User's Manual

DXAdvanced R3

DX1000/DX1000N/DX2000 Custom Display

vigilantplant®

YOKOGAWA
Yokogawa Electric Corporation

IM 04L41B01-04E
1st Edition

Preface

Thank you for purchasing DX1000/DX1000N/DX2000 (Hereafter, called "DX").
This manual explains the custom display function of DX. Read this manual thoroughly in advance to use this function properly. Moreover, read it together with User's Manuals IM04L41B01-01E or IM04L42B01-01E.

Notes

- The contents of this manual may change without prior notice in view of improving the performance and function.
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History

November 2008: First Edition

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How to Use This Manual

Structure of the Manual

Before reading this manual, read the Operation Guide and User's Manual to understand the basic operations.

This manual consists of Chapters 1, 2, and 3 as follows:

Chapter	Title and description
1	**Overview and Basic Operations** Explains the basic operations for configuring the custom display.
2	**Advanced Settings of Screen and Component** Explains the attribute of each component.
3	**Saving and Reading Screen Data** Explains the saving and reading of the configured custom display.

Symbols Used in This Manual

Unit

K	Denotes 1024. Example: 768 KB (file size)
k	Denotes 1000.

Markings

Refer to corresponding location on the instrument. This symbol appears on dangerous locations on the instrument which require special instructions for proper handling or use. The same symbol appears in the corresponding place in the manual to identify those instructions.

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

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

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

Subheadings

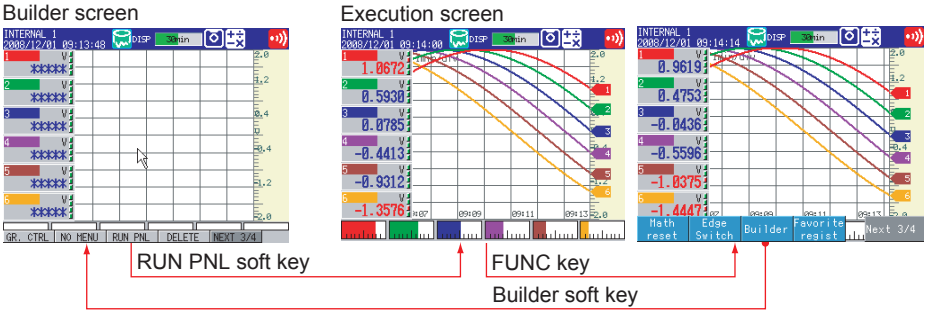
Procedure Carry out the procedure according to the step numbers. All procedures are written with inexperienced users in mind; depending on the operation, not all steps need to be taken.

Explanation Explanation gives information such as limitations related the procedure.

Contents

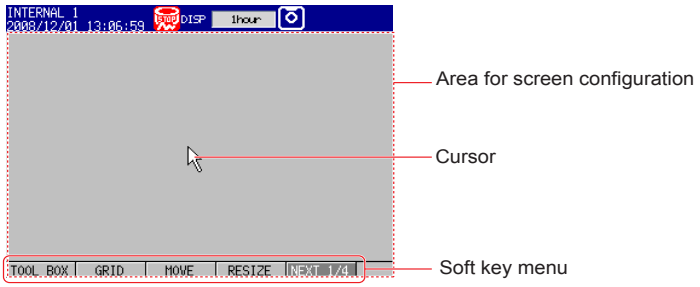
1.1 Overview

Custom display is a function to allow you to configure any screen to use it as the operation screen. Custom display consists of the **builder screen** and **execution screen**, which actually displays a configured screen as the operation screen. Switching between the builder screen and execution screen enables you to configure a screen while checking the execution screen.



Builder Screen

Configure a screen.

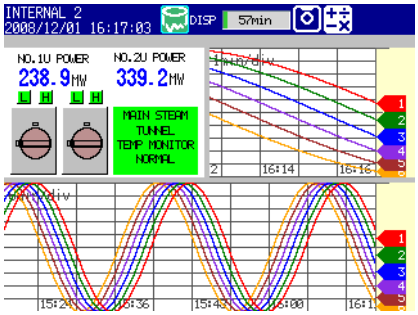


Soft Key Menu on the Builder Screen

Soft key menu	Description	Reference
TOOL BOX	Used to create components.	Section 1.4
GRID	Used to make grid settings on the builder screen.	Section 1.3
MOVE	Used to move the position of components.	Section 1.5
RESIZE	Used to change the size of components.	Section 1.6
PROPERTY	Used to set the attribution of components.	Section 1.7, Chapter 2
PASTE	Used to copy and paste components. This is hidden before you copy components.	Section 1.8
COPY	Used to copy components.	Section 1.8
ORDER	Used to set the arrangement (overlapping) of components.	Section 1.9
DEPEND	Used to make the visibility of components dependent on other components.	Section 1.10
GR. CTRL	Used to manage grouped components.	Section 1.11
NO MENU	Used to temporarily hide the soft key menu.	Section 1.13
RUN PNL	Used to execute and display a configured screen as a custom display.	Section 1.13
DELETE	Used to delete specified components.	Section 1.12
ALL DEL	Used to delete all specified components on the builder screen.	Section 1.12
UPDATE	Used to update a screen registered in external media (CF card).	Section 1.13

Execution Screen

Display a configured screen as an operation screen.

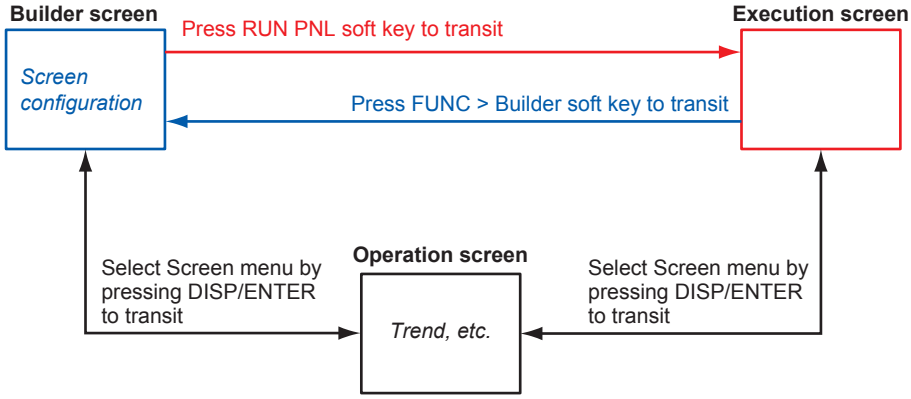


When turning the runtime menu of screen attributes on, the **Builder soft key** and **NO MENU soft key** are displayed on the execution screen.

▶ See Section 2.1: These keys are not displayed in the factory default setting.

- On the execution screen, you can execute configured actions by selecting components with action functions (switch, push button, and COMM IN) using the **up and down arrow keys** and pressing **DISP/ENTER**. The **ESC key** allows you to unselect components with action functions.
- The left and right arrow keys allow you to switch the group number for group control for components with the group attribute.

Screen Transition



For the first screen configuration, select INTERNAL 1 to 3 from the submenu of the screen menu. INTERNAL 1 to 3 is stored in the internal memory.

▶ For saving and reading screen data, see Chapter 3.

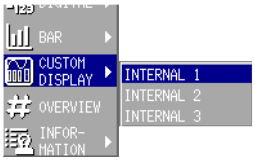
Operation Flow (operation guide)

This section briefly explains the operation to display the builder screen, then create components, and finally display the execution screen. Here, the creation of digital components is taken as an example.

Display the builder screen (see section 1.2)

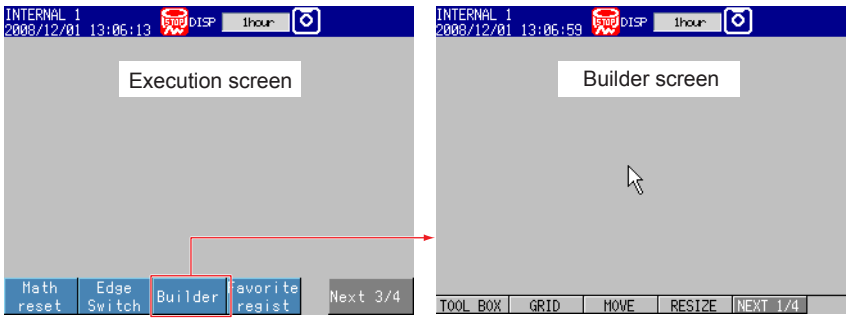
1. Press **DISP/ENTER** and use any **arrow keys** to select the **[CUSTOM DISPLAY]**.

2. Use any arrow keys to select one of the submenus, **[INTERNAL 1]** to **[INTERNAL 3]**, and press **DISP/ENTER**.



The execution screen appears first.

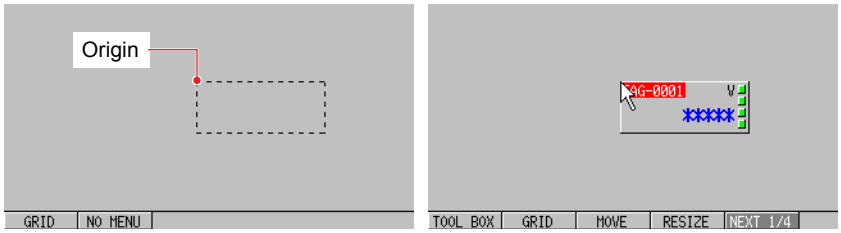
3. Press **FUNC** to display the soft key menu, and press the **Builder soft key**.
The builder screen appears.



Create Components (see section 1.4)

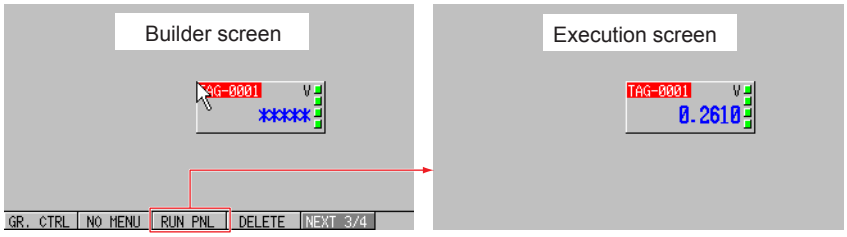
4. Press the **TOOL BOX soft key** and then press the **DIGITAL soft key**.
The digital component is selected.

5. Use the **arrow key** to specify the size of a digital component, and press **DISP/ENTER** to confirm.
You may specify the size from the origin toward the lower right.



Display the Execution Screen (see section 1.13)

6. Press the **RUN PNL soft key**.
The execution screen appears. To go back to the builder screen, perform Operation 3.

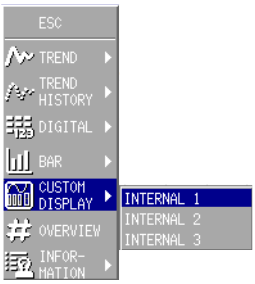


Operation completed

1.2 Display the Builder Screen

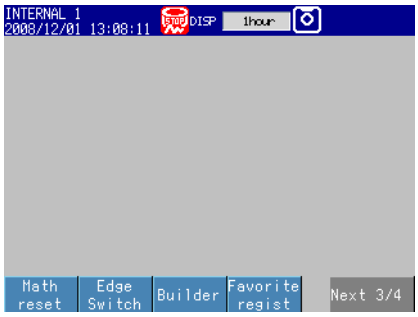
Procedure

1. Press **DISP/ENTER**.
   The screen menu appears.
2. Use the **up and down arrow keys** to select the CUSTOM DISPLAY, and press the **right arrow key**.
   The submenu appears.

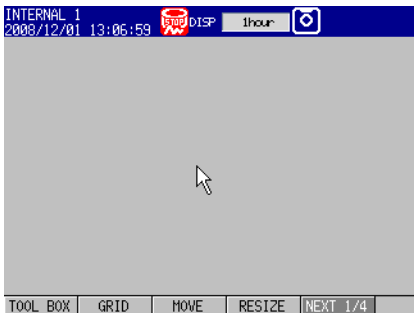


3. Use the **up and down arrow keys** to select one of the submenus, **[INTERNAL 1]** to **[INTERNAL 3]**, and press the **DISP/ENTER**.
   The execution screen appears.

4. Use the **FUNC** to display the **Builder soft key** on the function menu.



The builder screen appears.



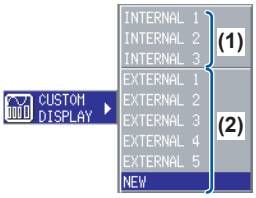
Note

[Builder screen] on the function menu

- This might not be displayed depending on the user restriction setting.
- If key lock is activated, selecting this key will return an error.

Explanation

The submenu shows screen names registered in the internal memory and external storage media (CF card).



- Submenu (1) shows screen names of custom display registered in the internal memory. Up to 3 screens can be registered in the internal memory.
- Submenu (2) shows screen names of custom display registered in external storage media (CF card). Up to 25 screens can be registered in a CF card.

▶ For saving and reading screen data, see Chapter 3.

Note

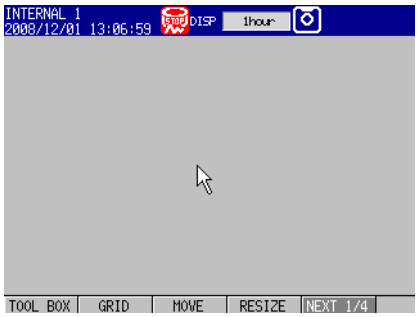
The order of the submenu can be changed through the menu customization function.

1.3 Set Grid (Cursor Movement Interval)

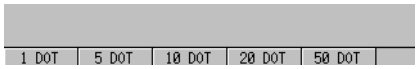
Cursor moves at defined grid intervals. No grid appears on the screen.

Procedure

1. Press the **GRID soft key**.
   The grid interval menu appears.



2. Press the **soft key** for a grid interval to be set.
   You can move the cursor at the defined grid intervals.

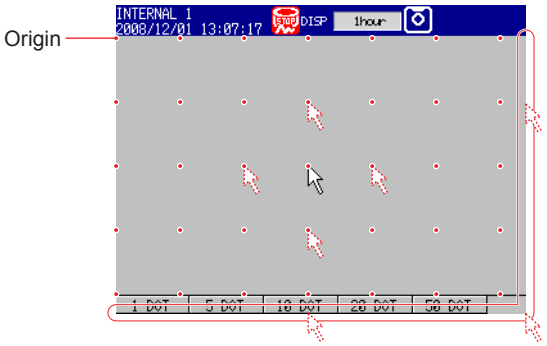


Explanation

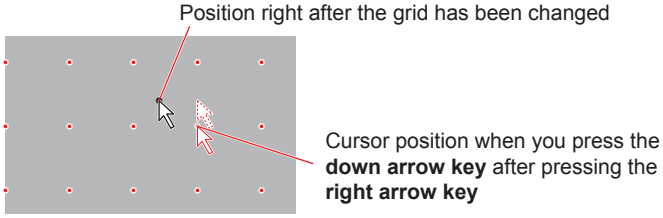
Range of Grid Setting

You can select the grid from 1, 5, 10, 20, and 50 dots.

Setting the upper left-hand corner of the builder screen as an origin, the grid is set at defined dot intervals.
The cursor stops at the right-hand edge and bottom edge on the builder screen even without a grid.



Immediately after changing the grid setting, the cursor may not be positioned on the grid. In this case, press one of the left or right arrow keys once and then press one of the up or down arrow keys to stop the cursor on the grid. (The same happens if you press the up or down arrow keys first and then the left or right arrow keys.

