $(Y + \text{Height}) > \text{Max. height}^{*3}$ $\text{Height} = \text{Max. height}^{*3}$, $Y = 0$ for $\text{height} \geq \text{Max. height}^{*3}$
Batch group number	Setting range: 1 to multi-batch number set by the basic settings of the DX recorder DX1000: [1] to [6] DX2000 standard memory: [1] to [6] DX2000 expanded memory: [1] to [12]	This is the batch group number which can be selected within the range of the multi-batch number set by the basic settings of the DX recorder. This item cannot be set when multi-batch of the DX recorder is OFF.
Display Grp no	when multi-batch is Off. DX1000: [1] to [10] DX2000: [1] to [36] when multi-batch is On. DX1000: [1] to [6] DX2000: [1] to [12]	This is the batch group number that can be selected within the range of the number of multibatches set in the basic settings on the DX recorder. The group selection range differs according to the batch.
Kind	[Off], [<u>On</u>], [Bmp]	This is the scale plate kind. Off: A simple scale plate without scale values On: Display with the scale plate display divided into the set number of divisions and drawing of scale values at fixed intervals. Bitmap: A bitmap designed by the user is used for the scale plate.
Bitmap filename	Input is possible for max. 51 single-byte alphanumeric characters.	This specifies the file name of the bitmap to be displayed. This is effective when "Kind" is [Bmp]. This is the name of the bitmap file to be pasted onto the scale plate. The bitmap file read destination is the folder that the latest display data (.CDC) has saved.
Form	[<u>Small</u>], [Large]	Scale band format. When the format is [Small] and the channel's green band setting is [Off] in the settings file, the area for the scale value and units is filled with the background color of the scale band. If there is no settings file, the channel's green band setting is Off. Small: A small scale plate The same image as for 4-screen display with DX2000 or the scale plate with DX1000. Large: A large scale plate This is the same image as for the scale plate at the time of other than 4-screen display with DX2000.

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

3.29 Attributes of Scale Components

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Indicator	[<u>SET</u>], [Mark], [Bar]	This is the indicator displayed on the scale plate. Setting is not possible when "Kind" is [Off]. SET: Setting of the DX recorder Mark: Present value marks are displayed for the number of channels registered to the group. Bar: Bars are displayed for the number of channels registered to the group.
Indicator type (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[<u>Standard</u>], [Micro], [Small], [Balance]	Selects the indicator format.
Digit	[<u>SET</u>], [Normal], [Fine]	This is the number of display digits of the scale value displayed on the scale plate. Setting is not possible when "Kind" is [Off]. SET: Setting of the DX recorder Normal: Effective digits of the scale value: 2 digits Fine: Effective digits of the scale value: 3 digits
Unit (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[Off], [<u>On</u>]	Selects whether or not to display the units. On: The units are displayed Off: The units are not displayed
Margin (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[<u>Off</u>], [On]	Sets whether or not to display a margin on both sides in the direction of the span. On: Margin of 3% of component width is added in the direction of the span Off: The margin is not displayed
Display group switching (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[Off], [<u>On</u>]	Sets whether or not to switch the group display in the DX recorder's execution panel when the left/right keys are pressed. On: Switched Off: Not switched
Trend direction	[<u>SET</u>], [Vertical], [Horizontal]	This is the waveform flow direction. SET: Setting of the DX recorder Vertical: Vertical waveform direction Horizontal: Horizontal waveform direction
Alarm mark display	[Off], [On], [<u>SET</u>]	Selection of alarm mark display/no display Setting is not possible when "Kind" is [Off]. Off: No alarm mark display On: Alarm mark display SET: Setting of the DX recorder
Alarm mark	[Alarm], [Fixed], [<u>SET</u>]	This selects the alarm mark style. Setting is not possible when "Kind" is [Off] or "Alarm mark display" is [Off] Alarm: Color change may occur at the time of trapezoid display and at the time of alarm ON. Fixed: No color change at the time of trapezoid display and at the time of alarm ON. SET: Setting of the DX recorder
2nd span	[<u>Off</u>], [On]	This selects effective/disabled for 2nd span. On: Effective Off: Disabled

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
2nd span Lower (On Version3 screens, no decimal places allowed)	<u>0.0</u> to [90.0]	The 2nd span lower limit is set between setting span lower limit (0.0 %) and upper limit (100.0 %). Setting is not possible when "2nd span" is [Off].
2nd span Upper (On Version3 screens, no decimal places allowed)	[10.0] to <u>100.0</u>	The 2nd span lower limit is set between setting span lower limit (0.0 %) and upper limit (100.0 %). Setting is not possible when "2nd span" is [On].

