

Communicator for FT3424/FT3425

User's Manual

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1. Overview

This PC application software, “Communicator”, transfers measurement data from FT3424/FT3425 LUX METER to PC and makes available measurement parameters setting per PC.

1.1. PC Requirement

Recommended PC Requirements :

OS	Windows 7 (32-bit/64-bit) Windows 8 (32-bit/64-bit) Windows 8.1 (32-bit/64-bit) Windows 10 (32-bit/64-bit)
CPU	CPU clocked at 1 GHz or greater
Display	1024 x 768 dots or more
Communication interface	USB2.0 (virtual COM port)

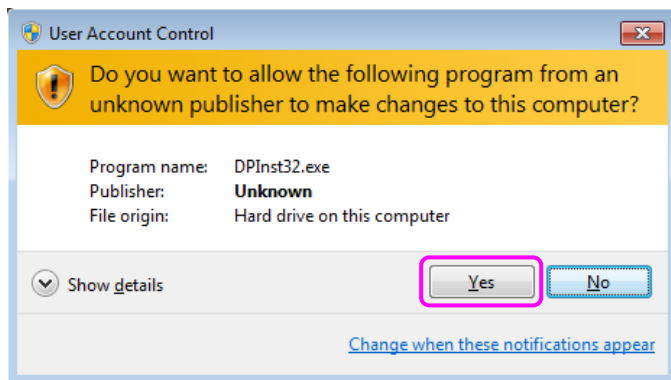
2. Install Method

2.1. Install

2.1.1. Install USB Driver

Step1: Double click [DPIInst64.exe] (64bit OS) or [DPIInst32.exe] (32bit OS), then the following dialog will appear. Click [Next].

(You can choose [Cancel] to exit.) (Fig.2-1)



Click [Yes]

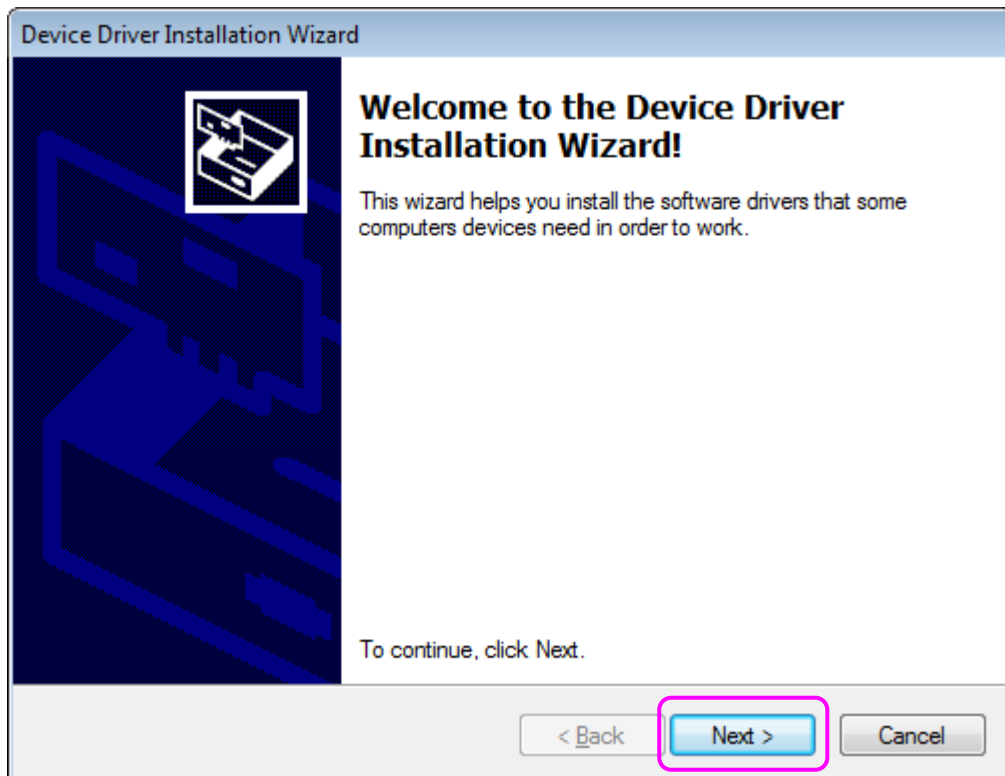


Fig.2-1

Step2: Click [Install this driver software anyway]. (Fig.2-2)

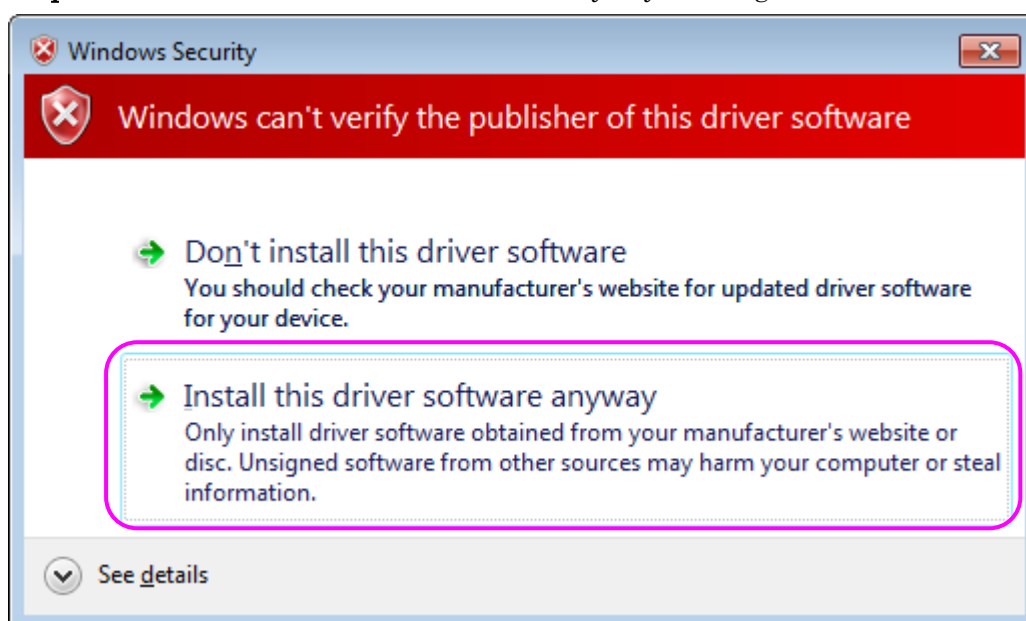


Fig.2-2

Step2: If the driver is installed successfully, Click [Finish]. (Fig.2-3)

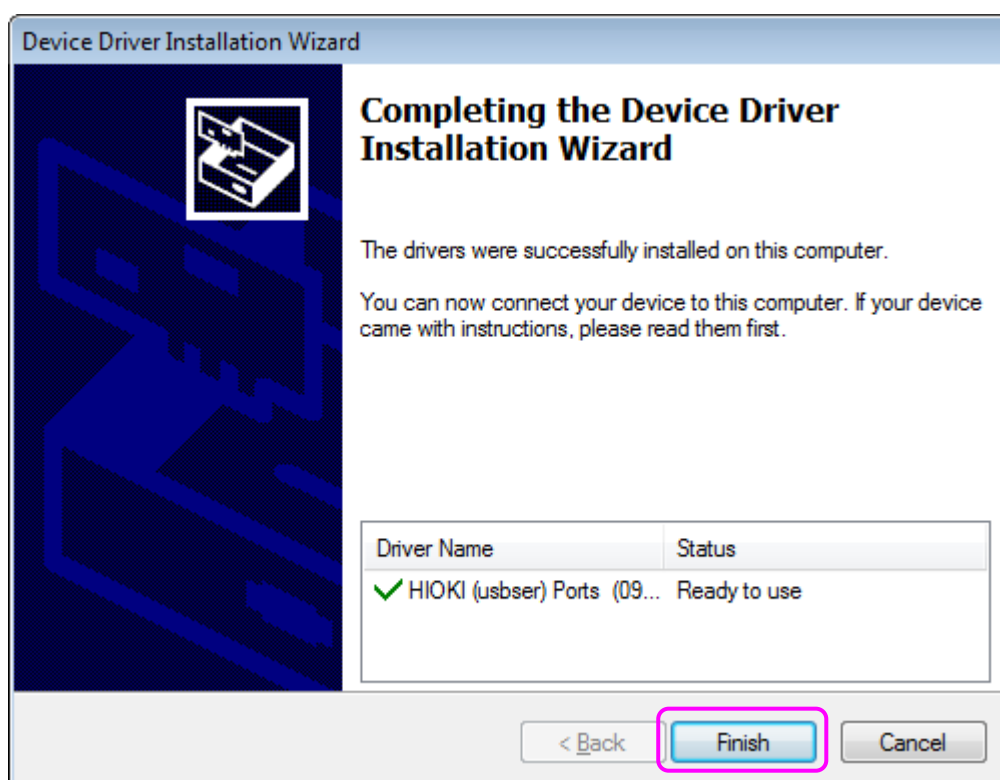


Fig.2-3

2.1.2. Install Communicator

Step1: Double click [setup.exe].