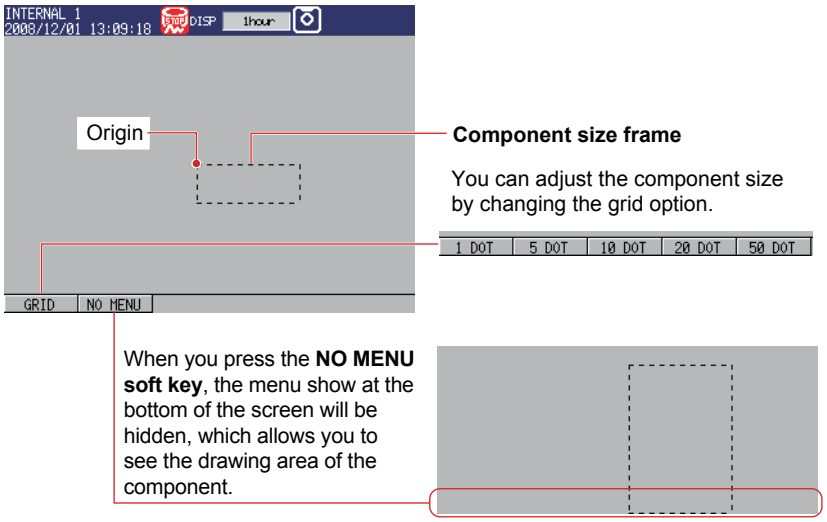


1.4 Create Components

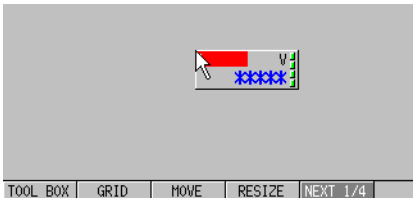
▶ For details of each component, see "Chapter 2. Advanced Settings of Screen and Component."

Procedure

1. Use the **arrow key** to move the cursor to the point where you want to create components.
   You may move the cursor after creating components.
2. Press the **TOOL BOX soft key**.
   The soft key menu for each component appears.
3. Press the **soft key** for components to be created.
4. Use the **arrow key** to manipulate the component size frame and determine the size.
   You may change the size after creating components.
   - You can manipulate the component size frame only toward the llower-right corner from the origin.



5. Press **DISP/ENTER**.
   Components are created.



Explanation

Number of Components Which Can be Created on One Screen

Limitations exist according to the component type. If you attempt to create components exceeding the number of components which can be created, an error message will appear to prevent you from creating components.

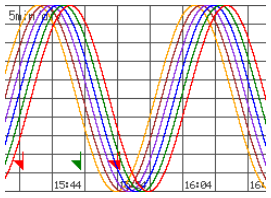
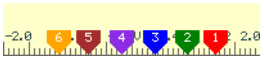
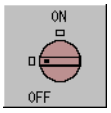
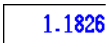
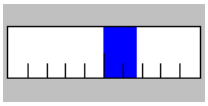
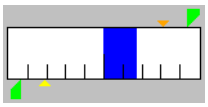
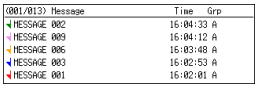
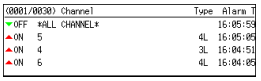
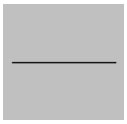
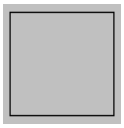
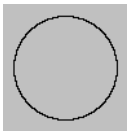
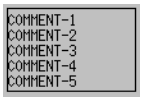
Error message: Cannot create object. The maximum allowed number was exceeded.

Number of components which can be created on one screen: See "ID number of components" on pages 1 to 7.

Arrangement Order

Components are placed to the front in the order of creation time. The last created component is placed in the foreground.

Component List

Digital 	**Bar** You can set items to display on the vertical and horizontal axes. 	**Trend** You can set items to display on the vertical and horizontal axes. 
Scale You can set items to display on the vertical and horizontal axes. 	**Switch** You can select from nine different switch types. 	**Label** 
Tag (If there is no tag No.) **Tag No./ Tag Comment** (If there is tag No.) 	**Simple digital** 	**Simple bar** You can set items to display on the vertical and horizontal axes. 
Alarm mark This component displays an alarm setting point on the simple bar graph. 	**Units** 	**Alarm indicator** 
Span lower limit/ Span upper limit 	**Message list** 	**Alarm List** 
Bitmap 	**Line** 	**Rectangle** 
Circle 	**Push button** 	**Comment box** 
Comment block 	**COMM IN** 	

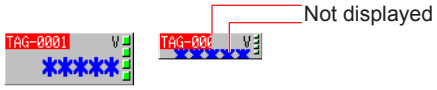
ID Number of Components

When a component is created, an ID number is assigned for identifying it. The ID number is assigned in the order of creation and varies depending on the component type as follows:

Component type	Component name	ID number	Number of components which can be created on one screen
Components for channel assignment	Digital Bar Tag No. Tag comment (Tag) Simple digital Simple bar Alarm mark Unit Alarm indicator Span L Span U	0 to 79	80
Label components	Label		
Components with action functions	Push button Switch COMM IN		
Components for comment display	Comment box Comment block		
Components for list display	Alarm list Message list	80 to 83	4
Components for trend display	Trend	84 to 87	4
Scale components	Scale	88 to 91	4
Diagram components	Line Rectangle Circle	92 to 131	40
Components for static image display	Bitmap	132 to 133	2

Component Text String Display Restriction

If component text strings go outside the display area, the text strings out of the area are not displayed.



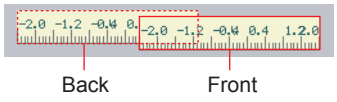
Display When Components Overlap on the Execution Screen

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, communication input
A	Scale (kind: ON) Alarm list Message list
B(*)	Scale (kind: bitmap), bitmap
C	Trend

* Overlap restriction B only shows the front component even on the builder screen.

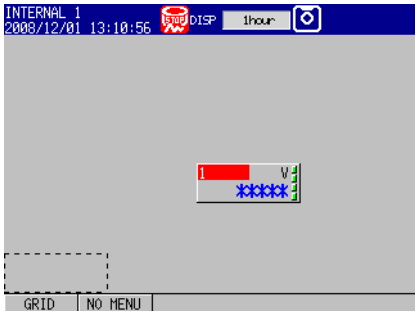
For example, if two components with Overlap restriction A are overlapping on the builder screen, only the front component is displayed on the execution screen.



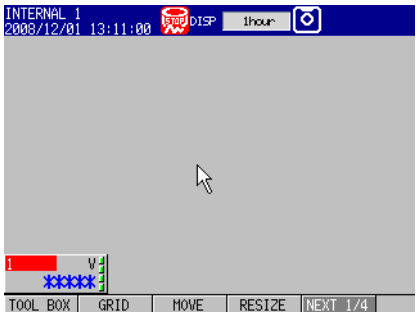
1.5 Move Components

Procedure

1. Use the **arrow key** to place the cursor on the component which you want to move.
2. Press the **MOVE soft key**.
   The movement frame (the component frame becomes a dashed line: ⬚) is displayed.
3. Use the **arrow key** to move the movement frame to the point where you want to place a component.

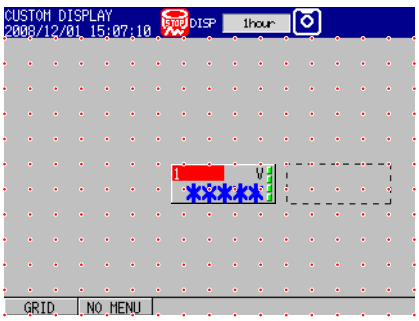


4. Press **DISP/ENTER**.
   The component moves to the specified point.



Explanation

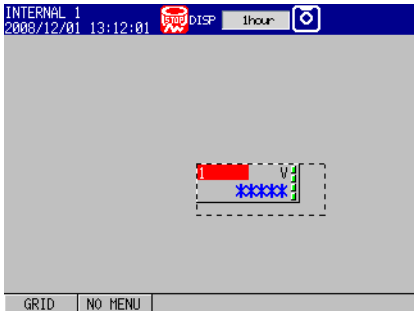
Setting the upper left-hand corner as an origin, components move on the grid. Components do not go over the builder screen (configuration area). Therefore, even if you press the arrow key you may not be able to move the movement frame. In this case, making grid intervals smaller will enable you to move the movement frame.



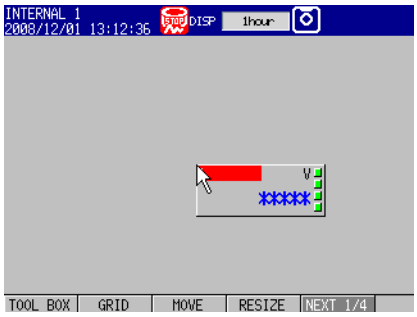
1.6 Change the Component Size

Procedure

1. Use the **arrow key** to place the cursor on the component whose size you want to change.
2. Press the **RESIZE soft key.**
   The component size frame (the component frame becomes a dashed line: ⬚) is displayed.
3. Use the **arrow key** to manipulate the component size frame and determine the size.

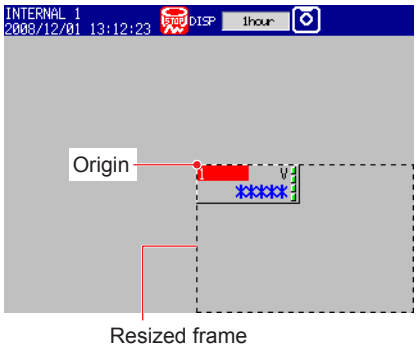


4. Press **DISP/ENTER**.
   The component size is changed.



Explanation

The upper left of a component is fixed as origin. The size changes rightward and downward.

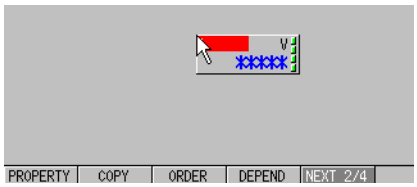


1.7 Display the Attribute Setting Dialog of Components

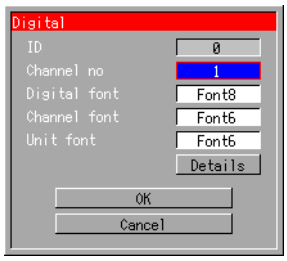
▶ For details of each component, see "Chapter 2. Advanced Settings of Screen and Component."

Procedure

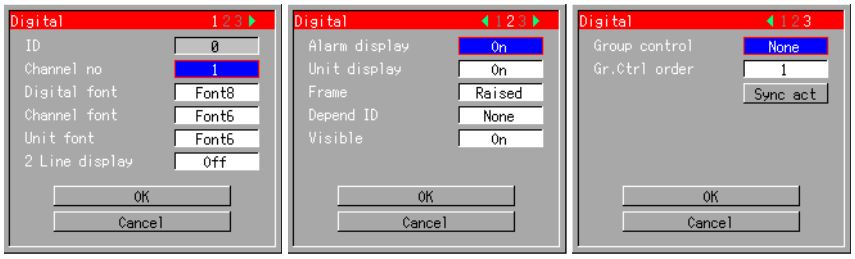
1. Use the **arrow key** to place the cursor on a component.



2. Press the **PROPERTY soft key**.
   The simple attribute setting dialog appears.



3. Use the **arrow key** to select the **Details button** and press **DISP/ENTER**.
   The detail attribute setting dialog appears. Using the left and right arrow keys, you can page a dialog with more than one page.



4. Use the **arrow key** to select the **Sync act button** and press **DISP/ENTER**.
   The synchronize action attribute setting dialog appears.

Explanation

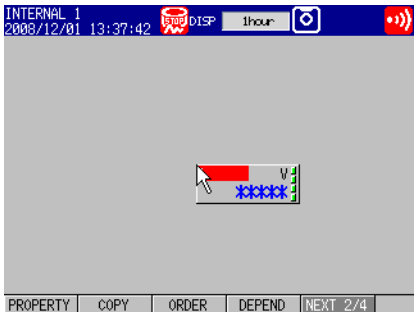
The attribute setting dialog box consists of the following three dialog boxes:

Dialog box	Description
Simple attribute setting	You can set only main attributes.
Detail attribute setting	You can set all attributes.
Synchronize action attribute setting	You can set the visibility of components which are synchronized with the alarm or switch.

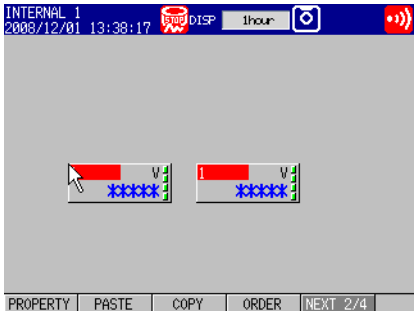
1.8 Copy Components (Copy and Paste)

Procedure

1. Use the **arrow key** to place the cursor on the component which you want to copy.
2. Press the **COPY soft key**.



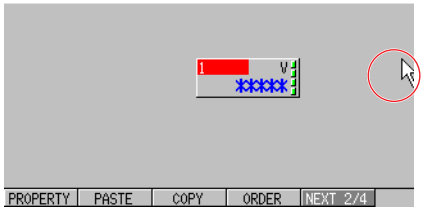
3. Use the **arrow key** to move the cursor to the point where you want to place a component.
4. Press the **PASTE soft key**.
   Copied components are pasted.

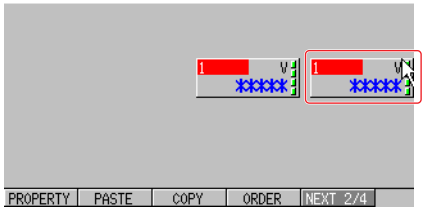


Explanation

All contents to be copied are attribute information excluding the ID, depend ID, group control, and Gr.ctrl order. The ID number is assigned in the order of component creation. If you attempt to create components exceeding the number of components which can be created, you cannot copy any component.

If you press the **PASTE soft key** at the cursor position shown in the lower left figure, a component is placed as the lower right figure shows. A component is placed so that it does not go over the screen.



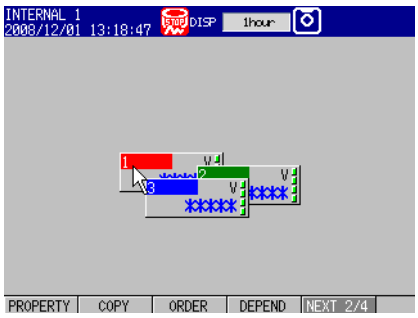


1.9 Change the Component Arrangement Order

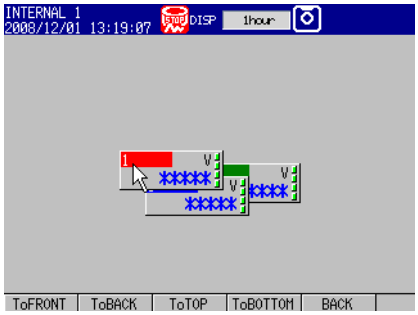
You can change the arrangement of a specified component to the front or back.

Procedure

1. Use the **arrow key** to place the cursor on the component whose arrangement order you want to change.



2. Press the **ORDER soft key**.
   The soft key menu (ToFRONT, ToBACK, ToTOP, ToBOTTOM, BACK) appears.
3. Press the relevant **soft key**.
   Components are arranged in accordance with the selected soft key.



Explanation

Components are placed to the front in the order of creation time. The last created component is placed on top.

Soft Key Menu

ToFRONT: Move to the front by one component.
ToBACK: Move to the back by one component.
ToTOP: Move to the top.
ToBOTTOM: Move to the bottom.
BACK: Cancel the change to the arrangement order and go back to the original screen.
(The **BACK soft key** does not revert any change in component arrangement to the original arrangement order.)

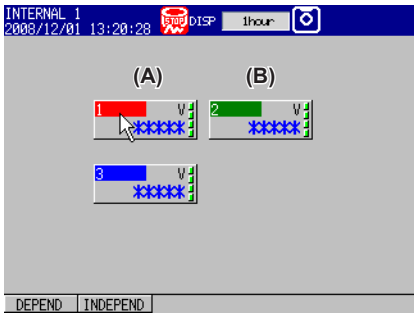
1.10 Have the Visibility Attribute of a Component Depend on Another Component

This section explains the operation using the soft key.

▶ It is also possible to set dependency based on individual components attributes. See Chapter 2.

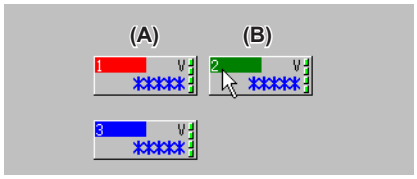
Procedure

1. Use the **arrow key** to place the cursor on the component which you want to subordinate (A).
2. Press the **DEPEND soft key**.
   The soft key menu appears.



3. Press the **DEPEND soft key**.

4. Use the **arrow key** to place the cursor on the component which is depended on (B).



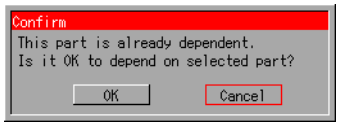
5. Press **DISP/ENTER**.
   The visibility attribute of the component (A) depends on that of the component (B).

