

Dyna Doctor for ESTIA

Operation Manual

Ver. 1.0

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1. Outline

DynaDoctor for ESTIA is application software for collecting and displaying data of the ESTIA Hydro Unit.

2. System requirements

System requirements for *DynaDoctor for ESTIA* on PC are as follows.

Item	Specifications
OS	Windows XP (Home and Professional), Windows Vista, 7
Office System	Excel, Word
File output	Excel or Word file

3. Cautions for using DynaDoctor for ESTIA

You need DYNA-KIT (TCB-DK01SS-E: purchased separately) to collect and display data of the Hydro Unit (DYNA-KIT is not required for displaying the history of acquired data.).

You can connect DYNA-KIT to a PC via USB or RS-232C.

When you connect DYNA-KIT to a PC via RS-232C, you also need a USB connection for supplying electricity.

As a USB driver is not supplied for DynaDoctor for ESTIA, download the driver from the website below and install it on your PC.

URL : <http://www.ftdichip.com/FTDrivers.htm>

Device Name : FT232R

4. Operation screens of Dyna Doctor for ESTIA

On operation screens of Dyna Doctor for ESTIA, various functions are available by selecting a menu on the menu bar or clicking an icon button on the toolbar.

This section describes an outline of operation windows of Dyna Doctor for ESTIA used frequently.

4.1. Main Menu window

On the Main Menu window, you can save or view the operation data of the ESTIA Hydro Unit. Also, you can view the operation data you have saved. Data you have saved or viewed is shown on the History list of the window and you can easily view the past operation data.

In addition, you can specify the settings of the COM port or saving interval, or jump to the window for compressing or combining data from the Main Menu window.

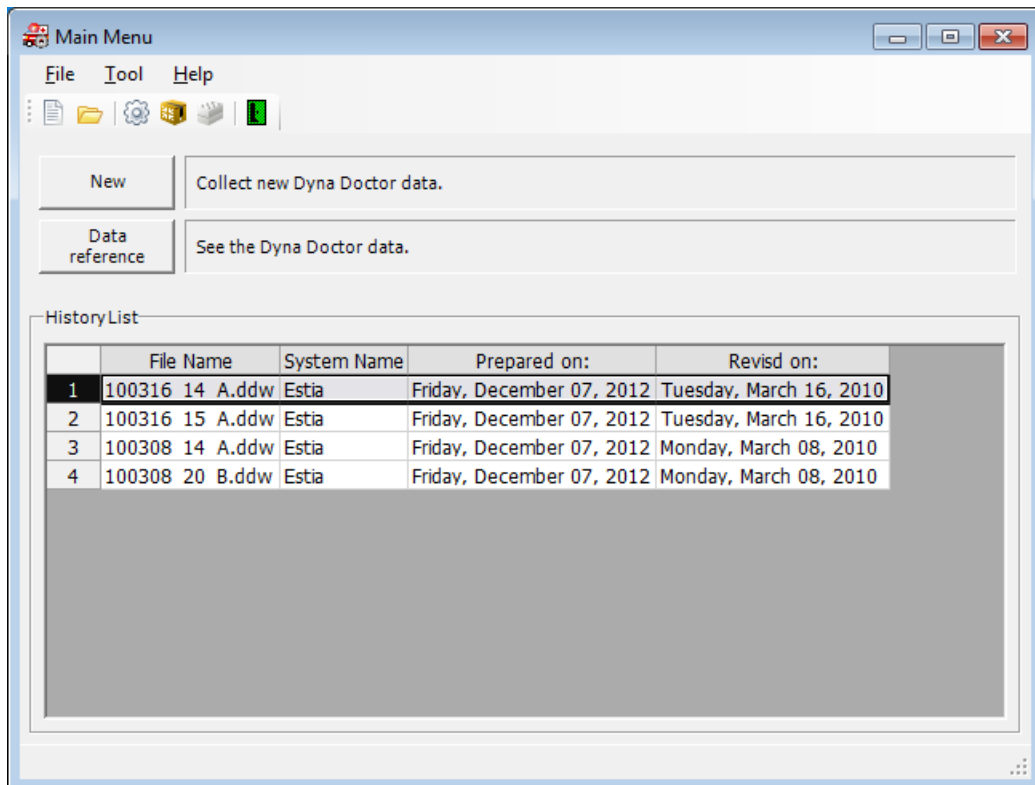


Figure 4-1 [Main Menu window]

4.2. Device Selection window

On the Device Selection window, you can select a device or specify the settings of the save file or saving interval. The chart on the window is automatically changed according to the settings specified on the Device Selection window.

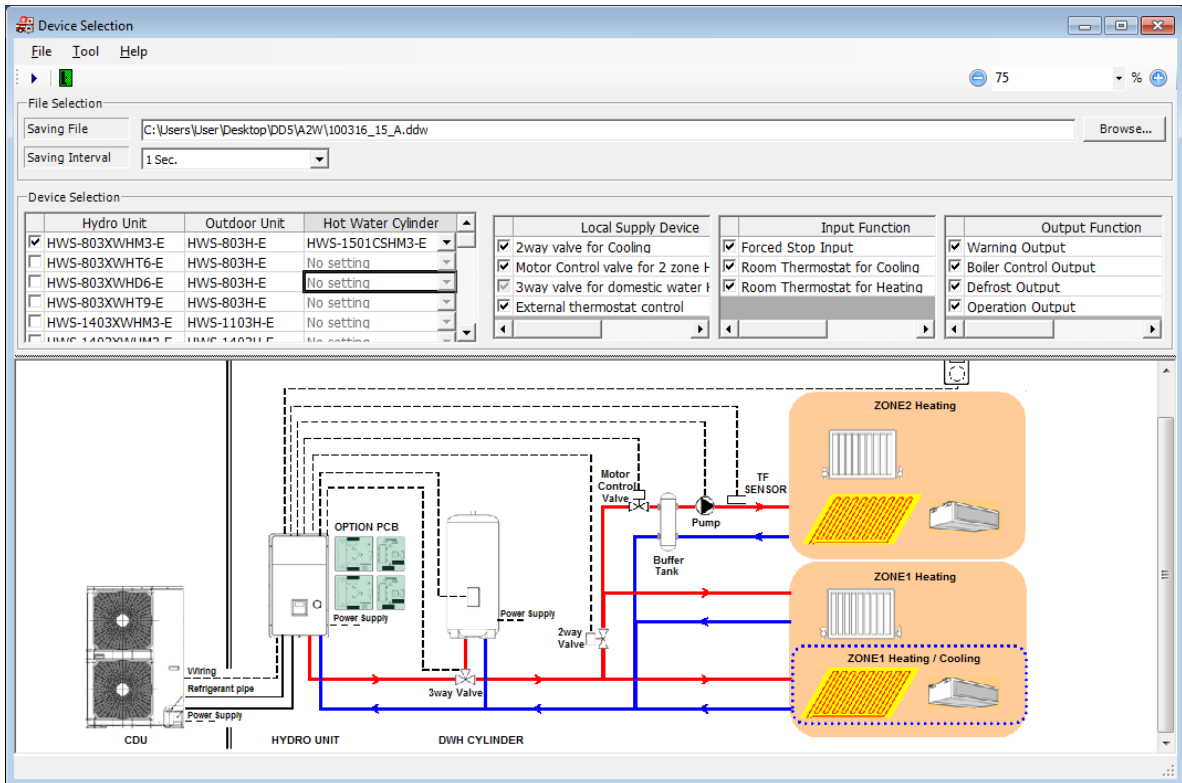


Figure 4-2 [Device Selection window]

4.3. Data List window

On the Data List window, information about the Hydro Unit, sensor data of the outdoor unit, and the inspection code are listed.

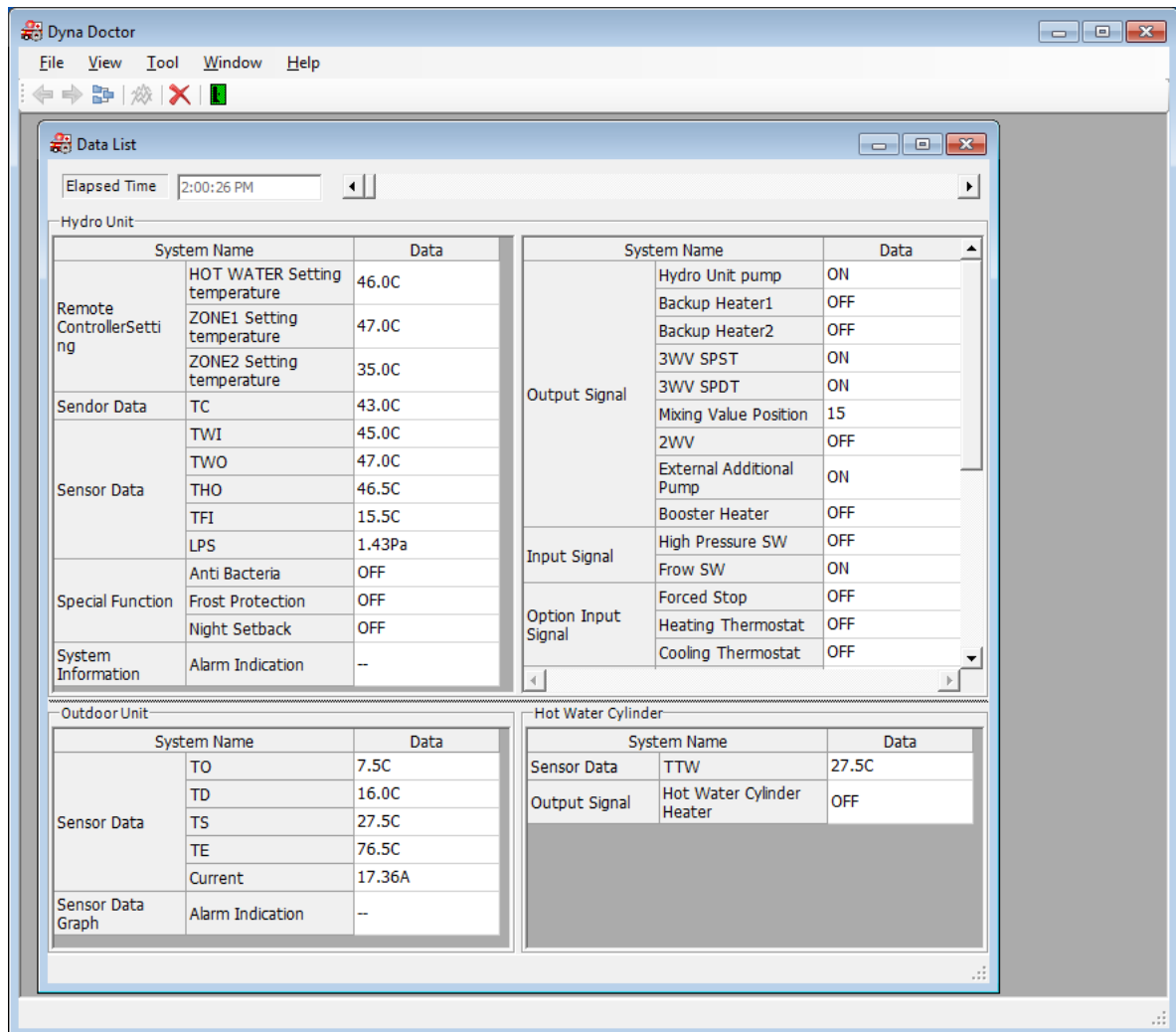


Figure 4-3 [Data List window]

4.4. Water Cycle Chart/Refrigeration Cycle Chart window

On the Water Cycle Chart/Refrigeration Cycle Chart window, the cycle of the Hydro Unit, the outdoor unit, the hot water tank, and other external devices are displayed in a chart. The chart displayed on the window differs depending on the item you have selected.

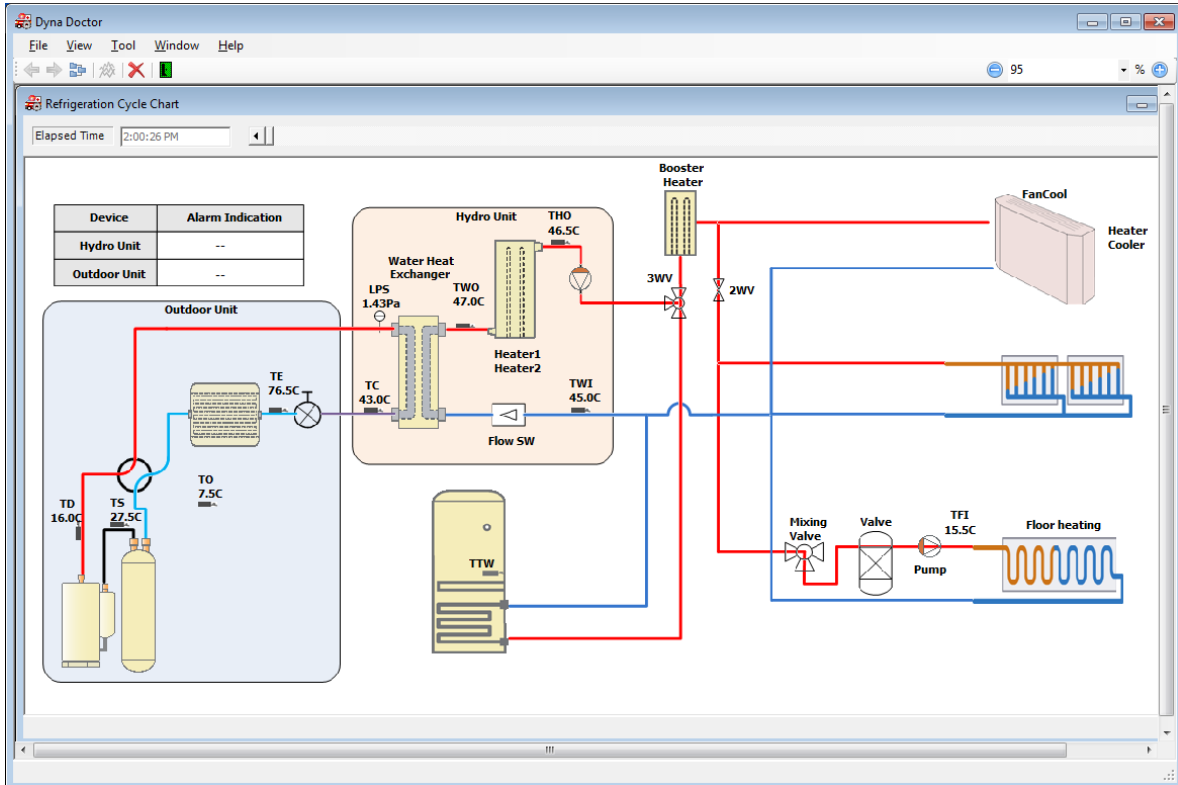


Figure 4-4 [Water Cycle/Refrigeration Cycle Chart window]

4.5. P.C. board Switch Setting window

On the P.C. board Switch Setting window, the configurations of the switches on the control panel of the Hydro Unit are displayed.