Click [OK] after the language is selected. (Fig.2-4)

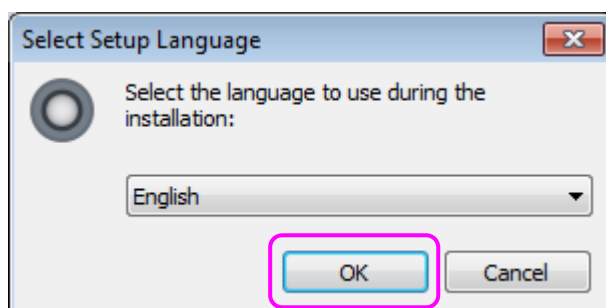


Fig.2-4

Step2: Click [Next]. (Fig.2-5)



Fig.2-5

Step3: Click [Next]. (Fig.2-6)

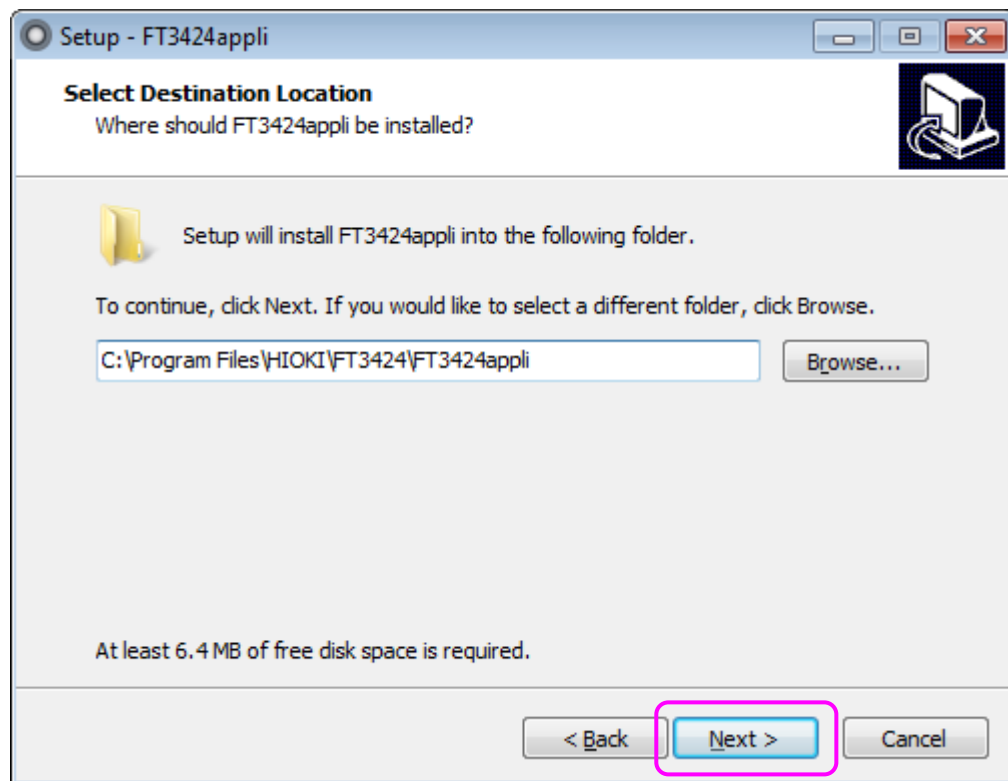


Fig.2-6

Step4: Click [Next]. (Fig.2-7)

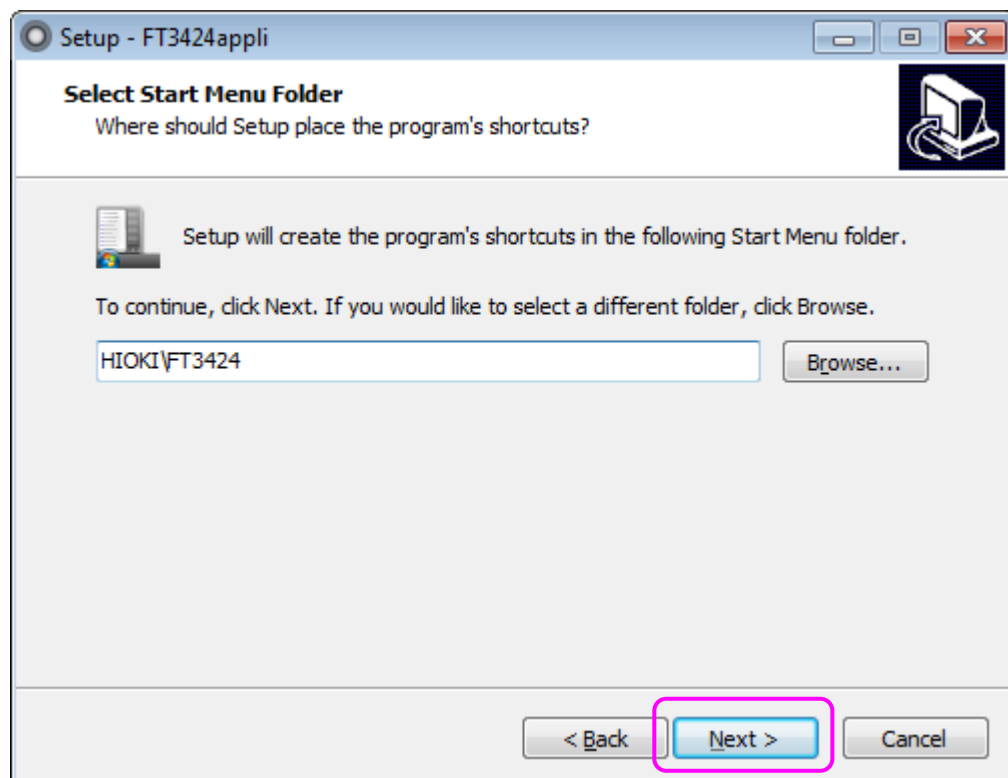


Fig.2-7

Step5: Check [Create a desktop icon] or not, then click [Next]. (Fig.2-8)

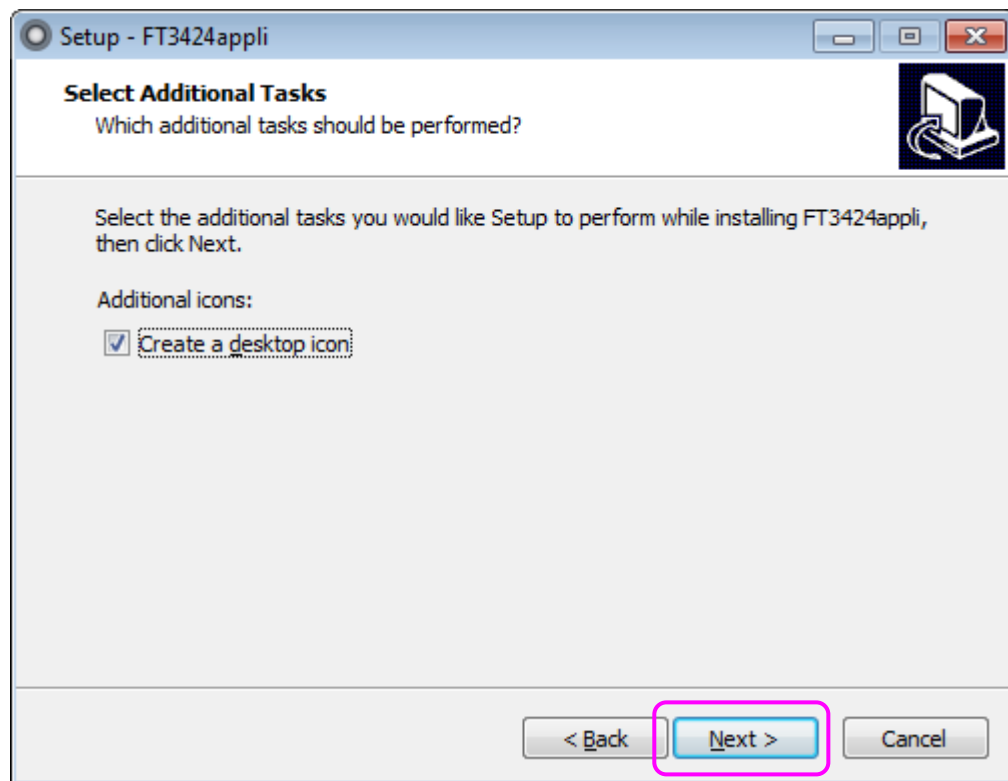


Fig.2-8

Step6: Click [Install]. (Fig.2-9)

