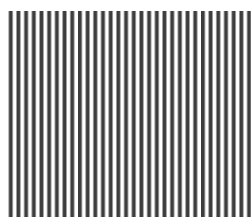


CHINO

Data Acquisition Software Package

KIDS for HR

Operation Manual



INSTRUCTIONS

CHINO

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Introduction

Thank you for your purchase of the AL4000/AH4000, KL4000/KH4000 series.

This software connects the AL4000/AH4000, KL4000/KH4000 series and a personal computer via a communications interface to acquire and display data on a computer screen.

This instruction manual describes preparation of hardware, program installation, operation method and so on. To fully understand this software and prevent troubles, be sure to read this instruction manual before installing.

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Precautions

1. Be careful not to drop the software when taking it out of the package.
2. If not used for a long time, keep the software in a CD case after installation and store it at room temperature, away from dust.
3. Keep this instruction manual carefully until the software is discarded.
4. When discarding the software, follow the local regulations for waste disposal and cooperate in recycling.

■ Checking before use

After opening the package of this software, be sure to check the following before use. If you have found any problems, please contact the dealer where you purchased the product or the nearest sales office of CHINO.

1. Appearance
Check the appearance of the product to see if there is any damage.
2. Label
Check that the model written on the label is correct.

Cautions for handling the CD-ROM

1. Eject the CD-ROM media from the drive when not used.
2. Be sure to keep the disk in a CD case.
3. Keep the disk away from direct sunlight, high temperature and humidity.
4. Keep the signal side clean from fingerprints, dirt, dust, scratches and water drops.

1. Outline

KIDS for HR is a software package used to acquire data measured by CHINO's AL4000/AH4000, KL4000/KH4000 series. Data acquisition is possible only when it has a communication option. .

1-1. Main functions and features

By connecting the following instruments and a personal computer via a communications interface, measured data are acquired and displayed on a computer screen. Up to 100 sets of instruments can be connected and up to 100 points of data can be managed.

MODBUS instruments ----- Data of the following instruments up to 31 sets can be acquired.



Caution

Requires a communications interface (RS232C, RS422A or RS485).

Ethernet instruments ----- Data of the following instruments up to 100 sets can be acquired.



Caution

Requires an ETHERNET interface.

MODBUS and Ethernet instruments can be mixed, and up to 100 sets of instruments can be connected.

- You can display acquired data in a table format or a trend format and can print them as a daily report.
- Acquired data can be converted into CSV format or text format.
- Data replay, Trend replay and Daily report printing can be done from data (data being stored into an FD or a memory card) acquired by graphic recorder BR.
- Alarm information generated from instruments can be displayed as a list, stored in CSV format or text format, and printed.
- By using the DDE (Dynamic Data Exchange) function, you can transfer acquired data with real-time processing to other applications including Excel.

1-2. KIDS specifications

1-2-1. System Requirements

<Hardware>

CPU	Pentium II 300MHz or faster
Memory	At least 48MB (64MB recommended)
Disk drive	CD-ROM drive: 1 drive or more (for installing KIDS) Hard disk drive: 1 drive (at least 100MB of free space) or more
Communications port	• Connection with MODBUS instruments Either 1 port of the communication ports (COM1 to COM9) supported by Windows. • Connection with Ethernet instruments LAN port which Windows is supporting.

<Software>

OS..... Windows XP / Windows Vista / Windows 7

※ Internet Explorer 4.0 or later version is required to display the Help Contents.

1-2-2. Communications specifications and number of connectable instruments

<MODBUS>

Interface	RS232C/RS422A/RS485 selectable RS232C 1 set of instrument can be connected. RS422A, RS485 Up to 31 sets of instruments can be connected.
Bit rate	9600bps / 19200bps / 38400bps selectable
Protocol	RTU
Character length	8 bits
Parity	None
Stop 1 bit	1 bit

<Ethernet>

Port No. 1 to 65535 (Default value: 11111)

Up to 100 sets of instruments can be connected.

1-2-3. Number of loading data

Maximum 100 points of data

1-2-4. Data Acquisition Interval

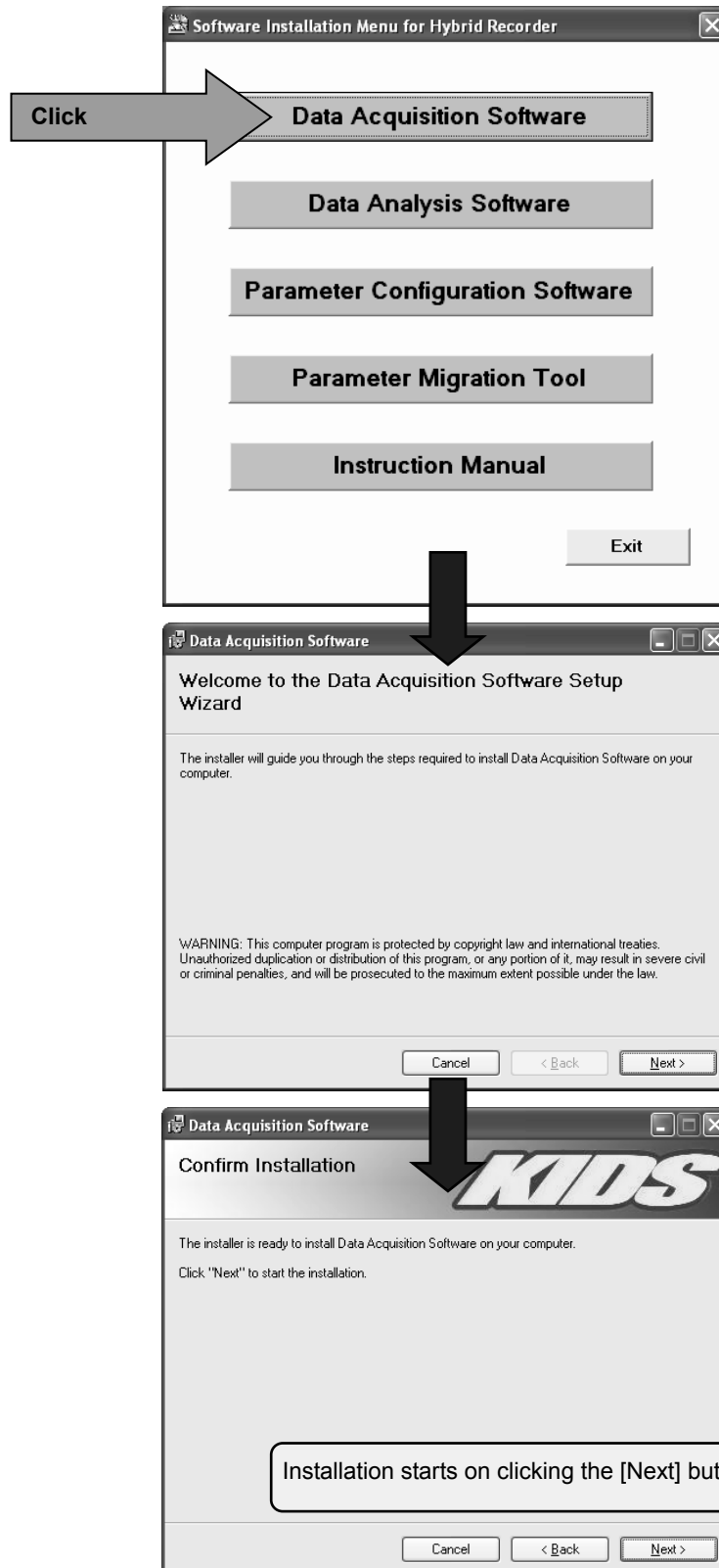
1 second to 999 minutes 59 seconds

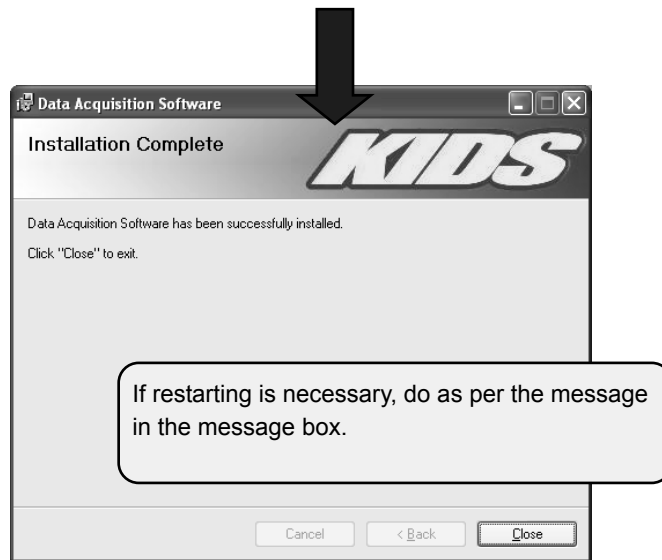
2. Installation and Uninstallation

2-1. Installing

By selecting English in the Menu window, the window shown below will appear.
Click [Data Acquisition].

- Follow the instructions in the windows shown below. -





Windows XP

To create an environment and acquire data with a limited account, disable access restriction in the following procedure.

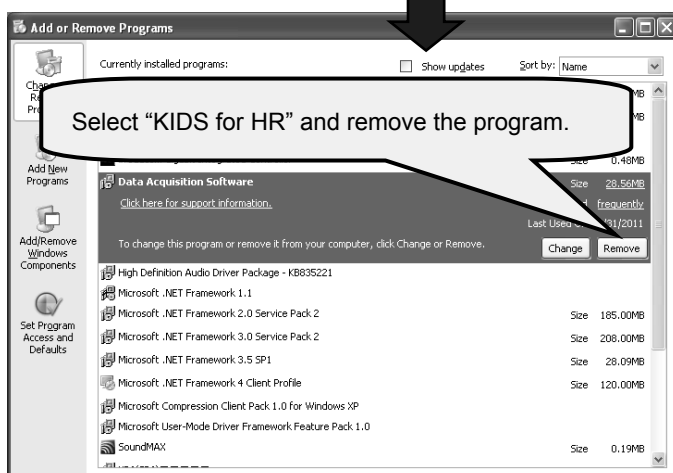
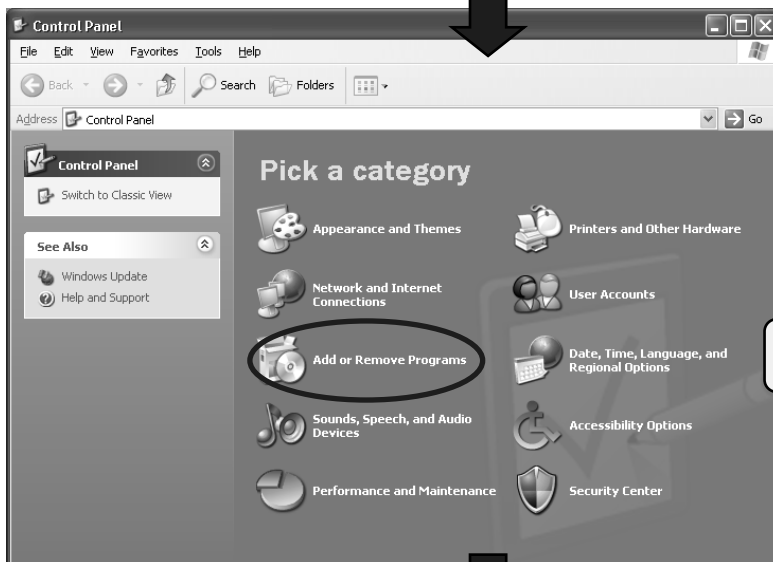
- (1) Log in with the computer administrator account.
- (2) Start the command prompt and enter the following command.

```
caccls c:\¥chino¥kidsforhr /T /G Users:F Administrators:F
```

- (3) When a message "Are you sure (Y / N)?" appears, enter "Y" to execute.

2-2. Uninstalling

Click “Control Panel” from “All Programs” from “Start” of Windows task bar.



At this point, folder related to data analysis software remains.

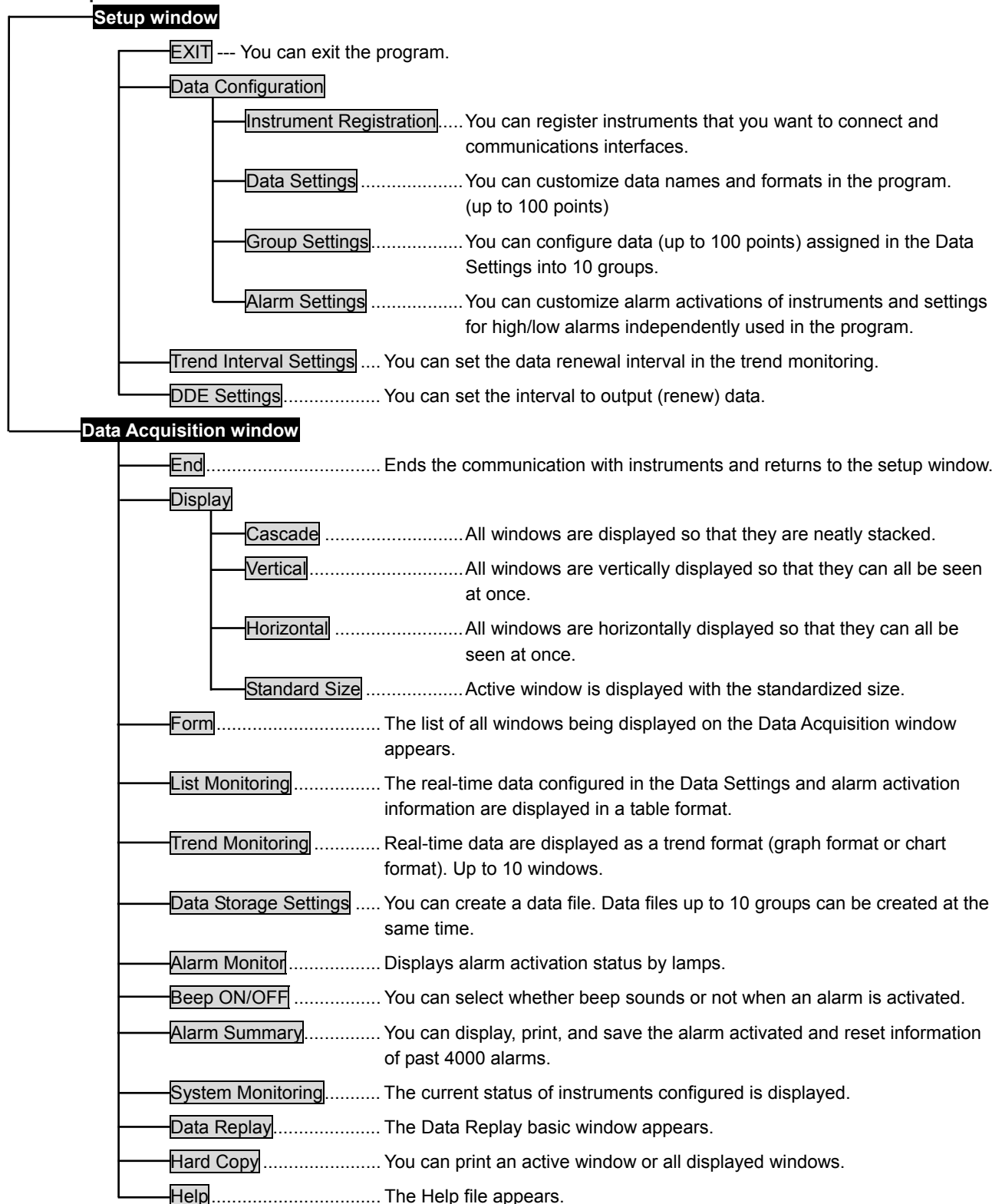
In case of deleting all, delete the “KIDS for HR” folder from explorer etc.