Synchronize action

► Section 3.3

3.30 Attributes of Line Components

The screenshot shows the 'Property(Line)' dialog box with ID=92. It contains the following settings:

- Depend ID: None
- Visible: On
- From X: 74, From Y: 156
- To X: 205, To Y: 156
- Line color: Black
- Line kind: Solid
- Trend grid mode: Off
- Synchronize action: (empty)
- Synchro attribute: None
- Value: On
- Synchro target: Alarm
- Channel: CH001
- Alarm level: 1

The following limitations exist for setting of attributes of line component attributes.

- [Visible] can only be set when [Depend ID] is set to [None].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
From X	DX1000: 0 to 319 DX2000: 0 to 639	This is the X-coordinate of the start point for component creation. From X = 0 for From X < 0 From X = (Max. width ^{*1} - 1) for From X > (Max. width ^{*1} - 1)
From Y	DX1000: 24(0) to 239 DX2000: 40(0) to 479 () = Status area set to No display	This is the Y-coordinate of the start point for component creation. From Y = Min. Y ^{*2} for From Y < Min. Y ^{*2} From Y = (Min. Y ^{*2} + Max. height ^{*3} - 1) for From Y > (Min. Y ^{*2} + Max. height ^{*3} - 1)
To X	DX1000: 0 to 319 DX2000: 0 to 639	This is the X-coordinate of the end point for component creation. To X = 0 for To X < 0 To X = (Max. width ^{*1} - 1) for To X > (Max. width ^{*1} - 1)
To Y	DX1000: 24(0) to 239 DX2000: 40 (0)to 479 () = Status area set to No display	This is the Y-coordinate of the end point for component creation. To Y = Min. Y ^{*2} for To Y < Min. Y ^{*2} To Y = (Min. Y ^{*2} + Max. height ^{*3} - 1) for To Y > (Min. Y ^{*2} + Max. height ^{*3} - 1)

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Line color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [<u>Black</u>], [White], [BASE]	This is the line color. BASE: Base color (background color of the screen)
Line kind	[<u>Solid</u>], [Dotted], [Dash], [Longdash]	The line kind is set. Solid: A solid line Dotted: A line with continuous repetition of two dots and two blank spaces. Dash: A line with continuous repetition of four dots and four blank spaces. Longdash: A line with continuous repetition of six dots and two blank spaces.
Trend grid (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[On], [<u>Off</u>]	Sets whether or not it should act as the grid of the dependant trend component. ON: Plotted as the grid of the trend component specified by the Depend ID. Off: Displayed as lines.

Synchronize action

► Section 3.3

3.31 Attributes of Rectangle Components

The screenshot shows the 'Property(Rectangle)' dialog box with ID=93. It contains the following settings:

- Depend ID: None
- Visible: On
- X: 468, Y: 120
- Width: 96, Height: 27
- Line color: Black
- Background color: None
- Line kind: Solid
- Synchronize action: (empty)
- Synchro attribute: None
- Value: On
- Synchro target: Alarm
- Channel: CH001
- Alarm level: 1

The following limitations exist for setting of attributes of rectangle components.

- [Visible] can only be set when [Depend ID] is set to [None].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. $Y = \text{Min. Y}^{*2}$ for $Y < \text{Min. Y}^{*2}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. $\text{Width} = 2$ for $\text{width} < 2$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $\text{width} < \text{Max. width}^{*1}$ and $(X + \text{Width}) > \text{Max. width}^{*1}$ $\text{Width} = \text{Max. width}^{*1}$, $X = 0$ for $\text{width} \geq \text{Max. width}^{*1}$
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. $\text{Height} = 2$ for $\text{height} < 2$ $Y = (\text{Max. height}^{*3} - \text{Height})$ for $\text{height} < \text{Max. height}^{*3}$ and $(Y + \text{Height}) > \text{Max. height}^{*3}$ $\text{Height} = \text{Max. height}^{*3}$, $Y = 0$ for $\text{height} \geq \text{Max. height}^{*3}$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Line color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], [<u>Black</u>], [White], [BASE], [None]	This is the line color. BASE: Base color (background color of the screen) None: No line (outer frame)
Background color	Same choice as for "Line", [<u>None</u>]	This is the color inside the rectangle. None: No background color
Line kind	[<u>Solid</u>], [Dotted], [Dash], [Longdash]	This is the kind of line for drawing the rectangle. Solid: A solid line Dotted: A line with continuous repetition of two dots and two blank spaces. Dash: A line with continuous repetition of four dots and four blank spaces. Longdash: A line with continuous repetition of six dots and two blank spaces.