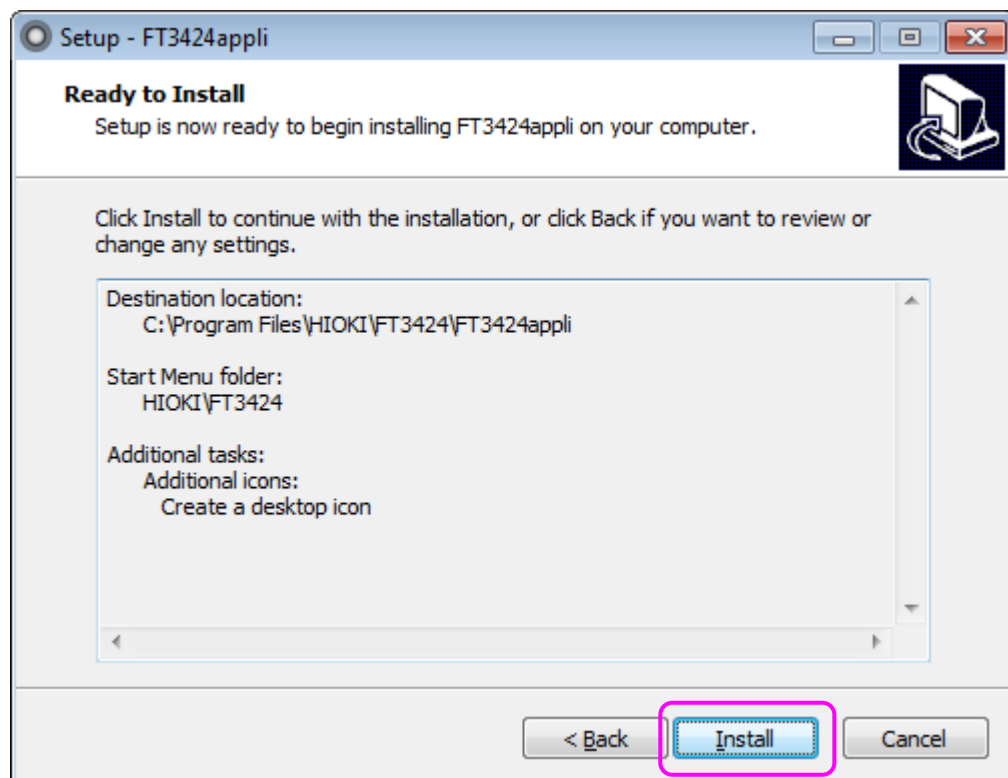


Fig.2-9

Step7: Click [Finish] to finish the install. (Fig.2-10)

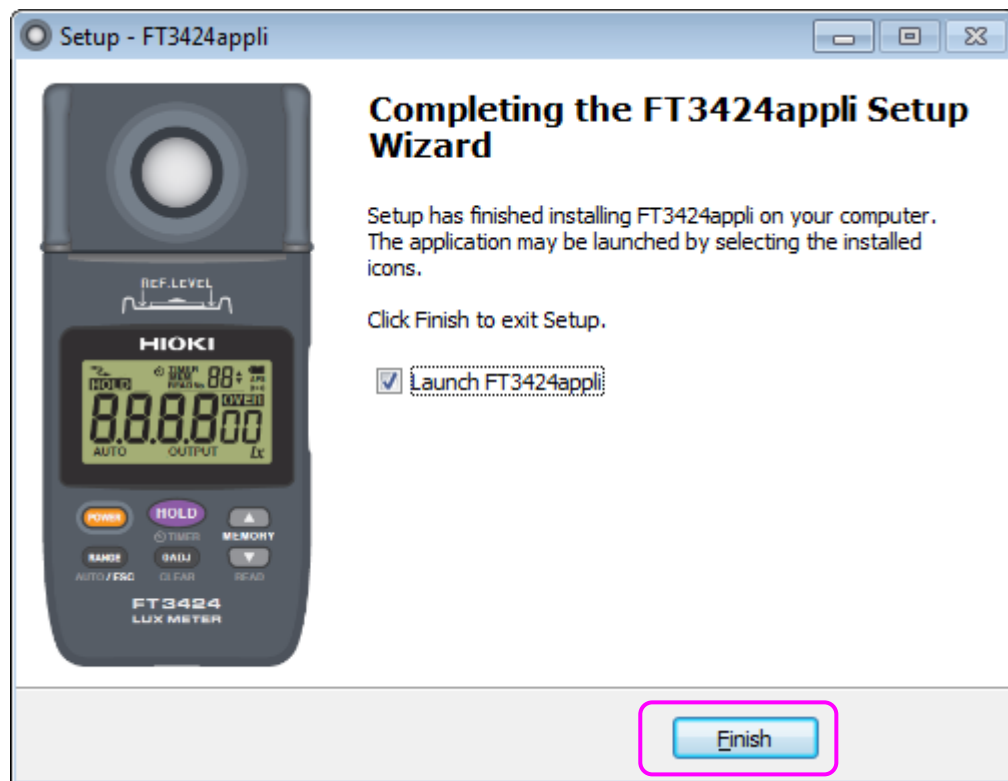


Fig.2-10

2.2. Uninstall

2.2.1. Uninstall USB Driver

Step1: After opening device manager, Right click [FT3424 Lux Meter - CDC], and click [Uninstall]. (Fig.2-11)

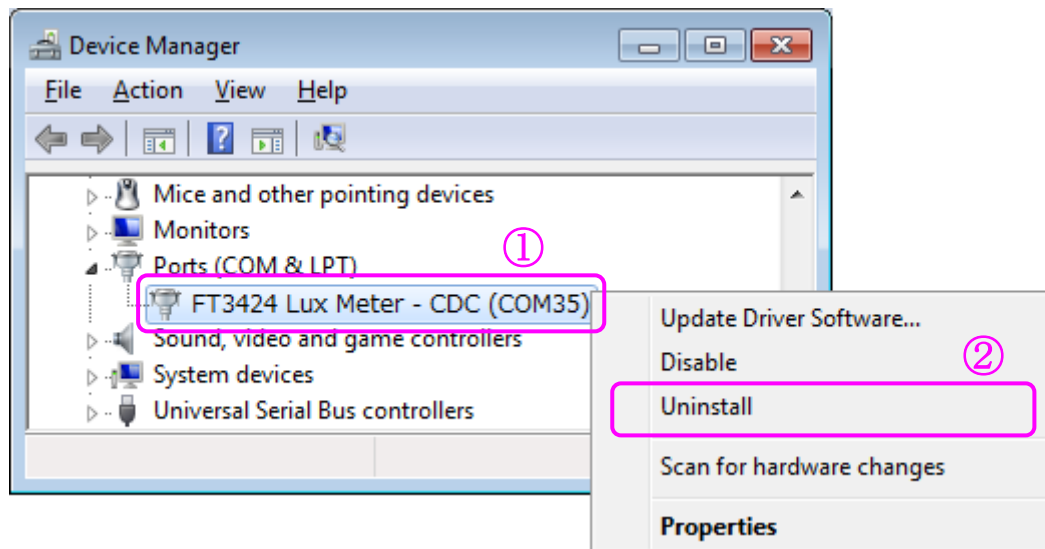


Fig.2-11

Step2: Check [Delete the driver software for this device.], and click [OK]. (Fig.2-12)



Fig.2-12

Step3: Close device manager. (Fig.2-13)

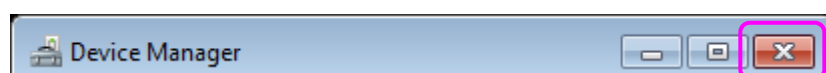


Fig.2-13

2.2.2. Uninstall Communicator

Step1: Windows 7, Click [Start] – [All Programs] – [HIOKI] – [FT3424] – [Uninstall FT3424appli] then the following dialog will appear. Click [Yes] to uninstall the software. (Fig.2-14)

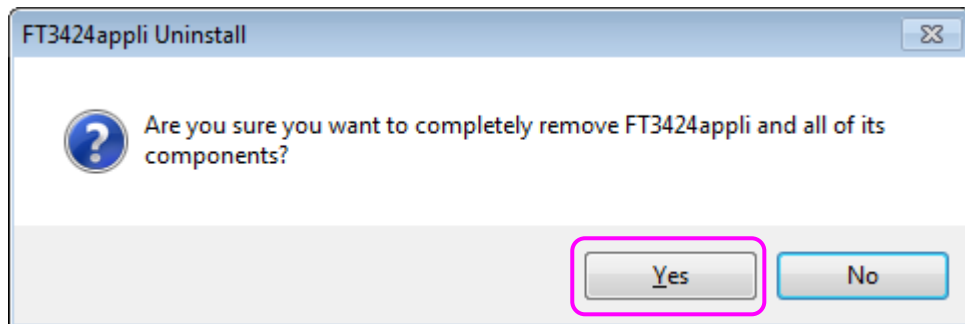


Fig.2-14

Step2: Click [OK] to finish the uninstall.

