WATCH LOGGER

Data Collection and Control
User's Manual

Version 1.04.0.1006

Fujita Electric Works, Ltd

First version: Jan 18, 2005
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Fujita Electric Works, Ltd

Introduction

Thank you for purchasing WATCH LOGGER Data Collection and Control.

This manual describes how to install WATCH LOGGER Data Collection and Control in your computer for operation.

We hope our product contributes to increase in productivity of your office work.

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Part 1:Connection and program installation

Part 2: System preparation

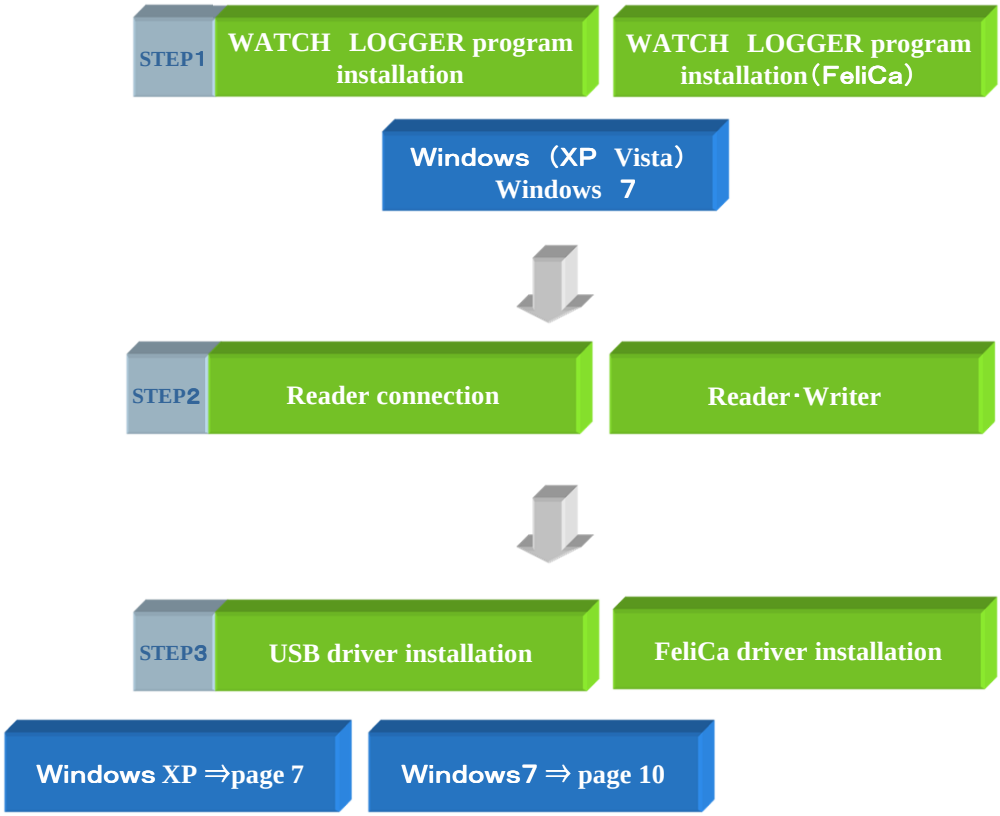
Part 3:Sampling data display and storage

Part 1 Connection and program installation

1. Installation procedure

This system is for data loggers that use wireless communication(KT-1xx/KT-2xx), USB communication(KT-xxx1 and FeliCa communication(KT-xxxF). The system enables them to do setting, sampling data display and storage in the computer connected by respective means of communication. Program installation is proceeded in three steps. Details of each step is explained separately. Please make sure to install properly as wrong connection and installation may cause trouble in sampling.

【 Installation procedure 】



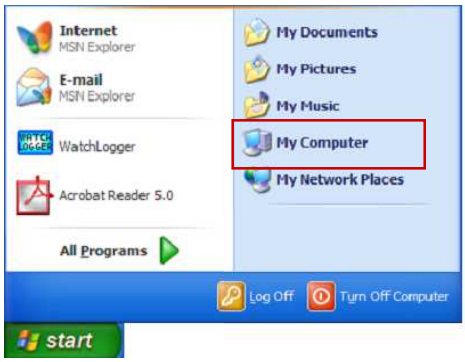
Step 1 WATCH LOGGER program installation【Windows XP/Vista】

Programs control logger setting, sampling data display and data storage.
If you are running other applications, make sure to quit them before installation(WINDOWS XP).

1) Place WATCH LOGGER data collection and control(CD) in the appropriate drive.

2) Click "My computer" in "Start menu". See chart【1.3.1】

【 1.3.1 Start menu 】



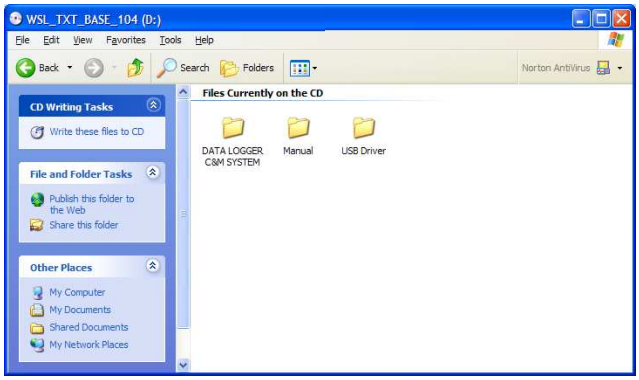
3) Double click CD drive (WSL_TXT_BASE_104). See chart【1.3.2】

【1.3.2 】

4) Double click "WATCH LOGGER data collection and control system".【1.3.3】

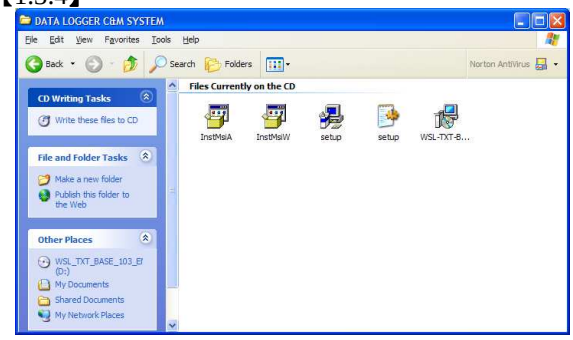
※Double click "WATCH LOGGER data collection and control system for FeliCA" in case of using "FeliCa" version.

【1.3.3 WATCH LOGGER data collection and control 】



5) Double click " setup" icon【1.3.4】

【1.3.4】



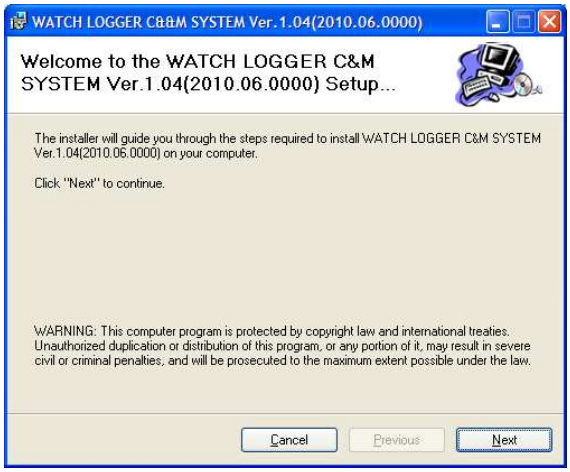
6) Starting "Windows installer" for preparation of installation【1.3.5】

Then, "WATCH LOGGER data collection and control" set up wizard will start.【1.3.6】

Click "Next (N)"

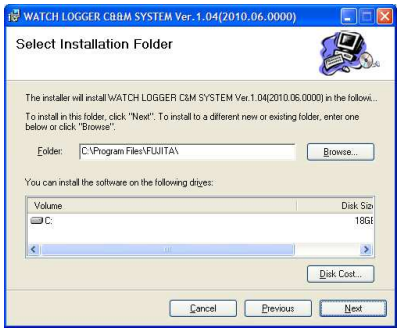
【1.3.5 】

【1.3.6 】



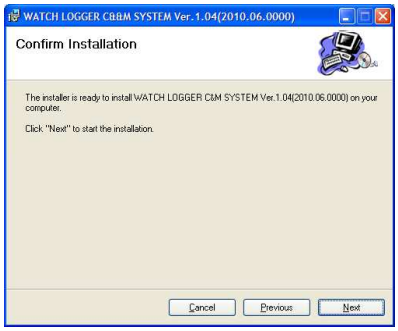
7) “Confirm installation” screen is displayed【1.3.7】
Click “Next(N)” if there is no problem.

【1.3.7】



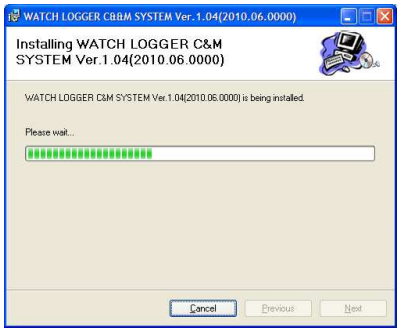
8) Click “Install (I)” for installation【1.3.8】

【1.3.8 】



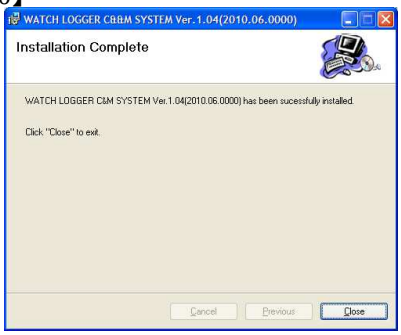
9）Installation being processed【1.3.9】

【1.3.9 】



10) Installation is completed. Click “Close” to exit
【1.3.10】

【1.3.10 】



11)Installation is finished. Remove “LOGGER data collection and control”（CD）from the drive.

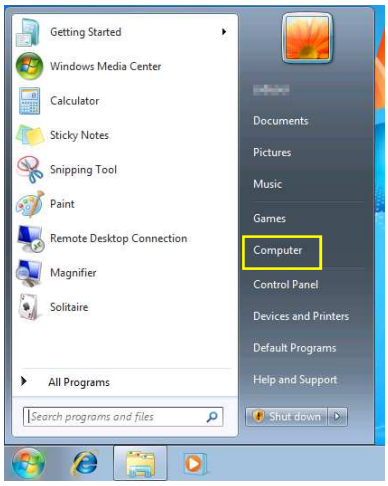
Step 1　WATCH LOGGER program installation【Windows 7】

This programs control logger setting, data sampling and data storage.
If you are running other applications, make sure to quit them before installation(WINDOWS 7).

1) Place “WATCH LOGGER data connection and control”(CD) in the appropriate drive.

2) Click “Computer” in “Start” menu【1.3.1】
3) Double click ”DVD/CD-ROM drive SL_TXT_BASE_104）“【1.3.2】

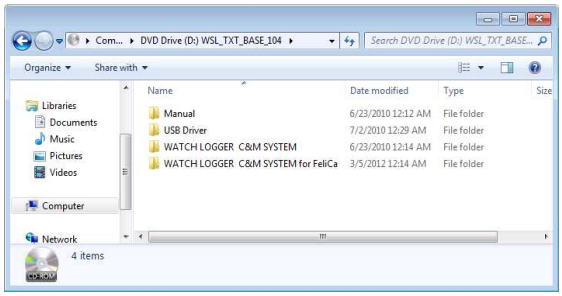
【1.3.1 】



【1.3.2】

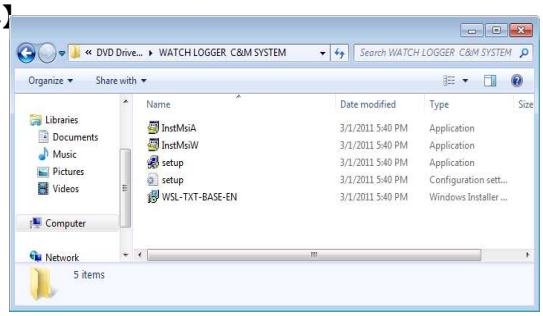
4) Double click “ WATCH　LOGGER data collection and control”【1.3.3】

【1.3.3】



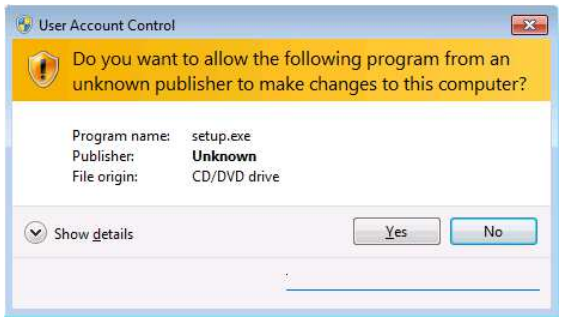
5) Double click “wsl-1-4-0-1006”【1.3.4】

【1.3.4】



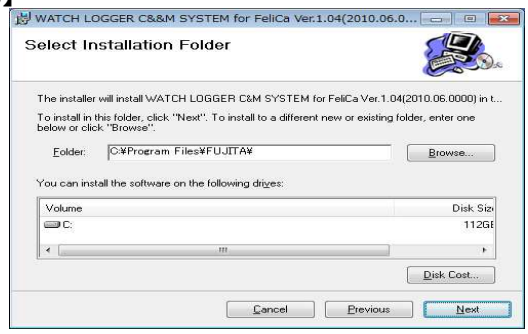
6) Click “Yes (Y)” in “User account control” screen. Preparation for installation will start.【1.3.5】

【1.3.5】



7) “Select installation folder” screen is displayed【1.3.6】 Click “Next（N）” if there is no problem.