SW	Dip No.	Function	ON/OFF	Switch Mode
SW02	1	Boiler install position	OFF	Heating side after 3 way valve
	4	Used to when an external room thermostat is connected	OFF	No external room thermostat
SW10	1	P1 Pump operation for hot water	OFF	synchronised with heat pump
	2	P1 Pump operation for heating	OFF	Normally run
	3	Synchronisation of Pump P2	OFF	P2 continuous operation (pump off when remote controller switched off)
SW11	1	Used to activate Hydro Unit back up heaters	OFF	Back up heaters activated
	2	Used to activate hot water cylinder electrical heater	OFF	hot water cylinder heater activated
	3	Used to activate external booster heater output	OFF	external booster heater output activated
SW12	1	Used when a hot water cylinder is connected to system	OFF	hot water cylinder connected
	2	Used to activate Zone 1 Operation	OFF	Zone 1 activated
	3	Used to activate Zone 2 Operation	OFF	Zone 2 de-activated
SW13	1	Used to determine type of 3 way diverting valve used on system	OFF	2 SPST type valve
	2	Used to activate external boiler output	OFF	external boiler output de-activated
	3	Used to activate system auto restart after power failure	OFF	auto restart activated

Figure 4-5 [P.C. board Switch Setting window]

4.6. Graph window

The graph specified by the graph setting is displayed on the window. You can display multiple graphs on the window at the same time.

Also, you can print out the graph or copy it to the clipboard.

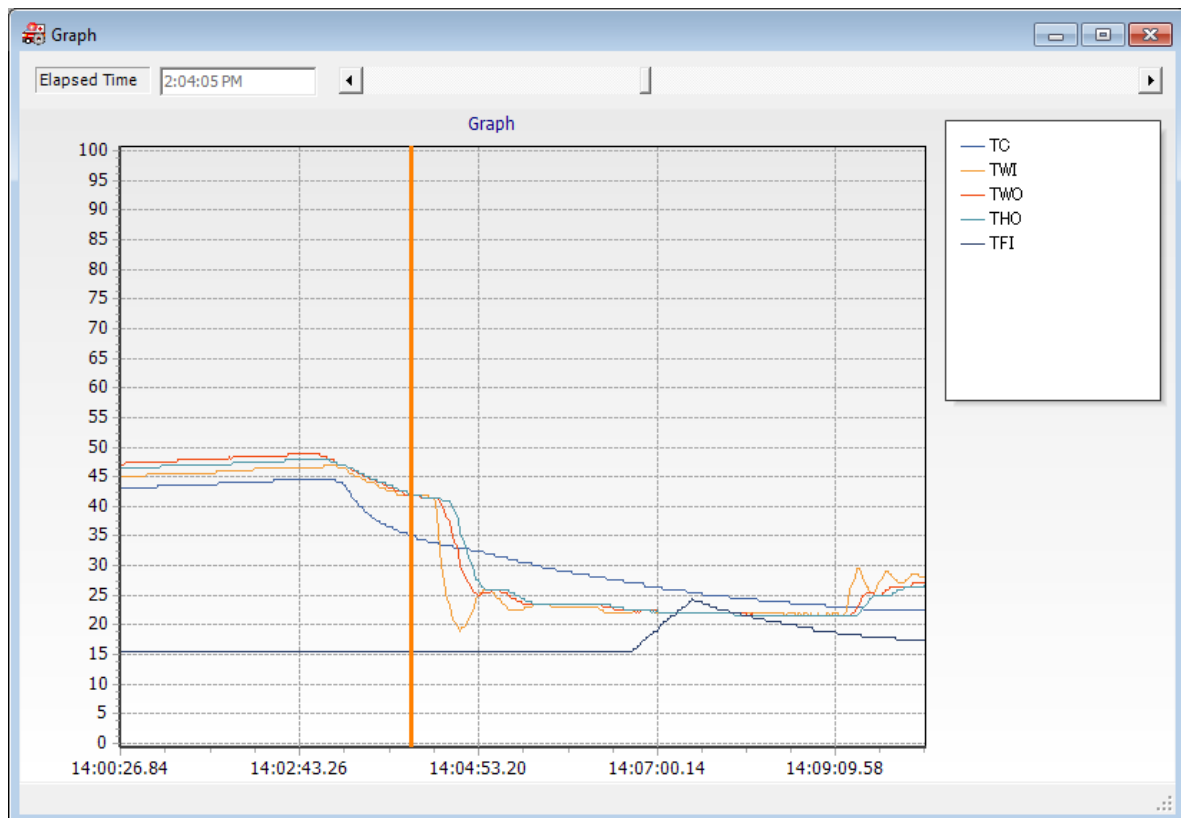


Figure 4-6 [Graph window]

4.7. Setting window

On the setting window, you can specify the settings of the communication port for the Hydro Unit, settings of the saving folder, or the trigger settings.

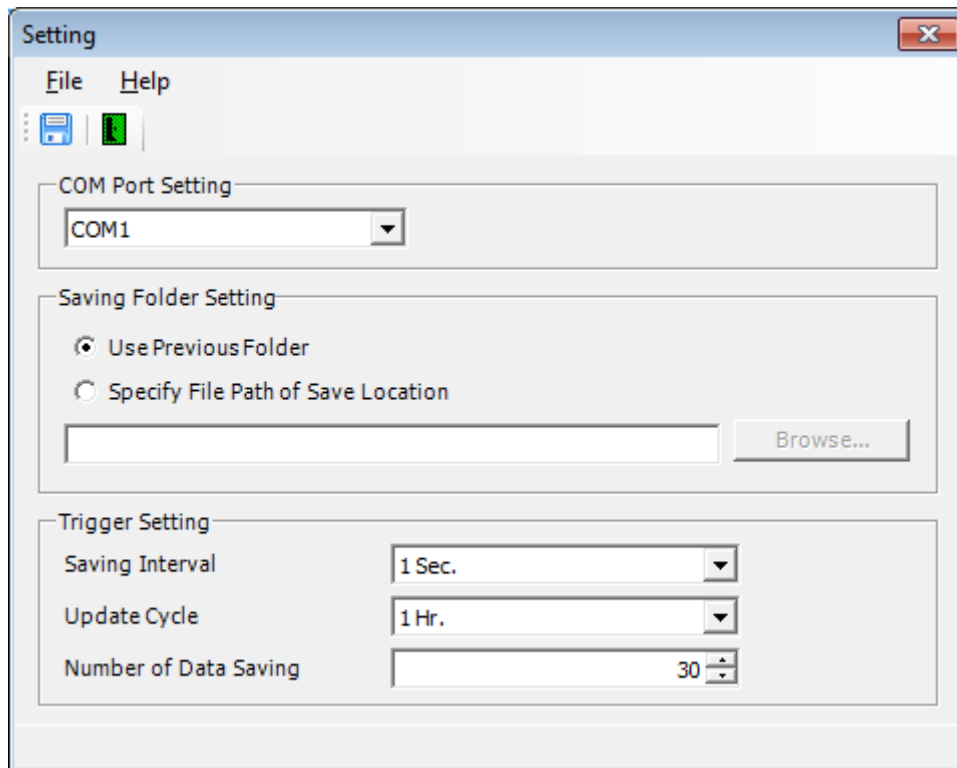


Figure 4-7 [Setting window]

4.8. Compress Data window

You can compress the saved data of DynaDoctor for ESTIA. Compressing the data helps you reduce the amount of files you will send or save.

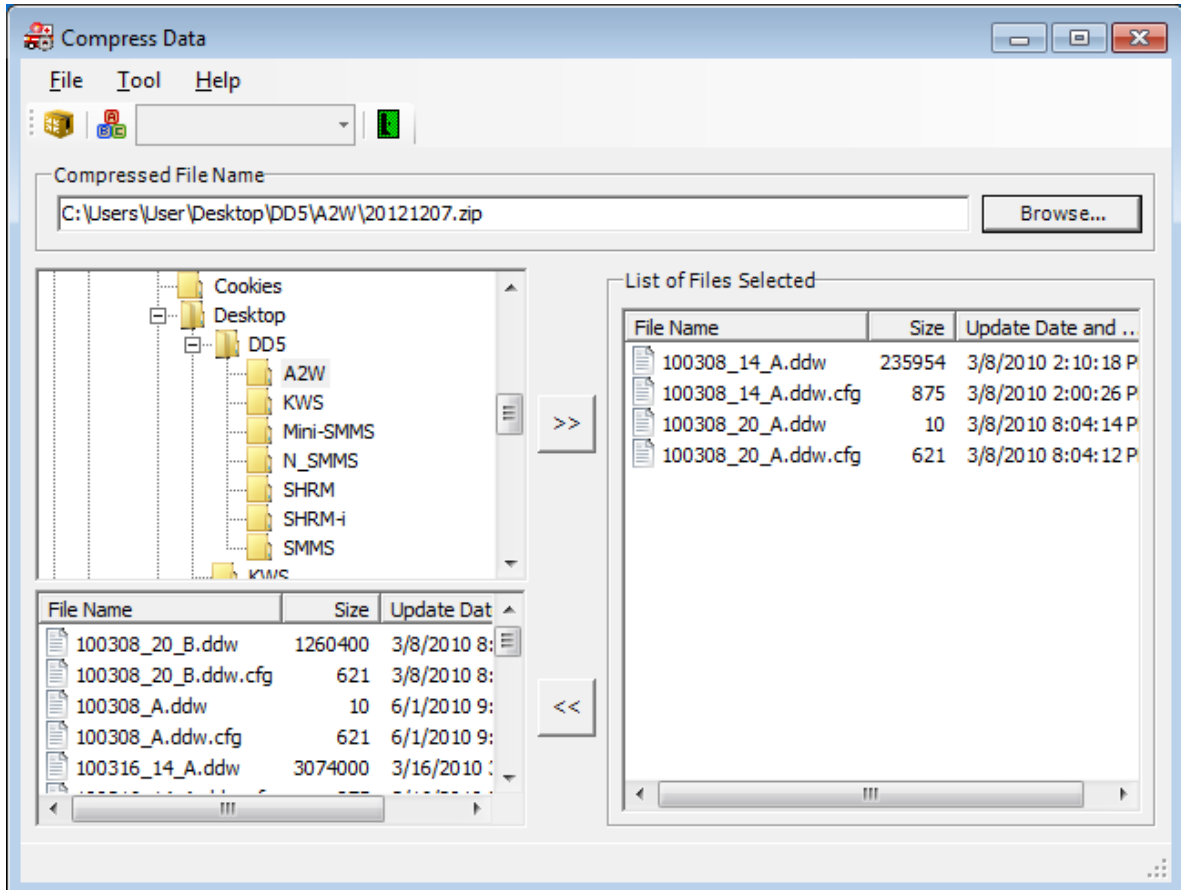


Figure 4-8 [Compress Data window]

4.9. Combine Data window

The data of DynaDoctor for ESTIA is divided automatically at specified intervals. On the Combine Data window, you can combine the divided data as one file and view it as continuous data.

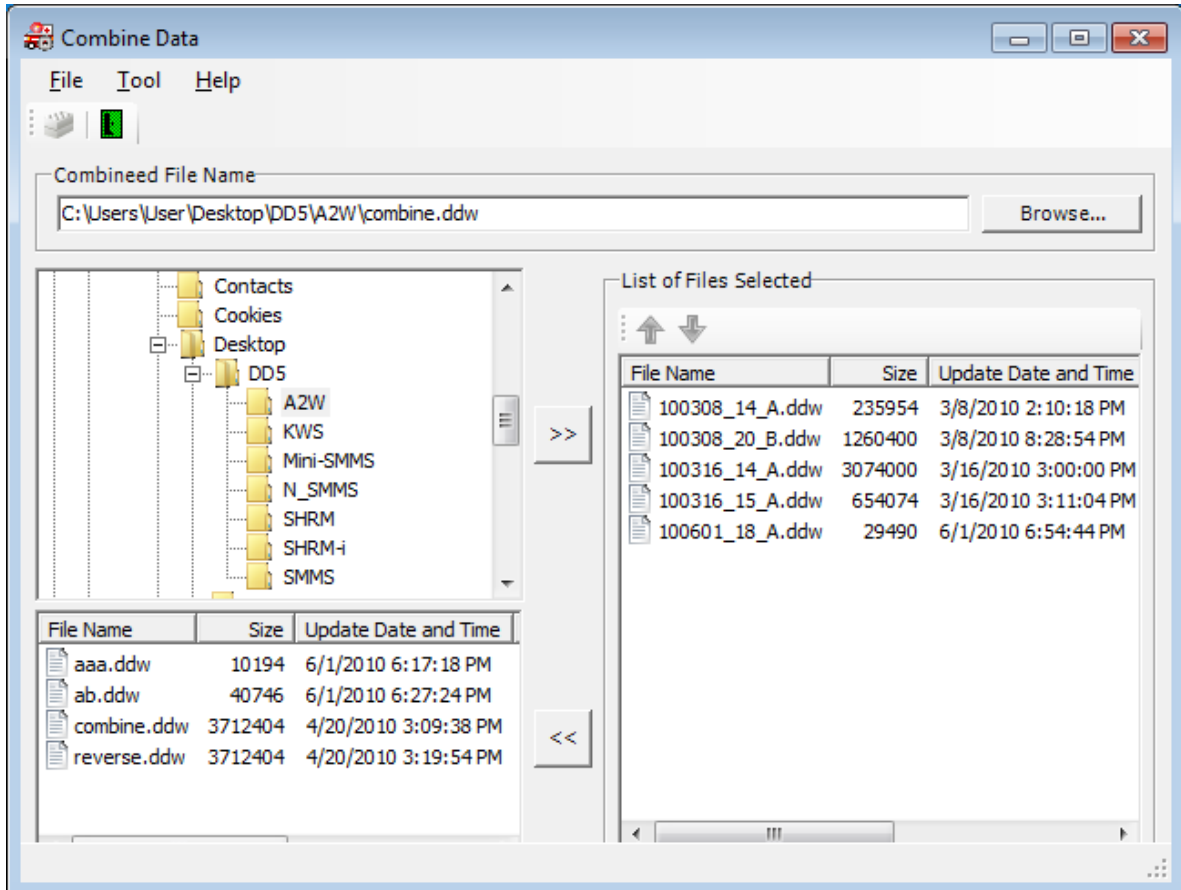


Figure 4-9 [Combine Data window]

5. Operations of Dyna Doctor for ESTIA

5.1. Common operation

Each window of Dyna Doctor for ESTIA (referred to as “DD” hereafter) has a menu bar and a toolbar (There are a few exceptions.). You can use the functions of DD from the menus or buttons.

