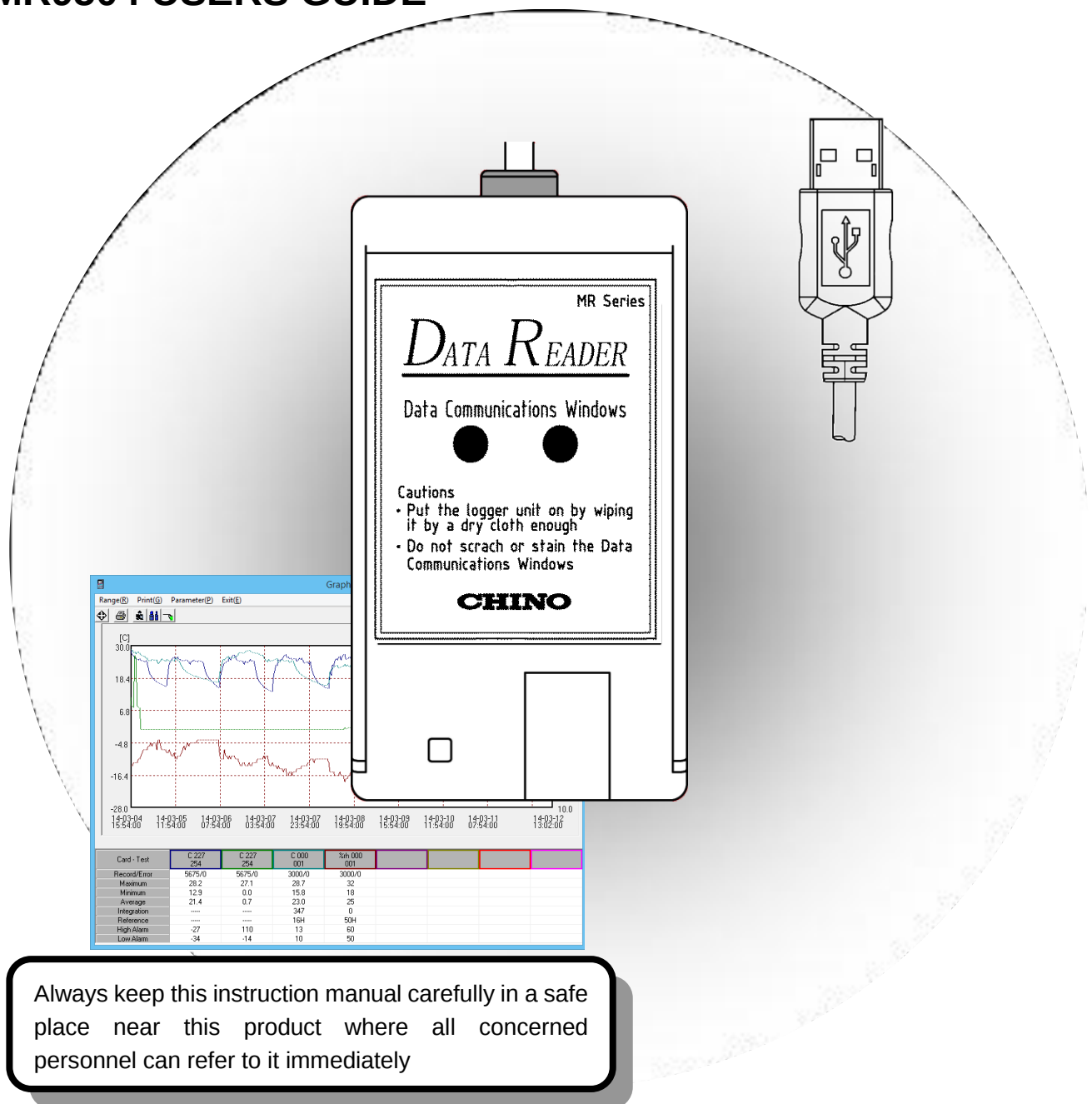


CHINO

INSTRUCTION MANUAL

CARD LOGGER DATA READOUT UNIT & DATA ANALYSIS SOFTWARE FOR WINDOWS

MR9504 USERS GUIDE

**CHINO CORPORATION**

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Thank you for your purchasing of this MR9504 Data Readout Units.

Introduction

This instructions manual is the software for data analysis for utilizing effectively the data, which connected data reading unit MR9504 with Card Logger MR Series, and was recorded by Card Logger. It is creating on the assumption that it is used with the personal computer which operates under Windows® XP, Windows Vista®, 7, or the environment of 8. Please refer to the manual of Card Logger for the matter that relates to the main body of Card Logger.

Before starting up the program

This clause has notes to use software and the main bodies of Card Logger and necessary preparations have been described. Be sure to read before using it.
Please keep this book importantly after it reads.

Program

When unpacking this product, carefully check the package contents. If any package contents are missing, contact your local sales representative or sales office

- [The program is consisted of]
Instruction manual (this manual)
Software CD-ROM
Data readout unit

Cautions on program

Handling Precautions

When this unit is used in the following conditions or environment, please pay attention to use it by keeping on the safe side of ratings and functions, or to safety measures like failsafe, and also please consult our sales engineer.

- 1.Usage in a condition or environment not described in this instruction manual.
- 2.Usage in nuclear control, railroad, aviation, vehicle, combustion equipment, medical equipment, amenity equipment, safety equipment, etc.
- 3.Usage in applications that big influence to human life or properties is estimated and safety is especially requested.

Safety Precautions

- Cautions stated in this manual indicate important contents about operational safety. Therefore, carefully read the contents and strictly follow the instructions.
- In this instruction manual, the following warning labels are provided to indicate possible hazards and ensure operational safety.

 WARNING	This denotes hazards which COULD result in <u>death</u> or <u>severe personal injury</u> , if not avoided.
 CAUTION	This denotes hazards which COULD result in <u>minor personal injury</u> and/or <u>product or property damage</u> , if not avoided.

[Safety precautions]

 WARNING
● Do not use this unit for measurement other than the specified.

 CAUTION
● Never attempt to disassemble or modify this unit. ● Do not flaw or put dirt on the data reading window. ● Do not operate or store this unit in a place where it is exposed to the high temperature. Additionally, do not leave this unit in a place where the high temperature continues for an extended period of time, such as inside of a car. Otherwise, the discoloration may occur on the unit. ● Please do not put Card Logger on the main body with getting wet. ● Please do not use it in the following environment. ● The place which receives heat from heating apparatus directly. ● A place with a possibility of getting wet from water or oil, A place with dust and corrosive gas (sulfuration gas, ammonia gas, etc.) ● The intense place of temperature change. ● A place with fear of freezing and dew condensation. ● The place where vibration and the influence of a shock are large. ● Keep this unit away from any equipment producing the strong high frequency or surge as much as possible. Otherwise, malfunction or trouble may occur. ● Please use alcohol on the market without using thinners when washing.

- Even though this product is used together with other units, always strictly follow the safety precautions stated in this manual. CHINO shall not be held responsible for any defect arising from negligence of such cautions and instructions.
- Any relevant measures for safety such as sufficient tolerance and failsafe means shall be taken into consideration when using this unit for an application that may seriously affect the human life or property.

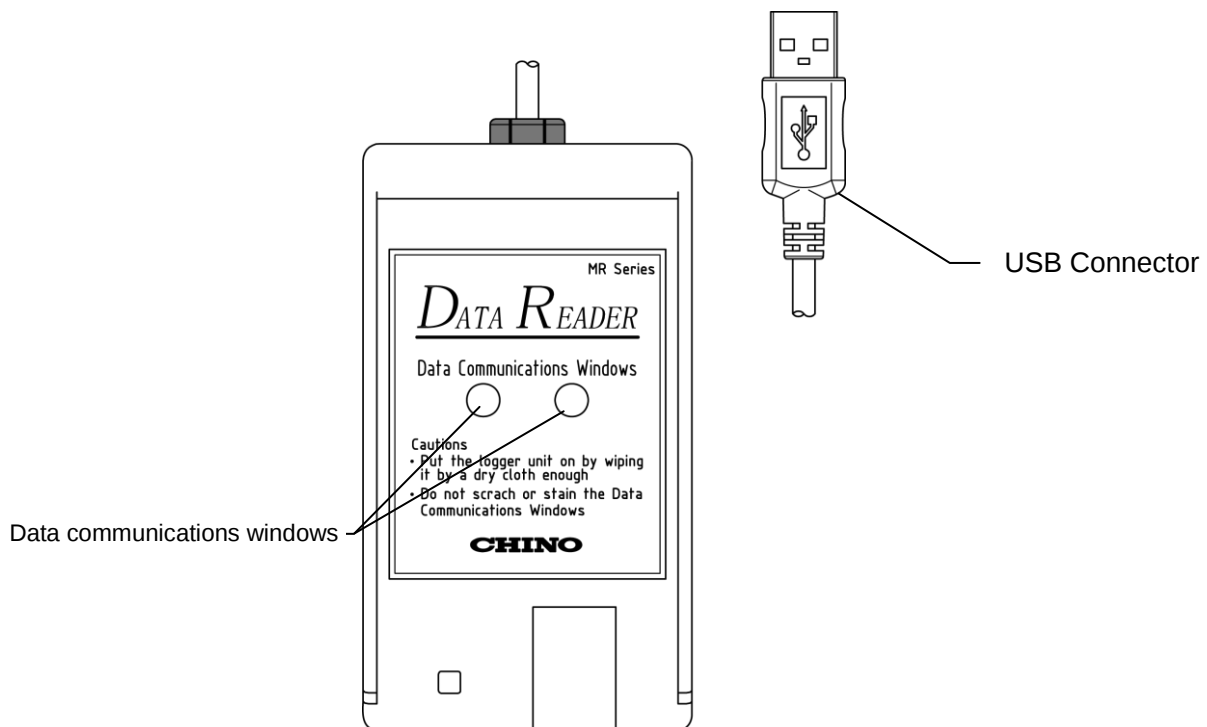
Subject to change without notice.

"Microsoft" and "Windows" are the trademarks or registered trademarks of Microsoft Corporation in the United States.

Operating environment and system requirements

Personal Computer	: Windows® XP Service Pack 3 Windows Vista® Service Pack 2 (32bit) Windows 7 (32bit/64bit) Windows 8 (32bit/64bit)
Communication port	: One USB 1.1/2.0 compatible port
Hard disk drive	: At least 10MB is required to install this software
CD-ROM drive	: Required for the setup of an application driver
Printer	: Color printer recommendation
Printer driver	: Printer driver allowing of correct operation of the printer on the OS listed above
Corresponding model	: MR5300,MR5320,MR6661,MR6662,MR7300
Data readout unit	: MR9504
* Administrator privileges are required for installation.	

Name of each part



Installing the Software

- Caution:
- If other applications are running when installing this software, such application may adversely affect the installation of the software. To avoid such troubles, exit all currently running applications completely before starting the installation.
 - In case of Windows Vista / 7/ 8, Confirmation screen appears when booting the installer by UAC control. When appears this screen, Please select "Yes".
 - Administrator privileges are required for installation.

Installation procedure

Caution: Please do not tie a main part to a personal computer in the stage of this installation

When apparatus is connected, although the following screens are displayed, please choose "No, not this time" or "Ask me again later".



