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Foreword

Thank you for purchasing the DAQEXPLORER.

This manual explains the operating procedures of the DAQEXPLORER on Windows 95/98/2000 and Windows NT4.0.

Keep this manual in a safe place for quick reference in the event a question arises.

For information about the handling precautions, functions, and operating procedures of the DX100/DX200/MV100/MV200 and the handling and operating procedures of Windows, see the respective manuals.

Contents of the Package

The package contains the following items:
- DAQEXPLORER (Model: DXA200) Installation Disk: 2 floppy disks
- User's Manual (IM04L02A01-62E, this manual): 1 piece

Notes

- The contents of this manual are subject to change without prior notice as a result of continuing improvements to the instrument's performance and functions.
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Revisions

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How to Use this Manual

Structure of the Manual

This manual consists of the following 6 chapters and an index.

Chapter	Title	Description
1	Before Use	Describes the PC requirements needed to run the DAQEXPLORER, the installation procedures, and other information.
2	Using the DAQ Desktop	Describes the DAQ desktop used to start various software programs. It also describes the procedures to setup communications between the DX100/DX200/MV100/MV200 and the PC.
3	Using the Data Monitor	Describes the operations used when monitoring the data in real-time on the monitor connected to the DX100/DX200/MV100/MV200 via network.
4	Displaying Data with the Data Viewer	Describes the operations used when monitoring the stored data on the hard disk or converting the stored data to other formats such as ASCII.
5	Configuring the DX100/DX200/ MV100/MV200	Describes the procedures used to configure the DX100/DX200/MV100/MV200 such as measurement conditions.
6	Error Messages and Their Corrective Actions	Describes error messages and their countermeasures.
Index		Gives an index.

The Scope of This Manual

This manual does not explain the basic operations of Windows 95/98/2000 or Windows NT4.0. For information related to the basic operation of Windows 95/98/2000 and Windows NT4.0, see the manual that came with Windows.

Conventions Used in this Manual

Unit

K Denotes 1024. Example 100 KB

Notations of menus, commands, dialog boxes, and buttons

Enclosed with [ ].

Symbols

Note

Gives useful tips on the operation of the software.

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Chapter 6 Error Messages and Their Corrective Actions

Index

1.1 DAQEXPLORER Overview

The DAQEXPLORER consists of the following four software programs:
- DAQ Desktop
- Data Monitor
- Data Viewer
- Configurator
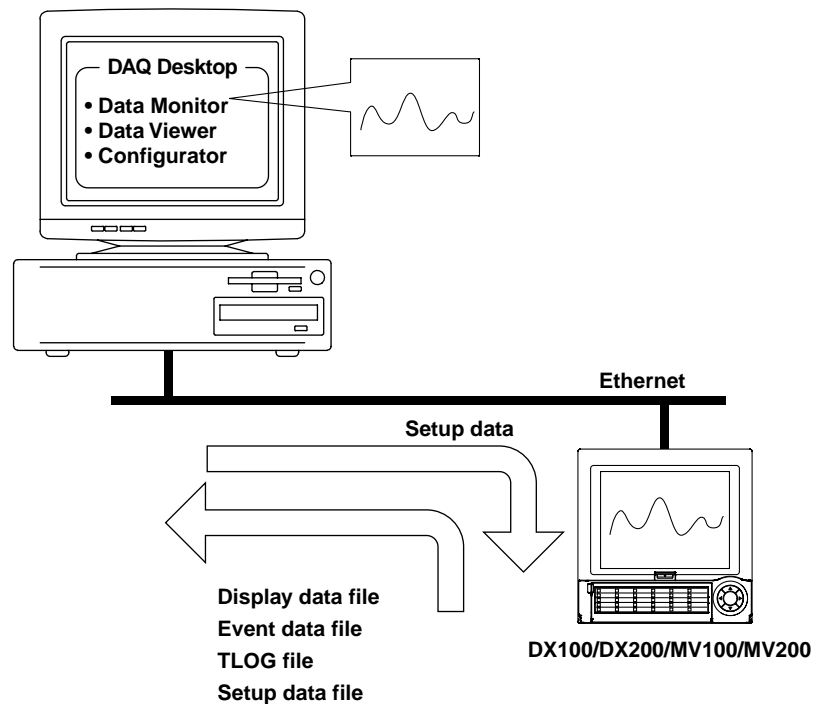
DAQ Desktop

The DAQ Desktop can be used to perform the following operations:
- Mount the DX100/DX200/MV100/MV200 on the network (make it accessible from the DAQEXPLORER).
- Start the Data Monitor, Data Viewer, and Configurator programs.
- Check the files residing in the internal memory or external storage medium of the DX100/DX200/MV100/MV200.
- Snap shot display of the DX100/DX200/MV100/MV200 display screen.
- Automatic transfer of the DX100/DX200/MV100/MV200 data.
- Copy DX100/DX200/MV100/MV200 data to the DAQ Desktop.
- Send triggers to the DX100/DX200/MV100/MV200.

Note

The DAQ Desktop and Data Viewer are automatically registered under [Programs] of the [Start] menu of Windows 95/98/2000 or Windows NT4.0 when the DAQEXPLORER is installed.

Data Monitor

Monitor the DX100/DX200/MV100/MV200 data using a PC connected to the network by viewing the trend waveform, for example. The following types of monitor screens are available:

- Alarm Monitor   : Lists the alarm conditions of each group or alarms that occurred in the past. It can be used to monitor alarms.
- Trend Monitor   : Displays the waveforms of the measured and computed data. This is useful when you wish to observe the data trend.
- Color Graph Monitor   : Displays the measured and computed data using colors that correspond to specific values. This is useful when you wish to observe the overall tendency of the measured and computed data.
- Numerical Monitor   : Displays the measured and computed data using numerical (digital) values. This is useful when you wish to read the exact values.
- Meter Monitor   : Displays the measured and computed data using analog meters. You can select bar graph, meter, or thermometer. This provides a useful way to display the current conditions graphically.
- Circular Monitor   : Displays the measured and computed data in a circular fashion.

Data Viewer

The following three types of data files generated by DX100/DX200/MV100/MV200 can be displayed as trends, digital values or in a circular fashion on the screen or printed.

- Display data file (.dds)
- Event data file (.dev)
- TLOG file (.dtg)

You can also use cursors to read the values of the displayed data, perform computation over a specified region, and convert data to a file in ASCII format or a format that can be opened using Excel/Lotus.

If you wish to open multiple Data Viewers, select [Program] - [DAQEXPLORER] - [Viewer] from the Start menu.

Configurator

The Configurator is used to configure DX100/DX200/MV100/MV200 setup data such as the configuration of the measurement channels and computation channels, the screen display format, etc. Configuration data can also be stored to or retrieved from the hard disk on the connected PC. There are three methods for setting the DX100/DX200/MV100/MV200:

- Retrieving the current setup data from the connected DX/MV and subsequently modifying the settings.
- Loading saved setup data from the PC and changing the settings.
- Configuring a new system and settings.

1.2 System Requirements

Hardware

PC
PC capable of running Windows 95/98/2000 or Windows NT 4.0 with at least a Pentium 166 MHz MMX processor (Pentium II 266 MHz or better recommended).

RAM
64 MB or more (The recommended amount of RAM depends on various parameters such as the performance of the graphics card. In general, 128 MB of RAM will provide smooth operation.) However, the necessary amount of RAM may increase, if you are running other programs simultaneously.

Hard Disk
Free space of at least 100 MB.

Floppy Disk Drive
1.44 MB floppy disk drive (one drive)

Mouse
Mouse supported by Windows 95/98/2000 or Windows NT4.0.

Monitor
A monitor supported by Windows 95/98/2000 or Windows NT4.0. At least 800 x 600 resolution with at least 32 K of colors. 1024 x 768 resolution with 65536 colors recommended.

Communication Card
An Ethernet card supported by Windows. The TCP/IP protocol must also be installed.

Printer
Printer supported by Windows. You will also need an appropriate printer driver.

Operating System
Windows 95/98/2000 or Windows NT4.0.

Note
- When using Windows 95, make sure that the version of Internet Explorer is 3.02 or later.
- When using Window NT4.0, install [Service Pack5] or a later version of the service pack.
- When numerous DX100/DX200/MV100/MV200s are mounted onto the DAQ Desktop on Windows 95/98 and many windows are opened, a message "A required resource was unavailable." may appear and the operation may become unstable.
- If daylight savings exists in the specified time zone, check "Automatically adjust clock for daylight savings changes."
- Do not specify time zone settings in the Windows autoexec.bat file. If you see a line such as "TZ=GTM0" in the autoexec.bat file, deactivate it by attaching a REM command in front.
- This program cannot handle data after year 2038.

1.3 Installing the DAQEXPLORER

A serial number is required in setting up the program. Check the serial number that is indicated on the label of the first setup disk, DISK#1, beforehand.

1. Start Windows.
2. Insert the first floppy disk into the floppy disk drive.
3. Double-click [3 1/2 Floppy] in [My Computer] to open the floppy disk window.
4. Double-click "setup.exe" to start the installation. Then, follow the instructions on the screen.

Note

- Terminate memory resident programs such as virus protection programs before installation.
- The DAQ Desktop and Data Viewer programs are registered in the Start menu immediately after installation.
- When reinstalling the software, do an uninstall first.
- To uninstall the program, follow the procedures below:
  1. Double-click "Add/Remove Programs" in the Windows Control Panel and uninstall the program.
  2. As necessary, back up the following files to a different directory:
     All files in the [Config] and [Desktops] directories that are located in the directory where this program was installed.
  3. Using Explorer, delete the Files and subdirectories that were created after the installation of the program. Also, delete the directory to which the program was installed.

1.4 Configuring the Network

The network must be configured so that the DX/MV and the PC can communicate properly using DAQEXPLORER.
Set the network configuration on the DX/MV side.
For the configuration procedure, see the respective communication interface user's manual.

1.   Press the MENU key to display the setting mode menu.
2.   Press the FUNC key for approximately three seconds to display the basic setting mode menu.

For the DX100/MV100
3.   Press the [#10 (Communications)] soft key, then the [#1 (Ethernet, IP address)] soft key. Then, press the [#2 (Ethernet, DNS)] soft key.

For the DX200/MV200
3.   Press the [#6 (Communications)] soft key, then the [#1 (Ethernet)] soft key to display the following communication function menu:

4. Enter these three parameters.

5. Enter a name.

* Host name The name that is specified here is used as an identification name for the DX100/DX200/MV100/MV200 that can be mounted from within the network folder. If a name is not specified, the IP address will be used as the identification name.

Note

• In using this software, the DNS, domain name, and suffix search order do not need to be configured.
• You can check and save the configuration using the TCP/IP menu of the Configurator.
• If you change the IP address, make sure to reboot the DX/MV.

2.1 Starting and Exiting the DAQ Desktop

Starting the DAQ Desktop

Capture It!PRO Version2.5
DAQEXPLORER ▶ ⫶⫶ Desktop
DARWIN DAQ32 🔍 Viewer
DARWIN DAQ32 Plus
Documents
DX Standard Software
FasType Typing Tutorial
Internet Explorer
mR_VR Data Logging Software
Netscape Navigator
OR Series Application
QuickTime
StartUp

New Office Document
Open Office Document
Programs
Documents

1. From the Start menu, select [Programs] - [DAQEXPLORER] - [Desktop].

2. The password confirmation dialog box opens.

Password@Desktop

User Name :
Password :

OK   Cancel

3. Enter the user name and password.

4. The DAQ Desktop opens.

Desktop
File Edit View Window Help

Menu bar
Toolbar

RECYCLER NETWORK VIEWER CONFIG MONITOR Folder000
Ready

Folder icon

MONITOR icon

CONFIG icon

VIEWER icon

Network icon

Recycle icon

Password confirmation

If the Ethernet login on the DX100/DX200/MV100/MV200 is set to [On] at the [admin] level, enter the user name and password of the administrator that was registered on the DX/MV. If the Ethernet login is set to [Not] (not used), you do not have to enter the user name or password. Clicking the [OK] or the [Cancel] button starts the DAQ Desktop.

Note

If there are multiple DX100/DX200/MV100/MV200s that have the Ethernet login configured, only the DX100/DX200/MV100/MV200 with the matching user name and password specified in step 3 will be mountable.

DAQ Desktop Functions

The DAQ Desktop has the following functions:

Menu bar
- File
  - New Mount: Mounts the DX100/DX200/MV100/MV200 with the specified host name or IP address onto the DAQ Desktop.
  - New Folder: Creates a new folder. You can also make the folder the data transfer destination.
  - Property: Displays the properties of the DX100/DX200/MV100/MV200.
  - Set Time: Sets the date and time of all mounted DX100s, DX200s, MV100s, and MV200s at once.
  - Port No.: You can check or change the port number.
  - Exit : Exits the DAQ Desktop and returns to the Windows screen.
  - Edit: Copies and Pastes selected files.
  - View: Refreshes information, selects the display format of the list, and shows or hides the toolbar and status bar.
  - Window: Closes all windows.
  - Help: Displays the version information of the DAQ Desktop.

Toolbar
- 🖼 (New Mount): This icon is equivalent to selecting [File] - [New Mount] from the menu bar.
- 📁 (New Folder): This icon is equivalent to selecting [File] - [New Folder] from the menu bar.
- 🖼 (Property): This icon is equivalent to selecting [File] - [Property] from the menu bar.
- ❓ (Version Information): This icon is equivalent to selecting [Help] - [About] from the menu bar.

Network icon
- Lists the DX100/DX200/MV100/MV200s that are on the same segment of the network.
- Mounts the DX100/DX200/MV100/MV200 that is on the network onto the DAQ Desktop.

Recycle icon

Deletes files and folders and dismounts the DX100/DX200/MV100/MV200.

VIEWER icon   Starts the Data Viewer program.

MONITOR icon   Starts the Data Monitor program.

CONFIG icon   Starts the Configurator program.

DX/MV icon

The following operations can be performed:
- Start/Stop the data acquisition to the internal memory of the DX100/DX200/MV100/MV200.
- Start the Data Monitor, Data Viewer,Configurator programs.
- Snap shot.
- View the files residing in the internal memory or the external storage medium of the DX100/DX200/MV100/MV200.
- View and change the DX100/DX200/MV100/MV200 configuration.
- Create automatic transfer destination for the DX100/DX200/MV100/MV200 data and list the transfer data.

Folder icon

This is the automatic transfer destination for the DX100/DX200/MV100/MV200 data. For the procedures to create folder icons, see section 2.5.

Note
- Files and folders that are dragged and dropped onto the recycler icon are temporarily placed in the following folder:DAQEXPLORER\desktops\DAQStation\recycler.
- When the DAQEXPLORER is restarted, all the data in the recycler folder are deleted.

Mounting the DX100/DX200/MV100/MV200
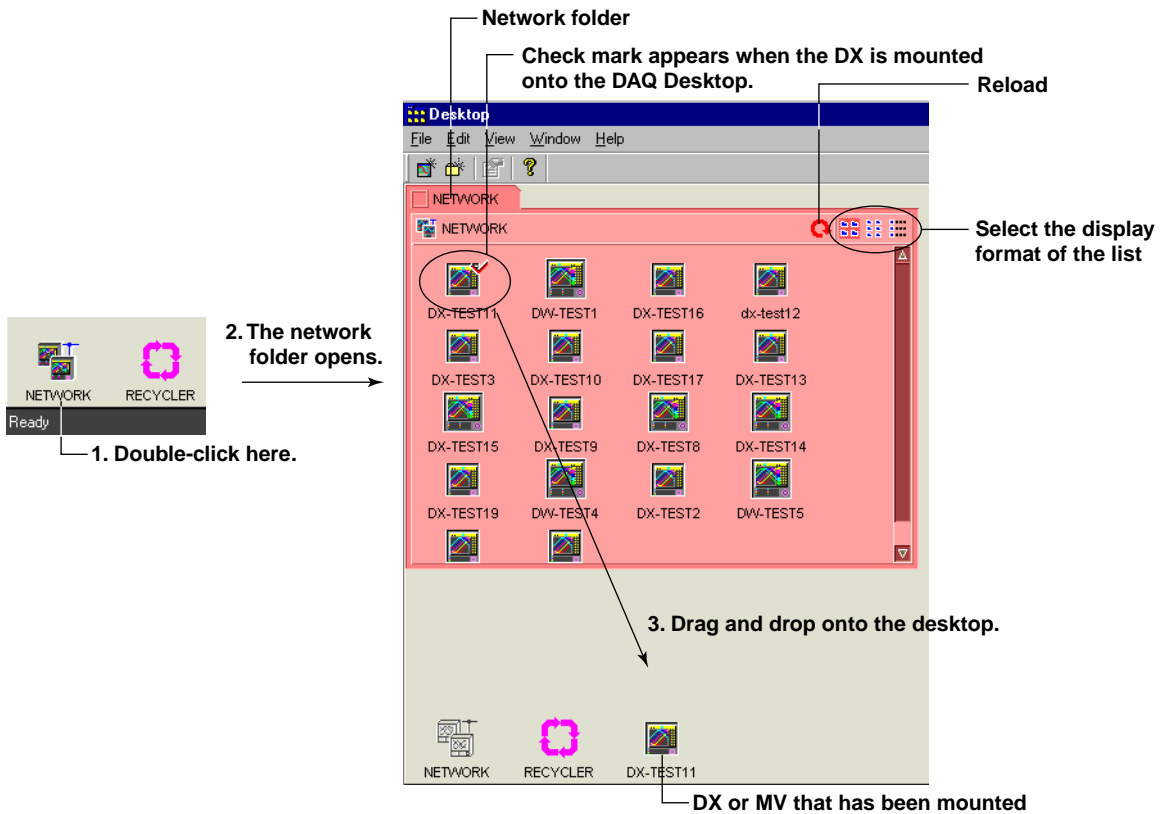
Network folder
The network folder will list the mountable DX100/DX200/MV100/MV200s that are within the same segment.
The DX100/DX200/MV100/MV200 icons that have already been mounted onto the DAQ Desktop will display red check marks.
In addition, the list of DX100/DX200/MV100/MV200 icons will show the host names that were specified in section 1.4.

Methods used to display the list
You can select Icons, List, or Details.
• **Display example when details is selected**
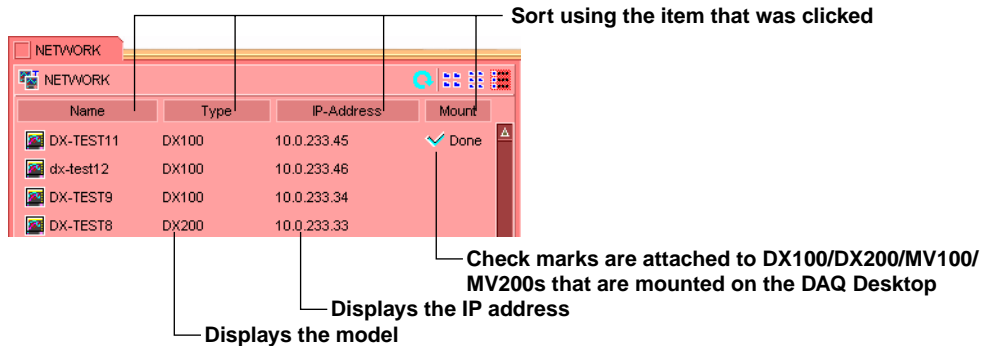
Note
Depending on the network conditions, the DX100/DX200/MV100/MV200, even when it is in the same segment, may not be listed. In this case, mount the DX100/DX200/MV100/MV200 by specifying the IP address or host name. For details related to mounting, see the next page.

Mounting by Specifying the IP Address or Host Name

2. The [New Mount] dialog box opens.

1. Click here.
Or, select [File] - [New Mount].

3. Enter the host name or IP address.
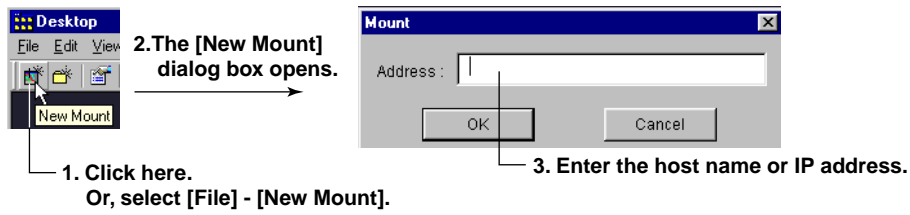
New Mount

Mount the DX100/DX200/MV100/MV200 by specifying the IP address or host name.

This method is used to mount a DX100/DX200/MV100/MV200 residing in another network.

Clicking the [OK] button displays the icon of the DX100/DX200/MV100/MV200 that has been mounted on the DAQ Desktop.

Note

- The maximum number of DX100/DX200/MV100/MV200s that can be mounted is 16.
- The icon of the DX100/DX200/MV100/MV200 that could not be connected is indicated with a red "×" mark.
- Connecting is not possible in the following cases:
  - The DX/MV is not turned ON.
  - The DX/MV with the specified IP address or host name does not exist.
  - The user name and password (see page 2-1) do not match.
  - Another user is using the particular DX/MV.

Opening the DX/MV Folder

DX/MV folder
Start/Stop the data acquisition (section 2.2)
Send a trigger (section 2.2)
Data monitor (section 3)
Snap shot (section 2.3)

Confirm data (section 2.4)
Check and reconfigure DX100/DX200/MV100/MV200 setup data (section 5)
Create and View the automatic destination folder (section 2.5)

2. The DX/MV folder opens.

1. Double-click here.
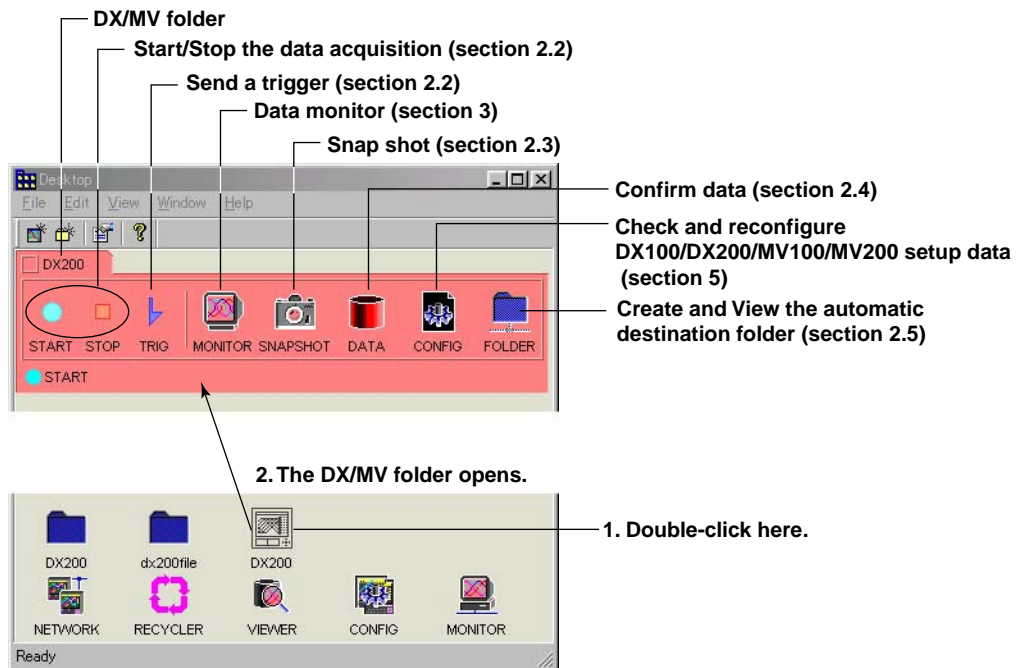
Exiting the DAQ Desktop

If you attempt to exit the program while the Data Monitor, Data Viewer, or Configurator is running and the desktop is busy carrying out some operation, a message "Now working! Do you exit all compulsory?" is displayed.

Note

You cannot exit from the DAQ Desktop, if you are editing a file that is outside the management of the DAQ Desktop on the Data Viewer that was started from the Start menu or on the Configurator program.

2.2 Starting and Stopping Data Acquisition on the DX/MV, Send a Trigger

DX/MV folder
Click here (start)

Indicates that the data acquisition is started

Click here (stop)

Indicates that the data acquisition is stopped
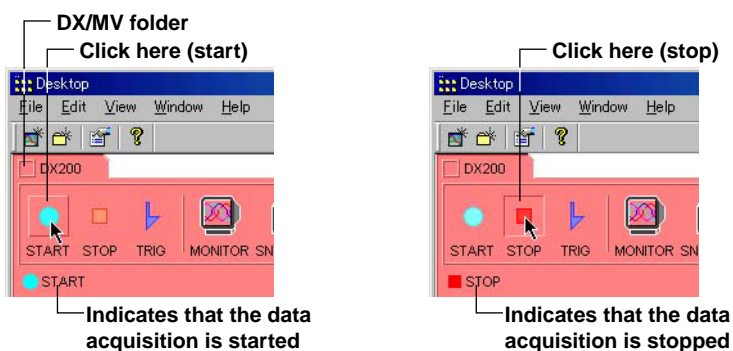
Starting
Clicking the start button starts the data acquisition to the internal memory of the DX100/DX200/MV100/MV200.

Stopping
When you click the stop button, a message, "Do you stop recording?" appears. Clicking the [OK] button stops the data acquisition to the internal memory of the DX100/DX200/MV100/MV200.

Note
In some cases, the start/stop indicator may not be correct such as when the data acquisition is started or stopped on the DX/MV.

Click here (send a trigger)
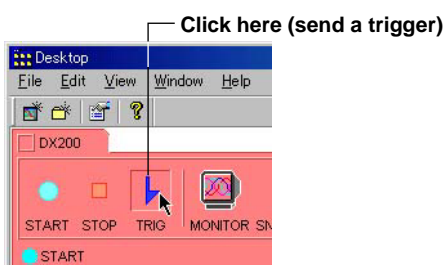
Trigger
Sends the trigger signal used to store the event data to the internal memory. The trigger is valid when the mode used to store the event data to the internal memory of the DX or MV is [Trigger] or [Rotate], trigger type is set to key trigger ([Manual Trigger] is set to [ON], see page 5-17) and the DX or MV is in the trigger-wait condition after you press the Start button. The trigger button is invalid during all other operations.

2.3 Using the Snap Shot Function

DX/MV folder

1. Double-click here.

2. The snap shot screen opens.

Expand or reduce the size of the snap shot screen

Take a new snap shot.
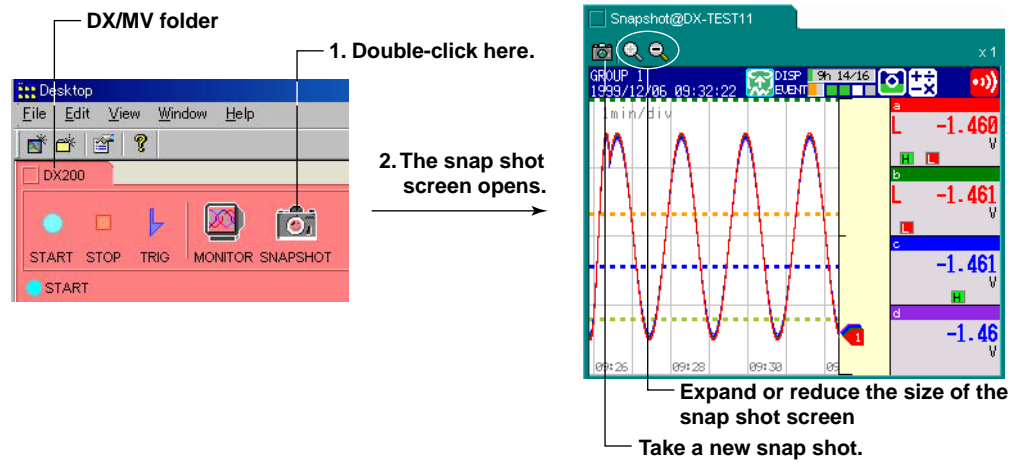
Saving the snap shot screen

Drag and drop the snap shot screen that you wish to save onto the DAQ Desktop or onto a folder on the DAQ Desktop.

