

***** **SupportWareII Manual** *****

The usable measuring instrument and operating environment of this software are as follows.

■ Measuring instrument

SURFCOM TOUCH series

HANDYSURF⁺ series

■ Operation environment

		Microsoft Excel			
OS		2007	2010	2013	2016
Windows	7	○	○	○	○
	8	-	○	○	○
	8.1	-	○	○	○
	10	○	○	○	○

		SupportWare II			
		Ver. 2.0	Ver. 2.1	Ver. 2.2	Ver. 2.3
SURFCOM TOUCH	Ver. 1.00~1.07	○	-	-	-
	Ver. 1.08~1.20	-	○	-	-
	Ver. 1.21~	-	-	○	○
HANDYSURF ⁺		-	-	-	○

FrameWork*2 : Microsoft .NetFrameWork 4.5

: Microsoft .NetFrameWork 4.5 LanguagePack

Component*3 : Visual C++ 2015 Redistributable

Driver : SURCOM USB Driver

*1 The language of Windows and Excel needs to be the same. When the language is not same, it is necessary to match a language setup of Excel with the language of Windows by [Office Language Pack] (available for purchase from Microsoft).

*2 If it is not installed in the using environment of the software, it will be installed automatically.

*3 If it is not installed in the using environment of the software, it will be installed automatically.

(Installed automatically only when the OS supports Windows 7 (SP1), Excel 2016)

Main functions which can be used on this software are as follows.

- Create inspection certificates
- Saving the Text of measurement data file

Carefully read <Precautions on operation> before using the software.

-----< Precautions on operation > -----

1. If you have not installed Microsoft Excel, the function related to the inspection certificate cannot be used.
2. When selecting files on a window, this tool can only read data files that were output by the measuring instrument or SupportWareII.
3. For any parameters for which calculation cannot be made, messages such as “Ra = No P's & V's” are displayed/printed on SURFCOM, while “Ra = 0.00 μ m” is displayed/printed on the SupportWareII.
4. The name of curves may be different to the ones on the measuring instrument.
5. If SURFCOM TOUCH and HANDYSURF⁺ is to be used more than one, Set “Machine ID” so that each measuring instruments does not duplicate. (If connecting different types of measuring machine to the software, even if machine ID is duplicated, there is no problem.)
6. When there is a problem or collapses (Ex. expanded the image) with the layout output of inspection certificate, there is a possibility of the Excel malfunction. Confirm the defect information of Microsoft. If the condition of the problem is applicable, take the measures such as applying the latest Windows Update.
7. The following calculation standard does not correspond.
CNOMO, ISO13565
8. With the output inspection certificate, the number of decimal places of parameters is fixed at three.
9. When using SURFCOM TOUCH, set the system settings of the measuring instrument as follows.
“Over write” . . . On
“Sleep status” . . . Off
10. When using HANDYSURF⁺, set the system settings of the measuring instrument as follows.
“Sleep” . . . Off
“Auto pw off (Auto power off)” . . . Off

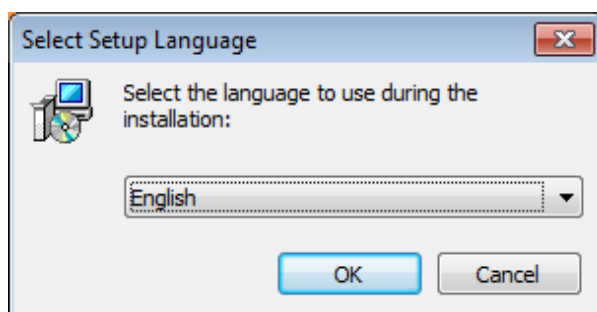
[Installation Procedure]

■ Installation of SupportWareII

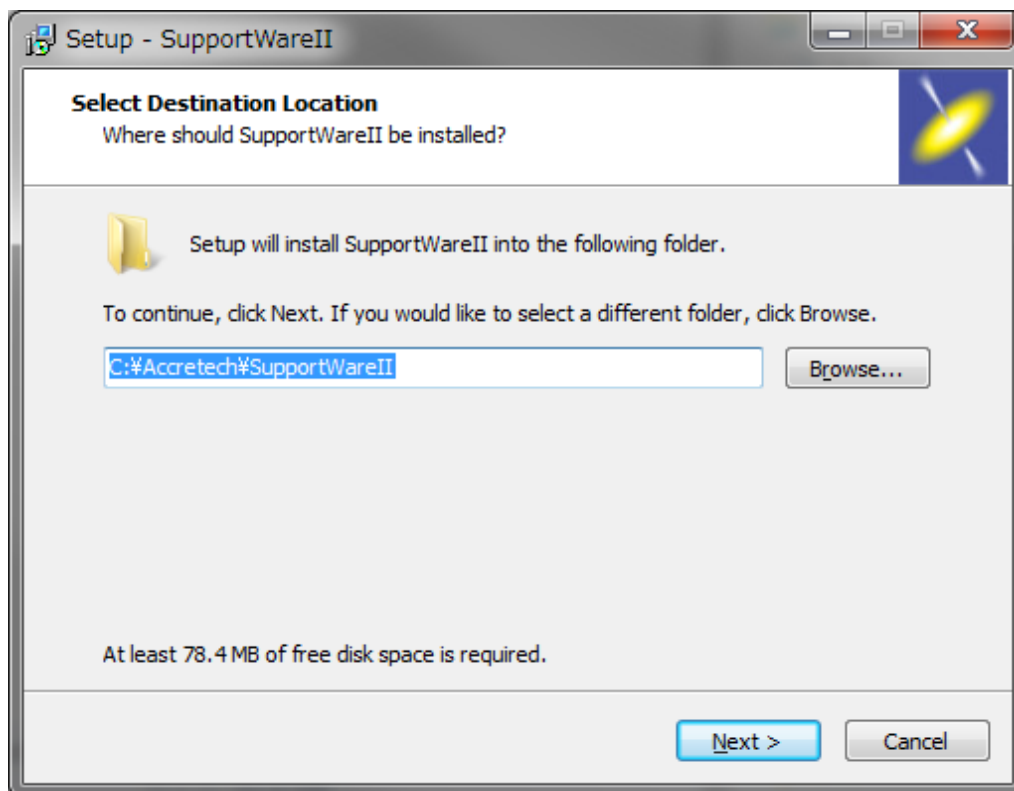
---< Installation notes > -----

Do not connect the personal computer and measuring instrument (SURFCOM TOUCH) to USB cable before installation of SupportWareII.

