
DMT-DD v1.5.12.25

User's Guide

DMC Co., Ltd.

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1. Structure and Outline

1.1. Structure

DMT-DD consists of

- Setting Tool (Touch Screen Properties)
- Configuration Files
- Driver

1.2. Outline

System Outline

DMT-DD provides the functions necessary to operate a touch screen.

The functions are

- Install and Uninstall of the touch screen driver
- Configuration of the touch screen driver
- Monitoring of the touch screen driver

All the settings can be configured with this tool.

1.3. Remarks

- (1) The DMT-DD is for our touch-panel controller series. It is not intended for operation with the other touch-panel controllers and the products similar to them.
- (2) For how to use DMT-DD, read this guide well. Do not use any other methods with the DMT-DD software.
- (3) DMT-DD is not intended for the model of computer and operating system other than the supported ones.
- (4) Avoid using this software with other mouse emulation software or with similar functions installed. In such a problematic environment the software may malfunction.
- (5) When the previous version is already installed, please be sure to install this software after uninstalling it. If overwrite installation is carried out, the software may malfunction.
- (6) DMC will not be liable for any loss caused by the use/install of this software. Please back up your system beforehand.

2. System Requirements

2.1. System Configuration

(1) OS

Windows XP/7/8 32bit / 64bit Home or greater Editions

(Note) System-builder version of Windows 8/8.1 is not supported,

(2) Connection Interface

USB/UART

(3) Monitor

Multi-display supported,

2.2. Install Prerequisites

(1) Software

.Net Framework3.5 must be pre-installed.

(2) Hard Disk

Approximately 10MB of free space + data file capacity.

The install destination will be as below.

32bit: System drive¥ Program Files¥ DMT-DD

64bit: System drive¥ Program Files(x86)¥ DMT-DD

2.3. Applied controllers

Controller	VID / PID	Connection
DUS series (FW-Ver7)	0x0AFA / 0x07D2	USB / Serial
DUS series (FW-Ver8)	0x0AFA / 0x07D3	
MTR series	0x0AFA / 0x03EC	
	0x0AFA / 0x03ED	
	0x0AFA / 0x03EE	
	0x0AFA / 0x03EF	
TSC series	0x0AFA / 0x03E8	

Refer to DMC website for details of each controller.

<http://www.dmccoltd.com/english/>

2.4. Remarks

(1) Touch input on multi-monitor under Windows7 environment requires the graphics driver to be WDDM1.0 or greater version and support DirectX9.

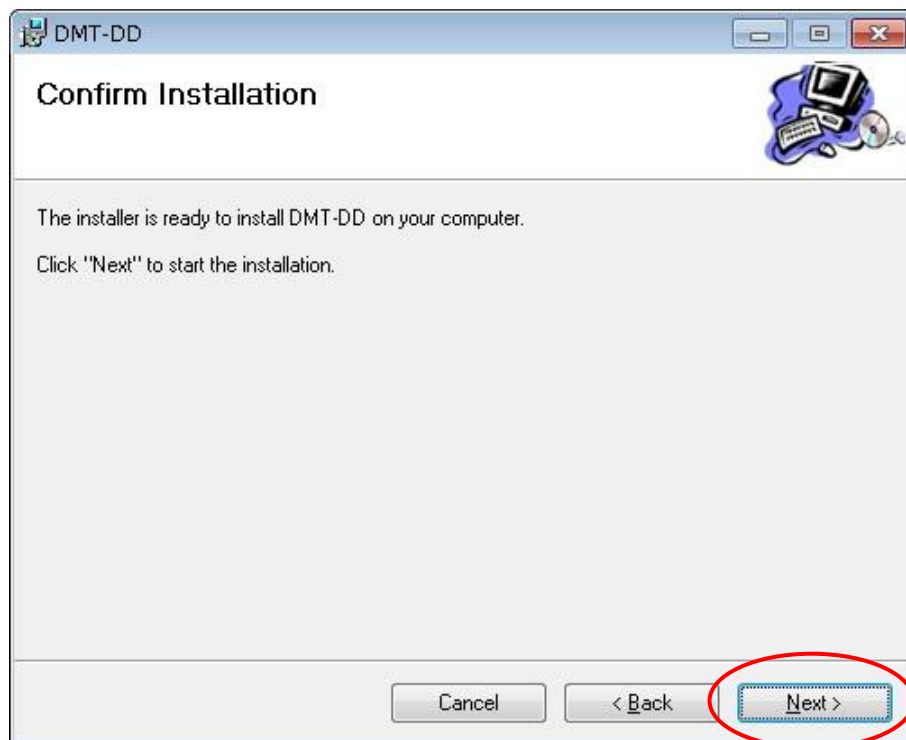
(2) Operation will be single-touch mouse input under Windows XP.