The screen data that are dragged and dropped onto the DAQ Desktop are saved to the DAQEXPLORER\desktop\DAQStation folder in the drive where the DAQEXPLORER was installed.

The extension of the saved data file is [png].

The data that are saved cannot be opened using the DAQEXPLORER. You will need a separate software program that can open the screen data.

2.4 Confirming the DX100/DX200/MV100/MV200 Data

Confirming the Data

DX/MV folder   1. Double-click here.

Reload the data

Copy the selected files to the copy buffer

Select the display format of the list

2. Open the list
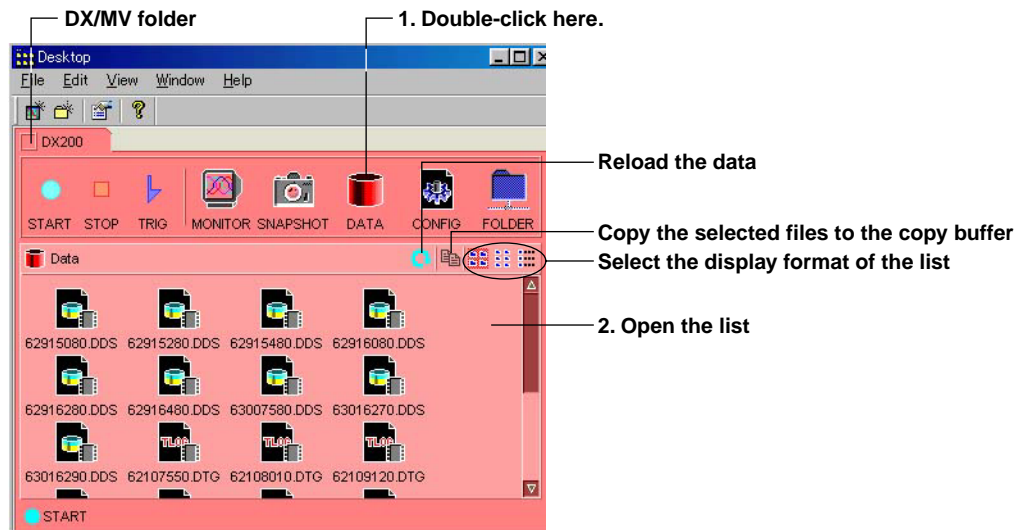
Displaying the data list

Displays a list of the files in the active folder of the internal memory or the external storage medium of the DX100/DX200/MV100/MV200.

Data that can be displayed

The following data files can be listed:

- Setup data file (*.PNL)
- Display data file (*.DDS)
- Event data file (.DEV)
- Report file

    Hourly report file (*.DHR)

    Daily report file (*.DDR)

    Weekly report file (*.DWR)

    Monthly report file (*.DMR)

- TLOG file (*.DTG)
- Manual sample file (*.DMN)
- Display image data file (*.png)

Of the files listed above, display files, event files, and TLOG files can be opened using the Data Viewer (See section 3).

Methods used to display the list

You can select Icons, List, or Details.

• **Display example when details is selected**

Sort using the item that was clicked

Name	Size	Type	Time	Media	Transport
Z0517350.DDS	71KB	Display	1999/12/05 18:24:46	Mem.	Trans.
Z0609240.DEV	35KB	Event	1999/12/06 09:28:02	Ext.	Trans.
Z0311030.DDS	86KB	Display	1999/12/03 12:03:38	Mem.	Done
Z0312030.DDS	86KB	Display	1999/12/03 13:03:38	Mem.	Done
Z0313030.DDS	86KB	Display	1999/12/03 14:03:38	Mem.	Trans.
Z0314030.DDS	86KB	Display	1999/12/03 15:03:38	Mem.	Trans.

Displays whether the data are of the internal memory or the external storage medium

Check mark is attached to a file that has been automatically transferred

Attached to a file that is being automatically transferred

Displays the data type

Displays the data size

Note

When viewing the contents of the external storage medium, only the data files in the directory that was specified as the data save destination on the DX/MV are listed.

Copying Files to the DAQ Desktop

DX/MV folder

DAQ Desktop

Drag and drop

You can copy the file that is located in the DX/MV to the DAQ Desktop by dragging and dropping the file onto the DAQ Desktop.

Copying and pasting files

To copy the files, select the files and select [Edit] - [Copy].

The files that are copied can be pasted to the active window by selecting [Edit] - [Paste].

Note

When the data are reloaded, the files residing the copy buffer are cleared.

2.5 Automatically Transferring Data in the DX/MV

Setting the Automatic Transfer Destination

DX/MV folder

1. Drag and drop onto the DAQ desktop.

2. The folder name is set to the same name as the icon of the DX100/DX200/MV100/ MV200 hat was mounted. This folder is the automatic transfer destination.

Same name

Renaming the automatic transfer destination folder

1. Click here ([File] - [New Folder]).

2. A new folder is created.
3. Enter the folder name.
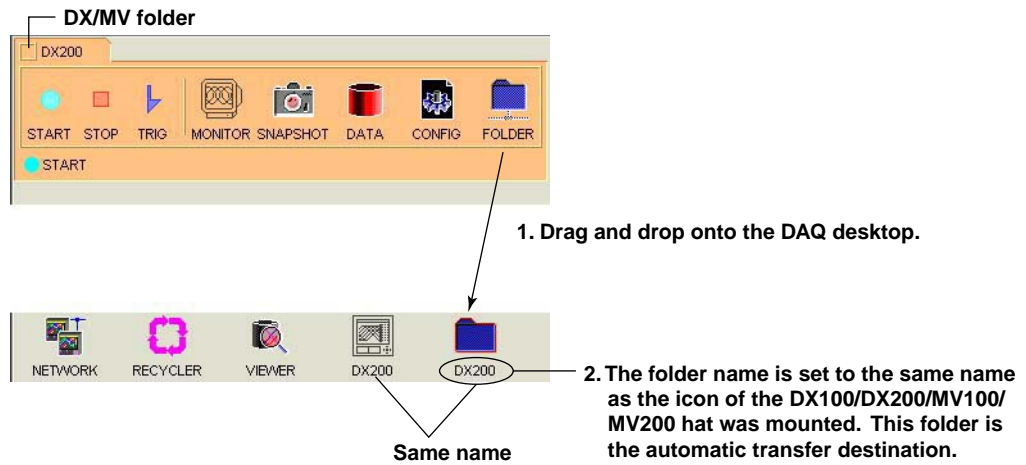
4. Drag and Drop onto the newly created folder icon. (The automatic transfer destination is set to the newly created folder.)
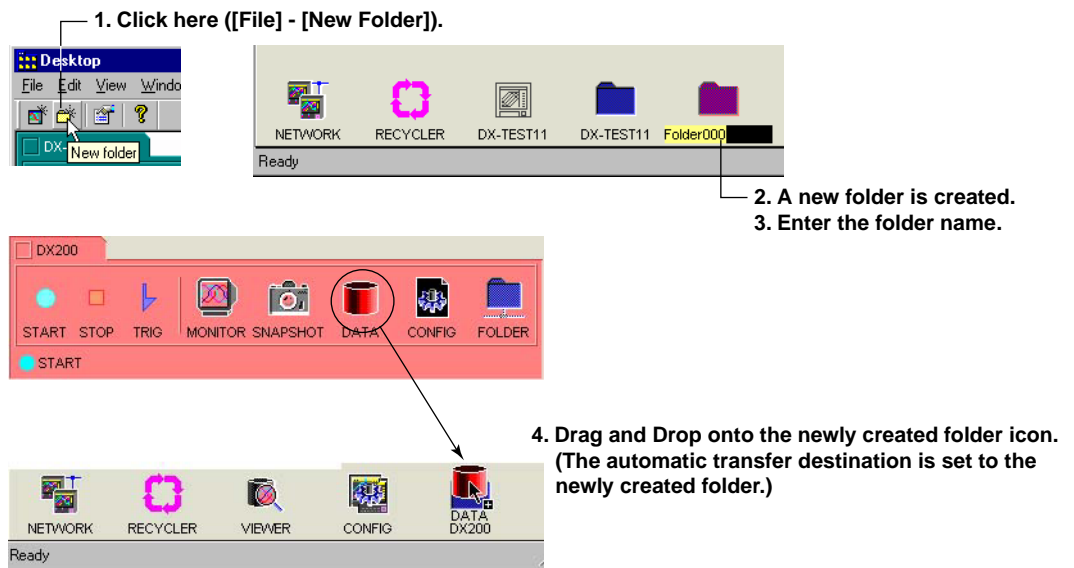
The data residing in the internal memory or external storage medium of the DX/MV can be automatically transferred to the specified folder on the PC.

Selecting the Files to be Automatically Transferred

Select the interval at which the data are to be transferred in units of minutes (10 to 120 minutes)

1. Click here ([File] - [Property]).

2. The [Property] dialog box opens.

Property

System No. : 000
Host Name : DX200
Serial No. : 12V636847
Address : 10.0.232.29

Automatic File Transformation

Interval : 10 min

Folder :

Display File : 0000000000 Reset Update
Event File : 0000000000 Reset Update
Report File : 1970/01/01 09:00:00 Reset Update
TLOG File : 1970/01/01 09:00:00 Reset Update

☑ Monitoring

OK Cancel

The number or date of the data file that was previously transferred

Start/Not start the Data Monitor program from the DX/MV folder

Automatically transfer the files that are checked

Files that can be automatically transferred

The following files residing in the internal memory or the external storage medium of the DX100/
DX200/MV100/MV200 can be automatically transferred:

- Display data file
- Event data file
- Report file
- TLOG file

Resetting

All existing files of the selected types are automatically transferred at the time of the data
transfer immediately after the [Reset] button is clicked.

Updating

All files of the selected types that are created after the [Update] button is clicked are
automatically transferred during the next data transfer.
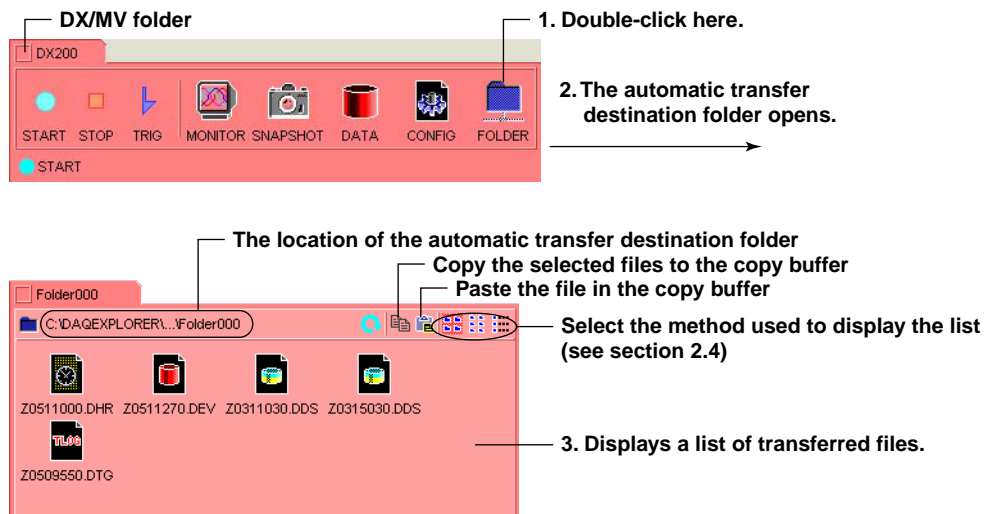
Monitoring

Select whether or not to start the Data Monitor program from the DX/MV folder. If you deselect
the check box, you will not be able to select the MONITOR icon of the DX/MV folder.

Note

- If the DAQEXPLORER is terminated with some files still selected to be transferred (denoted on each
  file by a check mark), the selected files will be transferred when the first data transfer is performed
  once the DAQEXPLORER has been restarted.
- The property icon ([File] - [Property]) cannot be selected unless the DX/MV folder is active (the DX/MV
  folder is selected).

Confirming the Transferred Files

DX/MV folder — 1. Double-click here.

2. The automatic transfer destination folder opens.

START STOP TRIG MONITOR SNAPSHOT DATA CONFIG FOLDER

The location of the automatic transfer destination folder

Copy the selected files to the copy buffer

Paste the file in the copy buffer

C:\DAQEXPLORER\...\Folder000 — Select the method used to display the list (see section 2.4)

Z0511000.DHR Z0511270.DEV Z0311030.DDS Z0315030.DDS

3. Displays a list of transferred files.

Z0509550.DTG

You can also open the above folder by double-clicking the automatic transfer destination folder located on the DAQ Desktop.

Note _____

When the list of data residing in the internal memory or external storage medium of the DX100/DX200/MV100/MV200 is displayed, data that have been transferred are indicated with red check marks.

2

Using the DAQ Desktop

2.6 Viewing the Property and Version Information

Property

1. Click here ([File] - [Property]).

2. The [Property] dialog box opens.
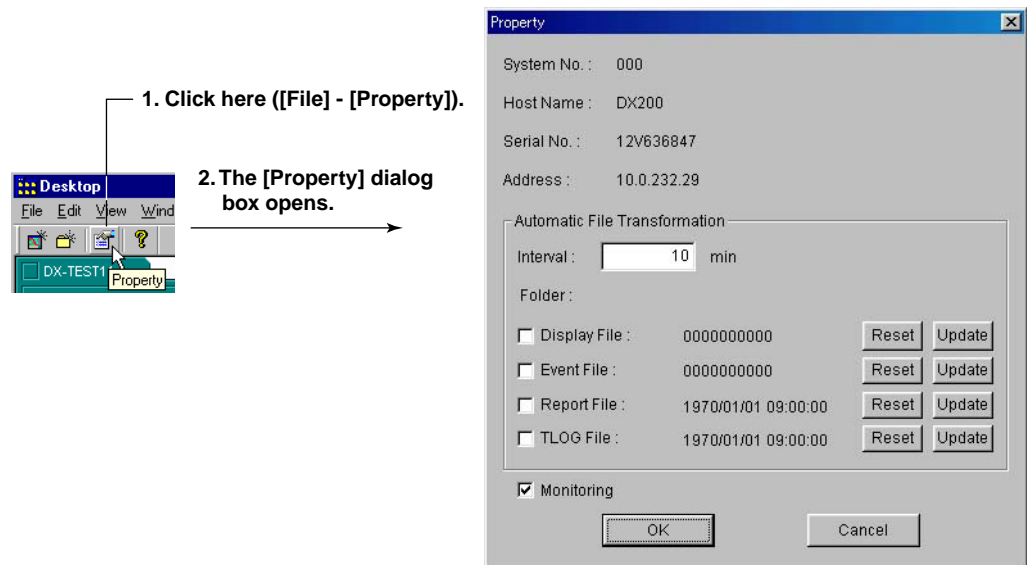
The properties of the active DX100/DX200/MV100/MV200 are displayed. The following items are displayed:

System No.: Number used on the Data Monitor

Host Name: DX100/DX200/MV100/MV200 host name

Serial No.: DX100/DX200/MV100/MV200 serial number

Address: DX100/DX200/MV100/MV200 IP address or host name

Interval: Automatic transfer interval of data (10 to 120 minute range)

Folder: Automatic transfer destination for the data

Reset: Transfer all existing data files

Update: Transfer only newly created data files.

Monitoring: Use/Not use the Data Monitor program.

Note
The property icon ([File] - [Property]) cannot be selected unless the DX/MV folder is active (the DX/MV folder is selected).

Version Information

1. Click here ([Help] - [About])

2. The [About] dialog box opens.
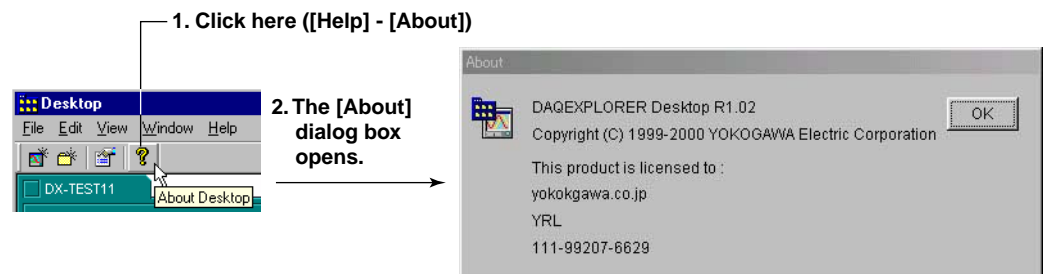
The version information of the DAQ Desktop is displayed.

2.7 Confirming the Port Number Setting the Time on the DX/MV

2. The [Port No.] dialog box opens.

1. Select [File] - [Port No.].
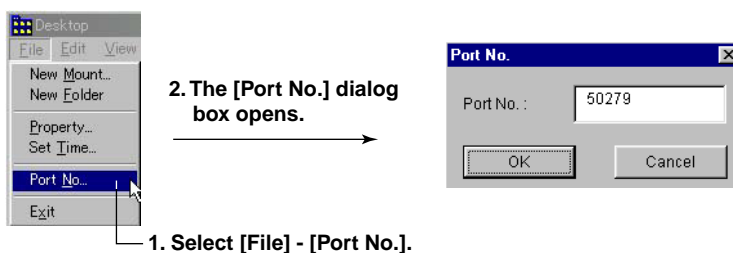
Note

The above dialog box can be used to change the port number. However, please consult your network administrator when changing the port number.
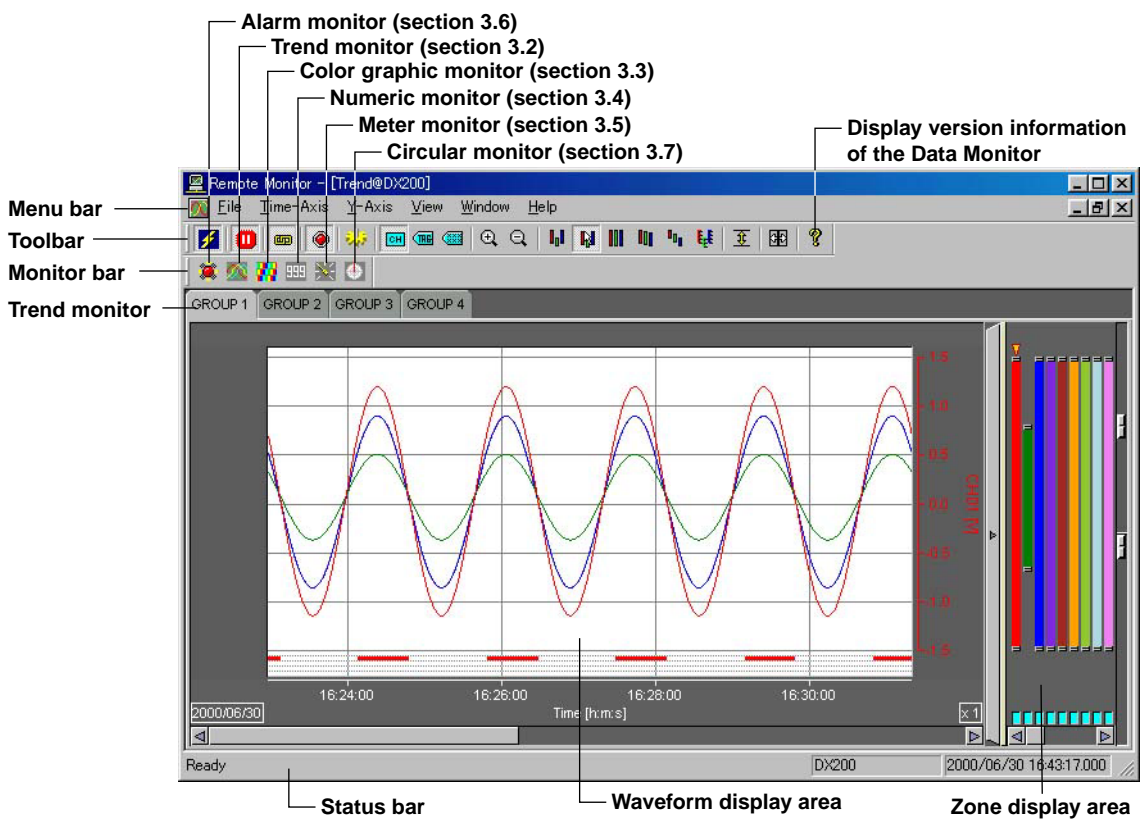
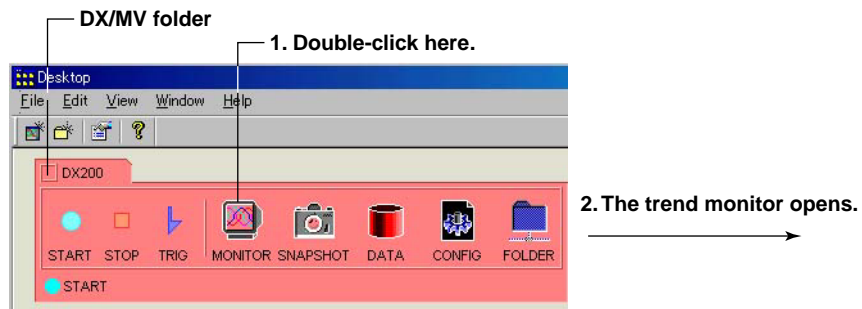### Setting the Time on the DX/MV

2. The [Time] dialog box opens.

1. Select [File] - [Set Time].

3. Enter the date and time and click here.
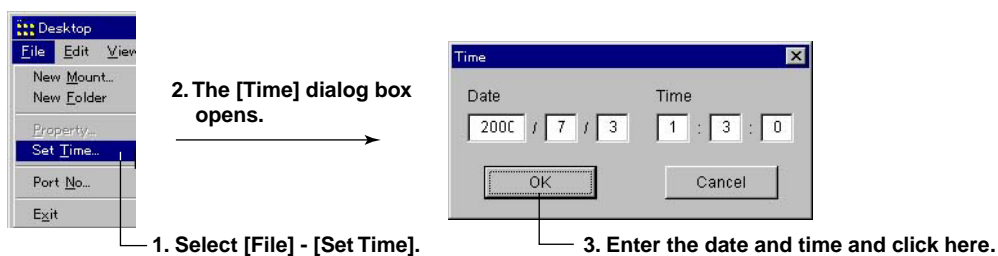
Sets the date and time of all mounted DX100s, DX200s, MV100s, and MV200s at once.

3.1 Starting the Data Monitor

Starting the Data Monitor (From the DX/MV Folder)

Menu bar
Toolbar
Monitor bar
Trend monitor

Status bar — **Waveform display area** — **Zone display area**

The Data Monitor can be used to monitor the measured/computed data and the alarms of the
DX100/DX200/MV100/MV200. The following six monitoring methods are available:

- Alarm monitor
- Trend monitor
- Color graph monitor
- Numeric monitor
- Meter monitor
- Circular monitor

3

Using the Data Monitor

Toolbar, monitor bar, and status bar

Clicking [View] - [Tool Bar], [Monitor Bar], or [Status Bar] from the menu bar displays the corresponding bar in the window. The bar will disappear if the check is removed.

Note

- You cannot launch the Data Monitor using the MONITOR icon, if the Data Monitor is already running.
- You can monitor the data on the Data Monitor, even if the data acquisition to the internal memory of the DX/MV is stopped.
- The trend screen is initially displayed when the Data Monitor is started.
- The DX/MV folder is displayed by double-clicking the DX/MV icon on the DAQ Desktop.
- If the connection conditions are saved by selecting [File] - [Save], they will be restored the next time the Data Monitor is opened.
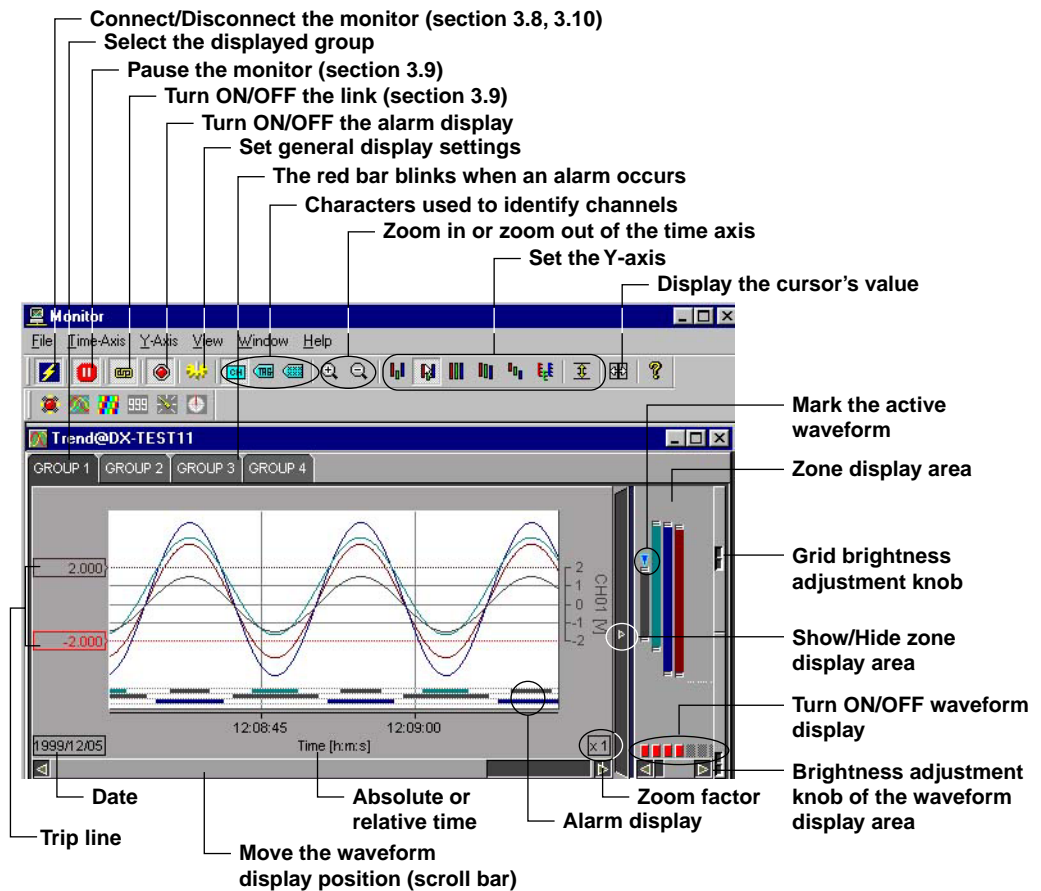
Starting the Data Monitor (From the Desktop)

1. Double-click here.

For the operations that follow, see section 3.8, "Connecting Communications between the Data Monitor and the DAQ Desktop."

3.2 Displaying the Trend

Displaying the Trend

1. Click here ([Window] - [Trend Monitor]).

2. The trend monitor opens.

Connect/Disconnect the monitor (section 3.8, 3.10)
Select the displayed group
Pause the monitor (section 3.9)
Turn ON/OFF the link (section 3.9)
Turn ON/OFF the alarm display
Set general display settings
The red bar blinks when an alarm occurs
Characters used to identify channels
Zoom in or zoom out of the time axis
Set the Y-axis
Display the cursor's value

Mark the active waveform

Zone display area

Grid brightness adjustment knob

Show/Hide zone display area

Turn ON/OFF waveform display

Brightness adjustment knob of the waveform display area

Date
Trip line
Move the waveform display position (scroll bar)
Absolute or relative time
Zoom factor
Alarm display

Select the displayed group

Select the group for which the trend is to be displayed from the groups specified in [General Display Settings]. The registration of channels to groups is done at [General Display Settings] - [Channel No.].

General Display Settings

1. Click here ([Window] - [General Display Settings]).

2. The [General Display Settings] dialog box opens.

3. Click the tab of the group to be configured.

The waveform corresponding to the waveform No. that is clicked becomes active.