Synchronize action

► Section 3.3

3.32 Attributes of Circle Components

The screenshot shows the 'Property(Circle)' dialog box with ID=94. It contains the following settings:

- Depend ID: None
- Visible: On
- X: 186, Y: 216
- Size: 52
- Line color: Black
- Background color: None
- Synchronize action: (empty)
- Synchro attribute: None
- Value: On
- Synchro target: Alarm
- Channel: CH001
- Alarm level: 1

The following limitations exist for setting of attributes of circle components.

- [Visible] can only be set when [Depend ID] is set to [None].

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the square enclosing the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{size})$ for $(X + \text{size}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the top of the square enclosing the component. $Y = \text{Min. Y}^{*2}$ for $Y < \text{Min. Y}^{*2}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{size})$ for $(Y + \text{size}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$
Size	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the size of the square enclosing the component. $\text{Size} = 1$ for $\text{Size} < 1$ $X = (\text{Max. height}^{*3} - \text{Size})$ for $\text{height} < \text{Max. height}^{*3}$ and $(Y + \text{Size}) > \text{Max. height}^{*3}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Size})$ for $\text{Size} < \text{Max. height}^{*3}$ and $(Y + \text{Size}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$ $\text{Size} = \text{Max. height}^{*3}$, $Y = \text{Min. Y}^{*2}$ for $\text{Size} \geq \text{Max. height}^{*3}$ $\text{Size} = \text{Max. height}^{*3}$, $X = (\text{Max. width}^{*1} - \text{Max. height}^{*3})$ for $\text{Size} \geq \text{Max. height}^{*3}$ and $(X + \text{Max. height}^{*3}) > \text{Max. width}^{*1}$

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

*3 DX1000 max. height = 216(240), DX2000 max. height = 440(80), () = Status area set to No display

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
Line color	[Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Light blue], [Violet], [Gray], [Lime], [Cyan], [Dark blue], [Yellow], [Light gray], [Purple], [Pink], [L.brown], [L.green], [Dark gray], [Olive], [Dark cyan], [S.green], <u>[Black]</u> , [White], [BASE], [None]	This is the line color. BASE: Base color (background color of the screen) None: No line (outer frame)
Background color	Same choice as for "Line", <u>[None]</u>	This is the color inside the circle. None: No background color

Synchronize action

► Section 3.3

3.33 Attributes of Bitmap Components

Property(Bitmap) ID=132

Depend ID:

Visible:

X: Y:

Width: Height:

Bitmap filename:

Trend grid mode:

Image processing:

Disp. on editing:

Synchronize action

Synchro attribute:

Value:

Synchro target:

Channel:

Alarm level:

Click here to browse for a bitmap file

The following limitations exist for setting of attributes of bitmap components.

- [Visible] can only be set when [Depend ID] is set to [None].
- When setting [Depend ID] to the ID of a trend component, if [Trend grid mode] is turned [On], [Disp. on editing] is [On] and cannot be set.
- When setting [Depend ID] to the ID of a trend component, if [Trend grid mode] is turned [Off], display in the builder screen becomes available for setting
- When setting [Depend ID] to the ID of a trend component, if [Trend grid mode] is turned [On], [Image processing] is [Off] and cannot be set.
- When setting [Depend ID] to the ID of a trend component, if [Trend grid mode] is turned [Off], you can set [Image processing].
- If [Trend grid mode] is [On], when [Depend ID] is set to the ID of a trend component, [Disp. on editing] is [On] and cannot be set.
- If [Trend grid mode] is [On], when [Depend ID] is set to the ID of a component other than a trend component, [Disp. on editing] can be set.
- If [Trend grid mode] is [On], when [Depend ID] is set to the ID of a trend component, [Image processing] is [Off] and cannot be set.
- If [Trend grid mode] is [On], when [Depend ID] is set to the ID of a component other than a trend component, [Image processing] can be set.

Note

- When “Image processing” is [On], some time may be required until display of display data at the DX recorder. Set to [Off] if you want to shorten the time.
- Place bitmap files into the same directory as display data (.CDC). The bitmap files cannot be displayed when the data are in a different directory.
- When display data using bitmap components are sent to the internal memory of the DX recorder, the bitmap image is not displayed on the execution screen. For display of bitmap images which have not been displayed even once, the external storage media (CF card) where these bitmap files are stored, must be inserted into this unit.
- For arrangement of bitmap components overlapping each other and using them with display switching, the external storage media (CF card) where these bitmap files are stored must be inserted into the DX recorder.
- When bitmap components are assigned bitmaps that cannot be displayed on the DX recorder, an X appears in the center of the component.