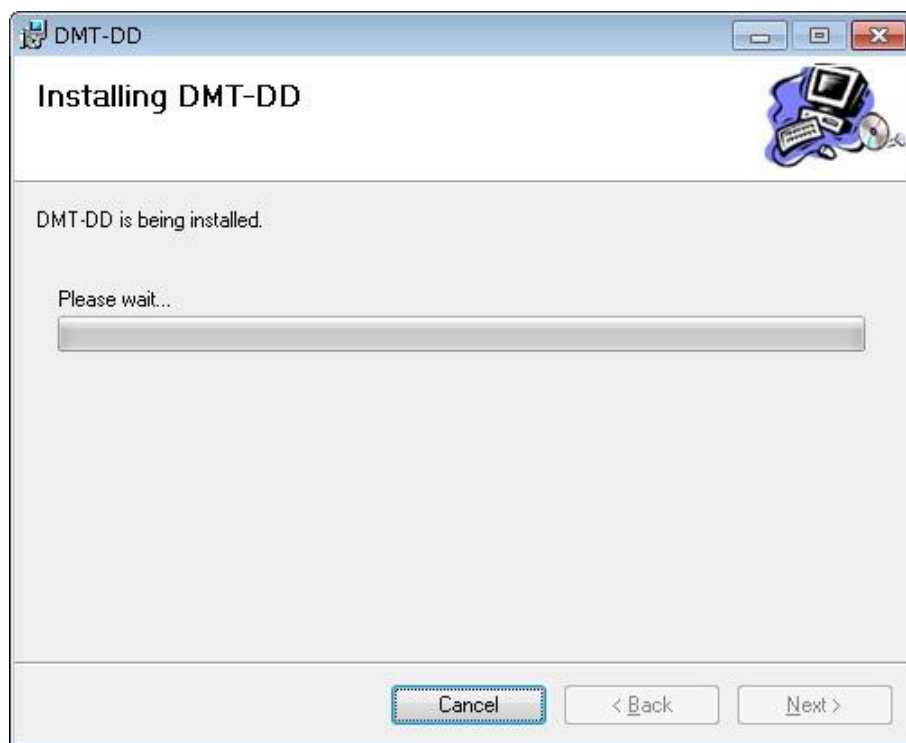
(3) [Limited Touch Support] will be indicated in the [System] screen under an Windows8 environment.

3. Install

Double-click **[DMT-DDSetup.msi]**.

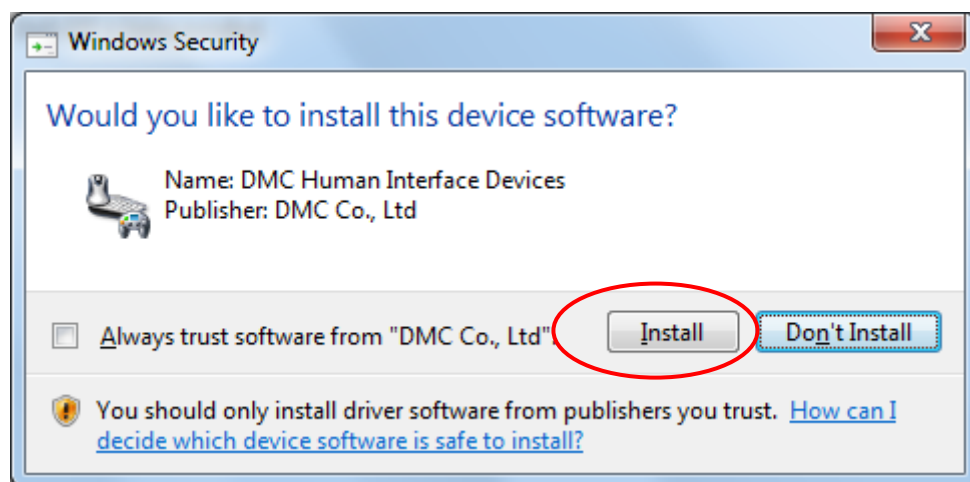
Setup wizard will start. Click [Next] for install.