【XP】



【Vista】

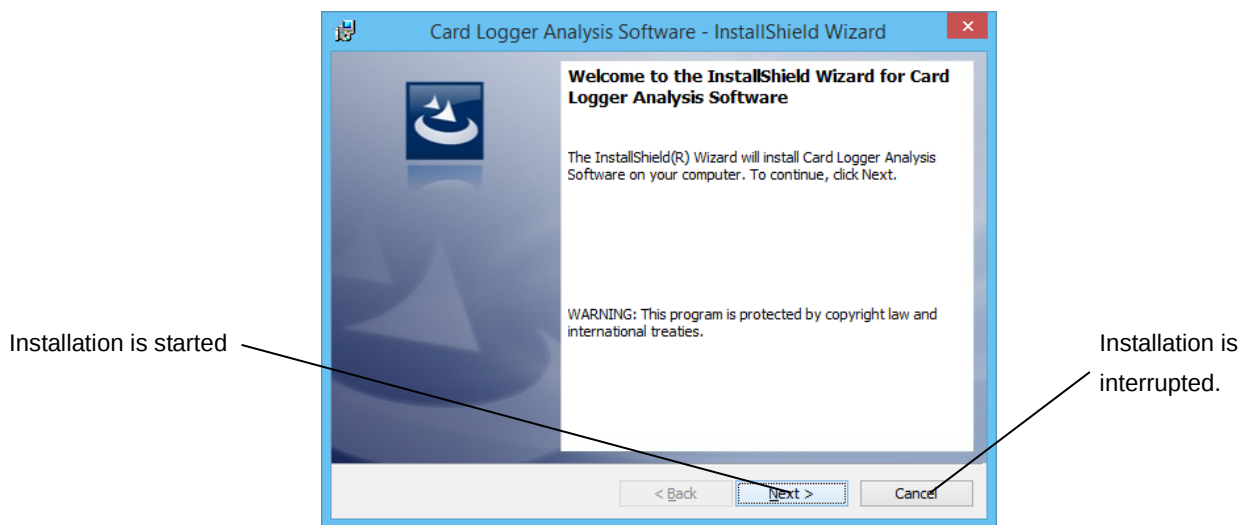
- 1 Power ON the personal computer to start up Windows.
- 2 Set the software CD-ROM supplied with this data read software package in the CD drive.

3 The installation begins automatically.

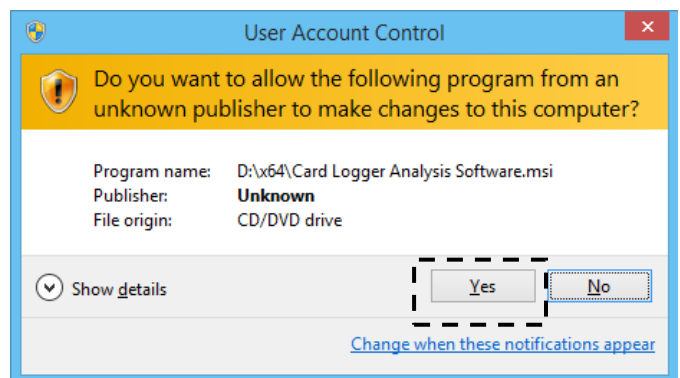
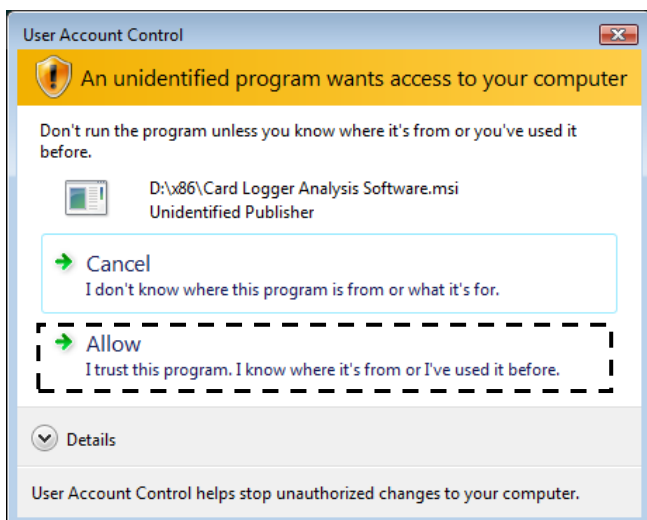
- The drive No. (such as “C:”) that appears in the window may vary depending on the system configuration of the personal computer you are using. When reading the message shown in the above window, change the drive No. to that corresponding to your personal computer environment.

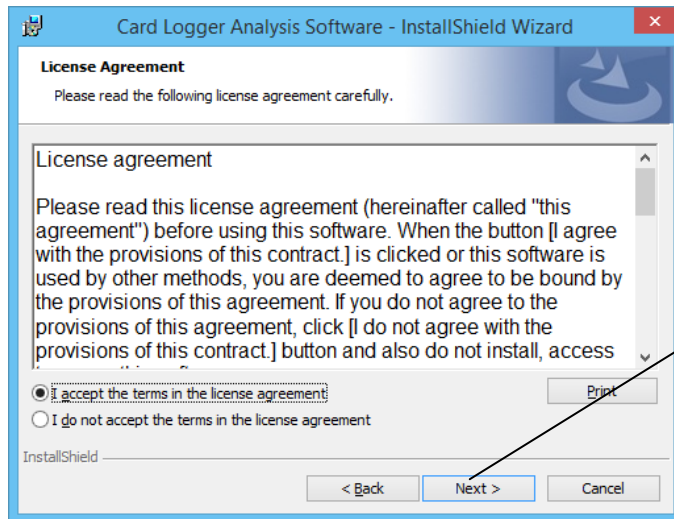
CAUTION

If the installation of the software is not started up even though the CD-ROM is set, double-click the [setup.exe] file contained in the CD-ROM to start installing the software.



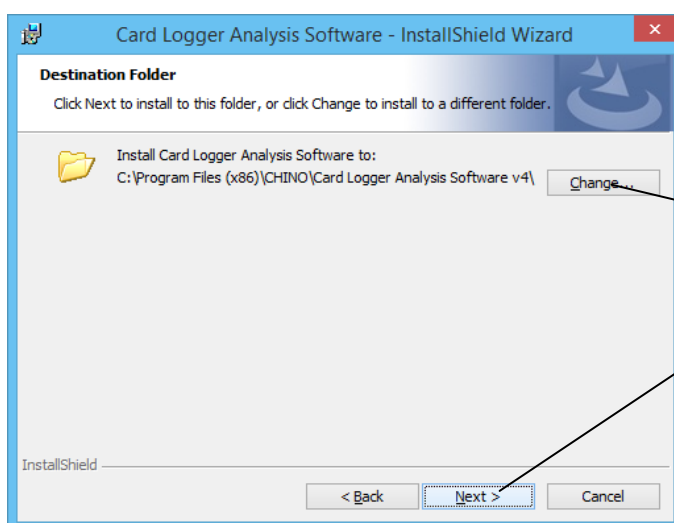
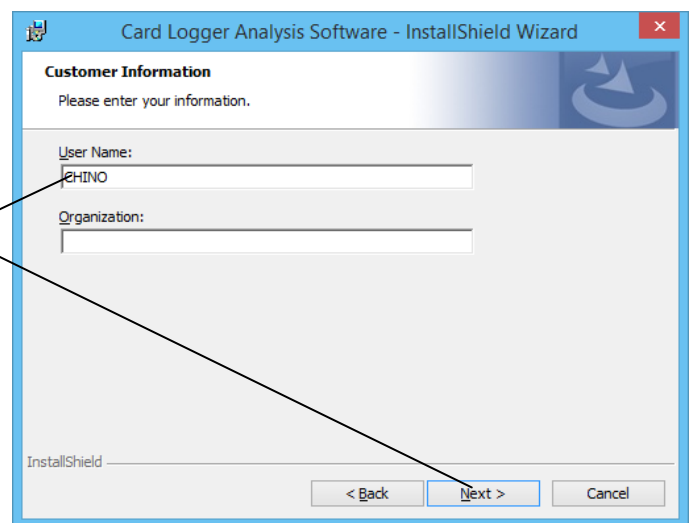
In case of Windows Vista / 7 / 8, Confirmation screen appears when booting the installer by UAC control. When appears this screen, Please select “Allow” or “Yes”.





After verifying the license agreement, click "Next" to continue.

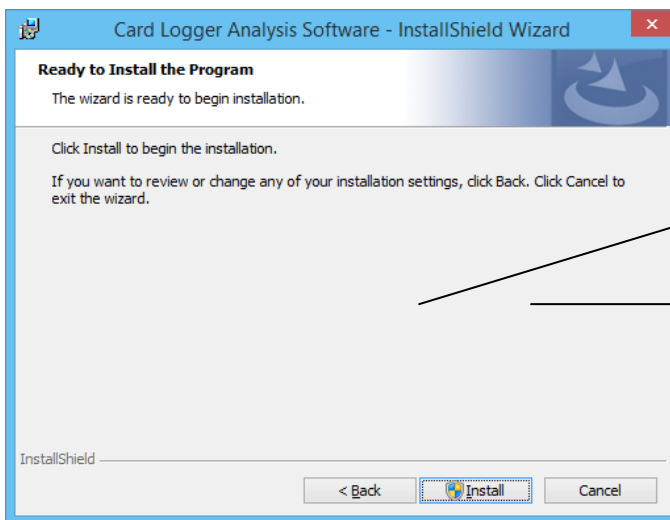
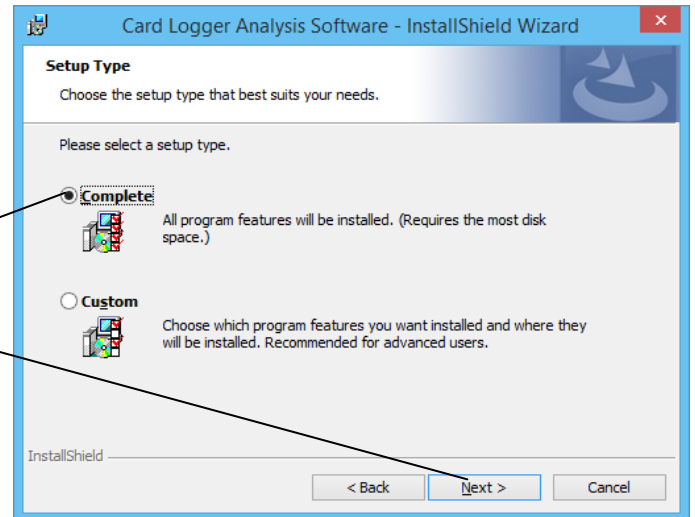
Input the user information. The user information for the currently logged in user will be displayed. Click "Next" to continue.



The installation place of a program is changed. Click "Next" to continue.

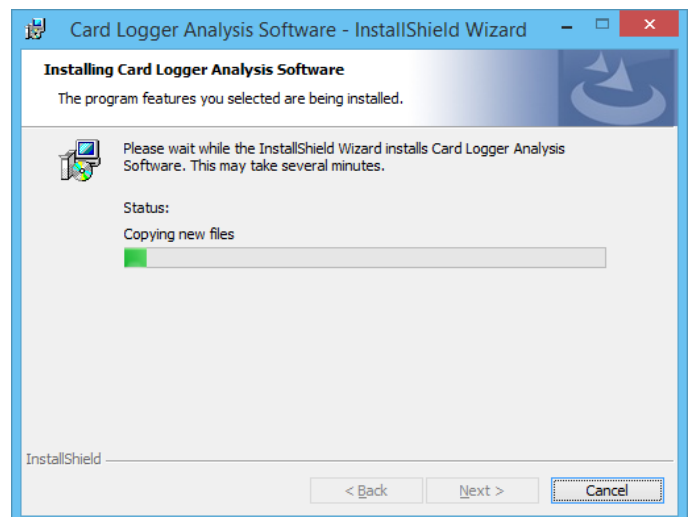
(Next Page)

Choose "Complete",
and click in order to
continue the "next."