List of Settings

Refer to Section 3.3 for attributes without explanations in the list of settings.

Attribute	Set value/choice (Underlined items are initial set values)	Description, conditions
X	DX1000: 0 to 318 DX2000: 0 to 638	This is the X-coordinate of the left side of the component. $X = 0$ for $X < 0$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $(X + \text{Width}) > \text{Max. width}^{*1}$
Y	DX1000: 24(0) to 238 DX2000: 40(0) to 478 () = Status area set to No display	This is the Y-coordinate of the upper side of the component. $Y = \text{Min. Y}^{*2}$ for $Y < \text{Min. Y}^{*2}$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$
Width	DX1000: 2 to 320 DX2000: 2 to 640	This is the component width. $\text{Width} = 2$ for $\text{width} < 2$ $X = (\text{Max. width}^{*1} - \text{Width})$ for $\text{width} < \text{Max. width}^{*1}$ and $(X + \text{Width}) > \text{Max. width}^{*1}$ $\text{Width} = \text{Max. width}^{*1}$, $X = 0$ for $\text{width} \geq \text{Max. width}^{*1}$
Height	DX1000: 2 to 216(240) DX2000: 2 to 440(480) () = Status area set to No display	This is the component height. $\text{Height} = 2$ for $\text{height} < 2$ $Y = (\text{Min. Y}^{*2} + \text{Max. height}^{*3} - \text{Height})$ for $\text{height} < \text{Max. height}^{*3}$ and $(Y + \text{Height}) > (\text{Min. Y}^{*2} + \text{Max. height}^{*3})$ $\text{Height} = \text{Max. height}^{*3}$, $Y = \text{Min. Y}^{*2}$ for $\text{height} \geq \text{Max. height}^{*3}$
Bitmap filename	Input is possible for max. 51 single-byte alphanumeric characters.	This specifies the bitmap file name. The bitmap file read destination is the folder that the latest display data (.CDC) has saved. To browse for a new file, click the button to the right of the file name box.
Trend grid (can only be set with a Version 4.01 screen and a Version 4.11 screen)	[Off], [On]	Sets whether or not it should act as the grid of the trend component. On: Acts as the trend grid Off: Does not act as the trend grid If the Depend ID is set to On while the Trend component was being set, [Disp. on editing] is fixed to [On] and cannot be changed, and [Image Processing] is also fixed to [Off] and cannot be changed.
Image processing	[Off], [On]	This sets image processing conversion at the time of bitmap file reading to [On] or [Off]. When this is set to On, some time is required until display. This time is approximately 30 sec when the image size is 640 x 480 pixel. On: When a bitmap is read in on the DX recorder, display is made after optimizing for the display of the DX recorder. Off: No image processing
Disp. On editing	[Off], [On]	On: Bitmap images are displayed on the execution screen of the DX recorder. Off: Dotted line frames and characters indicating that these are bitmap components are displayed.

*1 DX1000 max. width = 320, DX2000 max. width = 640

*2 DX1000 min. Y = 24(0), DX2000 min. Y = 40(0), () = Status area set to No display

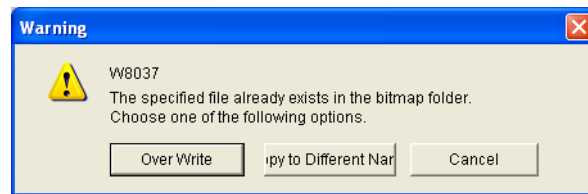
*3 DX1000 max. height = 216(240), DX2000 max. height = 440(480), () = Status area set to No display

Continued on the next page

3.33 Attributes of Bitmap Components

Specifying the Bmp file name

If you specify a folder and try to assign a bitmap of a file name that already exists in the bitmap folder, a message appears.



Overwrite: Overwrites the specified bitmap

Copy to Different Name: Copies the specified bitmap to a different name

Cancel: Cancels bitmap assignment.

If you select to copy to a different name, the file is copied to the bitmap folder with a ~ followed by a serial number starting with 0 added to the filename. Serial numbers range from 0 to 200. (for example, sample.bmp would be copied to sample~0.bmp)

If adding the ~ and serial number causes the file name to exceed 51 characters, enough characters (excluding the extension) are removed from the end of the file name to make it contain 51 characters.

(for example, if sample....abcde.bmp contains 51 characters, it would be copied as sample....abc~0.bmp)

Synchronize action

► Section 3.3

4.1 Receiving Display Data from DX Recorder

If screen data (custom display data) is received from the DX recorder via communications, it is reflected on DAQStudio.