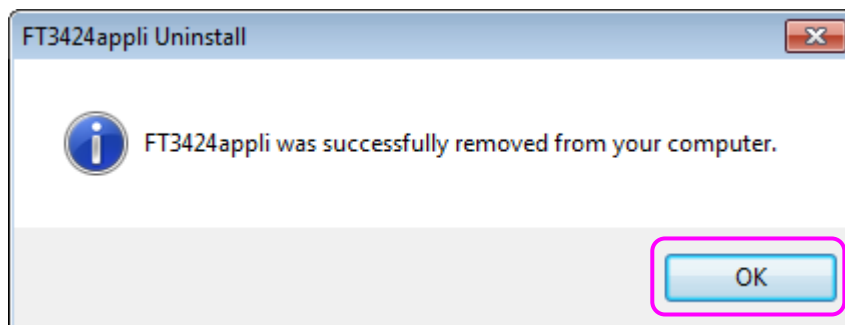


Fig.2-15

Note: Windows 7, you can also click [Start]–[Control Panel]–[Uninstall a program] to uninstall the software. (Delete the "FT3424appli".)

3. How to use

3.1. Main interface

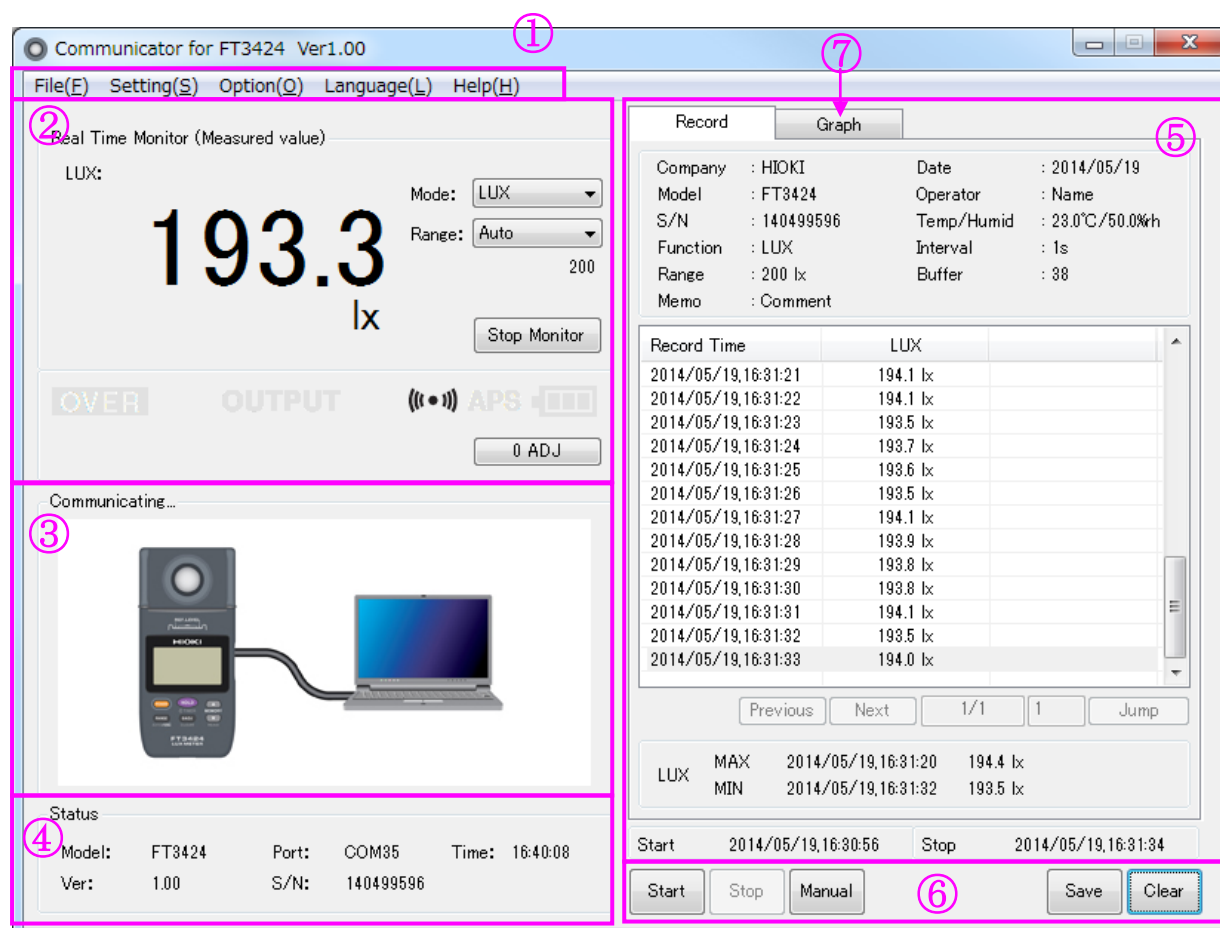


Fig.3-1

No	function	summary
1	Menu bar	File operations, Setting, Option, Language, Help
2	Real Time Monitor	Display range, measurement data from FT3424/FT3425
3	Display Configuration	Show configuration connecting with FT3424/FT3425 status.
4	Display Status	Display status.
5	Display Record List	Show record list, maximum and minimum data from the beginning of records.
6	Record Operation	Start record, stop record, Copy Graph, Save data, Clear list data.
7	Display Graph	Show the record data in a trend graph

3.1.1. Menu bar

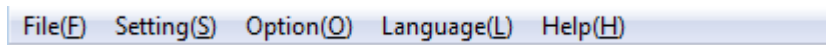


Fig.3-2

[File(F)] :	Open(O), Save(S), Save as(A), Save as CSV file(X), Exit(X)
[Setting(S)]	
[Option(O)] :	Read Memory Data from FT3424/FT3425 (M) Paste Record Data to Excel(E)
[Language(L)] :	日本語(J), English(E)
[Help(H)] :	PDF Manual(H), About(A)....

3.1.2. Shortcut Key

Ctrl+O	Open file
Ctrl+S	Save file
Ctrl+Shift+S	Save as
Esc	Exit application
F1	Open PDF manual

3.2. Settings

3.2.1. Communication Setup

Set Automatic connection, connection FT3424/FT3425. (Fig.3-3)

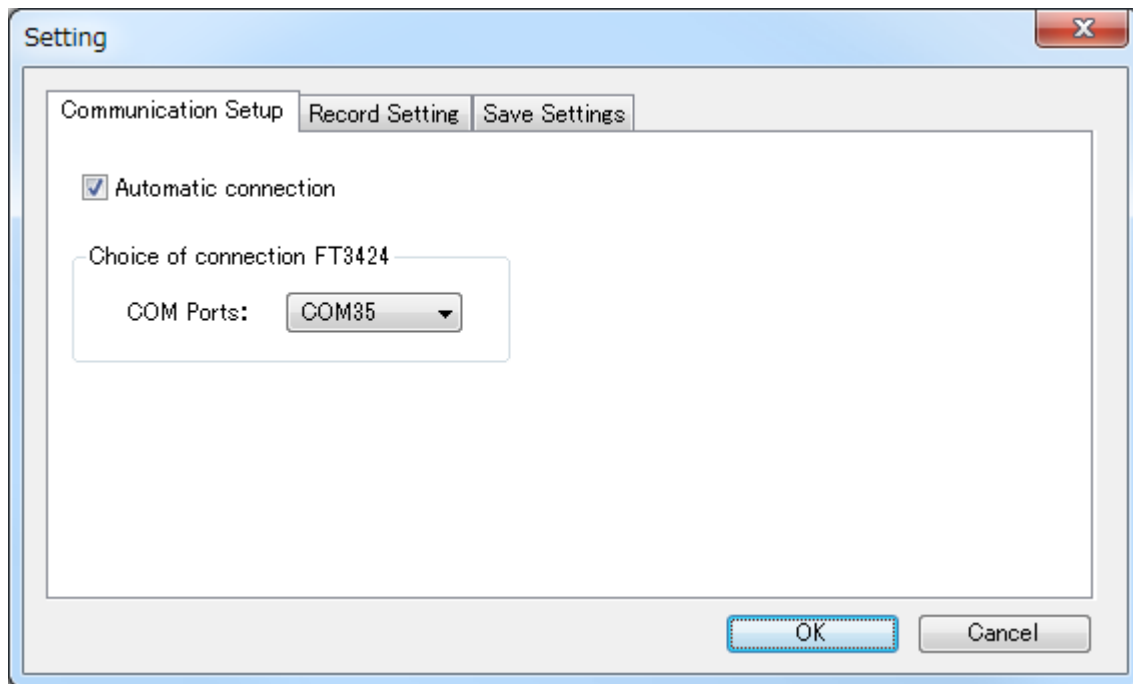


Fig.3-3

- (1) Check [Automatic connection], then connection will start automatically when application detects a communication connection with the FT3424/FT3425.
- (2) Detected corresponding virtual COM port is added to list of pull-down menu of COM ports. Choose the COM port to connect from the pull-down menu.