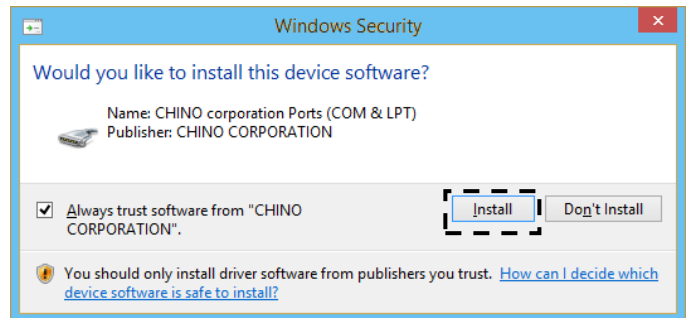
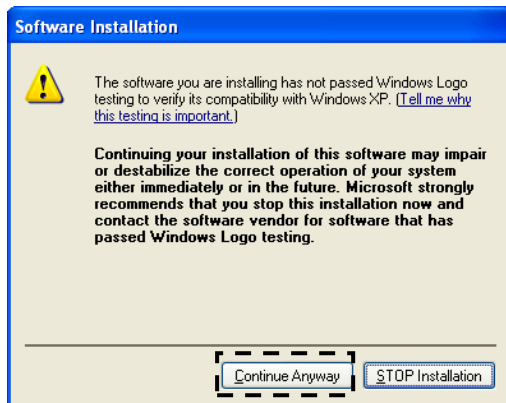
Installation is started

Installation is
interrupted.

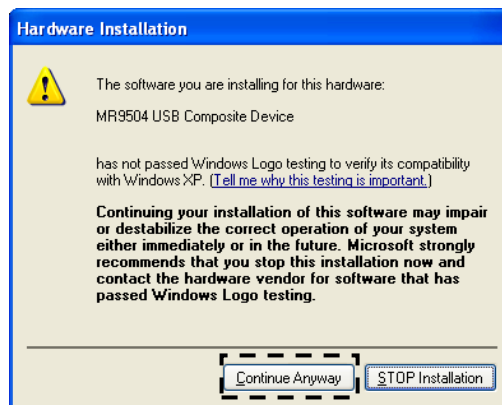


(Next Page)

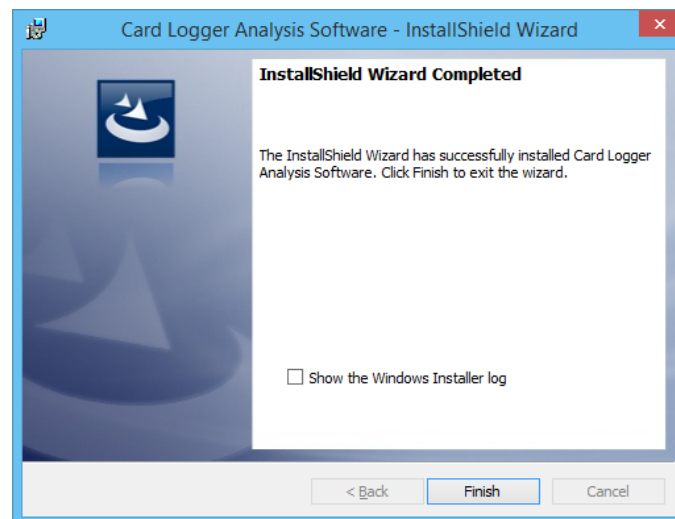
Although one of screens is displayed on the way, please click "Continue Anyway" or "Install".



Please click "Continue Anyway ", if the following screens are displayed.



- 4 Because a lower screen opens when installation is completed, please click the Finish button.



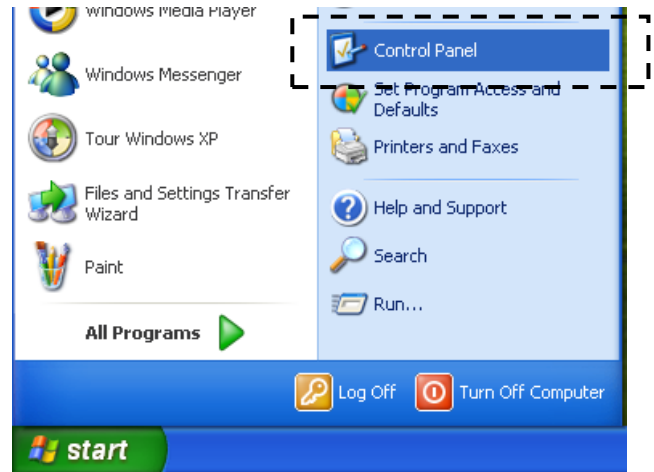
After this software has been installed successfully, first make the [Comm.Port] setting. With this [Comm.Port] menu, specify a communication port that the personal computer uses. (Refer to [3-3. Setting a serial port] P23)

Uninstalling (Deleting) the Software

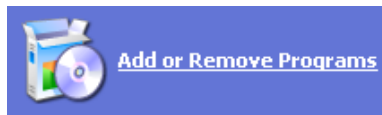
Uninstalling

1 Please end Card Logger Analysis Software.

2 From the [Start] menu, select [Settings] and [Control Panel] in that order.

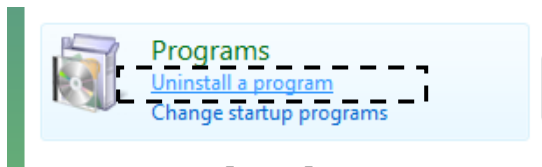


3 Double-click [Add/Remove Programs].



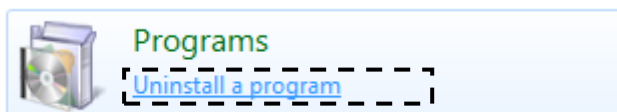
【XP】

Double-click the [Uninstall Program] in the case of Windows Vista



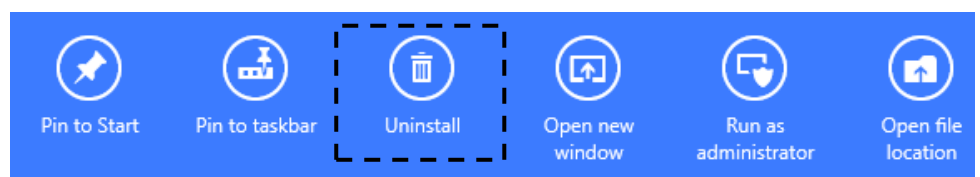
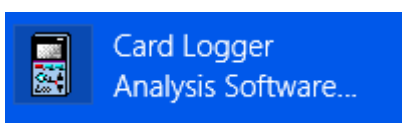
【Vista】

Double-click the [Uninstall Program] in the case of Windows 7

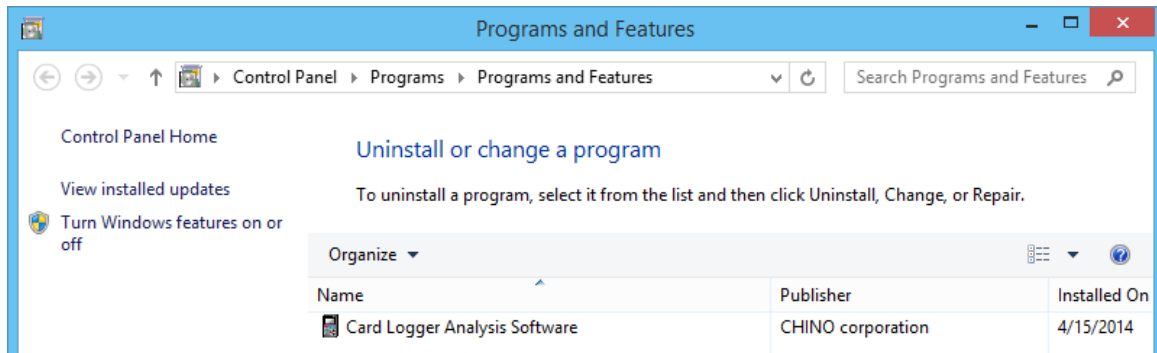


【 7 】

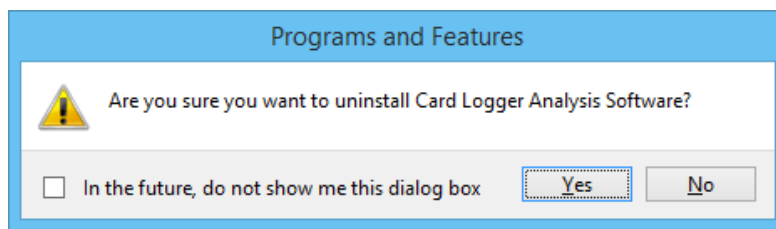
In the case of Windows 8, it right-clicks on the [Card Logger Analysis Software] on a screen, and chooses [Uninstall] from the menu displayed under a screen.



【 8 】

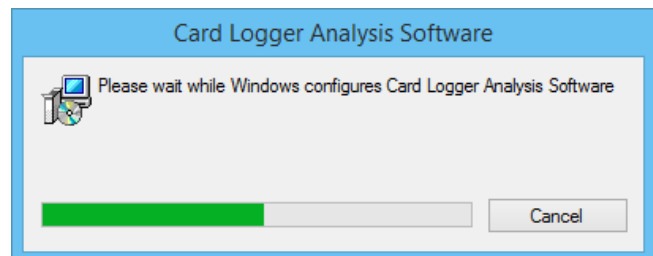


- 4 After clicking on the "Card Logger Analysis Software", a confirmation screen is displayed when you click the "Uninstall" button. A click of the "Yes" button will start uninstallation.



- 5 When the progress bar in the right screen arrives at the edge, it is completion.

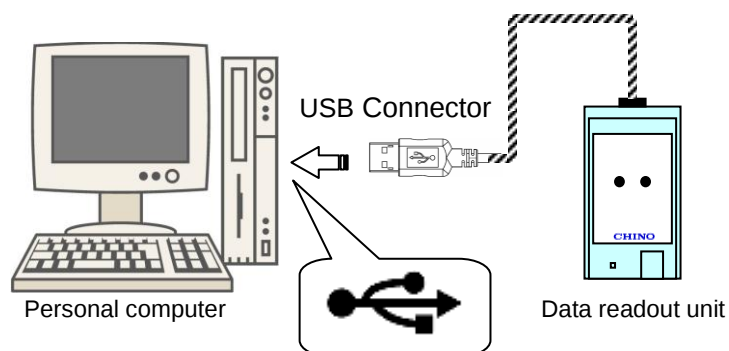
The application was deleted in this.



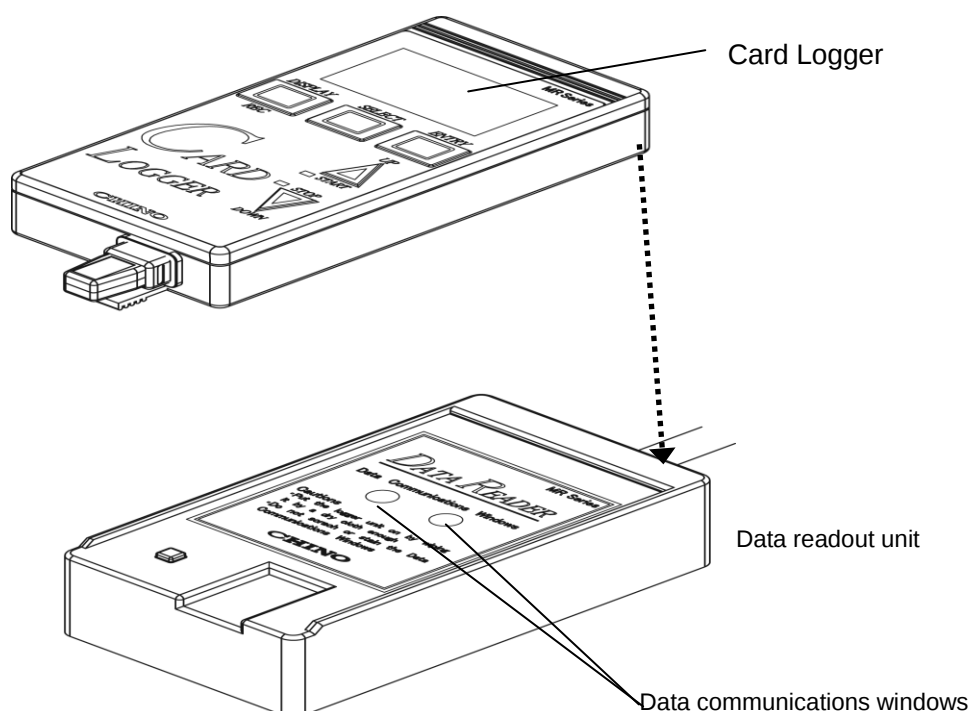
System configuration and start

Connection of data readout unit and Card Logger

- 1 As shown in the following figure, the USB connector of the USB port (connector to which the mark as shown in the following figure is attached) of a personal computer, and a data readout unit is connected.