To Release Dependency:

1. Place the cursor on the depending component and then press the **DEPEND soft key**.
2. Press the **INDEPEND soft key**.
   Dependency relationship is released.

To Change the Component Which is Depended on:

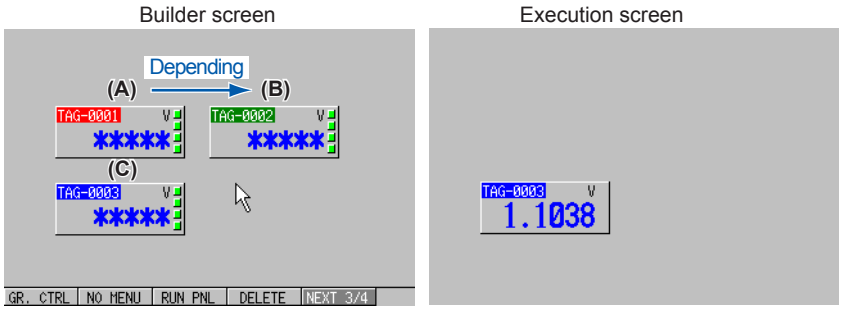
1. Place the cursor on the depending component and then press the **DEPEND soft key**.
   The following dialog appears:



2. Select **[OK]**.
3. Use the **arrow key** to place the cursor on the component which you want to depend on.
4. Press **DISP/ENTER**.
   The component which is depended on is changed.

Explanation

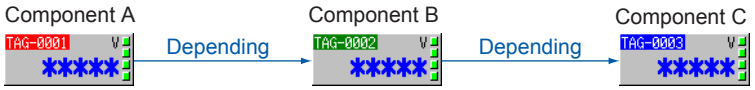
As shown in the below figure, if where the visibility attribute of component (A) is depending on that of component (B), when you set the visibility attribute of component (B) to Off, the visibility attribute of component (A) will be turned off as well. In this case, only component (C) will be displayed on the execution screen.



The following section provides explanations by referring to a component depending on another component as the "**depending component**" and a component which is depended on as the "**depended component**".

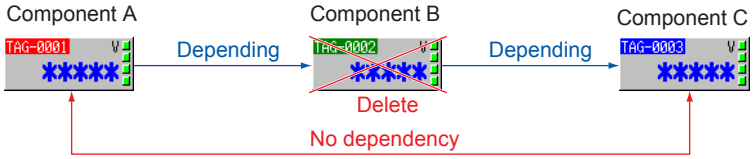
If a depended component is subordinated to another component:

If a depended component is subordinated to another component, the original dependency relationship is contained in the newly created depending component. In the case of the figure below, components A and B depend on component C.



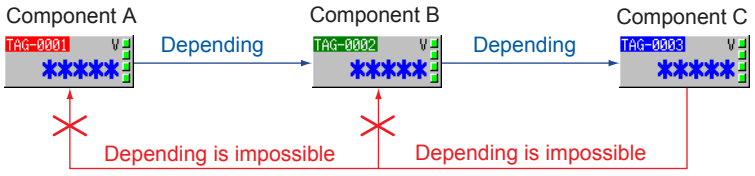
If a depended component is deleted:

If a depended component is deleted, its depending component loses the dependency relationship. In the case of the figure below, if component B is deleted, no dependency relationship exists between component C and A.



If an attempt is made to subordinate a depended component to a depending component:

Any depended component cannot depend on its depending component. In the case of the figure below, component C cannot depend on component A or B. (No dependency relationship can be circulated.)



1.11 Register Components in the GR. CTRL

It is a function that switches the display of components created by each display group. In the Gr. Ctrl dialog, you will be able to list or edit the settings configured by attribute of each component. This section explains the operation using the soft key menu.

▶ You will configure the group control based on individual component's attributes. See Chapter 2.

Procedure

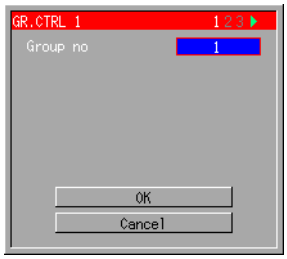
1. Pres the **Gr. Ctrl soft key**.
2. Press the **soft key** for the Grp control number to be registered.

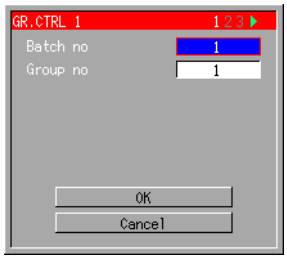
   GR.CTRL 1 | GR.CTRL 2 | GR.CTRL 3 | GR.CTRL 4

   The Grp control dialog appears.
3. Set the batch number* and group number using the **soft key**.

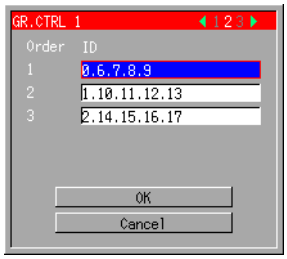
   * The batch number is displayed when the Multi batch (additional specifications/ BT2) is valid.

   When the Multi batch /BT is valid





4. Use the **right arrow key** to display the second page.
5. Enter the ID number for components to be managed as a group.



6. Use the **arrow key** to select **[OK]** and press **DISP/ENTER**.

Explanation

If components are managed as a group, you can switch channels to be displayed by switching groups on the execution screen with the left and right arrow keys.

- You can switch the group number of components which contain the group number as an attribute (trend and scale).
- You can switch the channel number of components which only contain the channel attribute (channel number).

Batch no

Setting range: From 1 to the number of Multi batches defined in the basic setting

Group no

Setting range:

If the multiple batch is Off, DX1000 is between 1 and 10 and DX2000 is between 1 and 36.

If the multiple batch is On, DX1000 is between 1 and 6 and DX2000 is between 1 and 12.

Order

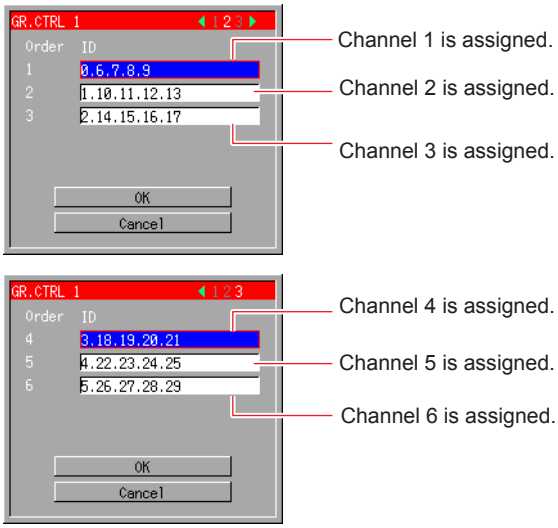
It is an order of channel configured for each display group. For example, if "003, 004, 005" is configured for display group 1, the order 1 of group number 1 is CH3, the order 2 corresponds to CH4, and the order 3 corresponds to CH5 respectively.
Setting range: 1 to 6 for DX1000 and 1 to 10 for DX2000

Here is the explanation using the display group setting and the dialog below as an example.
A channel configured at the first channel in the display group 1 will be assigned to the ID registered in the order of (0, 6, 7, 8, 9), which is registered at the order 1 of group number 1. You can also switch groups using the left and right arrow keys on the execution screen. (You can switch channels of components registered at the order 1, which is in the order of "1", "7", "3", and "101".)

Display Group Setting Example

	Group number			
Order	1	2	3	4
1	1	7	3	101
2	2	8	5	102
3	3	9	8	No setting
4	4	10	1	No setting
5	5	11	4	No setting
6	6	12	7	No setting

In the bold frame, you will see channels assigned for each display group.
If "no setting" is assigned to a component, only the frame is displayed. For example, only the frame will be displayed for the component (ID) registered at the order 3 of group number 4.



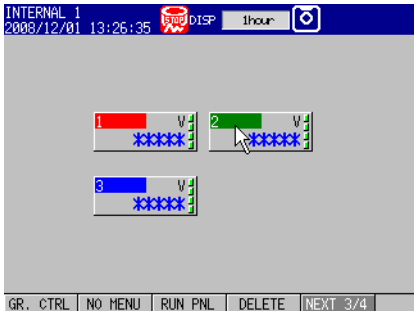
1.12 Delete Components

To delete components, you delete either a specified component (one component) or all components on the screen.

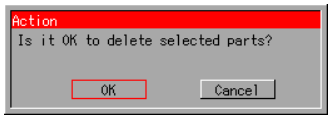
Procedure

To Delete a Specified Component:

1. Use the **arrow key** to place the cursor on the component which you want to delete.



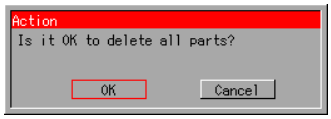
2. Press the **DELETE soft key**.
   The confirmation dialog appears.



3. Use the **arrow key** to select **[OK]** and press **DISP/ENTER**.
   The specified component is deleted.

To Delete All Components:

1. Press the **Delete all soft key**.
   The confirmation dialog appears.



2. Use the **arrow key** to select **[OK]** and press **DISP/ENTER**.
   All components on the builder screen are deleted.

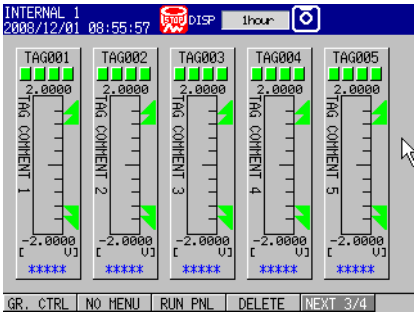
1.13 Other Operations

To Display the Execution Screen:

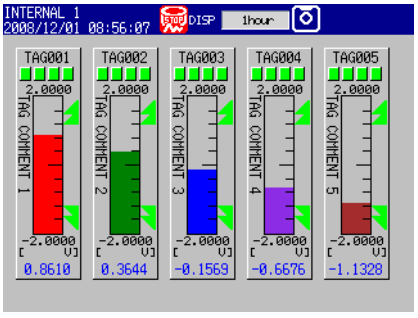
Press the **RUN PNL soft key**.

The execution screen appears.

Builder screen



Execution screen

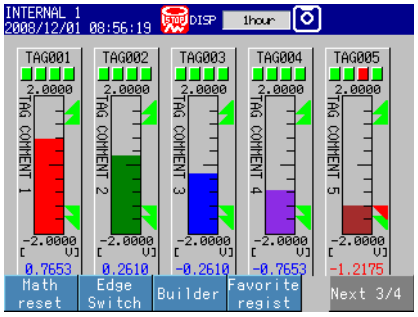


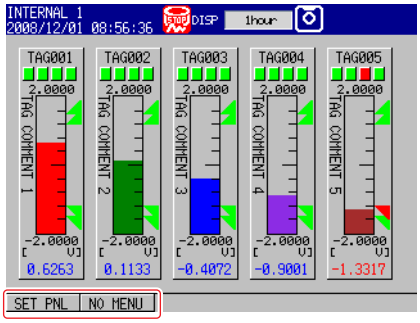
To Go Back to the Builder Screen:

Press **FUNC,** and press the **Builder soft key**.

If the screen attribute runtime menu is on, the soft key menu is displayed on the lower left hand on the execution screen. Then, press the **Builder soft key**.

If the screen attribute runtime menu is ON

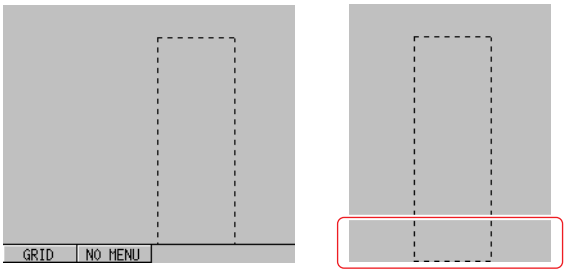




To Hide the Menu:

Press the **NO MENU soft key**.

The soft key menu is hidden and the bottom end of the screen becomes visible.



To show the soft key menu, press **ESC**.

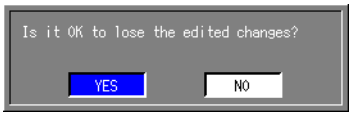
If the soft key menu is hidden, it is disabled.

To Update an Edited Screen:

To edit a screen registered in any external storage media (CF card), read it into the internal memory. Any edited data is invalid without updating a screen.

Press the **Update soft key** after editing a screen.

If you try to go to another screen without updating, the following caution dialog appears. If you want to update the screen, select "No" to go back to the builder screen being edited.



Operations which show the caution dialog

Operations	Description
DISP/ENTER key	Displays the screen menu
START key	Memory start action/ start screen display
MENU key	Displays the setting menu
FUNC key > system information soft key	Displays the system information screen
FUNC key > network information soft key	Displays the network information screen
FUNC key > text field soft key	Displays the text field screen

Note

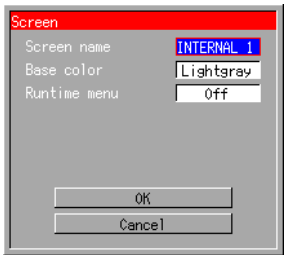
- The screen can be changed by using the communication commands or by using screen change with the event action/start. However, screen data being edited will be lost.
- If any USB memory is inserted while a screen is being edited in external storage media (CF card), the USB memory operation selection screen does not appear.
- While data is being edited on the builder screen, the following actions do not work:
  Automatic screen recovery
  Event action favorite key action
  FAVORITE key (shows error E157)

2.1 Screen Attribute

This section shows you how to configure attributes associated with screen name, base color and runtime menu.

Precedure

1. On the builder screen, place your cursor in an area where there is no component.
2. Press the **PROPERTY soft key**.
   Screen attribute setting dialog appears.



3. Configure each attribute.

Explanation

The below table shows each setting item and description.

Attribute	Description	Default value
Screen name	This attribute will be displayed in the status display on the custom display screen. It will be displayed in the submenu of the screen menu as well. You can enter up to 16 one-byte characters.	
Base color	You can configure the background color of the screen. Display components without any background color will be filled with the color configured here. The colors available are [Lightgray], [Lightblue], [L.orange], [Aquamarin], [Darkgray], [Darkblue], [Darkgreen], [White], and [Black]	Lightgray
Runtime menu	You can choose to show or hide the soft key menu on the execution screen by setting [On] or [Off] at this field. **Soft key menu displayed on the execution screen** [SET PNL] Switch to [Builder screen]. [NO MENU] Temporarily hide the soft key menu. Pressing the [ESC] key will show the soft key menu again.	Off

2.2 Common Attributes of Components

This section explains the common attributes used for multiple components.

Attribute Settings

To fix the setting value, select [OK] in the attribute setting dialog after you have changed the settings of component attributes.

Selection

You will see a selection [SET] in the attribute settings. This indicates a value configured at the setting menu of this device.

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	

Batch Number (Additional Specification/BT2: Multi batch Functions Only)

This is an attribute you will be able to configure with trend components, scale components, message list components, alarm list components, and GR CTRL 1 to 4. You can set this attribute when the Multi batch function is turned on.

The batch number configured will be validated when you display a custom display screen in the **batch overview mode**. When you display a custom display screen in the **batch single mode**, the batch number configured at the attribute will be ignored. In this case, the effective batch number is that of the individual batch mode.

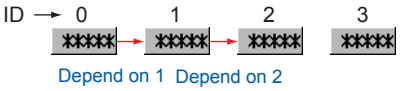
Frame

Set the frame of components. You can select [None], [Black], [White], [Raised], or [Sunken].

[None]: no frame; [Black]: solid line black frame; [White]: solid line white frame; [Raised]: convex shaped frame; [Sunken]: concave shaped frame

Depend ID

Set the component ID on which this component is dependent. You can set this field as [None] or select an ID number of the components on the screen. 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	Configurable ID			
0	None	1	2	3
1	None	2	3	
2	None	3		
3	None	0	1	2

▶ You can also configure dependent IDs using the soft key. See section 1.10 for more information about dependent IDs.

Visible

You can choose to show or hide the components on the execution screen.

On: Show components on the execution screen and builder screen.

Off: Hide components on the execution screen. Components will be visible on the builder screen.

You will not be able to change this setting if a component is depending on other components.

Group control

You can configure settings of display group control status.

Setting range

You can select [None], [GR. CTRL 1], [GR. CTRL 2], [GR. CTRL 3], or [GR. CTRL4].