The items on the menu bar or toolbar differ depending on the window. A tooltip for guidance appears when you move the mouse cursor over a toolbar icon.

5.2. Starting/Exiting Dyna Doctor for ESTIA

5.2.1. Starting Dyna Doctor for ESTIA

You can start DD from the desktop icon or Windows menu.

① Start DD

- Double click the desktop icon shown in Figure 5-1 below.



Figure 5-1 [Desktop icon of DD]

- Starting from the Windows menu

Select [All programs]→[Toshiba]→[Dyna Doctor for ESTIA]→[Dyna Doctor for ESTIA] from the [Start] menu.

② Display the Start window

The start window below is displayed when you start DD from the desktop icon or [Start] menu on Windows.



Figure 5-2 [Start window]

③ Operating DynaDoctor for ESTIA is ready

When the Start window (Figure 5-2) disappears and the Main window (Figure 4-1) appears, DD is ready. After that, you can use the functions of DD.

5.2.2. Exiting DynaDoctor for ESTIA

To exit DD, click the Exit icon/button (Figure 5-3), or select [Exit] from the [File] menu (Figure 5-4).

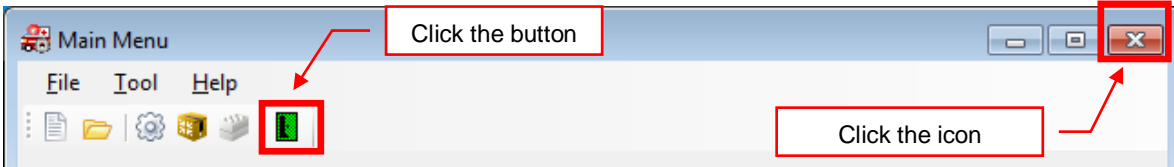


Figure 5-3 [Main menu window ([Exit icon])]

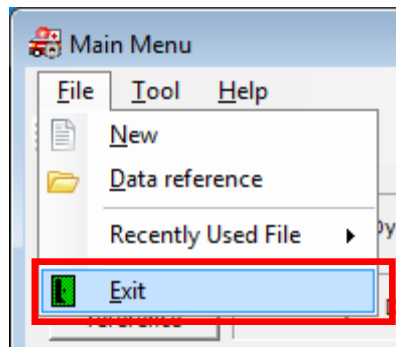


Figure 5-4 [Main menu window (Exit menu)]

Before exiting DD, a confirmation dialog box for exiting the application is displayed. Click the [OK] button to exit DD, or click the [Cancel] button to cancel exiting DD.

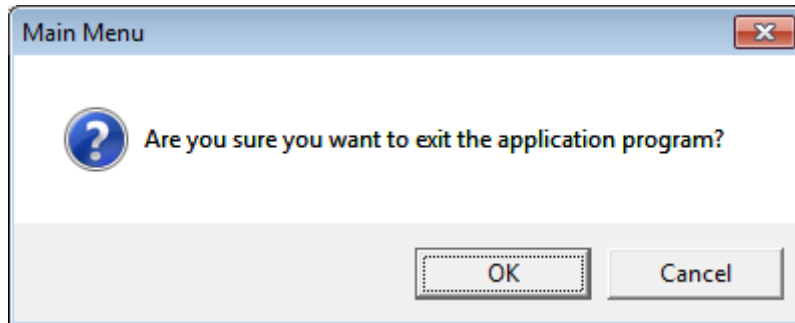


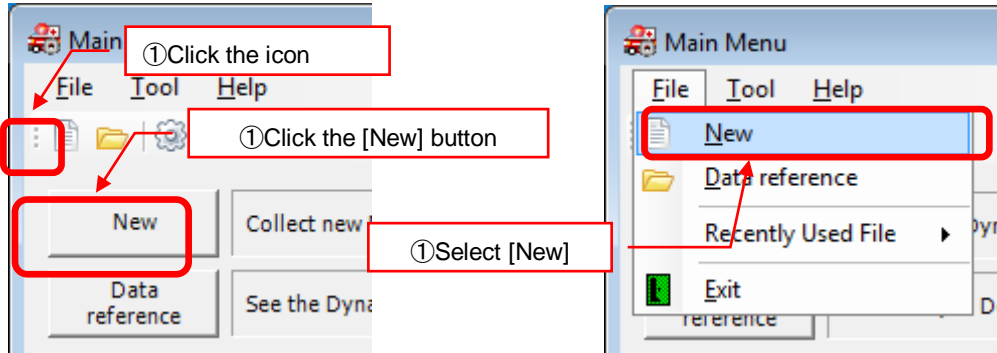
Figure 5-5 [Confirmation dialog box for exiting]

5.3. Viewing or saving data

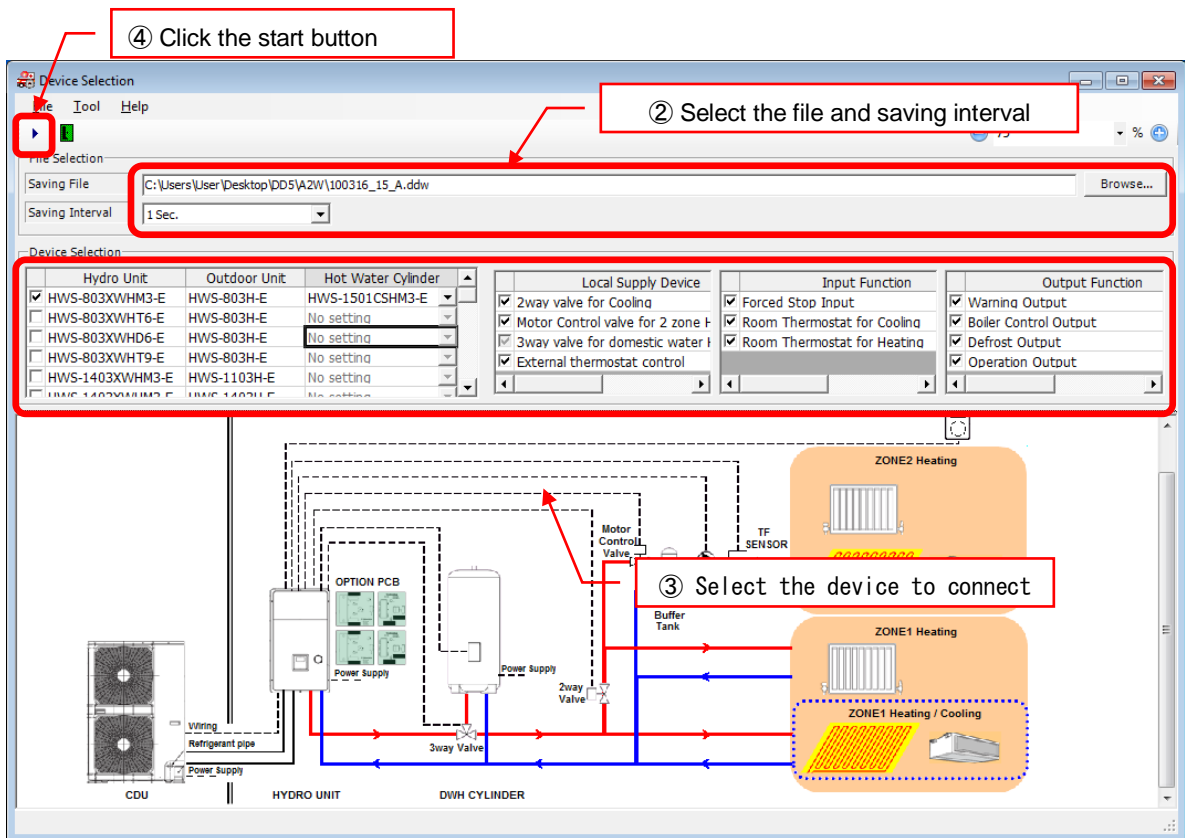
5.3.1. Viewing or saving new data

Follow the procedure below to view new data.

- ① Click the icon shown below on the toolbar, click the [New] button, or select [New] from the [File] menu.

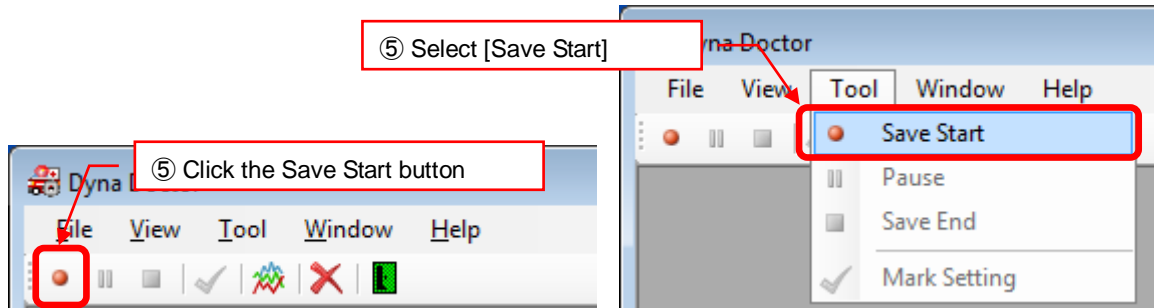


- ② When the Device Selection window is displayed, select the file to save and the saving interval.
- ③ Select the device to connect. The chart displayed on the window changes automatically according to the device you have selected.
- ④ Click the start button to display the data reference window. Then you can view the new data.

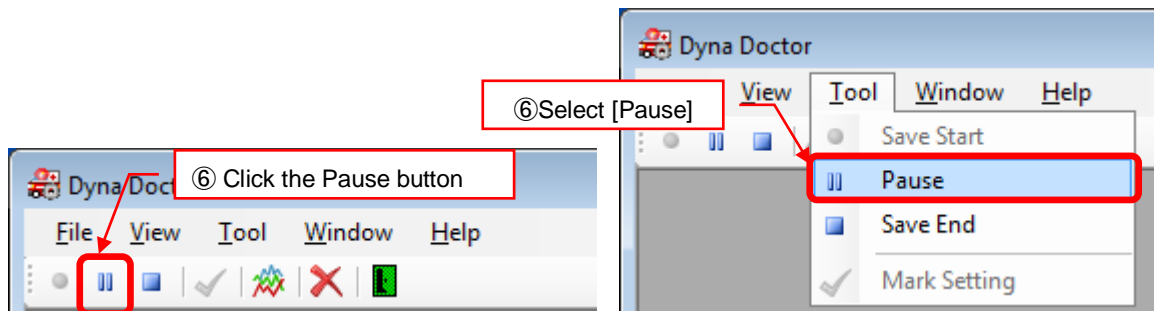


To view and save the new data, follow the procedure below in addition to the procedure in 5.3.1. on the previous page.

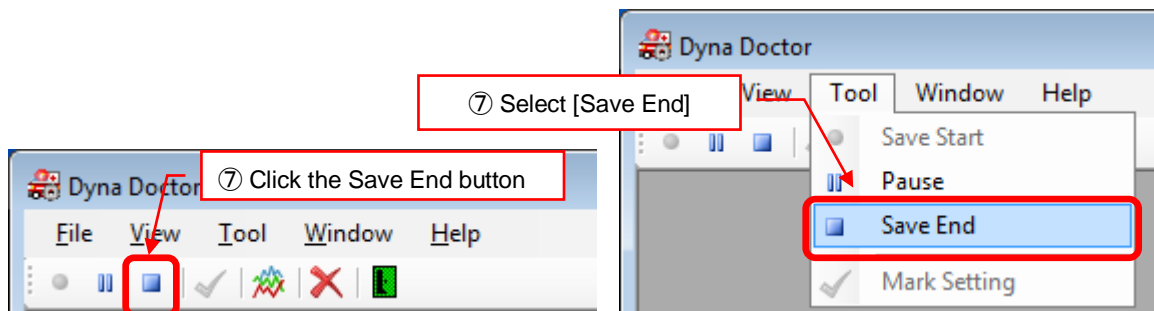
- ⑤ Click the Save Start button or select [Save Start] from the [Tool] menu.



- ⑥ To pause saving, click the Save button or select [Pause] from the [Tool] menu. To resume saving, click the Save Start button or select [Save Start] from the [Tool] menu. Data saving resumes from the point where it was paused.



- ⑦ To exit saving, click the Save End button or select [Save End] from the [Tool] menu.