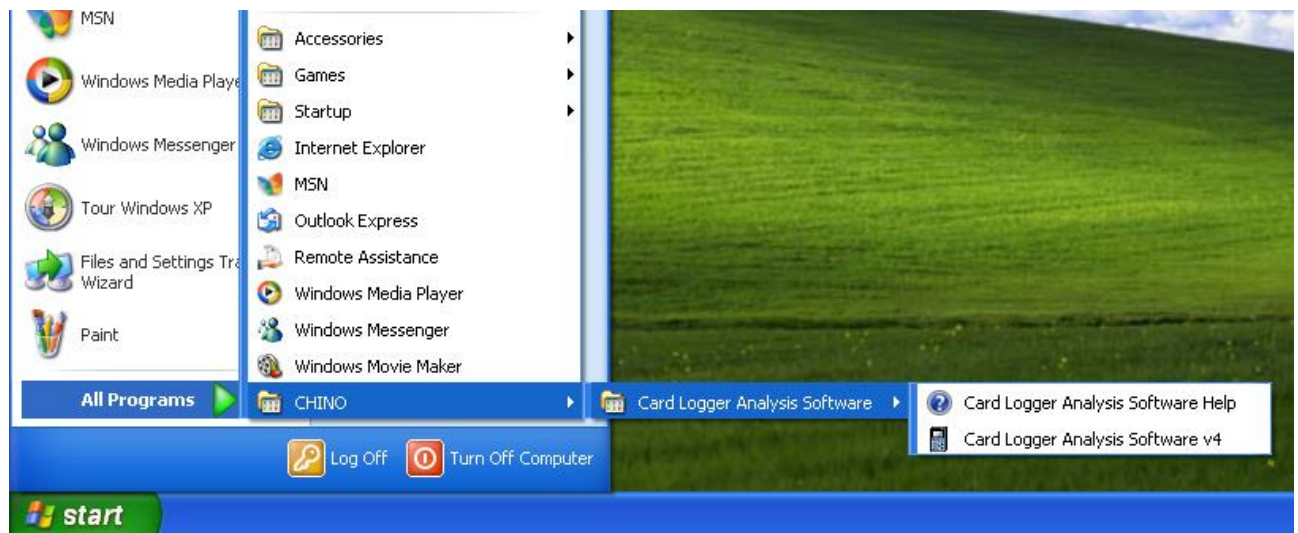


- 2 Make sure to place your Card Logger to the inside of upper wall of your data readout unit by pushing it on. The data can be read on the condition that your sensor is connected to your Card Logger, too.



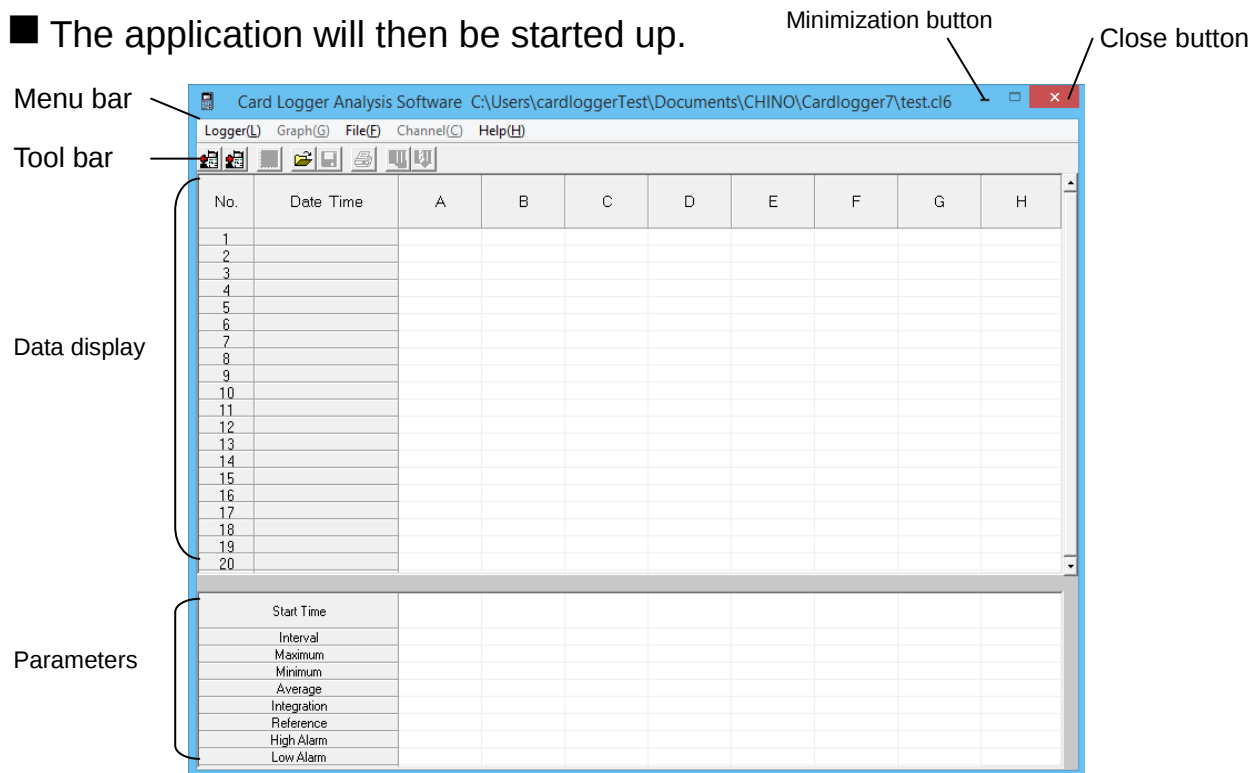
Starting up the Software

- 1 Power on your personal computer and start Windows.
- 2 Click the Start button, point to Programs, point to [Card Logger Analysis Software], and then double-click [Card Logger Analysis Software V4].



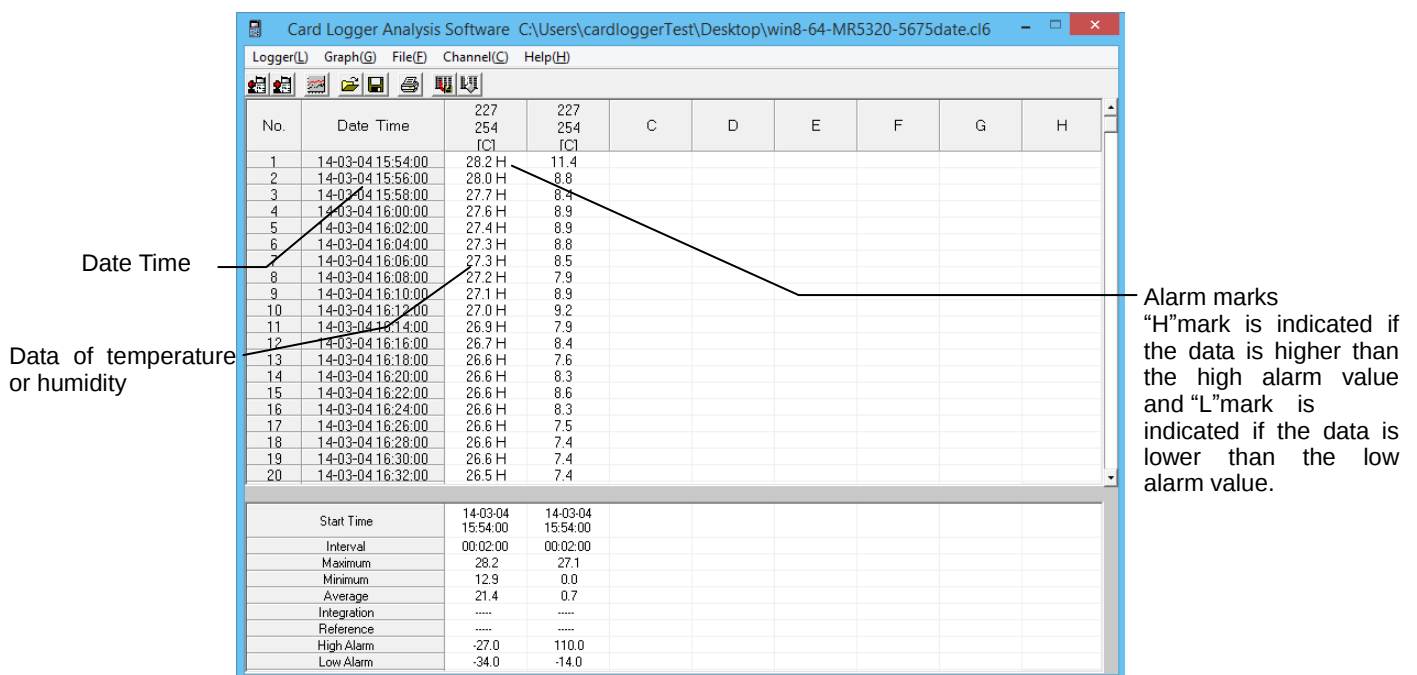
1. Composition of screen

■ The application will then be started up.



#1 Data display (immediately after start)

■ After of the logger data readout

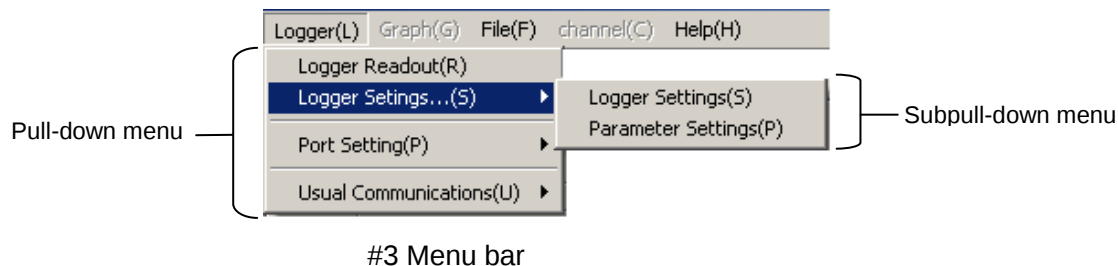


#2 Data display (After readout)

2. Basic operation

2-1. Menu

On a menu, the function that can be executed is displayed with a list.

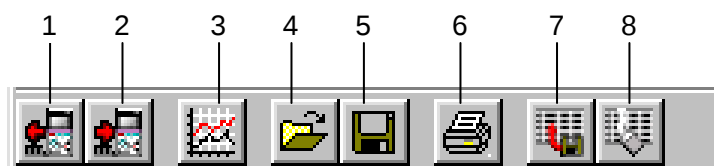


2-2. Selection and execution of menu

- 1 If cursor is matched and clicked on a menu to choose, a pull-down menu will be displayed.
*[Graph] is executed immediately and the pull-down menu doesn't appear.
- 2 Each function can be executed by matching and clicking the cursor to the pull-down menu that wants to be executed.
- 3 Each function can be executed by matching and clicking the cursor to the subpull-down menu that wants to be executed.

2-3. Tool button

The selection and execution by the menu can be executed only by one click with the tool button.



1 : Logger Readout	Page 19, 3-1	Logger Readout
2 : Logger Settings	Page 20, 3-2	1 Logger Settings
3 : Drawing in graph	Page 26, 4	Graph
4 : Read-out of a file to data	Page 31, 5-1	Open...
5 : Superscription preservation	Page 31, 5-2	Save
6 : All data print	Page 33, 5-5	1 Print all
7 : Data is added from the file	Page 35, 5-6	Insert
8 : CH data is deleted	Page 36, 6	Channel

2-4. Operation in a box

Various setting boxes open while operating software. The typical operation method in the box is explained.