3.2.2. Record Setting

Set Time Interval, Buffer size, Time Record, and Time display mode. (Fig.3-4)

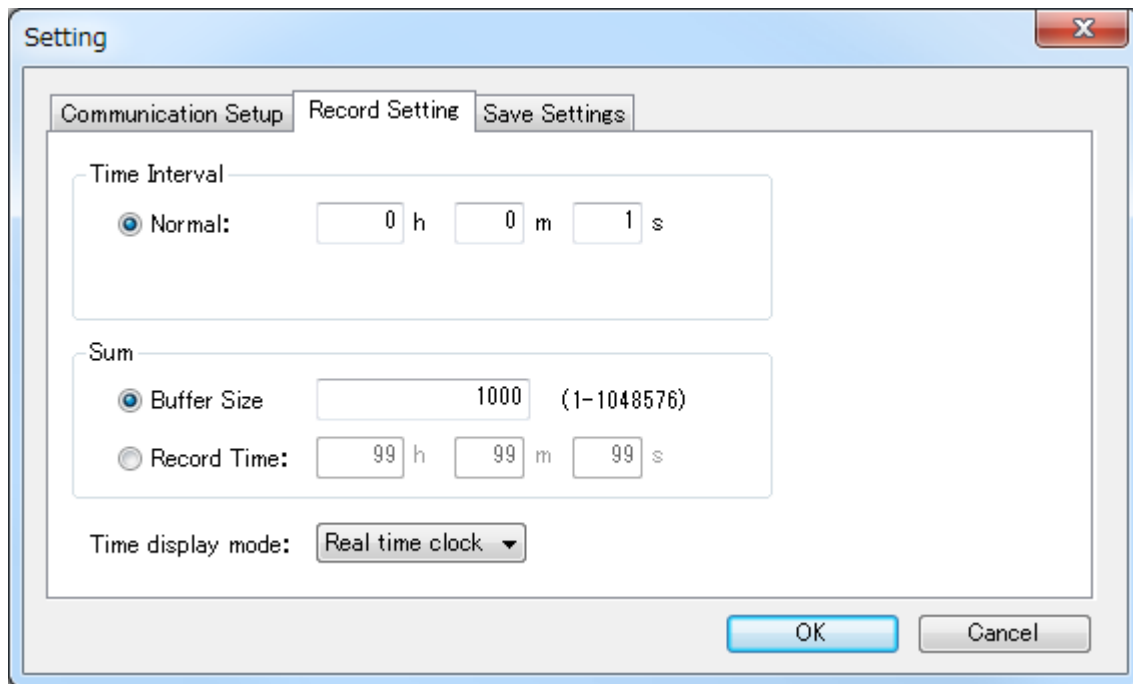


Fig.3-4

- (1) Recording will not start if the software checks the number of data record and find maximum (1,048,576 data) in it at the beginning of recording.
- (2) Recording will stop automatically if you record the number of setting data or Time Record passes.
- (3) You can choose Time display mode, Real time clock or Relative Time.
Refer to the [\[Display Record List\]](#).
- (4) You can enter from 0h0m1s to 99h99m99s to Time Interval or Record Time.

3.2.3. Save Settings

Setup data save settings and CSV save settings. (Fig.3-5)

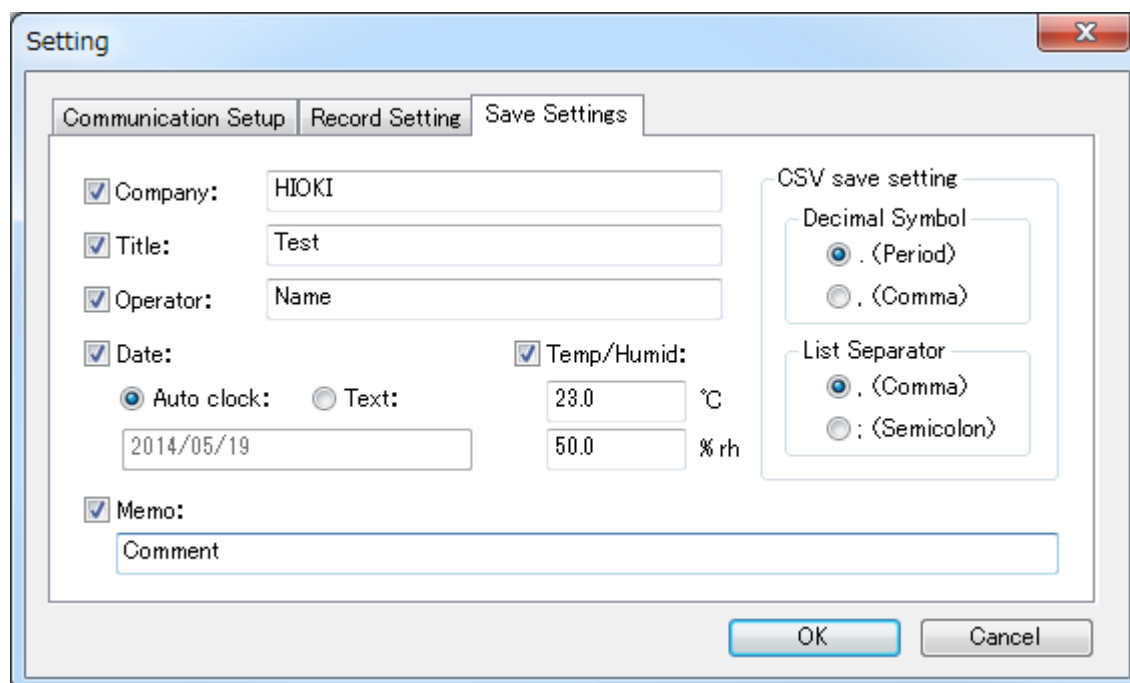


Fig.3-5

- (1) Application will output contents you checked in check books with saving CSV. All contents are checked in a default.
- (2) When you choose [Auto clock] in Date, it shows the date in PC.
- (3) You don't have to change the setting in the case that local setting is Japan about CSV save setting. (Default setting is expressed in Fig.3-5)

Possible number of characters to input:

Company	256 characters
Title	256 characters
Operator	256 characters
Date (Text)	64 characters
Temp	32 characters
Humid	32 characters
Memo	512 characters

3.3. Real Time Monitor

In real time monitor, measured value is shown according to range of FT3424/FT3425. It's possible to check measured conditions of FT3424/FT3425. (Fig.3-6)

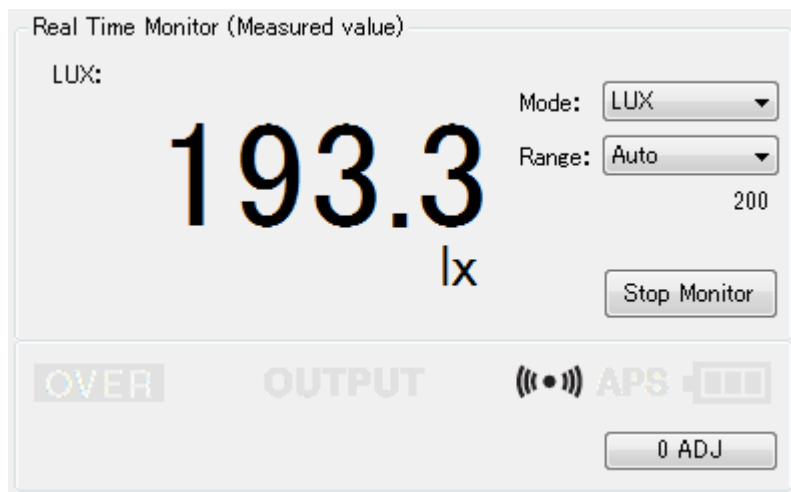


Fig.3-6

In case of uncheck the automatic connection in the communication settings, do the followings.



- (1) Click , then you can start real time monitor.
- (2) Click , then you can stop real time monitor.
- (3) If you see the following message (Fig.3-7), it might have next causes.
 - USB cable is not connected.
 - The power of FT3424/FT3425 is cut off.
 - Under corresponding with another application.



Fig.3-7

(4) If you see the following message (Fig.3-8), it might have next cases.

- USB cable is cut off.
- The power of FT3424/FT3425 is turned off.
- Windows is under the sleeping.