【1.3.6】



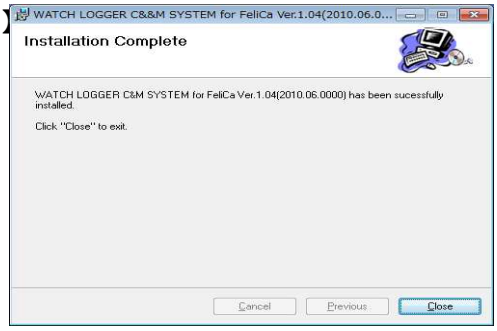
8) Click “Install(I)” to start installation【1.3.7】

【1.3.7】 

9) Installation being processed【1.3.8】

【1.3.8】 

10) Installation is finished. Click”Finish(F)”【1.3.9】

【1.3.9】 

11) Installation is finished. Remove “LOGGER data collection and control”(CD) from the drive.

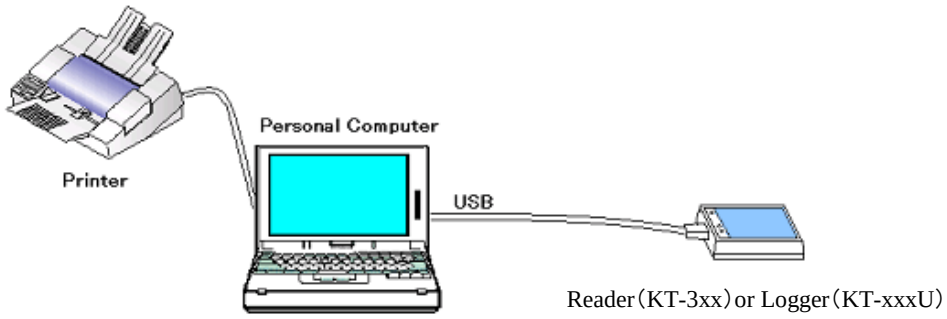
Step 2 Connection of Reader(KT-3xx) and Logger (KT-xxxU)

Connect reader unit or logger with PC

1) Switch on PC to start Windows

2) Connect USB cable with a reader or a logger

3) Make sure activation of Windows and connect the other end of USB cable with USB port of PC【1.1.1】



【1.1.1 Sample connection of WATCHLOGGER system 】

Step 3 USB driver installation (Windows XP)

Installing USB driver in PC for reader recognition

1) Connect a reader with PC. It will be automatically recognized. “New hardware searching Wizard” is opened as per chart【1.2.1】that is used for installing necessary USB driver. Select (S) that is to install from” general or specific place” and click Next(N).

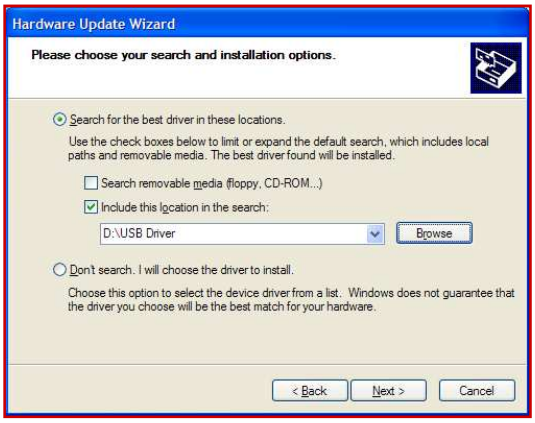
2) Place “LOGGER data collection and control”(CD)in the CD drive and select “search (M) removal media (Floppy, CD-ROM)”. Click Next (N).

3) Select USB Driver holder and click to continue. 【1.2.2】

4) Warning message”Not approved by Windows logo test”is appeared. Click “continue(C) “【1.2.3】.

【 1.2.1 New Hardware searching Wizard 】

【 1.2.2 New Hardware searching Wizard 】

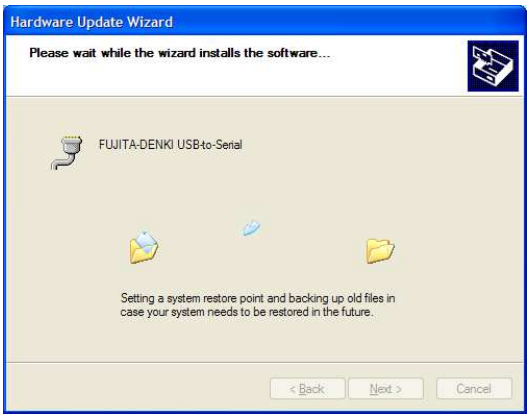


【 1.2.3 New hardware searching Wizard 】

5) Starting USB driver installation【1.2.4】

6) Click “OK”【1.2.5 】

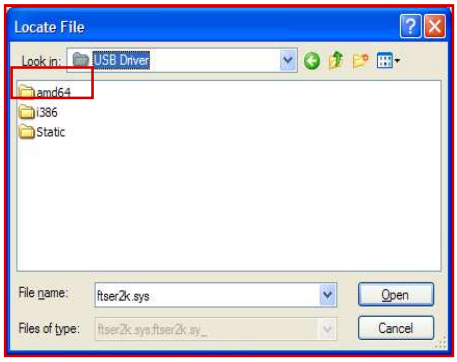
【 1.2.4 New hardware searching Wizard 】



【 1.2.5 New hardware searching Wizard 】

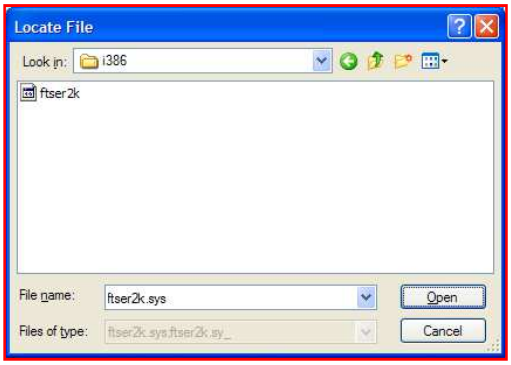
7)Select folder386 and click “open”

【 1.2.6 New hardware searching Wizard 】



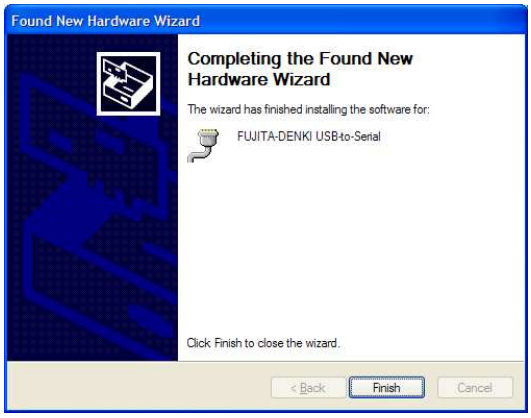
8) Select folder and click “open”

【 1.2.7 New hardware searching Wizard 】



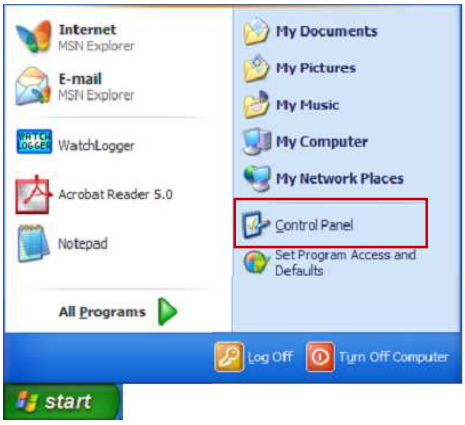
9) Click “Finish” button when【1.2.8】screen is appeared.

【 1.2.8 New hardware searching Wizard 】



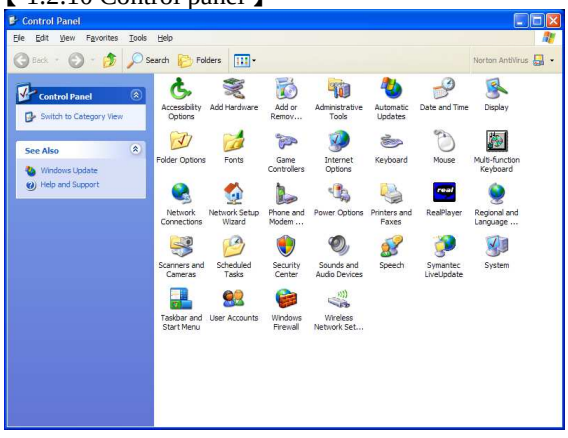
10) Click “Control panel” in “Start menu”【1.2.9】to check proper installation of USB driver.

【 1.2.9 Start Menu 】

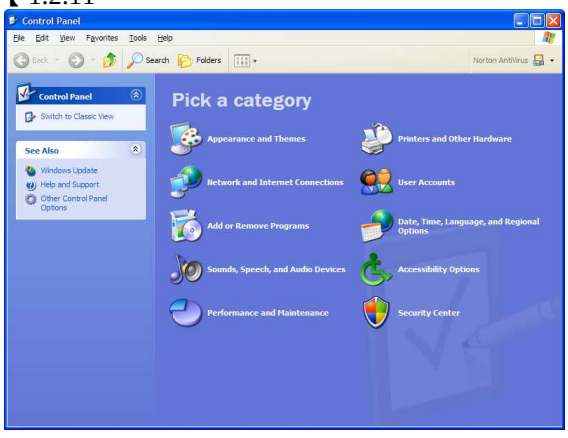


11) Double click system icon”  “after starting Control panel【1.2.10】.
Click “Change to classic display mode” when screen【1.2.11】is displayed

【 1.2.10 Control panel 】



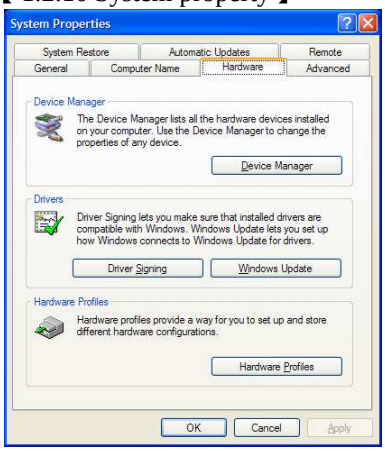
【 1.2.11



12) Click “Hardware” tag【1.2.12】when system property screen is opened. Click “Device manager (D)”【1.2.13】

【 1.2.9 System property 】

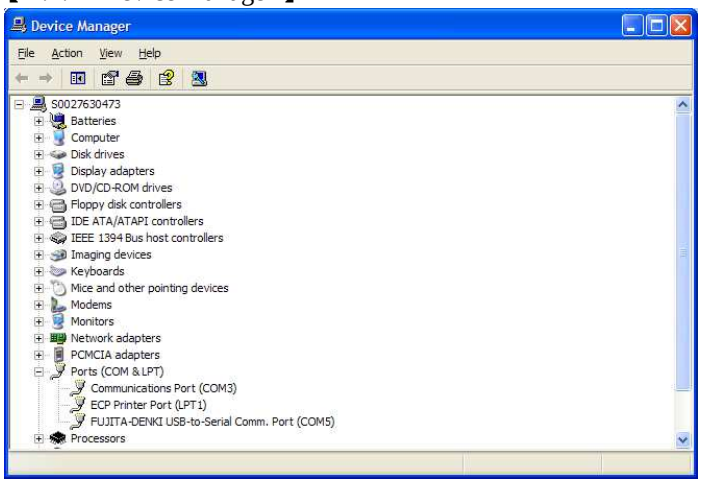
【 1.2.10 System property 】



10) Double click “Port(COM and LPT)” after opening device manager. Installation is properly completed when “FUJITA-DENKI USB-to-Serial (xxxx)”*【1.2.11】is appeared.

* xxxx is the name of additional communication port (COM port). (It is COM5 in【1.2.11】)

【 1.2.11 Device manager 】



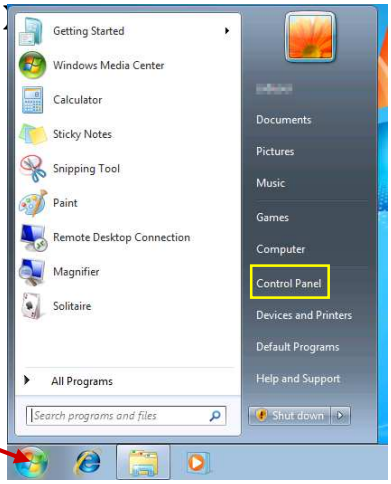
11) USB driver installation is completed.
Remove”LOGGER data collection and control ”(CD)from CD drive.