■ Cancel button



If this button is clicked, the box opened now will close, and it returns to the state before opening the box.

■ Radio button or

If this button is clicked,  will be displayed into , and the setting item currently described on that right-hand side is chosen.

■ Check Box or

It is the box, which chooses a setting item like a radio button. If this is clicked,  will be displayed in , and the setting item currently described on the right-hand side is chosen. The difference with the radio button is that the selection and non-selection change.

■ Slide bar



If both the sides of this bar are clicked, a preset value will fluctuate.

■ Pull down list box



In a set item, there is an item that should be selected from the set value prepared beforehand.

In such a case, please click the preset value right-hand side  pull-down list box can be opened. And, please change a set value in the box.

3. Logger

This menu is to set a serial port, program the parameters on your Card Logger by your computer, and transfer the logged data to your computer, And Setup and execution of [Usual Communication] for automation of the regular daily logger read and setup operation.

[Logger Menu list]

Menu	Pull-down menu	Subpull-down menu	Detailed explanation
Logger	Logger Readout...	—————	3 – 1 (p19)
	Logger Settings...	Logger Settings...	3 – 2 1 (p20)
		Parameter Settings...	3 – 2 2 (p22)
	Port Setting...	Auto Setting...	3 – 3 1 (p23)
		Manual Settings...	3 – 3 2 (p23)
	Usual Communications...	Usual Communications	3 – 4 1 (p24)
		Communications Settings...	3 – 4 2 (p25)

3-1. Reading out data from your Card Logger

The temperature (or humidity) data recorded on Card Logger is downloaded to a personal computer through a data reading unit.

- 1 It checks that Card Logger is in the state (refer to topic: p25) which can be communicated, and it sets to a data reading unit.
- 2 Click [Logger] on the main menu and then click [Logger Readout].
Caution: The data readout cannot be executed without empty channels (CH).
MR6000 / MR6661 / MR6662 /MR5320 Card Logger requires two free channels.
- 3 Since a Data read box (# 5) opens, please click the radio button of the channel which stores recorded data, and click the OK button.

*Please choose from an empty storing channel.

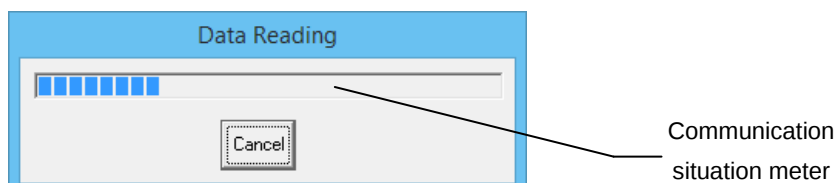
They are the various parameters of Card Logger during communication.

Storage channel setting Radio button

#5 Data read box

- * The contents of a display in a box change with models of Card Logger. As for humidity information as shown in the above figure, only MR6661 or MR 6662 is displayed. Furthermore, as for MR5320 two temperature information is displayed about one temperature information, as for MR5300.

- 4 "Reading box of the record data" (# 6) opens and reading is begun. The box shuts when the communication situation meter stop on a right edge, and the read data is displayed on the screen.



#6 Reading box of the record data

Caution: The time data on the screen are based on the leftmost channel. If the data is stored in the leftmost channel, the current time data is changed into the time data based on the data stored. By this reason, for displaying data more than 2 channels on the same screen, the start time and measurement intervals of the data should be same principally. However, if the start time of data is within ± 1500 data of the start time of the leftmost channel, the data are displayed in accordance with the time data of the leftmost channel. The time data of other data are not in accordance with the time data of the leftmost channel.

<Example>

1. **Data on Channel A: Start time 2006-01-01 00:00 Measurement intervals 1 minute**
Data on Channel B: Start time 2006-01-02 01:00 Measurement intervals 1 minute
The data on Channel A are displayed from Data No. 1.
The data on Channel B are displayed from Data No. 1500 (25 hours = 1500minutes)

2. **Data on Channel A: Start time 2006-01-01 00:00 Measurement intervals 1 minute**
Data on Channel B : Start time 2006-01-01 01:01 Measurement intervals 1 minute
The data on Channel A are displayed from Data No. 1.
The data on Channel B are displayed from Data No. 1.

The measurement intervals of the leftmost channel are displayed for all data irrespective to the start time.

- The number of errors is the unusual number of data which cannot carry out temperature conversion of the read data. This data is displayed as "----."
- When the superscription collection is continued by "Endless mode" after it collects of 6000 data, it becomes as follows.

Start time It is the time when record time is the earliest with the 6000 newest data.

Maximum and Minimum The highest value and lowest value in all the data (6000 or more data) from an inclusion start to an end

Average and integrated The average value and integrated value which were calculated by the 6000 newest data

3-2. Programming your Card Logger

With this menu, a setup of Logger data record conditions and a setup of a Logger parameter are performed.

1 Logger Settings

- 1 It checks that Card Logger is in the state (refer to topic: p25) which can be communicated, and it sets to a data reading unit.

- 2 Click [Logger] on the main menu, click [Logger Settings] and then click [Logger Settings]. The dialog box (# 7~10) shown below appears.

*The contents of a display in a box change with models of Card Logger.

- 3 Please set each item in the box, and click the OK button at the end.

- 4 The box will shut if a lower right meter moves to a right edge, and the setup will be reflected in Card Logger. If communication is completed, the liquid crystal display of Card Logger will disappear.

*At this time, Card Logger will be in a key lock state. Please go after releasing the key lock when operating it with the main body of Card Logger. (Please see the manual of the main body of Card Logger about the release method.)

However, in MR5320, it is possible to cancel key lock by this setup.

Caution: When you click OK button, the data stored on your Card Logger are erased. Make sure to save the data, if necessary, into a file before programming the parameters.

Values between 0 and 255, or a preset character string, may be entered here.

Logger Parameter Setting box is opened. Please look at "2 Parameter setting" (p22) about details.

You can select whether logging stops after logging of 6,000 data (One time) or logging continues by overwriting to old data (Endless).

Reference values for processing integrated values. You can program these values within measuring ranges in 1[°C] increment.

The measurement temperature range of Card Logger is set up. It is an item required for a reference value setting, and is not dependent on the actual measurement range. In the case of a built-in sensor, the survey range is -20~55°C. In the case of an external sensor, it becomes automatic distinction, respectively.

For programming the end of data logging at the time desired. Programmable from [Start time] to [Start time + measurement intervals x 2999].

Time to start the data logging. Programmable from [Current time + 1 minute] to [180 days].

#7 Logger Setting box (MR5300)

Time interval for data logging.

You can program this parameter from 00:01 to 01:00 in 00:01 increment. The interval time of MR5300/MR5320 is programmable from 10 to 50 seconds in 10 seconds increment, too.

[For calculation of integrated values]
Click H for integration of values higher than reference value or click L for integration of values lower than reference value.

The date and time on your computer are displayed on the screen of your Card Logger as the current time. Not programmable. For programming the date and time on your computer, refer to your Windows manual.

#8 Logger Setting box (MR5320)

You can select whether key lock.

Higher limit value or lower limit value for judgment of alarms. Whenever a data exceeds higher limit value or lower limit value, the alarm becomes active and [ALARM] appears on the screen of your Card Logger.

Time interval for data logging.
You can program this parameter
from 00:01 to 01:00 increment

Reference values for
processing integrated
values. You can
program these values
within measuring
ranges in 1[°C] or
1[%RH] increment.

#9 Logger Setting box (MR6661-6662)

2 Parameter Settings

- 1 Click [Logger] on the main menu, click [Logger Settings] and then click [Parameter Settings].

The dialog box (# 10) shown below appears.

Please display arbitrary
No. from the scroll bar,
and select the conversion
character.

#10 Parameter Setting box

- 2 Please click the conversion character part of arbitrary Card No. and Test No. and input the character directly from the keyboard. Please click the deletion button clicking the character when you want to delete the set character.

- 3 Please set each item in the box, and click the OK button at the end.

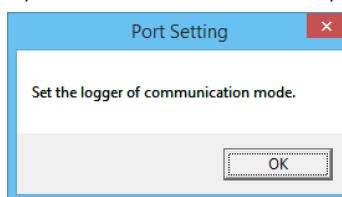
Caution: As each Setup No, is linked to the [Card No] and [Test No] set for the MR, care is required when entering new settings for characters.
For example, if setup is completed as shown above, and the setup details for setup [No 000] are being changed to CHINO and data then read, the [Card No] for this data is CHINO.

3-3. Setting a serial port

In this menu, the port can be arbitrarily set. Moreover, when it does not know to which port the data-reading machine is connected, it can search automatically and can set up.

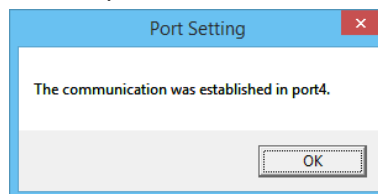
1 Auto Setting

- 1 It checks that Card Logger is in the state (refer to topic: p25) which can be communicated, and it sets to a data reading unit.
- 2 Click [Logger] on the main menu, click [Port Setting] and then click [Auto Setting].
- 3 Port Setting box (# 11) opens, and click the OK button, please.



#11 Port setting box1

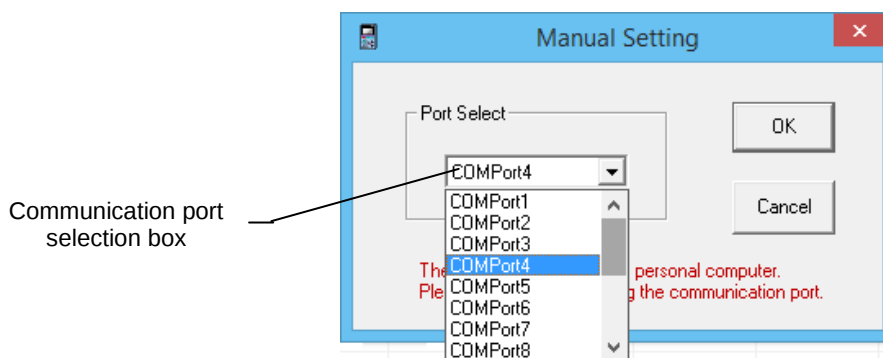
- 4 After that, the software will automatically search for the communication port, to which the logger is connected. When the software searches for the communication port successfully, the following dialog box will appear. (The following dialog box shows that the logger is connected to "COM4".) and click the OK button, please.



#11 Port setting box2

2 Manual Settings

- 1 Click [Logger] on the main menu, click [Port Setting] and then click [Manual Settings].
- 2 Manual Setting box (# 13) opens, and please click on a port number to set up. Please click the OK button after that.



#13 Manual Setting box

Caution:

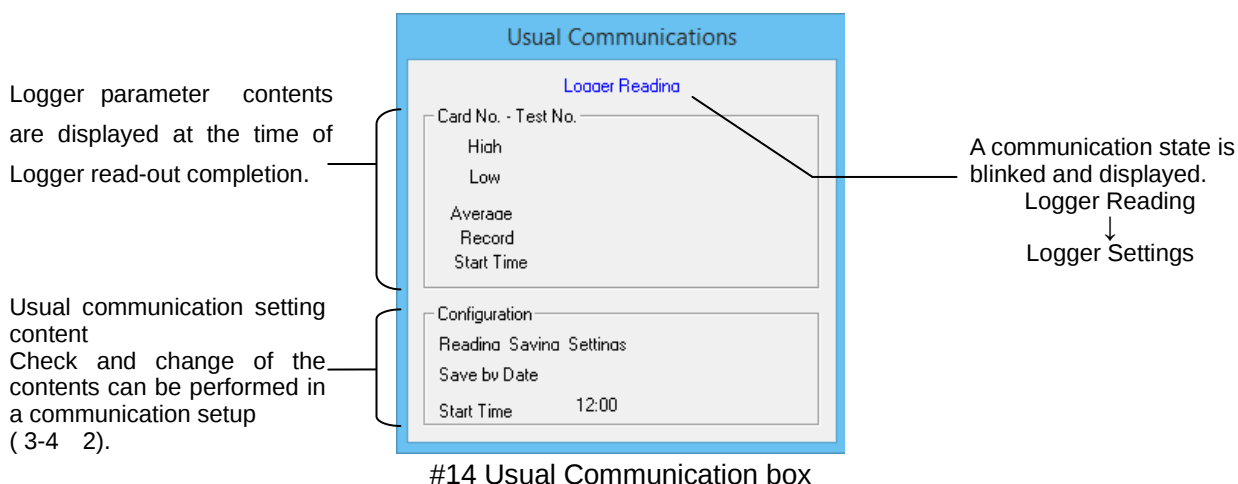
- The port number selects the number that the USB driver sets.
Please refer to "installation of a USB driver" for details.
- When starting after next time, the content set here is reflected.
- When it uses two or more our company USB equipment, the port number is changed depending on the turn of insertion in the USB port.