If the Batch function is MultiBatch, the Batch/Group list page appears in the work area, and the Group list page is not displayed.

If the Batch function is Off or On, the Group list page appears in the work area, and the Batch/Group list is not displayed.

When receiving screen data from the DX recorder, the Channel/alarm list page is displayed in the work area.

If the DX includes the /AS1 option, set up the DX in advance as follows. (In the example of setting up the DX below, the user ID is not set.)

DX main unit (with /AS1 option) settings

1. Press **MENU** (to switch to setting mode), hold down **FUNC** for 3 s (to switch to basic setting mode), and select the Environment tab > Security > Communication, and set Login.
2. Select the Menu tab > User registration > Admin settings > Mode, set [Key+Comm], enter the user name, and return to the operation screen.

If a password is set, this concludes the setup. If no password set, perform the following additional steps.

3. Press **FUNC**, select **Admin1**, then press **DISP/ENTER**.
4. Skip the user ID and select **ENT**.
5. Enter Admin1 for the password, then select **ENT**.
6. Enter a new password (between 6 and 20 alphanumeric characters, no spaces allowed), then select **ENT**.
7. Reenter the new password and select **ENT**.

Procedure

1. Select **Communication > Receive**.

"Receive" dialog box appears.

2. Enter the DX recorder's IP address and host name, and the user name, user ID, and password.

IP address/Host name: Up to 64 single-byte alphanumeric characters can be entered. The initial setting is "admin."

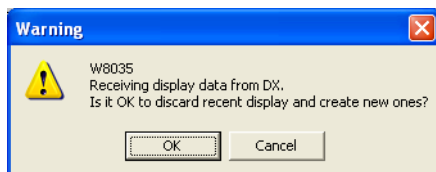
User name: Up to 20 alphanumeric characters can be entered.

User ID: Up to 8 alphanumeric characters can be entered.

Password: Up to 20 single-byte alphanumeric characters can be entered.

4.1 Receiving Display Data from DX Recorder

3. Click **[Receive]**.
A message is displayed.



4. Click **[OK]**.
All custom display screen data in the internal memory of the DX recorder and on the CF card are received to the save object folder.
5. Save the file. (► Section 2.5)

Explanation

Only the items set for the DX recorder are entered for IP address/host name, user name, and password. The IP address/host name and user name entered at this time are saved, and they are displayed when the software is started the next time. The user ID and password are not stored. They are cleared each time.

The extension of data which can be received by the software from the DX recorder is CDC, CDS, and bmp. The file name is as shown below.

Internal1.CDC to Internal3.CDC:	Saved in the root directory of the internal memory of the DX recorder.
External1.CDC to External25.CDC:	They are saved in the CF card inserted into the DX recorder.
Setting.CDS:	These are the DX recorder settings.
Arbitrary_name.bmp:	The bitmap file assigned to the component. They are saved in the CF card inserted into the DX recorder.

When screen data is received from the DX recorder, the software screen version is as follows.

- The software screen version is the newest version in the received display data (.CDC).

All custom display screen data (Internal1.CDC to Internal3.CDC and External1.CDC to External25.CDC), setting file(.CDS), and bitmap file(.bmp) in the root directory of the internal memory of the DX recorder and in the root directory of the CF card are received to the folder that the latest display data has saved.

The display data and bitmap data must be saved every time they have been received from DX recorder.

Custom display screen data (.CDC) can be received to DX recorders with a release number from R3 on.

Notes on Firewalls

Under Windows Vista or Windows 7, a firewall-related warning appears when receiving screen data from the DX. Check the contents of the message, then click [Unblock] (Windows Vista) or [Allow access] (Windows 7).



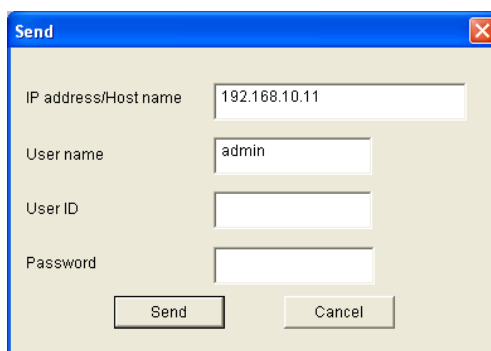
Example: Windows Vista

4.2 Sending Display Data to DX Recorder

If the DX includes the /AS1 option, perform the DX main unit (with /AS1 option) settings procedure in section 4.1 in advance.