Step 3 USB driver installation (Windows 7)

Installation of USB driver in PC for reader recognition

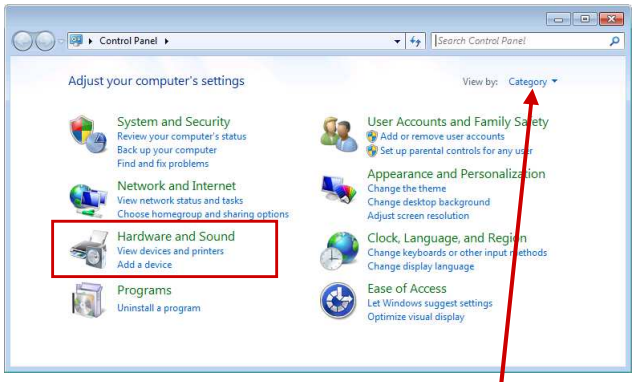
1) Click “Control panel”【1.2.1】in start menu.

【1.2.1】



2) Click “Hardware and sound” in “Control panel”【1.2.2】

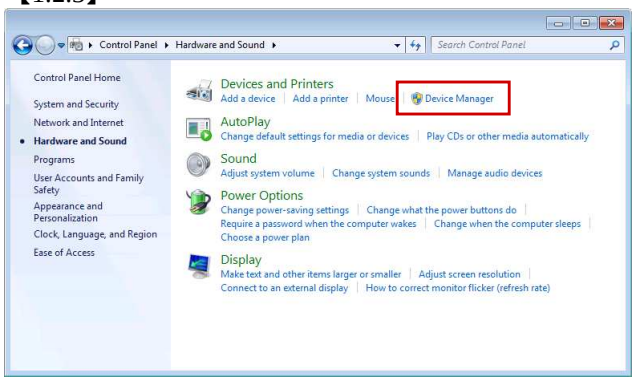
【1.2.2】



•Click “Big icon” in display method category at upper
• right of control panel to display【1.2.3】

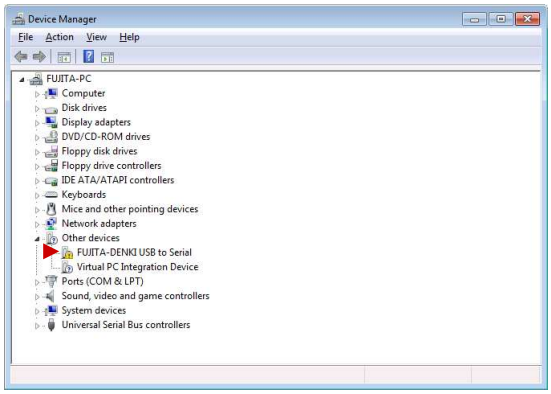
3) Click “Device manager”【1.2.3】

【1.2.3】



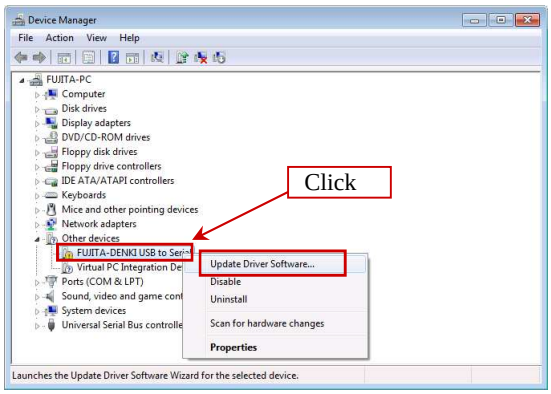
4) Click port ► below when “FUJITA-DENKI USB to Serial”【1.2.4】is not displayed.

【1.2.4】



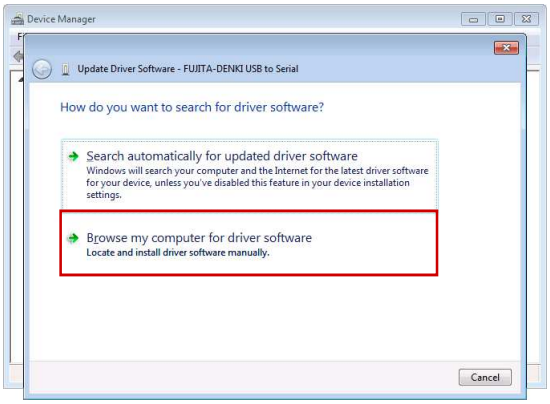
5) Right click “FUJITA-DENKI USB to Serial”【1.2.5】. Click “Revise driver software” from popup menu.

【1.2.5】



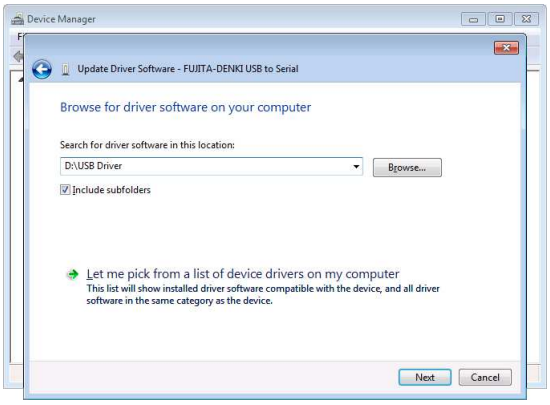
6) Click “Computer” and search driver software “R”.Click chart【1.2.6】.

【1.2.6】



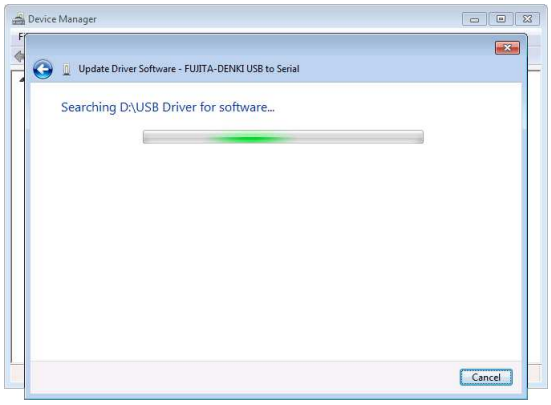
7) Drive name" F" in "F:¥USB Driver" depends on computer used. Click "Next (N)【1.2. 7】if it is OK.

【1.2.7】



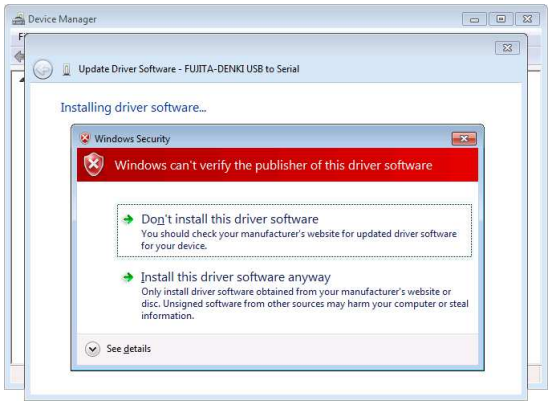
8) "Searching in process" screen【1.2.8】

【1.2.8】



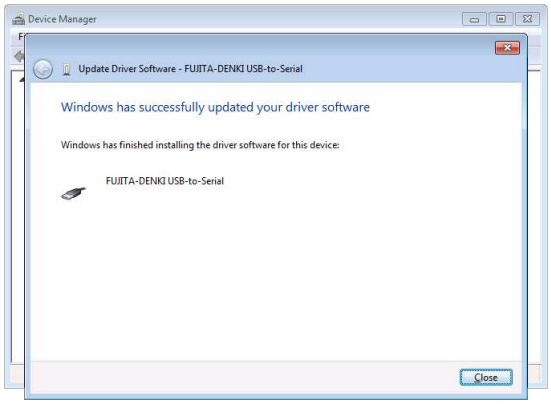
9) Click "Install this driver software (I)"【1.2.9】

【1.2.9】



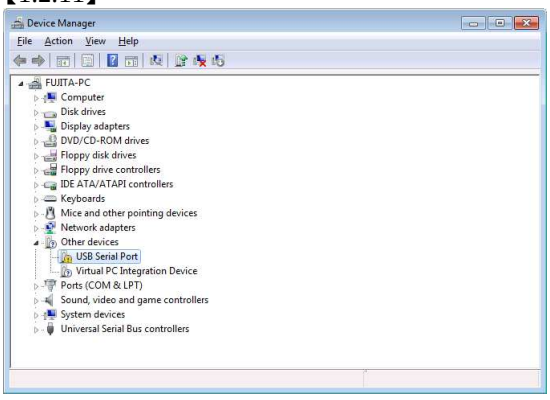
11) Click "Installation is finished (C)"【1.2.10】

【1.2.10】



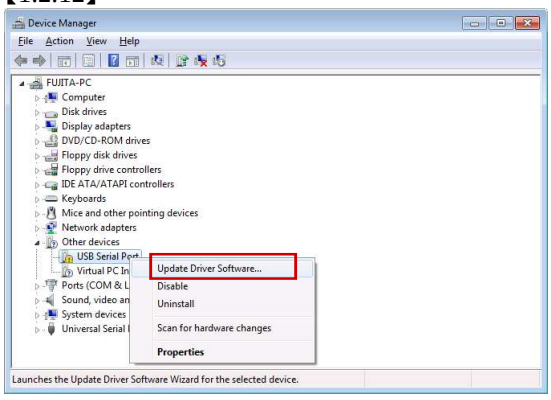
11) Identify output port. Process is almost same as installation process. Click "FUJITA-DENKI USB to Serial" in displayed screen. 【1.2.11】

【1.2.11】



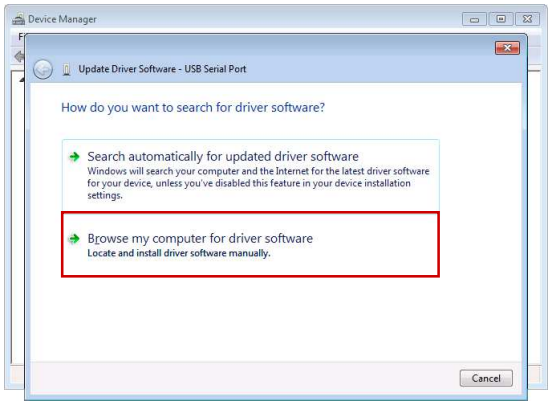
12) Click "Revise driver software" from popup menu【1.2.12】

【1.2.12】



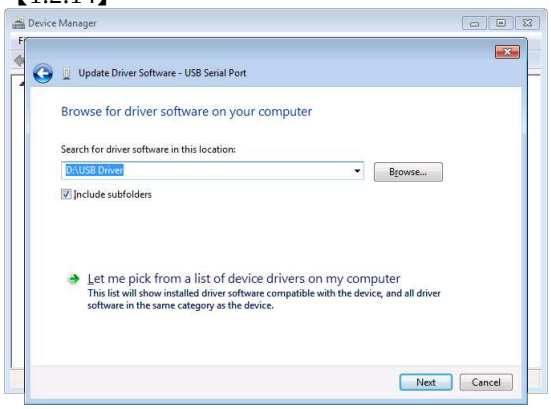
13) Click “Computer” and search driver software “R”. Click chart【1.2.13】

【1.2.13】



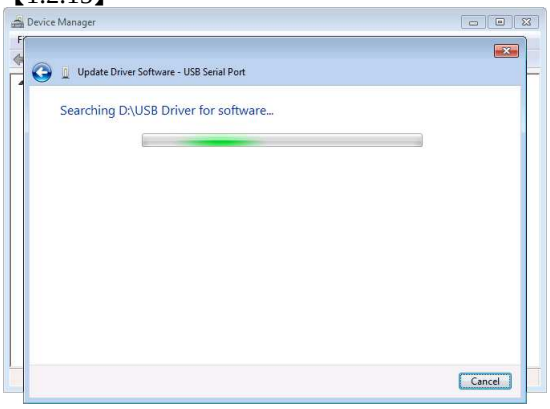
14) Drive name “F:” in『F:¥USB Driver』depends on computer used. Click “Next”(N) if it is OK.【1.2.14】

【1.2.14】



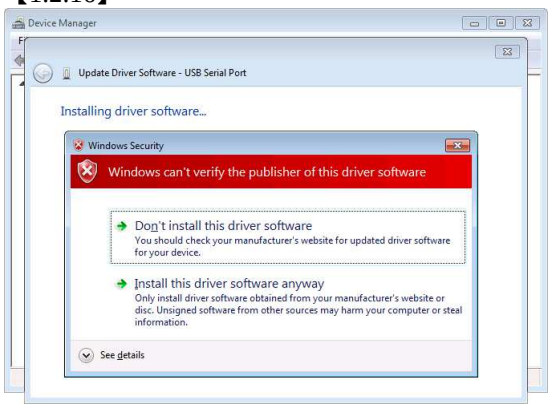
15) Click “Searching in process” screen【1.2.15】