- (1) Set the installation disc (CD-ROM) into the CD-ROM Driver. Double click [SupportWareII_Installer.exe] in the [SupprtWareII] folder on CD-ROM.
- (2) The language selection screen will appear. Select the language to use during the installation and click **OK**.

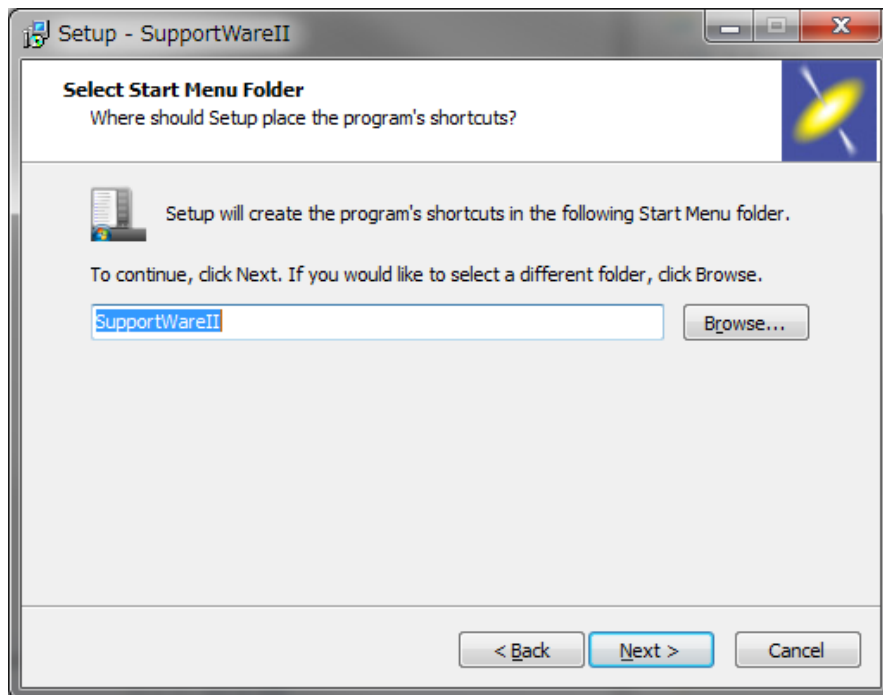


- (3) The specified window of installation destination location will appear. If there is no specific installation destination, Click **Next** as it is.

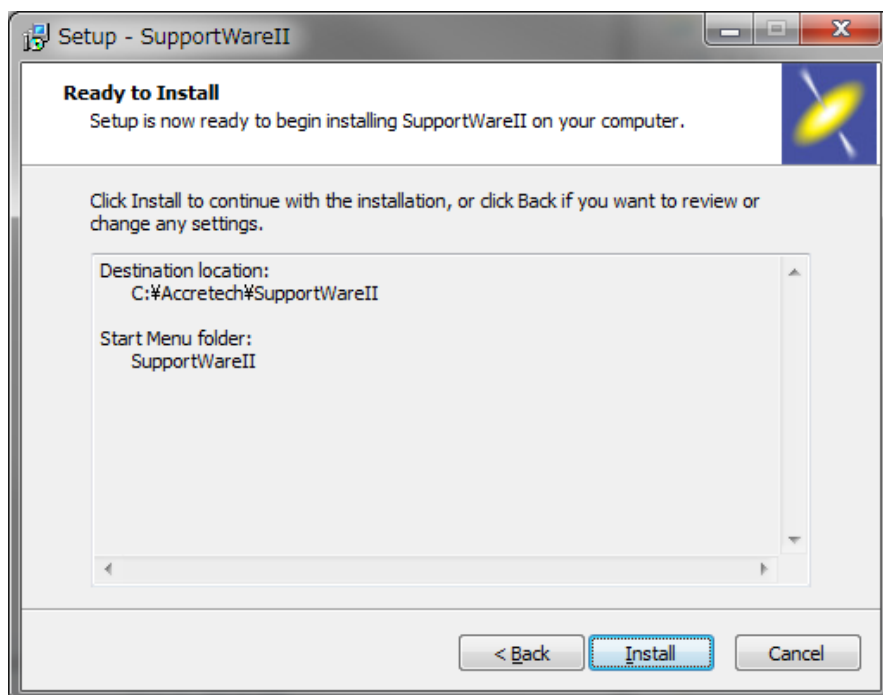


* If the folder without write permission is designated as the installation destination, SupportWareII may not start normally.

- (4) The confirmation window of program group will appear. If there is no specific installation destination, Click **Next** as it is.