※ Please do not delete, when you uninstall by upgrade.

3. Operation

3-1. KIDS for HR block diagram

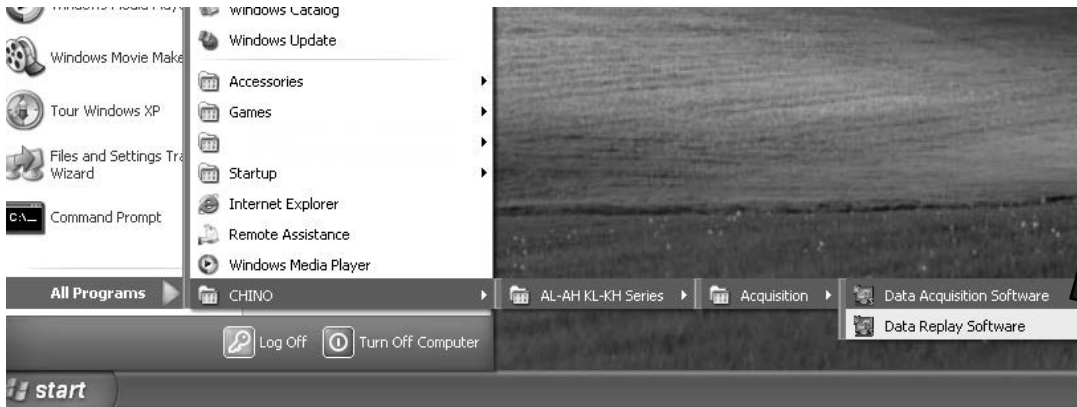
<Data acquisition>



<Data replay>	
EXIT	You can exit the program.
Display	
Cascade	All windows are displayed so that they are neatly stacked.
Vertical	All windows are vertically displayed so that they can all be seen at once.
Horizontal	All windows are horizontally displayed so that they can all be seen at once.
Standard Size	Active window is displayed with the standardized size.
Form	The list of all windows being displayed on the Data Replay basic window appears. You can select a window to make active.
Historical Data Monitoring	
File Selection	You can select files to be displayed in the Historical Data Monitoring. Multiple files can be selected.
Display Period Settings	You can specify a display period within data acquisition period.
Data Selection	You can select historical data to be displayed or not.
Print Settings	You can print data in the display period specified.
Historical Trend Monitoring	You can display historical data in a trend format (graph format or chart format). Up to 10 groups can be displayed.
File Conversion	You can convert a data file into a text or CSV format file.
Daily Report Printing	You can create a daily report from a data file.
Hard Copy	You can print an active window or all displayed windows.
Help	The Help file appears.

3-2. Starting up KIDS for HR

To start the program, click [Start] button and select [All Programs] - [CHINO] - [AL AH KL KH Sreies] - [Acquisition] - [Data Acquisition] from Windows task bar. To start Data Replay, click [Data Replay] with the same procedure.



3-3. Exiting KIDS for HR

To exit the program,

- (1) Click [EXIT] on the tool bar of the program, or
- (2) Click [X] in the right corner of the title bar.



3-4. Easy! Operation guide

1. Register instruments.
2. Start to communicate with the instruments.
3. Acquire data.

Through the above three steps, you can easily acquire data.
To display data in a graph format, proceed to 4.

4. Display data in a graph format.

1. Registration of instruments

Step 1 Start the program, and then click [Regist].



- Step 2** Select a communications type between your personal computer and the instruments.
(Select from MODBUS or ETHERNET.)

Data Configuration

Instrument Registration | Data Settings | Group Settings | Alarm Settings

MODBUS
Interface: RS232C | Bit rate: 9600bps | Port: COM1 | Trial time: 2times | Wait time: 100 msec

Ethernet
Port number: 11111 | Settings

Connected units: MODBUS 0unit | Ethernet 0unit

RegistNo.	Communications	Model	Points	Inst.Address	IP Address	Instrument Tag
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						

< For connecting to a MODBUS instrument >
Click here, and then select [MODBUS].
The model column turns yellow. Click the column.

<For connecting to an ETHERNET instrument >
Click here, and then select [Ethernet].
The model column turns yellow. Click the column.

Enter | Close | ? Operation Guide

- Step 3** The window shown below will appear. Click a tab to select an instrument to be connected, select a model number, and then click [OK].

- ※ This window is for MODBUS instruments.
- ※ The same window will appear for ETHERNET instruments.

MODBUS

AL/KL | AH/KH

①

AL4000 (100mm Hybrid Recorder) / KL4000 (100mm Hybrid Recorder)

☐ AL4706(6 points)
☒ KL4*06(6 points)

☐ AL471P(1Pen)
☐ AL472P(2Pen)
☐ AL473P(3Pen)
☐ AL474P(4Pen)
☐ KL41P(1Pen)
☐ KL42P(2Pen)
☐ KL43P(3Pen)
☐ KL44P(4Pen)

②

① Click a tab to select an instrument to be connected.
② Select a model number.
③ Click [OK].

OK ③ | Cancel

Step 4 Address settings

<MODBUS>

Defaults: Interface RS232C Bit Rate 9600bps
When you communicate with a different interface or a different bit rate, change the settings.

Data Configuration

Instrument Registration

MODBUS

Interface: RS232C Bit rate: 9600bps Port: COM1 Trial time: 2times Wait time: 100 msec

Ethernet Port number: 11111 Settings

Connected units: MODBUS 1unit Ethernet 0unit

RegistNo.	Communications	Model	Points	Inst.Address	IP Address	Instrument Tag
1	MODBUS	KL4D06	6	1		
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						

① The instrument address column turns yellow. Click it.
② The instrument address selection window will appear.
③ Click the same figure as an address of the instrument configured.
(For RS232C, select "1" only.)
④ Click [Enter].
⑤ Click [Close].

④ Enter ⑤ Close ? Operation Guide

② Instrument address

Close

Select an instrument address.

③

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	

<Ethernet>

Data Configuration

Instrument Registration | Data Settings | Group Settings | Alarm Settings

MODBUS
 Interface: RS232C | Bit rate: 9600bps | Port: COM1 | Trial time: 2times | Wait time: 100 msec

Ethernet
 Port number: 11111 | Settings

Connected units
 MODBUS 0unit | Ethernet 1unit

RegistNo.	Communications	Model	Points	InstAddress	IP Address	Instrument Tag
1	Ethernet	AL4D06	6		1	
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						

① The IP address column turns yellow. Click it.

② The IP address settings window will appear.

③ Enter an IP address, and then click [Enter].

④ Click [Enter].

⑤ Click [Close].

④ Enter | ⑤ Close | ? Operation Guide

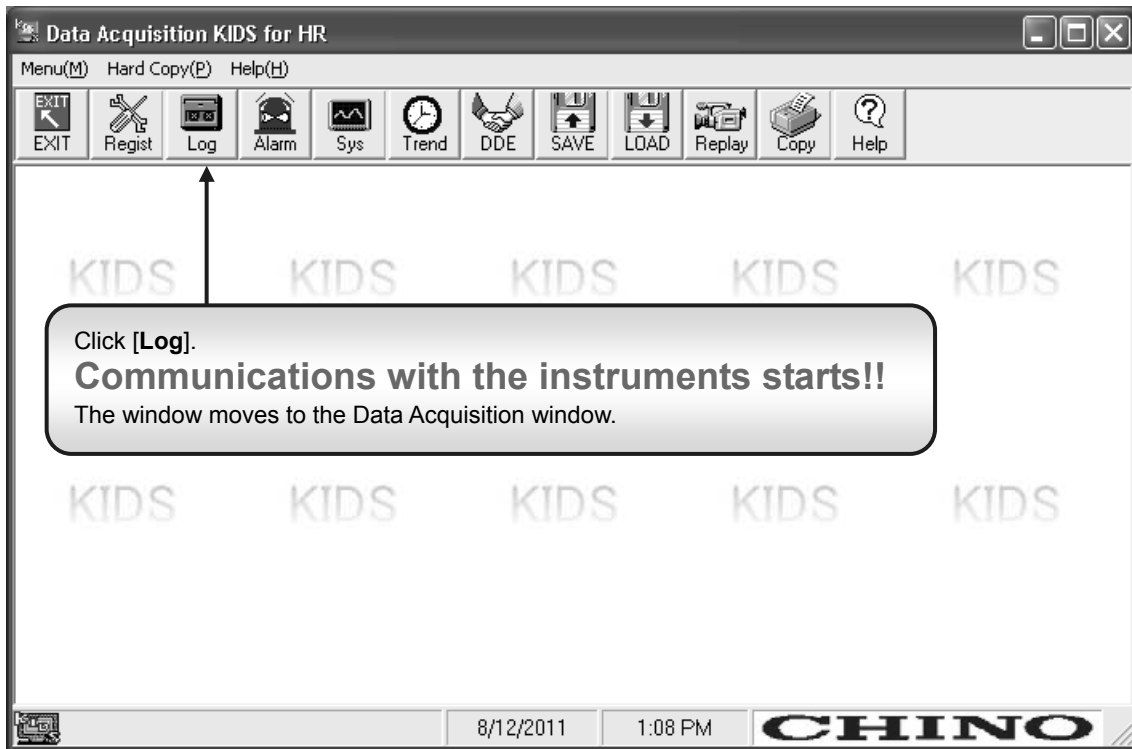
② Enter an IP address.

Enter an IP address.