Enter the group name

Select normal display or exponential display

See section 3.5, "Displaying the Meter."

Enter the display range

Enter the display position

Show/Hide the trip line

Enter the trip line
Display color

Paste the copied setup data to the active waveform number

Copy the setup data of the active waveform number

Select the items to be copied

Initialize

Activate the settings

Set the selected range at once

Copy the settings of the first channel in the selected range to all other channels

Show/Hide the Y-axis

Register the channel

Assign numbers to the channels in the selected range in ascending order

Activate the settings and close the dialog box

Turn ON/OFF at once

Turn ON/OFF waveform display (Blue is ON)

Group

A maximum of 50 groups can be set. A maximum of 32 channels can be registered in one group.

Turn ON/OFF the display

Check the box of the waveform number to be displayed. This is synchronized to the ON/OFF button of the waveform display of the zone display area.

Registering the channel

1. Click one.

2. The [Channel No.] dialog box opens.

3. Click one.

Types of Y-axis and turning ON/OFF the Y-axis

Select linear or logarithmic by clicking the Y-axis display area. If [Multi-Axis Zone] (page 3-7, Setting the Y-axis) is selected, you can select whether or not to display the Y-axis. The Y-axis of the waveform for which the check box is shown in [blue] will be displayed.

Scale (display range)

The range of minimum and maximum values is from -999999999 to 999999999, excluding the decimal point.

Click the scale value display area to enter values.

Zone (display position)

The range is as follows:

- Minimum value: 0 to 99%
- Maximum value: 1 to 100%

Specify the waveform display position by taking the bottom edge of the waveform display area of the trend display screen to be 0% and the top edge to be 100%. Click the zone display area to enter values.

Trip line

Two trip lines (trip 1 is red, trip 2 is blue) can be set for each waveform. Only the trip lines of the active waveform are displayed on the trend screen. However, on the auto zone display screen ("Setting the Y-axis" on page 3-7), the trip lines of all displayed waveforms that are checked are displayed.

When the monitor is paused (section 3.9), you can change the position of the trip line by dragging it.

3

Using the Data Monitor

Display color

You can select the color of each waveform. To create custom colors, click the [Define Custom Colors] button in the [Color] dialog box.

Copy/Paste

The parameters that are checked in the [Copy Setting] dialog box, that opens when the [Copy Setting] button is clicked, are copied.

When the [Copy] button is clicked, the settings of the waveform corresponding to the waveform No. that was activated (displayed in red) are copied. When the [Paste] button is clicked, the settings are copied to the waveform corresponding to the waveform No. that was activated.

Selecting the Characters Used to Identify Channels

Click one ([View] - [Channel No.]/[Tag No.]/[Tag Comment])
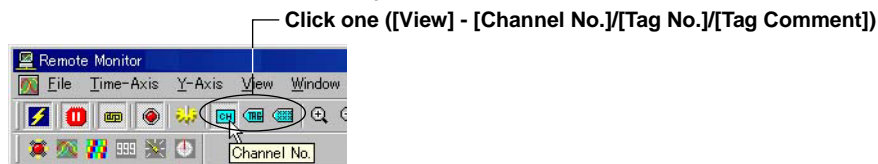
Select the character string used to identify the channel from channel No., tag No., and tag comment. The selected character string will be used as a label to indicate the waveform name. The string can be registered on the DX100/DX200/MV100/MV200 directly or by using the Configurator.

If [Tag No.] is selected the first eight characters of the registered character string are used. If [Tag Comment] is selected all the characters are used.

Note

When the identification string is switched, the channel character string displayed on each monitor, [Cursor Value] window, and [General Display Setting] window will change accordingly.

Setting the Time Axis

Selecting absolute or relative time display

1. Select [Time Axis] - [Absolute Time] or [Relative Time] from the menu bar.

2. The specified time axis is displayed.
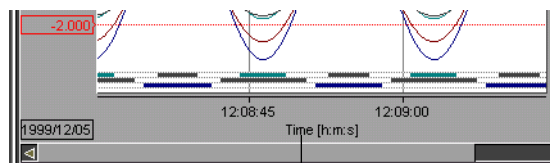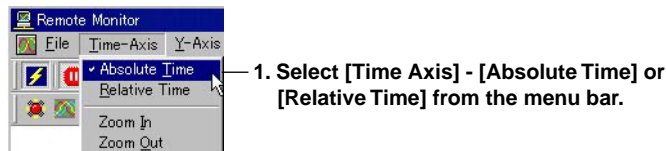
Absolute Time: Displays the time.

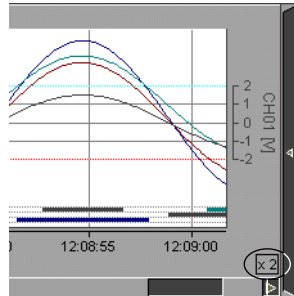Relative Time: Displays the relative time from the first data point.

Note

The time information display of the cursor's value display is set to the specified setting (absolute or relative).

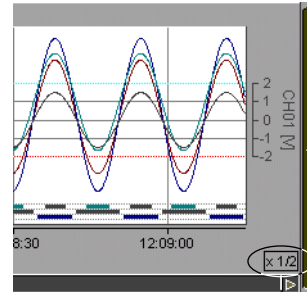**Zooming in or zooming out of the time axis**

Click either one
([Time Axis] - [Zoom In]/[Zoom Out])

• **Zoom In Example**   • **Zoom Out Example**
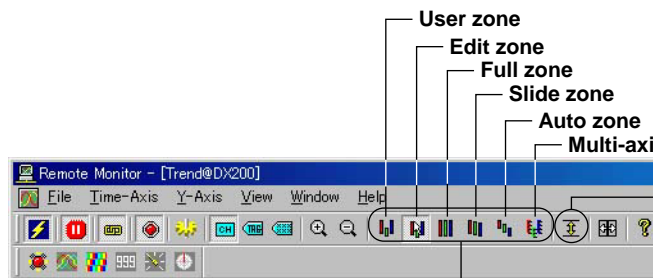

Expanded by 2   Reduced to 1/2

Setting the Y-axis

Selecting the waveform display zone

User zone
Edit zone
Full zone
Slide zone
Auto zone
Multi-axis zone

Waveform display limit
([Y-Axis] - [Clip])

Click one
([Y-Axis] - [User zone]/[Edit zone]/[Full zone]/
[Slide zone]/[Auto zone]/[Multi-axis zone])

Select from the following list of choices:

For the display examples of each zone, see the next page.

- User zone: Each waveform is displayed in the range specified in [Zone] under the
                    [General Display Setting] (the zone cannot be changed on the trend display
                    screen).
- Edit zone: Each waveform is displayed in the range specified in [Zone] under the
                    [General Display Setting] (the zone can be changed on the trend display
                    screen).
- Full zone: Display all waveforms using full zones.
- Slide zone: Display the waveforms in a cascade fashion from the top to the bottom of the
                    waveform display area.
- Auto zone: Display the waveforms by equally dividing the waveform display area by the
                    number of displayed waveforms.
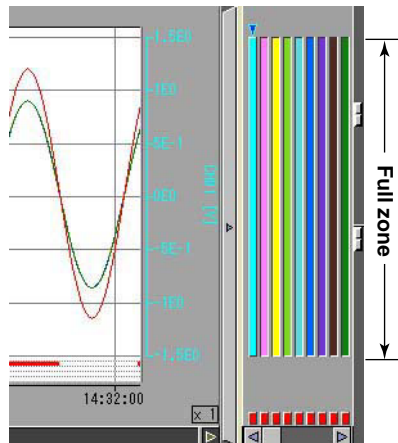- Multi-axis zone: Display the Y-axis of multiple waveforms.

Note

If the waveform display zone is set to some setting other than multi-axis zone and auto zone, only the Y-axis of the active waveform is displayed.
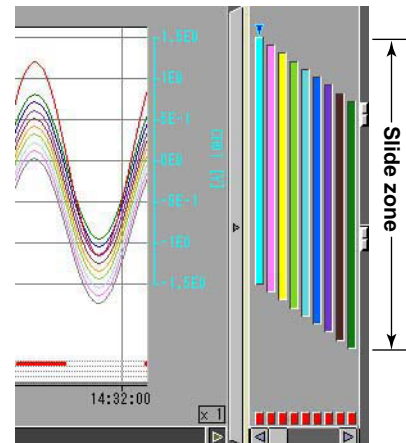
3

Using the Data Monitor

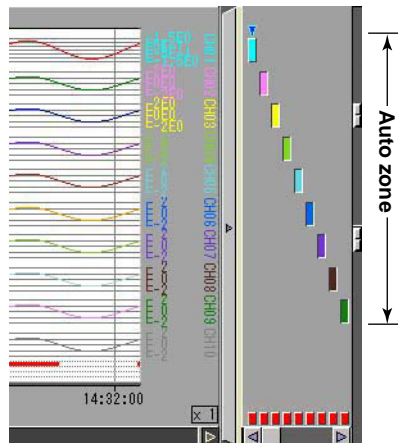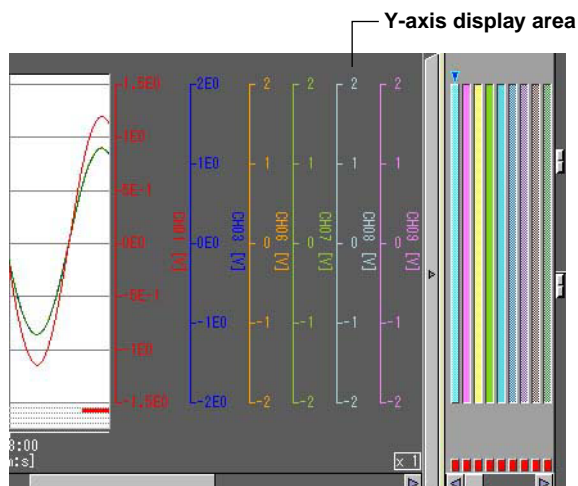**Examples of the Various Zone Settings**

• Full zone

• Slide zone

• Auto zone

• Multi-axis zone

Editing zones

Drag the top adjustment knob

Drag the zone display bar

Drag the bottom adjustment knob
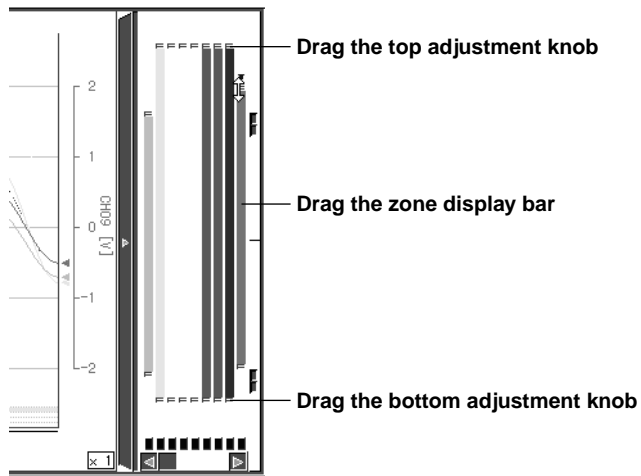
You can change the waveform display zone on the trend display screen by clicking the edit zone icon or by selecting [Y-Axis] - [Edit Zone].

The size of the zone can be changed by dragging the top and bottom adjustment knobs. The entire zone can be moved by dragging the zone display bar.

The zones that are set in [Edit Zone] are reflected in the [Zone] setting of the [General Display Settings].
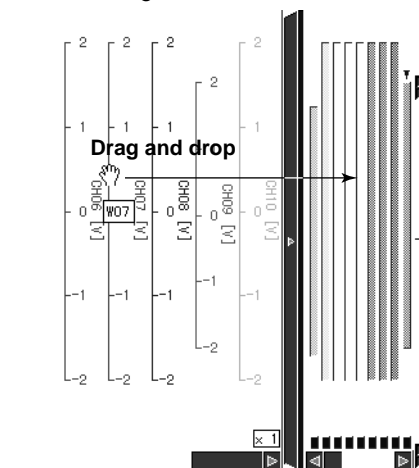
Displaying multiple Y-axis

When multi-axis zone is selected, the Y-axis scales corresponding to the [Y-Axis] boxes in the [General Display Settings] that are checked will be displayed.

The Y-axis can only be added or deleted by dragging or dropping when the monitor is paused.

• Adding a Y-axis

Drag and drop

• Deleting a Y-axis

Drag and drop

3

Using the Data Monitor
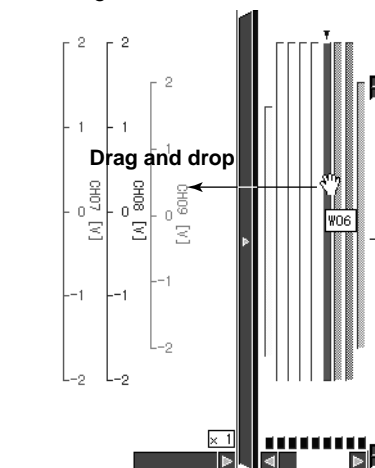
Waveform display limit (clip)

When the waveform display limit is enabled by clicking the clip icon or by selecting [Y-Axis] - [Clip], the Y-axis display range of the waveform are limited to the minimum and maximum values that were specified under [General Display Settings] - [Scale]. Measured values that are less than the minimum value are set to the minimum value and values that are greater than the maximum value are set to the maximum value.
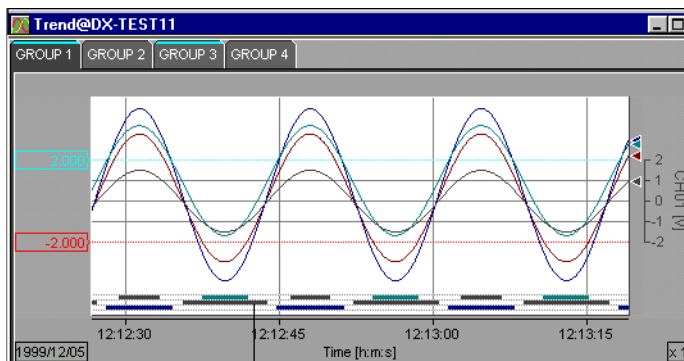
• **Example in which Display Limit is Enabled**
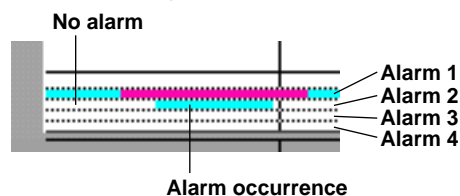

• **Example in which Display Limit is Disabled**

Turning ON/OFF the Alarm Display

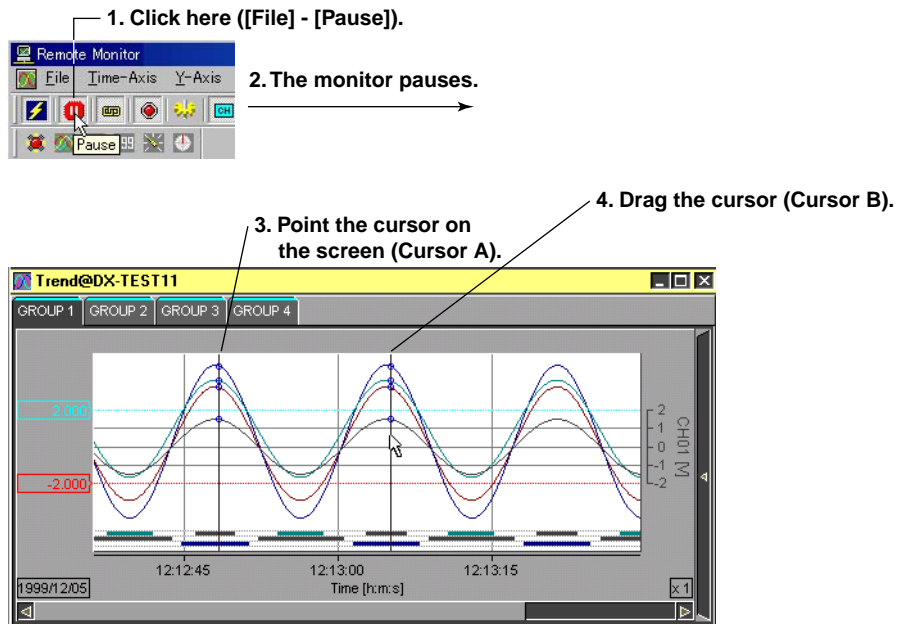**1. Click here ([View] - [Alarm]).**

2. The alarm is displayed.

Alarm display

No alarm

Alarm 1
Alarm 2
Alarm 3
Alarm 4

Alarm occurrence

The alarm of the active waveform is displayed in front.

Showing/Hiding Cursors

Showing the cursor

1. Click here ([File] - [Pause]).

2. The monitor pauses.

3. Point the cursor on the screen (Cursor A).

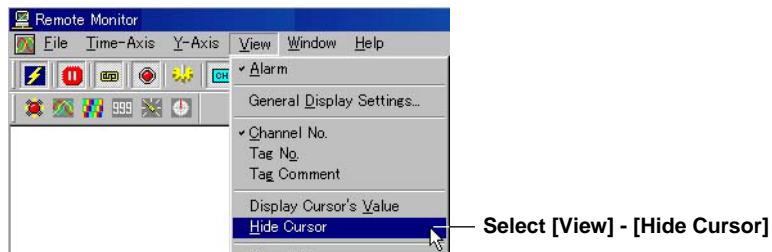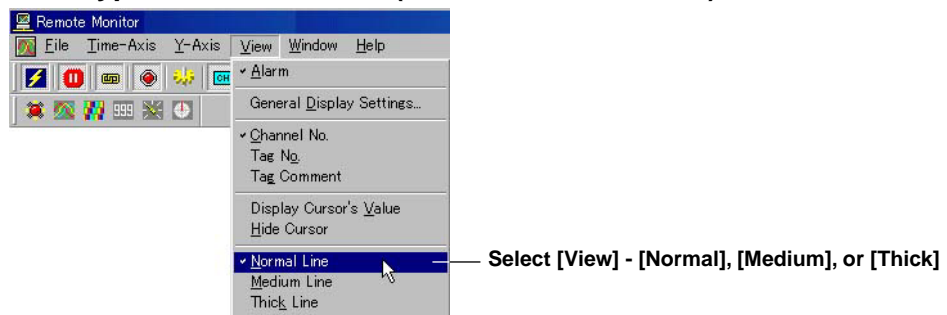4. Drag the cursor (Cursor B).

When the mouse is pointed on the screen, Cursor A and Cursor B are overlapped.

Cursors can be displayed only when the monitor is paused. Pause the monitor before pointing the cursor on the trend screen.
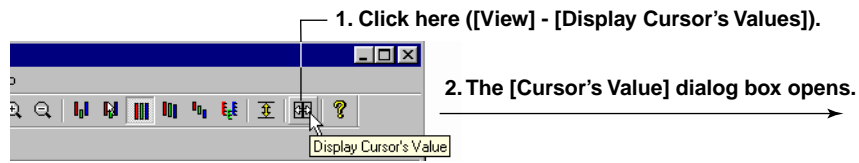
Hiding the cursor

Select [View] - [Hide Cursor]

Selecting the Line Type of the Waveform (Normal/Medium/Thick)

Select [View] - [Normal], [Medium], or [Thick]

You can select the thickness of the line of the displayed waveform from Normal, Medium, and Thick.

Displaying Cursor's Values

1. Click here ([View] - [Display Cursor's Values]).

2. The [Cursor's Value] dialog box opens.

Display Cursor's Value

The values of Cursor A and B on the trend screen

Cursor's Value[kst40129.ks.yokogawa.co.jp:GROUP 1]

	Cursor A	Cursor B	Difference
Data No.	6000	6134	134
Time	1999/12/05 12:12:48.375	1999/12/05 12:13:05.125	00:00:16.750
Channel No.	Value A	Value B	B - A
CH01[V]	1.486	1.479	-0.007
CH02[V]	1.483	1.475	-0.008
CH03[V]	1.486	1.479	-0.007
CH04[V]	1.48	1.48	0.00
CH01[V]	1.486	1.479	-0.007

Cursor movement button

Alarm display (Displays the conditions of alarm 1, 2, 3, and 4 from the left)

A list of Cursor A and B values and their differences on the trend screen is displayed. You can change the values of Cursor A and B by clicking the cursor movement buttons.
When the alarm display is turned ON, the alarm conditions are displayed. When an alarm is in effect, the indicator is red. When it is not, the indicator is green. If the alarm is not set, the indicator is black.

Displaying numeric values of abnormal data
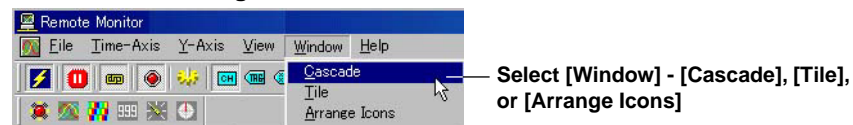The abnormal data are displayed as follows:
+OVER: Measured/computed data are over the positive limit
-OVER: Measured/computed data are under the negative limit
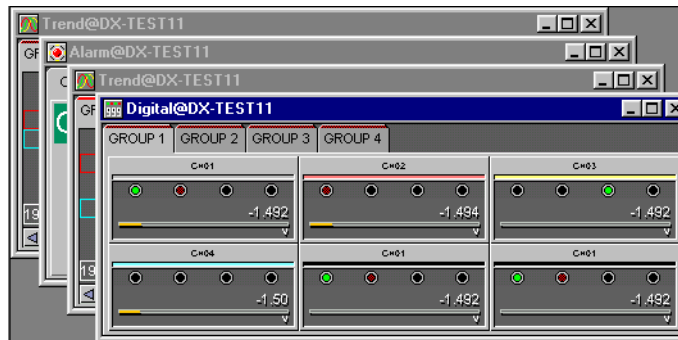LACK: Computation error or data dropout

Note

When a cursor is not displayed on the trend screen, the cursor's value display area becomes blank.
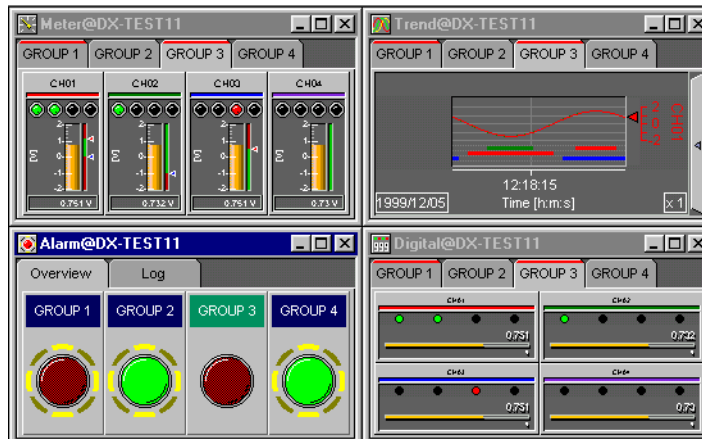
Setting the Window

Cascade/Tile/Arrange Icons

Remote Monitor

File Time-Axis Y-Axis View Window Help

Cascade
Tile
Arrange Icons

Select [Window] - [Cascade], [Tile], or [Arrange Icons]

• **Example of a Cascading Display**
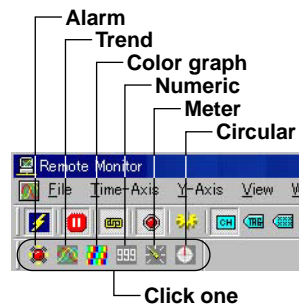

• **Example of a Tiled Display**

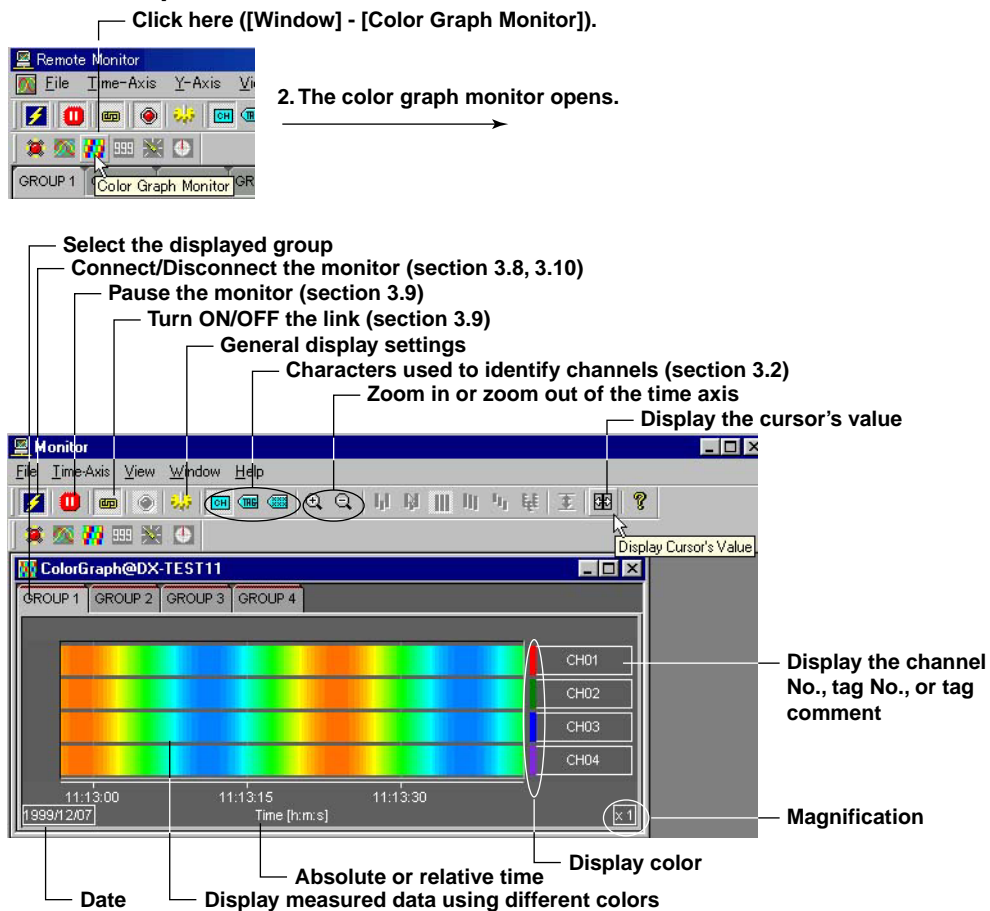• **Example of Arranged icons**

Displaying a new trend monitor, color graph monitor, numeric monitor, meter monitor or circular monitor

A new monitor opens every time the icon is clicked. This is useful when you wish to view multiple groups simultaneously.

3

Using the Data Monitor

3.3 Displaying the Color Graph

Displaying the Color Graph

Click here ([Window] - [Color Graph Monitor]).