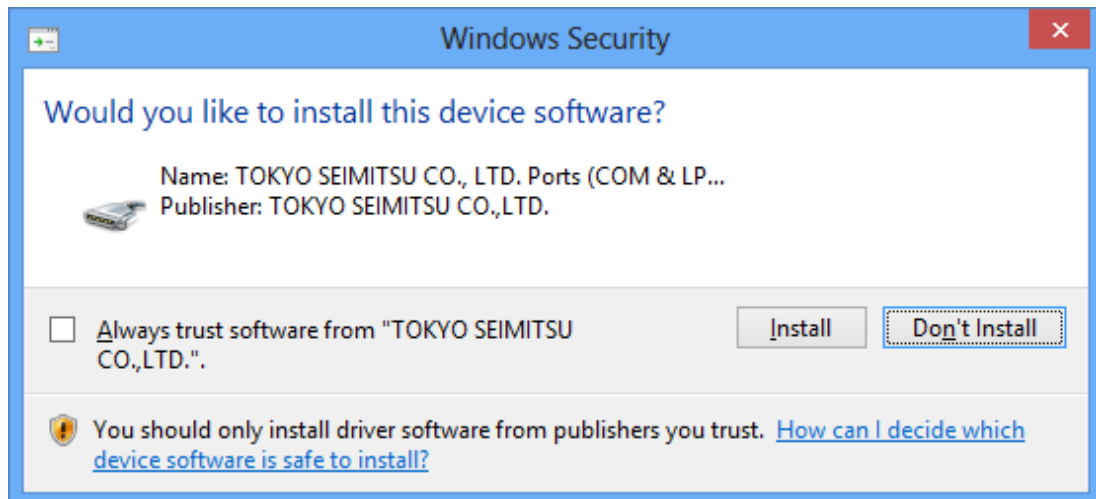


- (5) Ready screen of the installation will appear. Click **Install**.

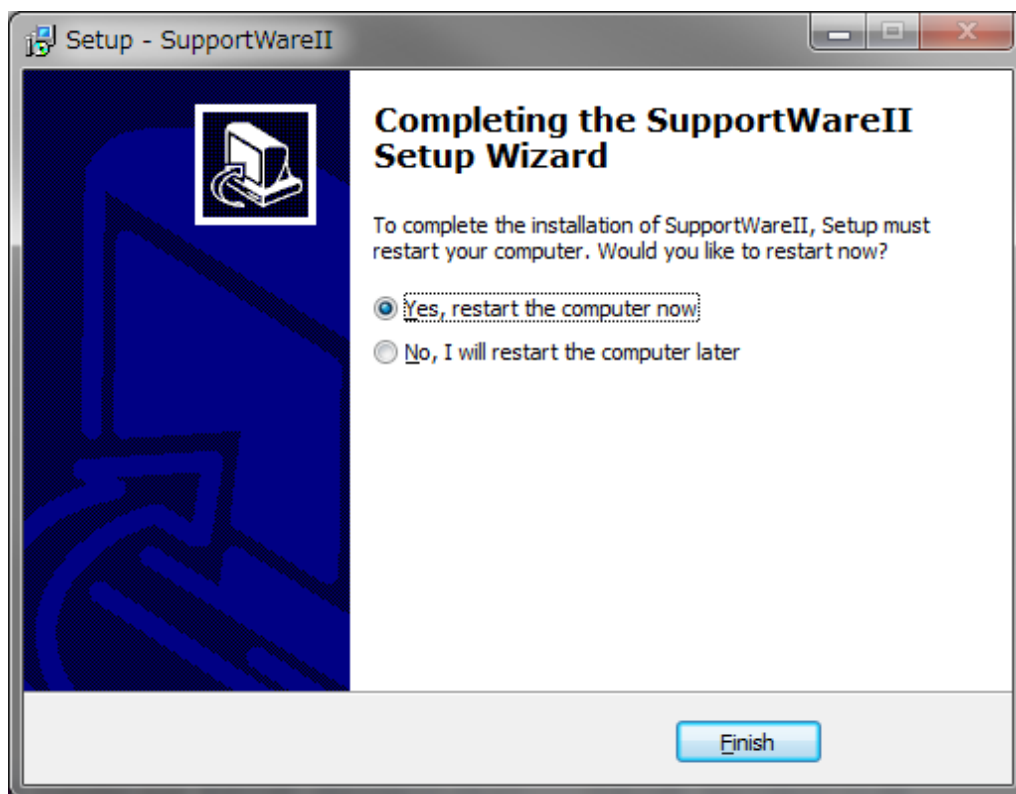


- *1 If .Net Framework 4.5 is not installed, the setup screen appears during the installation process. Install the program according to the instructions in the window.
- *2 If .Net Framework 4.5 Language Pack is not installed, the setup screen appears during the installation process. Install the program according to the instructions in the window.
- *3 The operating environment OS supports Windows 7 (SP1) and Excel 2016, and if I Visual C ++ 2015 redistributable is not installed, the setup screen will be displayed during installation. Install the program according to the instructions in the window.

(6) The installation of SURFCOM USB driver window will appear. Click **Install**.



(7) The Setup completion window will appear. Click **Finish**.



[Connection procedure]

- (1) Turn on the personal computer and measuring instrument.
- (2) Connect the personal computer and measuring instrument with a USB cable.
- (3) Start up [SupportWareII] from the shortcut on the desktop of the personal computer or from the start menu.
- (4) The “Connection equipment list” window will appear. If the connected measuring instrument is displayed, use as it is.



- (5) When the connected measuring instrument is not displayed, it is necessary to register connection setting. Click **Connection setting** to display “Connection setting” and “Connection setting detail” window to register. Click **Update** on the “Connection equipment list” window and confirm that the connected measuring instrument is displayed.

For details about connection setting, refer to page 8 to 11.

[Connection procedure]

■ How to use this software on SURFCOM TOUCH / HANDYSURF⁺

(For details about each window, refer to page 8 and after.)