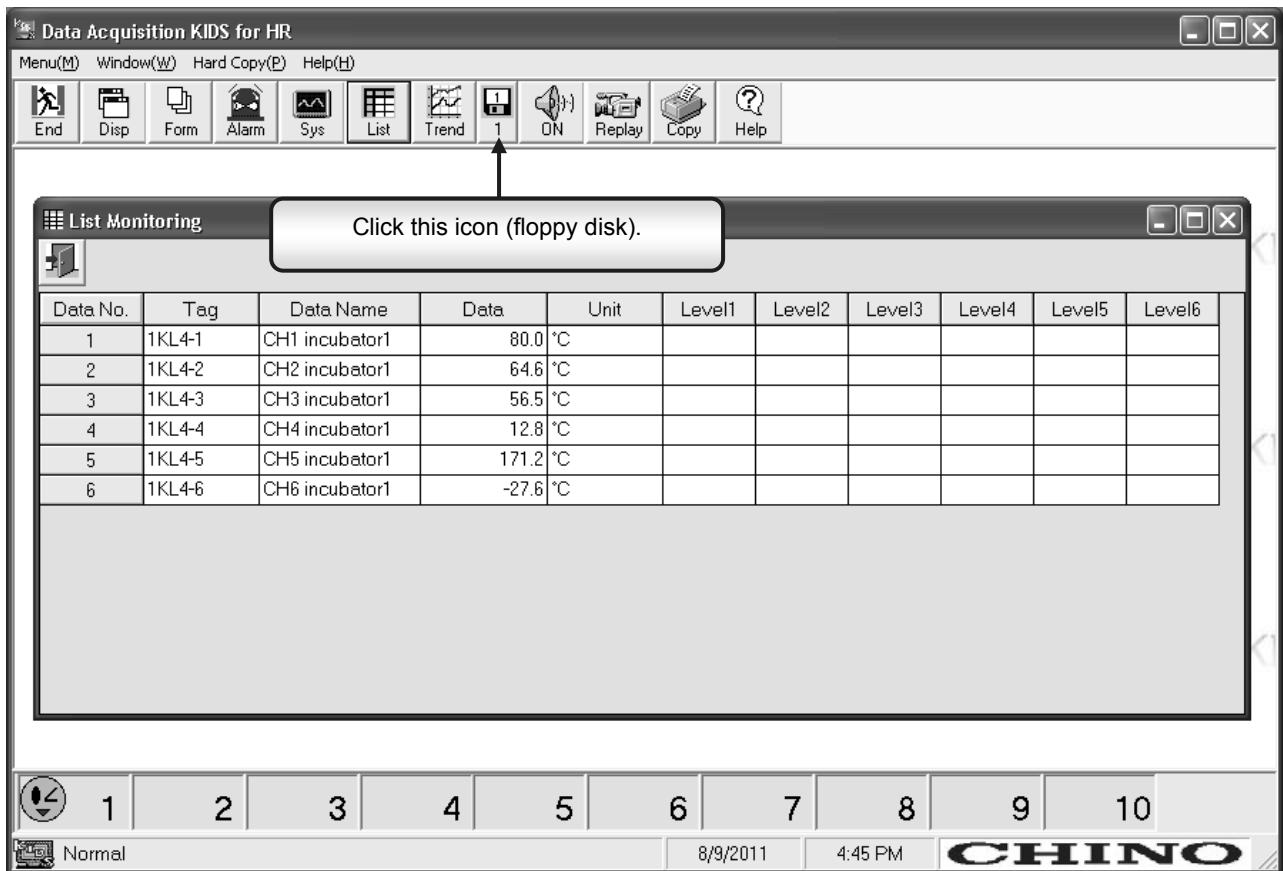
192 | 168 | 254 | 254

③ Enter | Cancel

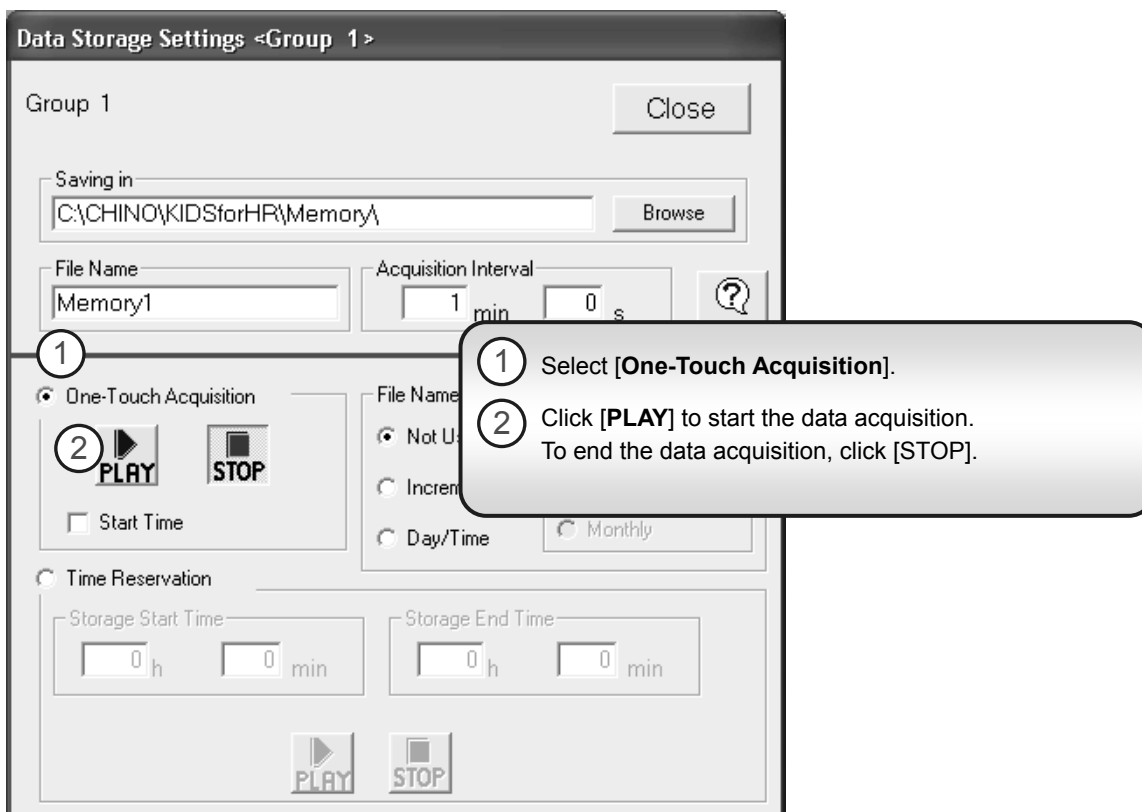
2. Starting communications with instruments



3. Data acquisition



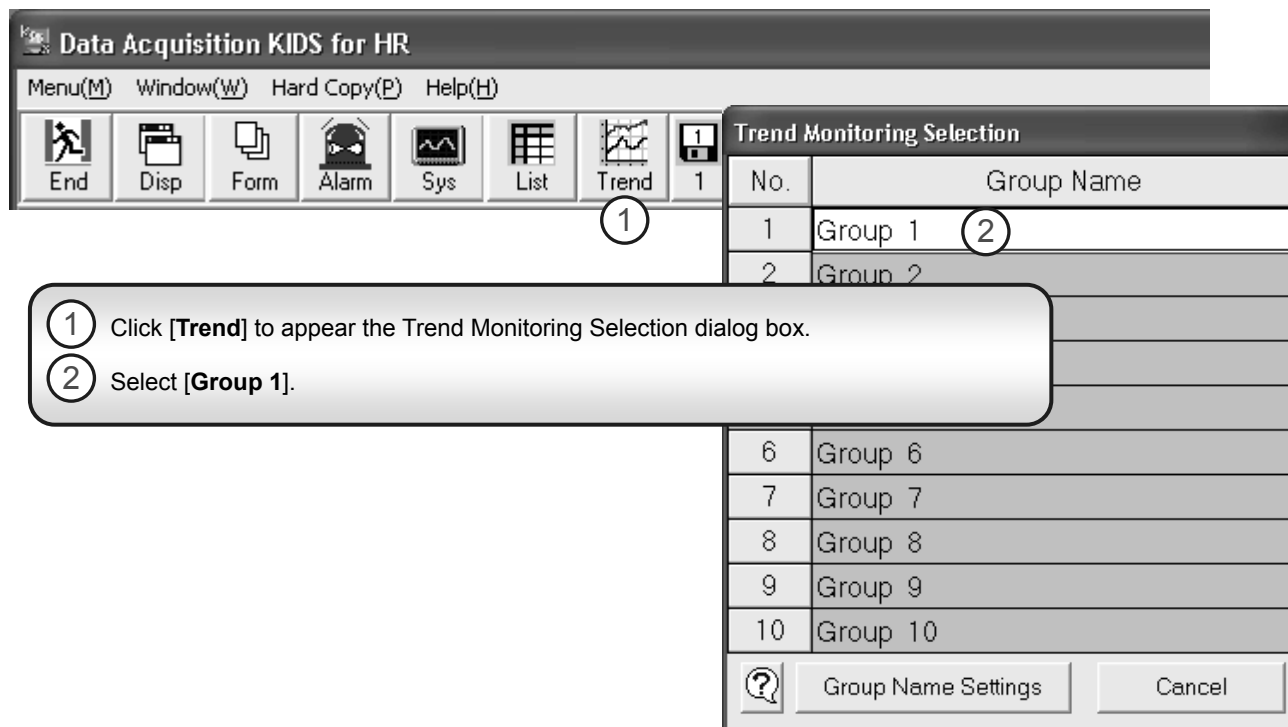
By clicking the icon (floppy disk), the window shown below will appear.



Now the data acquisition starts.

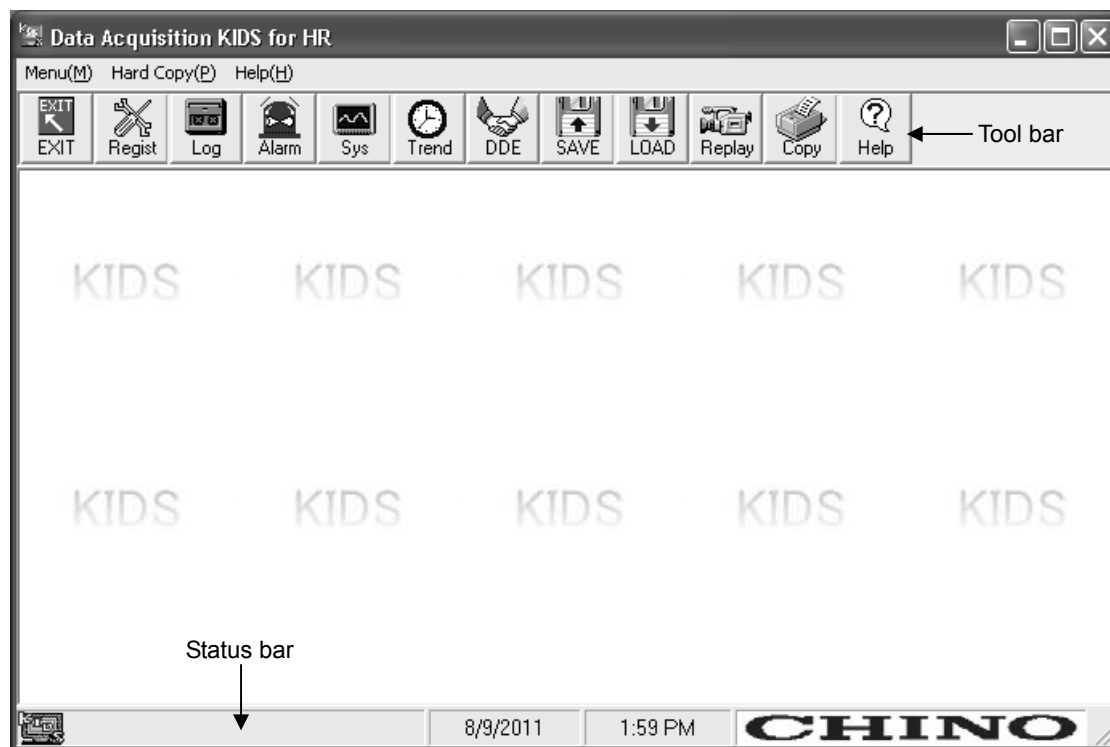
When you want to display data in a graph format, proceed to the next procedure.

4. Displaying a graph (trend graph)



4. Screen Operation

By starting the program, the setup window will appear first.



By clicking the icons on the tool bar, you can select a function.

	Exits the program.
	The Data Configuration dialog box will appear.
	The Data Acquisition window will appear and the communications with instruments will start.
	The Alarm Summary will appear.
	The System Monitor will appear.
	Sets the data renewal interval in the trend monitoring.
	DDE Settings will appear.
	The setting contents of KIDS for HR are saved. (Export of a KIDS for HR setting values)
	The setting contents of KIDS for HR are read. (Import of a KIDS for HR setting values)
	The basic window for replay software will appear with maximized size.
	Prints an active window or all displayed windows.
	The Help file will appear.

5. Settings

5-1. Data Configuration

5-1-1. Instrument Registration

Set the communications between your personal computer and instruments.

Set an instrument address or an IP address not to overlap each other.

RegistNo.	Communications	Model	Points	Inst Address	IP Address	Instrument Tag
1	MODBUS	KL4D06	6	1		incubator1
2	Ethernet	AL4D06	6		192.168.254.254	incubator2
3	Ethernet	AH4D24	24		192.168.254.250	incubator3
4						
5						
6						
7						
8						
9						
10						
11						

Up to 20 alphanumeric characters can be

5-1-2. Data Settings

Data are automatically assigned, but you can assign them manually.

Data No.	Model	Channel	Tag	Data Name	Format	Min Value	Max Value	Unit
1	KL4D06	1	1KL4-1	CH1 incubator1	####.#	0.0	1000.0	°C
2	KL4D06	2	1KL4-2	CH2 incubator1	####.#	0.0	1000.0	°C
				CH3 incubator1	####.#	0.0	1000.0	°C
				CH4 incubator1	####.#	0.0	1000.0	°C
				CH5 incubator1	####.#	0.0	1000.0	°C
				CH6 incubator1	####.#	0.0	1000.0	°C
7	AL4D06	1	2AL4-1	CH1 incubator2	####.#	0.0	1000.0	°C
8	AL4D06	2	2AL4-2	CH2 incubator2	####.#	0.0	1000.0	°C
9	AL4D06	3	2AL4-3	CH3 incubator2	####.#	0.0	1000.0	°C
10	AL4D06	4	2AL4-4	CH4 incubator2	####.#	0.0	1000.0	°C
11	AL4D06	5	2AL4-5	CH5 incubator2	####.#	0.0	1000.0	°C
12	AL4D06	6	2AL4-6	CH6 incubator2	####.#	0.0	1000.0	°C
13	AH4D24	1	3AH4-1	CH1 incubator3	####.#	0.0	1000.0	°C
14	AH4D24	2	3AH4-2	CH2 incubator3	####.#	0.0	1000.0	°C
15	AH4D24	3	3AH4-3	CH3 incubator3	####.#	0.0	1000.0	°C

5-1-3. Group Settings

- Configure Data Nos. assigned in the Data Settings into a group. (Overlapping configuration enable)
- You can configure up to 10 groups (up to 100 points/group).
- Data of each group set here are stored into memory with the settings in Data Storage Settings.

ON: All Data Nos. are checked in the group specified.
OFF: All Data Nos. are unchecked in the group selected.

Check all

1	2	3	4	5	6	7	8	9	10
ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

Data No.	Tag	Data Name	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9
1	1KL4-1	CH1 incubator1	☒	☐	☐	☐	☐	☐	☒	☐	☐
2	1KL4-2	CH2 incubator1	☒	☒	☐	☐	☐	☐	☐	☐	☐
3	1KL4-3	CH3 incubator1	☒	☐	☐	☐	☒	☐	☒	☐	☒
4	1KL4-4	CH4 incubator1	☒	☐	☐	☒	☐	☒	☐	☐	☐
5	1KL4-5	CH5 incubator1	☒	☒	☒	☐	☐	☐	☐	☒	☐
6	1KL4-6	CH6 incubator1	☒	☐	☐	☒	☐	☐	☐	☐	☐
7	2AL4-1	CH1 incubator2	☒	☐	☐	☐	☐	☐	☐	☐	☐
8	2AL4-2	CH2 incubator2	☒	☒	☐	☐	☒	☒	☒	☐	☐
9	2AL4-3	CH3 incubator2	☒	☐	☐	☐	☐	☐	☐	☐	☒
10	2AL4-4	CH4 incubator2	☒	☐	☐	☐	☐	☐	☐	☐	☐
11	2AL4-5	CH5 incubator2	☒	☐	☐	☐	☐	☐	☐	☐	☐
12	2AL4-6	CH6 incubator2	☒	☐	☐	☐	☐	☐	☐	☐	☒

Click here to check or uncheck.

Enter Close ? Operation Guide

5-1-4. Alarm Settings

Configure the alarm levels 1 to 4 of instruments if their alarm activations will be reflected to the groups or not. The levels 5 and 6 are alarm information independently used in the program. The level 5 is a high limit value and the level 6 is a low limit value.

Check all

1	2	3	4
ON	ON	ON	ON
OFF	OFF	OFF	OFF

When you want to use these levels of 5 and 6, enter an alarm limit value.