5.3.2. Viewing the saved data

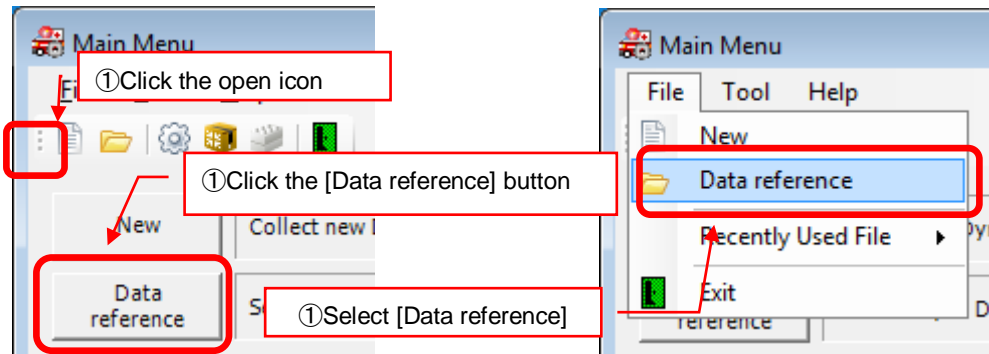
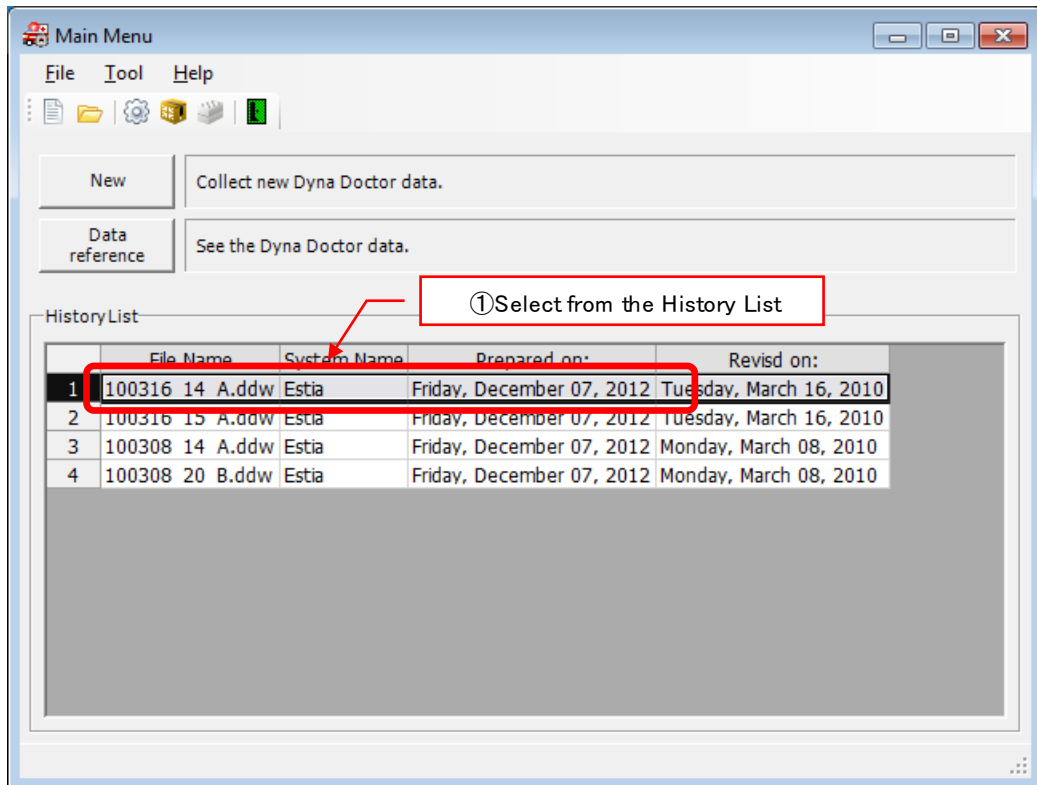
Follow the procedure below to view the saved data.

- ① Select the data from the History List on the Main Menu window.

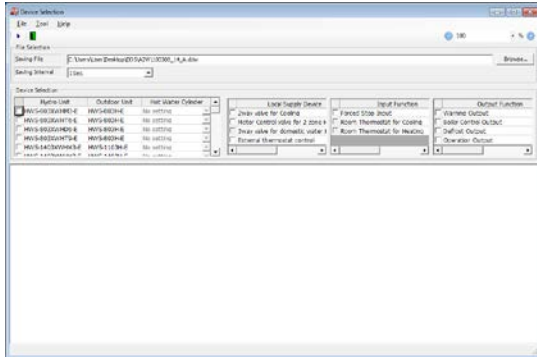
You can also view the saved data in the following ways:

- Click the open icon on the toolbar.
- Click the [Data reference] button.
- Select [Data reference] from the [File] menu.

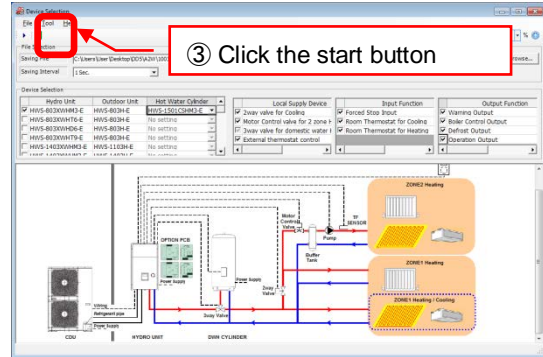
The data reference window is displayed.



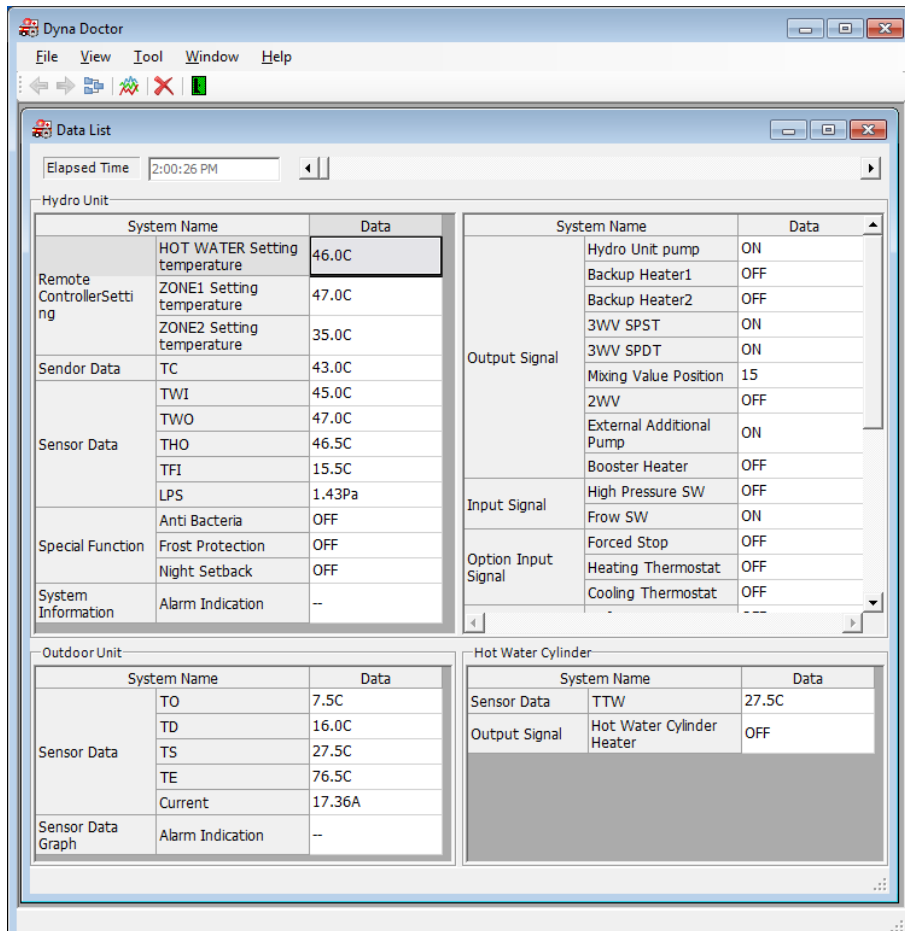
- ② Select the device if it is not selected on the Device Selection window.
- ③ Click the start button to display the data reference window. Then you can view the saved data.



[When the device is not selected]



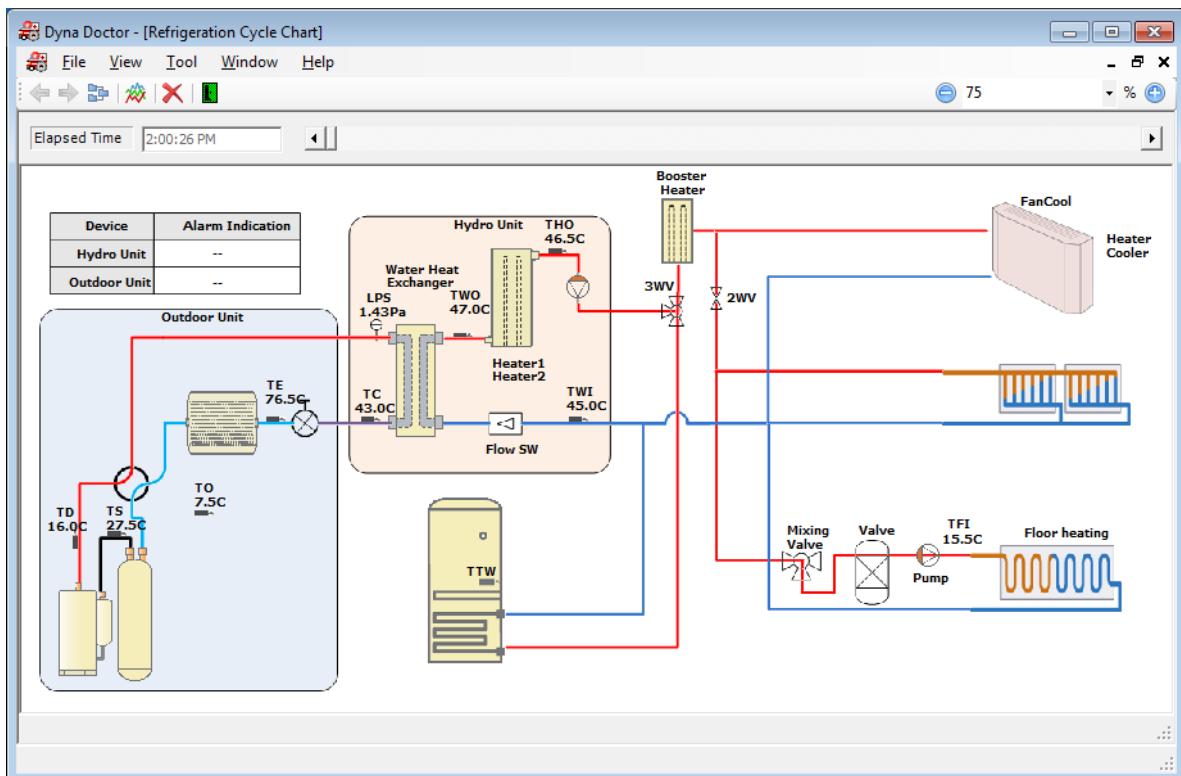
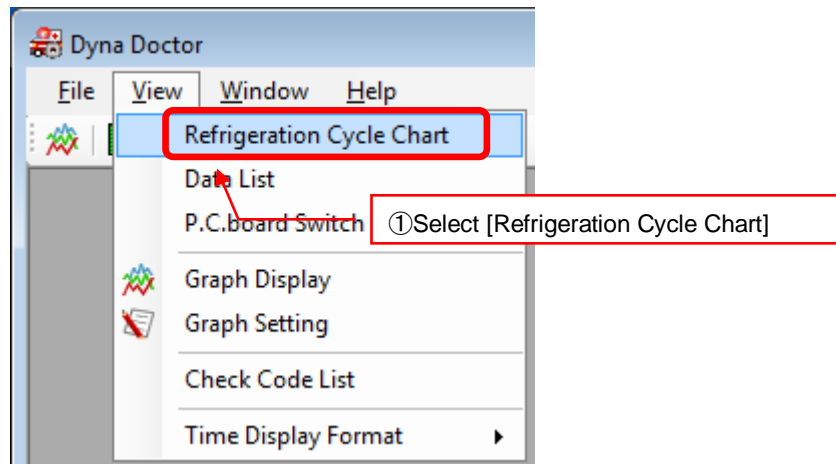
[When the device is already selected]



[Data reference window]

5.3.3. Displaying the cycle chart

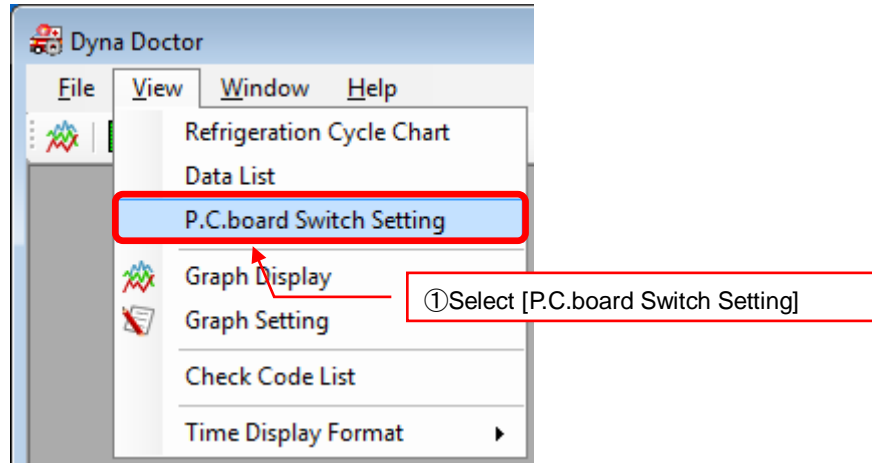
- ① Select [Refrigeration Cycle Chart] from the [View] menu while viewing or saving the data. The refrigeration cycle chart is displayed in a new window.