(1) Create an inspection certificate using USB communication

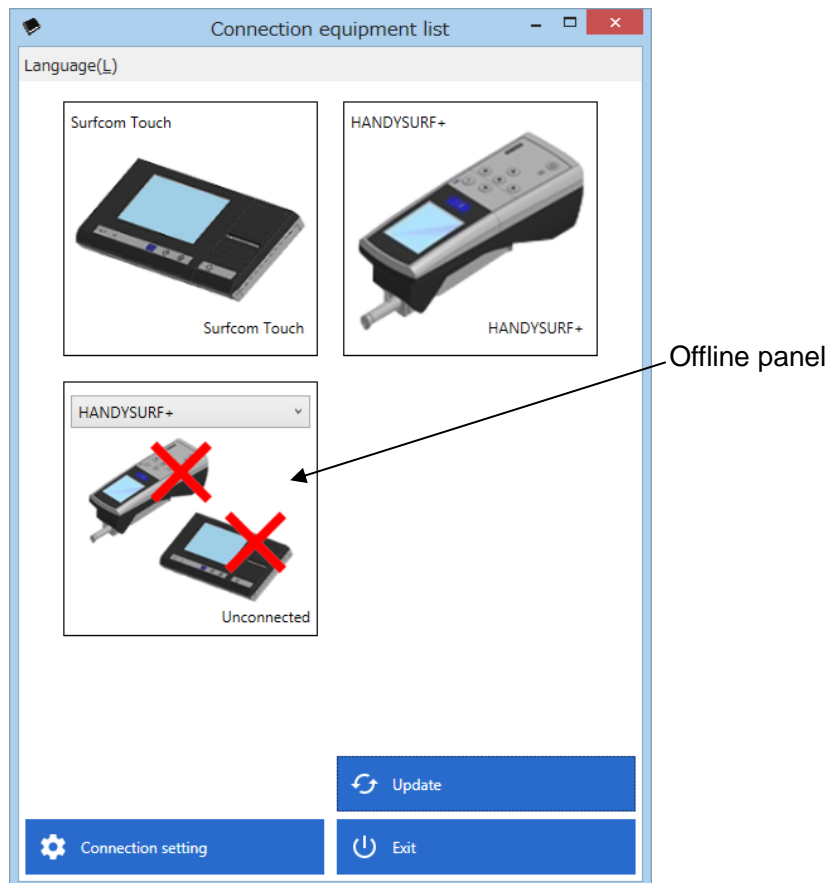
1. To create an inspection certificate from measurement results currently displayed:
 - Open the “inspection certificate output setting” window and make output-related settings.
 - Make sure that measurement results are shown in the data processing section, and click Inspection certificate simple creation.
2. To create an inspection certificate from measurement data saved in the internal memory:
 - Open the “Inspection certificate output setting” window and make output-related settings, and select [SURFCOM data] under file selection.
 - When the data numbers for measurement data saved in the internal memory are displayed, select the data number to be output.
 - Click Inspection certificate creation on the bottom of the window.

(2) Create an inspection certificate from measurement data files saved in a USB memory:

> Text files should contain “Measurement conditions” of the output items.

1. To create an inspection certificate from text files saved in a USB memory:
 - Open the “Inspection certificate output setting” window and make output-related settings, and select [Text file] under file selection.
 - Designate “\\S-TOUCH\MEASTXT” in the USB memory as the reference folder. For HANDYSURF⁺, designate \\HANDYSURF+\MEASTXT as the reference folder.
 - When the file names of the measurement data saved in this folder are displayed, select the data file name to be output.
 - Click Inspection certificate creation on the bottom of the window.
2. To create an inspection certificate from text files saved by the SupportWareII.
 - Open the “Inspection certificate output setting” window and make output-related settings, and select [Text file] under file selection.
 - Designate the folder containing text files as the reference folder.
 - When the file names of the measurement data saved in this folder are displayed, select the data file name to be output.
 - Click Inspection certificate creation on the bottom of the window.

■ Connection equipment list window



1. Measuring instrument list

Display the connected measuring instrument list. Click the panel of each measuring machine to display the main screen of the target measuring instrument. To use in offline mode, click the offline panel. The offline main screen will be displayed. For more details, refer to “How to use in offline mode” in this manual.

2. Update

Click this to update the “Connection equipment list”.

Among the measuring instrument currently connected to the personal computer, will display for the “Connection equipment list” the measuring instrument corresponding to the registered connection setting.