Data No.	Tag	Data Name	Level1	Level2	Level3	Level4	Level5 High limit value	Level6 Low limit value	Unit
1	1KL4-1	CH1 incubator1	☒	☒	☒	☒		-10.0	°C
2	1KL4-2	CH2 incubator1	☒	☒	☒	☒	100.0		°C
3	1KL4-3	CH3 incubator1	☒	☒	☒	☒			°C
4	1KL4-4	CH4 incubator1	☒	☒	☒	☒			°C
5	1KL4-5	CH5 incubator1	☒	☒	☒	☒			°C
6	1KL4-6	CH6 incubator1	☒	☒	☒	☒			°C
7	2AL4-1	CH1 incubator2	☒	☒	☒	☒			°C
8	2AL4-2	CH2 incubator2	☒	☒	☒	☒			°C
9	2AL4-3	CH3 incubator2	☒	☒	☒	☒			°C
10	2AL4-4	CH4 incubator2	☒	☒	☒	☒			°C
11	2AL4-5	CH5 incubator2	☒	☒	☒	☒			°C
12	2AL4-6	CH6 incubator2	☒	☒	☒	☒			°C

Enter Close ? Operation Guide

5-2. Trend Interval Settings

Enter a data renewal interval (from 1 second to 99 minutes 59 seconds) in the trend monitoring. (Default: 5 seconds)

5-3. DDE Settings

※ DDE function

- A Windows function to transfer data to other applications
- By using the DDE function, you can acquire real-time data with other applications and process them.
- The KIDS for HR becomes a server. For acquiring data, the following definitions are required.

Application name	KIDS
Item	DDE
Topic	DATA1 to DATA100

<Example of description>

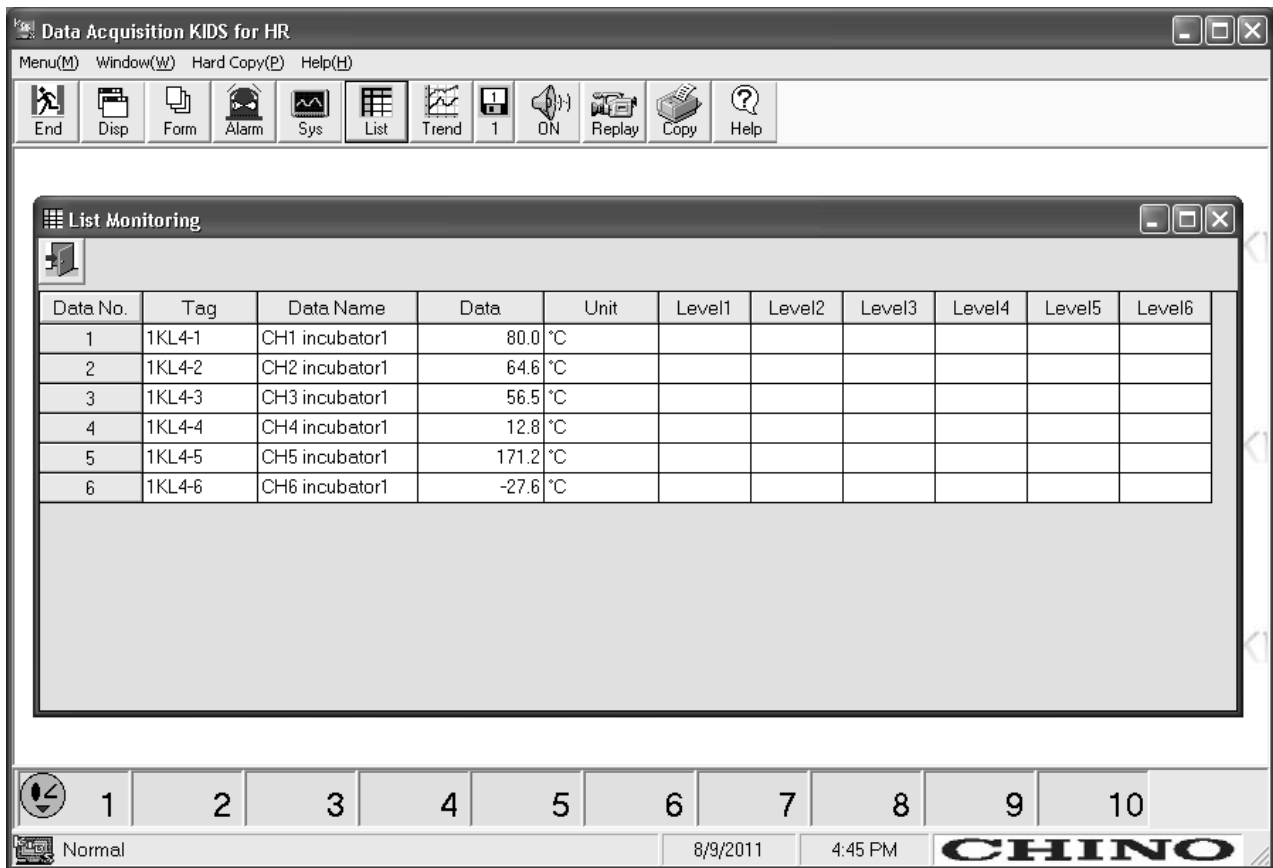
Definition example to display data in Data No. 1 at a cell of Excel

=KIDS|DDE!DATA1

※ If a faster data transmission interval (1 second to several seconds) is set, a burden imposed on an application utilizing becomes heavy and it may cause obstruction to the operation of application. You are required not to set the interval faster than needs.

6. Data Acquisition

6-1. Data Acquisition Home window



By clicking the icons on the tool bar, you can select a function.

	Ends the communication with instruments and the data acquisition, and moves to the setup window.
	Rearranges all windows being displayed on this window.
	The list of all windows being displayed on this window will appear.
	The real-time data will be displayed in a table format.
	Displays data in a trend format. Up to 10 groups can be displayed.
	Data Storage Settings window (max. 10 groups) will appear. No window appears if any group is not configured.
	Waiting storage --- Black (upper)
	In storage--- Green (middle)
	Error --- Red (lower) × Data are not stored in this error condition.
	ON --- Makes a beep sound when an alarm is activated. (upper)
	OFF --- Does not make a beep sound. (lower)

× The other icons are the same as specified in the setup window.

6-2. List monitoring

This window displays real-time data and alarm generation information of instruments.

List Monitoring										
Data No.	Tag	Data Name	Data	Unit	Level1	Level2	Level3	Level4	Level5	Level6
1	1KL4-1	CH1 incubator1	80.0	°C						
2	1KL4-2	CH2 incubator1	112.4	°C	H				H	
3	1KL4-3	CH3 incubator1	56.5	°C						
4	1KL4-4	CH4 incubator1	12.8	°C						
5	1KL4-5	CH5 incubator1	171.2	°C						
6	1KL4-6	CH6 incubator1	-27.6	°C						

Level 5 to 6: Alarm information judged by the program is displayed.

Level 1 to 4: Alarm information activated in instruments is displayed.

6-3. System monitoring

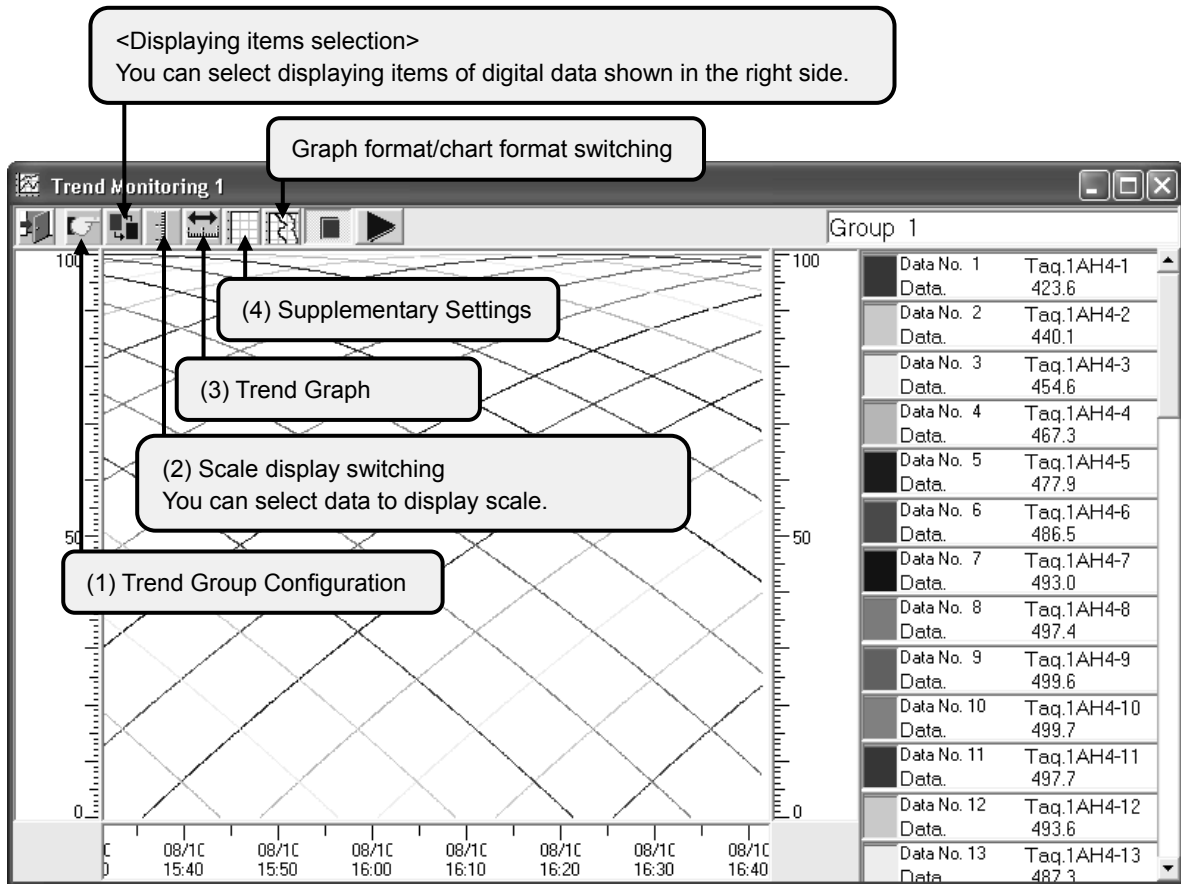
The current status of instruments configured will be displayed.

When an alarm is being activated or communications is abnormal, the background of its instrument will blink in red.

System Monitoring				
Connected units MODBUS 1unit Ethernet 1unit				
RegistNo		Status	Name	Instrument Tag
1		Alarm Activated	KL4D06	incubator1
2		Communications error!!!	AL4D06	incubator2

6-4. Trend monitoring (Graph format)

Up to 10 trend monitoring windows are available.



(1) Trend Group Configuration

You can configure data to be displayed or not in the graph being displayed.

By entering a Data No., you can add a Data No. to display.

The minimum / maximum scale configured in the Data Settings will be displayed as an initial value.

You can select data to be displayed or not.

You can select a tracing color.

The screenshot shows the 'Trend Group Configuration' dialog box. It contains a table with columns: No., Display, Data No., Item, Color, Data Name, Min. Scales, and Max. Scales. The table lists 20 items, each with a 'Data No.' and a 'Data' value. The 'Display' column has a checkbox for each item, and the 'Color' column has a color selection button. The 'Min. Scales' and 'Max. Scales' columns show values of 0.0 and 1000.0 respectively. The dialog box also has a 'Group' dropdown, a '?' button, and 'Enter' and 'Cancel' buttons.

No.	Display	Data No.	Item	Color	Data Name	Min. Scales	Max. Scales
1	@	1	Data		CH1 incubator1	0.0	1000.0
2	@	2	Data		CH2 incubator1	0.0	1000.0
3							
4							
5					CH5 incubator1	0.0	1000.0
6	@	6	Data		CH6 incubator1	0.0	1000.0
7	@	7	Data		CH7 incubator1	0.0	1000.0
8	@	8	Data		CH8 incubator1	0.0	1000.0
9	@	9	Data		CH9 incubator1	0.0	1000.0
10	@	10	Data		CH10 incubator1	0.0	1000.0
11	@	11	Data		CH11 incubator1	0.0	1000.0
12	@	12	Data		CH12 incubator1	0.0	1000.0
13	@	13	Data		CH13 incubator1	0.0	1000.0
14	@	14	Data		CH14 incubator1	0.0	1000.0
15	@	15	Data		CH15 incubator1	0.0	1000.0
16	@	16	Data		CH16 incubator1	0.0	1000.0
17	@	17	Data		CH17 incubator1	0.0	1000.0
18	@	18	Data		CH18 incubator1	0.0	1000.0
19	@	19	Data		CH19 incubator1	0.0	1000.0
20	@	20	Data		CH20 incubator1	0.0	1000.0

(2) Trend Scale Settings

You can independently select two scales placed in left and right sides of the graph being displayed.

Scale Settings

Data No.	Color	Left	Right
1			
2		@	
3			
4			@
5			
6			
7			
8			
9			
10			
11			

0 - 100%

Enter

Cancel

Select a Data No. of which range (or scale) is used as the scale in left / right side of the graph.

(3) Graph Settings

You can select the scroll system or the fixed time system of the graph format.

Graph Settings

☒ Scroll system

Graph Interval: 0 min 5 s

Initialization

☐ Fixed time system

Hour Interval: 2 hours

Day

Week

Month

Trend interval: 0 min 5 s

Enter

Cancel

Scroll system

The graph shows time in the X-axis, and the graph area scrolls horizontally.

Fixed time system

The graph shows time in the X-axis and plots in the graph area with a fixed-time range.

(4) Supplementary Settings

You can configure adding lines and a graph background color.

※ For the fixed time system, you cannot set the parameters for the time axis.

Supplementary Settings

Time Axis

Scale Mark Interval: Every 60-dot

Date/Time Display Interval: 2 scale mark

Standard Configurations

Adding Line

None Grid ☒ Ruled

Scale Axis Division

2 4 5 10

Color

Graph Background

Scale

Scale Background

Adding Line

Standard Colors

Trend Display Type

Dot ☒ Line

Enter

Cancel

Select a scale interval of the time axis (X-axis).

Select a form of adding lines.