2. The color graph monitor opens.

Select the displayed group
Connect/Disconnect the monitor (section 3.8, 3.10)
Pause the monitor (section 3.9)
Turn ON/OFF the link (section 3.9)
General display settings
Characters used to identify channels (section 3.2)
Zoom in or zoom out of the time axis
Display the cursor's value

Display Cursor's Value

Display the channel No., tag No., or tag comment

Magnification

Display color

Absolute or relative time
Display measured data using different colors

Date

General Display Settings

The parameters in the [General Display Settings] dialog box related to the color graph display are as follows:

- Turn ON/OFF waveform display: The color graph of the waveform that has channels registered and is turned ON is displayed.
- Registering the channel: The measured or computed data of the registered channel can be displayed.
- Setting the displayed range: By assigning 50 different colors from the minimum to the maximum values of the scale, the measured values are displayed using those colors. The measured data are colored in the following order: blue (minimum value), light blue, green, yellow, and red (maximum value).
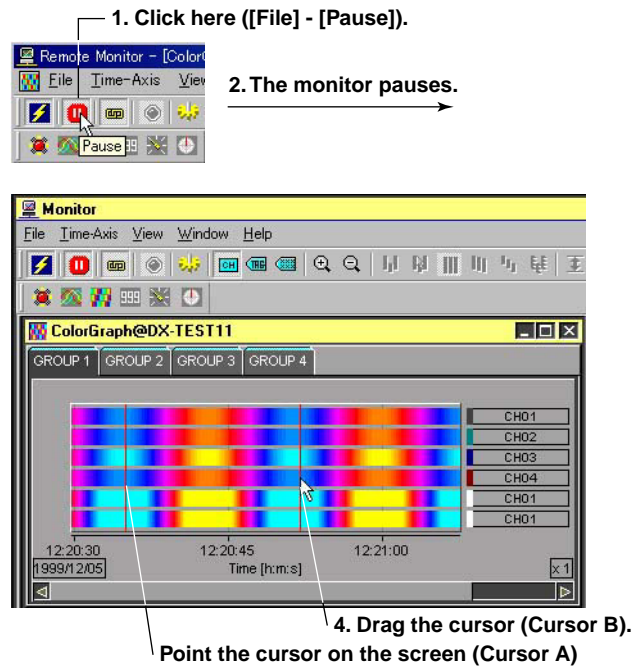
- Display color

For details related to the setting procedures, see "General Display Settings" in section 3.2, "Displaying the Trend."

Setting the Time Axis and Cursor Display

Selecting absolute or relative time display, zooming in or out of the time axis, displaying cursor's values

For details, see "Setting the time axis" and "Displaying Cursor's Values" in section 3.2, "Displaying the Trend."

Showing the cursor

1. Click here ([File] - [Pause]).

2. The monitor pauses.

4. Drag the cursor (Cursor B).

Point the cursor on the screen (Cursor A)

Cursors can be displayed only when the monitor is paused. Pause the monitor before pointing the cursor on the screen.
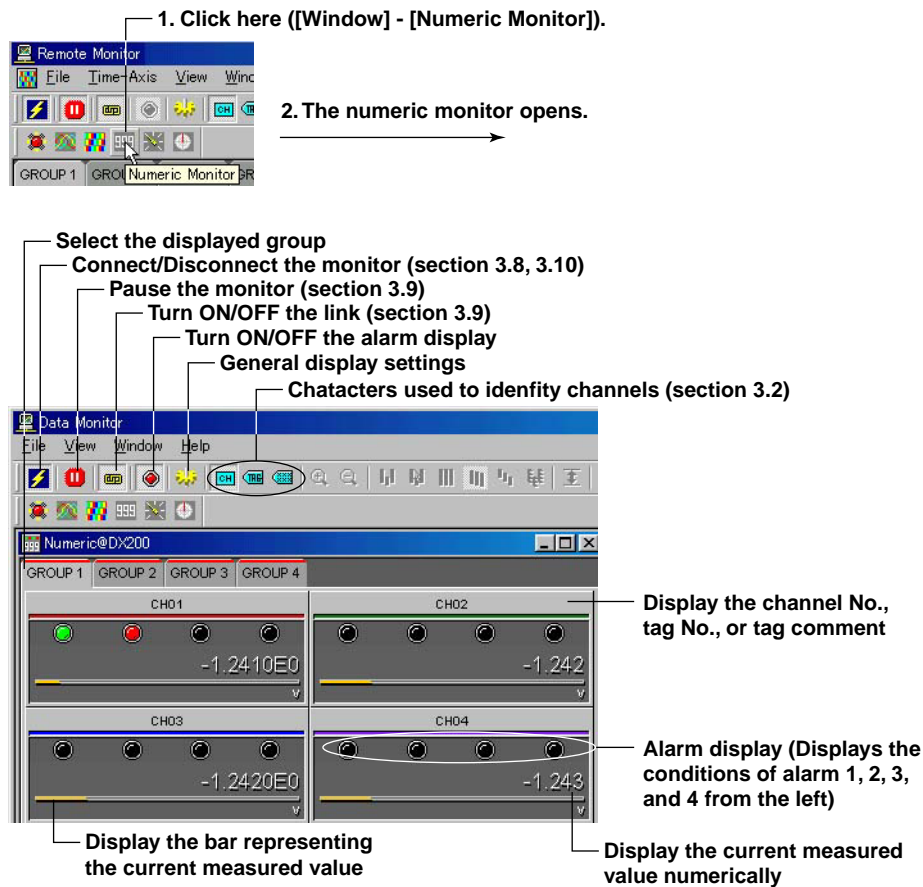
Hiding the cursor

For details, see "Hiding the Cursor" in section 3.2, "Displaying the Trend."

Setting the Window

For details, see "Setting the Window" in section 3.2, "Displaying the Trend."

3.4 Displaying Numeric Values

Displaying Numeric Values

1. Click here ([Window] - [Numeric Monitor]).

2. The numeric monitor opens.

Select the displayed group
Connect/Disconnect the monitor (section 3.8, 3.10)
Pause the monitor (section 3.9)
Turn ON/OFF the link (section 3.9)
Turn ON/OFF the alarm display
General display settings
Chatacters used to idenfity channels (section 3.2)

Display the channel No., tag No., or tag comment

Alarm display (Displays the conditions of alarm 1, 2, 3, and 4 from the left)

Display the bar representing the current measured value

Display the current measured value numerically

General Display Settings

The parameters in the [General Display Settings] dialog box related to the numeric display are as follows:

- Turn ON/OFF waveform display
- Registering the channel
- Setting the displayed range: The bar representing the current measured value is displayed by normalizing it to the minimum and maximum values of the scale.

For details related to the setting procedures, see "General Display Settings" in section 3.2, "Displaying the Trend."

Turn ON/OFF the Alarm Display

The alarm conditions of alarms 1 to 4 are displayed on the screen by clicking the alarm display icon or selecting [View] - [Alarm] and turning ON the alarm display. When an alarm is in effect, the indicator is red. When it is not, the indicator is green. If the alarm is not set, the indicator is black.
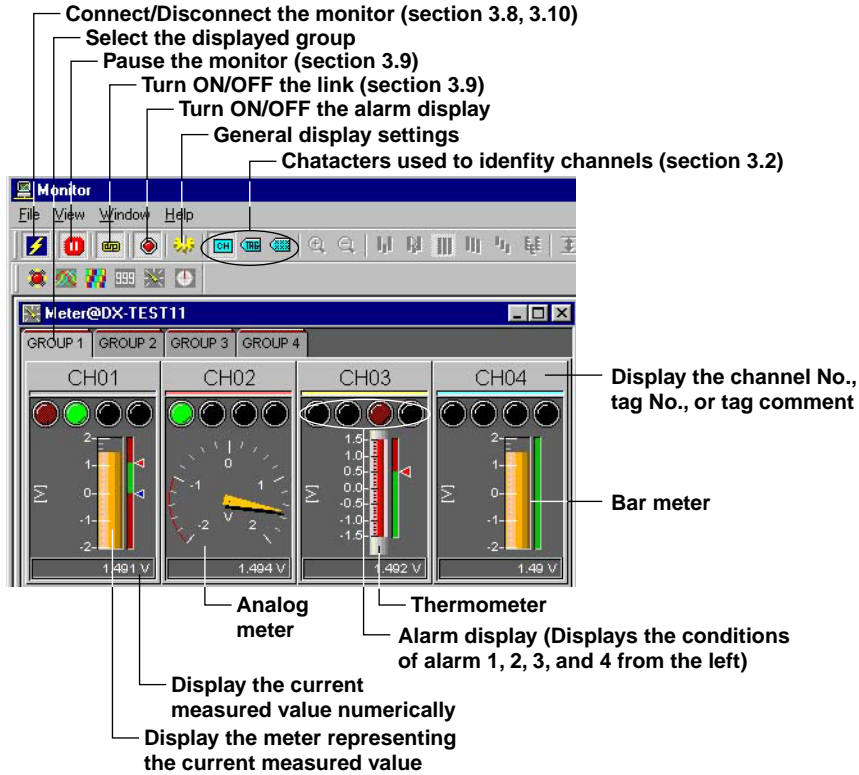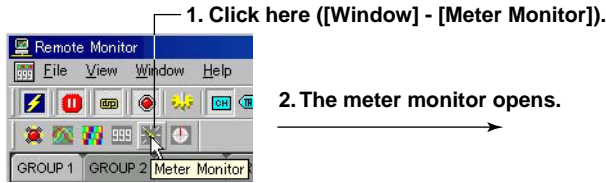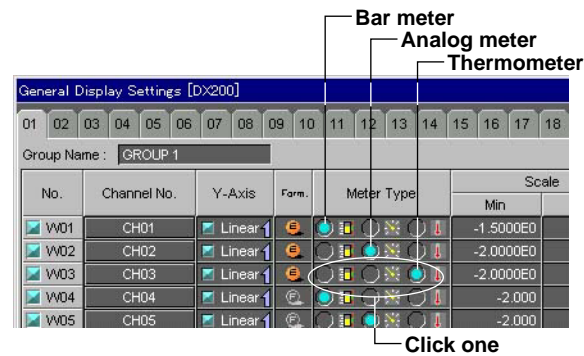
Setting the Window

For details, see "Setting the Window" in section 3.2, "Displaying the Trend."

Note

For the numeric display of abnormal data, see page 3-12.

3.5 Displaying the Meter

Displaying the Meter

1. Click here ([Window] - [Meter Monitor]).

2. The meter monitor opens.

Connect/Disconnect the monitor (section 3.8, 3.10)
Select the displayed group
Pause the monitor (section 3.9)
Turn ON/OFF the link (section 3.9)
Turn ON/OFF the alarm display
General display settings
Chatacters used to idenfity channels (section 3.2)

Display the channel No., tag No., or tag comment

Bar meter

Analog meter

Thermometer

Alarm display (Displays the conditions of alarm 1, 2, 3, and 4 from the left)

Display the current measured value numerically

Display the meter representing the current measured value

Note

For the numeric display of abnormal data, see page 3-12.

General Display Settings

The parameters in the [General Display Settings] dialog box related to the meter display are as follows:

- Turn ON/OFF waveform display
- Registering the channel
- Meter type: Select the meter from bar meter, analog meter, and thermometer.
- Setting the displayed range: The minimum and maximum values of the scale become the lower and upper limits of the meter scale.

For details related to the setting procedures, see "General Display Settings" in section 3.2, "Displaying the Trend."

Selecting the meter type

Turn ON/OFF the Alarm Display

For details, see section 3.4, "Displaying Numeric Values."

Setting the Window

For details, see "Setting the Window" in section 3.2, "Displaying the Trend."

3.6 Displaying Alarms

Displaying Alarms
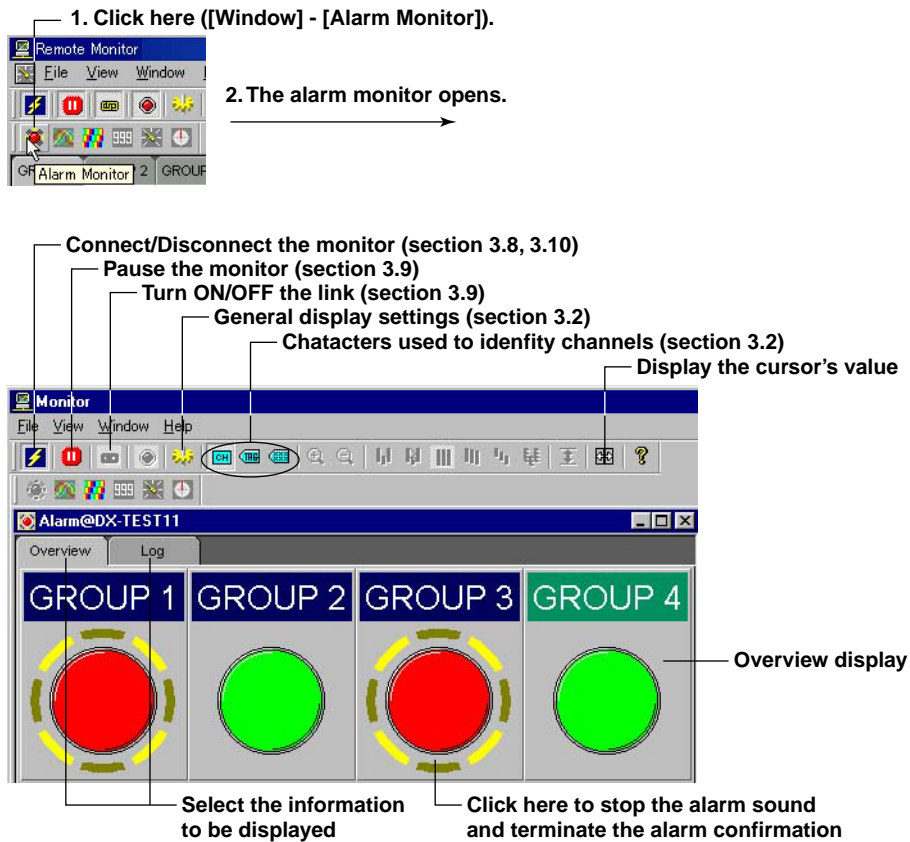
1. Click here ([Window] - [Alarm Monitor]).

2. The alarm monitor opens.

Connect/Disconnect the monitor (section 3.8, 3.10)
Pause the monitor (section 3.9)
Turn ON/OFF the link (section 3.9)
General display settings (section 3.2)
Chatacters used to idenfity channels (section 3.2)
Display the cursor's value

Overview display

Select the information to be displayed

Click here to stop the alarm sound and terminate the alarm confirmation

General Display Settings

The parameters in the [General Display Settings] dialog box related to the alarm display are as follows:

• Turn ON/OFF waveform display
• Registering the channel
• Group Name

For details related to the setting procedures, see "General Display Settings" in section 3.2, "Displaying the Trend."

Turn ON/OFF the Alarm Sound
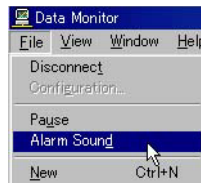
An alarm sound can be generated when an alarm occurs. To stop the alarm sound, confirm all alarms by clicking all groups in which alarms are occurring or select [View] - [Alarm Hold Reset].

Note

- Only one alarm monitor can be displayed for one connection. If you displayed multiple alarm monitors, select [File] - [Connect] to reconnect to the host. For details related to the connection, see section 3.7.
- To use the alarm sound, a sound source (sound card) must be installed on the PC.

Selecting the Information to be Displayed

Click for the overview display
Click for the alarm log display

Alarm log display

Trend screen

Cursor displayed at the alarm occurring location
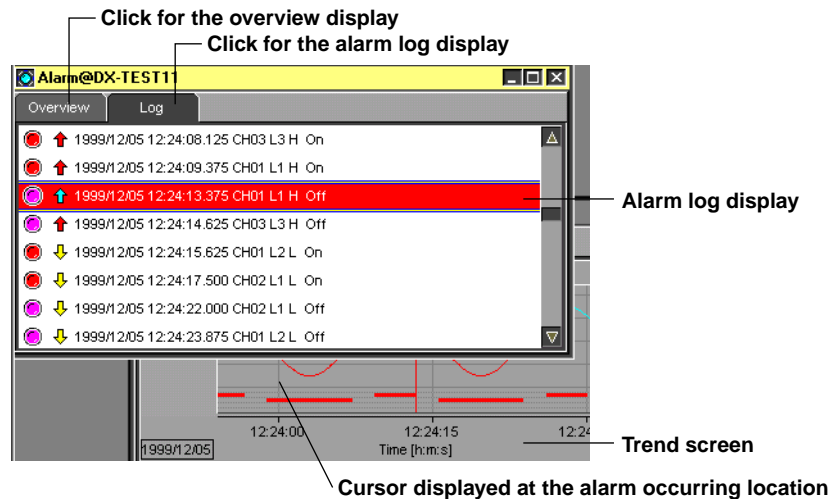
Overview and log

The following two types of alarm displays are available:

- **Overview**

  The following four types of lamps are used to display the alarm conditions within the group:

  - Green lamp: No alarms are occurring.
  - Red lamp: An alarm is occurring.
  - Green lamp and blinking ring: No alarms are occurring, but there are alarms that have occurred in the past that have not been confirmed.
  - Red lamp and blinking ring: An alarm is occurring. In addition, there are alarms that have occurred in the past that have not been confirmed.

Note

By displaying the overview and clicking the group in which the alarm is occurring, the alarm can be confirmed. You can also confirm alarms by selecting [View] - [Alarm Hold Reset]. The blinking ring disappears when a confirmation is made.

- **Alarm log**

  Displays a list of the type, the time of occurrence and release, and the channel of the alarms that occurred in the past. A maximum of 100 alarm logs can be displayed.

  The symbols used in the alarm log are as follows:

  : Upper limit alarm

  : Lower limit alarm

  : Delay upper limit alarm

  : Delay lower limit alarm

  : Difference upper limit alarm (red)

  : Difference lower limit alarm (blue)

  : Upper limit on rate-of-change alarm

  : Lower limit on rate-of-change alarm

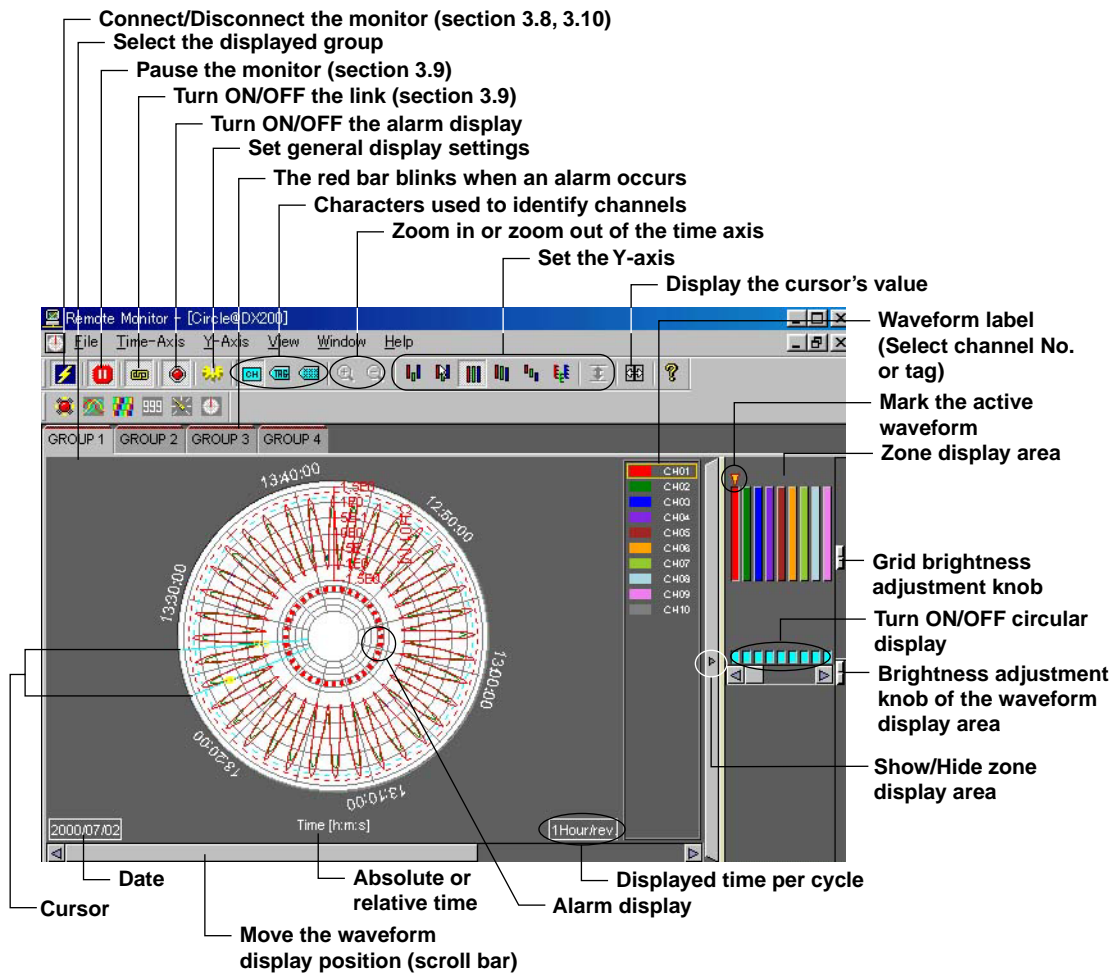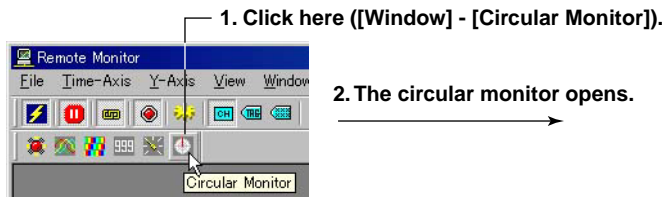 The following operations are possible on the alarm log display when the monitor is paused.
  - If an item is clicked, the cursor on the trend screen or the color graph screen will move to the corresponding time.
  - Scroll the displayed items

Displaying Cursor's Values and Setting the Window

For details, see "Displaying Cursor's Values" and "Setting the Window" in section 3.2, "Displaying the Trend."

3.7 Circular Display

Circular Display

1. Click here ([Window] - [Circular Monitor]).

2. The circular monitor opens.

- **Connect/Disconnect the monitor (section 3.8, 3.10)**
- **Select the displayed group**
- **Pause the monitor (section 3.9)**
- **Turn ON/OFF the link (section 3.9)**
- **Turn ON/OFF the alarm display**
- **Set general display settings**
- **The red bar blinks when an alarm occurs**
- **Characters used to identify channels**
- **Zoom in or zoom out of the time axis**
- **Set the Y-axis**
- **Display the cursor's value**

- **Waveform label (Select channel No. or tag)**
- **Mark the active waveform**
- **Zone display area**
- **Grid brightness adjustment knob**
- **Turn ON/OFF circular display**
- **Brightness adjustment knob of the waveform display area**
- **Show/Hide zone display area**

- **Date**
- **Cursor**
- **Move the waveform display position (scroll bar)**
- **Absolute or relative time**
- **Alarm display**
- **Displayed time per cycle**

General Display Settings

The parameters in the [General Display Settings] dialog box that are different between the circular display and the trend display (section 3.2) are as follows:

Trip line

The trip lines on the circular screen cannot be dragged and dropped.

You can change the position of the trip lines by changing the values in the [General Display Settings] dialog box.

Setting the Time Axis

Selecting absolute or relative time display

1. Click here ([Time-Axis]).

2. Select the displayed time per cycle.

Note

The number of displayed data points for a single waveform is 1800. The time over which the measured data can be monitored on the circular screen depends on the scan interval and the step value (page 3-24).

Setting the Y-axis

Waveform display limit

The circular screen always displays the waveform that is limited to the values between the maximum and minimum values of the Y-axis display range. The range is set using [Scale] in the [General Display Settings] dialog box.

Alarm Display

You can select whether to display the alarm on the inside or the outside of the waveform display section of the circular screen.

Select [View] - [Alarm Inside] or [Alarm Outside]

Alarm Inside   **Alarm Outside**
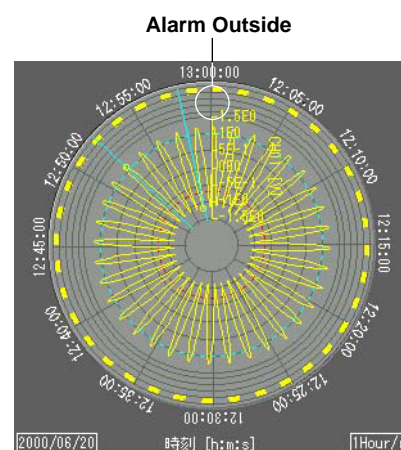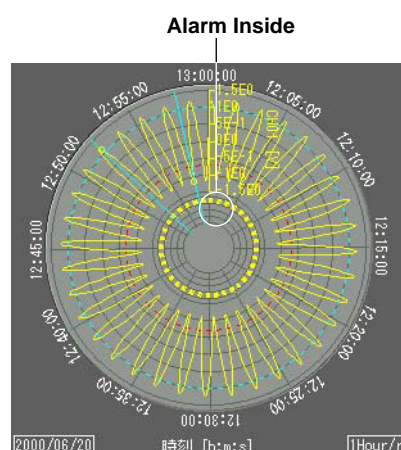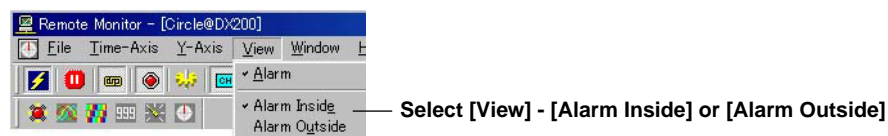
3.8 Connecting Communications between the Data Monitor and the DAQ Desktop

Connecting Communications

1. Select [File] - [New] from the menu bar. A trend monitor screen without data is displayed.
2. Select [File] - [Connect] or [Configuration] from the menu bar. The [Connect] dialog box opens.
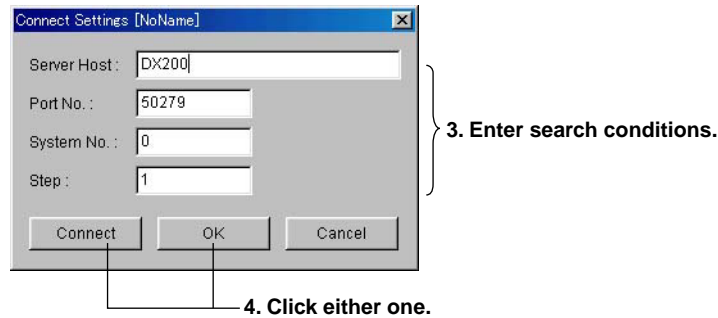
Connection Conditions

Specify the following four items of the DAQ Desktop you wish to connect: Up to 16 DAQ Desktops can be connected. The maximum number of connections is 16.

*   Host Name: The host name or IP address of the PC that is running the DAQ Desktop that is to be connected.
*   Port No.: The port number to be used. The default value is 50279 (The number can be confirmed using Port No. as described in section 2.7).
*   System No.: The number assigned by the DAQ Desktop to the mounted DX100/DX200/ MV100/MV200. (The number can be confirmed using Property - System No. as described in section 2.6.)
*   Step: Set the step value used to acquire data points from the host. For example, a value of 1 will result in every data point being acquired, a value of 2 will acquire every other data point, a value of 3 acquires every third data point, and so on. The default value is 1.

If the connection conditions are already specified, selecting [File] - [Connect] will connect the communications between the Data Monitor and the DAQ Desktop.

Connecting

Clicking the [Connect] button connects the communications between the Data Monitor and the DAQ Desktop. Clicking the [OK] button activates the specified information and closes the dialog box (not connected, yet). Clicking the [Cancel] button discards the specified information and closes the dialog box.

Note

*   If the Data Viewer is launched by double-clicking the MONITOR icon of the DX/MV folder, the communications between the Data Monitor and the DAQ Desktop are automatically connected.
*   The port number must match the port number that was specified in the DAQ Desktop.
*   Depending on the line condition, the connection may be stopped. In that case, reconnect to the host.
*   If you clicked the [OK] button, you can click the [Connect/Disconnect] icon on the toolbar or select [File] - [Connect] to connect to the DAQ Desktop.

Saving the Connection Conditions
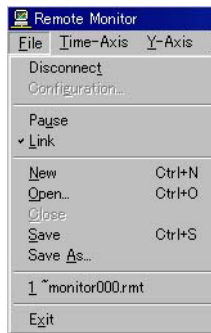
Select [File] - [Save As] or [Save]. The [Save As] dialog box opens. Specify the file name and the destination directory and click the [Save] button.

Note

* If the data monitor is started (connected) by double-clicking the MONITOR icon in the DX/MV folder and you select [File] - [Save], the [Save As] dialog box does not appear and the file is saved to the following location:
  DAQEXPLORER-desktops-DAQStation folder - DX/MV icon name
  The file extension is [rmt].
  In addition, at the time of reconnection, the conditions saved using [File] - [Save] (such as the type of displayed monitor and cascaded windows) are used to start the data monitor.