▶ You can also configure group control settings using the soft key. See section 1.11 for more information about group control.

Gr.Ctrl order (Group control order)

You can configure the group control order. This setting is available when you set anything except [None] for the group control.

Setting range

DX1000 = 1 to 6, DX2000 = 1 to 10

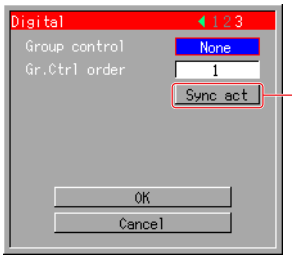
▶ You can also configure group control settings using the soft key. See section 1.11 for more information about group control.

Sync act (Synchronize action)

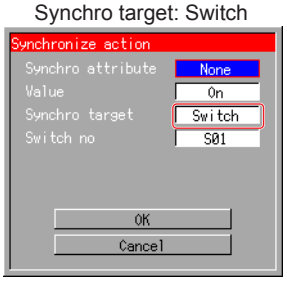
You can change the show/hide settings of components on the execution screen by synchronizing On/Off settings of alarm or internal switch. You can also enlarge the display of trend components and scale components to an arbitrary span by configuring the 2nd span.

Depend ID configured will invalidate the visible setting at the synchro attribute field.

Synchro target: Alarm



Synchro target: Switch



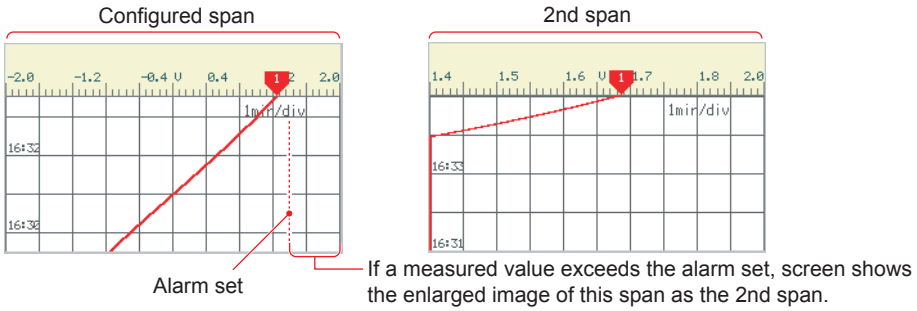
Attribute	Description	Default value
Synchro attribute	Configure the attribute you want to synchronize. You can select None, Visible, or 2nd span. 2nd span is available for trend components and scale components only.	None
Value (switch On)	Configure the synchro attribute value when the synchro target (alarm or switch) is set to On. Select On or Off.	On
Synchro target	Configure the target you want to synchronize. Select alarm or switch.	Alarm
Channel no **or** **Switch no**	Configure channel number or internal switch number you want to synchronize. If the synchro target is an alarm, enter a channel number. If it is a switch, select an internal switch number.	1
Alarm level	Configure the alarm level you want to synchronize. Select any or all of the following setting range: 1, 2, 3, 4.	1

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%, 2nd span Upper: 100%
- Synchro attribute: 2nd span; Value (switch On): On; Synchro target: alarm, Channel no: 1; Alarm level: 1

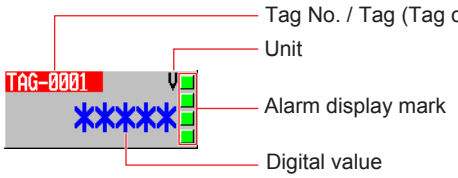


2.3 Attributes of Digital Components

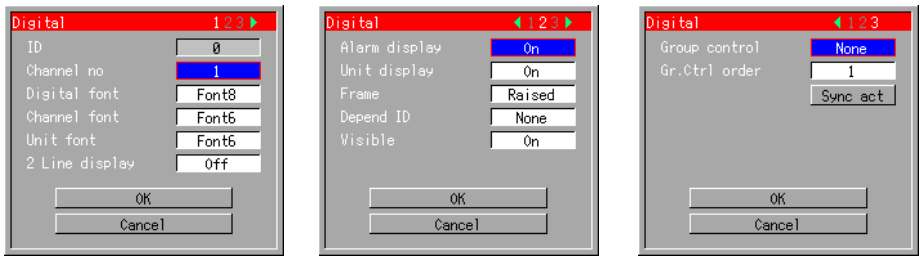
These components are associated with displaying digital values. You can display digital value, tag (tag no., tag comment, or channel no.), unit, and alarm display mark.

Component type (See Section 1.4.)	Channel assignment	Overlap restriction (See Section 1.4.)	None

Name of Each Component



Attribute Setting Dialog



List of Attributes

Attribute	Description	Default value
ID	Number automatically assigned for component identification.	0 to 79
Channel no	Set the channel number to be assigned. You can configure this field when the group control is set to [None].	1
Digital font	Set the character size of digital value. You can select [Font 5], [Font 6], [Font 8], [Font 12], [Font 16], or [Font 32].	Font 8(DX1000) Font 12(DX2000)
Channel font	Set the character size of tag no., tag comment, and channel no. You can select [Font 5], [Font 6], [Font 8], [Font 12], or [Font 16].	Font 6(DX1000) Font 8(DX2000)
Unit font	Set the character size of unit font. You can select [Font 5], [Font 6], [Font 8], [Font 12], or [Font 16]. Note that this field will not be available when [Unit display] field is set to [Off].	Font 6(DX1000) Font 8(DX2000)
2 Line display	You can choose to display the character strings for channel font in 2 lines by setting [On] or [Off].	Off
Alarm display	You can choose to show or hide the alarm display mark by setting [On] or [Off] at this field. The alarm display mark corresponds to level 1, level 2, level 3, and level 4 respectively from the top. When alarm is set to [Off], it is displayed in lime. When alarm is [On], it will be displayed in a color configured for each level (red, orange, yellow, or pink).	On

Continued on next page

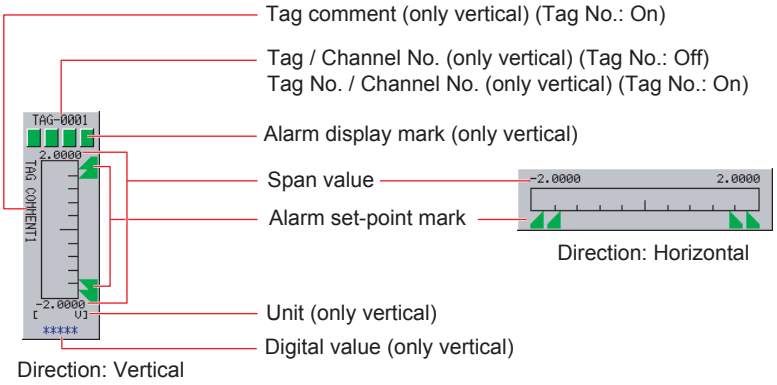
Attribute	Description	Default value
Unit display	You can choose to show or hide the unit display by setting [On] or [Off].	On
Frame	Set the frame of a component. ▶See Section 2.2.	Raised
Depend ID	Set the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	You can choose to show or hide this component by setting [On] or [Off]. ▶See Section 2.2.	On
Group control	Set the control status of group displayed. ▶See Section 1.11 and Section 2.2.	None
Gr.Ctrl order	Set the control order of group displayed. ▶See Section 1.11 and Section 2.2.	1
Sync act	▶See Section 2.2.	

2.4 Attributes of Bar Graph Components

These components are associated with displaying a bar graph. You can display tag no., tag comment, channel no., span, unit, alarm display mark, and alarm set-point mark.

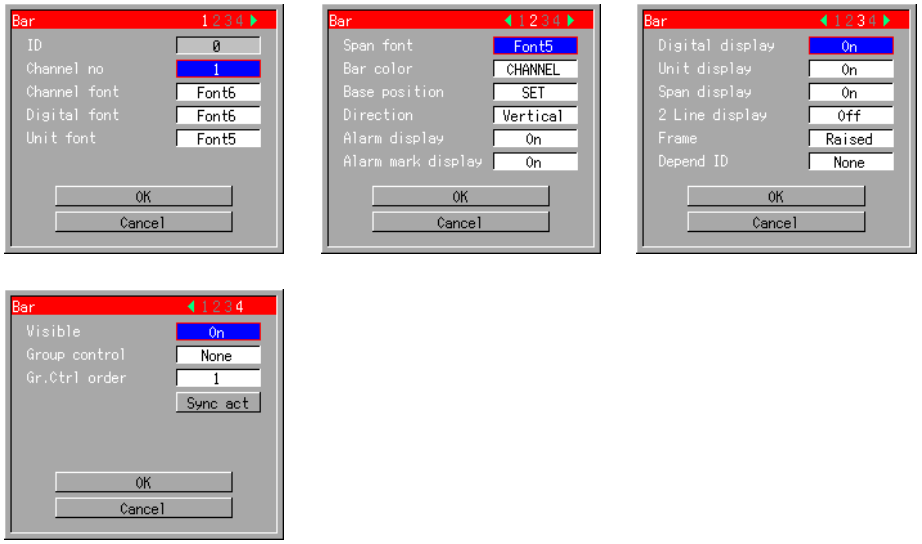
Component type (See Section 1.4.)	Channel assignment	Overlap restriction (See Section 1.4.)	None

Name of Each Component



Attribute Setting Dialog

When Tag No. is set to On, the following attribute setting dialogs appear.



List of Attributes

Attribute	Description	Default value
ID	Number automatically assigned for component identification.	0 to 79
Channel no	Set the channel number to be assigned. You can configure this field when the group control is set to [None].	1
Channel font	Set the character size of Tag No., Tag, or Channel No. When the Tag No. is set to On, it shows the Tag No. or Channel No. When Tag No. is set to Off, it shows the Tag or Channel No. You can select [Font 5], [Font 6], [Font 8], [Font 12], or [Font 16]. Note that this field will not be available when the direction is set to [Horizon].	Font 6(DX1000) Font 8(DX2000)

Continued on next page

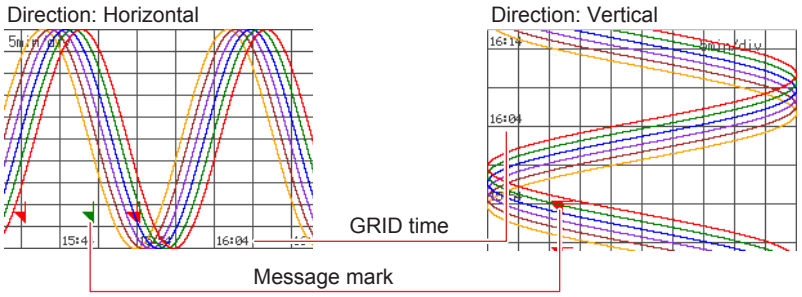
Attribute	Description	Default value
Tag font (Displayed only when Tag No. is set to On.)	Set the character size of tag comment. (Available font types are same as those for channel font.) Note that this field will not be available when the direction is set to [Horizon].	Font 6
Digital font	Set the character size of digital value. You can select [Font 5], [Font 6], [Font 8], [Font 12], [Font 16], or [Font 32]. Note that this field will not be available when the direction is set to [Horizon].	Font 6(DX1000) Font 8(DX2000)
Unit font	Set the character size of unit font. (Available font types are same as those for channel font.) Note that this field will not be available when the unit display is set to [Off] or the direction is set to [Horizon].	Font 5
Span font	Set the character size of span value. (Available font types are same as those for channel font.) Note that this field will not be available when [Span display] field is set to [Off].	Font 5
Bar color	Set the color of a bar. You can select either [CHANNEL] or [Green]. If you select [Green] at this setting, the bar will be displayed in a color of the alarm when the alarm goes off.	CHANNEL
Base position	Set the base position of a bar graph. You can select [SET], [Normal], [Center], [Lower], or [Upper].	[SET]
Direction	Set the direction of a bar graph. You can select either [Vertical] or [Horizon]. The default value will depend on the aspect ratio of component size drawn.	Depend on the aspect ratio of component size Length ≥ Width: Vertical Length < Width: Horizon
Alarm display	You can choose to show or hide the alarm display mark by setting [On] or [Off] at this field. From left, it is level 1, 2, 3, and 4 respectively. When alarm is set to [Off], it is displayed in lime. When alarm is [On], it will be displayed in a color configured for each level (red, orange, yellow, or pink). Note that this field will not be available when the direction is set to [Horizon].	On
Alarm mark display	You can choose to show or hide the alarm set-point mark by setting [On] or [Off] at this field.	On
Digital display	You can choose to show or hide the digital value by setting [On] or [Off].	On
Unit display	You can choose to show or hide the unit display by setting [On] or [Off].	On
Span display	You can choose to show or hide the span display by setting [On] or [Off].	On
2 Line display	You can choose to display the tag (tag comment) in two lines by setting [On] or [Off]. (The character strings for channel font will be displayed in two lines. When the Tag No. is set to On, the character strings for tag font will be displayed in two lines.)	Off
Frame	Set the frame of a component. ▶See page 2-2.	Raised
Depend ID	Set the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	You can choose to show or hide this component by setting [On] or [Off]. ▶See Section 2.2.	On
Group control	Set the control status of group displayed. ▶See Section 1.11 and Section 2.2.	None
Gr.Ctrl order	Set the control order of group displayed. ▶See Section 1.11 and Section 2.2	1
Sync act	▶See Section 2.2	

2.5 Attributes of Trend Components

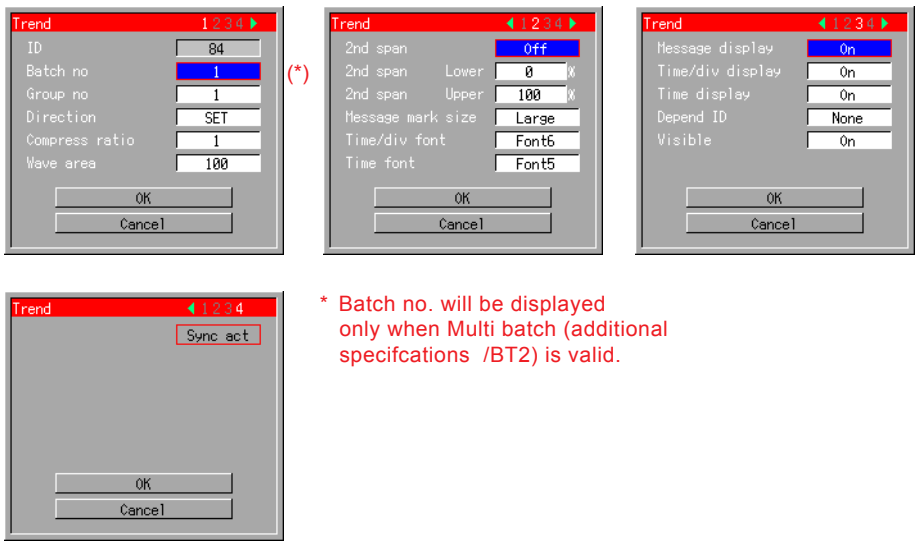
These components are associated with displaying a trend. You can select either [Vertical] or [Horizon] for the wave direction.

Component type (See Section 1.4.)	Trend display	Overlap restriction (See Section 1.4.)	C

Name of Each Component



Attribute Setting Dialog



* Batch no. will be displayed only when Multi batch (additional specifcations /BT2) is valid.