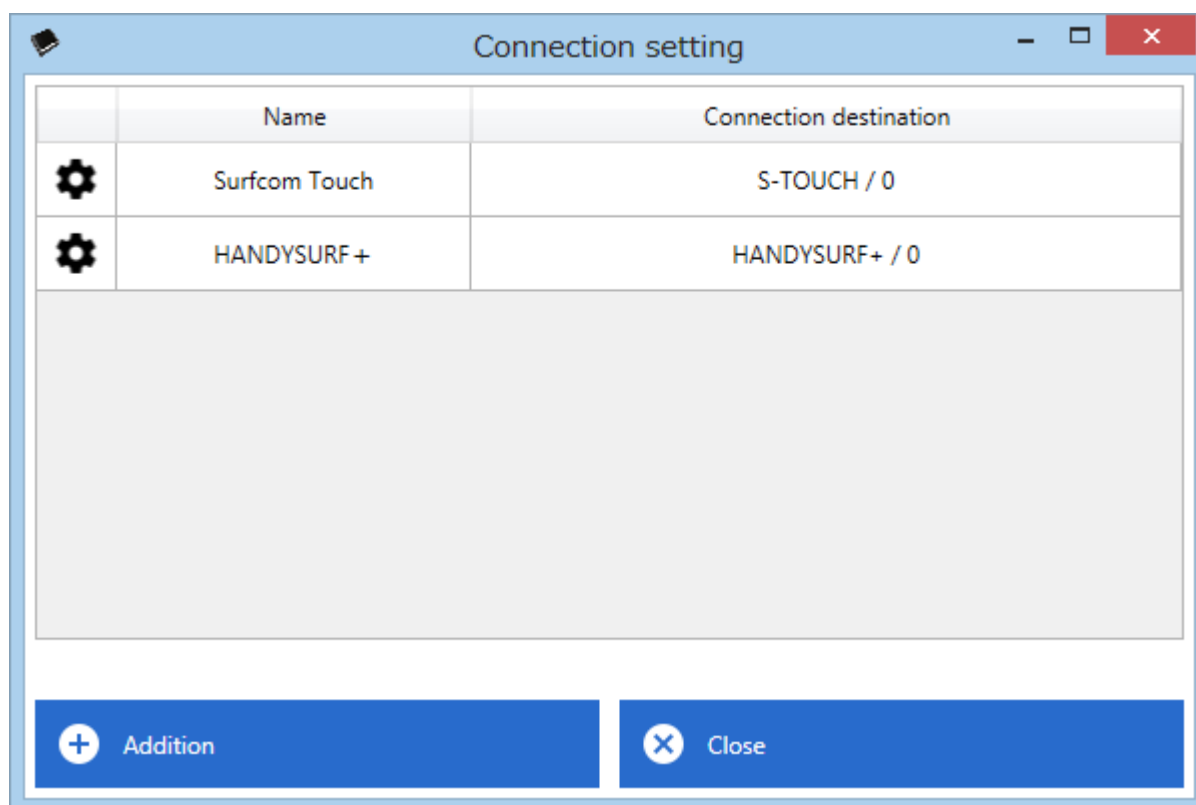
3. Connection setting

Click this to display the “Connection setting” window.

4. Exit

Click this to exit the SupportWareII.

■ Connection setting window



1. Connection equipment list

Display the registered connection setting list.

(1) Edit

Click to open the “Connection setting detail” window and edit the target connection settings.

(2) Name

(3) Connection destination

Display the connected measuring instrument information. Shown below are type of display.

- USB connection: Connected machine type / Equipment ID

* For details about Connected machine type / Equipment ID, refer to the section of “Connection setting detail window”.

2. Addition


Display the registration window of the connection setting.

3. Close

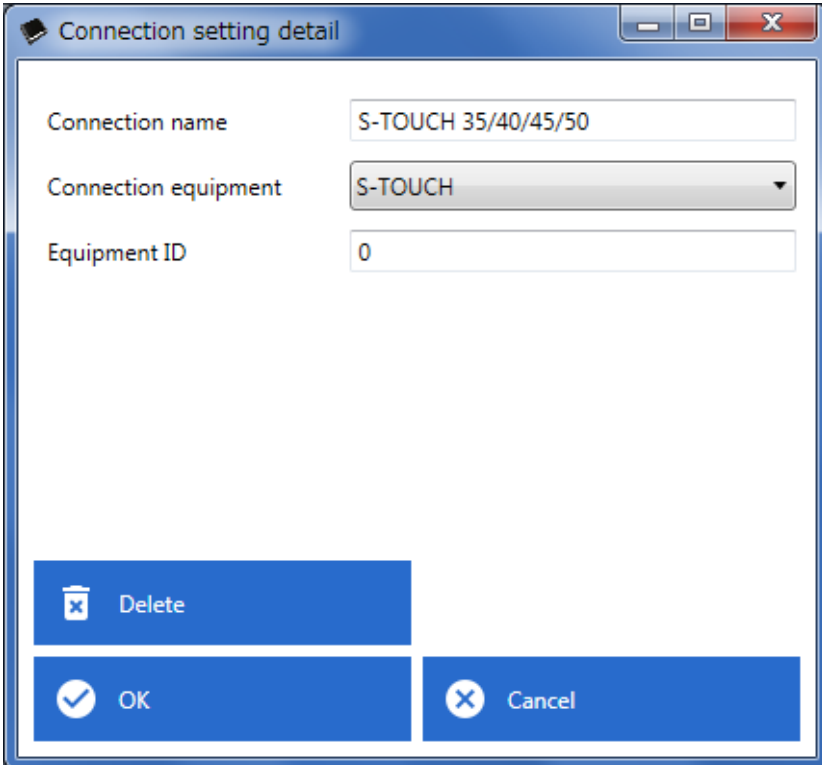
Close the “Connection setting” window.

■ Connection setting detail window

1. Click **Addition** to register a new connection setting on the “Connection setting” window.

Click  to edit the connection settings that is already registered.


2. The “Connection setting detail” window will appear.



3. Type in the connection setting name on [Connection name].
The contents entered in the text box are displayed on the “Name” of “Connection setting” window and on the measuring instrument panel on the main screen.
4. Select the type of connect measuring instrument on [Connection equipment].
The selectable machine are shown as follow.
 - S-TOUCH : SURFCOM TOUCH
 - S-TOUCH(S550) : SURFCOM TOUCH 550
 - HANDYSURF+ : HANDYSURF+
5. Type in the equipment ID of connected measuring instrument on [Equipment ID].
* Be careful not to assign the same equipment ID to the same model when assigning the equipment ID to the measuring instrument.

6. Click to complete the settings.

If click on the “Connection setting” window, Add the new connection settings with displayed contents.