Connecting Using the Preexisting Connection Conditions

The following methods can be used to connect to the DAQ Desktop:

* Communication that is deactivated is resumed by clicking the connect icon on the toolbar or selecting [File] - [Connect].
* Select [File] - [Open] and specify the file in the [Open] dialog box to connect.

3

Using the Data Monitor

3.9 Pausing the Monitor and Turning ON/OFF the Link

Pausing the Monitor

Click here ([File] - [Pause]).

The display data are continuously acquired even when the monitor is paused. Thus, when the monitor is restarted, the measured values acquired while the monitor was paused are also displayed.
The monitors that pause are those on the same connection as the active window.

Turn ON/OFF the Link

Click here ([File] - [Link]).

You can specify whether or not to link the group display operation of the data monitor (trend monitor, color graphics monitor, numeric monitor, meter monitor, and circular monitor) of the same connection.
When the link is turned ON and the displayed group is changed in one Data Monitor, the displayed groups in all monitors that have the link turned ON also change.

Note
- As default, all monitor links are turned ON.
- There is no link setting for the alarm monitor, because it displays all groups.

3.10 Stopping Communications between the Data Monitor and DAQ Desktop and Exiting the Data Monitor

Disconnecting from the DAQ Desktop

Click here ([File] - [Disconnect]).
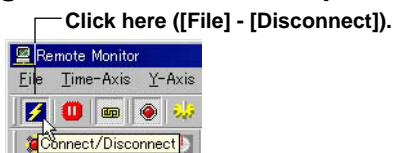
When you attempt to disconnect, a message, "Communication in progress. Cancel communications?" is displayed. Clicking the [OK] button stops communication with the active data monitor.

The communication is resumed by clicking the connect icon on the toolbar or selecting [File] - [Connect].

Exiting the Data Monitor

After stopping communications, select [File] - [Exit] or click the [×] button to exit the Data Monitor.

If you attempt to exit while the communication is active, a message, "Communication in progress. Cancel all communications?" is displayed. Clicking the [OK] button stops communication with the active data monitor. Then, carry out the exit operation again.

Note
[File] - [Connect] of the menu bar switches to [File] - [Disconnect] when the connection is activated.

4.1 Starting and Exiting the Data Viewer

Starting the Data Viewer

DX/MV folder

1. Double-click the file icon.

2. The data viewer opens.

Section 4.9

Open a file

Save display conditions (section 4.8)

Information about the loaded file

Display waveforms (section 4.2)

Display values (section 4.4)

Display circular(section 4.3)

Display alarm/mark(section 4.6)

Display numveric cursor values (section 4.2)

Display computed result (section 4.2)

Display version information of the Data Viewer

Menu bar

Toolbar

Search bar

Trigger mark

Status bar

You can also start the program by selecting [Start] - [Programs] - [DAQEXPLORER] - [Viewer].

In addition, you can start the program from the desktop.

You can start multiple Data Viewers by starting the program from the Start menu.

Files that launch the Data Viewer

The Data Viewer starts by opening the following three types of files:

- : Display data file (*.dds)
- : Event data file (*.dev)
- : TLOG file (*.dtg)
- : Link setting file (*.ldx)
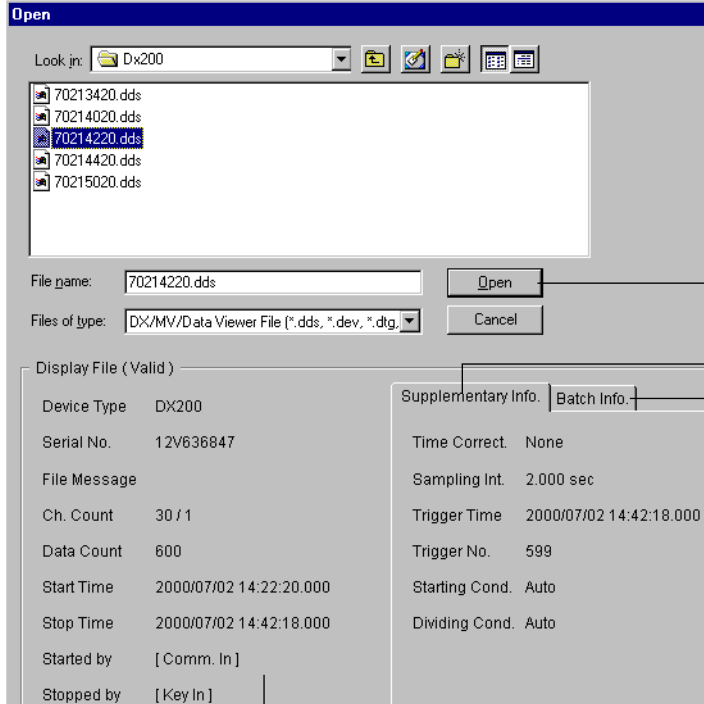
Toolbar, search bar, and status bar

Clicking [View] - [Toolbar], [Search Bar], or [Status Bar] from the menu bar displays the corresponding bar in the window. The bar will disappear if the check is removed.

Opening the File by Specifying its Location

1. Click here ([File] - [Open]).

2. The [Open] dialog box opens.

3. Select the desired file and click the [Open] button.

Supplementary Info. tab

Batch Info. tab

Information about the selected file

You can open a file by specifying the location. You cannot specify the internal memory or the external storage medium of the DX100/DX200/MV100/MV200.

Checking the information about the loaded file

You can check the information about the active data file by selecting [Information] - [About Document].

• **For waveform data files and event data files**

• **For TLOG files**

The items that are checked are output in the header when printed.

Note

• Multiple files can be opened simultaneously.
• The number of files that can be opened simultaneously depends on the memory size of the PC and the free disk space.

Exiting the Data Viewer

Select [File] - [Exit] or click the [×] button. If you changed the settings in any of the windows, a message "Save changes to ****.***?" is displayed. Click the [Yes] button, if you wish to save the settings and exit the Data Viewer. Click the [No] button, if you do not wish to save the settings and exit the Data Viewer.

4.2 Displaying the Waveform

Displaying the Waveform

1. Click here ([Window] - [Graph]).

2. The waveform display screen opens.

Group selection tab (click the tab of the group you wish to display)
Mark on the active waveform
Zone display area
Show/Hide the zone display area
Waveform label (Select channel No. or tag)

Indicates the section of the waveform that is being displayed in a white frame
Display the alarm/mark list
Display the cursor value
Link the previous file
Link the next file

Color overview

Color display adjuster (turn ON/OFF the color overview display)

Trip line of the active waveform

Alarm display area

Magnification

Waveform display area
Date
Drag this bar to change the size of the zone display area
Turn ON/OFF waveform display

Move the waveform display position (Scroll bar)
Absolute or relative time

Color overview display

Displays marks and cursors

Displays the waveforms that
have the display turned ON
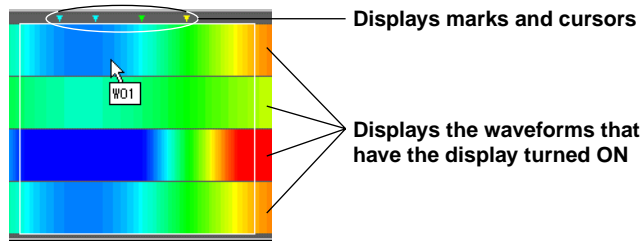
The measured values of the entire data are displayed using various colors. By assigning 50
different colors from the minimum to the maximum values of the scale, the measured values are
assigned to those colors.

If the data are display data, the maximum value is displayed at the top of the space allocated to
a single waveform, and the minimmum value is displayed at the bottom.

If you click or drag the cursor on the color overview display area, the section of the waveform is
displayed in the waveform display area.

Note

The color overview is turned OFF as default.

General Display Settings

1. **Click here ([View] - [General Display Settings]).**
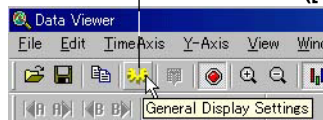
2. **The [General Display Settings]
   dialog box opens.**
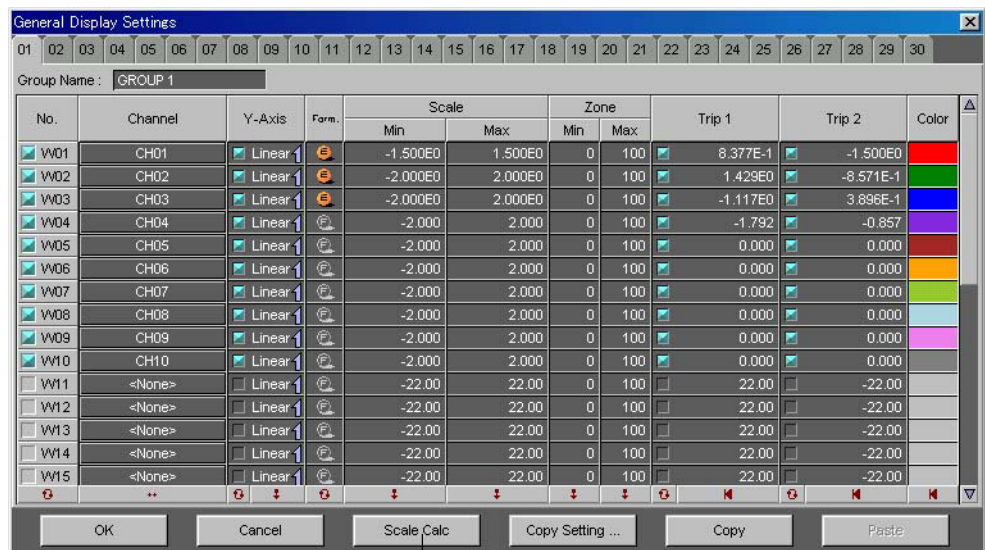
Set the maximum and minimum values of the measured
data the maximum and minimum values of the scale.

For details related to the setting procedures, see "General Display Settings" in section 3.2,
"Displaying the Trend."

Setting the Time Axis

Selecting absolute or relative time display

Select [Time Axis] - [Absolute Time] or [Relative Time].
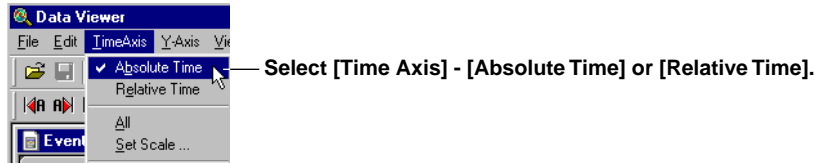
Zoom in or zoom out on the time axis

Click either one
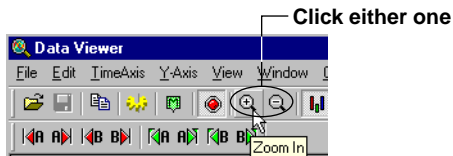
By selecting [Time Axis] - [All], the time axis is adjusted so that all the data can be displayed. If you wish to zoom in or out by specifying the zoom rate, take the following steps (resolution is 1/1000 to 20):

1. Select [Time Axis] - [Set Scale].

2. The [Time Axis Scale] dialog box opens.

3. After entering the zoom rate, click the [OK] button.
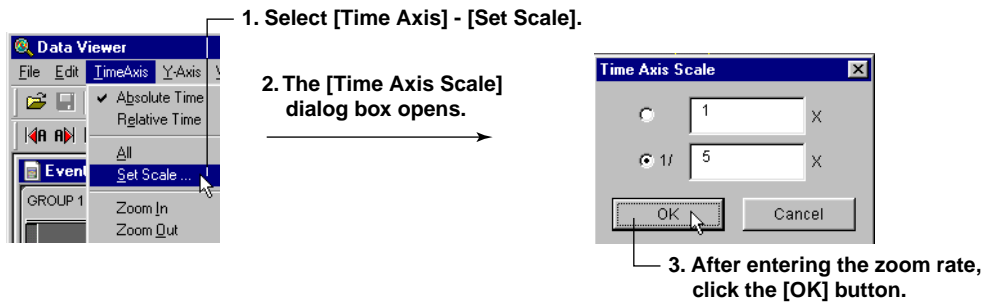
Setting the Y-axis

Selecting the waveform display zone

Click one
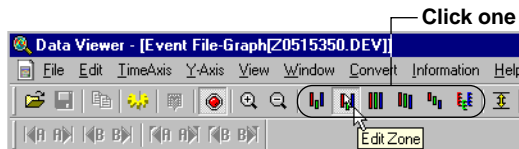
For zone setting examples and the edit zone operation, see section 3.2, "Displaying the Trend."

Waveform Display Limit

See "Waveform display limit (clip)" in section 3.2.

Turn ON/OFF the Alarm Display

1. Click here.
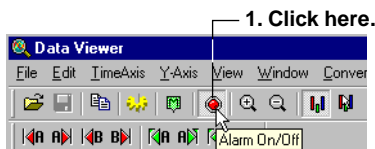
2. The alarm conditions of alarm 1 to 4 are displayed in the alarm display area. For details related to the alarm display, see "Turning ON/OFF the Alarm Display" in section 3.2, "Displaying the Trend."

Selecting the Characters Used to Identify Channels

You can select the channel No. or tag as the character string used to identify the channels by selecting [View] - [Channel No.] or [Tag]. The selected character string will be used as a label to indicate the waveform name.

The character string is registered on the DX100/DX200/MV100/MV200 or by using the Configurator.

Note

- When the identification string is switched, the channel character string displayed on the Y-axis of the waveform display window, circular display window, numeric window, list display window, [Cursor Value] window, [Computed Result] window, [General Display Setting] window, and data conversion dialog box will change accordingly.
- Both the channel No. and tag are used in the output result of the data conversion.

Showing/Hiding Cursors
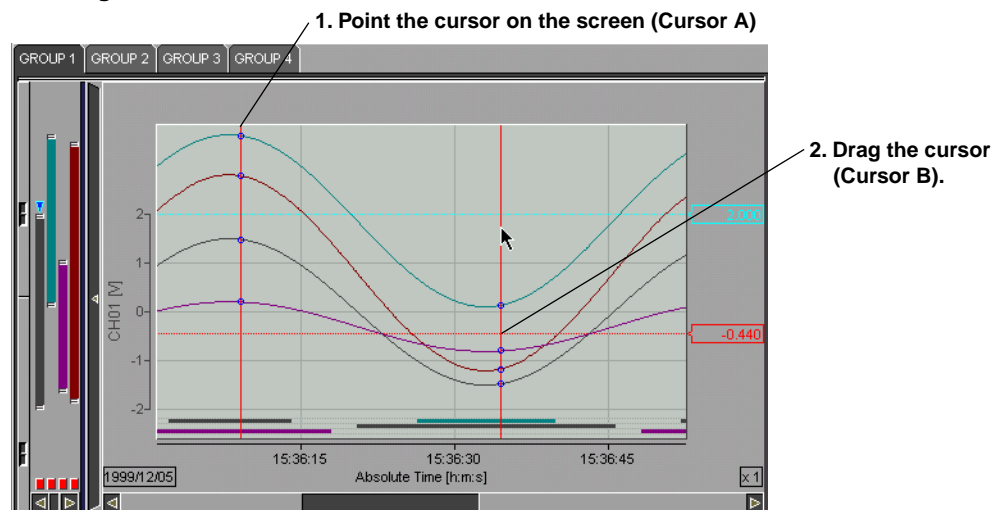
Showing the cursor

By selecting [Edit] - [Select All], Cursor A and Cursor B moves to the beginning and the end of the data, respectively.

Hiding the cursor

Select [View] - [Hide Cursor].

Copying the data to the clipboard

On the numerical window and list display window (section 4.6), you can copy the data between Cursor A and Cursor B to the Windows clipboard. On the waveform display window and circular display window, the displayed image can be copied to the clipboard.

Note

- The maximum number of data points that can be copied to the clipboard is 1000.
- The channels that are copied to the clipboard are those that are registered in the selected group with the waveform display turned ON.
- When the display mode of the time axis is set to absolute time, the absolute time is output. If it is set to relative time, the relative time from the first data point is output.
- Contents that have been copied to the clipboard can be pasted to other applications for use.
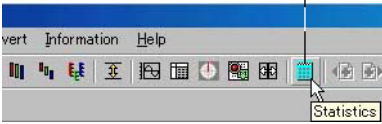
Displaying Cursor's Values
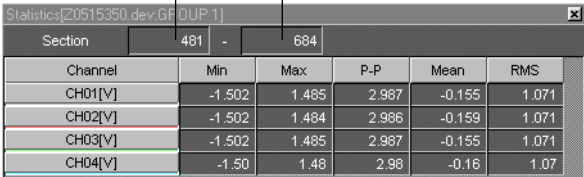
Clicking the control icon or selecting [Window] - [Control] displays the [Control] dialog box.

For details related to [Control] dialog box, see "Displaying cursor's values" in section 3.2, "Displaying the Trend."

Displaying Statistics

1. Click here.

2. The statistics display screen opens.

The first data number of the computed region (Cursor A)
The last data number of the computed region (Cursor B)

Statistics[Z0515350.dev:GROUP 1]

Section	481	-	684		
Channel	Min	Max	P-P	Mean	RMS
CH01[V]	-1.502	1.485	2.987	-0.155	1.071
CH02[V]	-1.502	1.484	2.986	-0.159	1.071
CH03[V]	-1.502	1.485	2.987	-0.155	1.071
CH04[V]	-1.50	1.48	2.98	-0.16	1.07
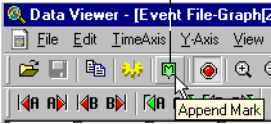
The minimum value, maximum value, P-P, mean, and rms value for each waveform in the range specified by Cursors A and B are computed and displayed. If the cursor is not displayed, the computation is performed over the entire data.

Adding Arbitrary Marks
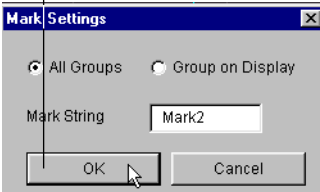
2. Click here ([View] - [Append Mark]).

3. The [Mark Settings] dialog box opens.

Arbitrary mark

1. Point the cursor.

4. After entering the string, click the [OK] button.

GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4

Mark

Data Viewer - [Event File-Graph[Z
File Edit TimeAxis Y-Axis View

Append Mark

Mark Settings

⦿ All Groups   ○ Group on Display

Mark String   Mark2

OK   Cancel

When Cursor A and Cursor B are at the same position, arbitrary marks can be placed. You can select whether to put the arbitrary marks on all groups or only on the displayed group. In addition, double-clicking a mark, that has been created using the Data Viewer, opens the [Mark] dialog box in which you can change the displayed group and the mark name.

Searching the Alarm Transition Point and Mark Position

Search the alarm transition point
Click one

Search the mark position
Click one
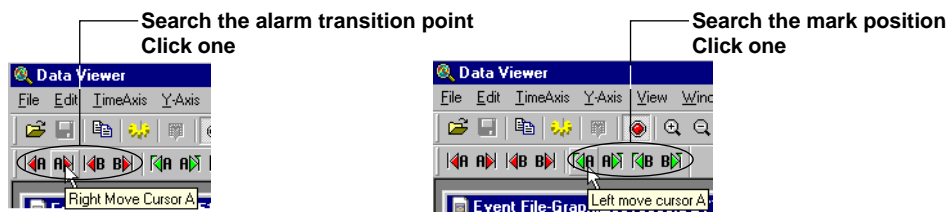
Searching the alarm transition point

Moves Cursor A or Cursor B to the alarm transition point (the point at which the alarm occurred and the point at which the alarm was released) of the active channel.

Searching is possible to the left and right of the cursor.

Searching the mark position

Moves Cursor A or Cursor B to the mark position (arbitrary mark or trigger mark) of the active channel.

Searching is possible to the left and right of the cursor.

Note

* The searching function cannot be used, if the cursor is not displayed.
* The search function cannot be used, if there are no arbitrary marks or when the alarm display is OFF.

Deleting Marks

1. Place Cursor A and Cursor B so that the mark is between the two.
2. Select [Edit] - [Delete Mark].
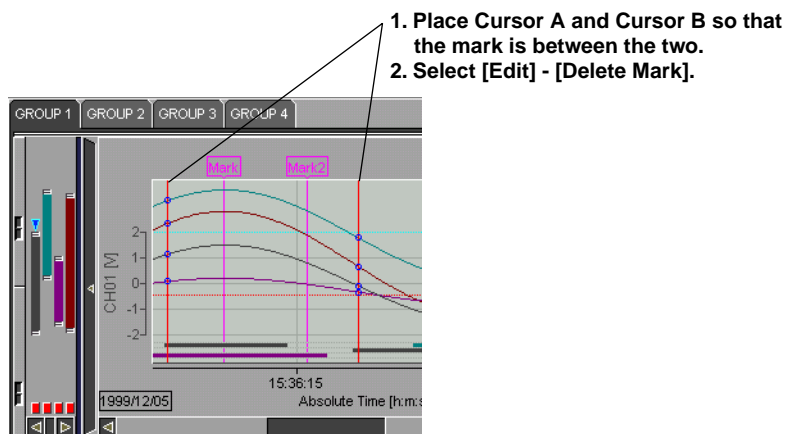
The arbitrary marks (green/yellow) and trigger marks (yellow) between Cursor A and Cursor B are deleted.

Note

* The arbitrary marks placed on the Data Viewer are green. The arbitrary marks (messages) and trigger points placed on the DX100/DX200/MV100/MV200 are yellow.
* Up to 16 characters can be used for a mark name.

Resetting Marks

All arbitrary marks created on the Data Viewer are erased by selecting [Edit] - [Reset Mark].
The marks (messages) and the trigger point that were created on the DX100/DX200/MV100/MV200 but deleted on the Data Viewer are displayed again.

Setting the Window

Select how to sort the windows

Select the windows to be displayed
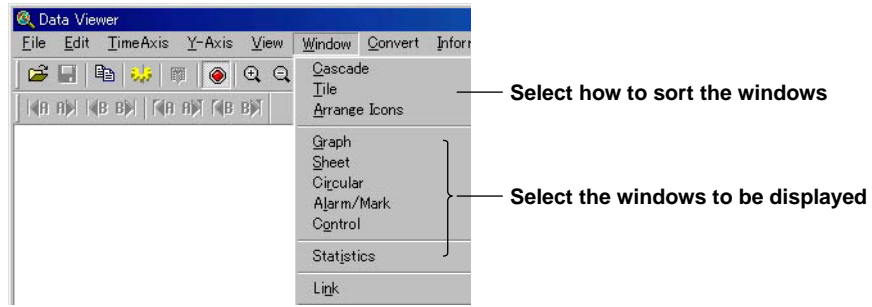
4.3 Circular Display

Circular Display

1. Click here ([Window] - [Circular]).

2. The circular display screen opens.

- **Group selection tab (click the tab of the group you wish to display)**
- **Mark on the active waveform**
- **Zone display area**
- **Show/Hide the zone display area**
- **Display the cursor value**
- **Waveform label (Select channel No. or tag)**
- **Select the active waveform**
- **Alarm display area**
- **Trip line of the active waveform**
- **Displayed time per cycle**
- **Circular display area**
- **Absolute or relative time**
- **Move the waveform display position (Scroll bar)**
- **Date**
- **Drag this bar to change the size of the zone display area**
- **Turn ON/OFF waveform display**

General Display Settings

For details related to the setting procedures, see "General Display Settings" in section 3.7, "Circular Display."

Setting the Time Axis

Selecting absolute or relative time display and zooming in or zooming out on the time axis

See section 4.2, "Displaying the Waveform."

Selecting the displayed time

Select the displayed time per cycle

Select the [Zoom In] or [Zoom Out]
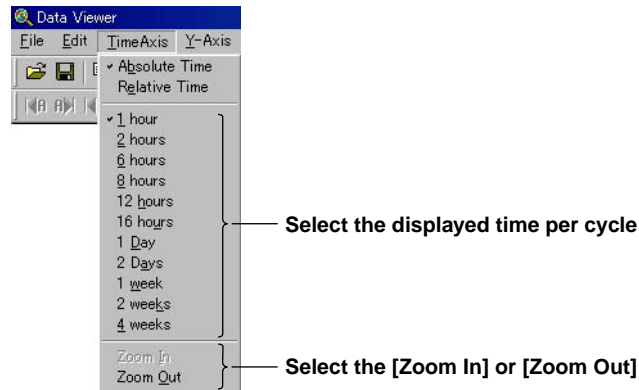
Setting the Y-axis

Waveform display limit

See section 3.7, "Circular Display."

Turning ON/OFF the Alarm Display

For details on the alarm display, see Alarm Display in section 3.7, "Circular Display."

4.4 Displaying Numeric Values

Displaying Numeric Values

1. Click here ([Window] - [Sheet]).

2. The numeric display screen opens.

- Open a file (section 4.1)
- Group selection tab (click the tab of the group you wish to display)
- Save display conditions (section 4.8)
- Copy to clipboard (section 4.2)
- General display settings
- Section 4.2
- Turn ON/OFF the alarm display
- Absolute or relative time
- Waveform label (select channel No. or tag)
- Mark on the active waveform
- Click here to make the waveform active

Scroll the screen (up and down)

Scroll the screen (left and right)

Alarm display (Displays the conditions of alarm 1, 2, 3, and 4 from the left)

Mark (arbitrary mark or trigger mark)

General Display Settings of the Numeric Display

Clicking the General Display Settings icon or selecting [View] -[General Display Settings] opens the [General Display Settings] dialog box. Of the parameters in the [General Display Settings] dialog box, those that relate to the numeric display are as follows:

- Turn ON/OFF numeric value display
- Registering the channel

For details related to the setting procedures, see "General Display Settings" in section 3.2, "Displaying the Trend."

Setting the Time Axis

Select [View] - [Absolute Time] or [Relative Time]. Then, select the time display format using [Format].

Turn ON/OFF the Alarm Display

The alarm conditions of alarms 1 to 4 are displayed on the screen by clicking the alarm display icon or selecting [View] - [Alarm] and turning ON the alarm display. When an alarm is in effect, the indicator is red. When it is not, the indicator is green.

Selecting the Characters Used to Identify Channels

For details, see "Selecting the Characters Used to Identify Channels" in section 4.2, "Displaying the Waveform."

Showing/Hiding Cursors

Showing the cursor

── **1. Point the cursor (Cursor A)**

GROUP 1	GROUP 2	GROUP 3	GROUP 4			
Absolute[No.]				CH01 [V]	CH02 [V]	CH [V
1999/12/05 15:36:20.375[00000571]				-0.020	-0.015	
1999/12/05 15:36:20.500[00000572]				-0.001	-0.008	
1999/12/05 15:36:20.625[00000573]				-0.024	-0.031	
1999/12/05 15:36:20.750[00000574]				-0.048	-0.054	
1999/12/05 15:36:20.875[00000575]				-0.072	-0.079	
1999/12/05 15:36:21.000[00000576]				-0.095	-0.103	
1999/12/05 15:36:21.125[00000577]				-0.118	-0.126	
1999/12/05 15:36:21.250[00000578]				-0.142	-0.149	
1999/12/05 15:36:21.375[00000579]				-0.166	-0.173	

── **2. Drag the cursor (Cursor B).**

By selecting [Edit] - [Select All], Cursor A and Cursor B moves to the beginning and the end of the data, respectively.

Showing the cursor value, displaying statistics and hiding the cursor

For details, see "Displaying Cursor's values," "Hiding the Cursor," "Displaying Statistics" in section 4.2, "Displaying the Waveform."

Adding Arbitrary Marks, Deleting Marks, and Resetting Marks

For details, see "Adding Arbitrary Marks," "Deleting Marks," and "Resetting Marks" in section 4.2, "Displaying the Waveform."

4.5 Linking Files and Saving the Link Settings File

Linking Files

You can link and display DX100/DX200/MV100/MV200 files that have been divided by the auto save function, power failures, or other means (factors).