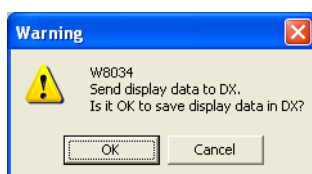
Procedure

1. Select **Communication > Send**.
"Send" dialog box appears.



The "Send" dialog box is a standard Windows-style window with a blue title bar and a close button (X) in the top right corner. It contains four text input fields stacked vertically, each with a label to its left: "IP address/Host name" (containing "192.168.10.11"), "User name" (containing "admin"), "User ID" (empty), and "Password" (empty). At the bottom of the dialog are two buttons: "Send" and "Cancel".

2. Enter the IP address/host name of the DX recorder, the user name, and the password.
 IP address/Host name: Up to 64 single-byte alphanumeric characters can be entered.
 User name: Up to 20 alphanumeric characters can be entered. The initial setting is "admin."
 User ID: Up to 8 alphanumeric characters can be entered. This is only set if the DX recorder includes the /AS1 option and the user ID is used. ([User ID] is only displayed on the version 4.01 and 4.11 screens.)
 Password: Up to 20 single-byte alphanumeric characters can be entered.
3. Click **[Send]**.
A message is displayed.



4. Click **[OK]**.
The opening display data (including editing display data) and bitmap files used for the display data are sent to the DX recorder.

Explanation

Only the items set for the DX recorder are entered for IP address/host name, user name, user ID, and password. The IP address/host name and user name entered at this time are saved, and they are displayed when the software is started the next time. The user ID and password are not stored. They are cleared each time. Once you close the [Send] dialog box, the previously entered user ID and password become blank when the dialog box is reopened.

When sending data, if there are any bitmap files that are not supported by the DX recorder, a message (W8039, see section 5.1) appears.

Before sending data, please check the options on the main unit. If you try to send screen data that requires options to a DX recorder without those options, a message (W8042, see section 5.1) appears.

Options to check

Component	Attribute	Setting	Option
System icon	Type	Math	Math
		UserLock	AS1
		User & status	AS1
Modbus In	Communication	Serial	RS232, RS422A/485

Sending is not allowed if the DX recorder version differs from the DAQStudio screen version.

► Section 2.4

The extension of data which are sent from this software to the DX recorder is CDC and bmp. The file name is as shown below.

Internal1.CDC to Internal3.CDC: Written to the root directory of the internal memory of the DX recorder.

External1.CDC to External25.CDC: Written to the CF card inserted into the DX recorder.

Arbitrary_name.bmp: If saved to the same directory as the screen data, it is written to the internal memory of the DX recorder.

Display data can be sent from DAQStudio to DX recorders with a release number of R3 or higher.

Display data for DX1000 cannot be sent to DX2000. In the same way, Display data for DX2000 cannot be sent to DX1000. Please send display data corresponding to the equipment.

Cautions in regard to the display processing time by the DX recorder

Some time may be required until the created display data are displayed by the DX recorder. In such a case, saving of measuring data and output of communication data are performed normally, but attention should be paid to the following.

- Do not operate keys until display processing has been completed.
- Even if event phenomena or event actions occur, event processing may not be started until completion of display processing.
- Web screen updating may be delayed.

5.1 List of Messages

Messages may be displayed on the screen during use.

Error message

Code	Message	Handling Methods/Explanation	Refer to
E0004	Invalid License number.	Please enter a correct license number.	—
E0250	Failed to start Adobe Reader.	Adobe Reader 7.0 or later is required to view the user's manual. Check whether Adobe Reader is installed.	—
E8001	Connection error, please check communication setting!	Please use System environment to confirm that the communication settings (IP address/host name, user name, password) with the connection object equipment are correct.	Section 4.1, Section 4.2
E8002	The connected device is not supported!	The following causes can be assumed. Please confirm the connected equipment. <ul style="list-style-type: none"> • The equipment is not DX1000/DX1000N/DX2000. • The release number of DX1000/DX1000N/DX2000 is not R3 or higher. 	Section 4.1, Section 4.2
E8003	Receive failed!	The following causes can be assumed. Please check. <ul style="list-style-type: none"> • Communication with the DX is not normal. • The DX's FTP server function is On. • A CF card is inserted into the DX recorder. Also make sure that the CF card has free space. • If Multilogin is On, communication will always result in an error when users logged on via key login have communication connections open and have moved to a mode other than Operate mode. 	—
E8004	Send failed!	The following causes can be assumed. Please check. <ul style="list-style-type: none"> • Communication with the DX is not normal. • The DX's FTP server function is On. • A CF card is inserted into the DX recorder. Also make sure that the CF card has free space. • If Multilogin is On, communication will always result in an error when users logged on via key login have communication connections open and have moved to a mode other than Operate mode. • If the version of the connected DX recorder is earlier than 4.11 and the recorder is a model with the /AS1 option, memory start is in progress. • The same user is logged in to the main unit. (If Multilogin is OFF, an error occurs if another user is logged in.) • Settings are being entered on the main unit. 	—
E8005	Failed to save graphic file!	The following causes can be assumed. Please check. <ul style="list-style-type: none"> • The save object disk is broken. • No permission has been given for file and folder writing/reading. • The empty capacity of the disk is not sufficient. 	—
E8006	Failed to read graph file!	The following causes can be assumed. <ul style="list-style-type: none"> • The object data are being used for another program. • The present user does not have the authority to access the file. Confirm the file attributes. • The file is broken. Confirm the file attributes. 	—
E8007	Invalid folder name!	The entered folder name is not correct. Enter a correct folder name.	Section 2.12
E8008	Failed to send! The machine's hardware is different.	Check if a DX1000 screen construction file has been sent to DX2000 or vice versa.	Section 4.1