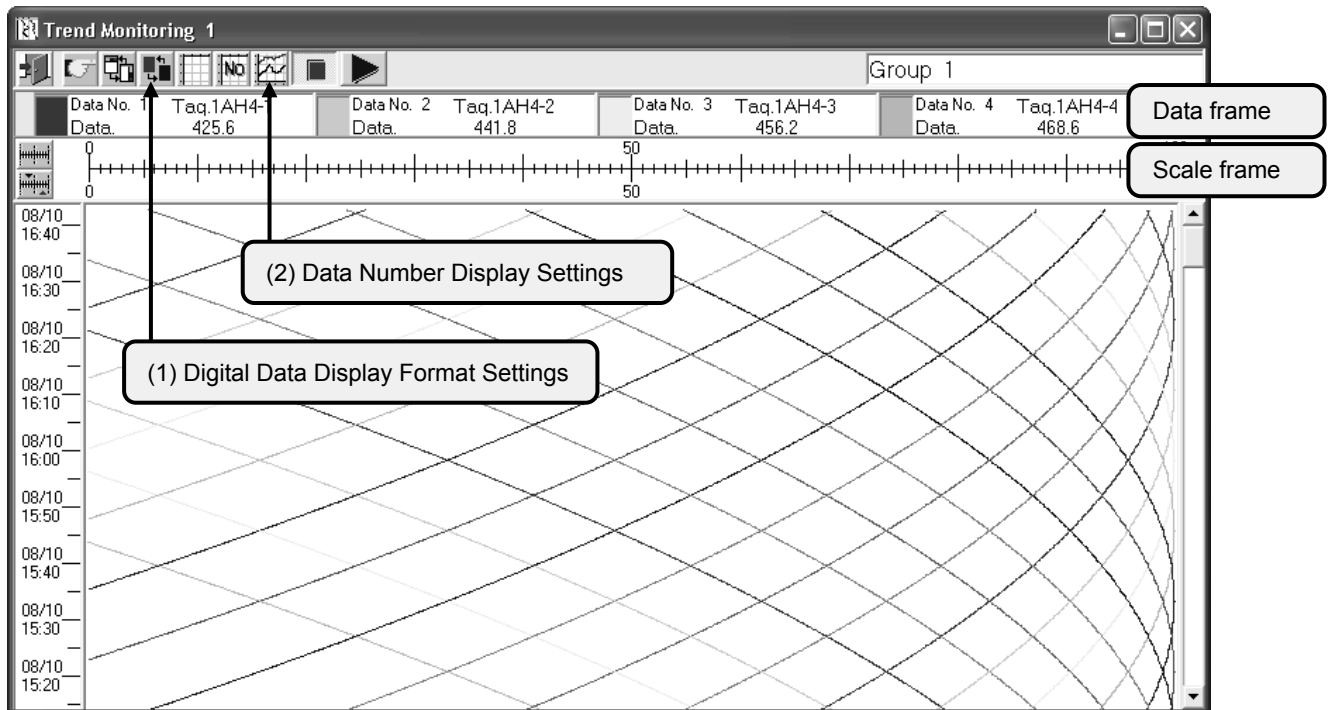
Select a color of the graph.

Select a trend display type.

In the scale axis (Y-axis), adding lines equally divided by the divisions selected will be shown.

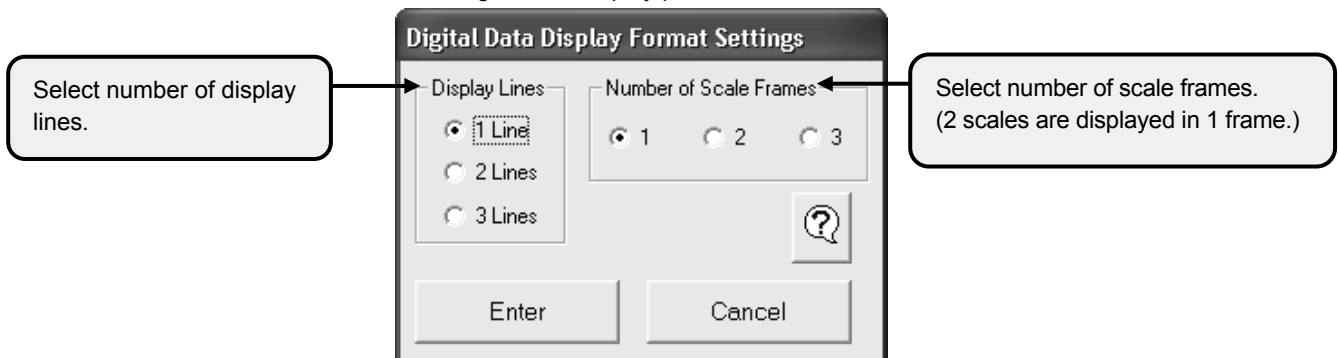
6-5. Trend monitoring (Chart Format)

Up to 10 trend monitoring windows are available.

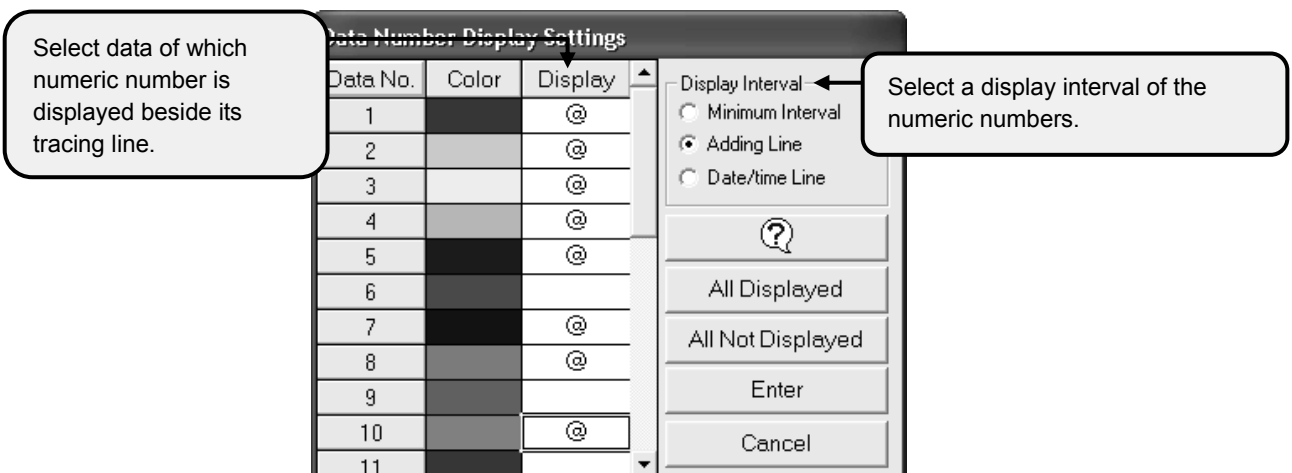


(1) Digital Data Display Format Settings

You can select number of lines for the digital data display position and number of scale frames.



(2) Data Number Display Settings



6-6. Data Storage Settings

Configures the acquisition settings and starts/ends the data acquisition.
The extension of a memory file is "mbm".

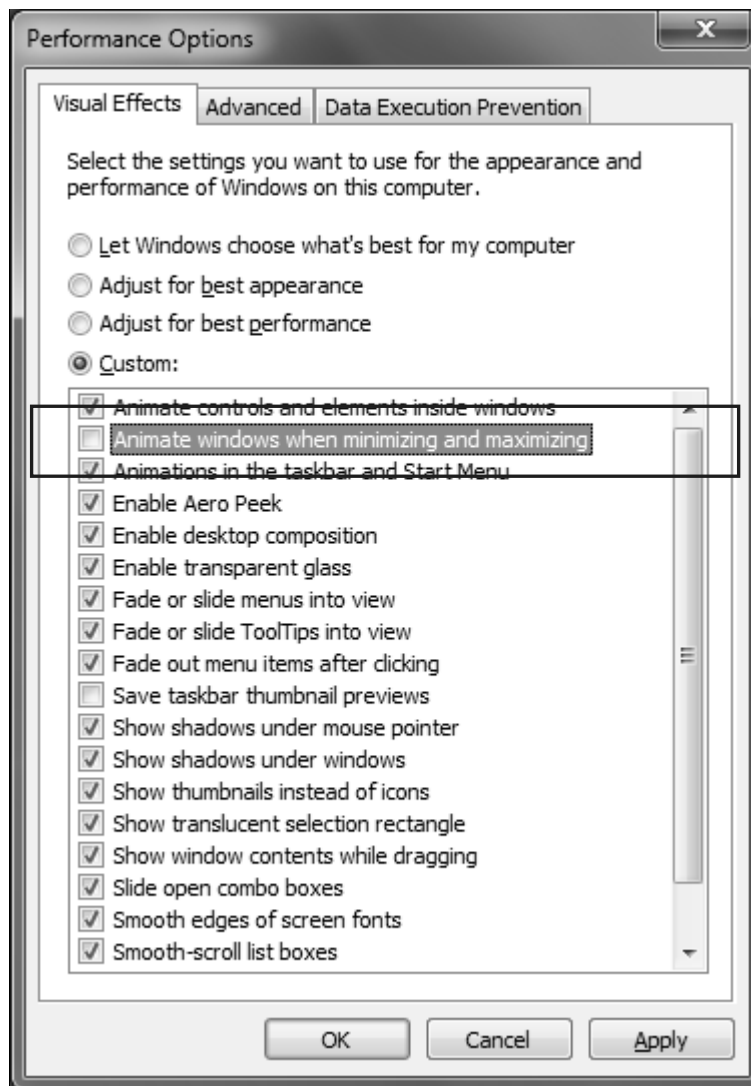
The screenshot shows the 'Data Storage Settings <Group 1>' dialog box. It includes fields for 'Saving in' (C:\CHINO\KIDSforHR\Memory\), 'File Name' (Memory1), and 'Acquisition Interval' (1 min 0 s). There are two main acquisition modes: 'One-Touch Acquisition' and 'Time Reservation'. 'One-Touch Acquisition' has 'PLAY' and 'STOP' buttons and a 'Start Time' checkbox. 'Time Reservation' has 'Storage Start Time' and 'Storage End Time' fields, and also 'PLAY' and 'STOP' buttons. A 'File Name Auto Renewal' section offers 'Not Used', 'Increment', and 'Day/Time' options. Callouts provide instructions: 'Specify a saving location of a file.' points to the 'Saving in' field; 'Type a file name. (Up to 16 characters)' points to the 'File Name' field; 'Configure an acquisition interval.' points to the 'Acquisition Interval' field; 'Select [One-Touch Acquisition] or [Time Reservation].' points to the mode selection radio buttons; 'By clicking the **PLAY** button in [One-Touch Acquisition], the data acquisition will start. You can start at the time specified. Click the **STOP** button to end the data acquisition.' points to the 'PLAY' button in the One-Touch section; and 'By clicking the **PLAY** button in [Time Reservation], the data acquisition will start at the start time specified and ends at the end time specified. Click the **STOP** button to cancel the data acquisition.' points to the 'PLAY' button in the Time Reservation section.

File Name Auto Renewal -----A file is made automatically in every renewal timing.

Not used		File isn't made automatically.
Increment		Consecutive numbers (001 - 999) are added after file name.
Day/Time		Date is added after file name.
Renewal timing	Daily	File is renewed in every day.
	Weekly	File is renewed in every seven days.
	Monthly	File is renewed in every month.

In case of Time Reservation, Renewal timing is only a Daily.

6-7. Printing



6-8. Alarm summary

- Alarms activated and reset (or recovering information) are displayed in a list. Starting and ending of the program are also displayed. You can enter a comment.
- When an alarm is newly activated or reset, this new alarm data will be automatically added to a new row.
- Up to 4000 rows can be displayed and, when data exceeds 4000 rows, the displayed data will be deleted from the oldest one.
- You can sequentially sort items. When you are sorting, you cannot edit a comment and a new alarm data will not be added.

You can store the Alarm Summary into a csv or Text format file.

Print settings

You can delete rows selected by a mouse.

You can sort data here.

You can delete all rows.

Printing

Print preview

	Time	Data No.	Data Name	Alarm Type	Data	Comment
1	08/09/2011 13:08:58			KIDS for HR Start		
2	08/09/2011		1KL4-1	Level1 Alarm Activated	"H" D.OVER	
3	08/09/2011			KIDS for HR Exit		
4	08/09/2011			KIDS for HR Start		
5	08/09/2011		1KL4-1	Level1 Alarm Activated	"H" D.OVER	
6	08/09/2011		1KL4-1	Level1 Alarm Activated	"H" D.OVER	
7	08/09/2011		1KL4-1	Level1 Alarm Reset	D.OVER	
8	08/09/2011 15:14:56			KIDS for HR Exit		
9	08/09/2011 15:31:28			KIDS for HR Start		
10	08/09/2011 15:51:37	2	1KL4-2	CH2 incubator1	Level5 Alarm Activated	"H" 112.0
11	08/09/2011 15:56:32			KIDS for HR Exit		
12	08/09/2011 16:04:21			KIDS for HR Start		
13	08/09/2011 16:04:45	2	1KL4-2	CH2 incubator1	Level1 Alarm Activated	"H" 112.0
14	08/09/2011 16:04:45	2	1KL4-2	CH2 incubator1	Level5 Alarm Activated	"H" 112.0
15	08/09/2011 16:05:05			KIDS for HR Exit		
16	08/09/2011 16:11:59			KIDS for HR Start		
17	08/09/2011 16:12:13	2	1KL4-2	CH2 incubator1	Level1 Alarm Activated	"H" 112.0
18	08/09/2011 16:12:13	2	1KL4-2	CH2 incubator1	Level5 Alarm Activated	"H" 112.0
19	08/09/2011 16:13:31			KIDS for HR Exit		
20	08/09/2011 16:26:12			KIDS for HR Start		
21	08/09/2011 16:27:41			KIDS for HR Exit		

6-9. Alarm monitor

The alarm status of Data No. is configured in each group will be displayed by lamps.

When an alarm of a Data No. is activated, an alarm lamp will blink and continue blinking until you confirm by clicking it.

If no Data No. is configured in a group, the lamp for this group is not displayed.

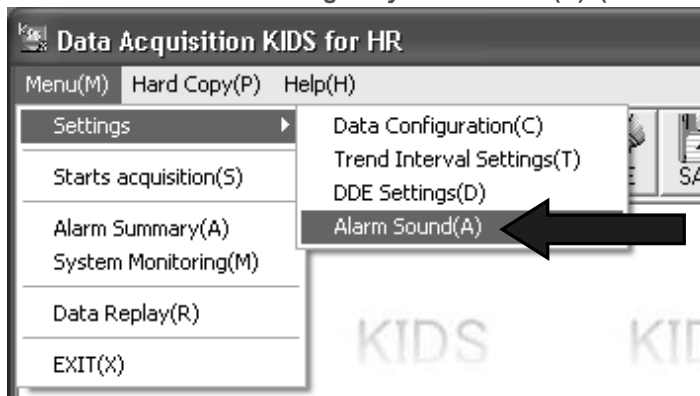


--- [Normal] An alarm is not activated.



--- An alarm is activated or communications is abnormal.

※ Alarm sound can be changed by Alarm sound(A). (*.WAV format)



6-10. Alarm pop-up window

You can display last 10 alarms activated in each group.