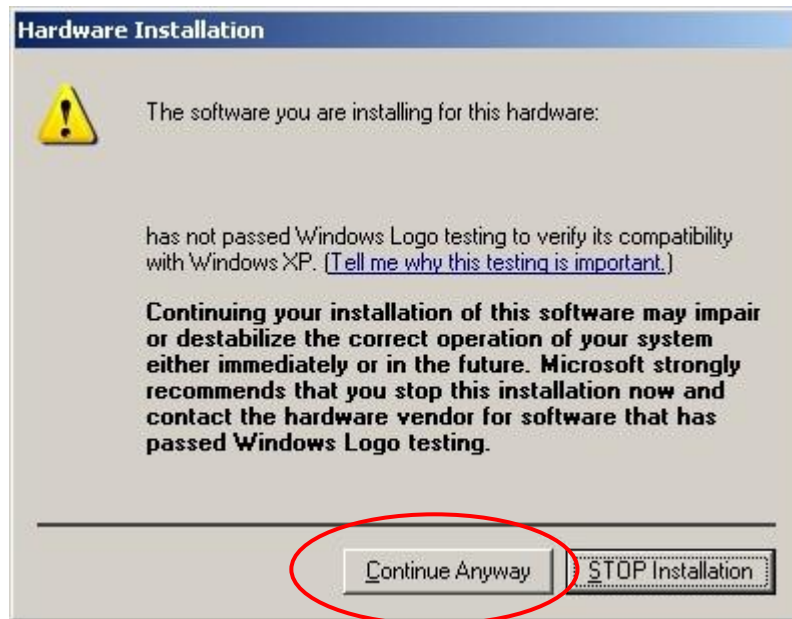
The dialog below may appear several times during the installation.

Windows7/8

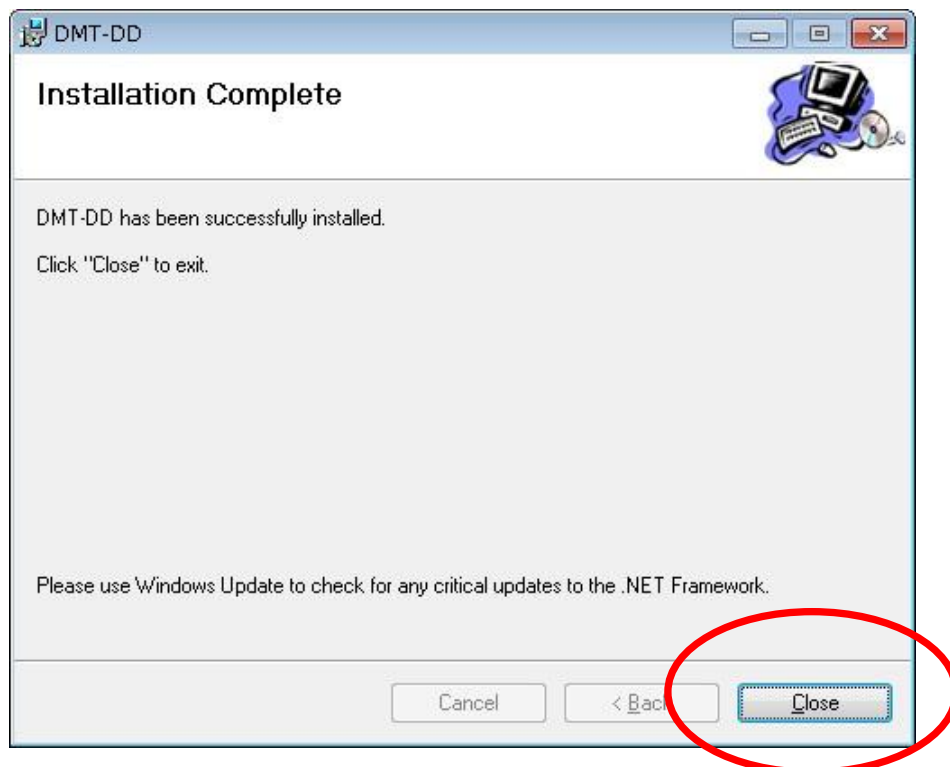


Click [Install]

WindowsXP



Click [Continue]



Once install is completed, click [Close].

Install is completed at this point.

4. Uninstall

Double-click **[DMT-DDSetup.msi]**.