[Refrigeration cycle chart]

5.3.4. Displaying the P.C.board Switch Setting window

- ① Select [P.C.board Switch Setting] from the [View] menu while viewing or saving the data. The P.C.board Switch Setting window is displayed



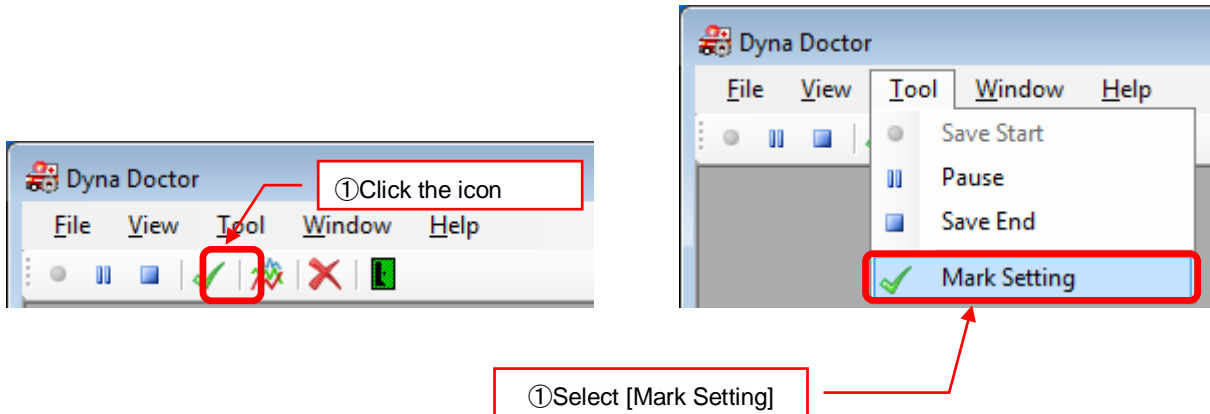
SW	Dip No.	Function	ON/OFF	Switch Mode
	1	Boiler install position	OFF	Heating side after 3 way valve
SW02	4	Used to when an external room thermostat is connected	OFF	No external room thermostat
SW10	1	P1 Pump operation for hot water	OFF	synchronised with heat pump
	2	P1 Pump operation for heating	OFF	Normally run
	3	Synchronisation of Pump P2	OFF	P2 continuous operation (pump off when remote controller switched off)
SW11	1	Used to activate Hydro Unit back up heaters	OFF	Back up heaters activated
	2	Used to activate hot water cylinder electrical heater	OFF	hot water cylinder heater activated
	3	Used to activate external booster heater output	OFF	external booster heater output activated
SW12	1	Used when a hot water cylinder is connected to system	OFF	hot water cylinder connected
	2	Used to activate Zone 1 Operation	OFF	Zone 1 activated
	3	Used to activate Zone 2 Operation	OFF	Zone 2 de-activated
SW13	1	Used to determine type of 3 way diverting valve used on system	OFF	2 SPST type valve
	2	Used to activate external boiler output	OFF	external boiler output de-activated
	3	Used to activate system auto restart after power failure	OFF	auto restart activated

5.3.5. Marking the saved data

You can mark any point of the saved data. You can jump to the marked point when viewing the saved data.

Follow the procedure below to mark the saved data.

- ① Click the icon shown below on the toolbar or select [Mark Setting] from the [Tool] menu. The marked point is automatically stored.

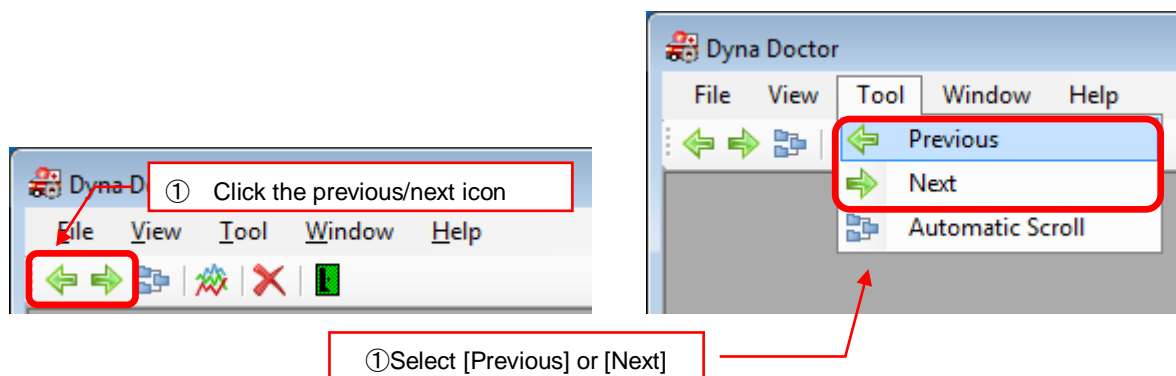


5.3.6. Jumping to the marked point

When you view the marked data, the jump icon and jump menu are available.

Follow the procedure below to jump.

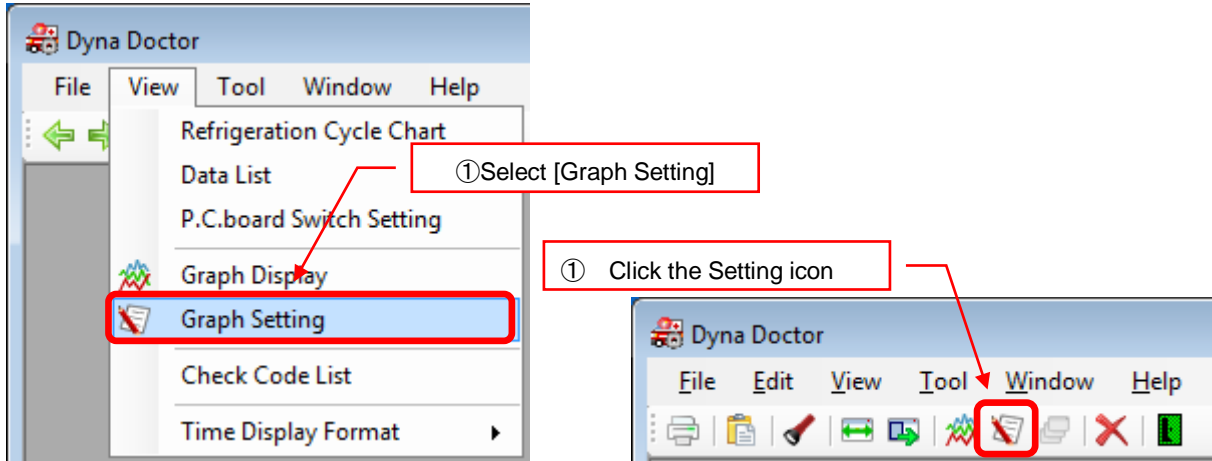
- ① Click the previous/next icon on the toolbar or select [Previous] or [Next] from the [Tool] menu. Clicking the previous/next icon or selecting [Previous] or [Next] allows you to jump to the previous/next marked point.



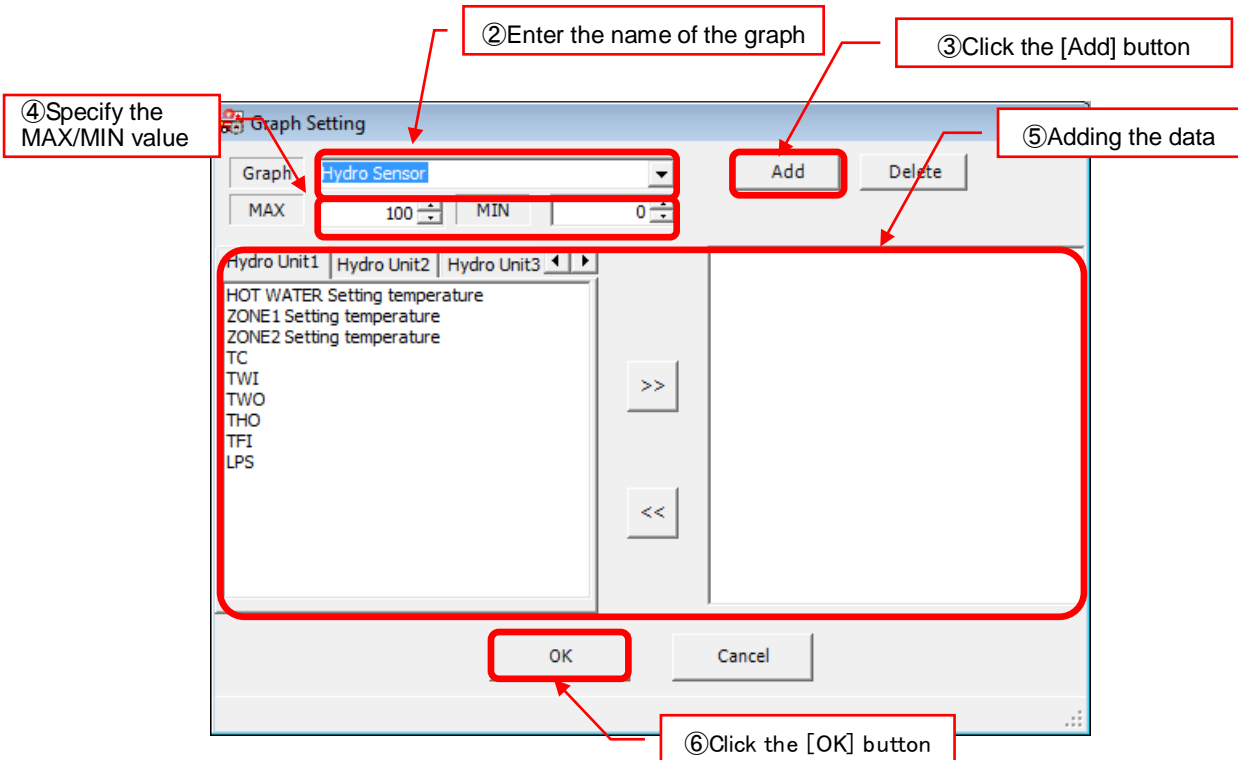
5.3.7. Adding a graph setting

To display a graph, specify the items included in the graph on the Graph Setting window. You can create up to 8 graphs. Follow the procedure below to add a graph setting.

- ① Select [Graph Setting] from the [View] menu, or click the Setting icon while a graph is displayed on the window.



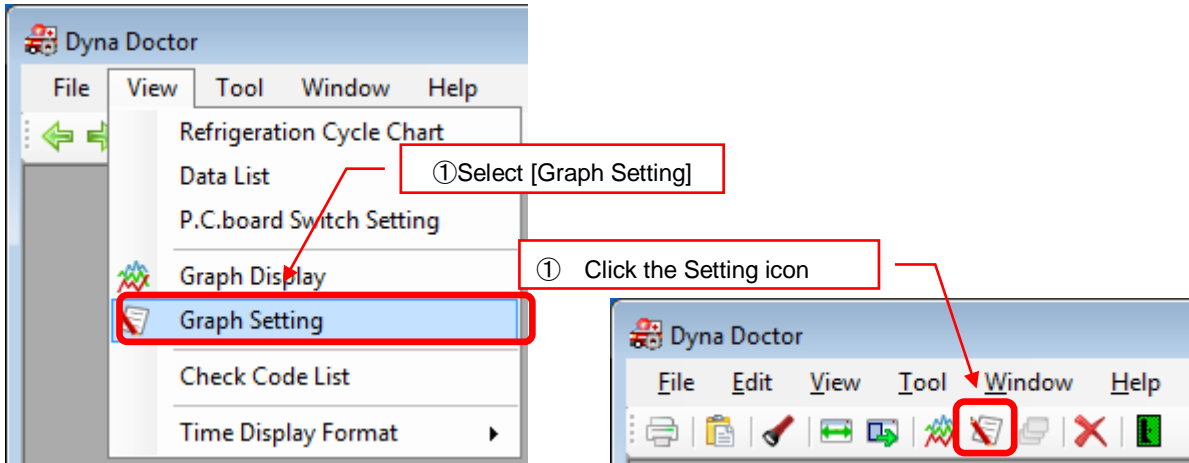
- ② Enter the name of the graph on the Graph Setting window.
- ③ Click the [Add] button to register the name of the graph.
- ④ Specify the maximum/minimum value for the vertical axis of the graph.
- ⑤ Select the data to add by clicking the >> button or drag and drop the data.
- ⑥ Click the [OK] button to confirm the graph data.



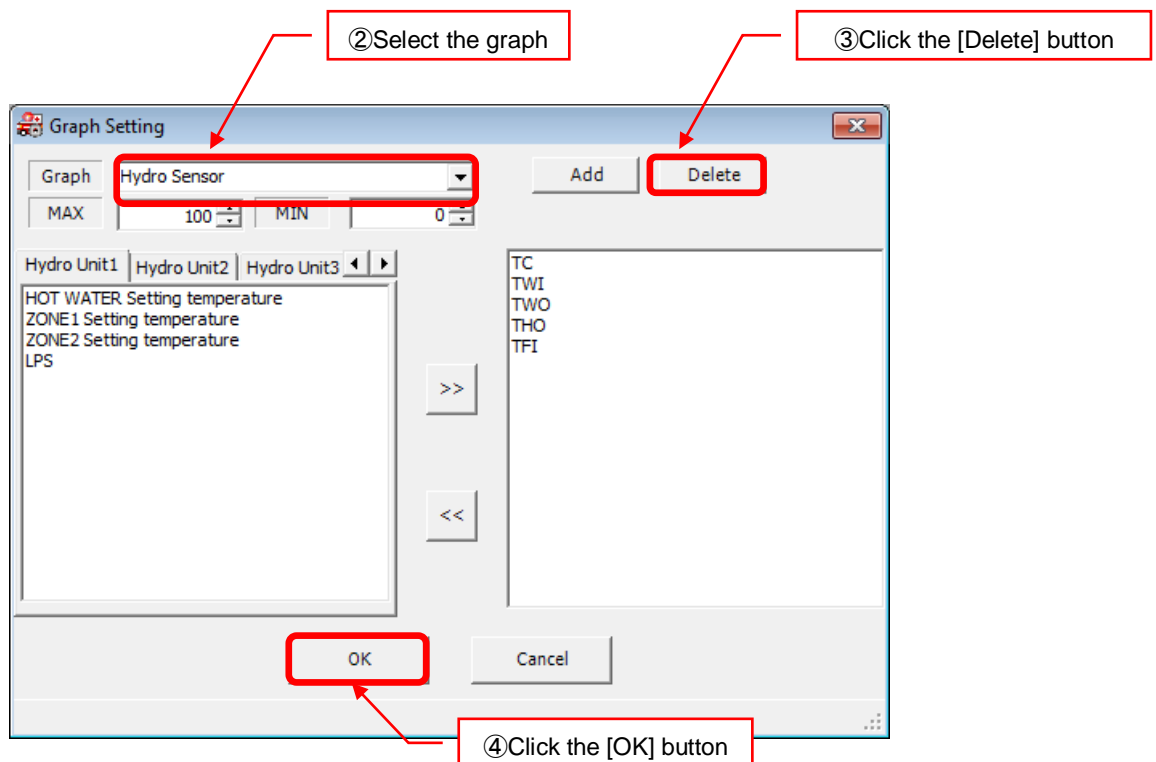
5.3.8. Deleting a graph setting

Follow the procedure below to delete a graph setting.

- ① Select [Graph Setting] from the [View] menu, or click the Setting icon while a graph is displayed on the window.