Continued on the next page

5.1 List of Messages

Code	Message	Handling Methods/Explanation	Refer to
E8009	Login failed!	The following causes can be assumed. Please check. <ul style="list-style-type: none"> • Wrong user name, user ID, or password. • The DX unit is connected by different software. • If Multilogin is Off, users are already logged in. • Password has expired. • The number of failures exceeded the previously specified number. 	—
E8010	Failed to paste all or some parts.	The following causes can be assumed. Please check. The max. number of components which can be created on one screen has been exceeded at the time of pasting.	Section 3.2
E8011	Failed to create folder!	Check for normal disk capacity and file system.	—
E8013	There is no CF card in the DXAdvanced.	Check whether the CD card has been inserted into the DX recorder. installed.	Section 3.34 Chap 4
E8014	Failed to copy bitmap file.	The following causes can be assumed. Please check. <ul style="list-style-type: none"> • The disc is corrupt. • There is insufficient space in the directory. If there is insufficient space, free up some space. • The current user does not have permission to access the file, and read/write permission for files and folders has not been granted. • If copying a bitmap file not supported by the DX recorder, copy a bitmap file that can be displayed by the DX recorder. • When copying a bitmap to a different name, if the number after the ~ in the file name exceeds 200, delete other unneeded bitmaps. 	Section 3.34
E8015	Cannot send due to firmware version mismatch.	Make sure the DAQStudio screen version is the same as the DX recorder firmware version (release number).	Section 2.4

Warning message

Code	Message	Description	Refer to
W8031	Do you want to save the changes of display?	The screen changes have not been saved. Select Save (OK)/Don't save (Cancel).	Section 2.1
W8032	Is it OK to discard recent display and open selected one?	Select discarding of the present screen and creation of a new screen (OK)/No (Cancel).	Section 2.5
W8033	Is it OK to delete [displayname]?	Select Delete screen/No. The [Screen name] is the deletion object data name selected in the Screen list.	Section 2.9
W8034	Send display data to DX. Is it OK to save display data in DX?	Screen construction data are sent to the DX unit.	Section 2.9
W8035	Receiving display data from DX. Is it OK to discard recent display and create new ones?	Screen construction data are received from the DX unit.	Section 4.1
W8036	Is it OK to discard [displayname], and paste another one to here.	Screen name is the Screen name selected in the Screen list. This screen is discarded and the screen is pasted to this position.	Section 2.9
W8037	The specified file already exists in the bitmap folder. Choose one of the following options.	Specify the copy action.	Section 3.34
W8038	Because "xxx.bmp" is longer than 51 characters, it will be copied to a different file name. Is this OK?	Copy the file specified in the bitmap browsing dialog box to a different name having 51 characters or fewer.	Section 3.34
W8039	A bitmap file that the DX does not support exists. Are you sure you want to send the files?	Move the bitmaps that are not supported by the recorder to another folder, or delete them. If OK to send, click [OK].	Section 4.2
W8040	When you convert to the previous version display, all unsupported components and attributes will be lost. Are you sure you want to continue?	Confirm whether it is OK to lose the components that are not supported by screen versions that are earlier than the current screen version. The attributes or components will also be lost.	Section 5.3
W8041	All displays will be discarded and a new display will be created. Are you sure you want to continue?	If you do not wish to change or delete a created screen, click [Cancel], and then save the screen data.	Section 2.5

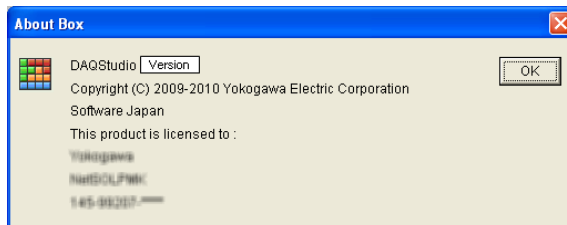
W8042	Settings that the DX does not support are included. Are you sure you want to send the settings?	There are settings that are not supported by the DX recorder. — Determine whether you will send all files before performing the procedure.
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5.2 Version Information

Procedure

1. Select **Help > Version Information** from the menu bar or click the **Version Information** icon.

The version information is displayed.