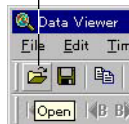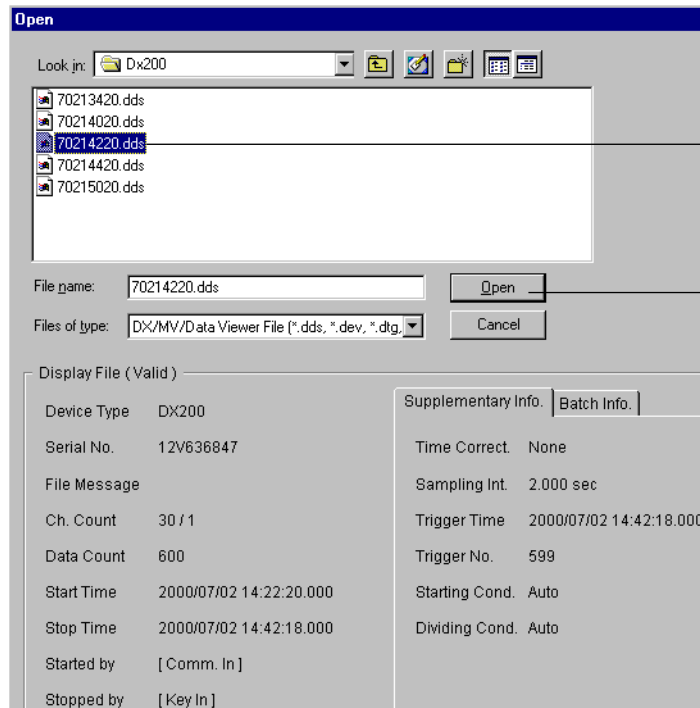The files that can be linked are those that exist in the same directory. There are two methods to link files, from the toolbar and from the menu bar.

1. Click here ([File] - [Open]).

2. The [Open] dialog box opens.

3. Select the initial file.

4. Click here to open the file.

```
Open
Look in:  Dx200
 70213420.dds
 70214020.dds
 70214220.dds
 70214420.dds
 70215020.dds

File name:    70214220.dds          Open
Files of type: DX/MV/Data Viewer File (*.dds, *.dev, *.dtg,  Cancel

Display File ( Valid )
  Device Type    DX200               Supplementary Info. | Batch Info.
  Serial No.     12V636847           Time Correct.   None
  File Message                       Sampling Int.   2.000 sec
  Ch. Count      30 / 1              Trigger Time    2000/07/02 14:42:18.000
  Data Count     600                 Trigger No.     599
  Start Time     2000/07/02 14:22:20.000    Starting Cond.  Auto
  Stop Time      2000/07/02 14:42:18.000    Dividing Cond.  Auto
  Started by     [ Comm. In ]
  Stopped by     [ Key In ]
```

From the toolbar

5. Click either button

Link next file
Link previous file

From the menu bar

5. Click here([Window]-[Link]).

6. The [Link] dialog box opens.
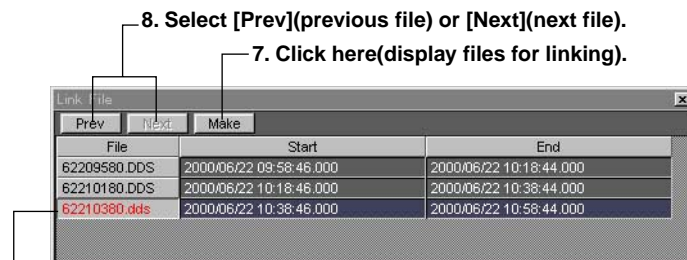
8. Select [Prev](previous file) or [Next](next file).

7. Click here(display files for linking).

9. Displays the linked files.

10. Displays the linked files in a different color.

The file extension .ldx is appended to the original file name
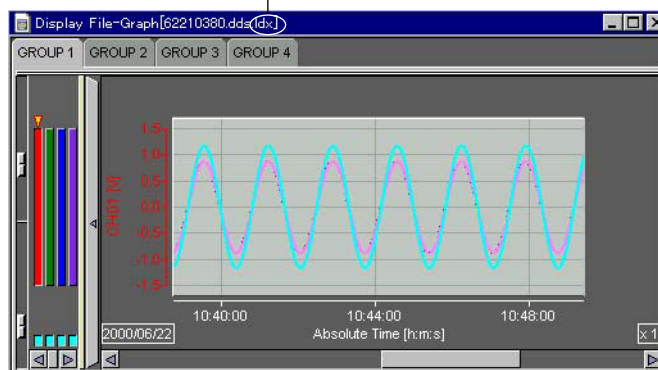
Saving the Link Settings File

Select [File] - [Save Display Setting As] to save the link settings file to the same directory as the linked files.

The file name takes the form of the original file name with the file extension .ldx.

You can save the file by specifying the file name and the destination directory by selecting [File] - [Save Display Setting].

4.6 Listing Alarms and Marks and Converting the List

A list of alarms and marks is displayed with the display file or event file opened.

1. Click here([Window]-[Alarm/Mark]).

2. The [Display File List] dialog box opens.

3. Click here([Alarm List]).

Label

Pointer

3. Click here([Mark List])

Cursor

Mark created on the viewer
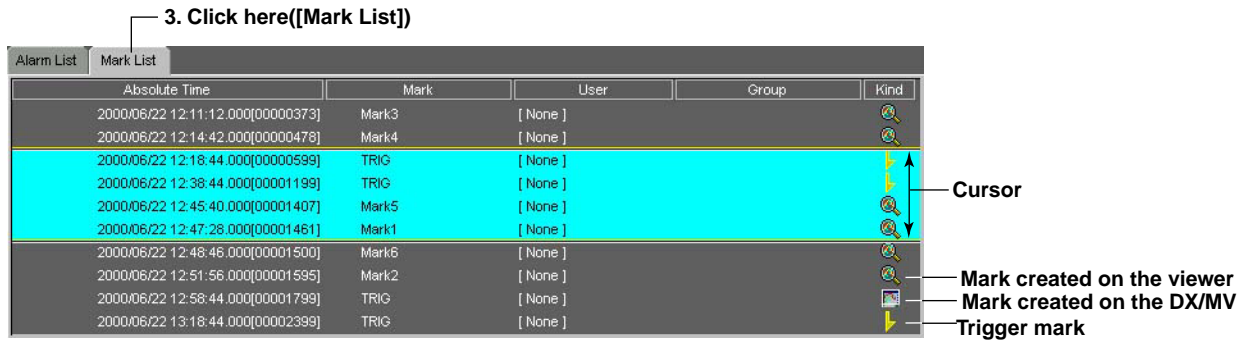**Mark created on the DX/MV**
Trigger mark
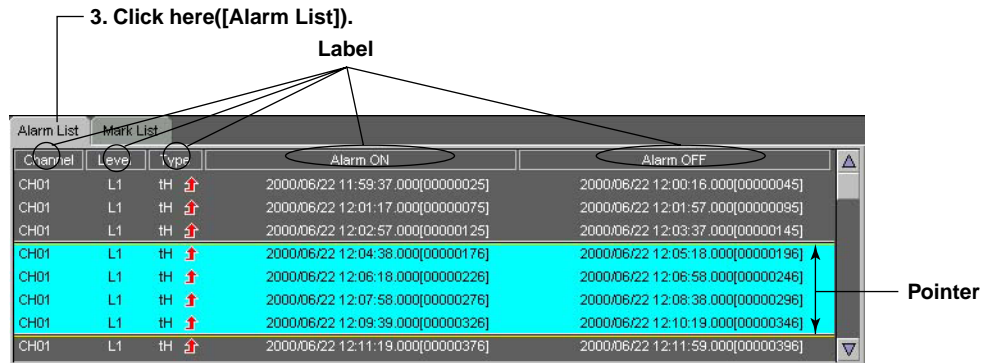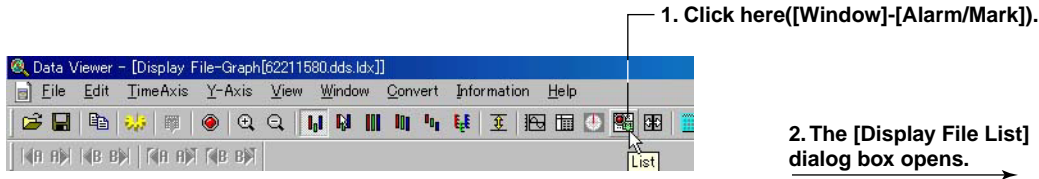
Click a label to sort using the label. The first click will sort the list in the ascending order; the second click will sort the list in the descending order.

Note

If you drag on the "Alarm List" display screen, a pointer is displayed. The cursor on the waveform display, circular display, numerical display, and cursor value display are not synchronized to this pointer.

Converting and outputting the alarm or mark list

The Alarm or Mark List can be converted to ASCII, Lotus, and Excel formats.

1. Click here([Convert]-[Alarm to] or [Mark to])
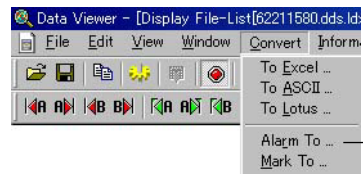
2. The [Alarm List] or [Mark List] dialog box opens.

3. Click here.

4. The [Save As] dialog box opens.

6. Click here.
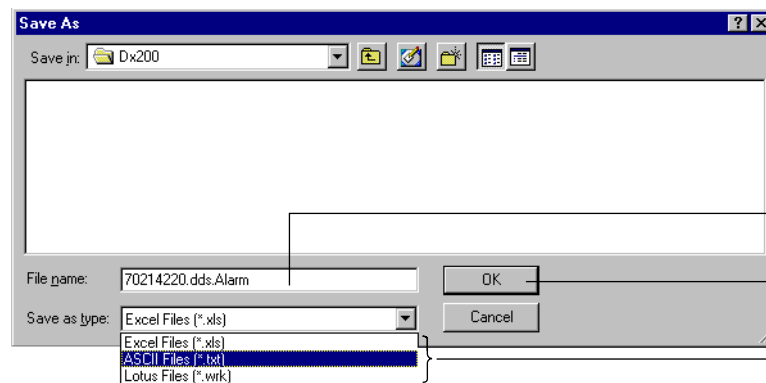
Enter the file name.

5. Set the items and click here.

Select one.

4.7 Displaying the TLOG File

Displaying the TLOG File

DX/MV folder

1. Double-click the TLOG file icon.

2. The file opens.

Open a file (section 4.1)
Timer No. selection tab
Save display conditions (section 4.8)
Section 4.1
Section 4.9
File information (section 4.1)
Waveform label (select channel No. or tag)

Data No.
Time display
Date display
Scroll the screen (left and right)
Turn ON/OFF flags ([View] - [Flags])
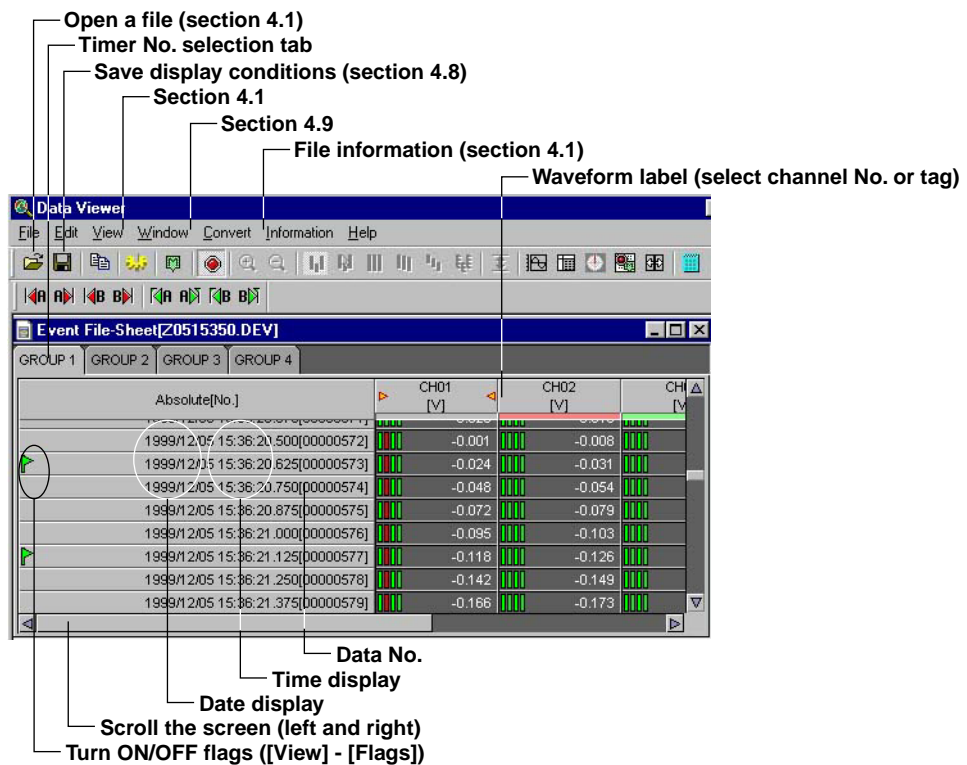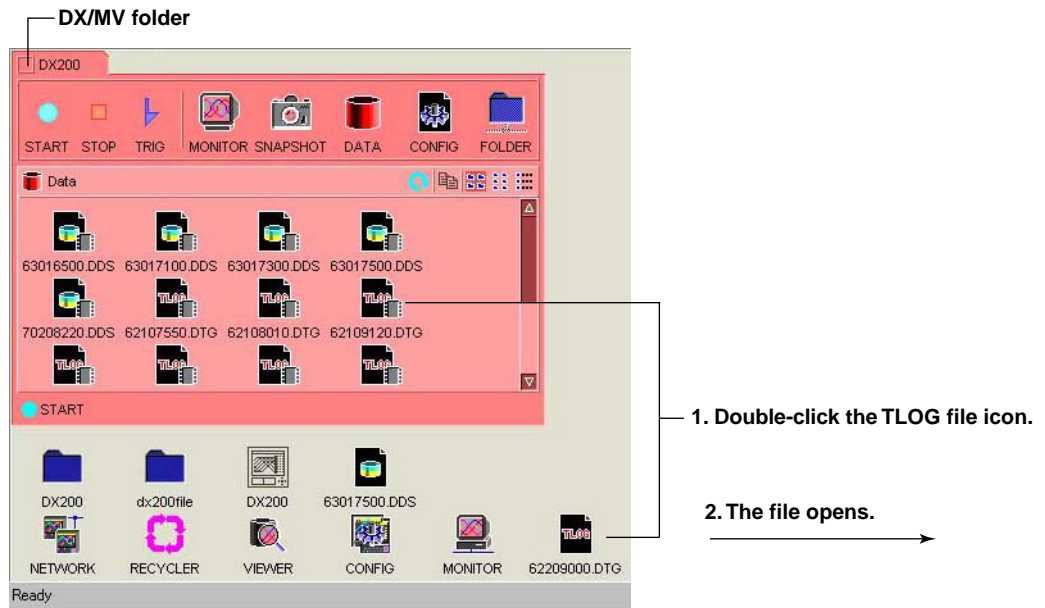
Turning ON/OFF Flags

When [View] - [Flags] is checked, the following status information is displayed:

🚫 : Stopped TLOG computation.

🕐 : The DX/MV time and date was changed during TLOG computation.

🔌 : Power failure occurred during TLOG computation.

Date/Time display

Select [View] - [Date Format] or [Time Format] to select the display format. If [None] is selected, the date or time will not be displayed.

Data No.

When [View] - [Data No.] is checked, the data number is displayed.

Selecting the Characters Used to Identify Channels

For details, see "Selecting the Characters Used to Identify Channels" in section 4.2, "Displaying the Waveform."

4.8 Saving the Display Settings

Click here ([File] - [Save Display Setting]).

The display settings can be saved to a file. The following display settings can be saved:

For display file, event file, and link file displays

- Print comment

- Cursor A and Cursor B positions
- ON/OFF condition of the clipping of the displayed waveform
- Settings specified in the General Display Settings
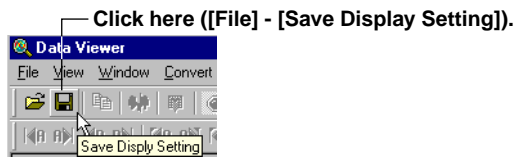
- Mark information

- Zoom rate of the time axis

- Display mode of the time axis (absolute/relative)
- Waveform display area
- The channel identification string mode (channel/tag)
- ON/OFF condition of file information items (see section 4.1)

- The background and grid color of the waveform display area
- Y-axis zone setting
- The active waveform

- The height of the data overview of each group
- The width of the zone display area of each group
- Show/Hide condition of the zone display area
- Selected group
- ON/OFF condition of the alarm display

For TLOG file display

- ON/OFF condition of TLOG file information items (see section 4.1) and print comment
- The string to be used (channel/tag)
- Timer No.
- Display format of date and time

The information is saved to the same directory as the data files. The name of the saved file is the name of the data file being displayed, with an added [vdx] extension (Y1116040.DDS.vdx, for example).
This display setting file can be overwritten unlimited number of times.
When the data with the same file name is reopened, the display settings that were saved are used. If you do not wish to open the data using the saved settings, delete the display setting file ([vdx] extension) before opening the data file.

Note

When the data residing in the internal memory or the external storage medium of the DX100/DX200/ MV100/MV200 are being displayed, the display settings cannot be saved.

4.9 Converting the Data

1. Select one.

2. The [Conversion Details] dialog box opens.
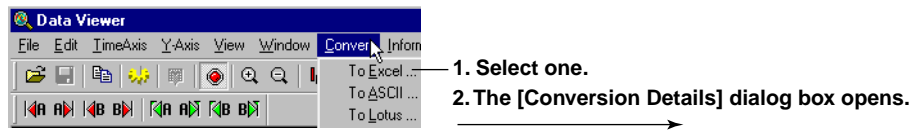
When waveform display or numeric display is open

3. Enter the conversion range.

Excel Conversion Details

Start   : 573   1999/12/05 15:36:20.625
End   : 577   1999/12/05 15:36:21.125
Step   : 1

○ Group   1 - 4
○ Channel   CH01   -   CH34

File :   C:\...\~DX001\memory\Z0515350.xls   File ...

5. Change the save destination.

OK   Cancel

Save destination and file name

4. Select either one.
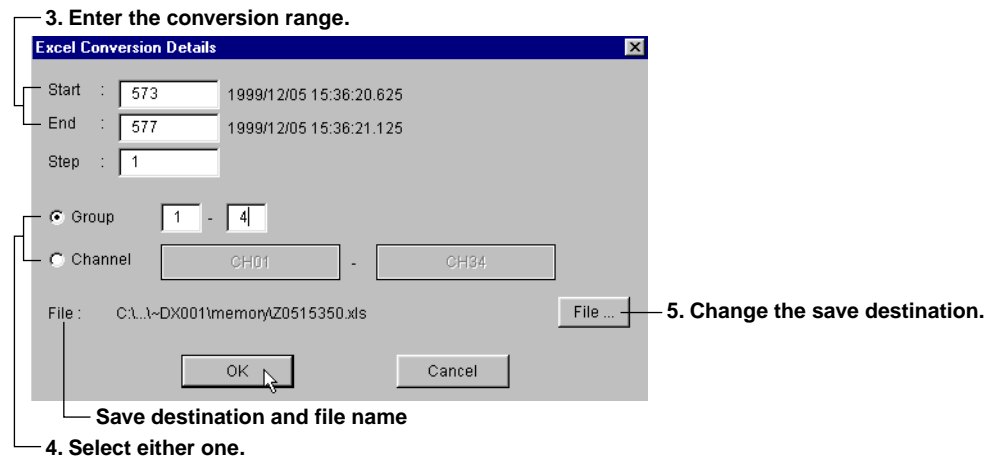
The measured data can be converted to ASCII, Lotus, and Excel formats.

When displaying the TLOG File

3. Check the timer No. to be converted.

Conversion Details

☑ Timer 1

☑ Timer 2

☐ Timer 3

File :   C:\DAQEXPLORER\desktops\DAQStation\Y2716000.xls   File ...

4. Change the save destination.

OK   Cancel
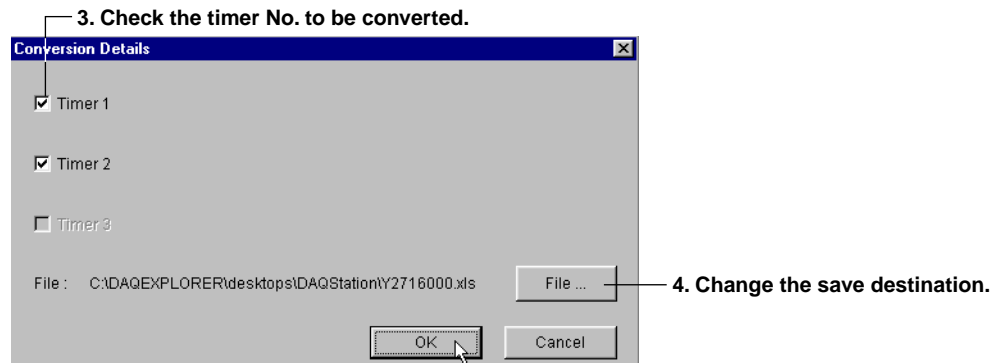
Start point and end point

Cursor A and Cursor B are used to set the start point and end point of the range, respectively. If Cursor A and Cursor B are not specified or the cursors were erased, the data numbers of the start and end points are automatically set to [0] and [total number of data points - 1], respectively.

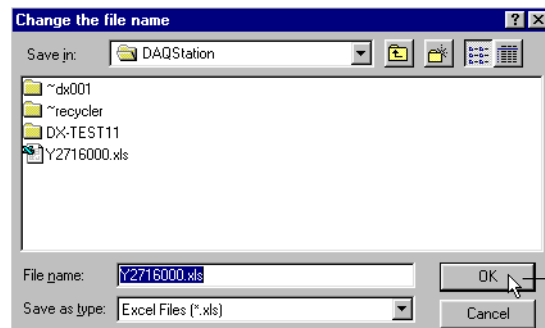To convert all the data in the specified range, set the step number to 1.

Step

To convert all the data in the specified range, set the step number to 1.

Group/Channel

If you select [Group], enter the range of groups to be converted.

If you select [Channel], enter the range of channels to be converted.

Changing the save destination

Select the destination folder and file and click the [OK] button

To change the destination folder or the name of the file containing the converted data, click the [File] button. The [Change the file name] dialog box opens.

Note _____

- The default group is set to the number of the group that is currently being displayed. The default channel is set to all channels.
- The name of the destination file is automatically set to the displayed file name followed by the extension that identifies the data format. For ASCII, Lotus, and Excel conversions, the file extensions [txt], [wrk] (can be loaded using version 2.0 or later, and [xls] (can be loaded by version 4.0 or later) are attached, respectively.
- There is a limit in the number of data points that Lotus1-2-3 and Excel can handle. For these programs, specify the number of data points to be converted before performing the conversion. Note that even if the number of data points to be converted is within the limits, it still may not be possible to load the data if there is not enough free memory available on the PC.
- Do not specify a floppy disk or an external storage medium as the save destination as it will take a long time for the save operation.
- Do not specify the root directory as the save destination.
- Prepare enough free space on the destination disk.

Conversion Example

ASCII conversion file

```
"DAQEXPLORER","R1.02"
"Data Viewer","R1.02"
"","kawamura","111-00000-0000"
"Device Type","DX200"
"Serial No.","12V636847       "
"File Message",""
"Time Correction","None"
"Starting Condition","Auto"
"Dividing Condition","Manual"
"Meas Ch.",       30
"Math Ch.",        1
"Data Count",      180
"Sampling Interval",    2.000,"sec"
"Start Time","1999/11/17","20:34:28",    0.000
"Stop Time","1999/11/17","20:40:26",    0.000
"Trigger Time","1999/11/17","20:40:26",    0.000
"Trigger No.",      179
"Damaged Check","Not Damaged"
"Started by","[ Key In ]"
"Stopped by","[ Comm In ]"
"Converted Group",       1,"-",       1
"Ch.","CH01","CH02","CH03","CH04","CH05","CH06","CH07","CH08","CH09","CH10"
"Tag","","","","","","","","",""
"Unit","V","","","","V","V","V","V","V","V"
"Date","Time","sec","Min","Max","Min","Max","Min","Max","Min","Max","Min","Max",
"Min","Max","Min","Max","Min","Max","Min","Max"
"1999/11/17","20:34:28",    0.000,   -0.506,   -0.409,   66.39,   72.87,   122.38,   126.31,
122.46,   126.39,   -0.498,   -0.401,   -0.496,   -0.399,   -0.495,   -0.397,   -0.493,   -0.394,   -
0.491,   -0.392,   -0.489,   -0.390
```

Excel conversion file

	A	B	C	D	E	F
1	DAQEXPLORER		R1.02			
2	Data Viewer		R1.02			
3	yokogawa		kaisui		111-000-0000	
4						
5	Device Type		DX100			
6	Serial No.		12V847099			
7	File Message		wa---------------------i			
8	Time Correction		None			
9	Starting Condition		Manual			
10	Dividing Condition		Auto			
11	Meas Ch.		4			
12	Math Ch.		4			
13	Data Count		1800			
14	Sampling Interval		2.000	sec		
15	Start Time		1999/12/0	15:35:10	0.000	
16	Stop Time		1999/12/0	16:35:08	0.000	
17	Trigger Time		1999/12/0	16:35:08	0.000	
18	Trigger No.		1799			
19	Damaged Check		Not Damaged			
20	Started by		[Nothing]			
21	Stopped by		[Nothing]			
22						
23	Converted Group		1	-	1	
24						
25			Ch.	CH01		CH02
26			Tag	a		b
27			Unit	V		V
28	Date	Time	sec	Min	Max	Min
29	1999/12/0	15:38:20	0.000	-1.215	-0.959	-1.212
30	1999/12/0	15:38:22	0.000	-0.959	-0.641	-0.953

4.10 Printing

Setting the Printer

1. Select [File] - [Print Setup].
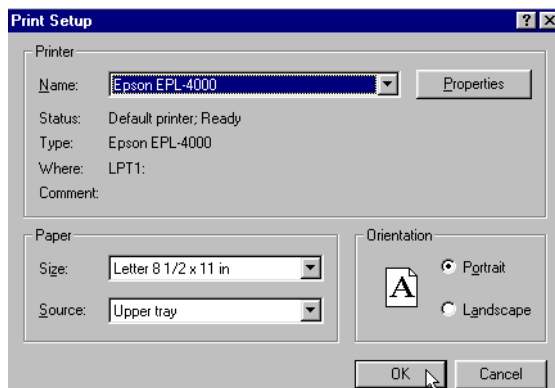
2. Set the printer, paper and orientation.

Note

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

Specifying the Contents to be Printed (for Display Data File and Event Data File)

Specify the contents to be printed before executing the print. This is not necessary when printing the TLOG file.