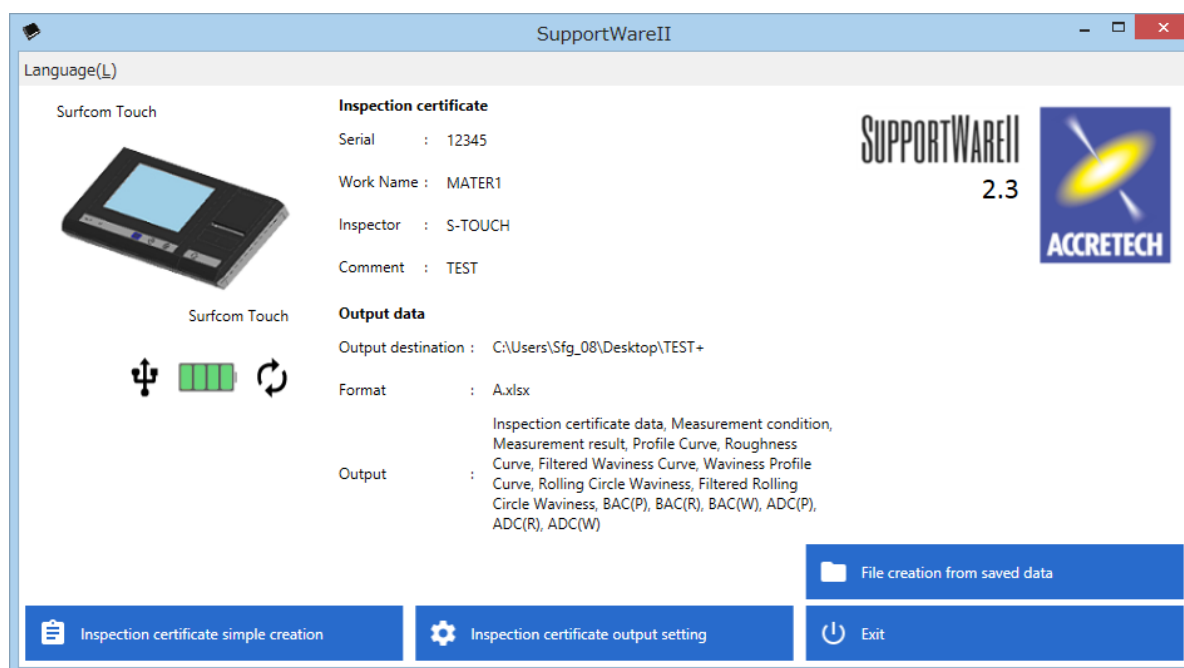
If click  on the “Connection setting” window, Add the selected connection settings with displayed contents.

7. If click , cancel the editing content and close the “Connection setting detail” window.

8. If click , delete the connection setting.

* It is displayed only when click on “Connection setting” window.

■ Main window





1. Information of Measuring instrument

The status of the current measuring instrument can be checked.

(1) Information of connecting

Display the status of connecting with measuring instrument. Click to change (Connect/Disconnect) the connection status with the measuring instrument.







Shown below are type of display.




	Communicating (via USB connection) Click to disconnect communication.
	Disconnecting (via USB connection) Click to start the communication.

(2) Power supply

Display the battery status of current measuring instrument.

Shown below are type of display



	The battery level is over 75%.
	The battery level is over 75%. It is the state of charge
	The battery level is 50% to 75%.
	The battery level is 50% to 75% or more. It is the state of charge.
	The battery level is 25% to 50% or more.
	The battery level is 25% to 50% or more. It is the state of charge.

	The battery level is less than 25%.
	The battery level is less than 25%. It is the state of charge.
	It is in a disconnected state with the measuring instrument.

* This state is not displayed when the SURFCOM TOUCH S550 is connected.

(3) Update

Click "Update" to update the information of connection.

	It is in a connecting state with the measuring instrument.
	It is in a disconnected state with the measuring instrument.

* It does not work in the disconnected state.

2. Inspection certificate data

Display the information about inspection certificate creation. Setting of each piece of information can be done in the "Inspection Certificate Output Settings".

(1) Inspection certificate

Display the basic information described in the inspection certificate to be output.

(2) Output data

Display the information concerning output of the inspection certificate.

3. Inspection certificate simple creation

Create the inspection certificate with data currently being displayed on the measuring instrument based on the "Inspection certificate data".

When using "Inspection certificate simple creation", it is necessary to set "Inspection certificate output setting".

4. Inspection certificate output setting

Display the setting of the information to be output on the Inspection certificate and window of the outputting the inspection certificate.

5. File creation from saved data

Create the measurement data text file from measurement data saved in the measuring instrument. It is possible to create the inspection certificate from created Measurement data text file.

6. Exit

Close the main window.

■ Inspection certificate output setting

1. Click **Inspection certificate output setting** in the main window.
2. “Inspection certificate output setting” window will appear.

3. In the [File Dialog] it is possible to set output items or create the inspection certificate by selecting measurement data text file or measurement data saved in the internal memory.
 - When [Setting only] is selected, output item list is not displayed and all output items can be selected. Under this state it is not applicable to create an inspection certificate. Click **Apply** to save only the setting previous result.
 - Select [Text file] to display the text file list. Click **Browse** to select the folder that the measurement data text file is stored, or input the path of the folder that the measurement data text file is stored. The text file (.txt) in the folder will be displayed on the list after selecting the folder. Select the measurement data text file to be targeted.
 - * The text files should contain “measurement conditions”.
 - Select [SURFCOM Data] to display on the list of measurement data stored in the internal memory of the measuring instrument. Select the target measurement data from the list.
4. Upon selected data, information of the measurement data are displayed in the [Saving data]. Note also that the Output curve shall change pursuant to the [Measurement Type] and [Standard].

5. In the [Inspection certificate], it is applicable to set basic information to be described in the Inspection certificate output. Strings of characters typed in the Text box shall be described in the Inspection certificate as they are.
6. In the [Output], Designate items to output in the inspection certificate. Item(s) applicable to designate shall change subject to selected Measurement data. Any item not found in the Measurement data will not be output in the inspection certificate even it was designated. To output the section parameter values, select “section” in the output item of measuring instrument.
7. Under [Graph scale setting], the scale of the graph to be shown on the inspection certificate is set. Settings can be made for the following items.
 - Data maximum value standard: The scale is automatically adjusted so that the maximum value of measurement data can be shown on the graph.
 - Definition of scale interval: It is possible to set the value of 1 scale arbitrarily.
The unit is μm .
8. Specify the format of inspection certificate to be output. Type and number of graphs of outputable curves are different depending on the format. The graph having a less priority curve will not appear if you have selected too much curves from the graph display area. Set the output curve referring to the image displayed under the Format selection. The standards are as follows.
 - In the horizontally long graph area, one of the following curves is shown.
 - Profile Curve
 - Roughness Curve
 - Filtered Waviness Curve
 - Waviness Profile Curve
 - Rolling Circle Waviness Profile Curve
 - Filtered Rolling Circle Waviness Curve
 - Square graph area shall display either [BAC Graph] or [ADF Graph] follows. Priority shall be as follows. It is listed in descending order of priority.
 - BAC P
 - BAC R
 - BAC W
 - ADC P
 - ADC R
 - ADC W