(Alarms reset will not be displayed. Confirm them in the Alarm Summary.)

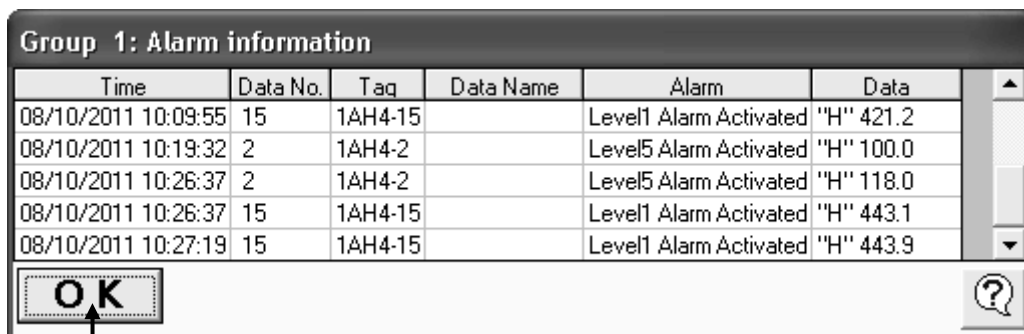
When data exceeds 10 alarms, the displayed data will be deleted from the oldest one.

<How to display>

When a lamp is blinking, the pop-up window will appear by moving a mouse to it.

When a lamp is lit, the pop-up window will appear by clicking it.

※ Multiple pop-up windows will not appear simultaneously. Click OK button to close the pop-up window opened, and then open the pop-up window of other group.

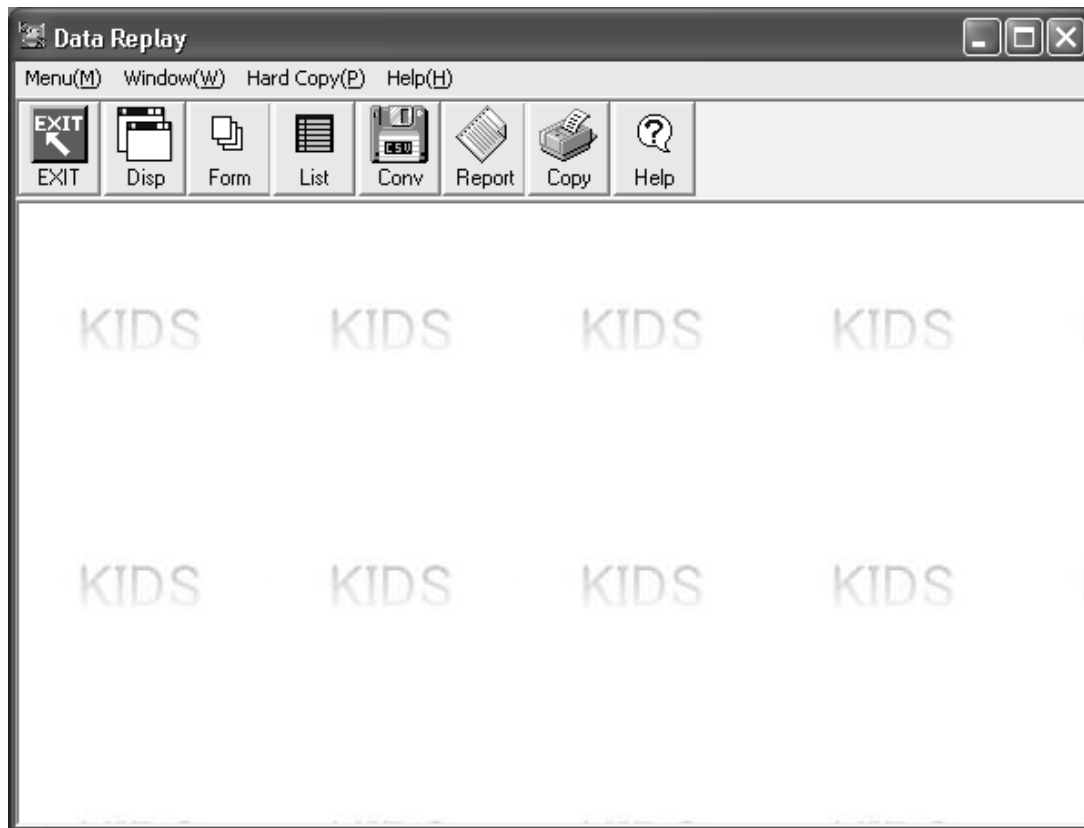


The window will close.

7. Data Replay

Configures the acquisition settings and starts/ends the data acquisition.

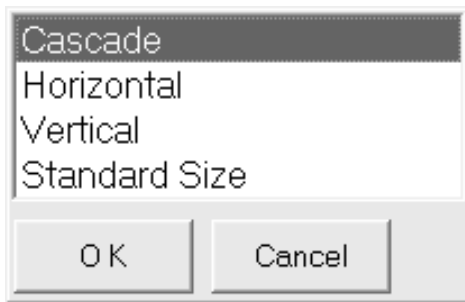
7-1. Data Replay basic window



	Exits the program.
	Rearranges all windows being displayed on this window.
	The list of all windows being displayed on this window will appear.
	The Historical Data Monitoring window will appear.
	The File Conversion window will appear.
	The Daily Report Printing window will appear.
	Prints an active window or all displayed windows.
	The Help file will appear.

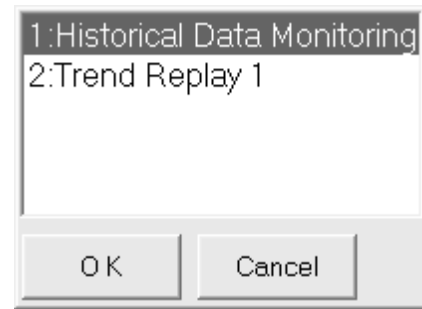
7-2. Display

You can rearrange all windows being displayed on this basic window.



7-3. Form

You can display all windows being displayed on this basic window as a list and select a window to make active.



7-4. Historical Data Monitoring

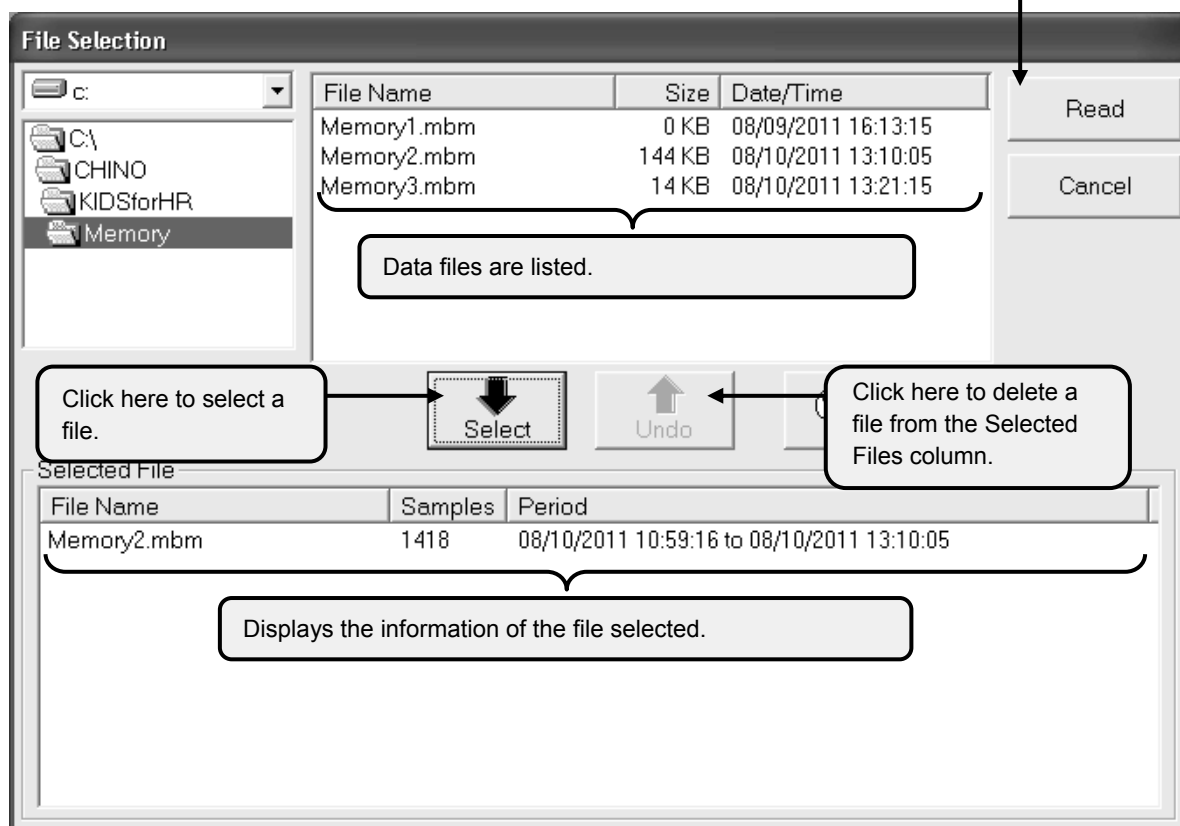
You can read a file storing data acquired in the Data Acquisition, and can display the historical data stored in the file in a table format.

Historical Data Monitoring							
Memory2.mbm		▼	Data Stored 24	Display Period 08/10/2011 10:59:16 to 08/10/2011 13:10:05			
	Data Time	1AH4-1	1AH4-2	1AH4-3	1AH4-4	1AH4-5	1AH4-6
1	08/10/11 10:59:16	168.6	199.0	228.6	257.2	284.7	310.9
2	08/10/11 10:59:20	168.7	199.1	228.7	257.2	284.7	311.0
3	08/10/11 10:59:25	168.9	199.3	228.9	257.5	284.9	311.2
4	08/10/11 10:59:30	169.1	199.5	229.0	257.6	285.1	311.3
5	08/10/11 10:59:35	169.3	199.7	229.3	257.8	285.3	311.5
6	08/10/11 10:59:40	169.5	199.9	229.4	258.0	285.5	311.7
7	08/10/11 10:59:45	169.7	200.1	229.7	258.2	285.7	311.9
8	08/10/11 10:59:50	169.9	200.3	229.8	258.4	285.8	312.0
9	08/10/11 10:59:55	170.1	200.5	230.0	258.6	286.0	312.2
10	08/10/11 11:00:00	170.3	200.7	230.2	258.7	286.2	312.4
11	08/10/11 11:00:05	170.6	200.9	230.4	259.0	286.4	312.6
12	08/10/11 11:00:10	170.7	201.1	230.6	259.1	286.5	312.7
13	08/10/11 11:00:15	171.0	201.3	230.8	259.3	286.7	312.9

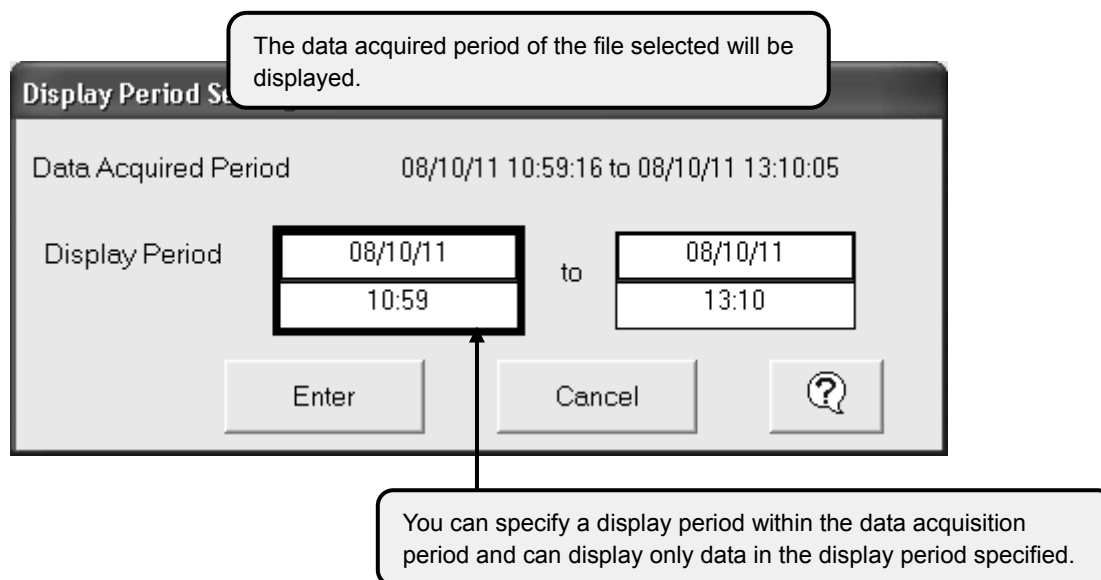
		Quits the historical data monitoring.
		The Historical Data Monitoring window with maximized size will appear.
7-4-1		The File Selection dialog box will appear.
7-4-2		The Display Period Settings dialog box will appear.
7-4-3		The Historical Data Selection dialog box will appear.
7-4-4		The Print Settings dialog box will appear.
7-5		The Historical Trend Selection dialog box will appear. Up to 10 windows are selectable (Up to 5 windows can be displayed simultaneously.)
7-7		The File Conversion window will appear.

7-4-1. File Selection

Multiple files can be read as a sequential file. By clicking Read after files are selected, the historical data stored in the files will be read.



7-4-2. Display Period Settings



7-4-3. Data selection

You can select historical data to be displayed or not.

- for displaying
- Blank for not displaying

Data Selection

	Display	Data No.	Tag
1	●	1	1AH4-1
2	●	2	1AH4-2
3	●	3	1AH4-3
4	●	4	1AH4-4
5	●	5	1AH4-5
6	●	6	1AH4-6
7	●	7	1AH4-7
8	●	8	1AH4-8
9	●	9	1AH4-9
10	●	10	1AH4-10
11	●	11	1AH4-11
12	●	12	1AH4-12
13	●	13	1AH4-13
14	●	14	1AH4-14
15	●	15	1AH4-15
16	●	16	1AH4-16
17	●	17	1AH4-17
18	●	18	1AH4-18
19	●	19	1AH4-19
20	●	20	1AH4-20
21	●	21	1AH4-21

Buttons: ? (Help), Display All, Not Display All, Enter, Cancel

7-4-4. Print Settings

You can specify a print range (period) within the display period specified and can print data in the print period specified.