Select [File] - [Print Settings]. The [Printout Setup] dialog box opens. When the waveform is displayed, printing is carried out according to the settings under the Graph Print tab of the [Printout Setup] dialog box. If numeric values are displayed, printing is carried out according to the settings under the Sheet Print tab.
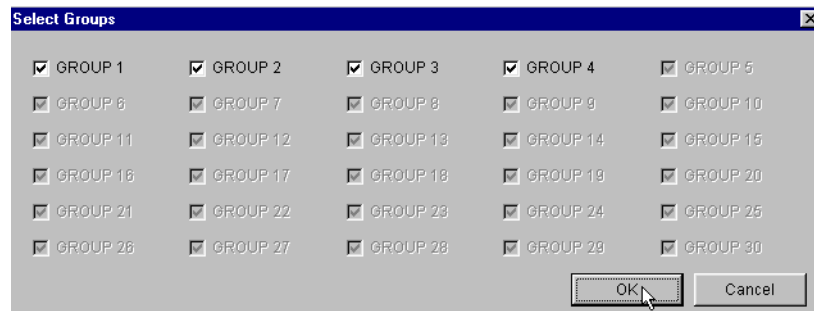
Setting graph print

Click this tab to set the graph print
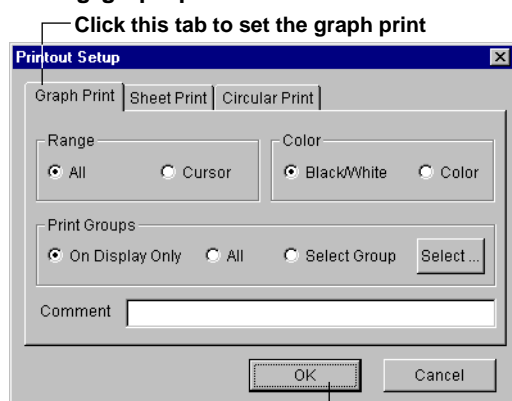
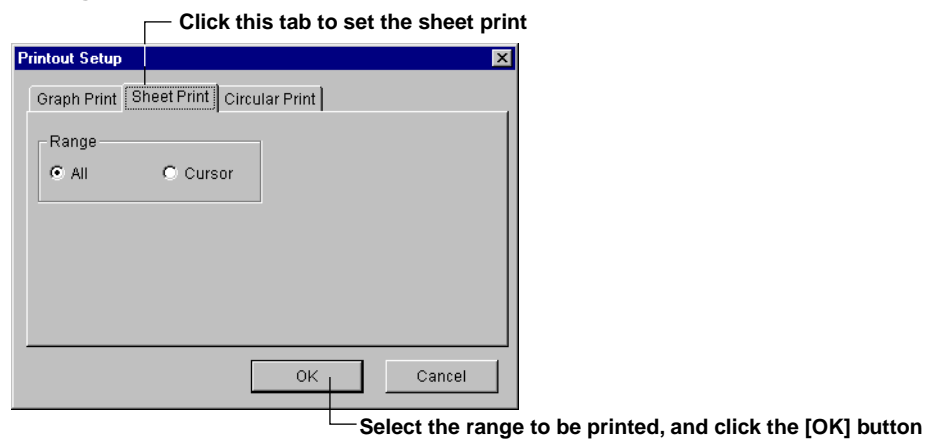Set the range, color, print group, and comment, then click the [OK] button

If you selected [Select Group], click the [Select] button. The [Select Groups] dialog box opens. Select the groups to be printed. Click the [OK] button to close the dialog box.
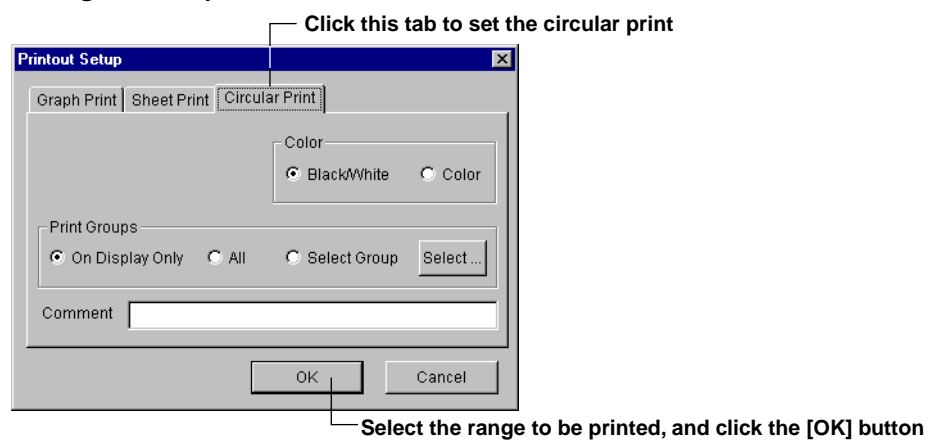

Note

- The [Comment] can be entered or changed using [About Document] (see "Viewing the information of the loaded file" page 4-3). When the print comment is entered or changed, it is reflected in the comment of [About Document] dialog box.
- Up to 127 characters can be entered in the [Comment] entry box. However, the number of characters that is actually printed is limited.
- When the cursor is not displayed, select the [All] button under [Range] in the [Printout Setup] dialogu box.

Setting sheet print

Click this tab to set the sheet print

Select the range to be printed, and click the [OK] button

Setting circular print

Click this tab to set the circular print

Select the range to be printed, and click the [OK] button

For the operations that follows, see "Setting graph print."

Header

A header can be printed when printing the waveform or a TLOG file.

Of the items that are displayed in the file information dialog box ([Information] - [About Document]), those that are checked are printed in the header section. For details related to the file information, see section 4.1.
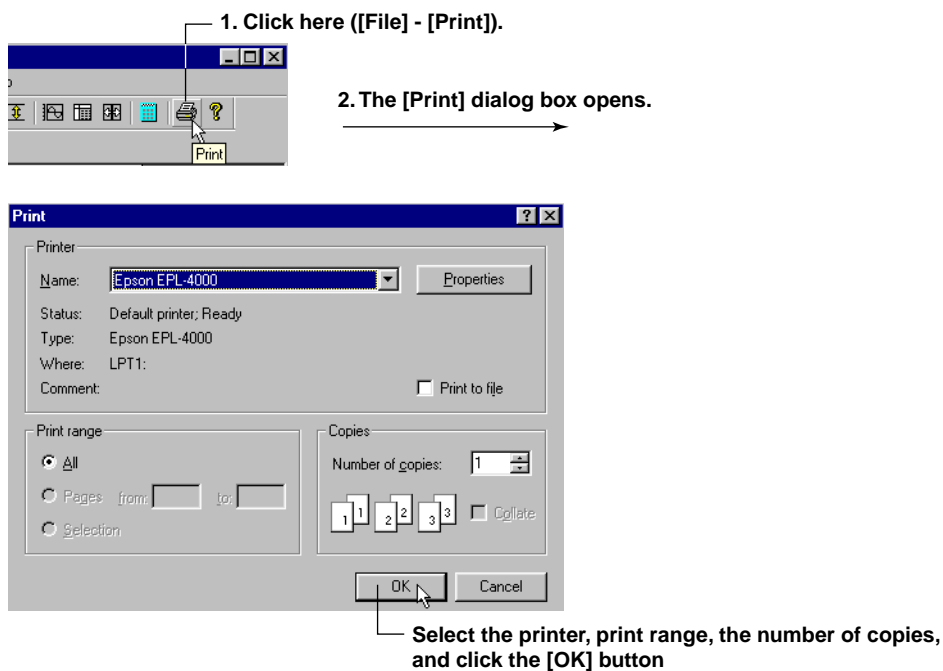
Print Preview

You can preview the print layout before actually printing the data.

Selecting [File] - [Print Preview] displays the print preview screen.

Note

- The preview screen will display the print image of the specified range.
- The file information is also displayed when previewing the graph. If the color overview, alarm, [Cursor value] window, and [Statistics] window are displayed, these are also displayed on the preview screen along with the graph
- For the print preview operation, see the instruction manual that came with your operating system.

Printing

1. Click here ([File] - [Print]).

2. The [Print] dialog box opens.

Select the printer, print range, the number of copies, and click the [OK] button

4

Displaying Data with the Data Viewer

5.1 Starting the Configurator

The following two types of files can be opened using the Configurator:

CONFIG file

This is the file located in the DX/MV folder. It allows a direct view of the setup data of the DX100/DX200/MV100/MV200. Only one CONFIG file exists in one DX/MV folder.

You can change the setting on the Configurator, but the file cannot be saved.

Setup data file (*.PNL)

This is the file that is saved to the PC such as to the DAQ Desktop. You can change the settings on the Configurator and save the file and create new setup data.

The Configurator can transmit and receive the setup data, change the setup data, and create new setup data. It can configure the following style numbers of DX and MV.

DX/MV	Style1	Style2	Style3
DX100	◯	◯	
DX200	◯	◯	
MV100		◯	◯
MV200			◯

Copying the Setup Data to the DAQ Desktop

You can copy the CONFIG file to the DAQ Desktop by dragging and dropping the CONFIG icon of the DX/MV folder onto the DAQ Desktop.

The extension of the file that is copied becomes [PNL].

5

Configuring the DX100/DX200/MV100/MV200

Starting the Configurator

DX/MV folder

1. Double-click here.

2. The DX/MV Configurator opens.

Print (section 5.10)
Data check (section 5.6)
Display the version information of the Configurator

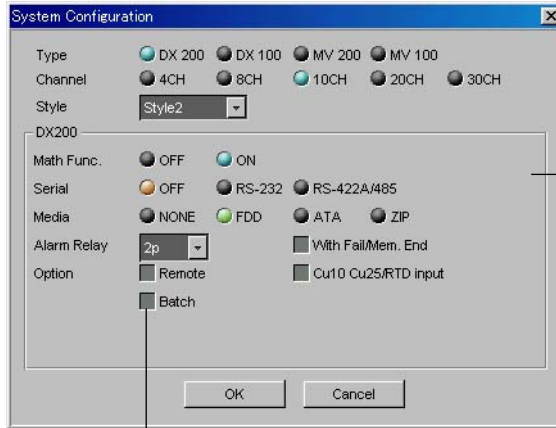**Menu bar**

Toolbar

Scroll the screen (up and down)

Scroll the screen (left and right)

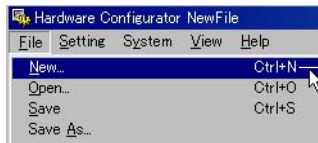## Creating Setup Data by Configuring a New System

1. Douoble-click the CONFIG icon on the desktop.

2. The [System Configuration] dialog box opens.

3. Click the appropriate items and click the [OK] button to open the Configurator screen.

Batch function option is selectable when the style number is greater than or equal to 2
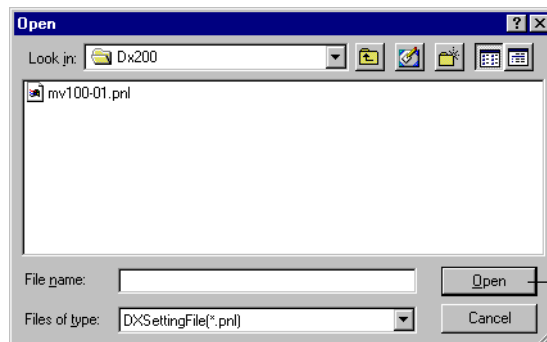
Select [File]-[New] to create new setup data from the second time.

Create the setup data according to step 2 and 3.

Loading Preexisting Setup Data

1. Select [File]-[Open].

2. The [Open] dialog box opens.

Select a file with .pnl estension and click here.

You can specify the location where the setup data file is located and open the Configurator.

5.2 Setting the Measurement Channels

Select this tab
Double-click to set the channel
Difference computation
Scale
Square root
Select the reference for the difference computation
Set the span

CH	Mode		Delta/Scale/Sqrt				Range/Type		RefCh		Span	
											L	U
CH01	VOLT	▼	OFF	DELTA	SCALE	SQRT	2V	▼	1	▼	-2.000	2.000
CH02	VOLT	▼	OFF	DELTA	SCALE	SQRT	2V	▼			-2.000	2.000
CH03	VOLT	▼	OFF	DELTA	SCALE	SQRT	2V	▼			-2.000	2.000
CH04	VOLT	▼	OFF	DELTA	SCALE	SQRT	20V	▼			-2.00	2.00
			OFF	DELTA	SCALE	SQRT	LEVEL				0	1

Select the input mode
Select the range/type

Enter the scale
Enter the scale unit
Enter the alarm value

Scale			Unit	Alarm 1				Alarm 2			
Point	L	U		Type		Value	Relay	Type		Value	Relay
				H	▼	1.100	I01 ▼	L	▼	0.000	NONE ▼
▼	0.00	200.00		L	▼	-1.00	NONE ▼	OFF	▼	0.00	NONE ▼
▼	0.00	200.00		R(RH)	▼	0.00	NONE ▼	OFF	▼	0.00	NONE ▼
				OFF	▼	0.00	NONE ▼	OFF	▼	0.00	NONE ▼
				OFF		0	NONE	OFF		0	NONE

Select the relay number
Select the alarm type

Enter the delay period
Enter the tag name

Alarm 3			Alarm 4			Alarm Delay	Moving Ave	Tag
Type	Value	Relay	Type	Value	Relay			
OFF ▼	0.000	NONE ▼	OFF ▼	0.000	NONE ▼	10 sec	OFF ▼	
OFF ▼	0.00	NONE ▼	OFF ▼	0.00	NONE ▼	10 sec	OFF ▼	
OFF ▼	0.00	NONE ▼	OFF ▼	0.00	NONE ▼	10 sec	OFF ▼	
OFF ▼	0.000	NONE ▼	OFF ▼	0.000	NONE ▼	10 sec	OFF ▼	
OFF	0.000	NONE	OFF	0.000	NONE	10 sec	OFF	

Select sampling count

Enter the display zone
Select the graph setting
Select the channel display color

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

Initialize
Set the value to the maximum value possible
Set the value to the minimum value possible
Turn ON/OFF the partial expanded display

Input Type (Mode and Range/Type)

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

Mode	Relevant Settings
VOLT (voltage)	Range, span L, and span U
TC (thermocouple)	Type, span L, and span U
RTD (resistance temperature detector)	Type, span L, and span U
DI (voltage level/contact input)	Range, span L, and span U
SKIP (Measurement/Display OFF)	None

Note

- When a value outside the range is entered or when the span L and span U values are set to the same value, they are corrected when the data are checked.
- If SKIP is selected, settings such as Delta/Scale/Sqrt and Range/Type are discarded.

Difference Computation and Reference

Displays the difference between the input and the reference channel.

If difference computation is performed between channels that have different range and type settings, the decimal position of the computed result is set to that of the channel computing the difference. If the number of digits to the right of the decimal of the reference channel is greater than that of the channel computing the difference, the reference value below the least significant digit of the channel computing difference is rounded beforehand.

Display Span

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

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

Scale

Scale L, scale U, and decimal point

Scale's value is displayed by taking the range between scale L and scale U to be full scale. Enter the upper and lower limit values to which you wish to convert the raw values. Include the decimal point.

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

Unit

Enter the unit using up to six characters.

Square Root

Computes and displays the square root of the input. This setting can be used only when the input mode is set to VOLT (voltage). As necessary, set the span, scale, and unit.

Alarm

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

Type

Select H, L, h, l, R, T or t. T or t is selectable when the style number is greater than or equal to 2. The selectable alarms vary depending on the input mode and computation type. For details, see section 6.2 in the User's Manual IM04L02A01-01E.

Alarm value

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

Alarm delay

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

Relay

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

Input Filter and Moving Average

Moving average can be specified on models DX106, DX112, DX210, DX220, DX230, MV106, MV112, MV210, MV220, and MV230.
Input filter can be specified on models DX102, DX104, DX204, DX208, MV102, MV104, MV204, and MV208.

Input filter

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

Moving average

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

Tag

Up to 16 characters can be entered for the tag.
You can use the tag name instead of the channel name to be displayed on the screen.
The [Setup] screen is used to select whether to display the channel name or the tag name on the screen.
If tag is selected in the [Setup] screen, you will be able to select tag No., tag comment, or tag in the Data Monitor or Data Viewer.

Display Zone

You can select the range of the screen in which the waveform of each channel is to be displayed.
Specify positions (%) on the display scale for the upper and lower limits.
The conditions for setting the zones are as follows:
• Range: 0% to 100%
  The lower limit must be less than the upper limit
• The difference between the lower and upper limits is at least 5%.

Graph

Divisions
Select the number of bar graph divisions.

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

Scale
When using scale display on the trend screen, select the position to display the scale.
For details related to divisions, bar graph, and scale, see section 7.10 in the DX100/DX200/MV100/MV200 User's Manual.

Partial Expanded Display

Position (%)
Set the boundary for the partial expanded display. The range is from 1 to 99%.

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

- Measurement channel
  When SCALE and SQRT are not used: Span L < boundary < span U
  When SCALE and SQRT are used: Scale L < boundary < scale U

- Computation channel
  Span L < boundary < span U

> **Note**
> The partial expansion settings take effect when the partial expansion function is set to [Use] in the [Aux] section of the [Setup] tab.

Display Color
You can select the display color of each channel from 16 colors.

Copying and Pasting Setup Data
The items checked in [Copy Details] can be copied and pasted. Click the channel number to select the copy source or paste destination.
To select multiple channels to be copied, drag the channel number to specify the range to be copied. To select multiple copy destinations, select the range in a similar fashion.

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Configuring the DX100/DX200/MV100/MV200

Setting One Channel at a Time

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

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

2. The channel setting dialog box opens.

4. After setting the items, click here.

Apply the settings.

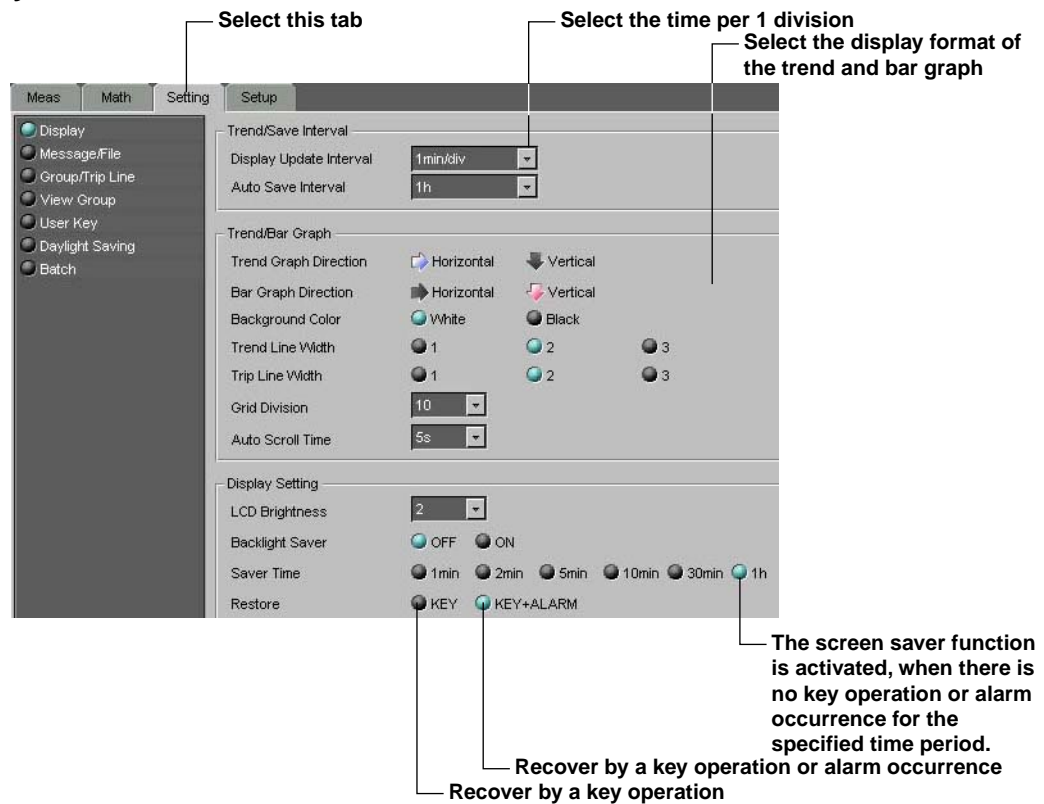**Update according to the changes in the [Meas] sheet.**

The items in the measurement channel tab can be configured for each channel. The items that are configured are the same as those configured on the spreadsheet. For details, see the page corresponding to the item.

5.3 Setting the Computation Channels

Double-click when setting each channel
Select this tab
Enter the expression
Set the display span (6 characters or less)
Enter the unit
Enter the constant to be used in the **expression**

Meas	Math	Setting	Setup	

CH		Expression
CH31	☑ **ON**	K01
CH32	☑ **ON**	TLOG.SUM(31)
CH33	☑ **ON**	TLOG.SUM(31)-K02
CH34	☐ **OFF**	01
CH35	☐ **OFF**	01
CH36	☐ **OFF**	01
CH37	☐ **OFF**	01

	Span		Unit			Constant
Point	L	U		Ty		
0 ▼	-10	10	K01	OFF	K01	1
0 ▼	-100	700	Times	H	K02	100
0 ▼	-200	200		OFF	K03	1
2 ▼	-200.00	200.00		OFF	K04	1
2 ▼	-200.00	200.00		OFF	K05	1
2 ▼	-200.00	200.00		OFF	K06	1
2 ▼	-200.00	200.00		OFF	K07	1

Turn ON/OFF computation
Select the number of digits to the right the decimal

Set the alarm (section 5.2)

Alarm 1			Alarm 2			Alarm 3		
Type	Value	Relay	Type	Value	Relay	Type	Value	Relay
OFF ▼	0	NONE ▼	OFF ▼	0	NONE ▼	OFF ▼	0	NONE ▼
H ▼	200	NONE ▼	L ▼	100	NONE ▼	OFF ▼	0	NONE ▼
OFF ▼	0	NONE ▼	OFF ▼	0	NONE ▼	OFF ▼	0	NONE ▼
OFF ▼	0.00	NONE ▼	OFF ▼	0.00	NONE ▼	OFF ▼	0.00	NONE ▼
OFF ▼	0.00	NONE ▼	OFF ▼	0.00	NONE ▼	OFF ▼	0.00	NONE ▼

Enter the alarm period
Enter the tag (section 5.2)

Alarm 4			Alarm Delay	TLOG		Rolling Average			Tag
Type	Value	Relay		Timer	Sum Scale		Interval	Times	
OFF ▼	0.00	NONE ▼	10 sec	1 ▼	OFF ▼	☐ **OFF**	10s ▼	1 ▼	
OFF ▼	0.00	NONE ▼	10 sec	1 ▼	OFF ▼	☐ **OFF**	10s ▼	1 ▼	
OFF ▼	0.00	NONE ▼	10 sec	1 ▼	OFF ▼	☐ **OFF**	10s ▼	1 ▼	
OFF ▼	0.00	NONE ▼	10 sec	1 ▼	OFF ▼	☐ **OFF**	10s ▼	1 ▼	
OFF ▼	0.00	NONE ▼	10 sec	1 ▼	OFF ▼	☐ **OFF**	10s ▼	1 ▼	

Display zone (section 5.2)
Set the graph (section 5.2)
Partial expansion (section 5.2)
Display color (section 5.2)

Zone		Graph			Partial			Color	Constant	
L	U	Div	Bargraph	Scale		Expand(%)	Boundary			
0	100	10 ▼	Normal	1 1 ▼	☐ **OFF**	50 ▼	0	(red)	K01	1
0	100	10 ▼	Normal	1 1 ▼	☐ **OFF**	50 ▼	0	(yellow)	K02	100
0	100	10 ▼	Normal	1 1 ▼	☐ **OFF**	50 ▼	0	(blue)	K03	1
0	100	10 ▼	Normal	1 1 ▼	☐ **OFF**	50 ▼	0.00	(purple)	K04	1
0	100	10 ▼	Normal	1 1 ▼	☐ **OFF**	50 ▼	0.00	(red)	K05	1

Turning ON/OFF Computation

Select whether or not to perform computation for each channel.

Expression

Enter the expression using up to 40 characters. For details related to the expression, see the DX100/DX200/MV100/MV200 User's Manual.

Display Span

Sets the upper and lower limits of the display.

The range is from -9999999 to 99999999. Set the number of digits to the right the decimal to four digits or less.

Alarm and Tag

The settings are the same as the measurement channels. For details, see section 5.2, "Setting the Measurement Channel."

TLOG Computation

Timer

Select one of the timers (1 to 3) set in the setup mode.

The computation interval of TLOG computation is set to the time assigned to the selected timer.

Sum scale

Set the sum scale.

Rolling Average

Interval

Select the sampling interval when rolling average is activated.

Times (Number of samples)

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

Display Zone, Graph, Partial Expansion, and Color

The settings are the same as the measurement channels. For details, see section 5.2, "Setting the Measurement Channel."

Constant

You can set constants to be used in the expression. Up to 12 and 30 constants can be specified on the DX100/MV100 and DX200/MV200, respectively.

Setting One Computation Channel at a Time

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

Click here to enter the operator

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

2. The channel setting dialog box opens.

4. After setting the items, click here.

Set the maximum value.

Set the minimum value.

Copy the first setting.

<Select Operator dialog box>

Select the operator type and click the operator button

Operator button

The items in the math channel tab can be configured for each channel. The items that are configured are the same as those configured on the spreadsheet. For details, see the page corresponding to the item.

Copying and Pasting Setup Data

See section 5.2, "Setting the Measurement Channel."

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Configuring the DX100/DX200/MV100/MV200

5.4 Configuring the Settings

Screen Display

Select this tab — Select the time per 1 division — Select the display format of the trend and bar graph

The screen saver function is activated, when there is no key operation or alarm occurrence for the specified time period.

Recover by a key operation or alarm occurrence

Recover by a key operation

If you selected MV100 in the "System Configuration" dialog box, "User key" on the "Setting" page will not be displayed.

Display update interval

You can select the display update interval from 1 min/div, 2 min/div, 5 min/div, 10 min/div, 20 min/div, 30 min/div, 1 h/div, 2 h/div, and 4 h/div. In addition to these selections, 15 sec/div and 30 sec/div can also be selected on the MV102, MV104, MV204, and MV208 when the style number is greater than or equal to 3.

Auto save interval

The auto save interval can be specified when the [Save] is set to [Auto] (see page 5-17) and the data type is set to [DISPLAY] or [EVENT&DISP] in the memory sample section of the setup tab.

Auto scroll time

This is the time period used to automatically switch the displayed group. It can be specified when the style number of the DX or MV is greater than or equal to 2.

Message/File

Click here (also selectable from [Setting] - [SET [Regular] Setting])

Enter the message

Copy the entered message

Paste to another message number

Enter the comment

Enter the save destination folder
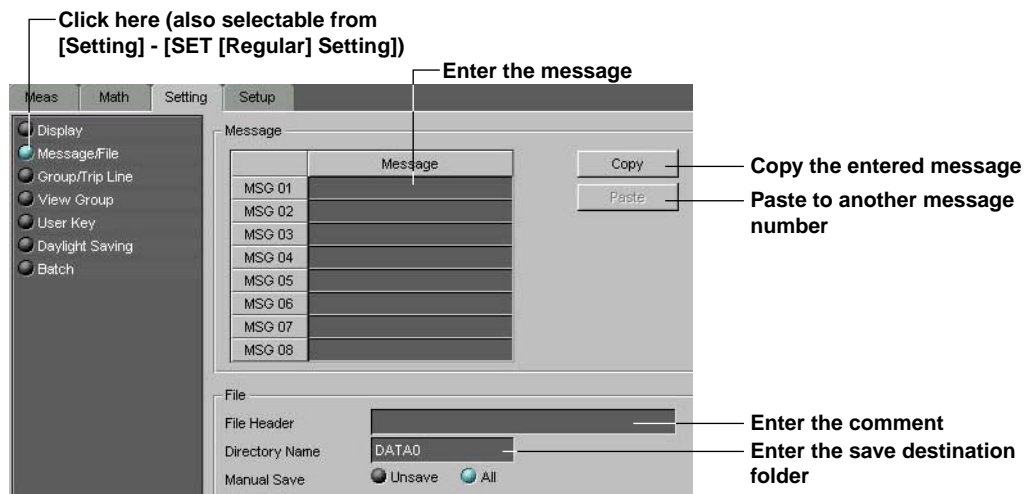
Message

Up to 16 characters can be entered for the message.

File header

Adds a comment to the header section of the measurement/computation data file.

Director name

Set the name of the folder in which the measurement/computation data files is to be saved.

Note

• Up to eight characters can be entered for the file header and director name. AUX, CON, PRN, NUL, and CLOCK cannot be used.

• If the directory name is not specified, DATA0 (default) is automatically set.

Manual save

Select whether to save all the data or data that have not been saved during manual save.