List of Attributes

Attribute	Description	Default value
ID	Number automatically assigned for component identification.	84 to 87
Batch no only with additional spec. /BT2	Set the batch number. The batch number needs to be within the range from [1] to number of Multi batch configured at the basic settings. The batch number will be displayed only when Multi batch is valid.	1
Group no	Set the group number. **Multi batch Off** You can select a number from [1] to [10] for DX1000, [1] to [36] for DX2000. **Multi batch On** You can select a number from [1] to [6] for DX1000, [1] to [12] for DX2000.	1
Direction	Set the direction of trend display. You can select [SET], [Horizon], or [Vertical].	SET

Continued on next page

List of Attributes

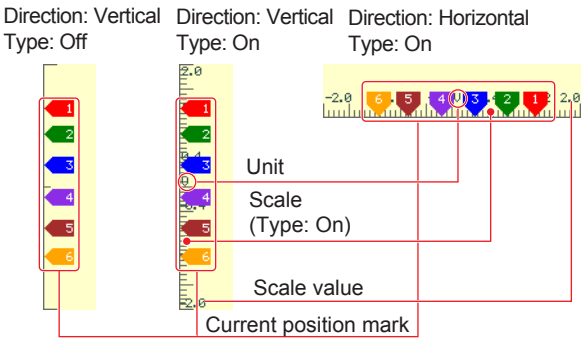
Attribute	Description	Default value
Compress ratio	Set the ratio of rendering 1 dot data. You can select [1], [2], [4], [5], [6], [7], or [8].	1
Wave area	Set the ratio used for displaying a wave to the width of temporal axis direction as 100%. You can select [100], [90], [80], [70], [60], or [50].	100
2nd span	You can choose to validate or invalidate the 2nd span by setting [On] or [Off]. ▶See Section 2.2.	Off
2nd span Lower	Enter a value between 0% for the lower limit and 90% for the upper limit. In this case, the difference between the two spans needs to be 10% or greater. ▶See Section 2.2.	0
2nd span Upper	Enter a value between 10% for the lower limit and 100% for the upper limit. In this case, the difference between the two spans needs to be 10% or greater. ▶See Section 2.2.	100
Message mark size	Set the size of message mark to be displayed. You can select either [Small] or [Large]. Note that this field will not be available when [Message display] field is set to [Off].	Large
Time/div font	Set the character size of Time/div display.You can select either [Font 6] or [Font 8]. Note that this field will not be available when Time/div display is set to [Off].	Font 6(DX1000) Font 8(DX2000)
Time font	Set the character size of GRID time display.You can select either [Font 5] or [Font 6]. Note that this field will not be available when time display is set to [Off].	Font 5
Message display	You can choose to show or hide the message mark by setting [On] or [Off].	On
Time/div display	You can choose to hide or show the Time/div display by setting [On] or [Off].	On
Time display	You can choose to show or hide the GRID time display by setting [On] or [Off].	On
Depend ID	Set the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	You can choose to show or hide this component by setting [On] or [Off]. ▶See Section 2.2.	On
Sync act	▶See Section 2.2.	

2.6 Attributes of Scale Components

These components are associated with displaying a scale. You can set vertical and horizontal direction.

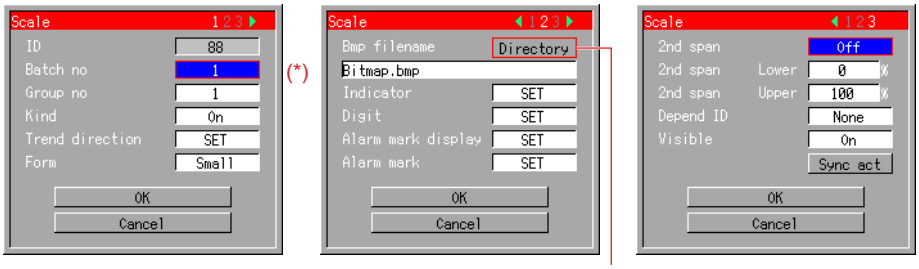
Component type (See Section 1.4.)	Scale	Overlap restriction (See Section 1.4.)	None: Type Off A: Type On B: Type Bitmap

Name of Each Component



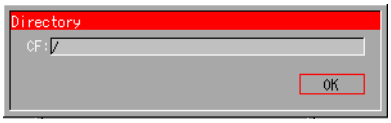
The current position mark will be displayed on the execution screen only.

Attribute Setting Dialog



* Batch no. will be displayed only when Multi batch (addtional specifications /BT2) is valid.

If you select here, the read destination directory of the bitmap appears.



List of Attributes

Attribute	Description	Default value
ID	Number automatically assigned for component identification.	88 to 91
Batch no only with additional spec. /BT2	Set the batch number. The batch number needs to be between [1] and number of Multi batch configured at the basic settings. The batch number will be displayed only when Multi batch is valid.	1
Group no	Set the group number. **Multi batch Off** You can select a number from [1] to [10] for DX1000, and [1] to [36] for DX2000. **Multi batch On** You can select a number from [1] to [6] for DX1000, and [1] to [12] for DX2000.	1

Continued on next page

Attribute	Description	Default value
Kind	Set the type of SCALE. You can select [Off], [On], or [Bmp]. Off: No scale display; On: Scale will be displayed by the number of partitions configured; Bitmap: Bitmap file configured will be displayed as a scale.	On
Trend direction	Set the direction of a wave. You can select [SET], [Horizon], or [Vertical].	SET
Form	Set the size of SCALE. You can select either [Small] or [Large].	Small
Bmp filename	Enter the name of a bitmap file saved on an external storage medium (CF card). The read destination is the directory used when the screen was loaded.	Bitmap.bmp
Indicator	Set how the current value is displayed. You can select [SET], [Mark], or [Bar]. Note that this field will not be available when the type is set to [Off].	SET
Digit	Set the number of digits for the value displayed at the scale. You can select [SET], [Normal], or [Fine]. You can set this field only when the Kind is set to [On].	SET
Alarm mark display	Set how the alarm set-point mark is displayed. You can select [On], [Off], or [SET].	SET
Alarm mark	Set the type of alarm set-point mark. You can select [Alarm], [Fixed], or [SET].	SET
2nd span	You can choose to validate or invalidate the 2nd span by setting [On] or [Off]. ▶See Section 2.2.	Off
2nd span Lower	Enter a value between 0% for the lower limit and 100% for the upper limit. In this case, the difference between the two spans needs to be 10% or greater. ▶See Section 2.2	0
2nd span Upper	Enter a value between 0% for the lower limit and 100% for the upper limit. In this case, the difference between the two spans needs to be 10% or greater. ▶See Section 2.2.	100
Depend ID	Set the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	You can choose to show or hide this component by setting [On] or [Off]. ▶See Section 2.2.	On
Sync act	▶See Section 2.2.	

Note

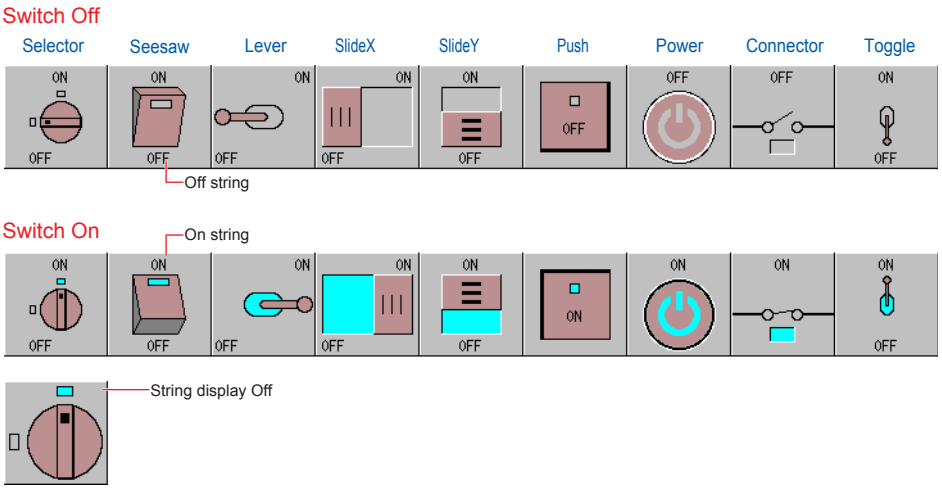
- To display the indicator bar and color scale band configured when you set the type to [Bitmap], you will need to fill the background of bitmap with R:252, G:228, and B:180.
- Conditions for reading a bitmap
  (1) Format having 256 or fewer colors (the bitmap may not be read depending on the format even if the number of colors in use is 256 or fewer.)
  (2) 640 (width) x 480 (height) pixels or fewer (the bitmap cannot be read if the value exceeds either 640 or 480.)

2.7 Attributes of Switch Components

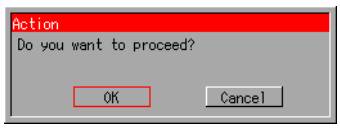
These components are associated with displaying a switch. You will be able to turn the event level switch [On]/[Off] on the execution screen.

Component type (See Section 1.4.)	Components with action functions	**Overlap restriction (See Section 1.4.)**	None

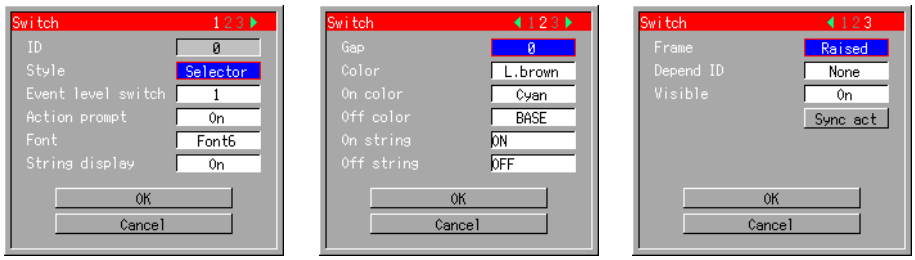
Name of Each Component



To execute the configured action on the execution screen, select a component using the **up and down arrow keys** and press **DISP/ENTER**. If the confirmation dialog is set to [On], the following dialogs appear before executing the action.



Attribute Setting Dialog



List of Attributes

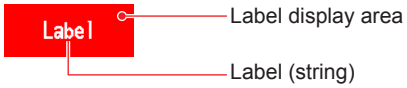
Attribute	Description	Default value
ID	Number automatically assigned for component identification.	0 to 79
Style	Set the type of switch. Selectable from among [Selector], [Seesaw], [Lever], [SlideX], [SlideY], [Push], [Power], [Connector] and [Toggle]. (See "name of each component" for more information.)	Selector
Event level switch	Set the event level switch number. You can select a number between [1] and [30].	1
Action prompt	You can choose to display a confirmation dialog when executing an action by setting [On] or [Off].	On
Font	Set the size of On/Off strings. You can select [Font 5], [Font 6], [Font 8], [Font 12], or [Font 16].	Font 6(DX1000) Font 8(DX2000)
String display	You can choose to show or hide the string display by setting [On] or [Off].	On
Gap	Set the character gap of the string. You can set a value between 0 and 15.	0
Color	Set the color of a switch. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], and [BASE].	L.brown
On color	Set the color when the switch is turned On. (Available On color is same as those listed in Color.)	Cyan
Off color	Set the color when the switch is turned Off. (Available Off color is same as those listed in Color.)	BASE
On string	Set the string when the switch is turned On. You can enter up to 8 one-byte characters.	ON
Off string	Set the string when the switch is turned Off. You can enter up to 8 one-byte characters.	OFF
Frame	Set the frame of a component. ▶See page 2-2.	Raised
Depend ID	Set the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	You can choose to show or hide this component by setting [On] or [Off]. ▶See Section 2.2.	On
Sync act	▶See Section 2.2.	

2.8 Attributes of Label Components

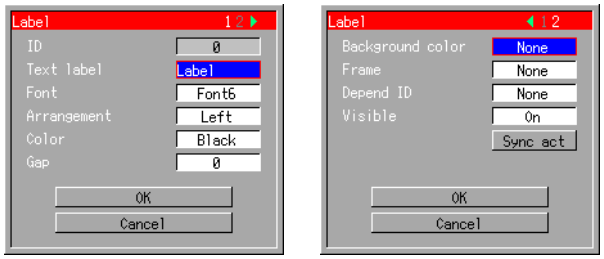
These components are associated with displaying a label. Strings configured will be displayed.

Component type (See Section 1.4.)	Label	Overlap restriction (See Section 1.4.)	None

Name of Each Component



Attribute Setting Dialog



List of Attributes

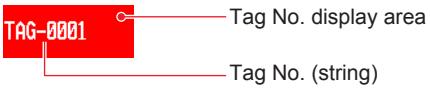
Attribute	Description	Default value
ID	Number automatically assigned for component identification.	0 to 79
Text label	Set the string to be displayed. You can enter up to 64 one-byte characters.	Label
Font	Set the character size of a label (string). You can select [Font 5], [Font 6], [Font 8], [Font 12], [Font 16], or [Font 32].	Font 6(DX1000) Font 8(DX2000)
Arrangement	Set the horizontal arrangement of the string. You can select [Center], [Left], or [Right].	Left
Color	Set the color of the string. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], and [BASE].	Black
Gap	Set the character gap of the string. You can set a value between 0 and 15.	0
Background color	Set the fill color of the label display area. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE].and [None].	None
Frame	Set the frame of a component. ▶See page 2-2.	None
Depend ID	Set the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	You can choose to show or hide this component by setting [On] or [Off]. ▶See Section 2.2.	On
Sync act	▶See Section 2.2.	

2.9 Attributes of Tag No. Components

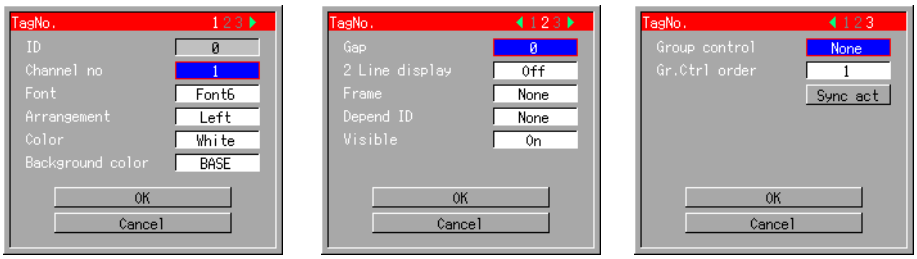
These components are associated with displaying Tag No.
(Soft key menu will be displayed when you set the Tag No. to [Yes] at the basic setting mode.)

Component type (See Section 1.4.)	Channel assignment	**Overlap restriction (See Section 1.4.)**	None

Name of Each Component



Attribute Setting Dialog



List of Attributes

Attribute	Description	Default value
ID	Number automatically assigned for component identification.	0 to 79
Channel no	Set the channel number to be assigned. You can configure this field when the group control is set to [None].	1
Font	Set the character size of Tag No. You can select [Font 5], [Font 6], [Font 8], [Font 12], or [Font 16].	Font 6(DX1000) Font 8(DX2000)
Arrangement	Set the horizontal arrangement of the string. You can select [Center], [Left], or [Right].	Left
Color	Set the color of the string. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], and [Channel].	White
Background color	Set the fill color of the tag no. display area. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], [Channel], and [None].	BASE
Gap	Set the character gap of the string. You can set a value between 0 and 15.	0
2 Line display	You can choose to display the tag no. in two lines by setting [On] or [Off].	Off
Frame	Set the frame of a component. ▶See Section 2.2.	None

Continued on next page

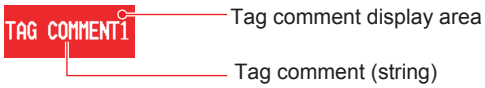
Attribute	Description	Default value
Depend ID	Set the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	You can choose to show or hide this component by setting [On] or [Off]. ▶See Section 2.2.	On
Group control	Set the control status of group displayed. ▶See Section 1.11 and Section 2.2.	None
Gr.Ctrl order	Set the control order of group displayed. ▶See Section 1.11 and Section 2.2.	1
Sync act	▶See Section 2.2.	

2.10 Attributes of Tag Comment Components

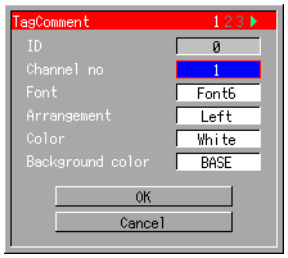
These components are associated with displaying tag comment (tag).
(Soft key menu will be displayed when you set the Tag No. to [Yes] at the basic setting mode. If you set the Tag No. to [No], [Tag] will be displayed.)