【1.2.15】



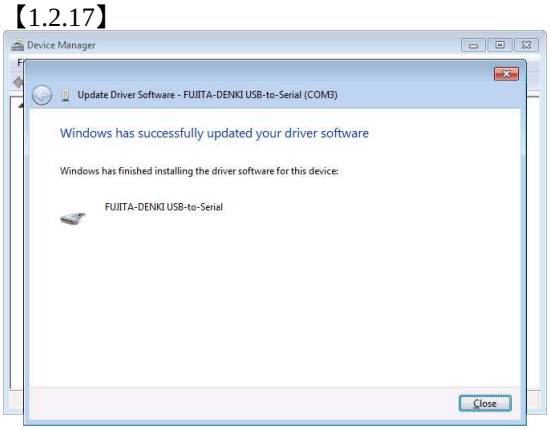
16) Click “Install this driver software (I)” 【1.2.16】

【1.2.16】



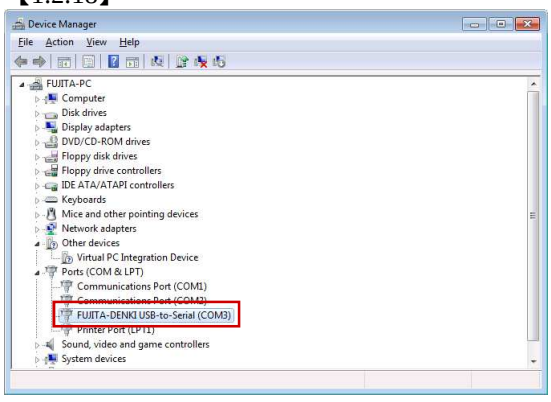
17) Installation is finished. Click “Close(C)”【1.2.17】

【1.2.17】



18) Port (COM3)is configured【1.2.18】

【1.2.18】



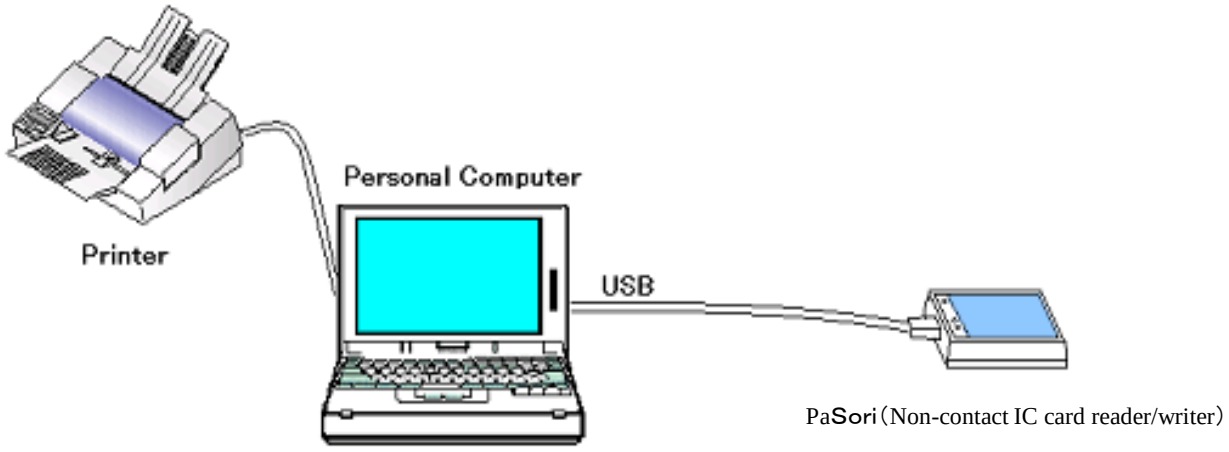
19) USB driver installation is finished.
Remove “LOGGER data collection and control”(CD)from CD drive.

Step 2 Reader/Writer connection (PaSoRi)

This system enables PC which is connected with PaSoRi (non-contact IC card reader/writer) to do data logger setting, display of sampling data and data storage using FeliCa non-contact communication system.

Connecting a reader with PC

1) Switch ON to start Windows
2) Make sure Windows is started. Use USB cable to connect PaSoRi with PC.【1.1.1】



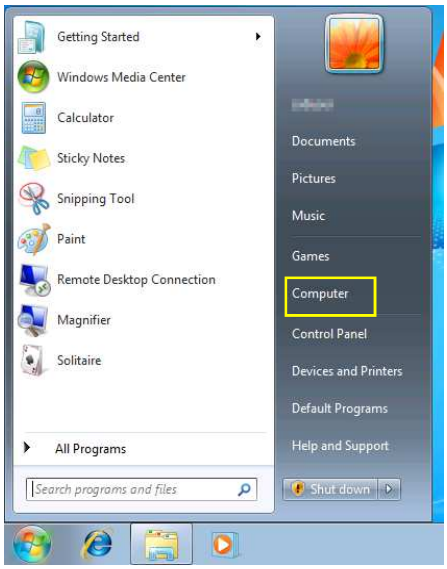
【1.1.1 WATCH LOGGER system - sample connection 】

Step 3 PaSoRi driver installation

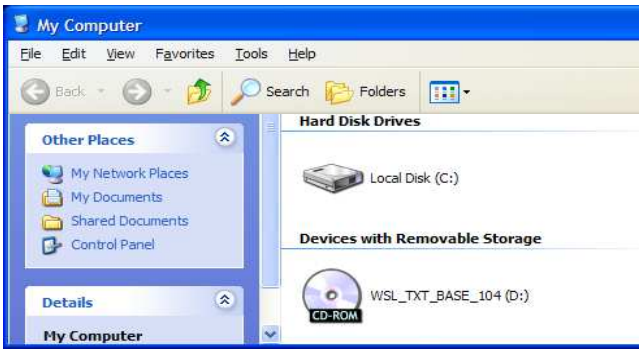
Install PaSoRi driver and recognize a reader

1) Set “WATCH LOGGER data collection and control”（CD）in CD drive.
2) Click “computer” in START menu. 【1.2.1 】
3) Double click “DVD/CD-ROM drive（WSL_TXT_BASE_104）”【1.2.2】

【1.2.1 】

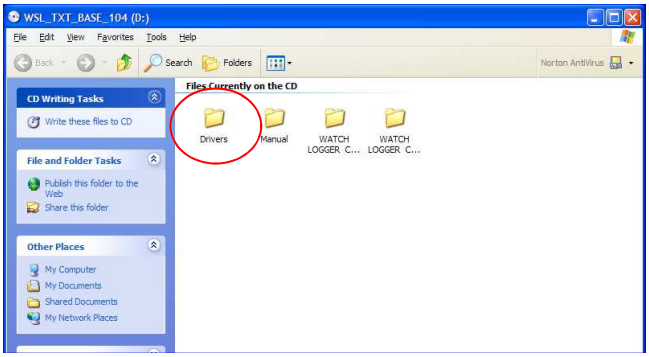


【1.2.2】



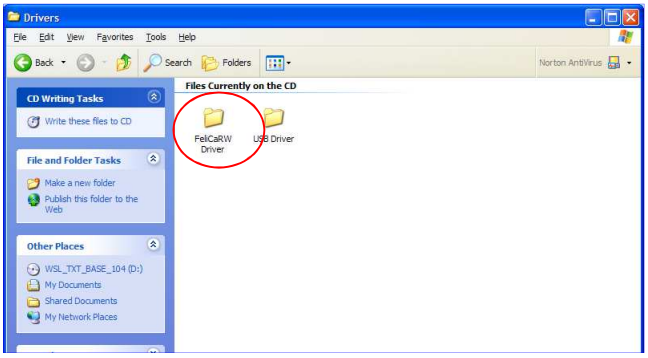
4) Double click “Drivers” folder【1.2.3】

【図1.2.3】



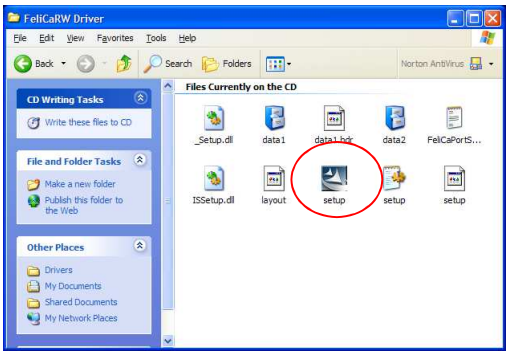
5) Double click “FeliCaRW Driver” folder【1.2.4】

【図 1.2.4】



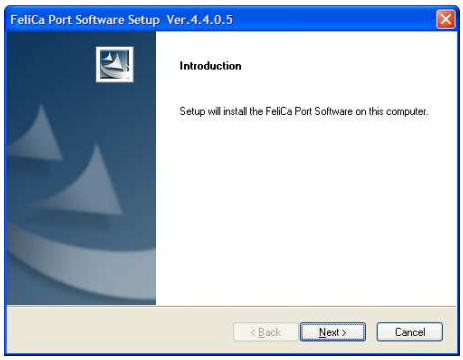
6) Double click “setup” icon【1.2.5】

【1.2.5】



7) Click “Next” in “FeliCa Port software Setup”【1.2.6】

【1.2.6】



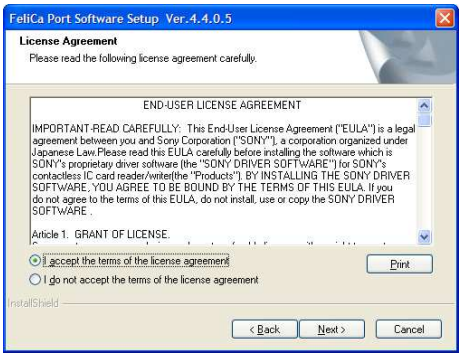
8) “License agreement” screen is displayed【1.2.7】
Check the contents of “Software license agreement” and click ” agree”, if it is acceptable, and click “Next” to continue.

9) Starting installation.

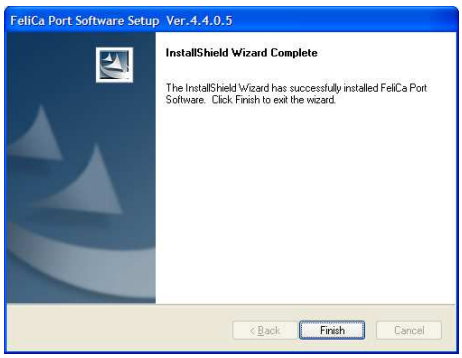
10) Installation is finished. Click “Finish”【1.2.8】.

11) Installation check is completed. Remove “LOGGER data collection and control”(CD) from CD drive.

【1.2.7】



【1.2.8】



Part 2 System preparation

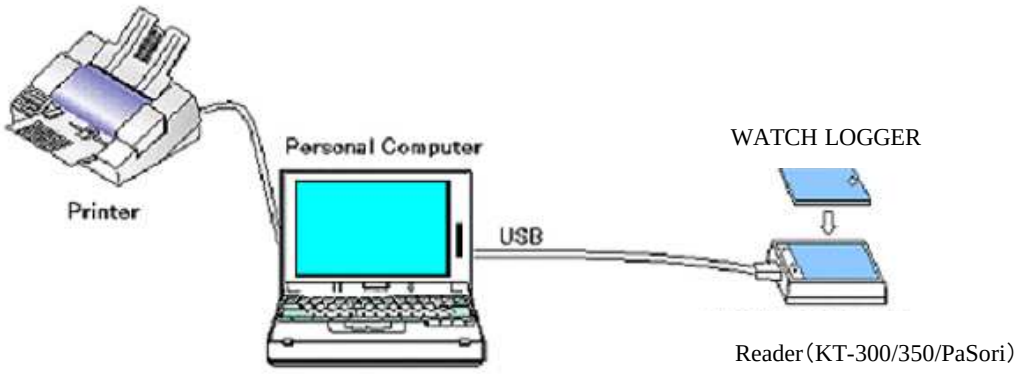
1. Starting program and finish

Starting program

1) Switch “ON” to activate Windows

2) Connect a reader with PC

3) Place a logger on a reader【2.1.1】



【2.1.1 WATCH LOGGER system sample connection KT-175】

Notes when a data logger is placed on a reader (Card type)

①Make sure to place a logger panel and a reader to face upside.
②Make sure to place them keeping Fujita positions identical.
③Make sure to keep the reader away from metal object.

4) Click [Start]－[All programs]－[FUJITA]-[WATCH LOGGER data collection and control]－[WATCH LOGGER data collection and control【2.1.2】.（Depends on PC setting）
Or, Double click “WATCH LOGGER data collection and control” icon in Desk top【2.1.3】
After this operation, main screen of “WATCH LOGGER data collection and control”」is opened.（【2.1.6】→page 12）
Each Logger has different Icon design.

【 2.1.2 Start menu 】

【 2.1.3 Desk top icon 】

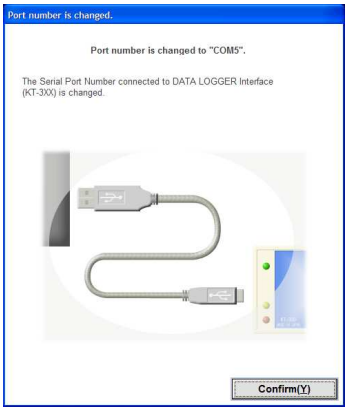
When KT-1xx, KT-2xx, KT-xxxU is used

When KT-xxxF type is used

【 2.1.4 Port number change screen 】

5) "Port number change screen"【2.1.4】is displayed when it is starting first time. It shows that port number in environment setting is automatically set provided that USB driver is properly installed. Click "OK" to continue.