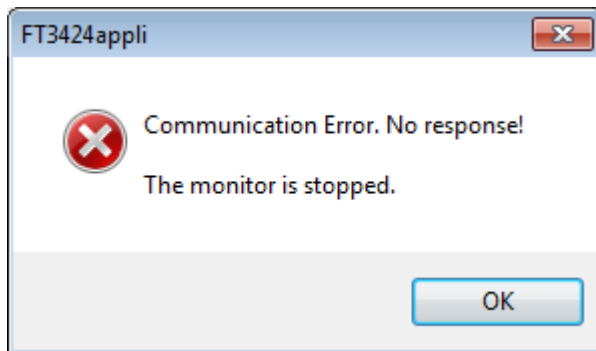


Fig.3-8

(5) Click 0 ADJ button, then you can execute zero-adjustment of FT3424/FT3425.

3.4. Display Configuration

Show configuration connecting with FT3424/FT3425 status. (Fig.3-9, Fig.3-10)

(1) In case of not real time monitoring



Fig.3-9

(2) In case of communicating.



Fig.3-10

3.5. Status


Display Status of FT3424/FT3425. (Fig.3-11)

Status			
Model:	FT3424	Port:	COM35
Ver:	1.00	S/N:	140499596
		Time:	16:40:08

Fig.3-11

- (1) Model : Show FT3424/FT3425.
- (2) FT3424/FT3425 Ver. : Show firmware version or FT3424/FT3425.
- (3) Port : Show number of virtual COM port.
- (4) S/N : Show serial number of FT3424/FT3425.
- (5) Time : Show real time clock.

3.6. Record Operation

- (1) Click , then you can start real time monitor.

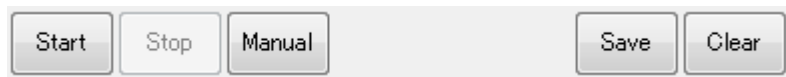


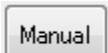
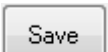


Fig.3-12

- (2) Click , then you can start recording.

- (3) Click , then you can stop recording.

- (4) Click , then you can get data voluntary.

- (5) Click , then you can save recorded data. For details, see [“File”](#) in the contents.

- (6) Click , then you can choose “All Clear” or “Clear last 1 data” (Fig.3-13)

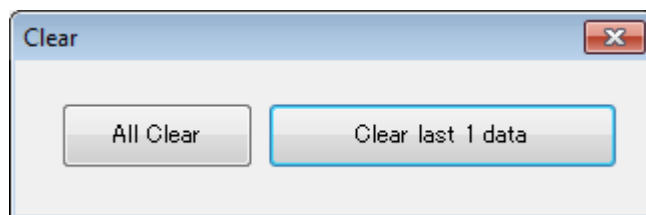


Fig.3-13

If you want to cancel delete data, click .

3.7. Display Record List

3.7.1. Record Information

Show data save settings and information of FT3424/FT3425. (Fig.3-14)

- (1) Model and S/N will be shown after starting real time monitor.
- (2) Function and Range is information of last recorded data.

Record		Graph	
Company	: HIOKI	Date	: 2014/05/19
Model	: FT3424	Operator	: Name
S/N	: 140499596	Temp/Humid	: 23.0°C/50.0%rh
Function	: LUX	Interval	: 1s
Range	: 200 lx	Buffer	: 38
Memo	: Comment		

Fig.3-14

Show the start time and stop time from the beginning of records. (Fig.3-15)

Start	2014/05/19,16:52:24	Stop	2014/05/19,16:53:01
-------	---------------------	------	---------------------

Fig.3-15

3.7.2. Display Record List

Show the each sampling data or manual recorded data from the beginning of records. (Fig.3-16)

Record Time	LUX	
2014/05/19,16:52:49	193.2 lx	
2014/05/19,16:52:50	193.0 lx	
2014/05/19,16:52:51	193.1 lx	
2014/05/19,16:52:52	193.3 lx	
2014/05/19,16:52:53	193.0 lx	
2014/05/19,16:52:54	193.3 lx	
2014/05/19,16:52:55	193.4 lx	
2014/05/19,16:52:56	192.9 lx	
2014/05/19,16:52:57	193.5 lx	
2014/05/19,16:52:58	193.5 lx	
2014/05/19,16:52:59	193.4 lx	
2014/05/19,16:53:00	193.4 lx	
2014/05/19,16:53:01	192.9 lx	

Previous

Next

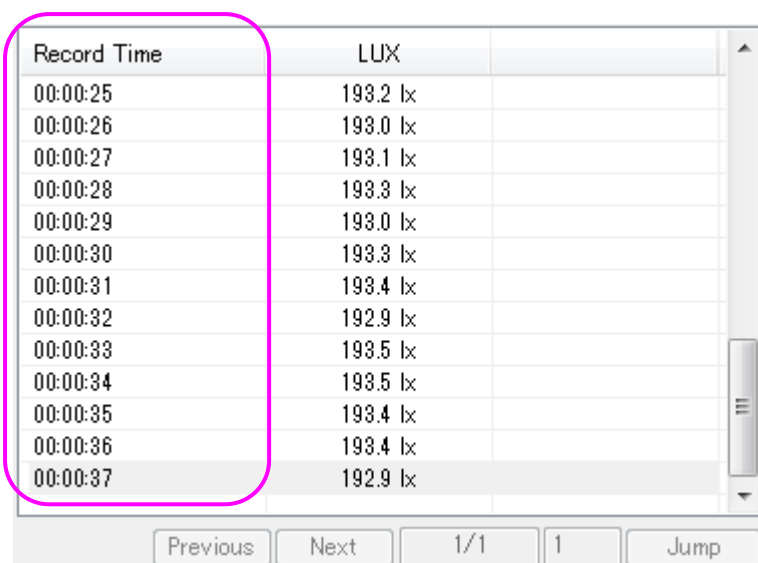
1/1

1

Jump

Fig.3-16

If record setting is “Relative Time”, show elapsed time (relative time) from the first recorded data of record list. (Fig.3-17)



Record Time	LUX
00:00:25	193.2 lx
00:00:26	193.0 lx
00:00:27	193.1 lx
00:00:28	193.3 lx
00:00:29	193.0 lx
00:00:30	193.3 lx
00:00:31	193.4 lx
00:00:32	192.9 lx
00:00:33	193.5 lx
00:00:34	193.5 lx
00:00:35	193.4 lx
00:00:36	193.4 lx
00:00:37	192.9 lx

Previous Next 1/1 1 Jump

Fig.3-17

- (1) The number of record is 1,000 data per one page.
- (2) You can display any pages by [Previous], [Next], and [Jump] button.
- (3) Page operation is not valid during the interval record.

3.7.3. Display maximum and minimum data

Show the maximum and minimum data from the beginning of records. (Fig.3-18, Fig.3-19)

LUX	MAX	2014/05/19,16:52:58	193.5 lx
	MIN	2014/05/19,16:52:29	192.7 lx

Fig.3-18 (Real time)

LUX	MAX	00:00:34	193.5 lx
	MIN	00:00:05	192.7 lx

Fig.3-19 (Elapsed time)

After stopping the record, if you start the record again, then show the maximum and minimum data from restart.

3.8. Display Graph

The last continuous data that are recorded with start button are drawn in graph area.
(Fig.3-20)

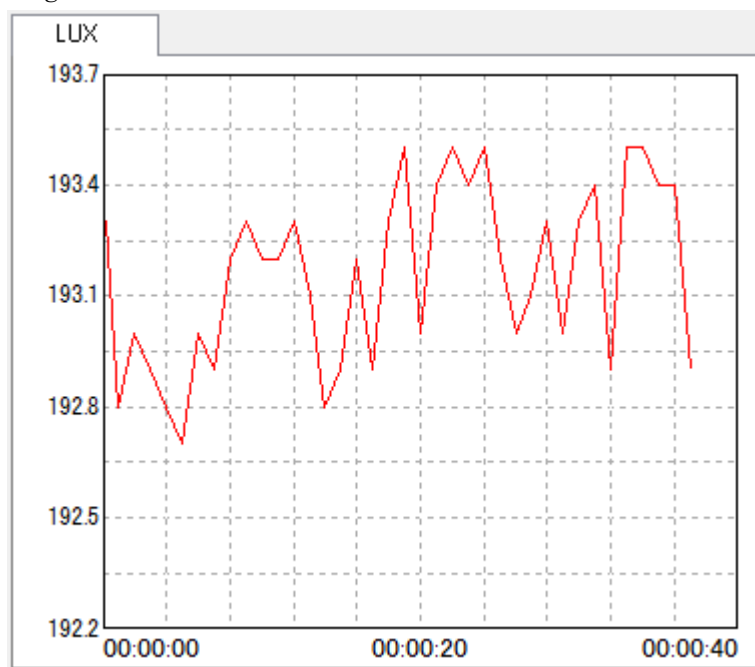
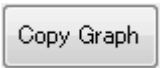


Fig.3-20

(1) The horizontal axis of the graph shows the time elapsed since the start of the record.

(2) You can copy a trend graph to clipboard by  button.


You can easily do “Paste” in applications such as document creation.

3.9. File

3.9.1. Save record data

Record data can be saved in two kinds of forms as follows.