3-4. Usual Communication

When communicating the same contents periodically, it can work easily by this function.

1 Execute [Usual Communication]

- 1 It checks that Card Logger is in the state (refer to topic: p25) which can be communicated, and it sets to a data reading unit.
- 2 Click [Logger] on the main menu, click [Usual Communications] and then click [Usual Communications].
- 3 A box (# 14) opens during "Usual Communication", and Card Logger and communication are started.



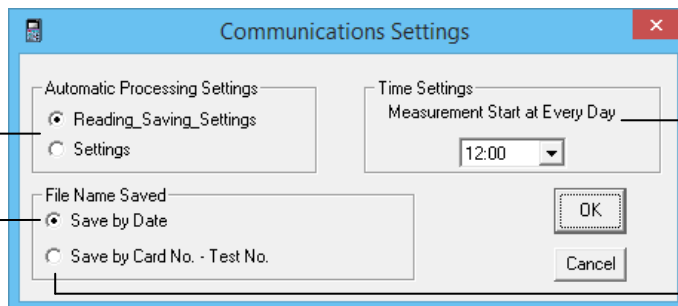
- 4 It is a communication end when a box closes.

Caution: When the Usual Communication is executed, all the recorded data preserved in Card Logger is deleted. When you save data, please make the contents of a setting "Reading + Saving + Setting"

2 [Usual Communication] Settings

- 1 Click [Logger] on the main menu, click [Usual Communications] and then click [Communications Settings]. The dialog box (# 15) shown below appears.

It is an item setting processed at the time of "usual communication" execution.



It can set up at intervals of 30 minutes between 00:00-23:30.

[save place]
"Card Logger Analysis Soft Ware"
folder

↓
"date "
folder

↓
The "day/time.cl6" file is saved in the
"year/ month" folder.

#15 Communications Settings box

[save place]
"Card Logger Analysis Soft Ware"
folder

↓
"number "
folder

↓
The "Card No.-Test No." file is saved
in the "year/ month/day" folder.

- 2 When each item in the box is set, and OK is clicked at the end, the setting is reflected in a usual communication from next time.

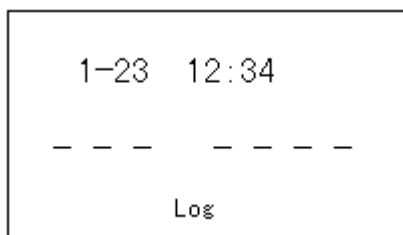
«Topic»

Communications mode of your Card Logger

For communications, set your Card Logger to communications mode

•For MR6661/MR6662

Press [DISPLAY] key to display a standard screen. Then, press [DISPLAY] key and [SELECT] key simultaneously to display the following communications screen.



•For MR5300/MR5320

Press [DISPLAY] key to display a standard screen.

Caution 1: You will not be able to get the above screen if [LOG] flashes on the screen of your Card Logger. Cancel the logging on your Card Logger. Refer to your Card Logger manual for the cancellation of logging.

Caution 2: If the communications with your computer is not executed for over 1 minute under the communications ready, the above screen disappears and the communications mode automatically ends.

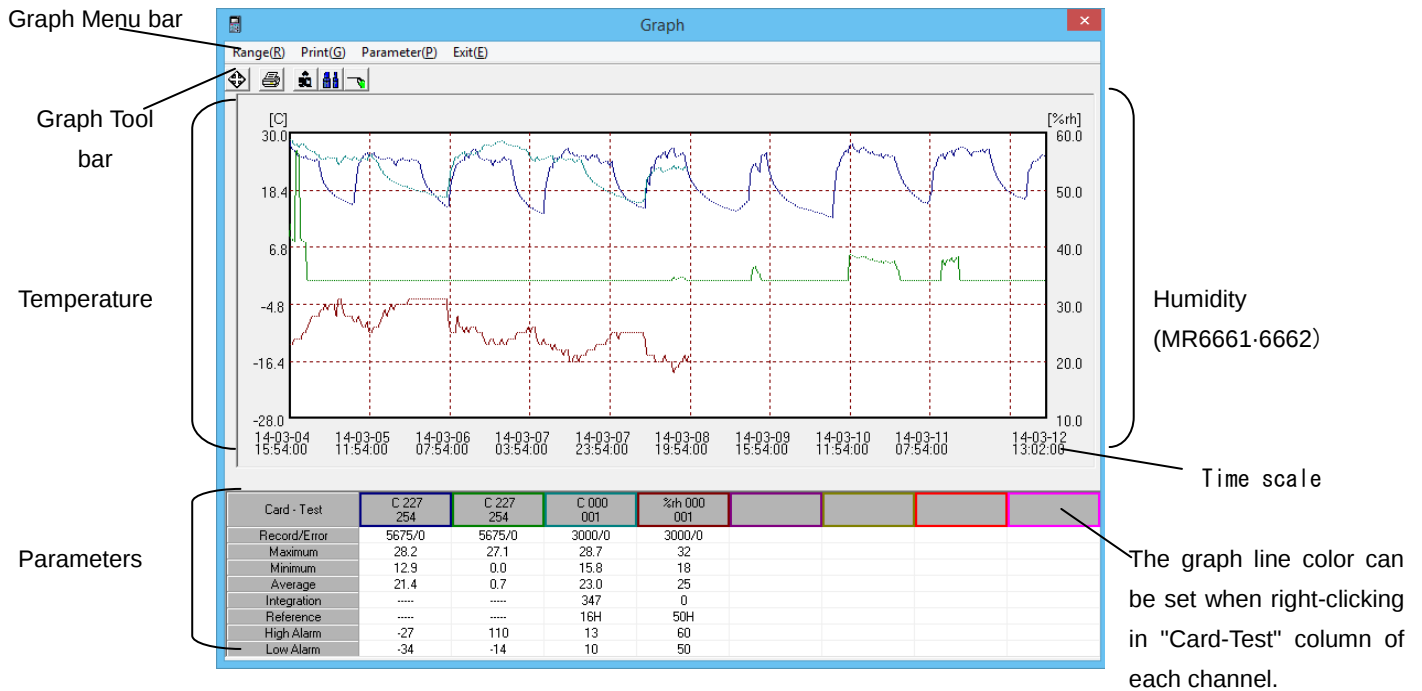
4. Graph

In this menu, the read data is expressed by the line graph. Moreover, the auxiliary function to graphical representations, such as Graph range change, printing, various parameter change, can be performed.

4-1. Displaying a graph

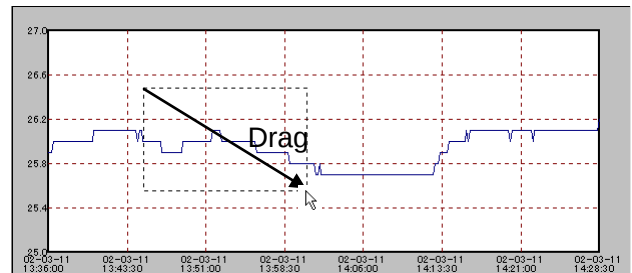
- 1 Click [Graph] to display a graph screen (# 16).

***The following shows the screen for temperature and humidity logger data. No items relevant to humidity data are displayed when display is limited to temperature data.**



#16 Graph box

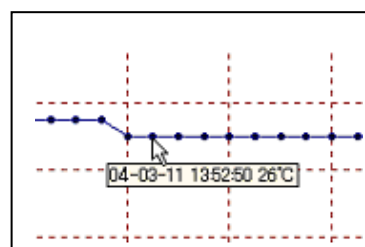
- The range is specified with the drag, and the range when it is displayed is expanded.



#17 Expansion display with drag

***When it displays by the expansion and right clicking is done in the graph, "Return to the automatic range" button is displayed. By clicking this button, the present graph range is automatically set as an initial range (automatic range).**

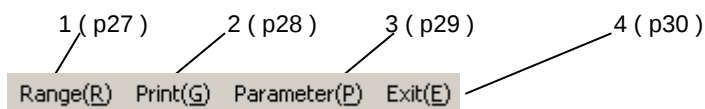
- When the cursor is matched to the data point on the graph, the date, time, and the temperature of the data are displayed.



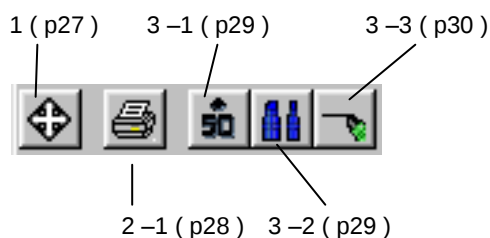
#18 Display of data point

4-2. Graph Menu

The graph box has original menus, and if these menus are performed, various auxiliary processing will be performed to graph. Moreover, the tool bar as well as the usual menu is prepared.



#19 Graph Menu bar



#20 Graph Tool bar

1 Programming scales of a graph

- 1 On the graph menu, click [Range]. The dialog box (# 21) shown below appears.

[Automatic range check box]

[Bound pair value of time]

Higher limit/lower limit values on time scale

[TEMP and HUMI range

bound pair value]

Please input a direct numerical value, or drag a lower scroll bar, and set up a value.

*Only the temperature range is displayed when there is no humidity data.

Move the focus to this check box and press the space key or click it by using the mouse to program higher limit/lower limit values automatically.

#21 Graph Area box

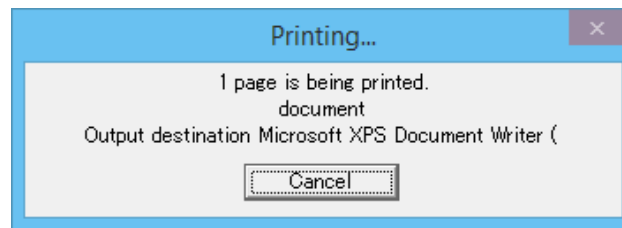
- 2 Program high limit values and low limit values, and then click OK button. Press [Tab] key to move the focus to the parameter for programming or click the parameter by using the mouse, and then enter the values by using [↑] / [↓] keys or 10-key.
- 3 Graph Area box closes and the graph in which the contents of range change were reflected is displayed.

Caution: The contents of change of a graph range are saved in a personal computer, and are reflected also at the time of the graphical representation of another data.
If the automatic range is confirmed, a range will be automatically set as the difference in data related each time.

2 Print

2-1. Printing a graph

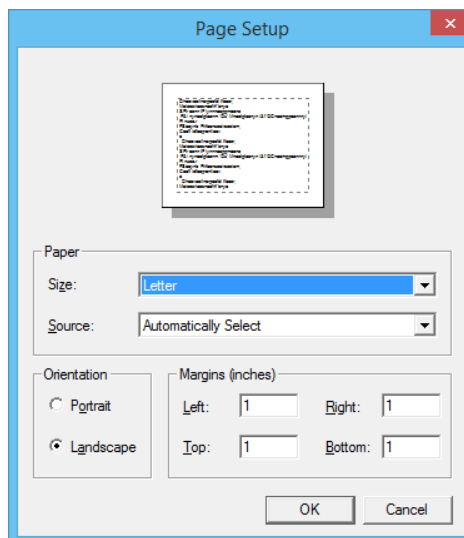
- 1 Click [Print] on the graph menu and then click [Printout]. The dialog box (# 22) shown below appears. If printing is completed, a Printing box will close.