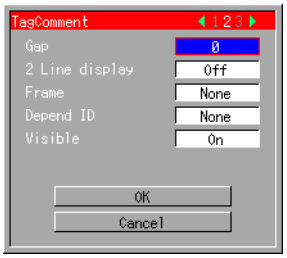
Component type (See Section 1.4.)	Channel assignment	**Overlap restriction (See Section 1.4.)**	None

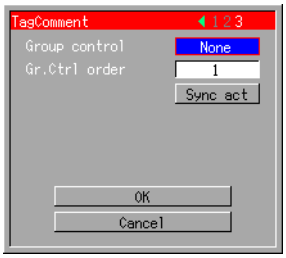
Name of Each Component



Attribute Setting Dialog







List of Attributes

Attribute	Description	Default value
ID	Number automatically assigned for component identification	0 to 79
Channel no	Set the channel number to be assigned. You can configure this field when the group control is set to [None].	1
Font	Set the character size of the tag. You can select [Font 5], [Font 6], [Font 8], [Font 12], or [Font 16].	Font 6(DX1000) Font 8(DX2000)
Arrangement	Set the horizontal arrangement of the string. You can select [Center], [Left], or [Right].	Left
Color	Set the color of the string. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], and [Channel].	White
Background color	Set the fill color of the tag comment display area. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], [Channel], and [None].	BASE
Gap	Set the character gap of the string. You can set a value between 0 and 15.	0
2 Line display	You can choose to display the tag comment in two lines by setting [On] or [Off].	Off
Frame	Set the frame of a component. ▶See Section 2.2.	None

Continued on next page

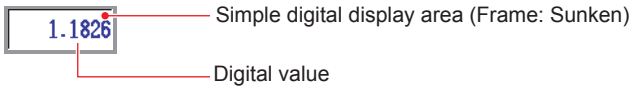
Attribute	Description	Default value
Depend ID	Set the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	You can choose to show or hide this component by setting [On] or [Off]. ▶See Section 2.2.	On
Group control	Set the control status of group displayed. ▶See Section 1.11 and Section 2.2.	None
Gr.Ctrl order	Set the control order of group displayed. ▶See Section 1.11 and Section 2.2.	1
Sync act	▶See Section 2.2.	

2.11 Attributes of Simple Digital Components

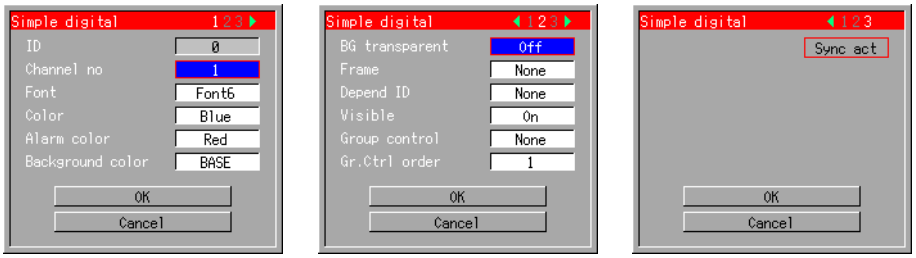
These components are associated with displaying digital values.

Component type (See Section 1.4.)	Channel assignment	**Overlap restriction (See Section 1.4.)**	None

Name of Each Component



Attribute Setting Dialog



List of Attributes

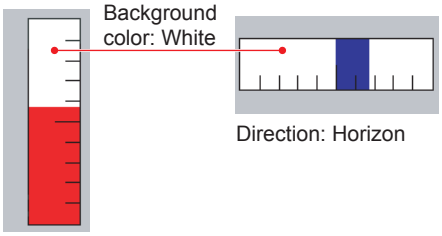
Attribute	Description	Default value
ID	Number automatically assigned for component identification	0 to 79
Channel no	Set the channel number to be assigned. You can configure this field when the group control is set to [None].	1
Font	Set the character size of digital value. You can select [Font 5], [Font 6], [Font 8], [Font 12], [Font 16], or [Font 32].	Font 6(DX1000) Font 8(DX2000)
Color	Set the color of digital value. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], and [Channel]..	Blue
Alarm color	Set the color of digital value when the alarm is turned on. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], [Channel], and [Alarm].	Alarm
Background color	Set the fill color of digital value area. (Background colors available are same as those listed in alarm color.)	BASE
BG transparent	You can choose to make the background color transparent by setting [On] or [Off]. BG color will become transparent when the simple digital completely overlaps the trend display components located underneath. This transparency is invalid if the simple digital protrudes from the trend display component.	Off
Frame	Set the frame of a component. ▶See page 2-2.	None
Depend ID	Set the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	You can choose to show or hide this component by setting [On] or [Off]. ▶See Section 2.2.	On
Group control	Set the control status of group displayed. ▶See Section 1.11 and Section 2.2.	None
Gr.Ctrl order	Set the control order of group displayed. ▶See Section 1.11 and Section 2.2.	1
Sync act	▶See Section 2.2.	

2.12 Attributes of Simple Bar Graph Components

These components are associated with displaying a bar graph. You can display a bar graph and alarm set-point mark.

Component type (See Section 1.4.)	Channel assignment	Overlap restriction (See Section 1.4.)	None

Name of Each Component



Attribute Setting Dialog

Pressing the [+] button increases the number of alarm marks.
Pressing the [–] button decreases the number of alarm marks.

List of Attributes

Attribute	Description	Default value
ID	Number automatically assigned for component identification.	0 to 79
Channel no	Set the channel number to be assigned. You can configure this field when the group control is set to [None].	1
Alarm mark	Set how many alarm set-point marks will be displayed on a simple bar graph. You can set up to four marks.	None
Base position	Set the base position of a bar graph. You can select [SET], [Normal], [Center], [Lower], or [Upper].	SET
Direction	Set the direction of a bar graph. You can select either [Vertical] or [Horizon]. The default value will depend on the aspect ratio of component size drawn.	Depend on the aspect ratio of component size Length≥ Width: Vertical Length < Width: Horizon
Color scale band	Set how the color scale band is displayed. You can select [Off] or [SET].	SET
Color	Set the color of a bar. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], and [Channel]	Channel
Background color	Set the fill color of the bar graph area. (Background colors available are same as those listed in Color.)	BASE

Continued on next page

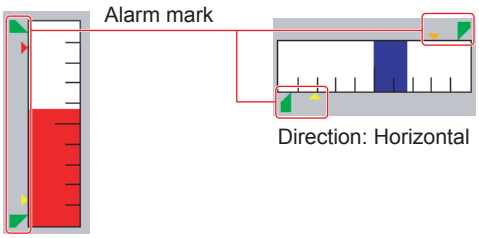
Attribute	Description	Default value
Color change (alarm on)	You can choose to change the bar color when alarm is turned on by setting [On] or [Off].	Off
Alarm color	Set the bar color when alarm is turned on. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], [Channel], and [Alarm]. You can set this field only when the color change field is set to [On].	Alarm
Scale line	You can choose to show or hide the scale line of bar graph by setting [On] or [Off].	On
Depend ID	Set the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	You can choose to show or hide this component by setting [On] or [Off]. ▶See Section 2.2.	On
Group control	Set the control status of group displayed. ▶See Section 1.11 and Section 2.2.	None
Gr.Ctrl order	Set the control order of group displayed. ▶See Section 1.11 and Section 2.2.	1
Sync act	▶See Section 2.3.	

Attributes of Alarm Set-point Mark Components

This section explains alarm set-point mark components displayed in a simple bar graph.

Component type (See Section 1.4.)	Channel assignment	Overlap restriction (See Section 1.4.)	None

Name of Each Component



Attribute Setting Dialog

- The soft key menu for the number of alarm marks will be displayed only when the cursor is positioned here.
- When you press the soft key, screen shows the "alarm mark" dialog, which allows you to configure the attribute of each alarm mark.

List of Attributes

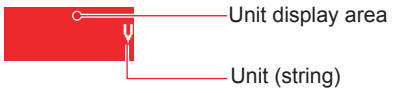
Attribute	Description	Default value
ID	Number automatically assigned for component identification	0 to 79
Alarm level	Set the alarm level. You can select a level between [1] and [4].	1
Style	Set the shape of alarm set-point mark. You can select either [Alarm] or [Fixed].	Alarm
Position	Set where to display the alarm set-point mark. For a vertical bar graph, you can select either [Left] or [Right]. For a horizontal bar graph, you can select either [Over] or [Under].	Bar graph Vertical: [Right] Horizontal: [Under]
Color change (alarm on)	You can choose to change the color of alarm mark when alarm is turned on by setting [On] or [Off].	On
Mark size	Set the size of alarm set-point mark. You can select either [Small] or [Large].	Large
Color	Set the color of a bar. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], and [Channel].	Lime
Alarm color	Set the color of alarm set-point mark when the alarm is on. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [Channel], and [Alarm].	Alarm
Visible	You can choose to show or hide this component by setting [On] or [Off]. ▶See Section 2.2.	On

2.13 Attributes of Unit Components

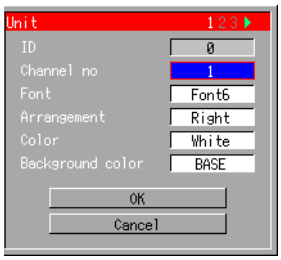
These components are associated with displaying a unit.

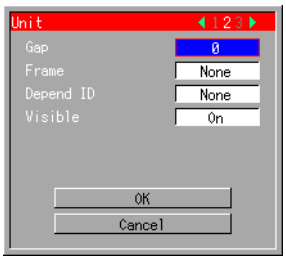
Component type (See Section 1.4.)	Channel assignment	**Overlap restriction (See Section 1.4.)**	None

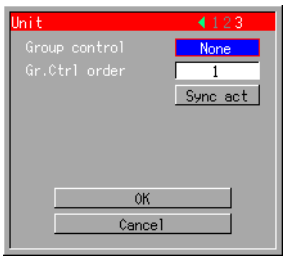
Name of Each Component



Attribute Setting Dialog







List of Attributes

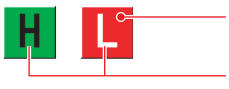
Attribute	Description	Default value
ID	Number automatically assigned for component identification.	0 to 79
Channel no	Set the channel number to be assigned. You can configure this field when the group control is set to [None].	1
Font	Set the character size of unit font. You can select [Font 5], [Font 6], [Font 8], [Font 12], or [Font 16].	Font 6 (DX1000) Font 8 (DX2000)
Arrangement	Set the horizontal arrangement of the string. You can select [Center], [Left], or [Right].	Right
Color	Set the color of the string. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], and [Channel].	White
Background color	Set the fill color of the unit display area. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], [Channel], and [None].	BASE
Gap	Set the character gap of the string. You can set a value between 0 and 15.	0
Frame	Set the frame of a component. ▶See Section 2.2.	None
Depend ID	Set the ID number of the component on which this component is dependent.▶See Section 2.2.	None
Visible	You can choose to show or hide this component by setting [On] or [Off]. ▶See Section 2.2.	On
Group control	Set the control status of group displayed. ▶See Section 1.11 and Section 2.2.	None
Gr.Ctrl order	Set the control order of group displayed. ▶See Section 1.11 and Section 2.2.	1
Sync act	▶See Section 2.2.	

2.14 Attributes of Alarm Indicator Components

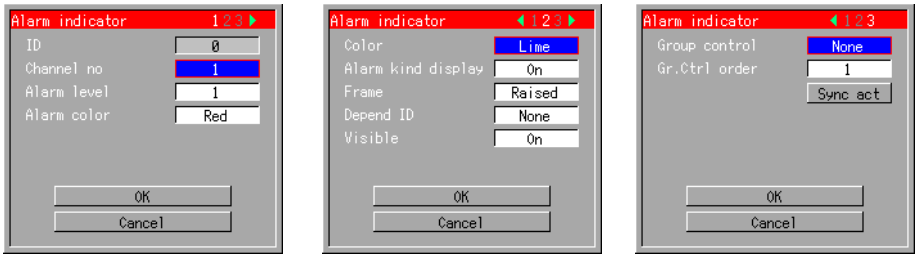
These components are associated with displaying an alarm indicator.

Component type (See Section 1.4.)	Channel assignment	Overlap restriction (See Section 1.4.)	None

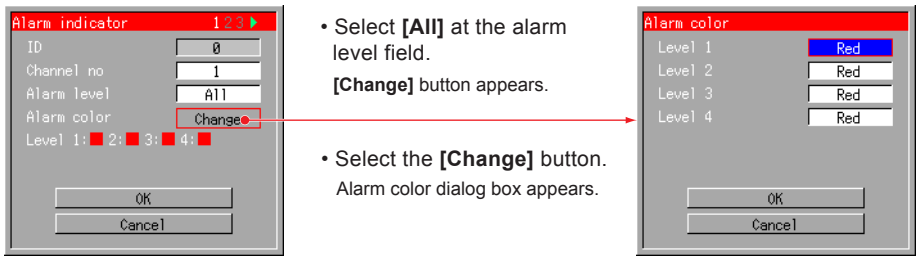
Name of Each Component



Attribute Setting Dialog



Set the alarm color for each alarm level.



List of Attributes

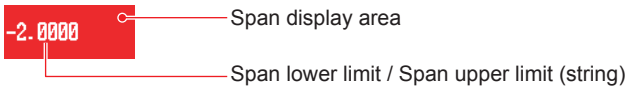
Attribute	Description	Default value
ID	Number automatically assigned for component identification.	0 to 79
Channel no	Set the channel number to be assigned. You can configure this field when the group control is set to [None].	1
Alarm level	Sets the alarm level to be assigned. Selectable from among [1], [2], [3], [4], and [All]. Selecting [All] allows an alarm color to be set for each level.	1
Alarm color	Sets the color when the alarm is on. Selectable from among [Red], [Orange], [Lime], [Yellow], [Pink], [Black], [White], and [Alarm].	Alarm
Color	Sets the color used when the alarm is off. Selectable from among [Red], [Orange], [Lime], [Yellow], [Pink], [Black], and [White].	Lime
Alarm kind display	Sets [On] or [Off] to indicate whether or not the alarm type is displayed. Setting [On] displays the alarm type (symbol) set for each alarm level.	On
Frame	Sets the component frame. ▶See Section 2.2.	Raised
Depend ID	Set the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	You can choose to show or hide this component by setting [On] or [Off]. ▶See Section 2.2.	On
Group control	Set the control status of the display group. ▶See Section 1.11 and Section 2.2.	None
Gr.Ctrl order	Sets the registration order of the display group. ▶See Section 1.11 and Section 2.2.	1
Sync act	▶See Section 2.2.	

2.15 Attributes of Span Lower Limit (Span Upper Limit) Components

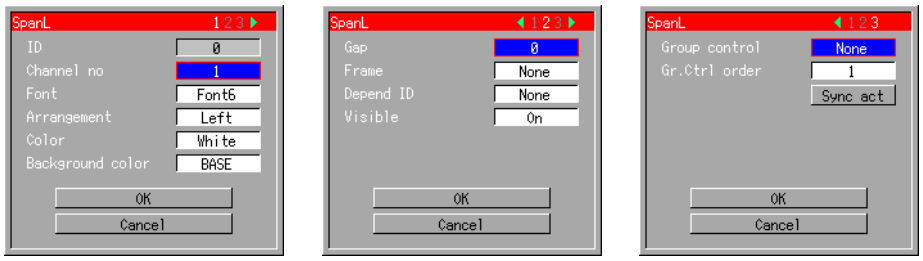
These components are used to display span lower and upper limits. (Here, the span lower limit is explained. However, this explanation can also apply to the span upper llimit if you replace "lower limit" with "upper limit."))

Component type (See Section 1.4.)	Channel assignment	**Overlap restriction (See Section 1.4.)**	None

Name of Each Component



Attribute Setting Dialog



List of Attributes

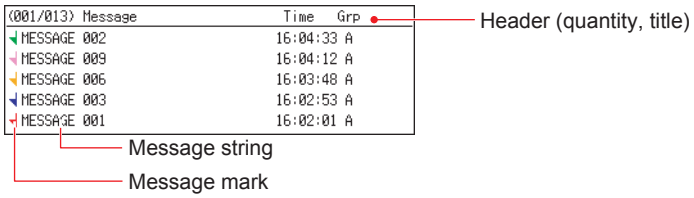
Attribute	Description	Default value
ID	Number automatically assigned for component identification.	0 to 79
Channel no	Sets the channel number to be assigned. You can configure this field when the group control is set to [None].	1
Font	Sets the character size of the lower limit (upper limit) span. You can select [Font 5], [Font 6], [Font 8], [Font 12], or [Font 16].	Font 6(DX1000) Font 8(DX2000)
Arrangement	Sets the horizontal arrangement of the string in the lower limit (upper limit) span display area. Selectable from [Center], [Left], and [Right].	Left
Color	Set the color of the string. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], and [Channel].	White
Background color	Sets the fill color of the span display area. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], [Channel] and [None].	BASE
Gap	Sets the character gap of the string. You can set a value between 0 and 15.	0
Frame	Sets the component frame. ▶See Section 2.2.	None
Depend ID	Set the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	Sets [On] or [Off] to indicate whether or not this component is displayed. ▶See Section 2.2.	On
Group control	Set the control status of the display group. ▶See Section 1.11 and Section 2.2.	None
Gr.Ctrl order	Sets the registration order of the display group. ▶See Section 1.11 and Section 2.2.	1
Sync act	▶See Section 2.2.	