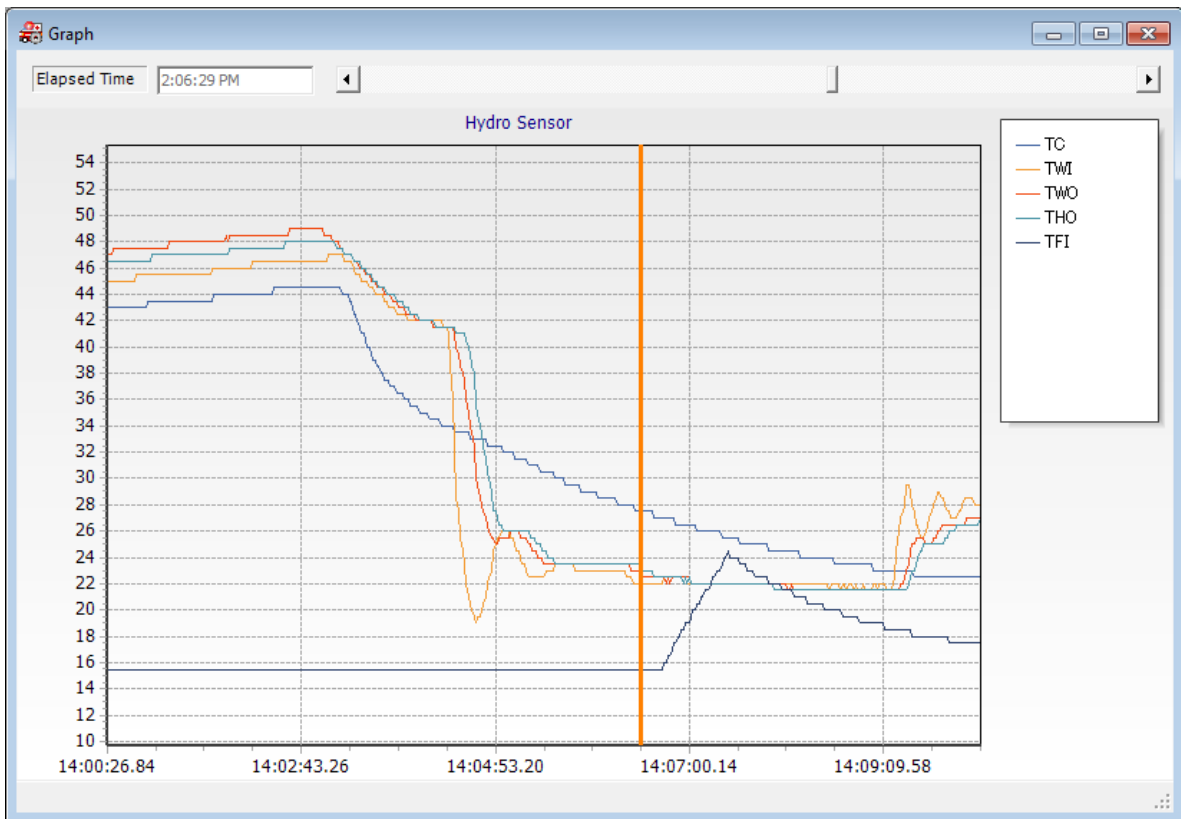
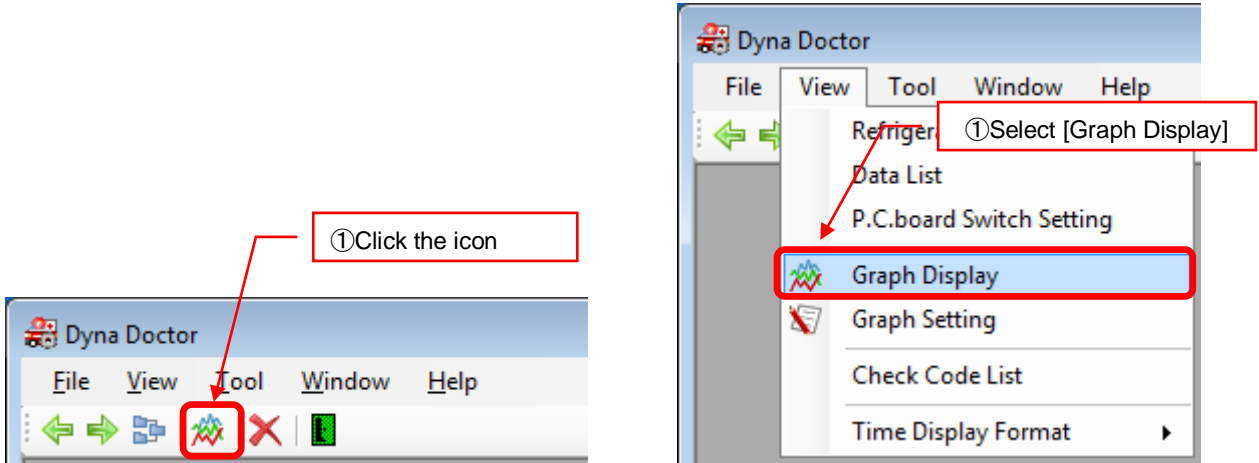
- ② Select the graph to delete.
- ③ Click the [Delete] button.
- ④ Click the [OK] button to confirm the deletion of the graph.



5.3.9. Displaying a graph

Follow the procedure below to display a graph.

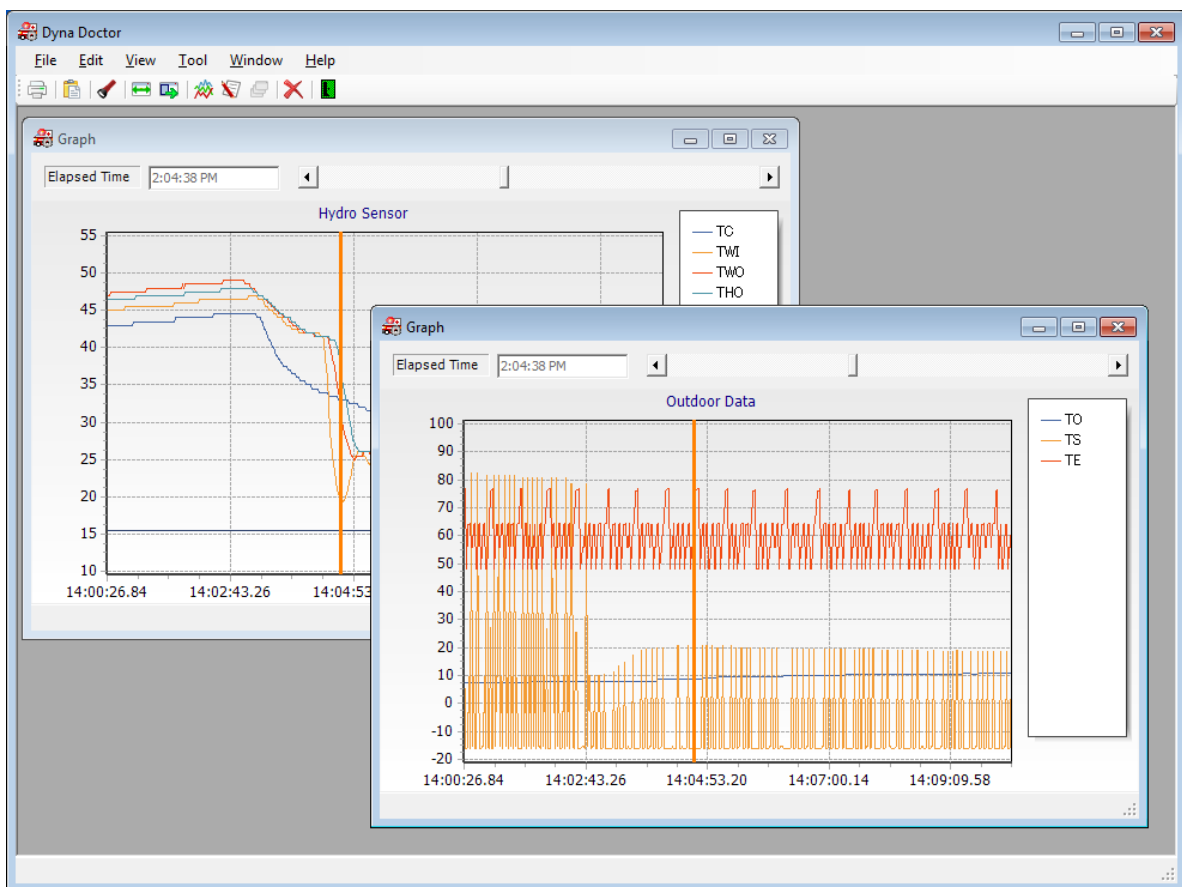
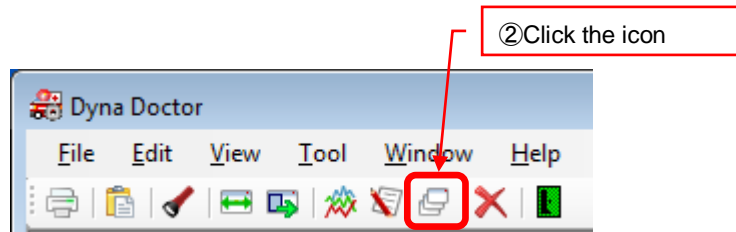
- ① Click the icon shown below on the toolbar or select [Graph Display] from the [View] menu.



5.3.10. Displaying multiple graphs

Follow the procedure below to display multiple graphs.

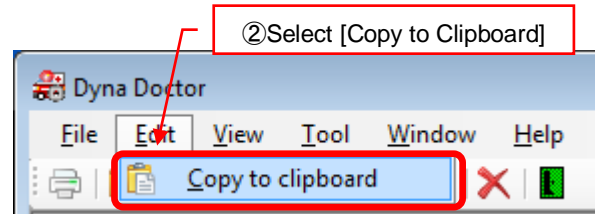
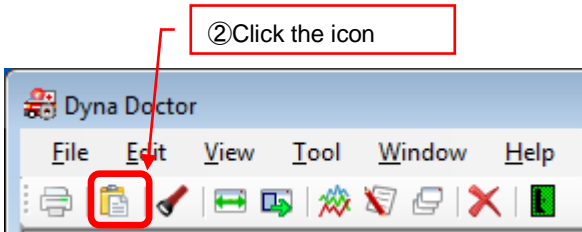
- ① Activate the graph window.
- ② Click the icon shown below on the toolbar.



5.3.11. Copying a graph image onto the clipboard

Follow the procedure below to copy a graph image on the window onto the clipboard.

- ① Activate the graph window to copy.
- ② Click the icon shown below on the toolbar or select [Copy to Clipboard] from the [Edit] menu.



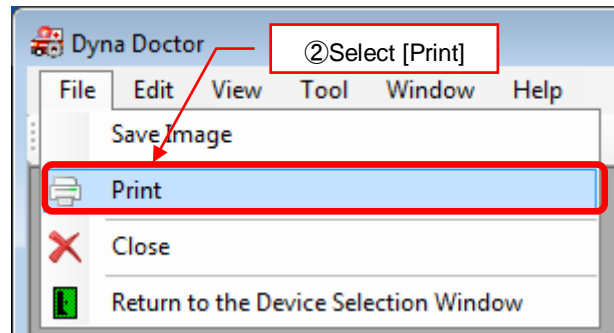
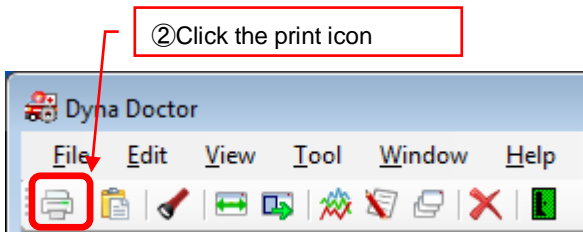
- ③ Paste the graph image on the clipboard into another application software.

5.3.12. Printing a graph image

Follow the procedure below to print a graph image on the window.

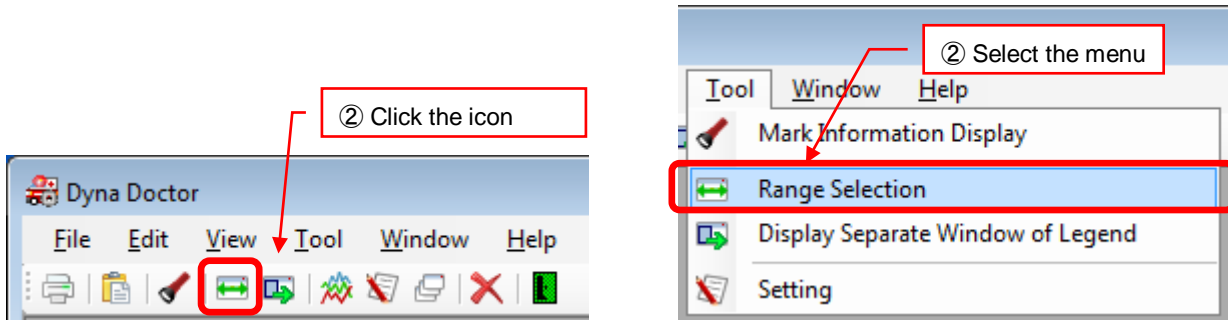
To print a graph image, you need to install the printer driver in advance. For details, refer to the printer's manual.

- ① Activate the graph window to print.
- ② Click the print icon or select [Print] from the [File] menu.