Print Settings

Print Range

Display 08/10/11 10:59:16 to 08/10/11 13:10:00

Print Period to

Print Interval Setting

☐ Print All

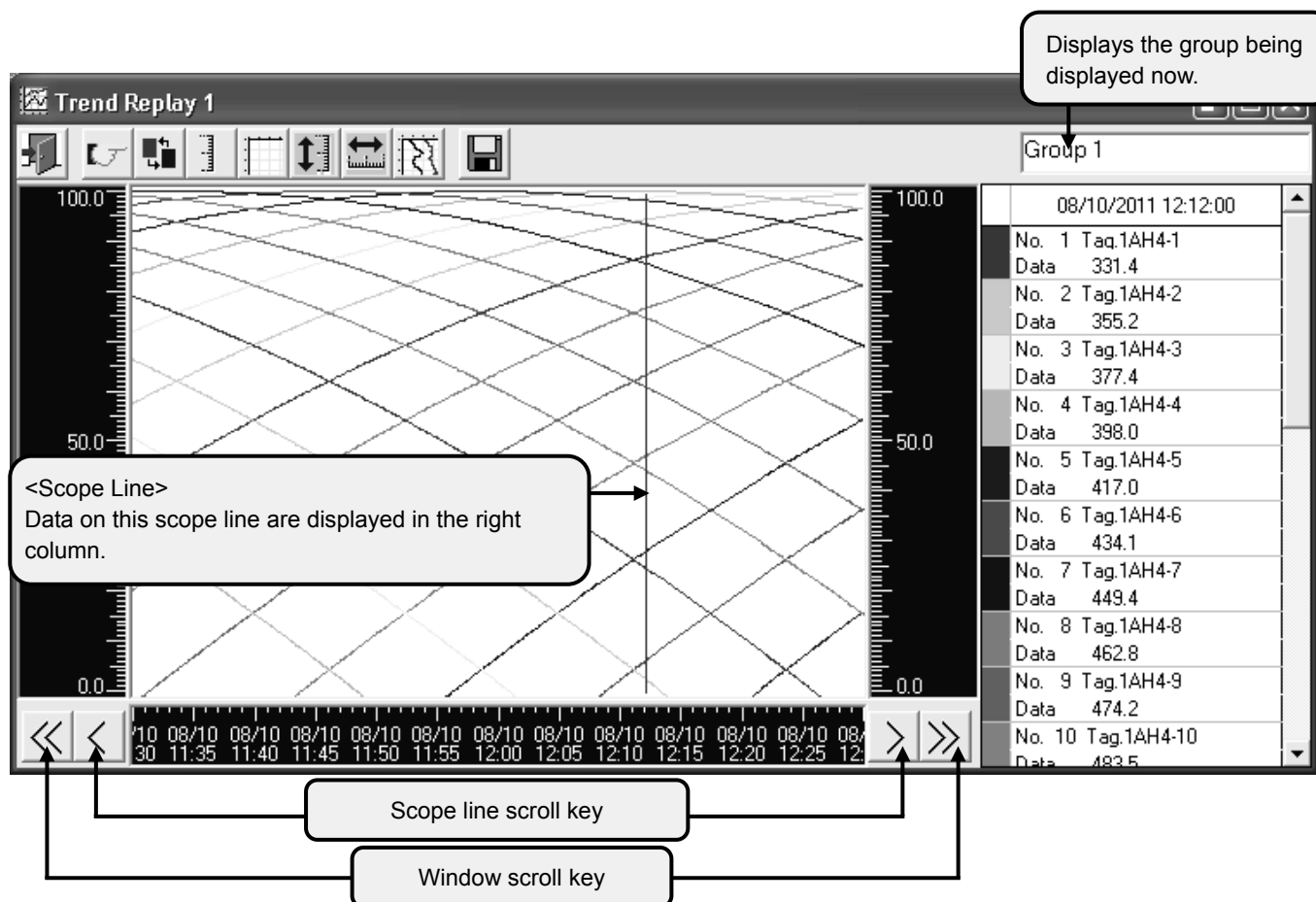
☒ Print interval specifying Data every

Buttons: Print, Cancel, ? (Help)

All data in the print range specified will be printed.

For data in the print range specified, you can skip data for printing.

7-5. Trend replay (Graph format)



		Quits the historical trend monitoring.
7-5-1		The Historical Trend Group Configuration dialog box will appear. You can configure data to be displayed.
7-5-2		The Historical Data Format Settings dialog box will appear. You can configure displaying items that will be shown in the digital data display position (right side of window).
7-5-3		The Historical Trend Scale Settings dialog box will appear. You can independently select two scales placed in left and right sides of the graph.
7-5-4		The Supplementary Settings dialog box will appear. You can customize additional lines and a graph background color.
7-5-5		The Magnified Scale Settings dialog box will appear. You can display historical data with the magnified scale (Y-axis) specified.
7-5-6		The Time-Axis Format Settings dialog box will appear. You can display historical data in the period specified.
7-6		Switches from the graph format to the chart format.
7-7		The File Conversion window will appear.

7-5-1. Historical Trend Group Configuration

You can configure historical data to be displayed in the graph (or chart) being displayed.

Double-click here to select a tracing color.

Select if the data configured are displayed or not.

You can configure a minimum scale and a maximum scale.

Enter a Data No. that you want to display.

	Display	Color	Data No.	Tag	Min. Scales	Max. Scales
1	☒		1	1AH4-1	0.0	1000.0
2	☒		2	1AH4-2	0.0	1000.0
3	☒		3	1AH4-3	0.0	1000.0
4	☒					
5	☒					
6	☒					
7	☒					
8	☒		8	1AH4-8	0.0	1000.0
9	☒		9	1AH4-9	0.0	1000.0
10	☒		10	1AH4-10	0.0	1000.0
11	☒		11	1AH4-11	0.0	1000.0
12	☒		12	1AH4-12	0.0	1000.0
13	☒		13	1AH4-13	0.0	1000.0
14	☒		14	1AH4-14	0.0	1000.0
15	☒		15	1AH4-15	0.0	1000.0

7-5-2. Historical Data Format Settings

You can configure the historical data format in the graph being displayed.

Historical Data Format Settings

Display

☒ Tag/Data/Engineering Unit

☐ Tag/Scale

Scope Line

☒ Show

Computation

☒ Max Value

☒ Min Value

☒ Average

Enter Cancel ?

7-5-3. Historical Trend Scale Settings

Select a Data No. of which range (or scale) is used as the scale in left / right side of the graph.

	Data No.	Tag	Color	Left	Right
1	1	1AH4-1		☒	
2	2	1AH4-2			
3	3	1AH4-3			
4	4	1AH4-4			
5	5	1AH4-5			☒
6	6	1AH4-6			
7	7	1AH4-7			
8	8	1AH4-8			
9	9	1AH4-9			
10	10	1AH4-10			
11	11	1AH4-11			
12	12	1AH4-12			
13	13	1AH4-13			
14	14	1AH4-14			
15	15	1AH4-15			

0 - 100%

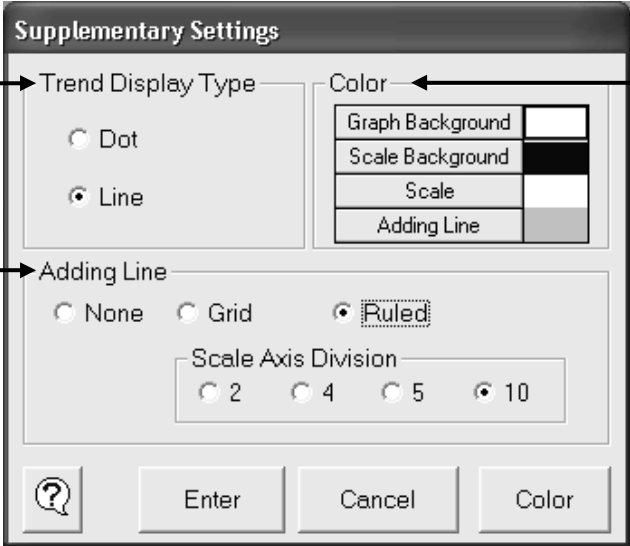
Enter Cancel ?

7-5-4. Supplementary Settings

Select a historical trend display type.

Select a kind of adding line.

Select a color of the graph.

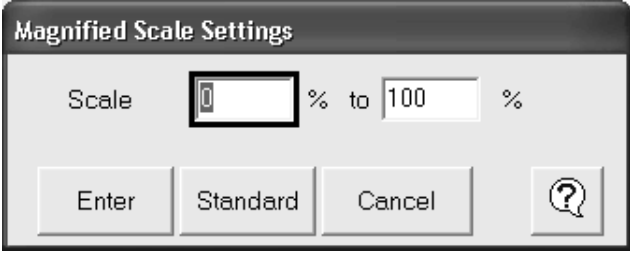


The **Supplementary Settings** dialog box contains the following elements:

- Trend Display Type:** Radio buttons for ☐ Dot and ☒ Line.
- Color:** A table with four rows: Graph Background (white), Scale Background (black), Scale (white), and Adding Line (gray).
- Adding Line:** Radio buttons for ☐ None, ☐ Grid, and ☒ Ruled.
- Scale Axis Division:** Radio buttons for ☐ 2, ☐ 4, ☐ 5, and ☒ 10.
- Buttons:** A help button (question mark), **Enter**, **Cancel**, and **Color**.

7-5-5. Magnified Scale Settings

Based on the standard size of 0 to 100%, you can display historical data with the magnified scale specified.



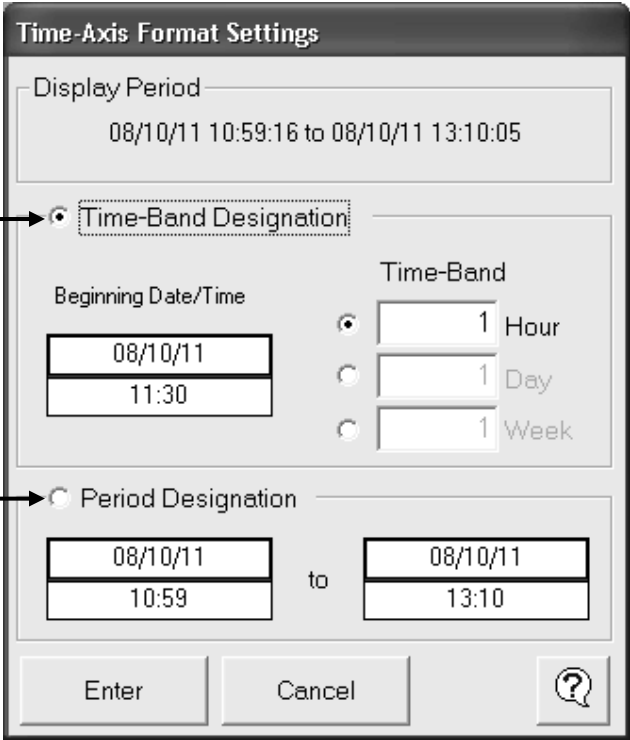
The **Magnified Scale Settings** dialog box contains the following elements:

- Scale:** A text box containing '0' followed by '% to 100 %'.
- Buttons:** **Enter**, **Standard**, **Cancel**, and a help button (question mark).

7-5-6. Time-Axis Format Settings

As a designated time-band from a designated beginning date/time becomes the time-axis, you can always read the historical data in the designated time band from the designated beginning date/time by scrolling.

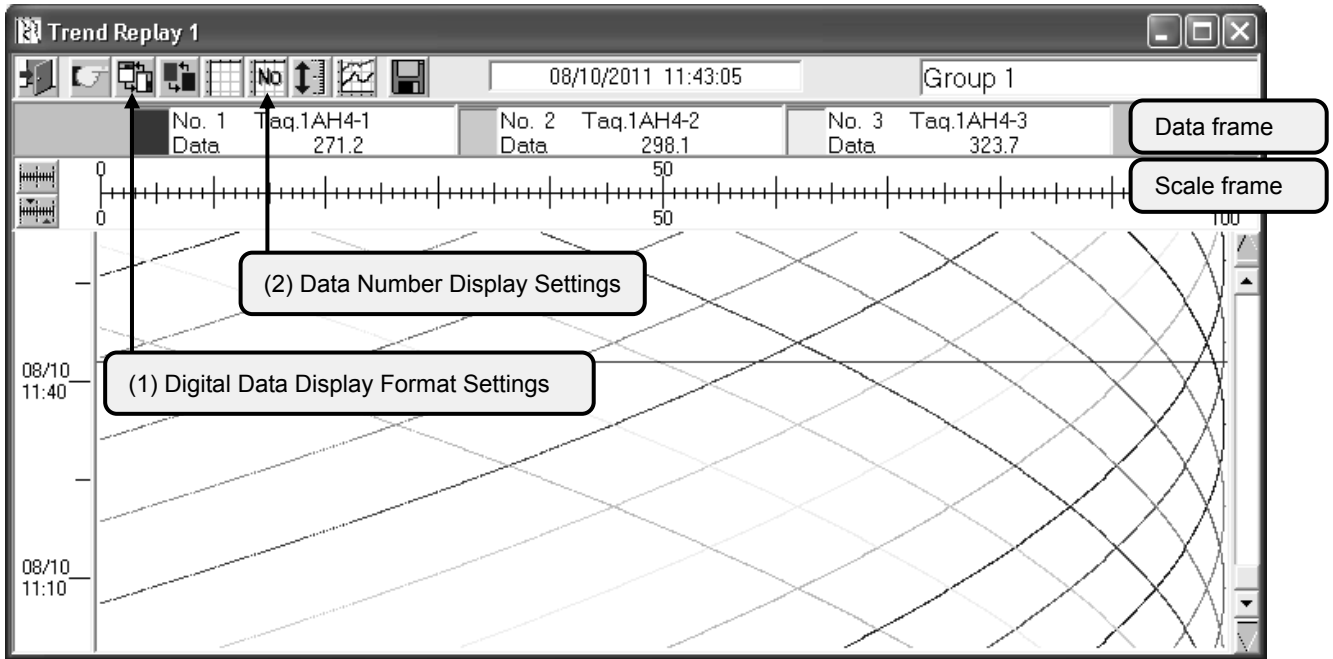
As historical data in a designated period are only displayed, you can only read the historical data in the designated period regardless of a measured period.