•No such display for FeliCa port connection

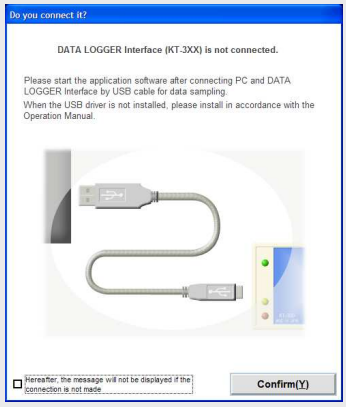


No reader is connected

"No connection screen" message, shown right, is displayed【2.1.5】 When a reader for data collection is not connected, or USB driver is not properly installed,
Check USB cable if a reader is properly connected with PC.

Click check box in the lower right side of the screen mentioning "No message is displayed in the future when no connection is engaged" if no such display is required next time.

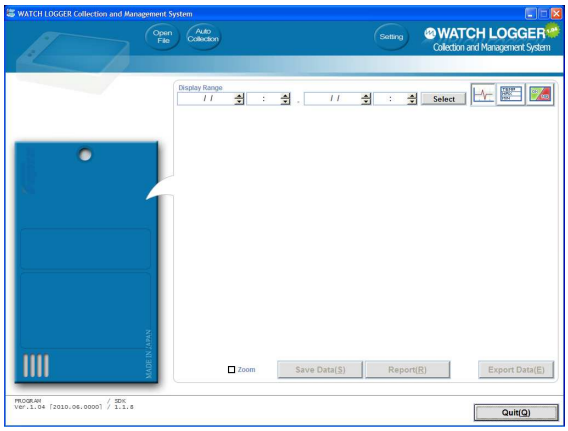
【 2.1.5 No connection screen 】



【 2.1.6 Main screen 】

6) Controls environment setting, sampling condition setting and sampling data display and storage. For each operation, see each item for detailed instructions.

7) To finish the program, click "Yes (N) "in "Finish check" message【2.1.7】after clicking button in the main screen【2.1.6】or "Finish (Q)" button.



【 2.1.7 Finish check 】

2. Environment setting

Setting and maintenance required for operation of the program

1) Click environment setting 

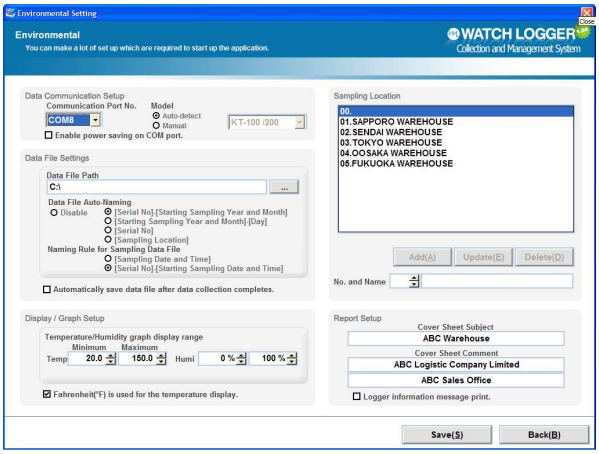
in the main screen.
Starting environment setting screen【2.2.1】

2) Set various settings that control sample data collection and control. For details of the settings, see description of each item.

3) Store setting details after each setting is completed.
Click "Store(S)". Then,"Environment settings, storage check"message is displayed【2.2.2】
Click "Yes (Y) " if it is OK.

4) Click "Return (Q)" to go back to main screen after maintenance is completed.

【 2.2.1 Environment setting screen 】



【 2.2.2 Environment setting and Storage check 】

2-1. Communication setting

Set communication port and connection type setting 【2.2.2-1.1】

Communication port

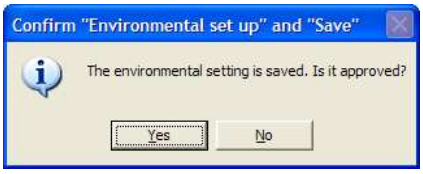
Allocate communication port for communication of USB reader and PC. Click " ▼ "」to show communication port. Select from COM1～COM50. (Recommend "automatic" in normal case)

Type recognition

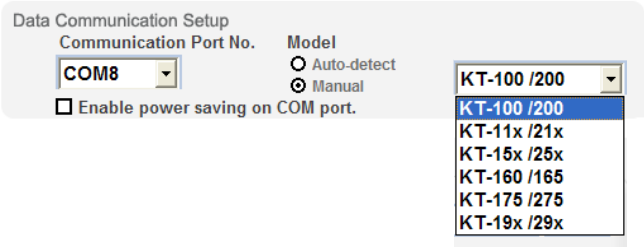
Type recognition is normally set as automatic. Reading speed can be accelerated by type recognition is set as "manual" and fix the type of a logger used.
※No display for FeliCa port connection

Automatic communication stop for energy saving

Battery is consumed more when communication is engaged for a long time with a logger being placed on a reader or being connected with USB cable. Click check box to execute automatic disconnection so that it will be disconnected automatically after the massage being displayed when communication is engaged more than one minute.



【 2.2.2-1.1 Communication setting&type judgment】



【 2.2.2-1.2 】

When communication port setting is not sure

・Windows XP
Check communication port by following procedure 5) – 8) in page 3 of "USB driver installation(Windows XP)"

・Windows Vista
Check communication port by following procedure 4) to 8) in page 6 "USB driver installation(Windows Vista)"

2-2. Data collection setting

Set the place to store sampling log data(.log) and sampling data(.csv)【 2.2.2.1】
Storage place will create a “KtData” (fixed) folder in “Collection data storage holder” and generate folders and files automatically as per set rules.

Sampling data storage folder

Input holder pass to store sampling log data and sampling data. It is also possible to click “See” button and instruct pass by specifying from “ sampling data storage holder”【 2.2.2.2】

Rules to generate sampling data storage folder

Instruct rules to generate holders for sampling log data and sampling data storage.
Generate holders automatically as per instructions.
・[No holder generation],・[Serial number],
・[Serial number-Sampling starting year and month] ・[Location used] ・[Sampling starting year/month/date] 【 2.2.2.3】

Rules for sampling data file name

Instruct rules to name sampling log data and sampling data.
File name is automatically generated as per instructions.
・「Sampling starting time and day」
・「Serial number-Sampling starting time and day」

Execute “Store sampling data” after sampling

Check “Check box” when generating sampling log data after “Automatic sampling” is completed. It is also possible to store it manually by clicking “Sampling data storage (S)” in the main screen.

2-3. Display/Graph printing setting

Set Y Axis parameter to display sampling log data in graph.【 2.2.3.1】

Min. temperature value(half-pitch character number)

Input min. value of the temperature

Max. temperature value(half-pitch character number)

Input max. value of the temperature

Min. RH value (half-pitch character number)

Input min. value of RH

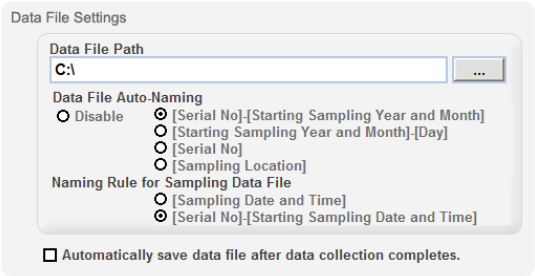
Max. RH value (half-pitch character number)

Input max. value of RH

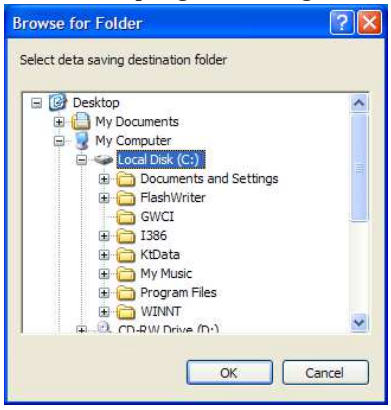
When temperature is set in Fahrenheit

Temperature is displayed in F °

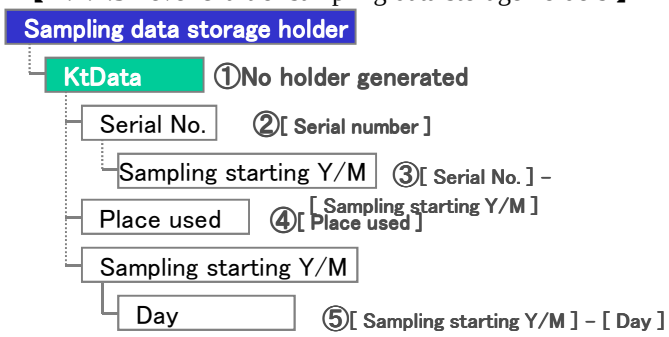
【 2.2.2.1 Data collection setting



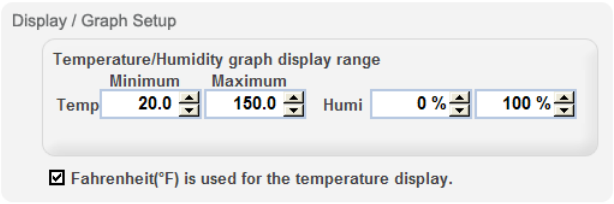
【 2.2.2.2 Sampling data storage holder instruction 】



【 2.2.2.3 Level chart of sampling data storage holders 】



【 2.2.3.1 Display/graph printing setting 】



Range of upper limit and lower limit

Temperature range is -50.0 ～ 90.0℃ in 0.5℃ increments
RH range is 0 ～ 100%

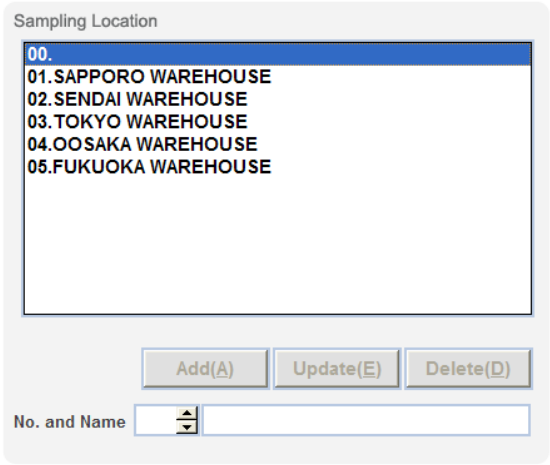
2-4. Quick setting of place to use

Set the name of the place to use【 2.2.4.1】

Place number and name(full-pich character 20 digits/half-pitch character 40 digits)

Input the name for each place “place to use (00-99)” Click “Add(A)” button to update information after input. Identify the subject place number when name change is required, and click “Change (E)” button. When registered “place and name” is deleted, select subject place number and click “Delete(D)” button.

【 2.2.4.1 Quick setting of the place to use】



2-5. Report setting

Set common headings and comments to be printed in the cover page of respective reports【 2.2.5.1】

Common cover headings(half-pitch character 20 digits/half-pitch character 40 digits)

Input headings to be printed on respective reports

Common cover comments ½(half-pitch character 20 digits/half-pitch character 40 digits)

Input comments(2 lines) to be printed on respective reports.

Print character information recorded in a logger

Printing of information in “Memo” to report, which is in operation setting of sampling condition setting, is executed by checking the check box.【2.2.5.1】

（For details of “Memo” features, see page 19 [Part 2]-[3-2.operation setting])

【 2.2.5.1 Report setting 】

3. Logger sampling condition setting

Sampling setting for Data logger KT-xx0 Series、KT-xx5 Series

1）Start main screen “Logger data collection and control” 【2.3.1】([Part 2]-[1.See program starting and finish](page 11)

2）Click automatic collection「 自動収集 」icon. Normally, it will be executed in 1.5 second after starting the program. It will go to next step in case of “collection stand-by” condition. 【2.3.2】

3）Place a logger on reader KT-3xx. It shows”sampling data in collection”【2.3.2】

4）Message “sampling data collection is completed” is shown after reading is completed 【2.3.2】, and shows current setting condition【2.3.3】

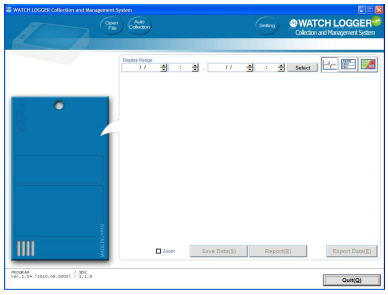
5）Click sampling condition setting button「 測定条件設定 」【2.3.3】Starting “Sampling condition setting” screen【2.3.4】

6）Configure various settings for sampling by a logger. For details of settings, see description of each item.

7）Update setting details of a logger after each setting is completed. Click “Setting sampling condition (S)” button. Sampling condition setting check message is displayed 【2.3.5】Click “Yes (Y)” if it is OK. Click “OK” when setting finish message is displayed. 【2.3.6】

8）Click “return” button to go back to main screen when update is finished.