(1) Click the  button, or click the [Save], [Save as] of File menu, you can save data as a binary file format. File extension is “*.hflm”

(2) Click [Save as CSV file] of File menu, you can save data as a CSV file format. Fig.3-21 shows an example of the display in Microsoft Excel.

F1										
	A	B	C	D	E	F	G	H	I	J
1	Communicator for FT3424 Ver1.00									
2										
3	Record Data									
4	Model:	HIOKI	FT3424	Ver 1.00						
5	S/N:	140499596								
6	Company:	HIOKI								
7	Title:	Test								
8	Date:	2014/5/19								
9	Operator:	Name								
10	Temp/Hum:	23.0Celsius/50.0%rh								
11	Interval:	1s								
12	Function:	LUX								
13	Range:	200 lx								
14	Memo:	Comment								
15										
16	Buffer:	38								
17	No	Date	Time	Range	Measured \Unit	OVER				
18	1	2014/5/19	16:52:24	200	193.3 lx					
19	2	2014/5/19	16:52:25	200	192.8 lx					
20	3	2014/5/19	16:52:26	200	193 lx					
21	4	2014/5/19	16:52:27	200	192.9 lx					
22	5	2014/5/19	16:52:28	200	192.8 lx					
23	6	2014/5/19	16:52:29	200	192.7 lx					
24	7	2014/5/19	16:52:30	200	193 lx					
25	8	2014/5/19	16:52:31	200	192.9 lx					
26	9	2014/5/19	16:52:32	200	193.2 lx					
27	10	2014/5/19	16:52:33	200	193.3 lx					
28	11	2014/5/19	16:52:34	200	193.2 lx					
29	12	2014/5/19	16:52:35	200	193.2 lx					
30	13	2014/5/19	16:52:36	200	193.3 lx					
31	14	2014/5/19	16:52:37	200	193.1 lx					
32	15	2014/5/19	16:52:38	200	192.8 lx					
33	16	2014/5/19	16:52:39	200	192.9 lx					
34	17	2014/5/19	16:52:40	200	193.2 lx					
35	18	2014/5/19	16:52:41	200	192.9 lx					
36	19	2014/5/19	16:52:42	200	193.3 lx					
37	20	2014/5/19	16:52:43	200	193.5 lx					
38	21	2014/5/19	16:52:44	200	193 lx					

Fig.3-21

The following message appears when you overwrite record data in situations where the file is open, for example, Microsoft Excel. If you want to overwrite it, please save again after closing the file. (Fig.3-22)

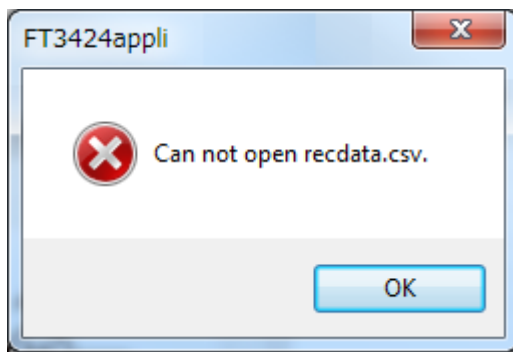


Fig.3-22

3.9.2. Display saved record data

- (1) Click the [Open] of File menu, and you can display saved record data that is binary format file to the record list and graph area.
- (2) The saved record data by CSV format can not be opened.
- (3) Files saved by another application for FT3424/FT3425 cannot be opened, because it is not compatible.

3.10. Option

3.10.1. Read Memory Data from FT3424/FT3425

(1) Click [Read Memory Data from FT3424/FT3425] of option menu.

It can not be chosen in case of not real time monitor, and during the interval records.

(2) Read Memory Data dialog will appear. (Fig.3-23)

After designating a destination folder and file name, click [OK].

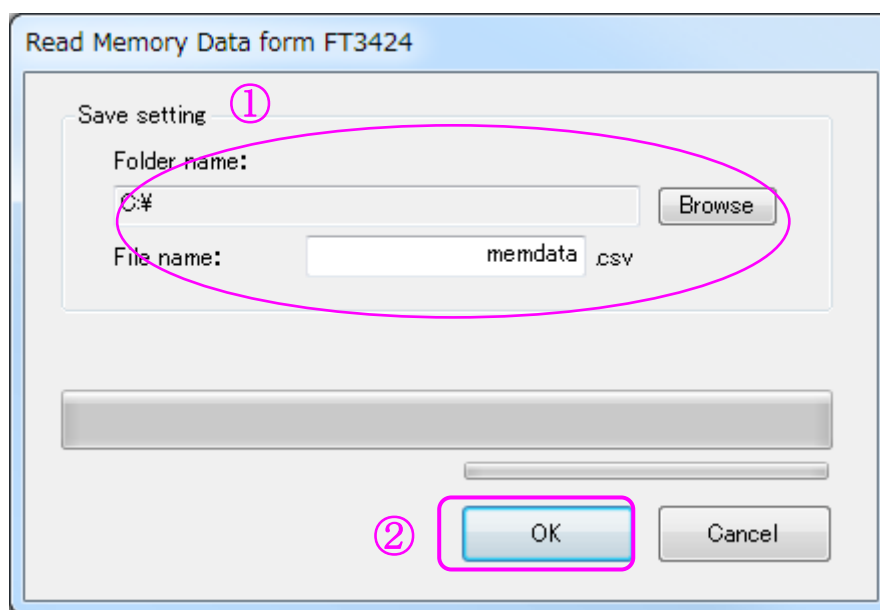


Fig.3-23

(3) It will start reading data. (Fig.3-24)

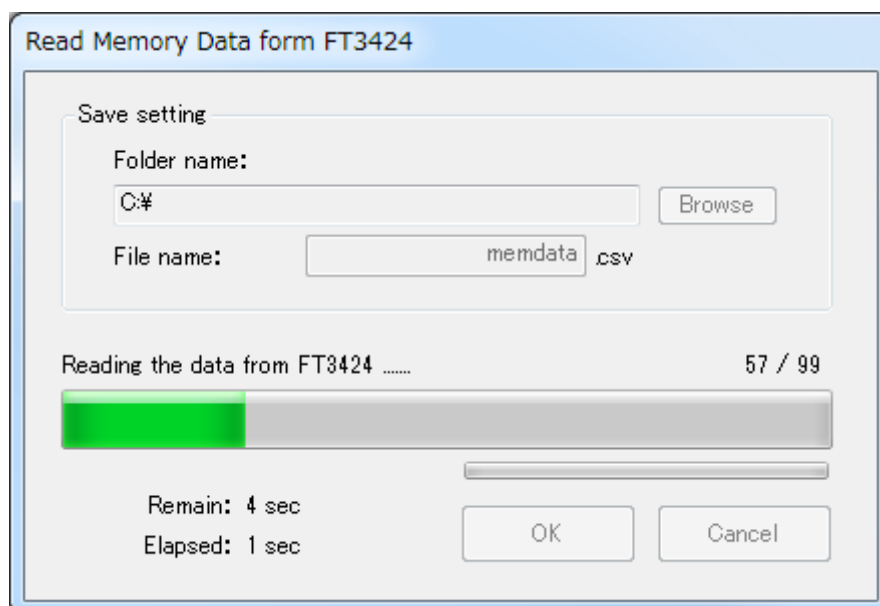


Fig.3-24

(4) If the following dialog appear, click [OK]. (Fig.3-25)

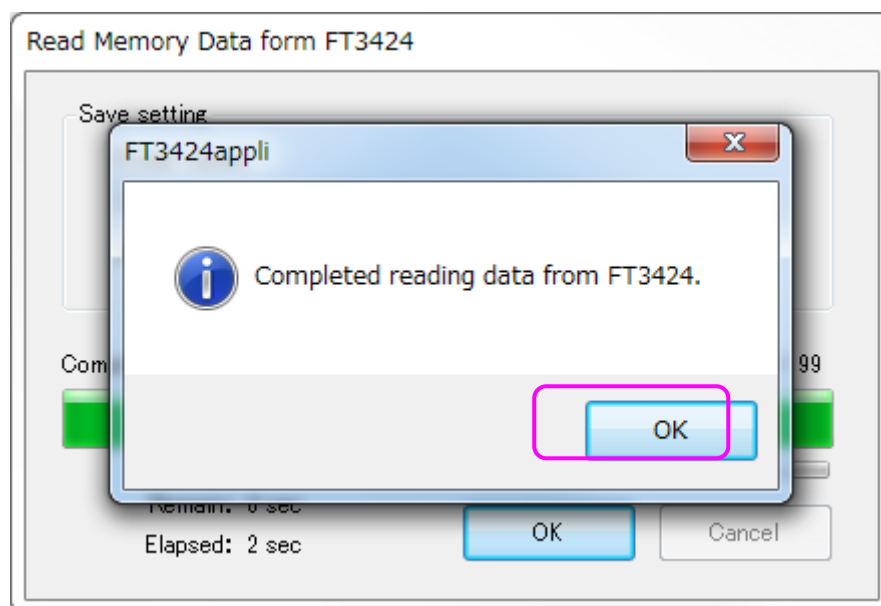


Fig.3-25

(5) Fig.3-26 shows an example of the display in Microsoft Excel.