The **Time-Axis Format Settings** dialog box contains the following elements:

- Display Period:** A text box showing '08/10/11 10:59:16 to 08/10/11 13:10:05'.
- Time-Band Designation:** A radio button that is selected.
- Beginning Date/Time:** Two text boxes containing '08/10/11' and '11:30'.
- Time-Band:** Radio buttons for ☒ 1 Hour, ☐ 1 Day, and ☐ 1 Week.
- Period Designation:** A radio button that is not selected.
- Period:** Two text boxes containing '08/10/11 10:59' and '08/10/11 13:10'.
- Buttons:** **Enter**, **Cancel**, and a help button (question mark).

7-6. Trend replay (Chart format)



(1) Digital Data Display Format Settings

The 'Digital Data Display Format Settings' dialog box is shown. It has two main sections. The left section, 'Data Display Position', has radio buttons for 'Side' and 'Top' (selected), and a 'Display Lines' section with radio buttons for '1 Line' (selected), '2 Lines', and '3 Lines'. The right section, 'Number of Scale Frames', has radio buttons for '1', '2', and '3' (selected). Callouts provide instructions: 'Select the digital data display frame position.' points to the 'Data Display Position' section, and 'Select number of scale frames.' points to the 'Number of Scale Frames' section. Buttons for '?', 'Enter', and 'Cancel' are at the bottom.

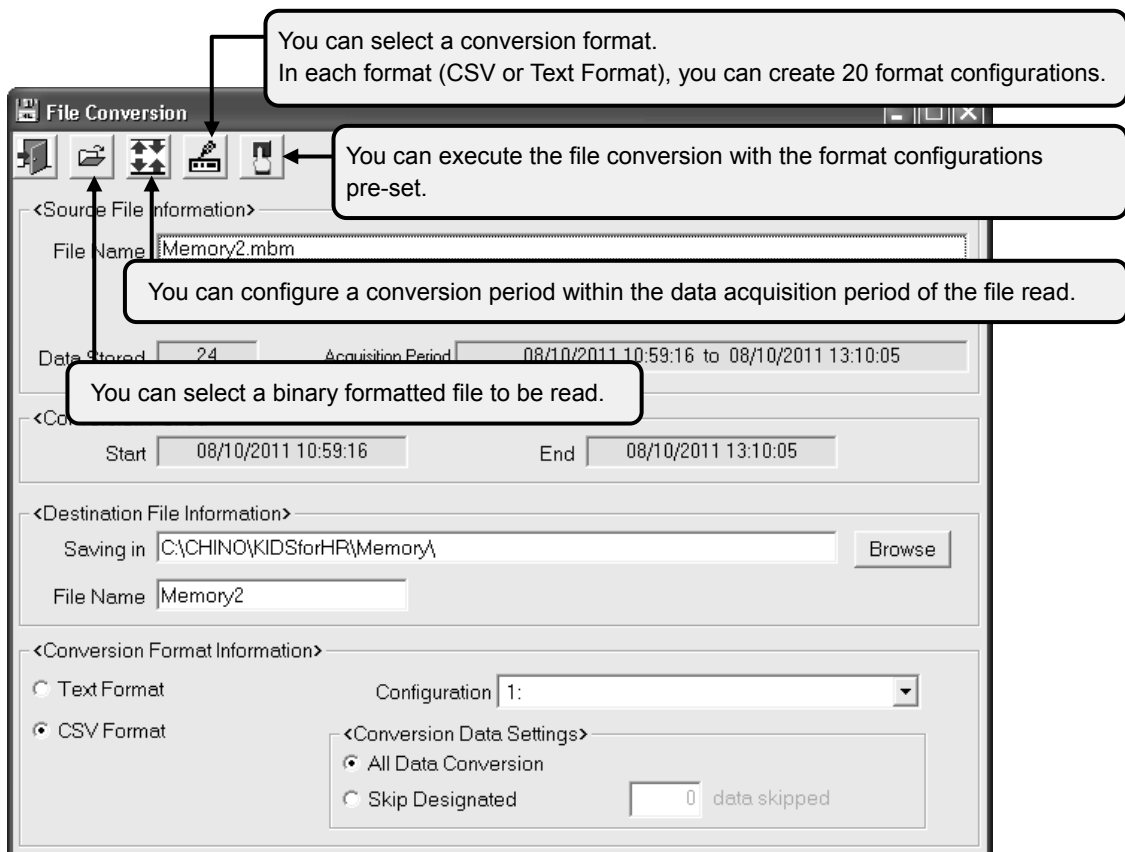
(2) Data Number Display Settings

You can select data of which numeric number is displayed beside its tracing line.

The 'Data Number Display Settings' dialog box is shown. It features a table with columns 'Data No.', 'Color', and 'Display'. The table lists data numbers 1 through 11. Callouts provide instructions: 'Select a display interval of the numeric numbers.' points to the 'Display Interval' section, which has radio buttons for 'Minimum Interval', 'Adding Line' (selected), and 'Date/time Line'. Buttons for '?', 'All Displayed', 'All Not Displayed', 'Enter', and 'Cancel' are at the bottom.

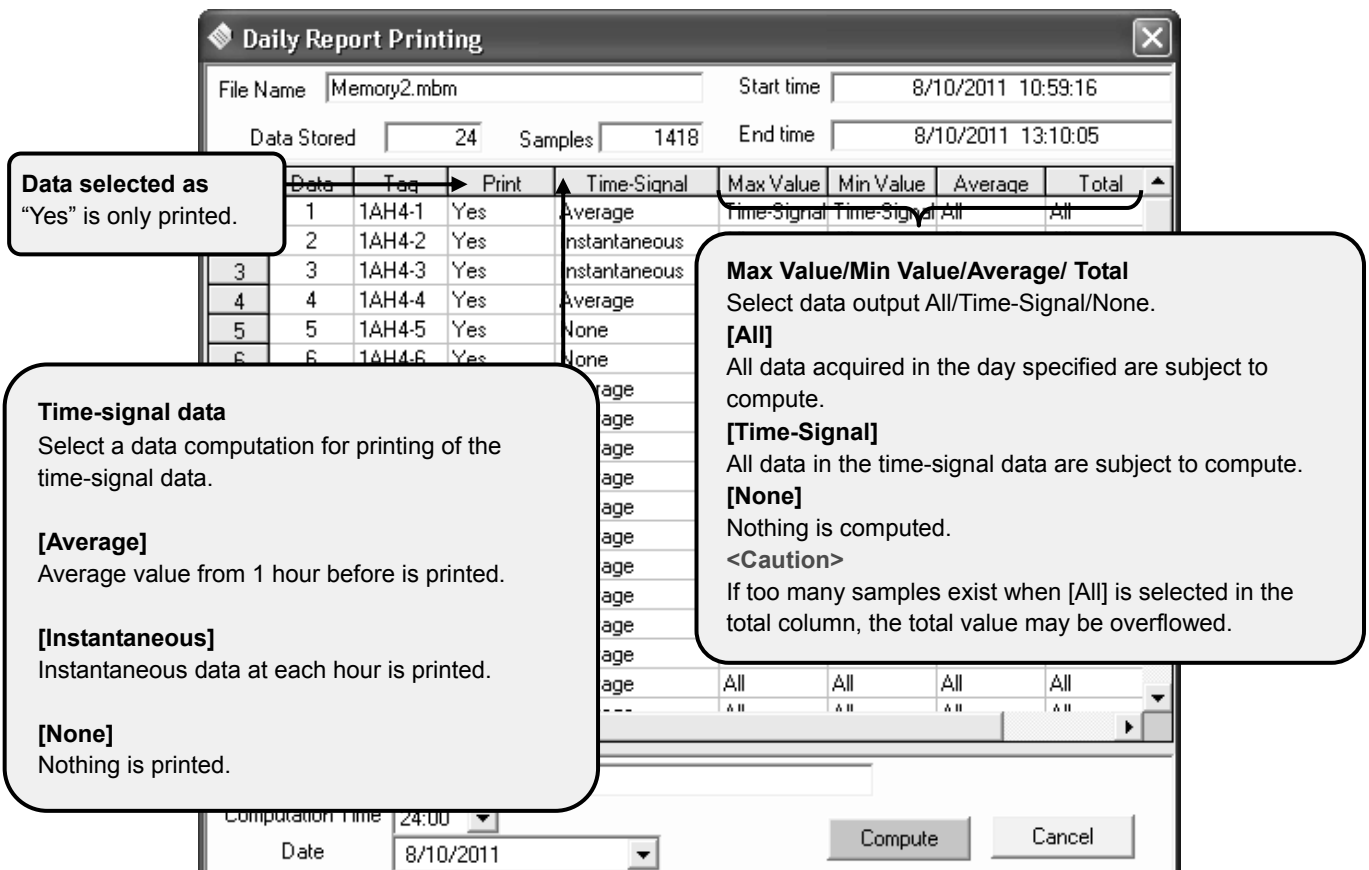
Data No.	Color	Display
1		
2		@
3		
4		
5		
6		@
7		
8		
9		@
10		
11		

7-7. File Conversion



7-8. Daily report printing

You can create a daily report of data acquired by the program or data converted by the BR data conversion.



7-8-1. Daily Report Computation Screen

The screenshot shows the 'Daily Report Data Computation' window. At the top, there are icons for 'Quits.' (a red X), 'Saves a file in CSV or text format' (a floppy disk), and a help icon (a question mark). Below these icons is a toolbar with a printer icon, a magnifying glass, and a document icon. The main area displays a table of data for 8/10/2011. The table has columns for time (11:00 to 24:00), and three channels (1AH4-3, 1AH4-4, 1AH4-5). The data is organized into a grid with rows for each hour and summary rows for Max Value, Max Time, Min Value, Min Time, Average, and Total. Callouts point to the 'Printing' icon, 'Print preview' button, and 'Print settings' button.

	1AH4-3	1AH4-4	1AH4-5
11:00	230.0	257.8	
12:00	356.0	321.1	
13:00	447.0	423.6	
	444.2	458.3	465.7
16:00			
17:00			
18:00			
19:00			
20:00			
21:00			
22:00			
23:00			
24:00			
Max Value	421.3	444.2	458.3
Max Time	13:00:00	13:10:05	13:10:05
Min Value	169.3	199.0	228.6
Min Time	10:00:00	10:59:16	10:59:16
Average	305.3	329.7	372.8
Total	432865.2	467454.9	1491.3

7-8-2. Example of daily report printing

The example shown below is a printing in [A4 longitudinal] by using a page printer.
The number of data printed on one page differs on Windows printer settings.

Sample 1										5/29/2003
Unit	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8	CH9	CH10
1:00	131.7	115.1	149.3	177.4	202.1	208.2	202.0	201.7	1.52	164
2:00	131.3	114.6	148.8	177.0	201.6	207.8	201.5	201.2	1.55	159
3:00	130.8	114.1	148.4	176.5	201.2	207.3	201.1	200.8	1.63	157
4:00	130.4	113.7	148.0	176.1	200.8	206.9	200.7	200.4	1.60	153
5:00	130.2	113.4	147.7	175.9	200.5	206.6	200.4	200.1	1.54	151
6:00	129.9	113.2	147.5	175.6	200.3	206.4	200.1	199.8	1.47	153
7:00	129.7	113.0	147.3	175.4	200.1	206.1	199.9	199.6	1.40	165
8:00	129.4	112.7	147.0	175.2	199.8	205.9	199.6	199.3	1.32	202
9:00	129.2	112.5	146.8	174.9	199.6	205.6	199.4	199.0	1.28	231
10:00	129.5	112.6	146.8	175.0	199.8	205.5	199.2	198.9	1.29	254
11:00	129.6	112.7	147.0	175.1	199.9	205.8	199.4	199.3	1.29	270
12:00	129.9	113.0	147.1	175.4	200.1	205.9	199.6	199.5	1.30	286
13:00	129.7	112.7	146.9	175.1	199.9	205.8	199.4	199.3	1.29	299
14:00	129.7	112.7	147.0	175.1	199.9	205.7	199.4	199.2	1.27	306
15:00	129.9	112.8	147.0	175.1	199.9	205.7	199.4	199.2	1.24	312
16:00	130.7	113.7	147.9	176.0	200.8	206.5	200.3	200.1	1.26	319
17:00	129.3	112.4	146.7	174.7	199.5	205.8	199.5	199.2	1.31	285
18:00	130.0	113.3	147.4	175.6	200.3	205.5	199.1	198.9	1.38	274
19:00	131.1	114.4	148.5	176.7	201.4	206.7	200.4	200.2	1.50	256
20:00	131.3	114.5	148.6	176.8	201.6	207.2	201.0	200.7	1.52	224
21:00	131.6	114.8	148.9	177.1	201.9	207.4	201.1	200.9	1.50	205
22:00	131.9	115.1	149.2	177.4	202.2	207.7	201.5	201.3	1.46	193
23:00	132.0	115.2	149.3	177.5	202.4	207.9	201.7	201.5	1.36	181
24:00	132.0	115.2	149.3	177.5	202.3	208.0	201.8	201.6	1.38	175
Max Value	132.5	115.2	149.4	177.5	202.4	208.5	202.2	201.9	1.63	319
Max Time	22:10:15	23:00:08	22:06:30	23:00:00	22:00:00	23:00:00	23:00:00	23:00:00	3:00:00	16:00:00
Min Value	192.2	112.4	146.7	174.7	199.5	205.5	198.7	198.5	1.24	151
Min Time	8:00:00	16:00:00	16:00:00	16:00:00	16:00:00	16:00:00	16:10:00	16:09:00	15:00:00	5:00:00
Average	130.5	113.6	147.8	176.0	200.8	206.7	200.4	200.1	1.40	224
Total									33.6	5374

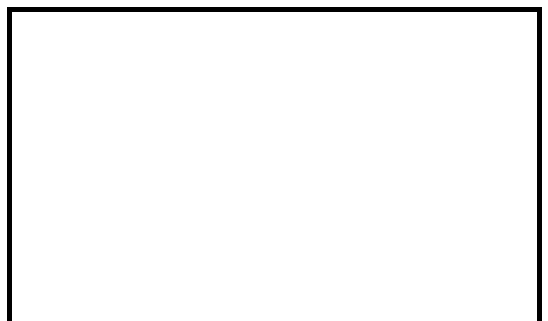
CHINO

CHINO CORPORATION

32-8, KUMANO-CHO, ITABASHI-KU, TOKYO 173-8632

Telephone: 81-3-3956-2171

Facsimile: 81-3-3956-0915



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