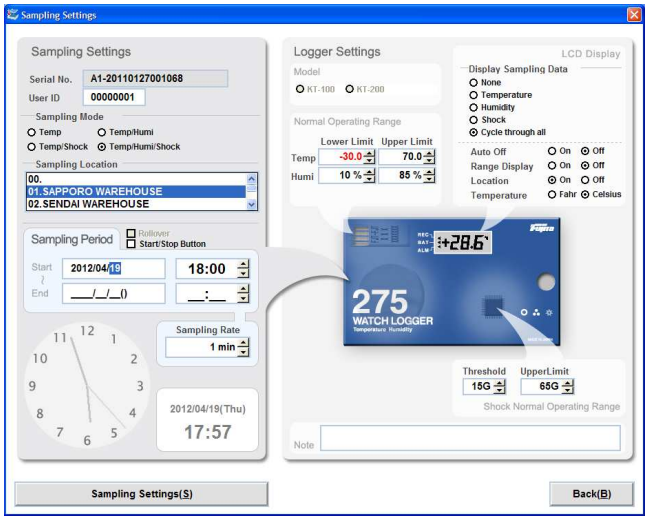
【 2.3.1 Data logger collection and control screen 】



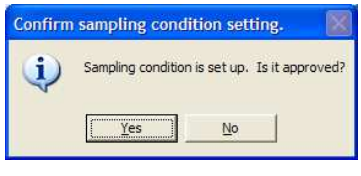
【 2.3.2 Sampling condition check screen 】

【 2.3.3 Setting display screen 】

【 2.3.4 LOGGER sampling condition setting screen 】



【 2.3.5 sampling condition setting check screen 】

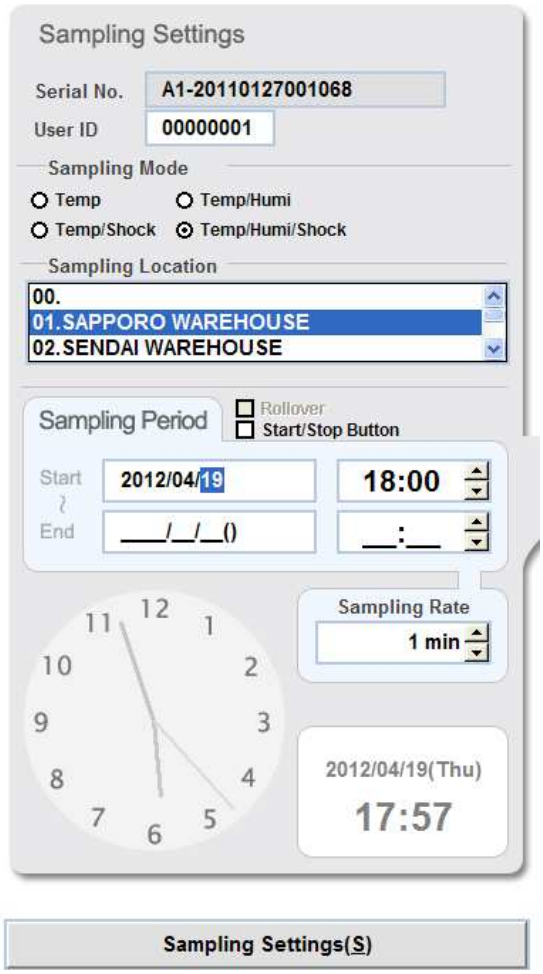


【 2.3.6 Setting finish screen 】

3-1. Sampling condition setting

Configure settings of Data logger sampling【2.3.1.1】

【 2.3.1.1 sampling condition setting 】



Serial number

Serial number of a logger is appeared. It is not subject to configuration.

User ID (half-pitch character number – 8 digits)

Input user ID number

Sampling mode

Specify sampling modes.
Select from [Temperature], [Temperature/RH], [Temperature/impact], [Temperature/RH/impact]
※Sampling mode varies depending on the model used.

Place to use

Specify the location to be used. It is possible to select from the list if used locations are registered in advance. ([Part 2]-[2-4. See used location quick setting](page 15)

Rollover feature

Check “Rollover”box when long term sampling is planned and sampling data amount is expected to exceed the storage capacity. Newer sampling data will overwrite the older sampling data to continue sampling. But, it is not applicable for KT15x、KT25x、KT19x、KT29x(stick type) and KT-xxxF(FeliCa type)

Sampling start date(Year/Month/Day Time:Min)

Input the sampling start date(half-pitch character number)

Sampling finish date(Year/Month/Day Time:Min.)

Input the sampling finish date(half-pitch character number)

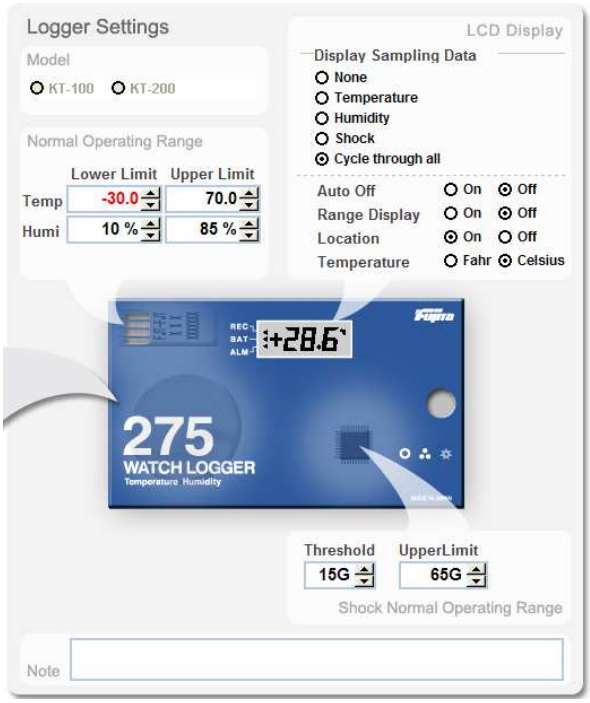
Sampling cycle

Input sampling cycle(half-pitch character number).
It is possible to specify in the range of 1-255 minutes.

3-2. Operation setting

Configure settings of models, standard value and LCD display【2.3.2.1】
Items for configuration varies depending on the model.

【 2.3.2.1 Operation setting 】



Models

Specify the model
（If KT-100 and KT-200 is used）

Temperature/RH standard value setting

Upper limit of temperature(half-pitch character number)）

Input upper limit of the temperature
input range,-40. 0℃～80. 0℃(1℃ increments)

Lower limit of temperature(half-pitch character) setting standard value

Input lower limit of the temperature
input range,-40. 0℃～80. 0℃（1℃increments）

RH upper limit(half-pitch character number) standard value setting

Input upper value of RH
input range is 5%～90%

RH lower limit(half-pitch character number) standard value setting

Input lower limit of the RH
input range is 5%～90%

Impact standard value setting

Threshold value(half-pitch character number) setting （Lower than set value is not accepted）

Input threshold value of impact
input range is 5G～75G

Upper limit value(half-pitch character number) standard value setting

Input upper limit value of impact
input range is 5G～75G

LCD display setting

Display mode

Specify display items on LCD panel

Automatic off

Specify use of “Automatic off” feature of LCD display

Display range

Specify if maximum and minimum of all sampling data is displayed or not.

Display of the location to be used

Display the specified location number on LCD

Temperature display

Specify Fahrenheit display or Centigrade display

Battery change memo

Change date

Input battery change date. Input date can be used as a reference of battery life.

Memo

Input character information(full-pitch character 256 letters)
※Applicable only for KT-15x, KT-25x, KT-19x, KT-29x（stick type）andKT-xxxF（FeliCa type）

【 2.3.2.3 Battery change memo 】

Part 3 Sampling data display and storage

1. Sampling data display

Data is displayed after reading sampling data. Type of display can be selected from 3 formats. Type of graph displayed varies depending on the LOGGER type and sampling condition.

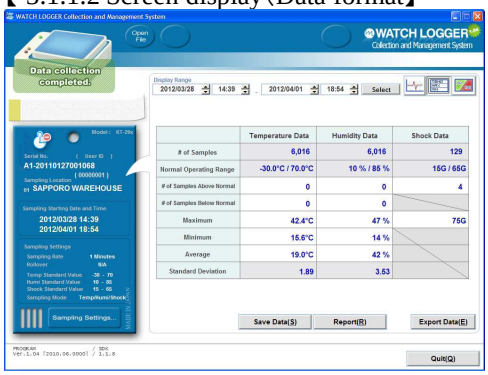
1) Starting main screen of “WATCH LOGGER data collection and control”. See page 11 [Part 2]-[1.Starting of the program and finish]
2) Click automatic icon「 

」. Normally, it is automatically executed in 1.5 seconds after starting the program. It goes to next step if it is in “Collection stand-by”condition.
3) Place a logger on a reader KT-3xx. It shows “sampling data in collection”.
3) When reading is completed, it displays “sampling data collection is completed”. Sampling data is displayed in Graph。【3.1.1】
5) It is possible to give output in accordance with display range(date), data in file format or report. See detailed descriptions for operation of each item.
6) Click “Quit (Q)” button to finish the program after completing the operations, such as sampling data display, storage, etc. See page 12（[Part 2]-[1.Starting of the program and quit]）

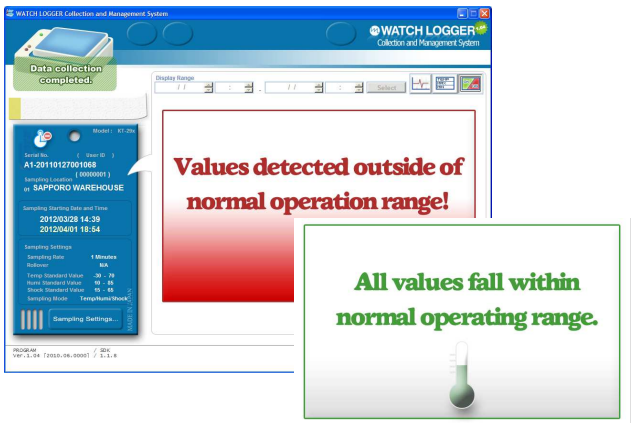
【 3.1.1 Screen display(Graph format）】

【 3.1.1.1 Display change 】

【 3.1.1.2 Screen display（Data format】



【 3.1.1.3 Screen display（High speed judgment format】



1-1. Change of display screen

It is possible to display sampling data in “Graph format”, “Data format(digest of each data)” or “High speed judgment format” by operating display change【3.1.1.1】

Graph display/Data display/High speed judgment display

Specify display mode of sampling data.
Contents of the display is same as report display value.
●Graph display【3.1.1】
●Data display【3.1.1.2】
●High speed judgment display【3.1.1.3】

1-2. Display range

It is possible to narrow down sampling data using “Starting date” and “Finishing date”【3.1.2.1】 Narrowed data is reflected to “File output（.csv）” and “Report generation”. But, it is not reflected to log file(.log) which is generated by “Sampling data storage”.

【 3.1.2.1 Display range 】

Display range（Year/Month/day Time:Minute）

Input “Starting date and time” – “Finishing date and time” of data to be displayed. Optimize the date(X axis) scale of the graph in accordance with specified range and sampling data points as per rules of【3.1.2.2 】

【 3.1.2.2 Display interval table 】

Sampling time in the range(A) → Data points in the specified range ×Sampling cycle

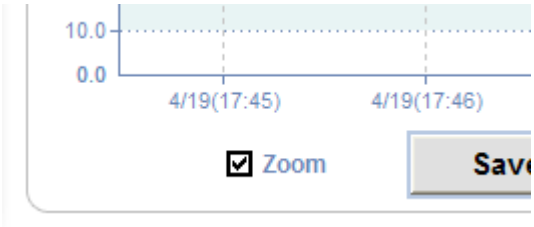
Reference table of optimized display Interval when maximum Display number of Time axis scale Is “6”

Sampling time in the range(A)	Display interval
0 – 6	1min Interval
7 – 30	5min Interval
31 – 90	15min Interval
91 – 180	30min Interval
181 – 360	1Hr Interval
361 – 1080	3Hr Interval
1081 – 2160	6Hr Interval
2161 – 4320	12Hr Interval
4321 – 8640	1dat Interval
8641 – 17280	2day Interval
17281 – 43200	5day Interval
43201 – 86400	10day Interval
86401 – 129600	15day Interval
129600 –	1month Interval

1-3. Display enlargement

It is possible to enlarge optional range of the graph. Scale adjustment is not executed in the enlarged display【3.1.3.2】

【3.1.3.1 Display enlargement】



Display enlargement

Check the check box of display enlargement【3.1.3.1】 It is possible to enlarge the graph and display by dragging an optional place in the graph in order to specify the range. Uncheck the box to return to the previous condition.

【 3.1.3.2 Display enlargement 】

2. Storage of sampling log data

Reading sampling data and store log file. File is stored with extension「*.log」Stored data can be displayed in graph or data using “Reading file” See page 30([Part 3]-[5.Reading file].