#22 Printing Box

2-2. Page Setup

- 1 Click [Print] on the graph menu and then click [Page Setup]. The dialog box (# 23) shown below appears.



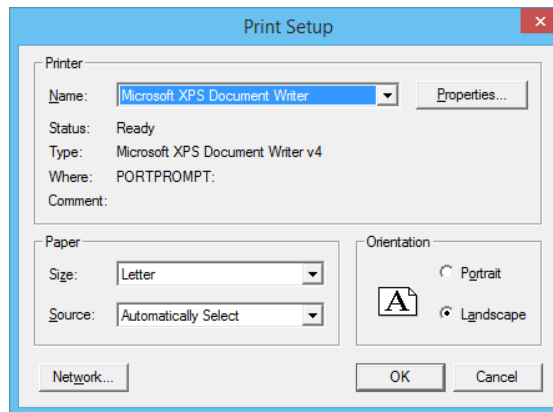
#23 Page-settings box

*The content of the display of the box is different according to the printer used.

- 2 Please set each item in the box, and click the OK button at the end.
- 3 The Page setup box shuts, and a set content are reflected from the next print.

2-3. Printer Setup

- 1 Click [Print] on the graph menu and then click [Printer Setup].
The dialog box (# 24) shown below appears.



#24 Print setup box

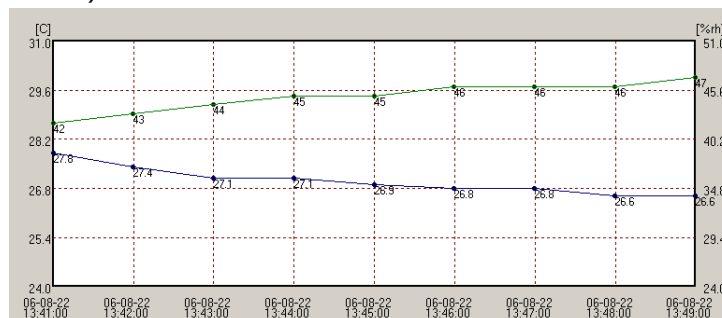
The content of the display of the dialog box is different according to the printer used.

- 2 Set up the printer and click OK button.
- 3 The dialog box shuts, and a set content are reflected from the next print.

3 Parameter

3-1 Label

- 1 Click [Parameter] on the graph menu and then click [Label], the numeric character data of each data point (temperature or humidity) is displayed on the graph.
(Refer to # 25.)



#25 Label display

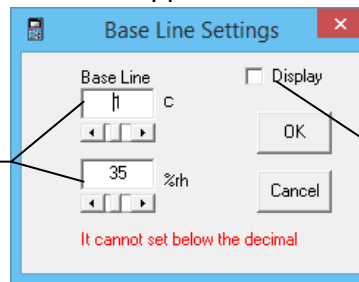
3-2 Line Width

- 1 Click [Parameter] on the graph menu and then click [Line].
- 2 The ✓ point is attached to the line width chosen now in a menu. It will be reflected in graph if line width to set up is clicked.

3-3 Base Line

- 1 Click [Parameter] on the graph menu and then click [Base Line].
The dialog box (# 26) shown below appears.

Base line setting temperature (or humidity) value
Please input a direct numerical value, or drag a lower scroll bar, and set up a value.



If a check is put into this check box, a base line will be displayed on graph.

#26 Base line setting box

*In the case of the graph, which does not contain humidity data, a base line setting humidity value is not displayed.

- 2 When each item in the box is set, and the OK button is clicked at the end, it reflects it in the graph.

4 Exiting from the graph menu

Click of Exiting Graph Screen on the menu to exit the graph screen and display the data screen.

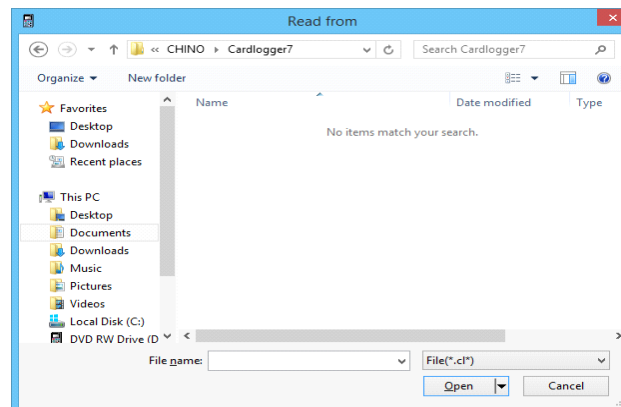
5. File

With this menu, the data reading, the preservation of the collection edit data (To the floppy disk and the hard disk), the print of data, and data can be edited.

5-1. Reading out data from a file

To read out the data of your Card Logger being stored in the floppy disk or the hard disk,

- 1 Click [File] on the main menu and then click [Open].
The dialog box (# 27) shown below appears.



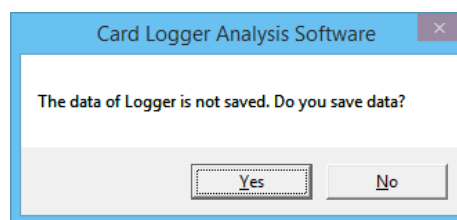
#27 Reading of file Box

- 2 Select the drive name, the directory and the file name, and then click OK button.

Caution: If the existing data were changed and have not been saved yet, the dialog box appears to ask if you save the modified data.

Clicking Yes button makes to save the modified data into the file and to read out the data from the file specified in 2 .

Clicking No button makes not to save the modified data but to read out the data from the file specified in 2 .



- 3 The data read out from the file are displayed on the screen.

Caution: Files with the extension of “.clg” , “.cl4” , “.cl5” , “.cl6” only can be read out.

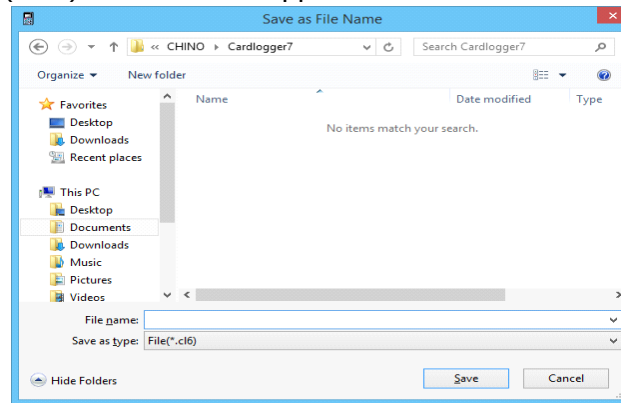
5-2. Saving data in a file(Rewrite)

- 1 Click [File] on the main menu and then click [Save].
Data will be saved in a file.

Caution: Files with the extension of [*.cl6] only can be saved.

5-3. Saving data in a file

- 1 Click [File] on the main menu and then click [Save as].
The dialog box (# 28) shown below appears.



#28 "Save as..." box

- 2 Please click the preservation button after inputting the file name specifying each item in the box.
- 3 Data will be saved.

Caution: Files with the extension of [*.cl6] only can be saved.

5-4. Saving data in text form

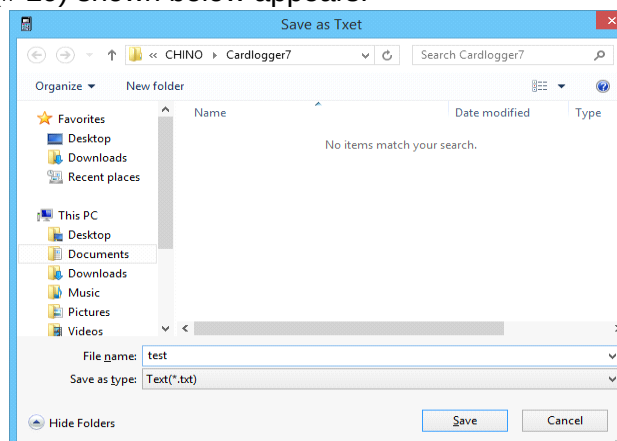
The file saved by text form can be read with commercial spreadsheet software.
It can save in two kinds of form, the usual text format or CSV (it corresponds by Excel etc.).

Caution:

- The file size by which text preservation was carried out becomes larger than Card Logger logging data file size.
- The file by which text preservation was carried out cannot be read with Card Logger Analysis Software.

Text

- 1 Click [File] on the main menu, click [Save as text] and then click [Save as Text File].
The dialog box (# 29) shown below appears.

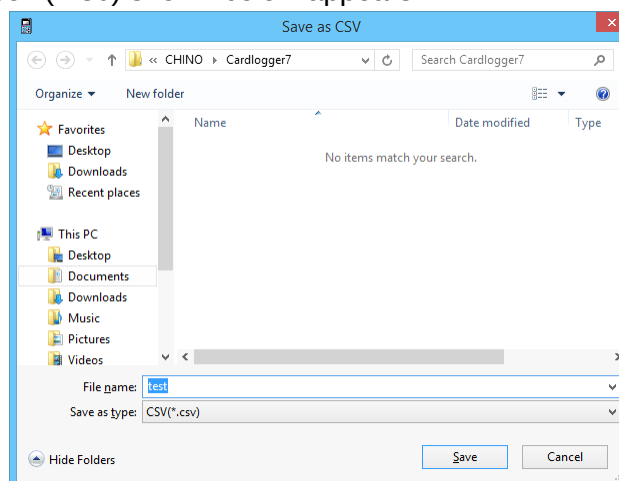


#29 Preservation box of text file

- 2 Please specify each item in the box, and click the preservation button after inputting the file name.
- 3 Data will be saved in a file as Text form.

■ CSV

- 1 Click [File] on the main menu, click [Save as text] and then click [Save as CSV]. The dialog box (# 30) shown below appears.



#30 Preservation box of CSV file

- 2 Please specify each item in the box, and click the preservation button after inputting the file name.
- 3 Data will be saved in a file as CSV form.

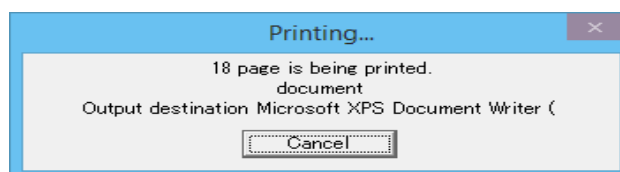
5-5. Print

Data is printed with this menu. Three kinds of printing methods were prepared so that it could respond to various analyses.

1 Printing out all data

All data will be printed out.

- 1 Click [File] on the main menu, click [Print] and then click [Print All]. The dialog box (# 31) shown below appears.



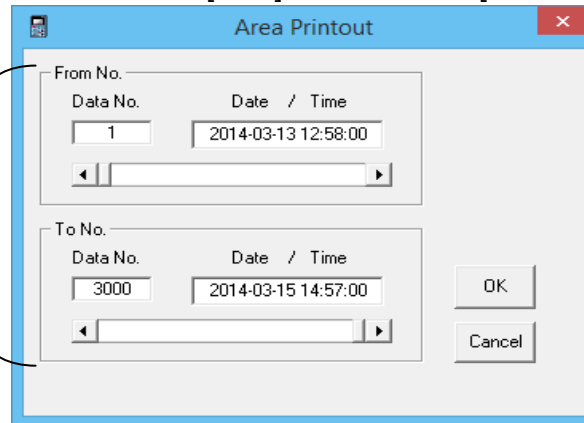
#31 Printing Box

- 2 A message box for printing will appear, and then all data Nos., time data and temperature/humidity data of each channel (CH) will be printed out. Click Cancel to stop printing.

2 Printing out a part of data

- 1 Click [File] on the main menu, click [Print] and then click [Print Area].

Please input a direct numerical value, or drag a lower scroll bar, and set up a value.