9. Designate an Inspection certificate save destination. Click to select the save destination folder of inspection certificate, or input the path of the saving folder in the text box.
10. Set the name of the Inspection certificate to create. At first, determine whether to manage by “Year, month, date, and time(Y/M/D/H/M/S)” or “Triple digits (00000-99999)”. Select either, then set file name in the textbox shown below the [File name]. Extension shall vary depending on the version of the Microsoft Excel.
 - <When you manage by Year, month, date, and time>
Name put in the Text box + Year, month, date, and time of creation of the Inspection certificate + extension
 - <When you manage by Triple digits>
Name put in the Text box + 5 digits + extension
5 digits can be set optionally in range of 00000-99999. Moreover, at the time of file preservation, the increment (+1) is performed.
11. Put a check on the [Auto Print] to automatically print the Inspection certificate upon creation. Printing shall be executed according to the setting of the Microsoft Excel.
12. Click to create the Inspection certificate according to the setting. At this time, save the current setting as the previous value.
13. Click to save the current setting as the previous value. The previous values shall appear on the display as initial values at starting the system next time and also serve as output setting when executed the .
14. Click to close the window. The confirmation dialog will be displayed if changed the setting or previous value saving is not done.

■ Measurement data text file creation window

1. Click File creation from saved data on the Main window.
2. “Measurement data text file creation” window will appear.

3. Select the type of file. “Normal (txt)” should be usually selected. When outputting only the profile curve data in particular, select “Only Profile Curve(tx1)”.
With respect to tx1 format, see **[tx1 Format File Structure]**.
 4. Displayed in the list are those data saved in the measuring instrument. Specify the number of data to output as a text file.
 5. Data of selected Measurement data shall appear in the [Saving data].
 6. Check those saved data and select items to output in the Text file from [Output]. Item that can be checked shall be output. Note further any item not found in the measurement data will not be output in the text file even it was designated.
To output the section parameter values, select “section” in the output item of measuring instrument.
- * It is effective only when normal (txt.) is selected. Only the profile curve can not be set when (tx1) is selected.
7. Designate an Inspection certificate save destination. Click [Browse] to select the save destination folder of inspection certificate, or input the path of the saving folder in the text box.

8. Set the name on the Inspection certificate to create. At first, determine whether to manage by “Year, month, date, and time(Y/M/D/H/M/S)” or “Triple digits(00000-99999)”. Select either, then set file name in the textbox shown below the [File name]. Shown below is the name to be created. Extension shall vary depending on the version of the Microsoft Excel.

<When to manage by Year, month, date, and time>

Contents of Text box + Year, month, date, and time of creation of the Inspection certificate + extension

<When you manage by 5 digits>

Contents of Text box + 5 digits + extension

5 digits can be set optionally in range of 00000-99999. Moreover, at the time of file preservation, the increment (+1) is performed.

9. Click to create the measurement data text file in designated folder. At this time, save the current setting information as the previous value.
10. Click to save the current setting as the previous value. Those values shall appear on the display as initial values when you start the system next time.
11. Click to close the window. The confirmation dialog will be displayed if changed the setting or previous value saving is not done.

< tx1 Format File Structure >

In tx1 format, only the point sequence data of the profile curve is output.

The file structure of x1 format is described below.

12.00000<CR><LF>	... Evaluation length*
32000<CR><LF>	... Data points
125.4412<CR><LF>	... Z coordinate values continue for the number of data points.
125.3832<CR><LF>	The unit is “μm”. The number of decimal places is fixed at four.
·	* Evaluation length is expressed in mm. The number of decimal places is fixed
·	at five in the mm mode.
123.4455<CR><LF>	

[How to use in offline mode]

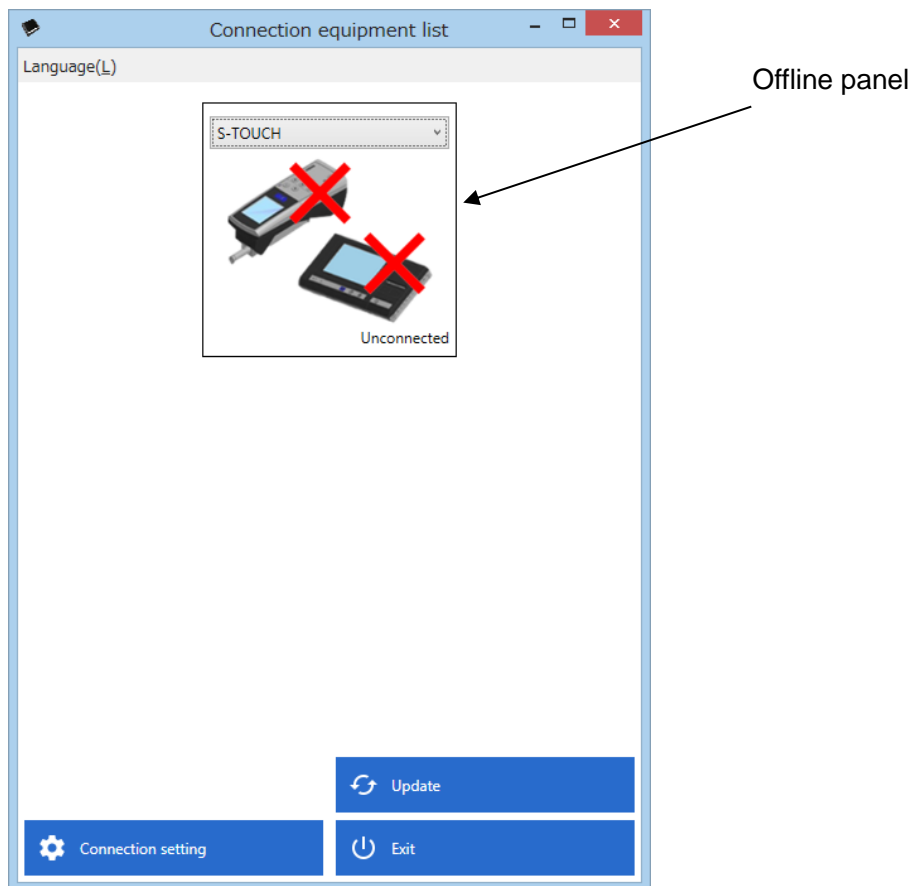
Follow the procedure below to create the inspection certificate from measurement data in text format saved in the USB memory.