1)Starting main screen “WATCH LOGGER data collection and control”【3.2.1】

2)Click “Store sampling data(S)” button

3)“Select storage of sampling data(. log)”screen is displayed【3.2.2】

4)Click “Store(S)” button

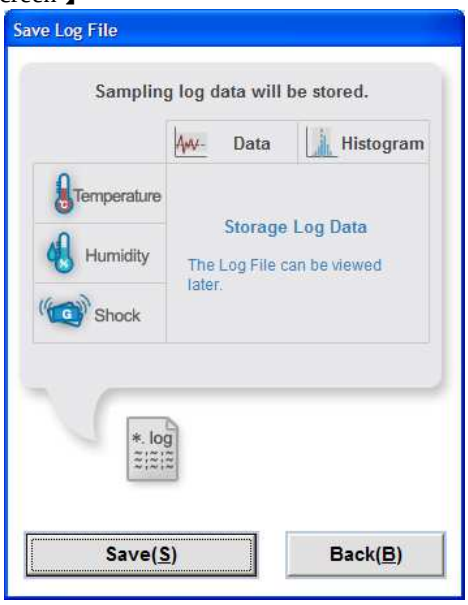
5)“Specify the place of sampling data storage”【3.2.3】screen is displayed. Place of storage can be specified in the name of store place and file name which is registered in the environment setting. Click “Store(S)” button in case of storage. Click”Cancel” button in case of quit.

6)Click “OK” button when “Finishing sampling data storage” 【3.2.4】

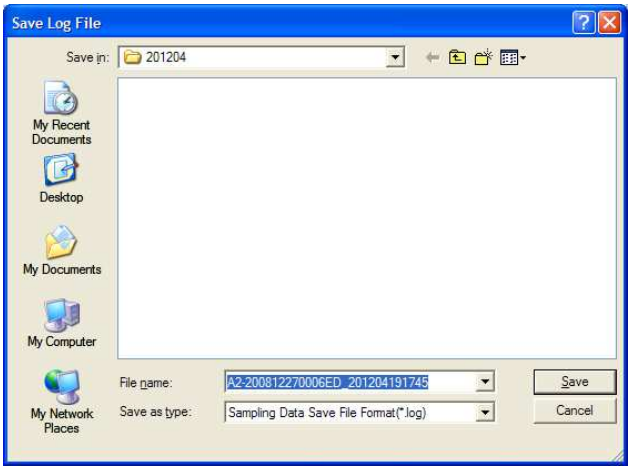
7)Click “Return(Q)” button to go back to main screen after finishing storage.

【 3.2.1 WATCH LOGGER data collection and control screen 】

【 3.2.2 Store sampling data(.log) selection screen 】



【 3.2.3 Specify the place of sampling data storage 】



【 3.2.4 Finishing sampling data storage 】

3. File output

Reading sampling data and store sampling data file. “CSV format” file is stored using extension「*.csv」

1）Starting main screen “WATCH LOGGER data collection and control”【3.3.1】

2）Click “File output（F）” button

3）“Sampling data output（. CSV）selection”screen is displayed【3.3.2】

4）Click “Output (O)” button after checking sampling data output(..CSV) and select data for CSV output.

5）“Specify the destination of sampling data output”【3.3.3】screen is displayed.
Place of storage can be specified in the name of storage place and file name which are registered in environment setting.
Click “Store(S)” button in case of storage.
Click “Cancel” in case of quit.

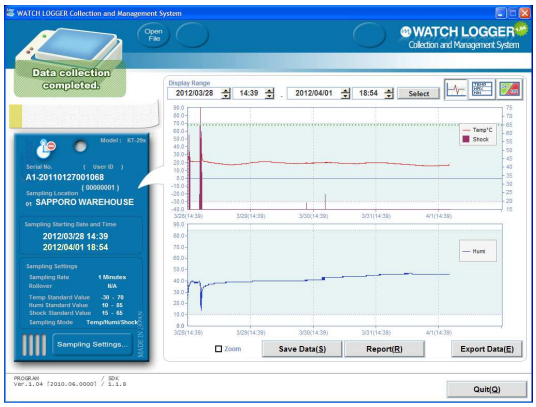
6）Click “OK” button when “Finish sampling data storage” message is displayed.【3.3.4】

7）Click “Return(Q)” button when storage is finished and go back to main screen.

Check the item for sampling data output（.csv）

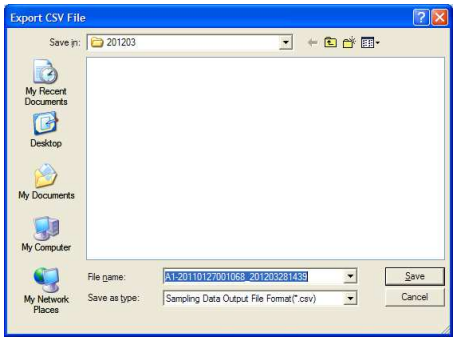
Select and check sampling data or histogram data for CSV output. Select sampling data of temperature.RH or impact for output. Select histogram data of temperature and RH for output. Output selected items into the files.
See [Part 3]-[3-1.sampling data（.csv）file and recording format] page 24, for identification of output files.

【 3.3.1 WATCH LOGGER data collection and control screen 】

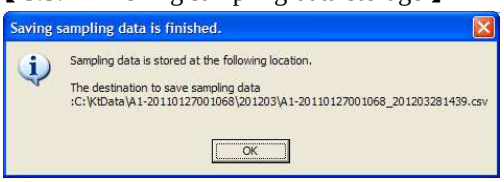


【 3.3.2 Sampling data output(.csv) selection screen 】

【 3.3.3 Specify the place of sampling data storage 】



【 3.3.4 Finishing sampling data storage 】



3-1. Sampling data(.csv) file and record format

Each output sampling data（.csv）is written in the specified file name.
Rules for file names and format is described here.

Temperature/RH sampling data

Sampling data for temperature/RH are generated in the file name of below format. [File name rules specified in the environment setting]_THD.csv

Items of temperature/RH data format

Sampling condition Setting information	① See headers			
Temperature/RH Sampling data	Sampling date	Sampling temp.	Sampling RH (Temp/RH)	× n lines

※ n : sampling number

【 3.3.1.1 Headers】

Sampling condition Setting items
LOGGER type
sampling mode
serial number
user ID
location ID
location name
sampling starting date
temp/RH sampling cycle
temp upper limit(℃)
temp lower limit(℃)
RH upper limit(℃)
RH lower limit(℃)
impact threshold value
impact upper value
rollover

①

Temperature histogram

Temperature histogram is generated in the file name of below format. [File name rules specified in the environment setting]_TPH.csv

Items of temperature histogram format

Sampling condition Setting information	① See headers			
Temperature histogram	Range(Start)	Range(Finish)	Event number	× 64 lines

RH histogram

RH histogram is generated in the file name of below format. [File name rules specified in the environment setting]_HUH.csv

Items of RH histogram format

Sampling condition Setting information	① See headers		
RH histogram	Range(Start)	Range(Finish)	Event number

× 32lines

Impact sampling data

Sampling data of impact is generated in the file name of below format.
[File name rules specified in the environment setting]_VBD.csv

Items of vibration sampling data format

Sampling condition setting information	① See headers			
Vibration Sampling data	Sampling date	Sample Vibration X	Sample Vibration Y	Sampling Vibration Z

X n lines

※ n : sampling number

4. Report generation

It is possible to print cover page and sampling data after reading sampling data. Print headings and comments which are specified in the environment setting.

1) Start “WATCH LOGGER data collection and control” main screen【3.4.1】

2) Click “Report generation(R)”button

3)“Selection of report generation”【3.4.2】screen is displayed

4)Check the output report. Select data to generate report and click “Create(C)”button

5)“Result of report”【3.4.3】screen is displayed
Report consists of cover page and sampling data page(2 pages) for each item checked.

Click「 」for page change

Click「 Print... 」for printing

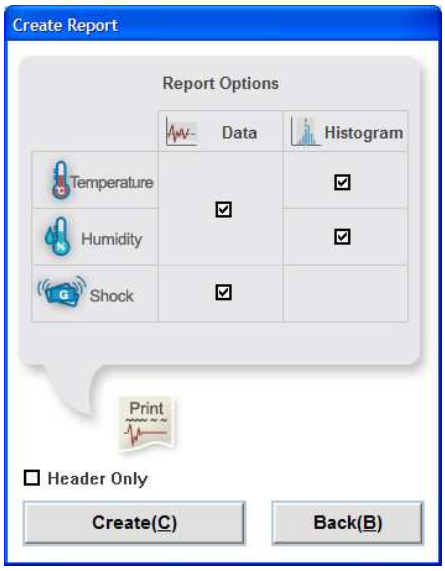
6)Click “Return(Q)” button to go back to “Selection of report generation” screen after finishing operations, such as report searching or printing. Click “Return(Q” again to go to main screen.

Check items to output the report

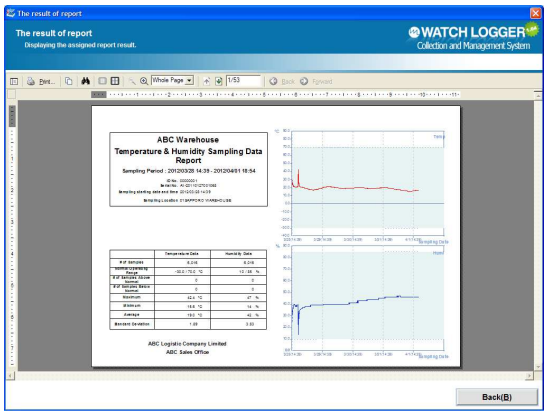
Select sampling data or histogram data to output the report. In sampling data,select temperature/RH and impact data to output the report.
In histogram, select temperature and RH data to output the report.

【 3.4.1 WATCH LOGGER data collection and control screen 】

【 3.4.2 Selection of report generation screen 】



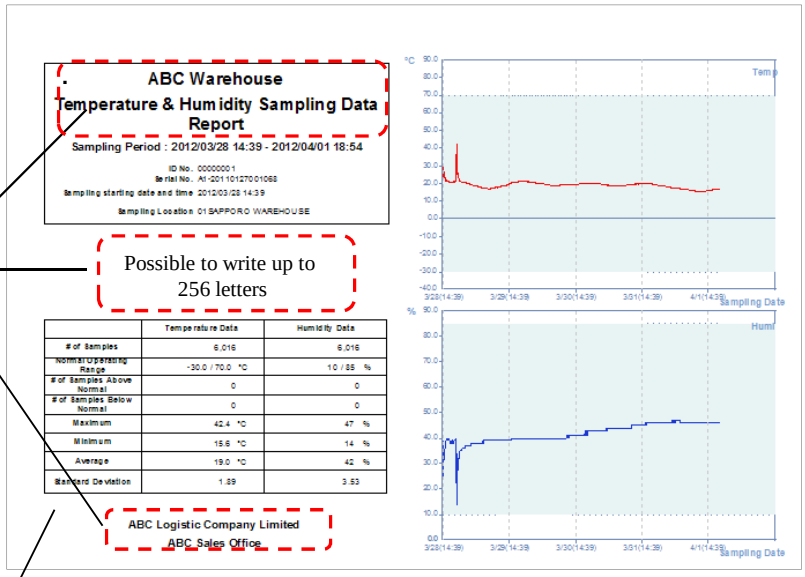
【 3.4.3 Result of report 】



4-1. Temperature and RH sampling data report （Sample report）

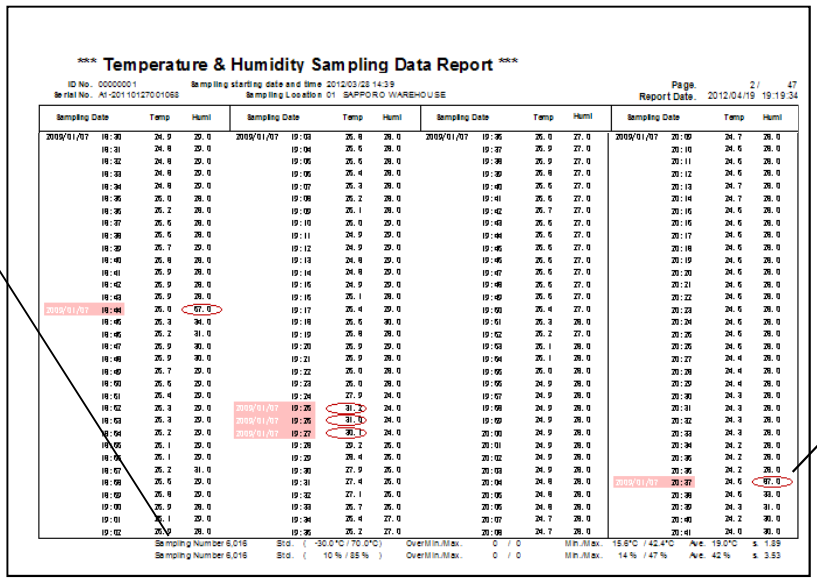
Cover page and sample data report can be generated for temperature and RH sampling data..
Cover page consists of headings and comments which are set in environment setting. Sampling data which exceeds standard value is displayed with a colored circle in the sample data report.