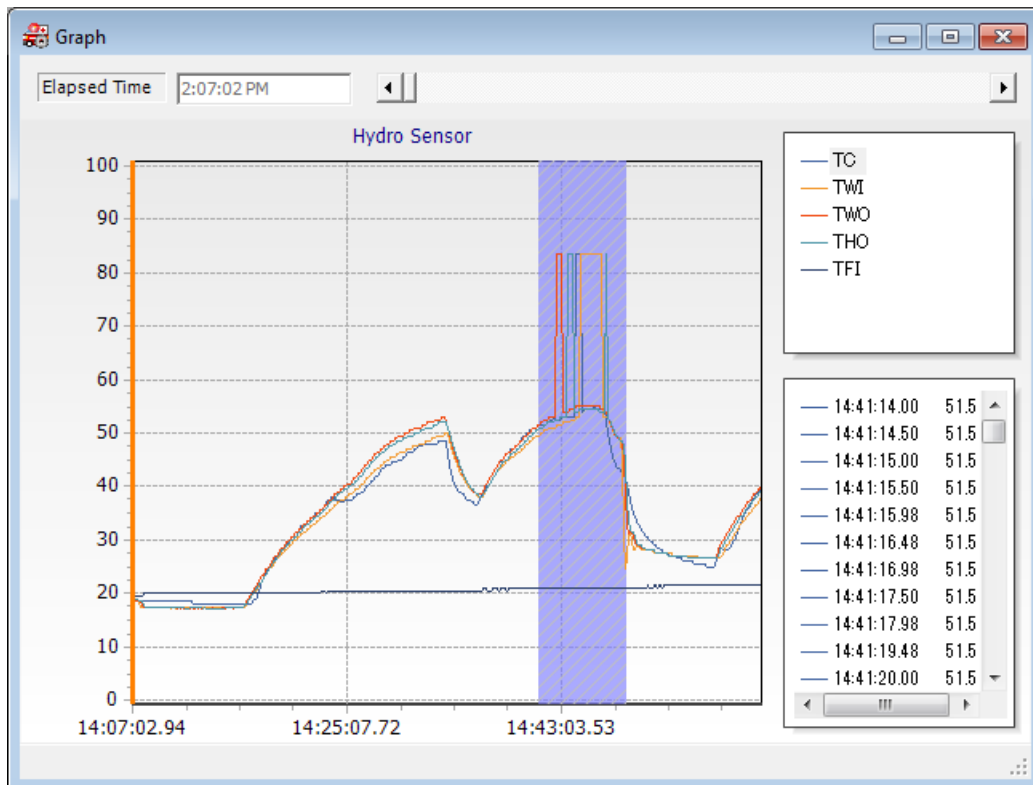


5.3.13. Displaying specific ranges of data

- ① Select the graph window.
- ② Click the Range Selection button on the toolbar, or select [Range Selection] from the [Tool] menu.

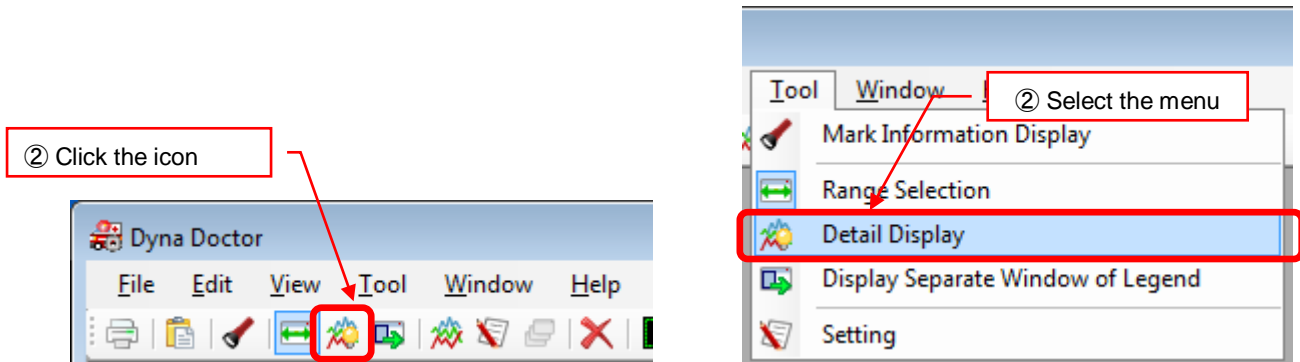


- ③ The range selection and data list is displayed. Drag the left and right ends of the range selection to increase or decrease the range of data displayed in the data list.

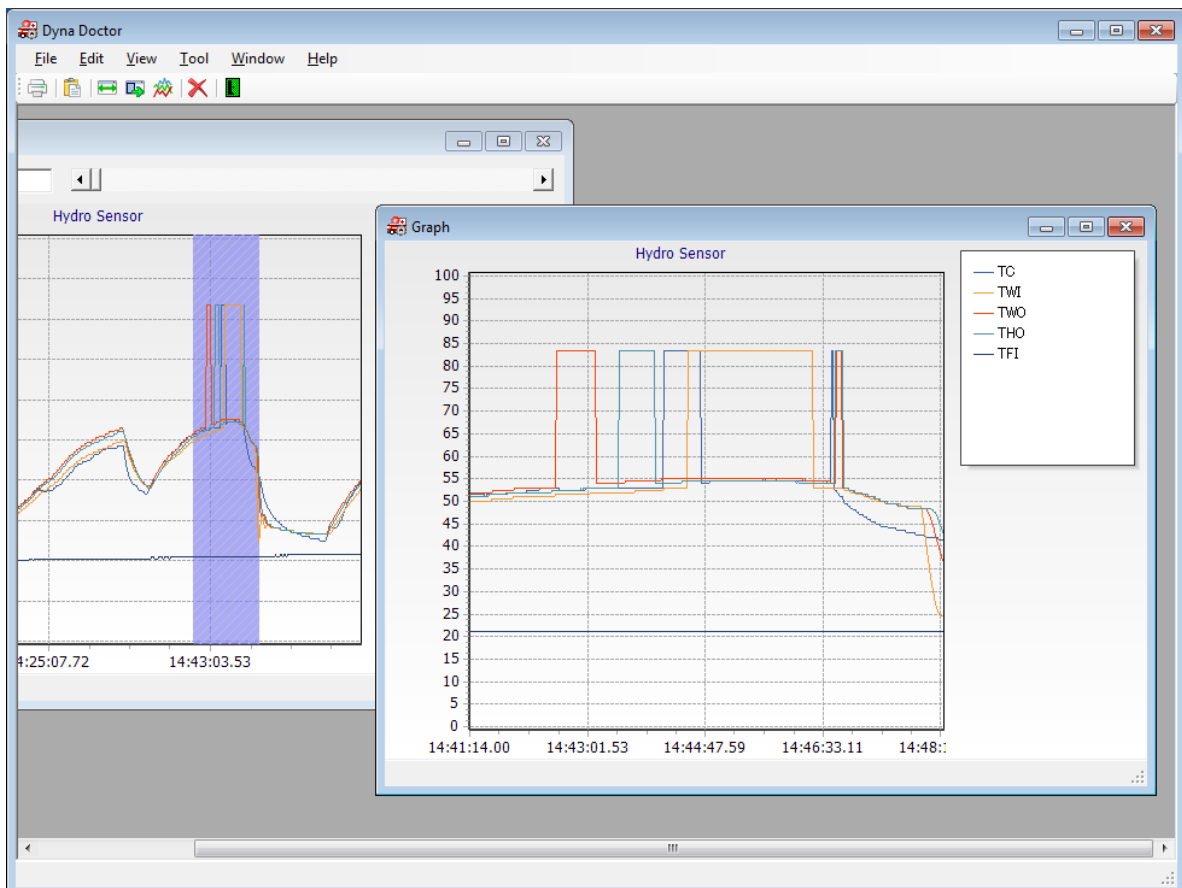


5.3.14. Displaying graphs of specific ranges

- ① Display the range selection (refer to 5.3.13)
- ② Click the Detail Display button on the toolbar, or select [Detail Display] from the [Tool] menu.

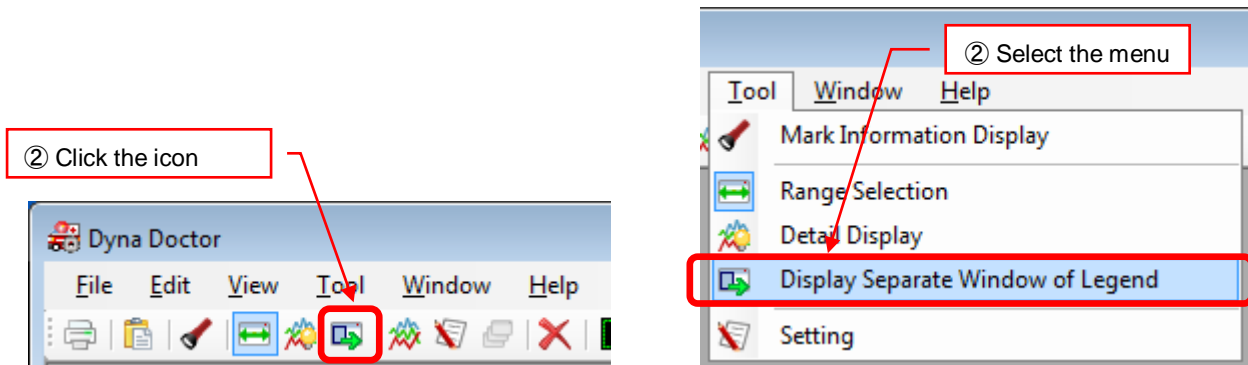


- ③ A graph of the specified range is displayed in a new window.

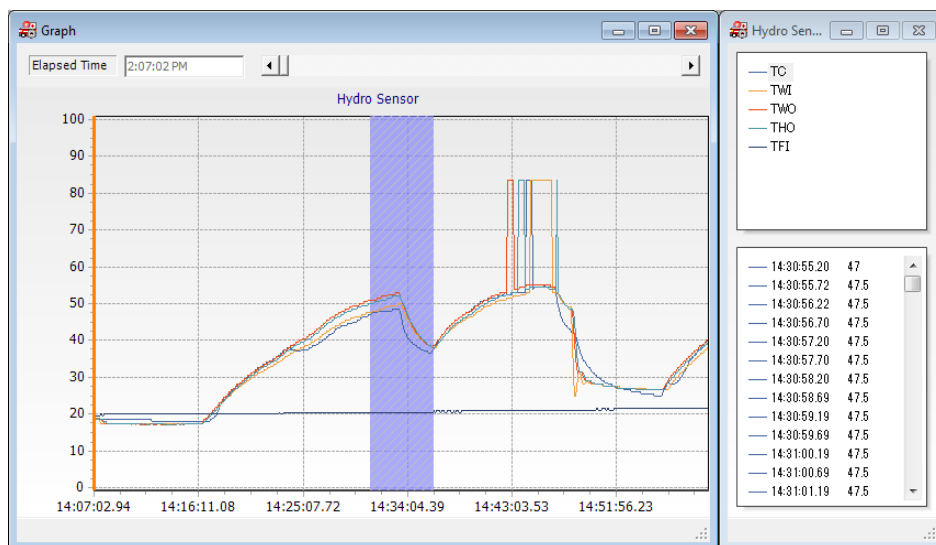


5.3.15. Changing the legend display

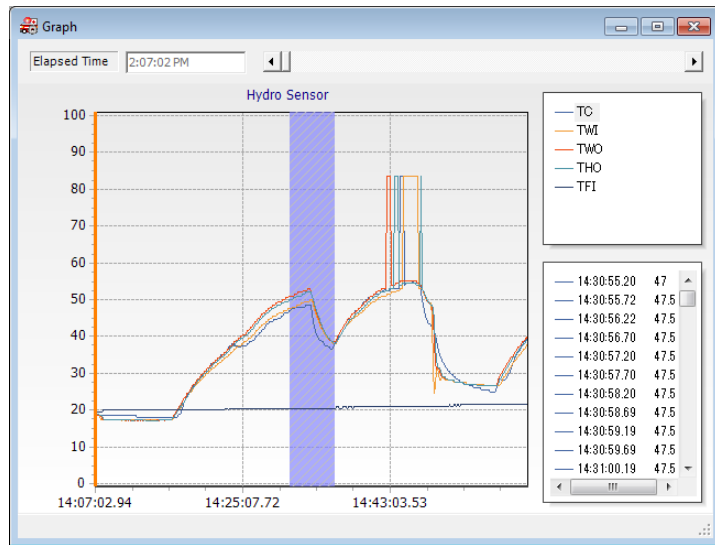
- ① Display the range selection (refer to 5.3.13)
- ② Click the Display Separate Window of Legend button on the toolbar, or select [Display Separate Window of Legend] from the [Tool] menu.



- ③ The legend is displayed in a separate window to the graph.



- ④ To return the legend to the original window, follow step ② again.

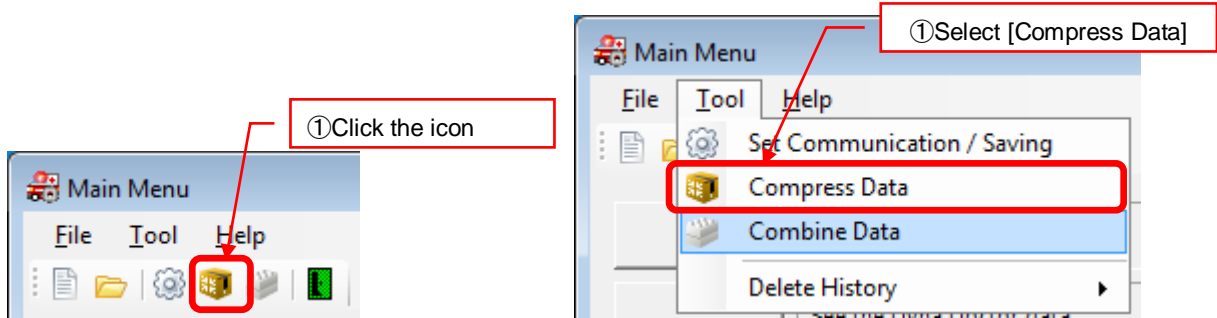


5.4. Options

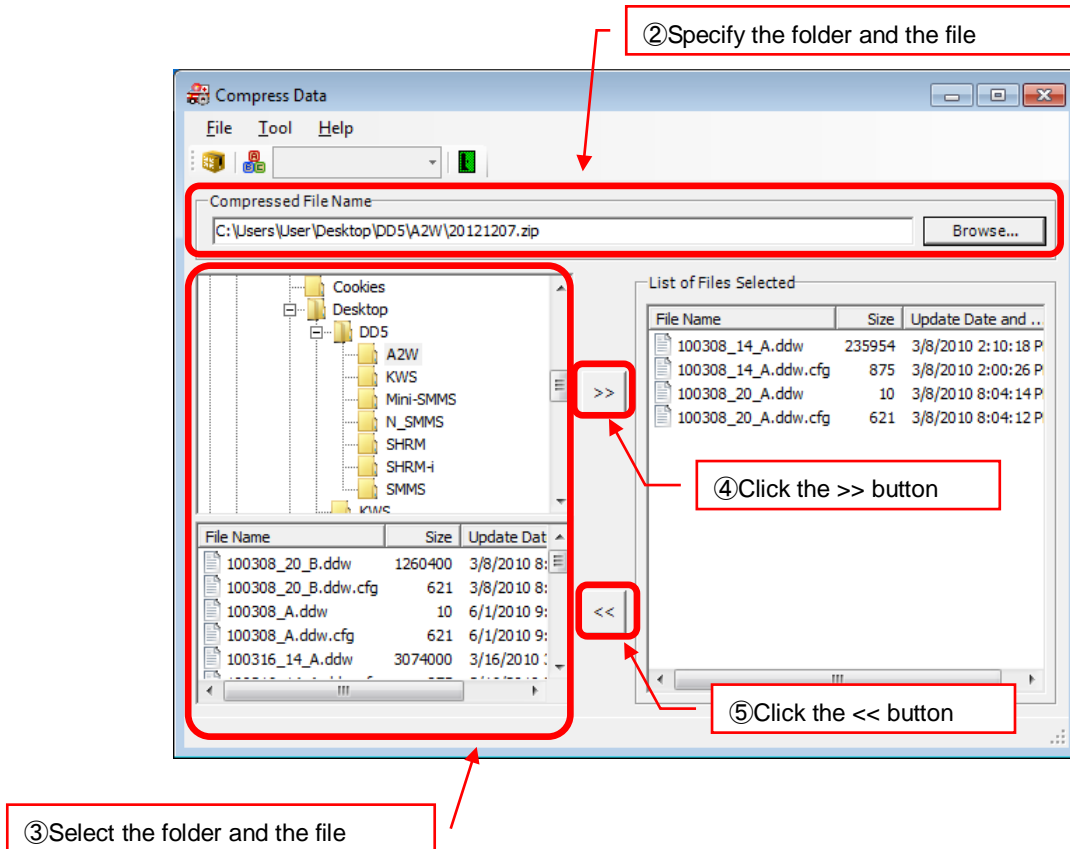
5.4.1. Compressing the data saved by DD

Even if no compression software is installed on your PC, you can compress the data using DD. Follow the procedure below to compress the data.