Explanation

Data incompatible due to a different DAQStudio version

As long as it is the same language, DAQStudio version R1.01 and R1.02 data are mutually compatible. When loading R1.01 and R1.02 data, the sizes of the components are adjusted.

Line component: If the start and end points overlap, adjust the end point to 1 dot along the X axis away from the start point.

Components other than lines: If the minimum width and height is less than 2 dots, change it to 2 dots.

Depending on the software version, the indicated component attribute names may differ.

DAQStudio version	Attribute name	Corresponding Component
R3.01.01	BG transparent	Batch name
	Decimal place	Communication input, Modbus in
R2.01.01	Batch group number	Screen, Alarm list, Message list, Trend,
R1.02	Previous batch number	scale

5.3 Changing the Screen Version

When you switch the screen version, the screen construction data is converted to the new version.

When switching from Version 3 to Version 4.01 or Version 4.11

- Version 3 component attributes remain the same.
- Component attributes that became available for setting in Version 4.01 or Version 4.11 are set to their defaults.
- [2nd span Lower] and [2nd span Upper] settings of trend and scale components can now be set up to 1 decimal place.

When switching from Version 4.01 to Version 4.11

- Version 4.01 component attributes remain the same.
- Component attributes that became available for setting in Version 4.11 are set to their defaults.

When switching from Version 4.01 or Version 4.11 to Version 3

- Components not supported in Version 3 are deleted.
- The [Depend ID]'s of components dependent on other components not supported in Version 3 are set to [None]. - Attributes of components not supported in Version 3 are deleted. The [Vertical display] of components whose attributes are deleted (Labels, Tag no., Tag comment, Units, SpanL, and SpanU) is changed to [Off] (horizontal display).
- Attributes of components not supported in Version 3 are deleted. The method of plotting is changed for components whose attributes are deleted (trend and scale).
- For the trend component's [2nd span Lower] and [2nd span Upper] settings, the number of decimal places is changed to 0, and the number after the decimal point is rounded.
- For the scale component's [2nd span Lower] and [2nd span Upper] settings, the number of decimal places is changed to 0, and the number after the decimal point is rounded.
- If not displaying the status area in a Version 4.01 screen or Version 4.11 screen, it is displayed. Components in the status area are repositioned.
When switching the status area from [No display] to [Display], components overlapping the status area move into the screen display area. Also, if the height of a component exceeds the maximum value for the screen construction area, the height is changed to the maximum value.

When switching from Version 4.11 to Version 4.01

- Components not supported in Version 4.01 are deleted.
- Attributes of components not supported in Version 4.01 are deleted.
- The method of plotting is changed for components whose attributes are deleted.

Component differences by screen version

Component	Version 3 screen	Version 4.01 screen Version 4.11 screen
System icon		New
Group name		New
Batch group number		New
Batch name		New
Time label		New
Memory bar		New
Modbus In		New

5.3 Changing the Screen Version

Attribute differences by screen version

Component	Attribute	Version 3 screen	Version 4.01 screen Version 4.11 screen
Screen	Status area		New
Labels	Vertical display		New
Tag no.	Vertical display		New
Tag comments	Vertical display		New
Unit	Vertical display		New
SpanL	Vertical display		New
SpanU	Vertical display		New
Bitmap	Trend grid mode		New
Line	Trend grid mode		New

Continued on the next page

Component	Attribute	Version 3 screen	Version 4.01 screen Version 4.11 screen
Trend	Margin		New
	Display group switching		New
	Time interval		New
	Time grid display		New
	Scale Grid Display		New
	2nd span Lower	No decimal place setting	One decimal place can be set
	2nd span Upper	No decimal place setting	One decimal place can be set
Scale	Indicator type		
	Unit		
	Margin on both sides of Span		
	Display group switching		
	2nd span Lower	No decimal place setting	One decimal place can be set
	2nd span Upper	No decimal place setting	One decimal place can be set

Component	Attribute	Version 4.01 screen	Version 4.11 screen
Batch name	BG transparent		New
Communication input	Decimal place		New
Modbus input	Decimal place		New

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