F1																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N			
1	Communicator for FT3424 Ver1.00																
2																	
3	Memory Data																
4	Model:	HIOKI	FT3424	Ver1.00													
5	S/N:	140489596															
6	Date:	2014/5/19															
7																	
8	No	Range	Measured Value	Unit	OVER												
9	1	20	12.29	lx													
10	2	200	115.3	lx													
11	3	2000	430	lx													
12	4	20000	440	lx													
13	5	200000	400	lx													
14	6	200000	400	lx													
15	7	200000	400	lx													
16	8	200	141.7	lx													
17	9	200	128.6	lx													
18	10	20	0	lx													
19	11	2000	254	lx													
20	12	2000	273	lx													
21	13	2000	616	lx													
22	14	2000	613	lx													
23	15	2000	790	lx													
24	16	2000	766	lx													
25	17	2000	561	lx													
26	18	200	167.3	lx													
27	19	200	175.2	lx													
28	20	200	175.2	lx													
29	21	200	175.2	lx													
30	22	2000	547	lx													
31	23	2000	547	lx													
32	24	2000	547	lx													
33	25	2000	547	lx													
34	26	2000	361	lx													
35	27	2000	417	lx													
36	28	2000	347	lx													
37	29	2000	323	lx													

Fig.3-26

3.10.2. Paste Record Data to Excel

By using this function, data is directly recordable on Excel.

(1) Click [Paste Record Data to Excel] of option menu.

(2) Paste Record Data to Excel dialog will appear.

Click [Excel Open]. (Fig.3-27)

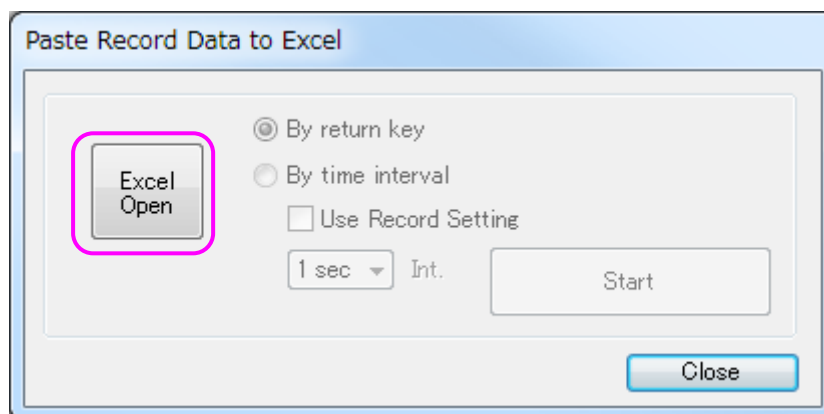


Fig.3-27

(3) Choose [New File(Launched File)] or [Edit File], and click [OK]. (Fig.3-28)

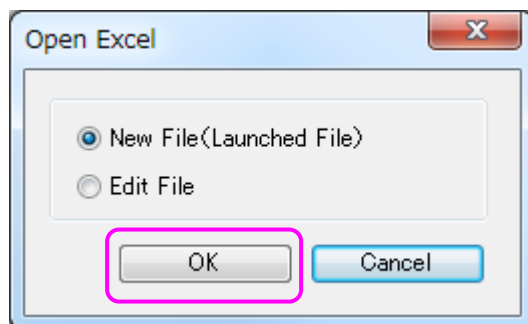


Fig.3-28

(4) At the Paste Record Data to Excel dialog, choose time interval, and click [Start]. (Fig.3-29)

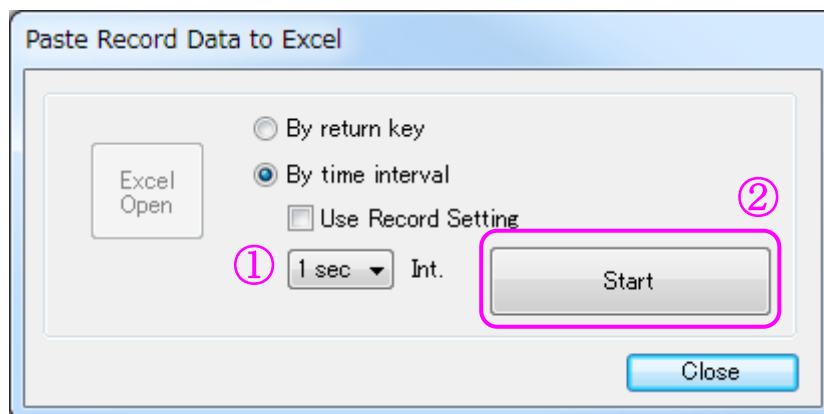



Fig.3-29

- (5) Click , then you can stop paste record data to Excel by time interval.
- (6) The time can be set in the time interval is as follows.
 1sec, 2 sec, 5 sec, 10 sec, 20 sec, 30 sec, 1min, 2 min, 5 min, 10 min, 20 min, 30 min, 60 min
 If you check the “Use record setting”, you can paste record data to Excel according to Time interval and Sum of Record Setting. (Except for setting of “Time display mode”.)
- (7) If you choose [By return key], when return key is pressed, record data is pasted to Excel.
- (8) The following message is appeared when Microsoft Excel is closed. (Fig.3-30)

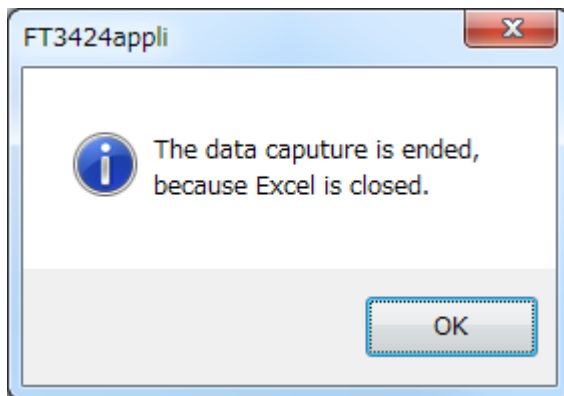


Fig.3-30

- (9) If you start paste record data to Excel by time interval (or by return key) during stop monitoring, the following message will appear. Please restart after monitoring. (Fig.3-31)

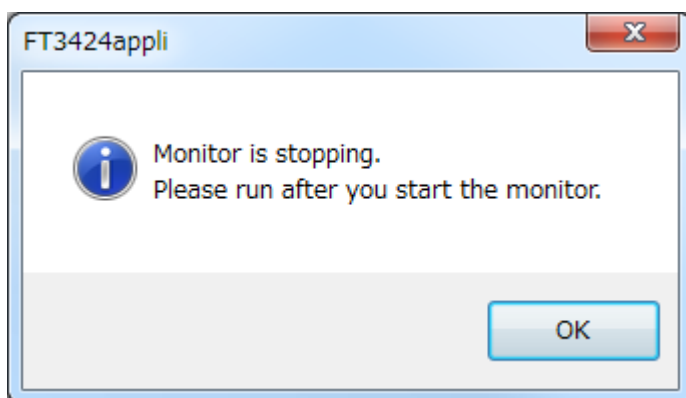


Fig.3-31

Note : Do not operate the Excel during the time interval, because application may not work correctly.

3.11. Language

You can switch the Japanese character and English character.

3.12. Help

3.12.1. PDF Manual

You can see PDF Manual.

3.12.2. About

You can check version of Communicator for FT3424/FT3425. (Fig.3-32)



Fig.3-32

4. Troubleshooting

4.1. Install is impossible

Please make sure you have Administrator privileges.

4.2. USB communication is impossible

This application uses a virtual COM port.

This application is not supported for a virtual machine.

The COM port number allocated to the USB port will vary with the computer on which the software is used. Use the following method to check the allocated COM port number.

(1) Open device manager.

- Windows Vista

[Start] – [Control Panel] – [Hardware and Sound] – [Device Manager]

- Windows 7

[Start] – [Control Panel] – [System and Security] – [Device Manager]

- Windows 8, Windows 8.1, Windows 10

[Desktop] – [Right Click on the Start] – [Device Manager]

(2) The “x” in “FT3424 Lux Meter · CDC (COMX)” in the list of port s (COM and LPT) indicates the COM port number.

4.3. USB connection doesn't start automatically

Depending on the timing of the USB cable connection, application may not automatically recognize the FT3424/FT3425. In that case, please turn on the power of the FT3424/FT3425 again.

4.4. The input value to the FT3424/FT3425 and record data are different

Application may record the transient value when the FT3424/FT3425 range is changed, because response can not keep up.

In this case, please do the record after the range is set to a manual range.