【 3.4.1.1 Cover page of Temperature/RH sampling data report 】



Items of report setting in the environment setting

【 3.4.1.2 Sampling data page of temperature/RH sampling data report 】



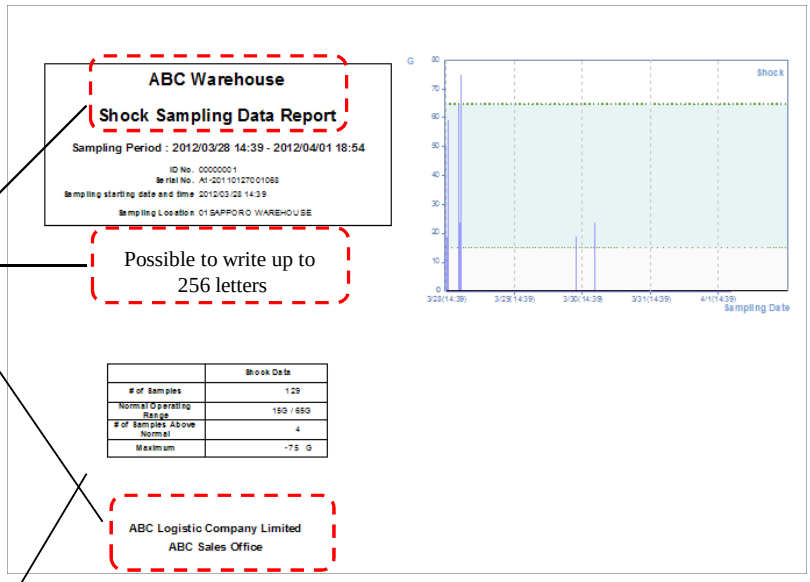
Digest of sampling result

Exceeds standard value

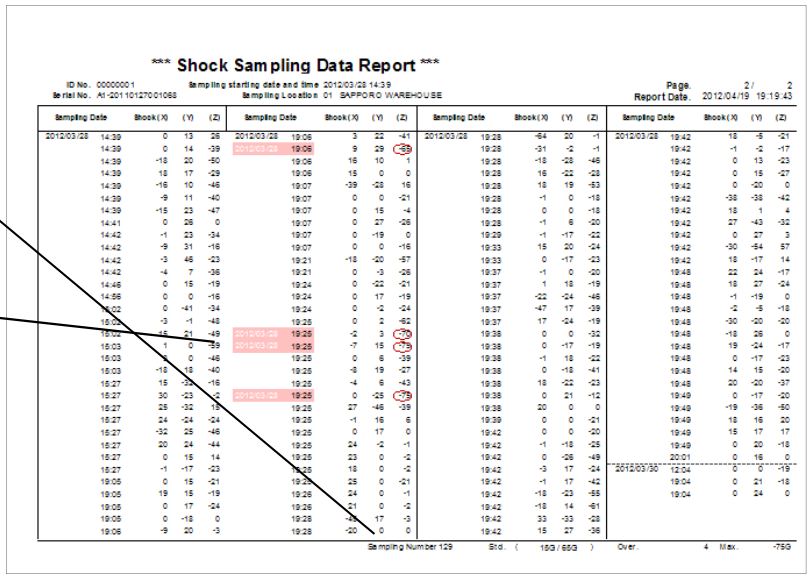
4-2. Impact sampling data report

Cover page and sampling data report can be generated for impact sampling data.
Cover page consists of headings and comments which are set in environment setting.
Sampling data which exceeds standard value is displayed with a colored circle in the sampling data report.

【 3.4.2.1 Cover page of impact sampling data report 】



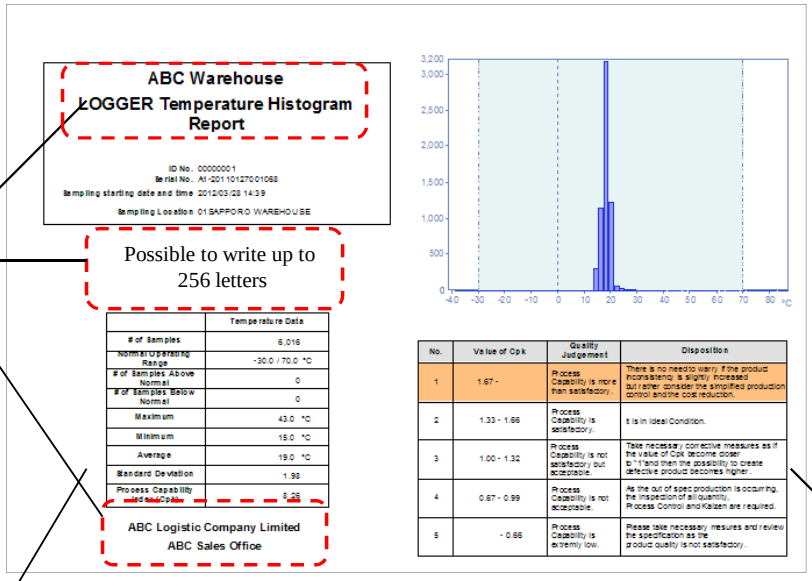
【 3.4.1.2 Sampling data page of impact sampling data report 】



4-3. Temperature histogram report

Cover page and sampling data report can be generated for temperature histogram.
Cover page consists of headings and comments which are set in the environment setting.
Data which is out of standard value is shown with colored back ground.
Process capability criterion chart is displayed after computing process capability index(Cpk). Relevant standard is displayed with colored background. Standard deviation is shown as “0” in case of “no available data point” or “ 1 data point”. In this case, process capability index is also “0”.

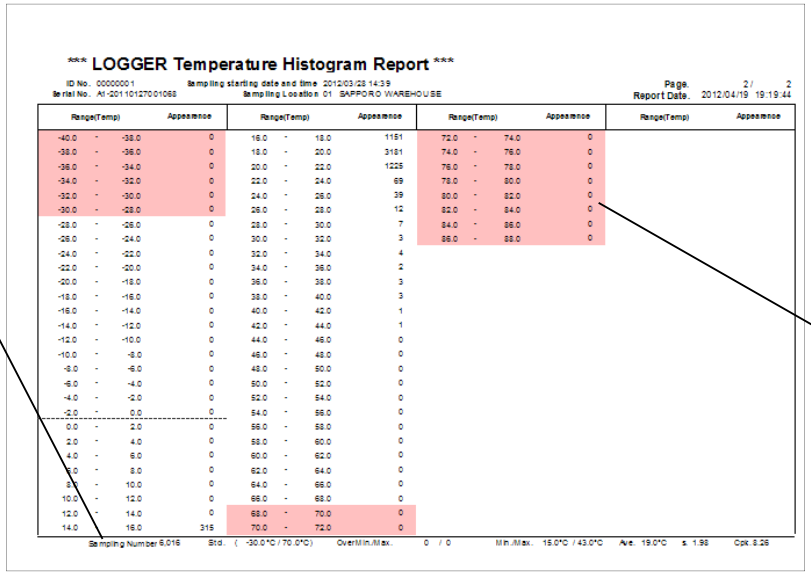
【 3.4.3.1 Cove page of temperature histogram report 】



Items of report setting in the environment setting

Process capability criterion

【 3.4.3.2 Sampling data page of temperature histogram report 】



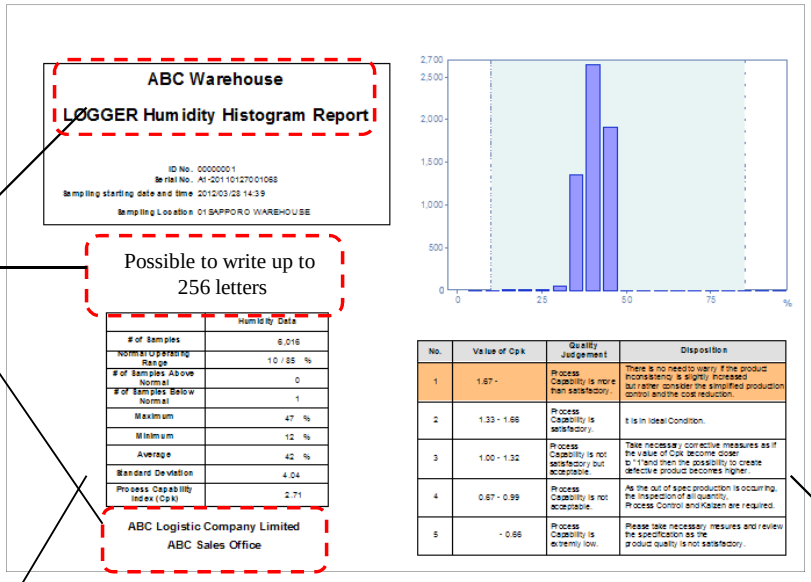
Digest of sampling result

Exceeds standard value

4-4. RH histogram report

Cover page and sampling data report can be generated for RH histogram.
Cover page consists of headings and comments which are set in the environment setting. Whether it is inside or outside of standard value is displayed with a colored background.
Process capability criterion chart is displayed after computing process capability index（Cpk）. Relevant criterion is displayed with a colored background. Standard deviation shows “0” in case of “no available data point” or “1 data point”. In this case, process capability index is also “0”.

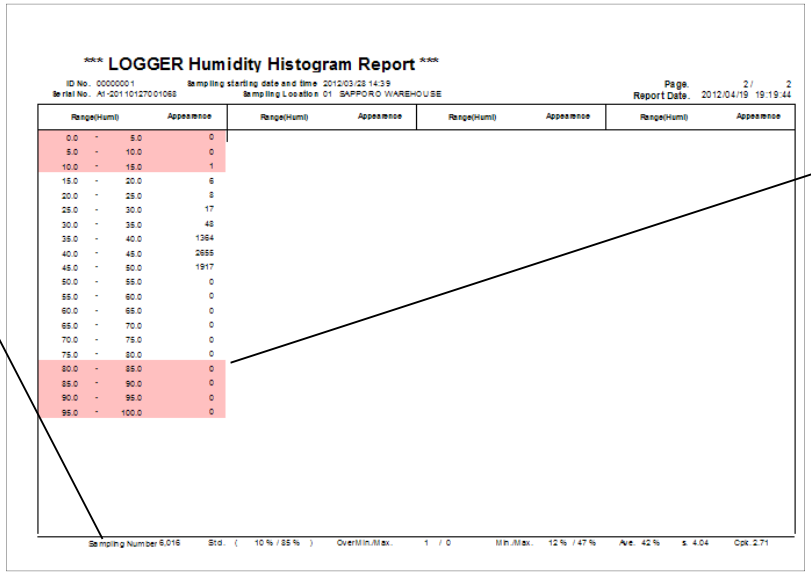
【 3.4.3.1 Cover page of temperature histogram report】



Items of report setting in the environment setting

Process capability criterion

【 3.4.3.2 Sampling data page of temperature histogram report 】



Digest of sampling result

Exceeds standard value

5. File reading

"Sampling data storage" feature enables them to display graph and data after reading stored log files.

1) Starting main screen of "WATCH LOGGER data collection and control" 【3.5.1】

2) Click reading file " 

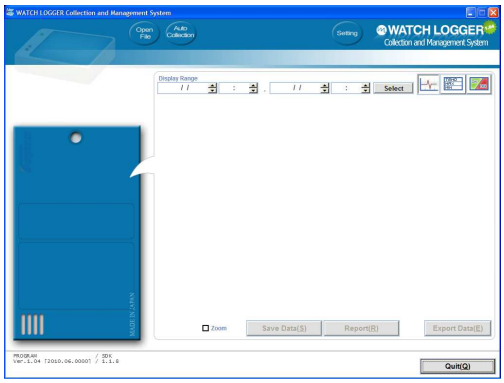
"button

3) "Specify sampling data reading file" screen【3.5.2】is displayed.

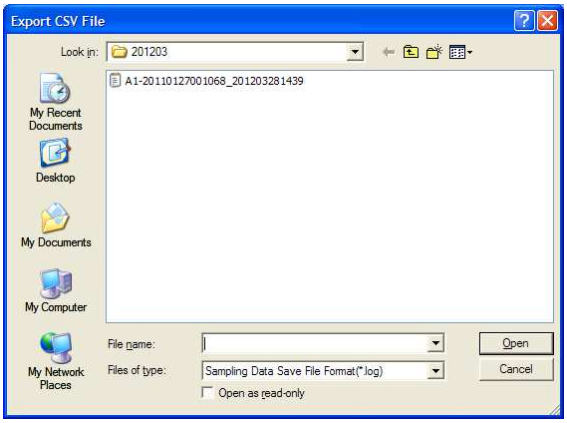
4) Click "Open(O)" button after specifying log files to read

5) Data is read from stored log files and graph or data is displayed【3.5.3】

【 3.5.1 WATCH LOGGER data collection and control 】



【 3.5.2 Specifying files for sampling data screen 】



【 3.5.3 WATCH LOGGER finish data collection screen】

Following items are not available when file reading is executed.

- Sampling data can not be stored
- Sampling condition setting feature is not available
- Initial setting value of date specification is not displayed in data display range(possible to display it by specifying date range)

WATCH LOGGER

data collection and control
Instruction manual

This manual is replaced in case of missing
pages and disarranged pages.