2.16 Attributes of Message List Components

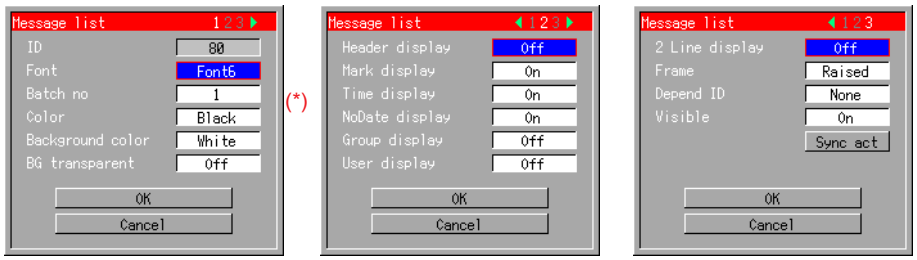
These components are used to display the message list.

Component type (See Section 1.4.)	List display	Overlap restriction (See Section 1.4.)	A

Name of Each Component



Attribute Setting Dialog



* The Batch no. will be displayed only when Multi batch (additional specification /BT2) is valid.

List of Attributes

Attribute	Description	Default value
ID	Number automatically assigned for component identification.	80 to 83
Font	Sets the character size of the message list. You can select either [Font 6] or [Font 8].	Font 6(DX1000) Font 8(DX2000)
Batch no only with additional spec. /BT2	Sets the batch number. Selectable from among the number of multi batches configured in the basic setting. The batch number will be displayed only when Multi batch is valid.	1
Message color	Set the color of the string. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], and [BASE].	Black
Background color	Sets the fill color of the message list area. Selectable from among [white] and [black].	White
BG transparent	You can choose to make the background color transparent by setting [On] or [Off]. The background transparency is valid when the trend display component exists under the message list that completely overlaps with it. This transparency is invalid if the message list protrudes from the trend display component.	Off
Header display	Sets [On] or [Off] to indicate whether or not the header is displayed. Setting On displays this item on the execution screen. The builder screen always hides this item.	Off
Mark display	Sets [On] or [Off] to indicate whether or not the message mark is displayed. Setting On displays this item on the execution screen. The builder screen always hides this item.	On

Continued on next page

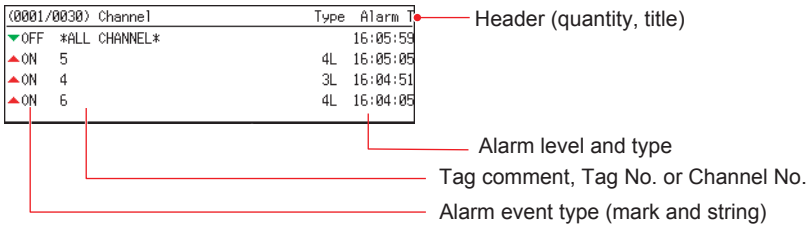
Attribute	Description	Default value
Time displayy	Sets [On] or [Off] to indicate whether or not the time is displayed. Setting On displays this item on the execution screen. The builder screen always hides this item.	On
NoDate display	Sets [On] or [Off] to indicate whether or not the date is displayed. Settable when the time display is On. If NoDate display is set to Off, the date appears.	On
Group display	Sets [On] or [Off] to indicate whether or not the write group is displayed.	Off
User display	Sets [On] or [Off] to indicate whether or not the write user is displayed. When On, the action function is added to enable the message and user displays to be switched on the execution screen.	Off
2 Line display	Sets [On] or [Off] to indicate whether or not the message is displayed in two lines.	Off
Frame	Sets the component frame. ▶See page 2-2.	Raised
Depend ID	Set the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	Sets [On] or [Off] to indicate whether or not this component is displayed. ▶See Section 2.2.	On
Sync act	▶See Section 2.2.	

2.17 Attributes of Alarm List Components

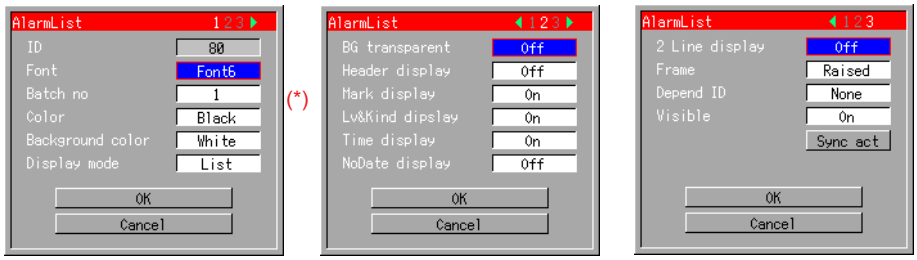
These components are used to display the alarm list.

Component type (See Section 1.4.)	List display	Overlap restriction (See Section 1.4.)	A

Name of Each Component



Attribute Setting Dialog



* The Batch no. will be displayed only when Multi batch (additional specification /BT2) is valid.

List of Attributes

Attribute	Description	Default value
ID	Number automatically assigned for component identification.	80 to 83
Font	Sets the character size of alarm list. You can select either [Font 6] or [Font 8].	Font 6(DX1000) Font 8(DX2000)
Batch no only with additional spec. /BT2	Sets the batch number. You can select a number from [1] to [6] for DX1000, [1] to [12] for DX2000. The batch number will be displayed only when Multi batch is valid.	1
Alarm color	Set the color of the string. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], and [BASE].	Black
Background color	Sets the fill color of the alarm list area. Selectable from among [white] and [black].	White
Display mode	Sets the display mode. Selectable from [List] or [Watch]. [List] Displays all alarms. [Watch] Displays the alarms being generated. Displays the alarms being generated, from among alarm data (up to 250 data items) retained for internal memory display. If alarms occur frequently, they are not displayed even if they are being generated since they are discarded starting with older data.	List

Continued on next page

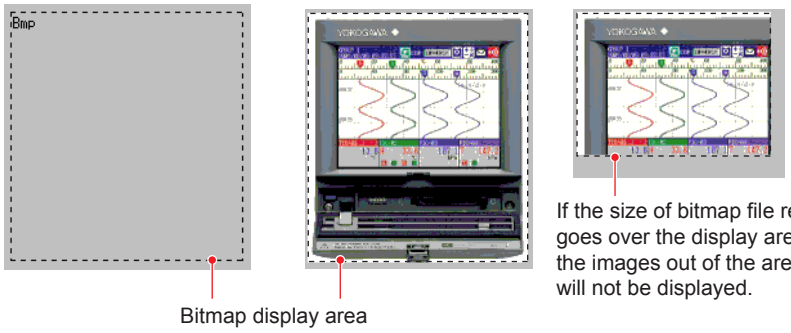
Attribute	Description	Default value
BG transparent	Sets [On] or [Off] to indicate whether or not the background color is made transparent. The background transparency is valid when the trend display component exists under the alarm list that completely overlaps with it. This transparency is invalid if the alarm list protrudes from the trend display component.	Off
Header display	Sets [On] or [Off] to indicate whether or not the header is displayed. Setting On displays this item on the execution screen. The builder screen always hides this item.	Off
Mark display	Sets [On] or [Off] to indicate whether or not the alarm event type is displayed. Setting On displays this item on the execution screen. The builder screen always hides this item.	On
Lv&Kind display	Sets [On] or [Off] to indicate whether or not the alarm level and type are displayed.	On
Time display	Sets [On] or [Off] to indicate whether or not the time is displayed. Setting On displays this item on the execution screen. The builder screen always hides this item.	On
NoDate display	Sets [On] or [Off] to indicate whether or not the date is displayed. Settable when Time display is On. If NoDate display is set to Off, the date appears.	Off
2 Line display	You can choose to display the tag no. in two lines by setting [On] or [Off].	Off
Frame	Set the frame of a component. ▶See Section 2.2.	Raised
Depend ID	Set the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	Sets [On] or [Off] to indicate whether or not this component is displayed. ▶See Section 2.2.	On
Sync act	▶See Section 2.2.	

2.18 Attributes of Bitmap Components

These components are used to display a bitmap. The bitmap corresponds to the format having 256 or fewer colors.

Component type (See Section 1.4.)	Still image display	Overlap restriction (See Section 1.4.)	B

Name of Each Component



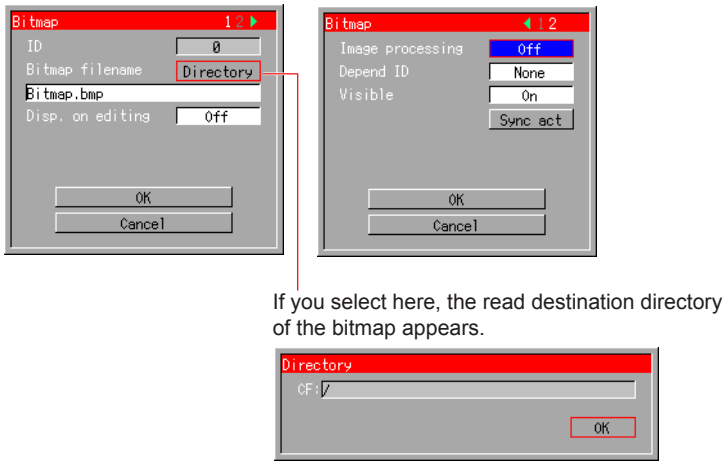
Note

Conditions for reading a bitmap

(1) Format having 256 or fewer colors (the bitmap may not be read depending on the format even if the number of colors in use is 256 or fewer.)

(2) 640 (width) x 480 (height) pixels or less (the bitmap cannot be read if the value exceeds either 640 or 480.)

Attribute Setting Dialog



List of Attributes

Attribute	Description	Default value
ID	Number automatically assigned for component identification.	132 to 133
Bmp filename	Enter the name of a bitmap file saved on an external storage medium (CF card). The read destination is the directory used when the screen was loaded.	Bitmap.bmp
Disp. on editing	Sets [On] or [Off] to indicate whether or not the bitmap is displayed on the builder screen.	Off

Continued on next page

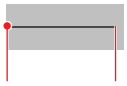
Attribute	Description	Default value
Image processing	Sets [On] or [Off] to indicate whether or not the image processing is converted when the bitmap file is read. If On, the bitmap file is optimized to the display of this equipment. However, it takes time until the bitmap appears. About 30 seconds is required when the image size is 640 x 480 pixels	Off
Depend ID	Set the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	Sets [On] or [Off] to indicate whether or not this component is displayed. ▶See Section 2.2.	On
Sync act	▶See Section 2.2.	

2.19 Attributes of Line Components

These components are used to display a line. A line connecting any two points is displayed.

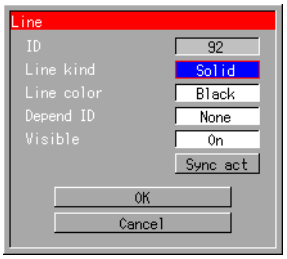
Component type (See Section 1.4.)	Shape	Overlap restriction (See Section 1.4.)	None

Name of Each Component



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

Attribute Setting Dialog



List of Attributes

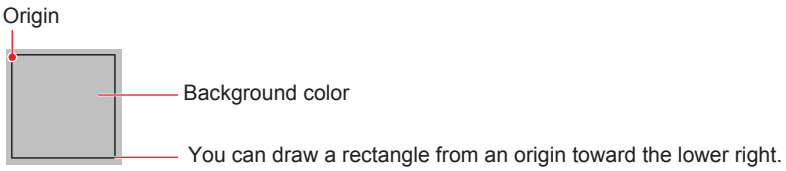
Attribute	Description	Default value
ID	Number automatically assigned for component identification.	92 to 131
Line kind	Sets line type. Selectable from among [Solid], [Dotted], [Dashed], and [Longdash].	Solid
Line color	Sets the color of a line. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], and [BASE].	Black
Depend ID	Set the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	Sets [On] or [Off] to indicate whether or not this component is displayed. ▶See Section 2.2.	On
Sync act	▶See Section 2.2.	

2.20 Attributes of Rectangle Components

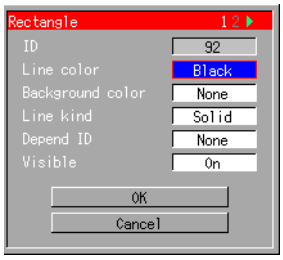
These components are used to display a rectangle.

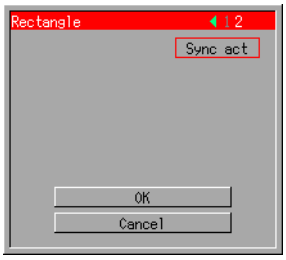
Component type (See Section 1.4.)	Shape	Overlap restriction (See Section 1.4.)	None

Name of Each Component



Attribute Setting Dialog





List of Attributes

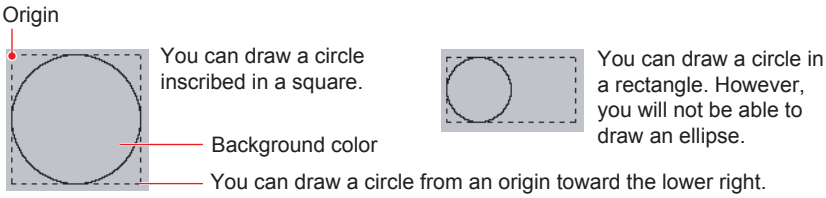
Attribute	Description	Default value
ID	Number automatically assigned for component identification.	92 to 131
Line color	Sets the color of a line. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], and [None].	Black
Background color	Sets the background color. (Background colors available are same as those listed in Line color.)	None
Line kind	Sets line type. Selectable from among [Solid], [Dotted], [Dashed], and [Longdash].	Solid
Depend ID	Sets the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	Sets [On] or [Off] to indicate whether or not this component is displayed. ▶See Section 2.2.	On
Sync act	▶See Section 2.2.	

2.21 Attributes of Circle Components

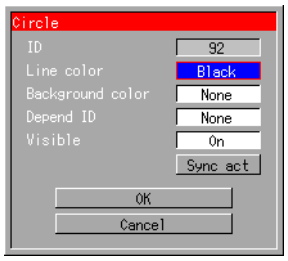
These components are used to display a circle..

Component type (See Section 1.4.)	Shape	Overlap restriction (See Section 1.4.)	None

Name of Each Component



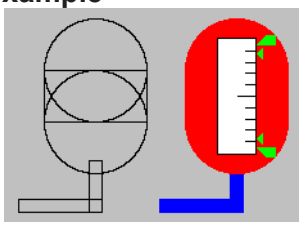
Attribute Setting Dialog



List of Attributes

Attribute	Description	Default value
ID	Number automatically assigned for component identification	92 to 131
Line color	Sets the color of a line. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], and [None]	Black
Background color	Sets the background color. (Background colors available are the same as those listed in Line color.)	None
Depend ID	Sets the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	Sets [On] or [Off] to indicate whether or not this component is displayed. ▶See Section 2.2.	On
Sync act	▶See Section 2.2.	

Plotting example



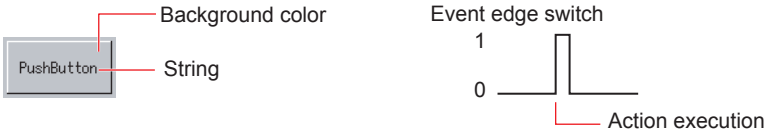
When you set the background color without a line color after you have drawn a circle or rectangle, the drawings appear to be connected.
Combining the settings of line color and background color allows you to draw a more complex image.

2.22 Attributes of Push Button Components

These components are used to display a push button. Using the action function allows the event edge switch to be switched on the execution screen as shown in the figure below.

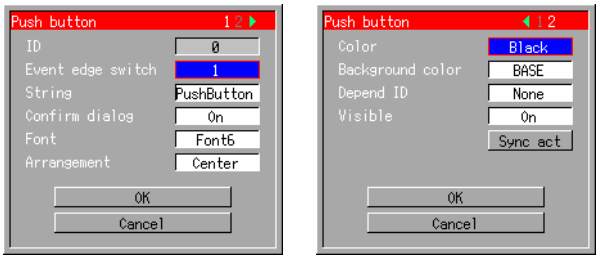
Component type (See Section 1.4.)	Components with action functions	**Overlap restriction (See Section 1.4.)**	None

Name of Each Component



To execute the configured action on the execution screen, select a component using the **up and down arrow keys** and press **DISP/ENTER**.