#32 Part print box

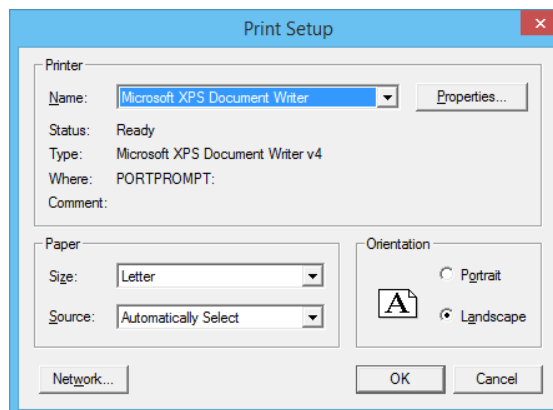
- 2 A dialog box for printing area will appear. Program a printing area if required, and then click OK. Press [Tab] key to move a focus to a parameter for programming or click the parameter by a mouse,
- 3 If printing is completed, a dialog box will close.

3 Printing out parameters

- 1 Click [File] on the main menu, click [Print] and then click [Print Parameters].
- 2 A dialog box for printing confirmation will appear. Execute [Printer Setup] if required and then click OK.
- 3 A message box for printing will appear, and then parameters of each channel (CH) will be printed out. Click Cancel to stop printing.

4 Setting up a printer

- 1 Click [File] on the main menu, Click [Printer Setup] on the dialog boxes shown below appears.



#33 Page settings box

The content of the display of the dialog box is different according to the printer used.

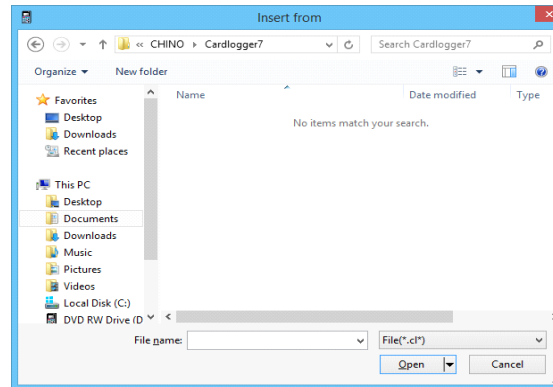
- 2 Set up the printer and click OK button.
- 3 The dialog box shuts, and a set content are reflected from the next print.

5-6. Inserting single data

It is a function convenient to carry out data edits to move one data of them from other files etc.

- 1 Click [File] on the main menu and then click [Insert].
The dialog box shown in 5-1. Select the drive name, the directory and the file name, as per **Par. 5-1. Read out from a file**, and then click OK button.

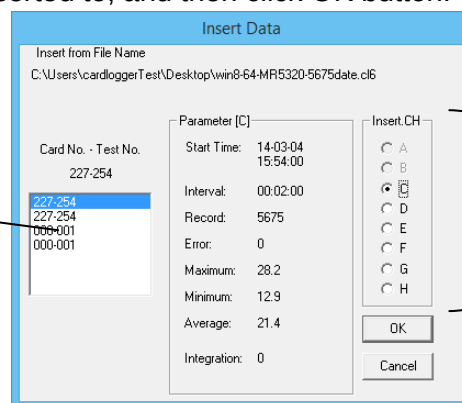
Caution: This cannot be executed if another file has empty channels (CH).



#34 Data insertion box

- 2 The dialog box shown below appears. Select the Card No.-Test No. and the channel (CH) inserted to, and then click OK button.

List of Card No.-Test No. of the data saved in the file selected



Select an empty channel to insert the data.

#35 Data insertion box

- 3 The single data selected is inserted to the channel (CH) selected, and it is displayed on the screen.

Caution: The time data on the screen are based on the leftmost channel (CH). If the single data selected is inserted to the leftmost channel (CH), the time data are changed to the time data of the single data selected.

5-7. Quitting the program

To quit the program,

- 1 Click [File] on the main menu and then click [Exit].

Caution: If the existing data were changed and have not been saved yet, the dialog box shown below appears to ask if you not save the modified data. Clicking OK button makes not to save the modified data but to quit the program. Clicking Cancel button makes to cancel the quitting of program.

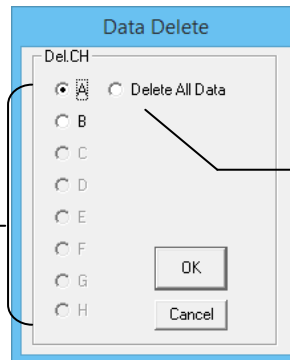
- 2 This program will quit.

6. Channel

To delete the data in the channel specified or all data,

- 1 Click [Channel] on the menu bar.

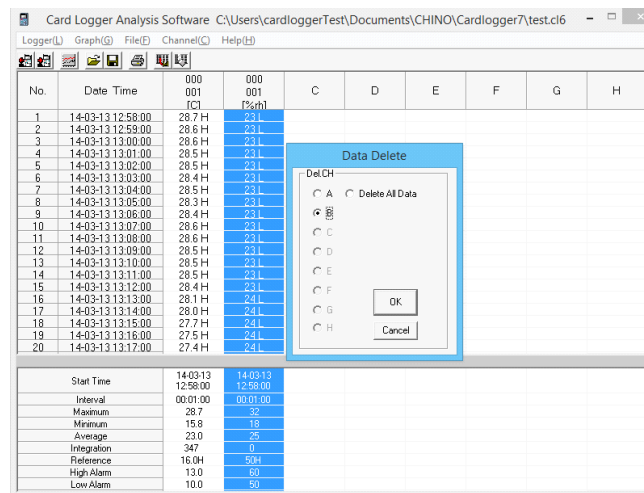
The data of channel (CH) selected are displayed reverse.



When this radio button is clicked, all channel data is selected as a deletion target.

#36 Data deletion box

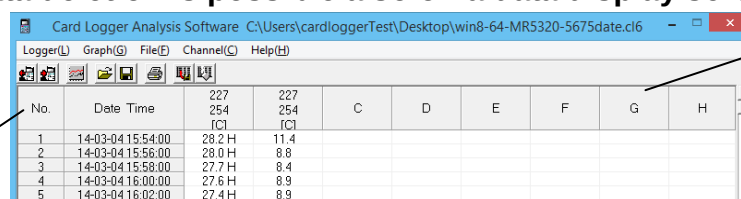
- 2 The dialog box shown below appears. Select Delete Specified Data or Delete All Data. On the Delete Specified Data, select the channel (CH) to delete the data, too. Click OK button.
Use Tab key and [→], [←], [↑], [↓] keys to select or click the items by using the mouse.



- 3 The data of channel (CH) selected are deleted.

■ Data deletion is possible also on a data display screen.

"All data deletion" button appears when right-clicking in this part. All data can be deleted by clicking the button.



"Channel deletion" button appears when right-clicking in this part of each channel. Each channel can be deleted by clicking the button. (Only the channel with data)

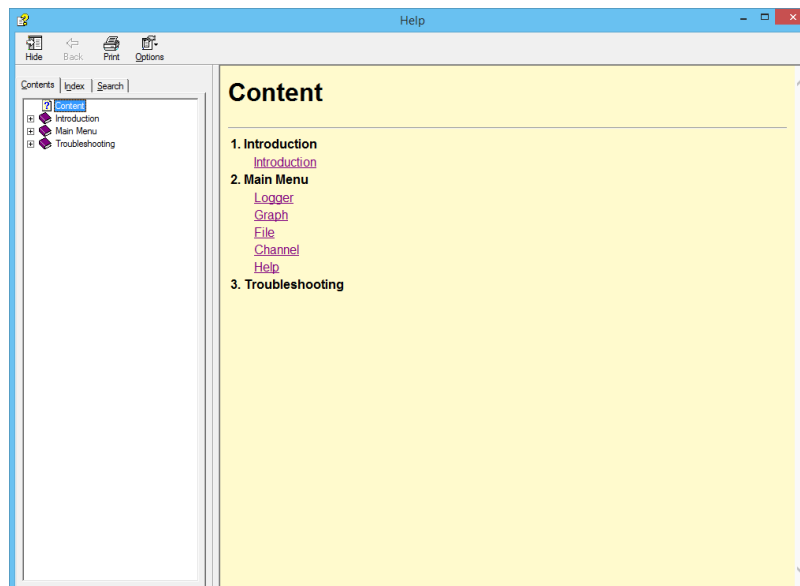
#37 Data display screen

7. Help

Help for the Card Logger Analysis Software, and version information, is available on this menu.

7-1. Analysis Software Help

- 1 Click [Help] on the main menu and then click [Analysis Software Help].

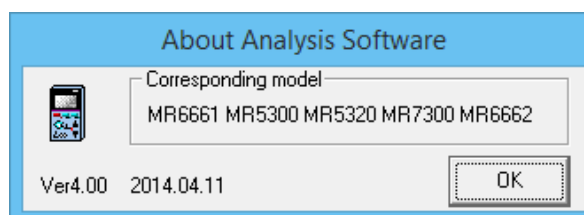


#38 Help box

- 2 A help screen for this program will appear.

7-2. Version information

- 1 Click [Help] on the main menu and then click [About Analysis Software].



#39 Version information box

- 2 Version information will appear.

8. Troubleshooting

Problem	Checkpoint/Solution
Reading out from Card Logger and programming Card Logger not possible.	•Is the serial port connected properly? (Refer to the Setup in the instruction manual for your personal computer. •Please perform a port setup (p23) and check whether communication of a personal computer and a data reading machine is established. •By referring "Communications mode of your Card Logger", set your Card Logger in communications mode. •Is the Card Logger placed to the data readout unit properly?
Screen shown in Par. "Communications mode of your card logger" not displayed.	•Is the character of [LOG] on the screen of the Card Logger flashing? If so, The Card Logger is in logging data or in standby condition. Stop the logging of data and re-operate the Card Logger.
Date and time programmed on the Card Logger not correct	•Are the data and time on your personal computer correct? (The date and time on your personal computer are programmed to the Card Logger.) If not, correct the date and time on Date/Time in Control Panel of your personal computer. (Refer to your instruction manual.)
Data or graphs not printed properly	•Is your printer set up? •Check if your printer was installed to Printers in Control Panel. (Refer to your instruction manual.)
File not read out	•Are the drive name, the directory and the file name correct? •Is the file name with the extension of ".clg", ".cl4", ".cl5", ".cl6"?
File not saved	•Are the drive name, the directory and the file name correct? •Is the file name with the extension of ".cl6"?
File not saved as text	•Are the drive name, the directory and the file name correct?
File not inserted	•Are the drive name, the directory and the file name correct? •Is the file name with the extension of ".clg", ".cl4", ".cl5", ".cl6"? •Confirm if you have empty channels (CH) on the screen of data.
Graph not displayed	•Are the data stored in any of channels? (Graph is not displayed if no data exist.) •Quit other applications being worked.

9. Specifications

[Specifications]

Personal computer	: attaching USB interface
OS	: Windows® XP Service Pack 3 Windows Vista® Service Pack 2 (32bit) Windows 7 (32bit/64bit) Windows 8 (32bit/64bit)
Correspondence procedure	: Card Logger and a data readout unit are non-contact infrared systems (4800bps) USB standard cable (TypeA) between data readout unit and a personal computer.
Cable length	: 1.4m
Power supply	: Receipt from personal computer side
Category temperature range	: 0~40°C
Outside dimension	: W59.5×H101.5×D31.5
Weight	: About 180g

[Specifications and functions of the program]

Number of channels	: 8CH
Number of data displayed	: 6000data(MAX)
Displays	: Table and graph
Printer output	: DataList, Graph
Programming parameters on Card Logger :	

Clock, start time, measurement intervals, card number, and test number.

Higher/lower limit alarm values, and reference value, direction of integration.

Reserved logging end time, and key lock enabled/disabled.

Readout from Card Logger:

Programmed parameters, logging data, number of logging data, number of errors, maximum value, minimum value, and average value. integrated value.

[Outside dimension]