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Configuring the DX100/DX200/MV100/MV200

Group/Trip Line

Click here (also selectable from [Setting] - [SET [Regular] Setting])

Select the tab of the group to be configured.

Enter the group name

Turn ON/OFF the trip line display

Set the trip line by dragging

Set the trip line by entering a value

Select the color of the trip line

Check the channels that you wish to register in the selected group (blue: ON)
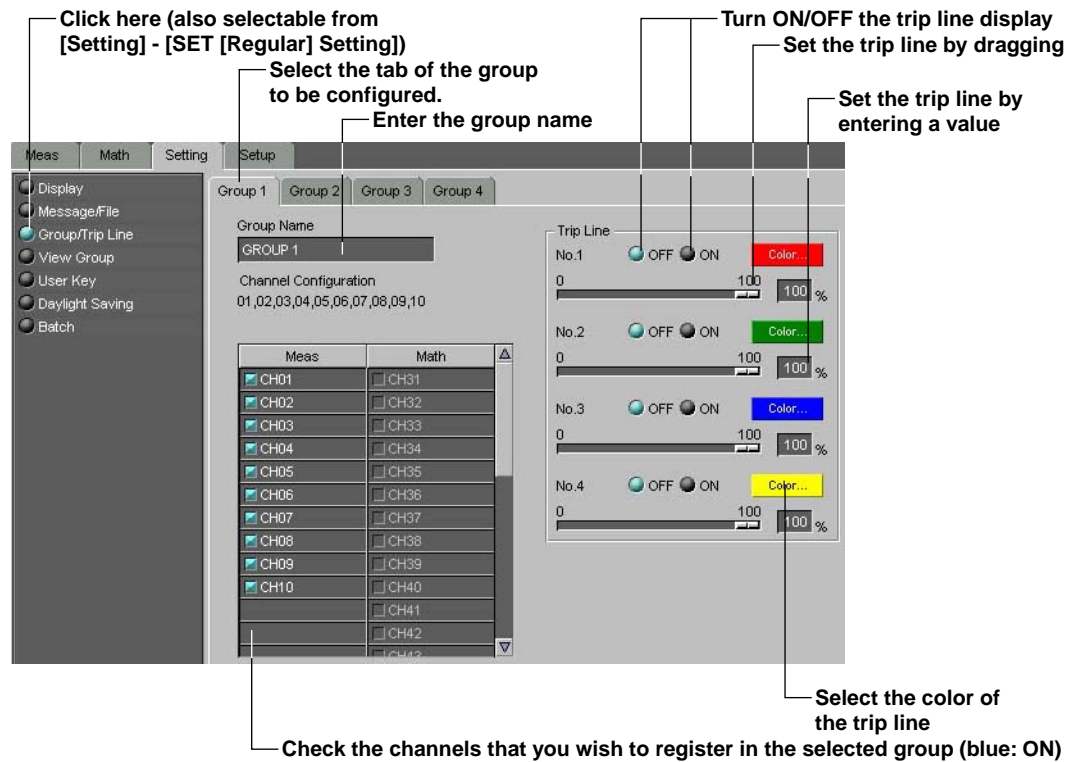
Group name

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

Number of channels

The maximum number of channels that can be assigned to a group is 10 and 6 for DX200/MV200 and DX100/MV100, respectively. The assigned channels are listed under [Channel Configuration].

If no channels are specified, CH01 is automatically assigned.

Trip line

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

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

Setting the View Group (DX200, MV200 Only)

Click here (also selectable from [Setting] - [SET [Regular] Setting])

Enter the view group name

Select the type of screen to be displayed or drag & drop

Type of screens available

Select the group to be displayed
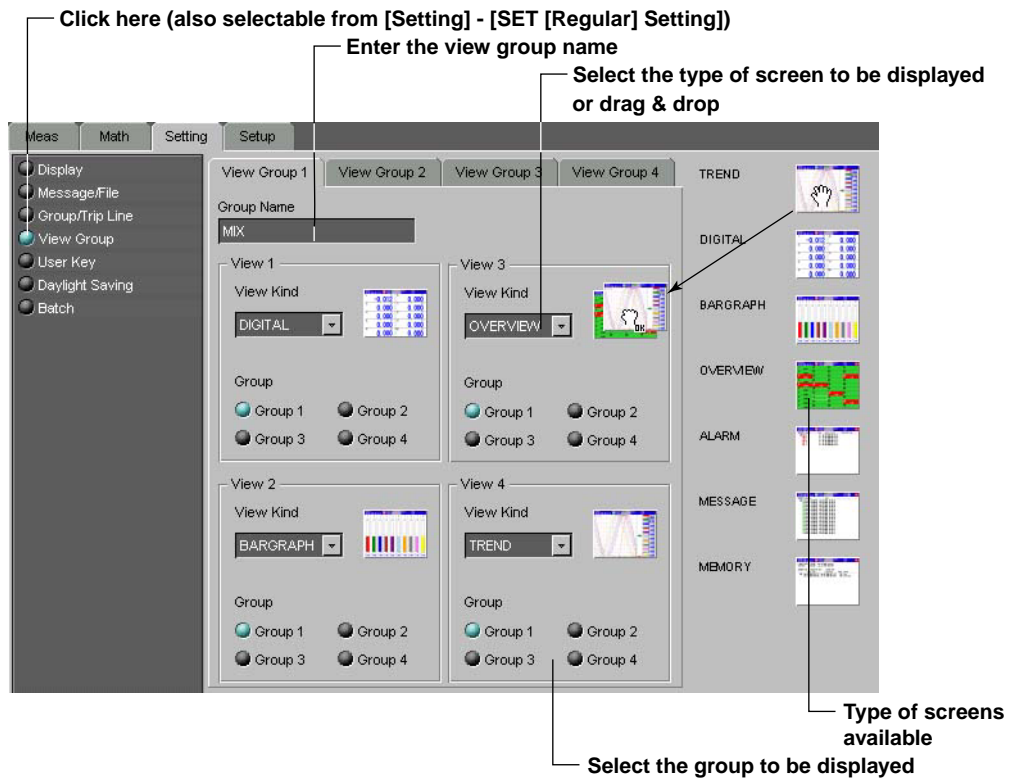
View group

Up to four view groups can be registered.

Group Name

Up to 16 characters can be entered for the group name. The specified group name appears as a sub menu of the [4 Panel] display of the DX200/MV200.

Screen type

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

USER Key (DX100, DX200 and MV200 Only), Daylight Saving, Batch (Option, When the Style Number is Greater than or Equal to 2)

Click either one (also selectable from [Setting] - [SET [Regular] Setting])

Select the function to be assigned to the USER key

Select either one

Enter usint up to 16 characters.

Enter the value in the range from 0 to 9999

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Configuring the DX100/DX200/MV100/MV200
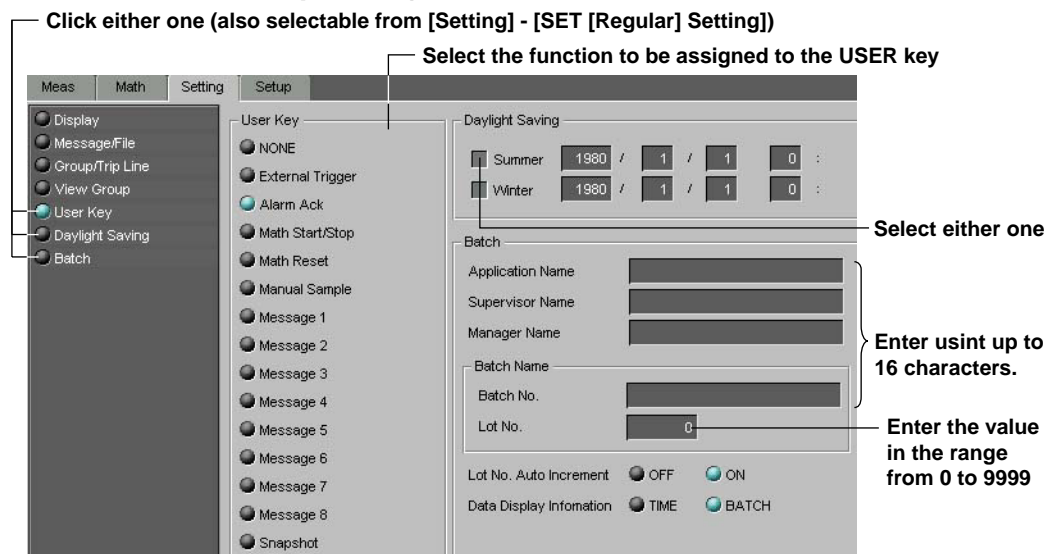
5.5 Configuring the Setup Mode

Alarm/Relay/Remote

2. Click here (also selectable from [Setting] - [SETUP [Basic] Setting]-[Setting])

1. Select this tab

Select from 1 to 15 times

Copy/Paste the selected range

Select the controlled item

Alarm

Select the alarm format. The selected items become blue.

Relay AND

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

Remote (Option)

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

For details related to the copy/paste function, see page 5-7.

Scan Interval/Memory

Click here (also selectable from [Setting] - [SETUP [Basic] Setting]-[Setting])

Check the channels you wish to sample

Set these parameters when the data type is set to [EVENT & DISP] or [EVENT]

5

Scan interval

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

DX102, DX104, DX204, DX208, MV102, MV104, MV204, and MV208: 125 ms and 250 ms

DX106, DX112, DX210, DX220, DX230, MV106, MV112, MV220, and MV230: 1 s and 2 s

A/D Integrate

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

Memory Sample (save method of measured/computed data)

- Number of blocks

  When the data type is [EVENT], select 1, 2, 4, 8, or 16.

  When the data type is [EVENT&DISP], select 1, 2, or 4.

- Pre-Trigger Length

  If 0% is selected, the event file will entirely consist of data after the trigger. If 100% is selected, the event file will entirely consist of data before the trigger.

- Memory Sample

  Select the channels that are to be saved to the memory.

Note

If [Save] is set to [Manual], the data directory is created at a location that cannot be managed by the DAQ Desktop. Therefore, the DAQ Desktop cannot be used to handle data files in that directory.

Channel (Setting the Burnout and RJC)

Click here (also selectable from [Setting] - [SETUP [Basic] Setting] - [Setting])

Set to the positive side (100%)

Set to the negative side (0%)

Set the reference junction compensation
to internal or external
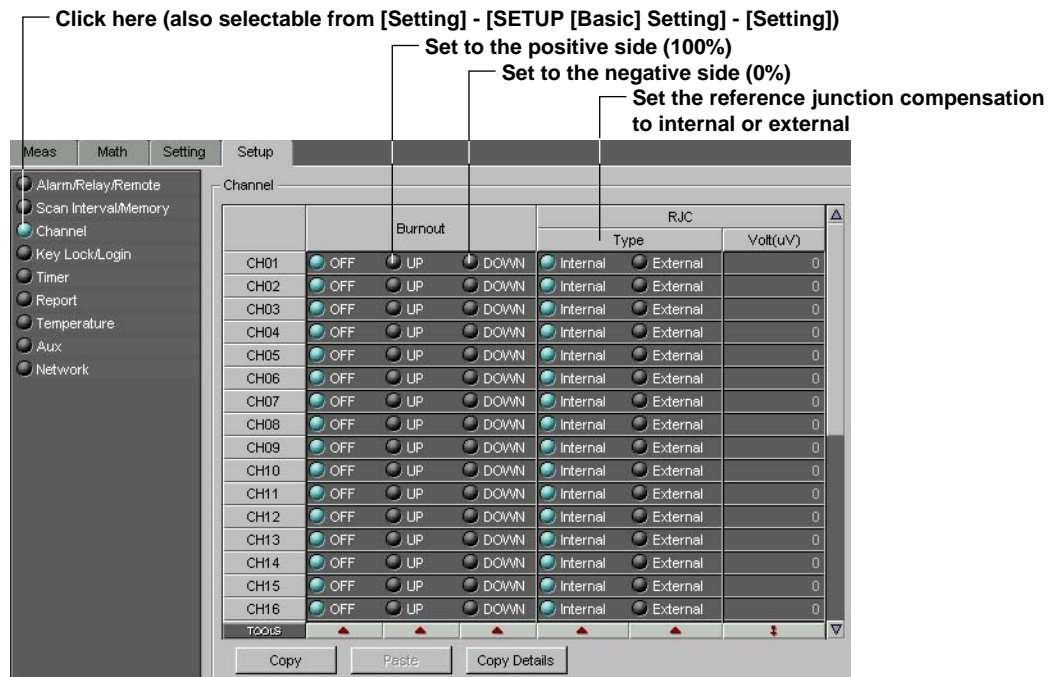
Burnout

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

RJC Volt (uV)

When the reference junction compensation is set to [External], set the compensation value in the range from -20,000 to 20,000.

Copying and pasting setup data

The items checked in [Copy Details] can be copied and pasted. Click the channel number to select the copy source or paste destination.

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

Key Lock/Login

Click here (also selectable from [Setting] - [SETUP [Basic] Setting]-[Setting])

DX100/DX200/MV200 cnfiguration screen

MV100 configuration screen

Turn ON when using user settings

Check when using login, auto logout, and user ID.

Setting the key lock

- **Key Lock**

  When using the key lock function, select whether or not to activate the key lock function (lock or free).

- **Password**

  Enter the password used to release the key lock using up to six characters. [???] is displayed after the password is entered.

Setting the login

- **User name**

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

- **User ID**

  Up to 4 characters can be entered for the User ID. [???] is displayed after the password is entered.

- **Password**

  Up to 6 characters can be entered for the password. [???] is displayed after the password is entered.

- **Setup**

  Select whether or not to allow setting changes in the setup mode.

Note

- If there is a duplicate [User Name] that is turned ON, the user with the larger user number is turned OFF.
- If [Setup] of all users that are turned ON is set to [Disable], the [Setup] of the user with the smallest number is set to [Enable].

Timer (Option)

Click here (also selectable from [Setting] - [SETUP [Basic] Setting]-[Setting])

Select one

Timeout every time the specified time elapses

Select the timeout time

Time out with the specified time as the reference

Save the data to the TLOG file when a timeout occurs.

Reset computation when a timeout occurs

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

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

Click here (also selectable from [Setting] - [SETUP [Basic] Setting]-[Setting])

Set the date and time at which to create the report

Select the channel to be reported

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

Report channel
There are 30 channels and 12 channels on the DX200/MV200 and DX100/MV100, respectively.

Converting the reference unit time
Select whether or not to convert the computed results of the TLOG.SUM computation channels to a specified time unit value. Select [Off (no conversion)], [Sec (seconds)], [Min (minutes)], or [Hour (hours)].

Copy
For details related to the copy/paste function, see page 5-7.

Setting the Temperature, Tag, Memory Alarm Time, Displayed Language, and Partial Expanded Display

Click either one (also selectable from [Setting] - [SETUP [Basic] Setting]-[Setting])
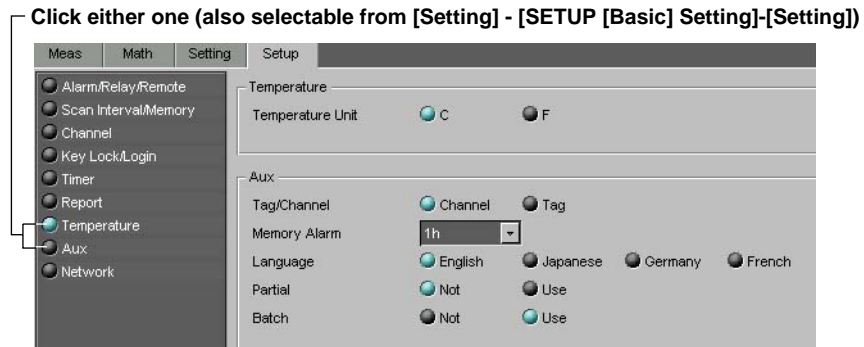
Temperature
Select the °C or °F for the temperature unit.

Tag/Channel
Select whether to use the tag name or channel number as the measurement/computation channel label (See "Selecting the Characters Used to Identify Channels" on page 3-6).
If you select tag name, you can select the label display from tag and channel.

Memory alarm time
Free space in the internal memory is monitored, and the memory full relay can be programmed to activate some period of time before the memory is completely full. This time period is called the memory alarm time.

Displayed language
Select the language to be used on the display.
The types of displayed language vary depending on the style number of the DX or MV. If the style number is greater than or equal to 2, you can select German or French in addition to English and Japanese.

Partial expanded display
If the partial expanded display is set to [Not], the partial expanded display settings of the Meas/Math tab are void.

Batch function (option)
You can set the batch function when the style number of the DX or MV is greater than or equal to 2.

Network

Setting the TCP/IP

1. Click here (also selectable from [Setting] - [SETUP [Basic] Setting]-[Comm])

2. Select this tab

Set the IP address

Set these addresses when using the DNS

Enter the timeout value when turned ON

In the case of a CONFIG file, the IP address cannot be configured.

When communicating with the DX100/DX200/MV100/MV200 via Ethernet, the IP address, subnet mask, and default gateway must be set on the DX100/DX200/MV100/MV200 beforehand.

Setting the FTP

2. Select the primary or secondary tab.

1. Select this tab.

Select the file transfer destination

By using the FTP function, you can automatically transfer the measured/computed data files to the specified server.

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Configuring the DX100/DX200/MV100/MV200

Setting the serial communication

Select this tab

In the case of a CONFIG file, serial communication cannot be configured.

5.6 Adjusting the Setup Data (Checking the Data)

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

2. If the data are not consistent, the following dialog box opens.

Click here to display the correction list
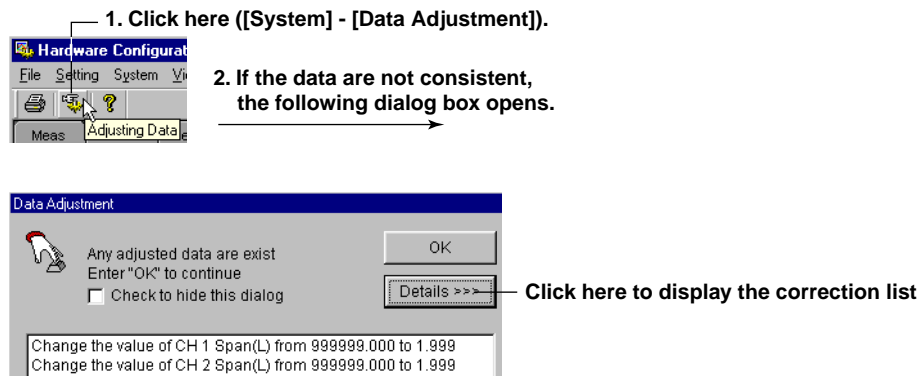
Checks whether or not the specified setup is consistent with the actual system. If it is not, the data are automatically corrected.

The data are corrected in the following cases:

*   When the values of the items of the Meas/Math tab are outside the range.
*   When an invalid character string is used

Data adjustment dialog box

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

Note

Perform the data check before sending the new setup data to the DX100/DX200/MV100/MV200.

5.7 Sending the Setup Data to the DX/MV

The method used to send the data varies depending on whether a CONFIG file or setup data file is being transmitted.

CONFIG file
The following two methods are available:
• **Selecting from the toolbar**

    The setup data are sent when [File] - [Store] is selected.

• **Clicking the [X] button**
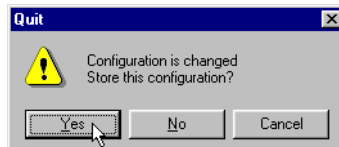
When the Configurator is closed by clicking the [×] button, a confirmation dialog box is displayed.
To send the new setup data to the DX100/DX200/MV100/MV200, click the [Yes] button. Otherwise, click the [No] or [Cancel] button.7
If the DX100/DX200/MV100/MV200 is acquiring data to the memory, a message "Now Memory & Math sampling. Can't store setting" is displayed. The data will not be sent in this case.

Setup data file

DX/MV folder
1. Stop the data acquisition to the memory.

2. Drag and drop the file onto the CONFIG icon of the DX/MV folder
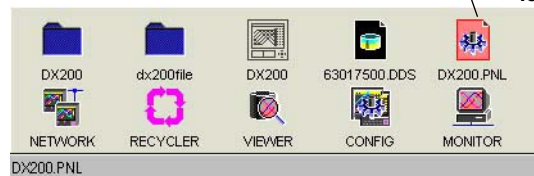
The contents of the setup data file (*.PNL) located on the DAQ Desktop can be transmitted. If the DX100/DX200/MV100/MV200 is acquiring data to the memory, the data will not be sent in this case.

Note

Of the network settings in the [Setup] tab, the following items are not transmitted.
• [IP Address] under the [TCP/IP] tab
• All settings under the [Serial] tab

5.8 Checking the System Configuration and Initializing Setup Data

Checking the System Configuration

1. Select [System] -
[System Configuration].

2. The [System Configuration] dialog box opens.
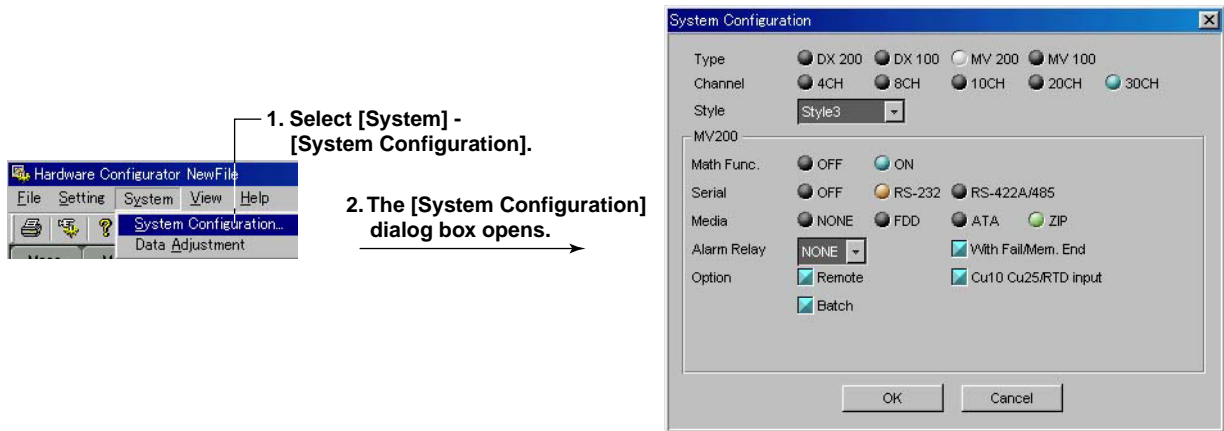
Only the system configuration in the setup data file can be checked. If the system configuration is changed and the [OK] button is clicked, a message "System Configuration is changed Input & Data are Initialized" appears. Clicking the [OK] button initializes the data.

Initializing the Setup Data

1. Select [Setting] - [Initialize].

2. The [initialize confirmation] dialog box opens.

3. Execute the initialization.

5.9 Saving the Setup Data

1. Select [File] - [Save] or [Save As].

Hardware Configurator DX-

File	Setting	System	View	He
New...			Ctrl+N	
Open...			Ctrl+O	
Save			Ctrl+S	
Save As...				

2. The [Save As] dialog box opens.

Save As

Save in: DAQStation

~dx000
~dx001
~recycler
DX-TEST11
DX-TEST11.PNL
DX-TEST11-00.PNL

File name: DX-TEST11-00.PNL

Save as type: DXSettingFile(*.pnl)

Save

Cancel

Set the destination and file name and click here

Save

The setup data are overwritten to the preexisting file (*.pnl). The [Save As] dialog box does not open.

Save As

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

Note

The CONFIG file (directly view the setup data of the DX100/DX200/MV100/MV200) cannot be saved using [Save] or [Save As].

5.10 Printing the Setup Data

Setting the Printer

1. Select [File] - [Print Setup].
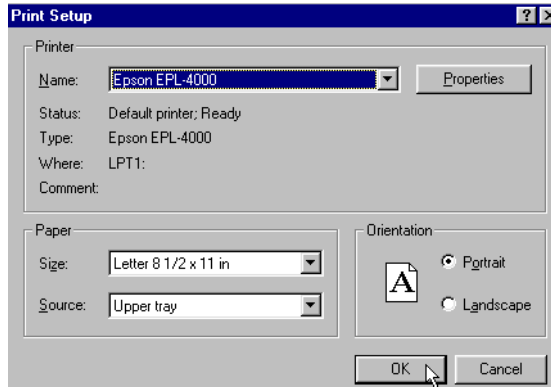
2. Set the printer, paper and orientation.

Note

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

Print Preview

You can preview the print layout before actually printing the data.

Selecting [File] - [Print Preview] displays the print preview screen.

Printing

1. Click here ([File] - [Print]).

2. The [Print] dialog box opens.
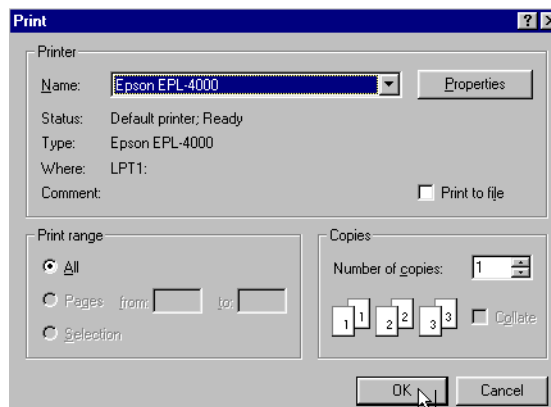
Select the printer, print range, the number of copies, and click the [OK] button

5.11 Characters that can be Used

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

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

Note

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

6.1 Error Messages and Their Corrective Actions

Message

Message
Failed to store any settings.
Failed to store settings.
Permission denied.
Need a password.
Need a user name.
Cautionary information exists.

Error Message

No.	Message	Corrective Action
E0004	Invalid serial number.	Reinstall using the correct serial number.
E0101	Can't be executed by itself.	Launch the program from the DAQ Desktop.

Data Viewer

Message	Corrective Action	Reference Page
Insufficient memory. Please close at once.	Exit other programs and restart or reboot the OS and restart.	–
Can't write to file.	Check the capacity of the directory or check that other programs are not using it.	–
Can't read file.	Check that the file exists and check that the file system is normal.	–
Can't open file.	Check that the file exists and check that the file system is normal.	–
Unsupported file.	Select another file.	4-2
Data dose not exist.	Select another file.	–
Channel dose not exist.	Select another file.	–
This file already exists. Replace existing file?	Execute to overwrite the file. Otherwise, change the file name.	–
This name's directory already exists.	Overwriting is not possible when a directory with the same name exists. Change the file name.	–
Can't overwrite to file.	–	–

Configurator

A List of Warnings

Message	Reference Page
System configuration has been changed. The input configuration and data will be initialized. Continue?	5-27
Data can't be processed after the year 2038.	–
Any destroyed A/D converter exist. Any settings may be failed to store.	–

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Error Messages and Their Corrective Actions

A List of Errors

Message	Corrective Action	Reference Page
Unreadable file.	Select another file.	5-1, 5-3
Failed to open file.	If the file cannot be loaded the second time, the file may be corrupt. Select another file.	–
Failed to make file.	Check the capacity of the directory.	–
Now sampling. Can't to store settings.	Transmit the data after the write operation to the DX/MV internal memory is finished.	5-26
Now calculating. Can't store settings.	Transmit the data after the computation is finished.	5-26
Now samplig & calculating. Can't to store settings.	Transmit the data after the write operation to the DX/MV internal memory and the computation are finished.	5-26
Communication Error	Check the communication settings.	1-5
Connection timeout.	There may be too much traffic. Retry after a little while.	–
Illegal user information.	Check to see that the user name is correct.	5-19
Connection was refused.	Check the communication settings. Check that the DX/MV is turned ON.	1-5
Connection is busy.	Retry after a little while.	–
Memory Error	Exit other programs and restart or reboot the OS and restart.	–
User level Error	The operation is not authorized to the user ID that is logged in.	–

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