Attribute Setting Dialog



List of Attributes

Attribute	Description	Default value
ID	Number automatically assigned for component identification.	0 to 79
Event edge switch	Sets the event edge switch number. Selectable from [1] and [30].	1
Text label	You can enter up to 64 one-byte characters, as the string to be displayed on the button.	PushButton
Action prompt	Sets [On] or [Off] to indicate whether or not the confirmation dialog is displayed during action execution.	On
Font	Sets character size. Selectable from [Font 5], [Font 6], [Font 8], [Font 12], [Font 16], and [Font 32].	Font 6(DX1000) Font 8(DX2000)
Arrangement	Sets the horizontal arrangement of the string to be displayed on the button. Selectable from [Center], [Left], and [Right].	Center
Color	Set the color of the string. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], and [BASE].	Black
Background color	Sets the background color. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], and [None].	BASE

Continued on next page

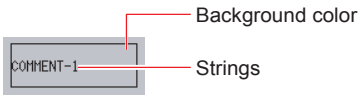
Attribute	Description	Default value
Depend ID	Sets the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	Sets [On] or [Off] to indicate whether or not this component is displayed. ▶See Section 2.2.	On
Sync act	▶See Section 2.2.	

2.23 Attributes of Comment Box Components

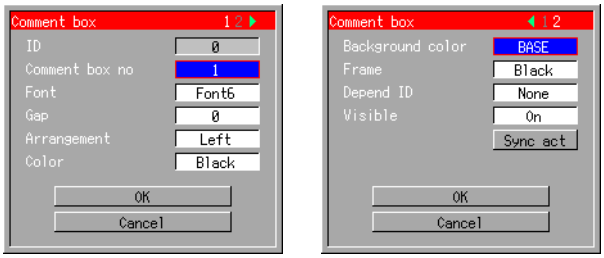
These components are used to display a comment box. You can display the string by specifying the comment box number configured for the DX main unit.

Component type (See Section 1.4.)	Comment display	Overlap restriction (See Section 1.4.)	None

Name of Each Component



Attribute Setting Dialog



List of Attributes

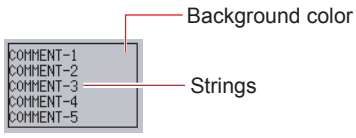
Attribute	Description	Default value
ID	Number automatically assigned for component identification.	0 to 79
Comment box no	Sets the comment box number. 1 to 100 for DX1000 and 1 to 200 for DX2000	1
Font	Sets the character size. Selectable from [Font 5], [Font 6], [Font 8], [Font 12], and [Font 16].	Font 6(DX1000) Font 8(DX2000)
Gap	Sets the character gap of the string. Settable in the range of 0 to 15.	0
Arrangement	Sets the horizontal arrangement of the string. Selectable from [Center], [Left], and [Right].	Left
Color	Sets the color of the string. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], and [BASE].	Black
Background color	Sets the background color. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], and [None].	BASE
Frame	Sets the component frame. ▶See page 2-2.	Black
Depend ID	Sets the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	Sets [On] or [Off] to indicate whether or not this component is displayed. ▶See Section 2.2.	On
Sync act	▶See Section 2.2.	

2.24 Attributes of Comment Block Components

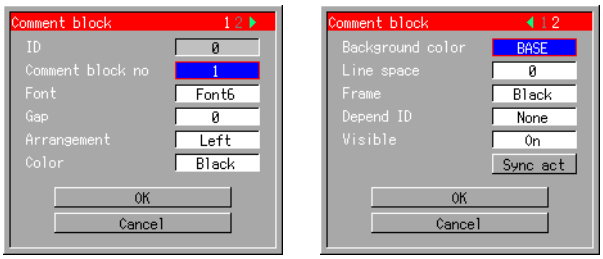
These components are used to display a comment block. You can display the string by specifying the comment block number configured for the DX main unit.

Component type (See Section 1.4.)	Comment display	Overlap restriction (See Section 1.4.)	None

Name of Each Component



Attribute Setting Dialog



List of Attributes

Attribute	Description	Default value
ID	Number automatically assigned for component identification.	0 to 79
Comment block no	Sets the comment block number. 1 to 50 for DX1000 and 1 to 100 for DX2000	1
Font	Sets the character size. Selectable from [Font 5], [Font 6], [Font 8], [Font 12], and [Font 16].	Font 6(DX1000) Font 8(DX2000)
Gap	Sets the character gap of the string. Selectable in the range of 0 to 15.	0
Arrangement	Sets the horizontal arrangement of the string. Selectable from [Center], [Left], and [Right].	Left
Color	Set the color of the string. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], and [BASE].	Black
Background color	Sets the background color. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], [BASE], and [None].	BASE
Line space	Sets the line space of the string. You can set a value between 0 and 15.	0

Continued on next page

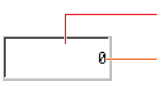
Attribute	Description	Default value
Frame	Sets the component frame. ▶See Section 2.2.	Black
Depend ID	Sets the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	Sets [On] or [Off] to indicate whether or not this component is displayed. ▶See Section 2.2.	On
Sync act	▶See Section 2.2.	

2.25 Attributes of Communication Input Components

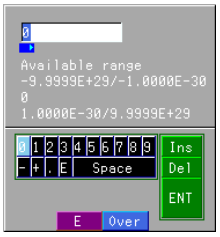
These components are used to write values to the communication channel. Using the action function enables numeric values to be written to the specified communication channel on the execution screen. The value written can be read from other devices using Modbus function. When you assign the communication channel to the computation channel, you will also be able to write an arbitrary value to other devices using Modbus function.

Component type (See Section 1.4.)	Components with action functions	**Overlap restriction (See Section 1.4.)**	None

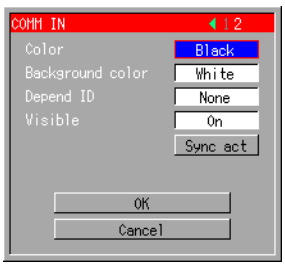
Name of Each Component



The character/value input window shown on the right will appear when you press **DISP/ ENTER** after selecting the communication input components using the **up and down arrow keys** on the execution screen.



Attribute Setting Dialog



List of Attributes

Attribute	Description	Default value
ID	Number automatically assigned for component identification.	0 to 79
Commu data no	Sets the communication input data number for entering and displaying a value.	1
Minimum	Sets the enterable lower limit.	-9.9999E+29
Maximum	Sets the enterable upper limit.	9.9999E+29
Font	Sets the character size. Selectable from [Font 5], [Font 6], [Font 8], [Font 12], [Font 16], and [Font 32].	Font 6(DX1000) Font 8(DX2000)
Arrangement	Sets the horizontal arrangement of the string. Selectable from [Center], [Left], and [Right].	Right
Color	Sets the color of the string. Selectable from among [Red], [Green], [Blue], [B.violet], [Brown], [Orange], [Y.green], [Lightblue], [Violet], [Gray], [Lime], [Cyan], [Darkblue], [Yellow], [Lightgray], [Purple], [Pink], [L.brown], [L.green], [Darkgray], [Olive], [Darkcyan], [S.green], [Black], [White], and [BASE].	Black
Background color	Sets the background color. (Background colors available are same as those listed in Color.)	White
Depend ID	Sets the ID number of the component on which this component is dependent. ▶See Section 2.2.	None
Visible	Sets [On] or [Off] to indicate whether or not this component is displayed. ▶See Section 2.2.	On
Sync act	▶See Section 2.2.	

Note

Maximum and Minimum are valid only when a value is entered from the communication input component of the custom display. These attributes do not influence the input from communication.

3.1 Saving Screen Data

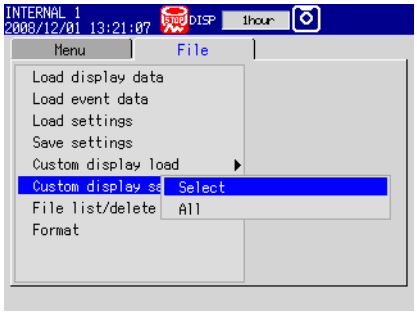
Any screen configured on the builder screen can be saved in file form in an external storage medium (CF card). Screen data is saved in two ways: specified screen and all screen.

Saving the Specified Screen

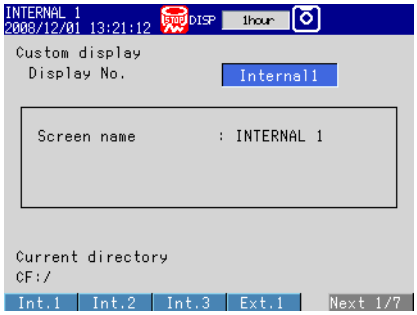
The specified custom display screen setting file is saved.

Procedure

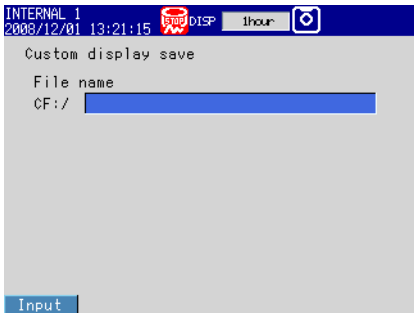
1. Press **MENU**.
2. On the **[File] tab**, select **[Custom display save]** > **[Select]**.



3. Select a screen number from the soft key menu.



4. Press the **Input soft key** and enter the file name.



5. Press **DISP/ENTER**.
   The file is saved in the root directory.

Explanation

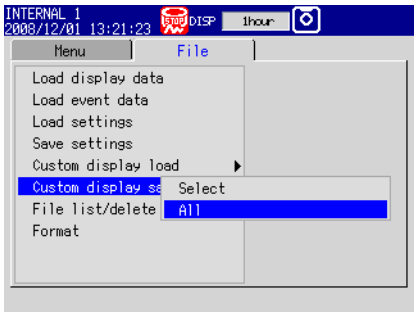
Item	Description
File extension	CDC
File form	Text
File to save	Custom display screen setting file (specified screen only) **File name (optional)** Any name consisting of up to half-size 32 characters (alphanumerics and symbols)
Saving destination	Root directory
Custom display screen Screen number choices	Internal 1 to 3 Custom display screen in the internal memory External 1 to 25 Custom display screen in an external storage medium (CF card)

Saving All Screen

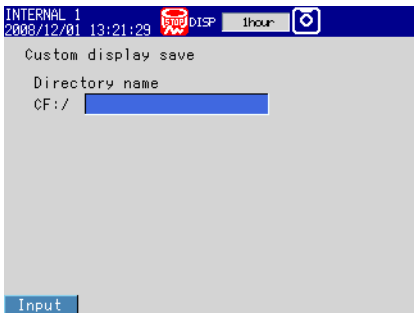
All custom display screen setting files in the internal memory and external storage medium (CF card) are saved in any directory specified for the external storage medium.

Procedure

1. Press **MENU**.
2. On the **[File] tab**, select **[Custom display save]** > **[All]**.



3. Press the **Input soft key** and enter the directory name.



5. Press **DISP/ENTER.**
   All screens are saved in the specified directory.

Explanation

Item	Description
File to save	Custom display screen setting file (All screen files being currently set) **File name (fixed)** Internal 1 to 3: Internal 1.CDC to Internal 3.CDC External 1 to 25: External 1.CDC to External 25.CDC
	Custom display-dedicated setting data file **File name (fixed)** Setting.CDS
	All bitmap files used on the custom display screen **File name (optional)** XXX.BMP (XXX: optional)
Saving destination	Specified directory **Directory name (optional)** Up to 20 characters (half-size alphanumerics and symbols)

Note

- The custom display screen setting file cannot be saved in USB memory.
- The file cannot be saved if no external storage medium (CF card) is inserted or an error is occurring.
- The file name is not a screen name. The screen name set on the builder screen is saved intact in the custom display screen setting file.

3.2 Reading Screen Data

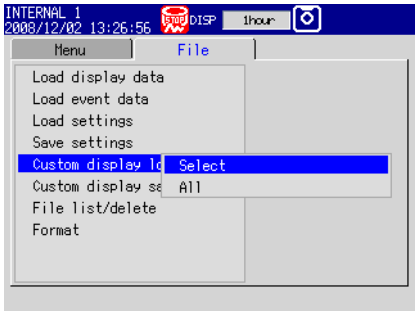
The screen data (custom display screen setting file) saved on external storage medium (CF card) can be read in the internal memory. Screen data is read in two ways: specified screen and all screen.

Reading the Specified Screen

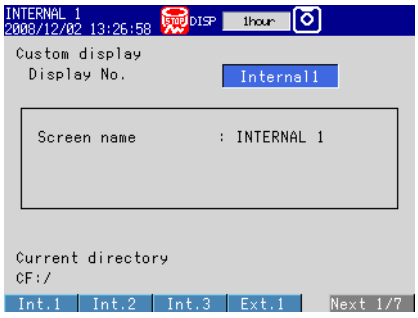
The specified screen data (custom display screen setting file) is read.

Procedure

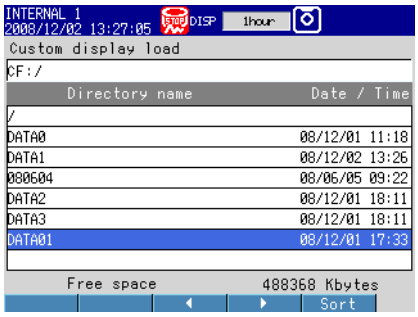
1. Press **MENU**.
2. On the **[File] tab**, select **[Custom display load]** > **[Select]**.



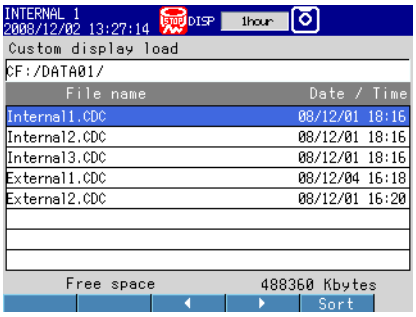
3. Select the screen number of the read destination from the soft key menu.
   You can select the screen number from among internal 1 to 3 and external 1 to 25 (see the next page).



4. Select the directory containing the file to be read.
   Only the custom display screen setting file (CDC) appears.



5. Select the file to be read.
The specified custom display screen setting file is read.



If external 1 to 25 are specified for file reading:

The selected custom display screen setting file is copied onto the external storage medium (CF card). If the file already exists, the following message appears:

Note

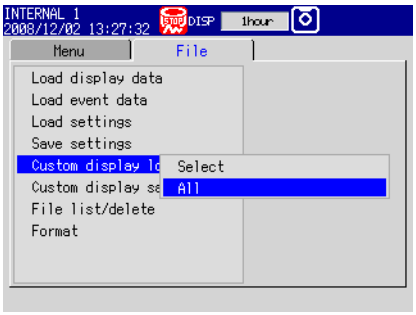
- If the capacity of the external storage medium (CF card) is insufficient, no file can be read with external 1 to 25 specified.
- The copy destination directory is the one used when the full screen is read last.

Reading All Screen

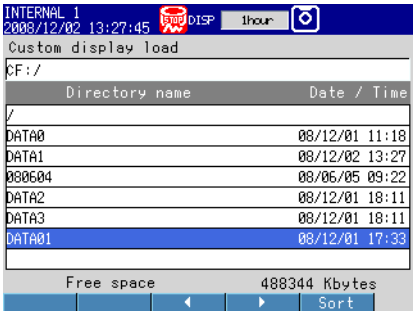
The specified directory is set as the read destination and custom display screen setting files are read in the internal memory.

Procedure

1. Press **MENU**.
2. On the **[File] tab**, select **[Custom display load]** > **[All]**.



3. Select a directory and press **DISP/ENTER**.



All custom display screen setting files are read.

Explanation

If screen data loading (Select, All) is executed, the screen name displayed on the custom screen submenu of the operation screen menu is updated.
If screen data loading (All) is executed, the specified directory becomes the read destination directory (the default is the root directory of the external storage medium (CF card)).

Notes on Screen Data Saving and Reading

To use the custom display screen from external storage medium (CF card), the CF card in which the screen is saved needs to be always inserted.
To allow the custom display screen of DX in use to be used with another DX, save that screen in the CF card of another DX.