Use the offline panel when operating SupportWareII without connecting to the measuring instrument itself.

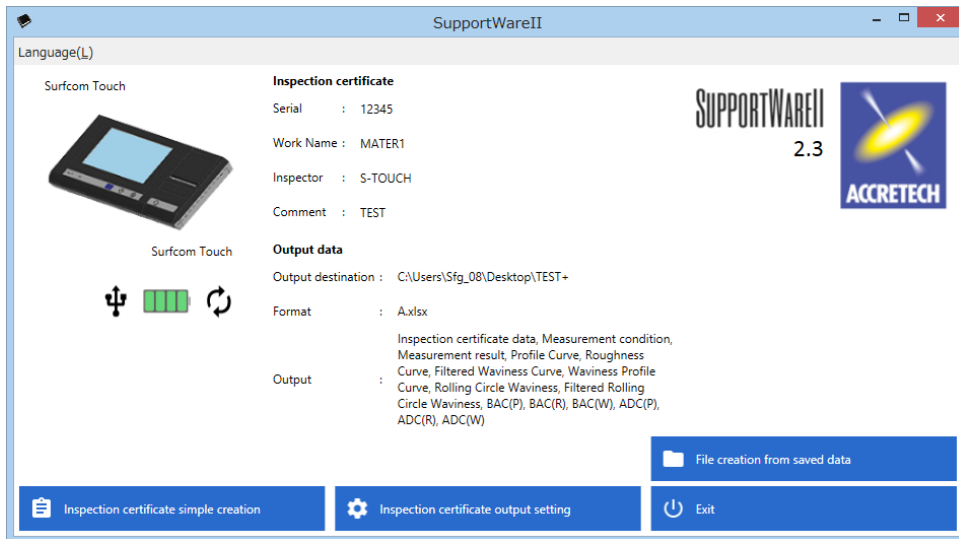
Double click the icon “SupportWareII” on the personal computer, offline panel displays in the Connection equipment list window. (Refer to the figure below.)

Click the Offline panel after select the machine type.

Machine type selection : S-TOUCH ----- when using 35/40/45/50 models
S-TOUCH(550)----- when using 550 models
HANDYSURF+----- when using 35/40/45 models

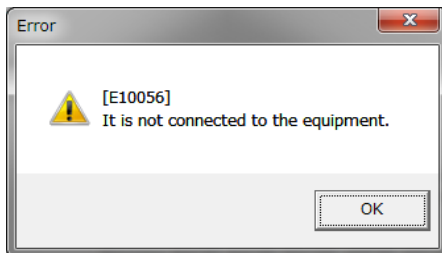


Main Window will appear.

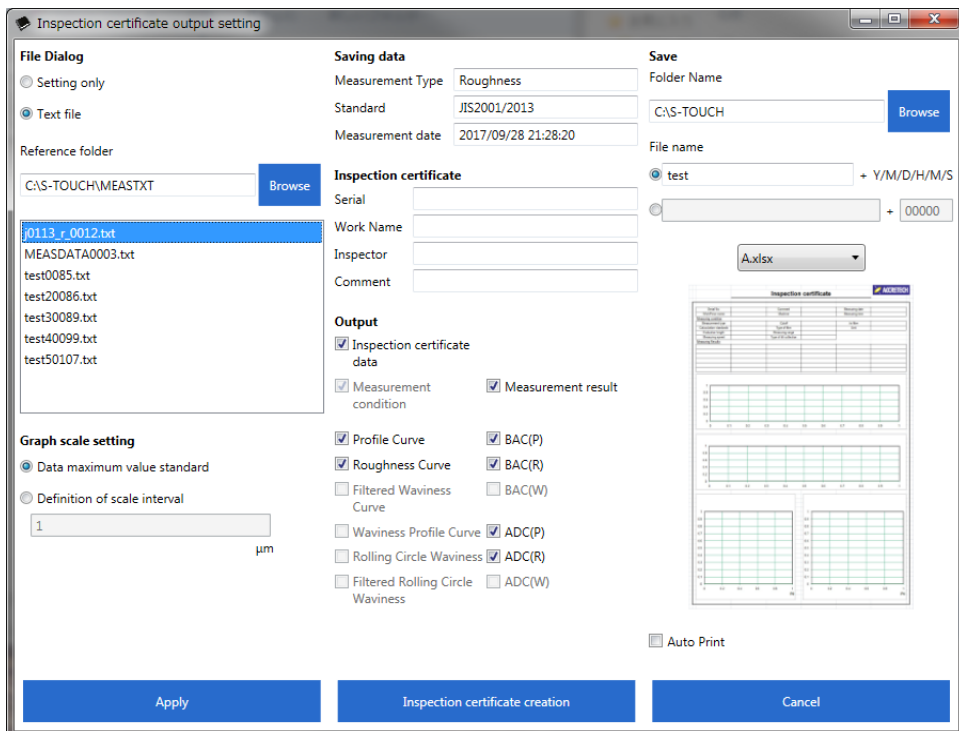


Click **Inspection certificate output setting**.

“It is not connected to the equipment” message will appear. Click **OK**.



“Inspection certificate output setting” window will appear.



Refer to the section of “Inspection certificate output setting window” in this manual to create the inspection certificate.