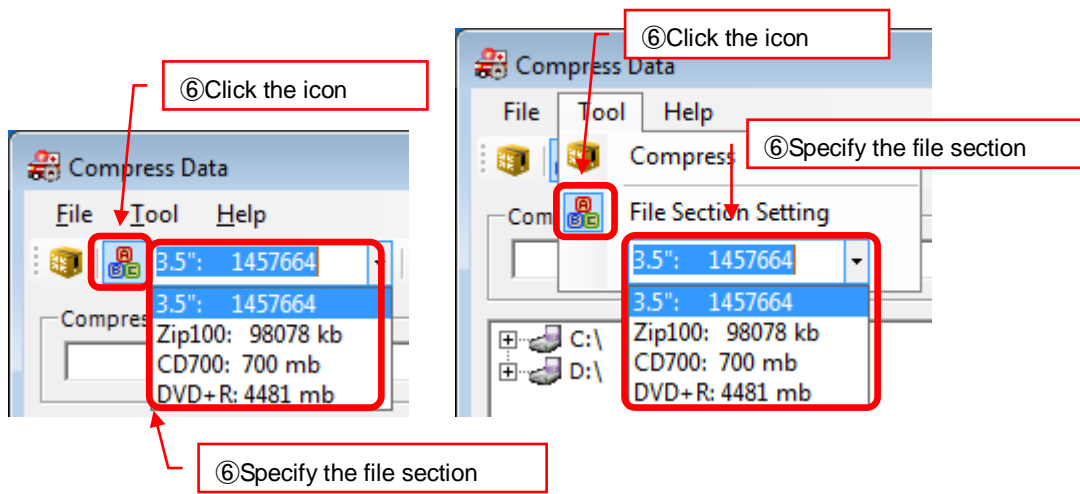
- ① Click the icon shown below or select [Compress Data] from the [Tool] menu.



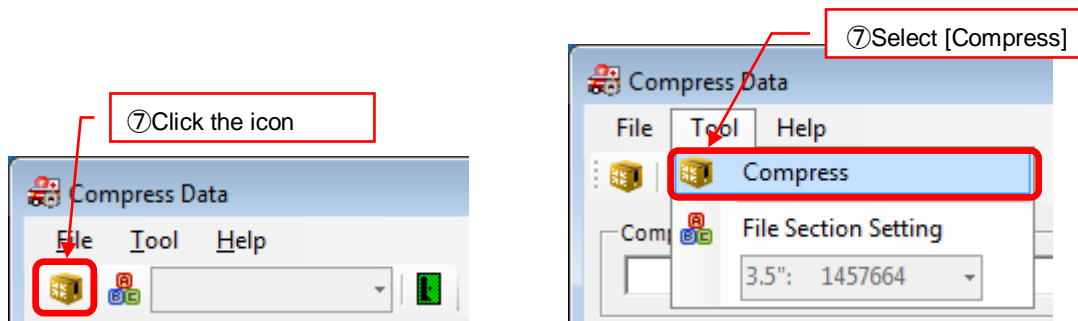
- ② Specify the name of the compressed file and the folder where it will be saved.
- ③ Select the folder where the data is saved, then select a file to compress.
- ④ Click the >> button or drag and drop the file to add it to the list of selected files.
- ⑤ To delete a selected file, select the file to delete, then click the << button or drag and drop the file.



- ⑥ To save the compressed file with divisions, click the icon shown below and specify the file section. You can also specify it by selecting [File Section Setting] from the [Tool] menu.



- ⑦ Click the icon shown below or select [Compress] from the [Tool] menu to compress the data.

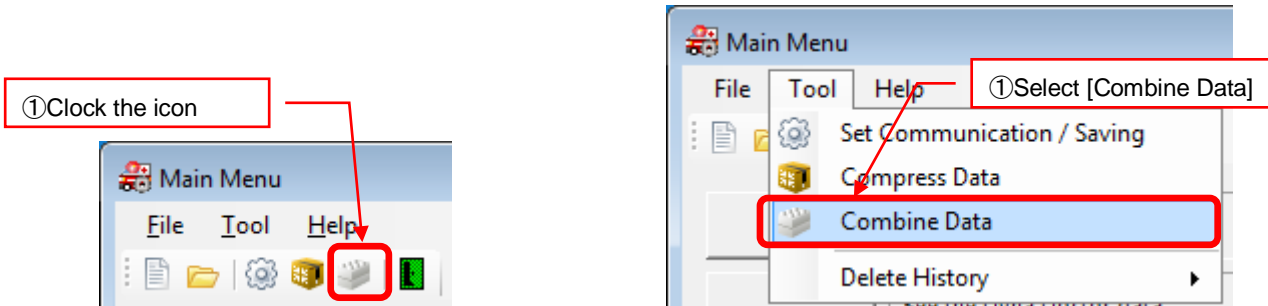


5.4.2. Combining the divided data

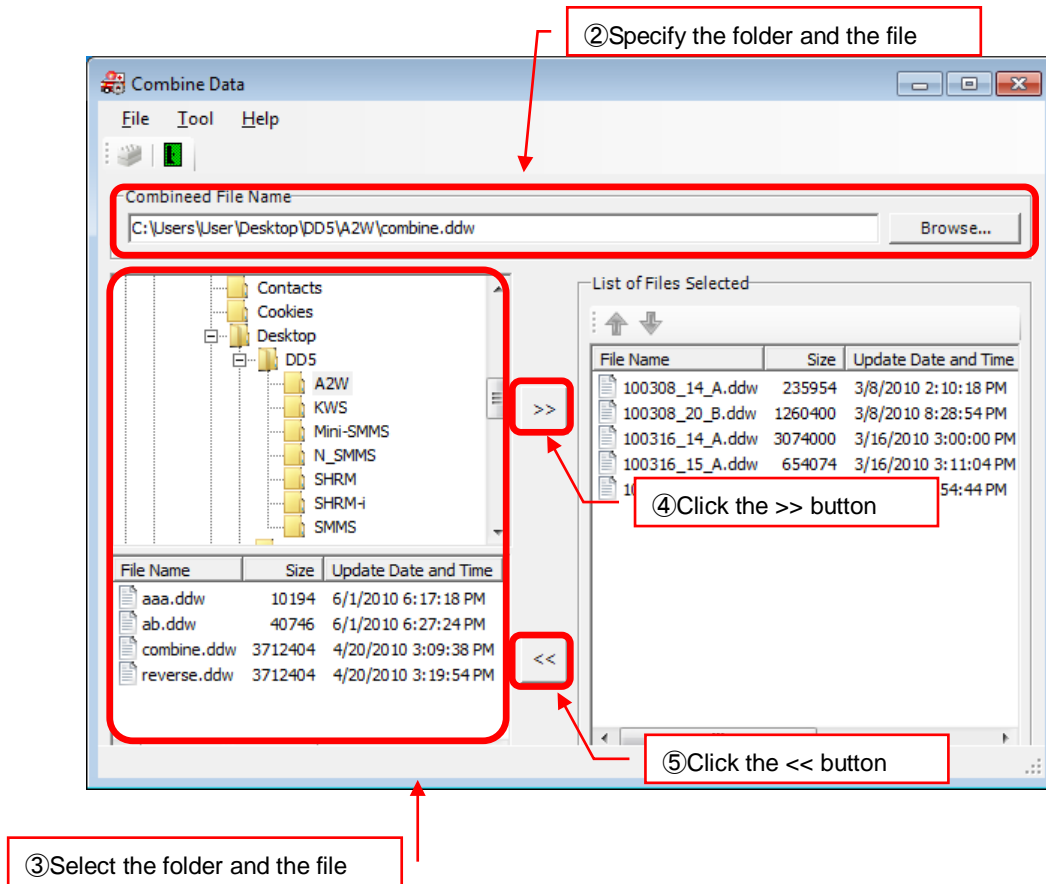
You can combine data compressed by DD into one file.

Follow the procedure below to combine the data.

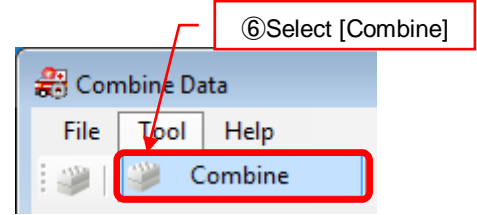
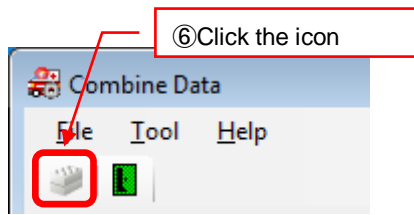
- ① Click the icon shown below or select [Combine Data] from the [Tool] menu.



- ② Specify the name of combined the file and the folder where it will be saved.
- ③ Select the folder where the data is saved, then select a file to combine.
- ④ Click the >> button or drag and drop the file to add it to the list of selected files.
- ⑤ To delete a selected file, select the file to delete, then click the << button or drag and drop the file.



- ⑥ Click the icon shown below or select [Combine] from the [Tool] menu to compress the data.

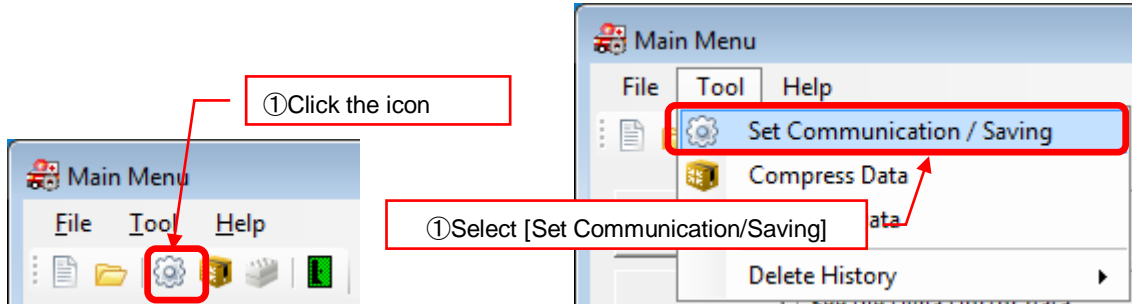


5.4.3. COM port/saving settings

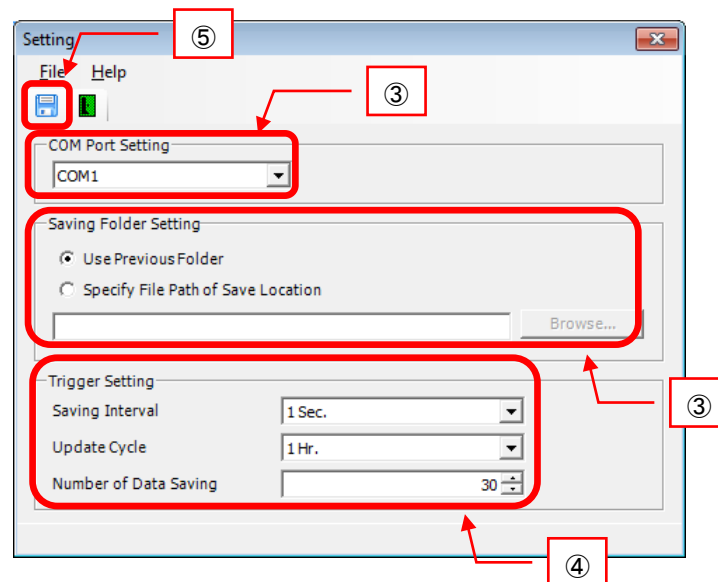
You can specify the COM port setting, default saving folder, and file division setting for DD.

Follow the procedure below to specify the COM port and saving settings.

- ① Click the icon shown below on the toolbar on the Main Menu window, or select [Set Communication/Saving] from the [Tool] menu on the menu bar.



- ② Select the COM port number. The COM port number on the pull down menu is the number recognized by your PC. When your PC recognizes multiple COM ports, confirm the COM port number to use in advance.
- ③ Specify the default saving folder setting. Select [Use Previous Folder] or [Specify File Path of Save Location].
- ④ Specify the trigger setting. Specify the saving interval, update cycle, and the number of duplicated data files saved. You can change the saving interval on the Device Selection window.
- ⑤ Click the icon shown below to confirm the settings.



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