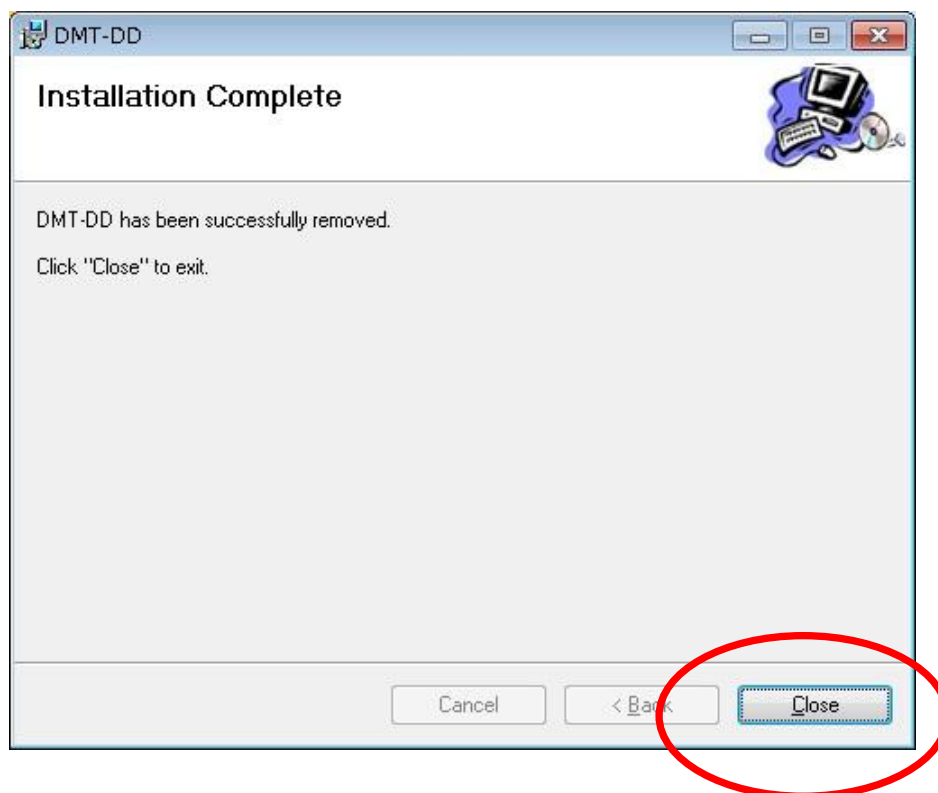
Menu for repairing/removing DMT-DD.msi. will appear.

Select [Remove DMT-DD], and click the [Finish] button.

*Uninstall may fail if resident function is enabled. Make sure to disable the resident function before uninstalling.



(Note) If you uninstalled DMT-DD, the installed driver will be uninstalled automatically.



Once uninstall is completed, click [Close].
Uninstall is completed at this point.

5. Start-up of Touch Screen Driver Setting Tool

If install was successful, shortcut for [DMT-DD] will be created on the desktop.



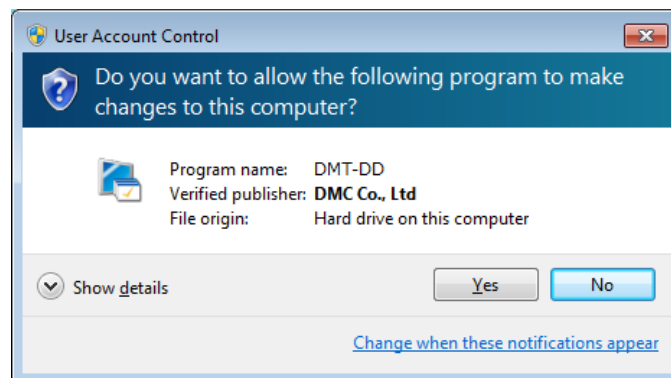
Either double-click the shortcut or execute it from the program file.

32bit: [System Drive ¥ Program Files ¥ DMT-DD ¥ bin ¥ DMT-DD.exe].

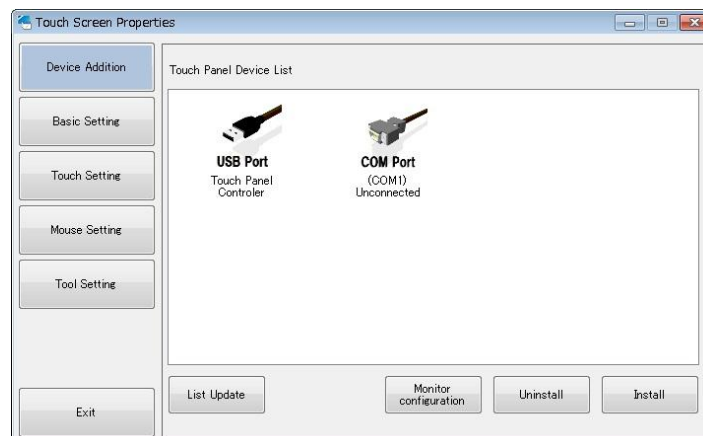
64bit: [System Drive ¥ Program Files(x86) ¥ DMT-DD ¥ bin ¥ DMT-DD.exe]

• Windows7 or windows8

The setting tool requires administrative privilege will be required because it will install the driver. In some settings of UAC (User Account Control), the dialog like below will appear. If such dialog appeared, click [Yes].



Once start-up is completed, the Device Addition screen will appear.



6. Setup Procedures of Touch Screen Driver

6.1. Procedures to operate the touch screen driver

To use the touch screen driver, the below procedures are required in each screen.

Refer to the corresponding pages in this manual for details of the operation methods for each step.

1. Driver Install (refer to [7-2. Install])

Perform installation in the Device Addition screen.

2. Configuration File Selection (refer to [8-6. Configuration File])

Select a configuration file in the Basic Setting screen.

***The default input mode after driver installation is touch input.**

3. Touch Screen Composition (refer to [7-4. Monitor Configuration])

Execute [Monitor configuration] in the Device Addition screen.

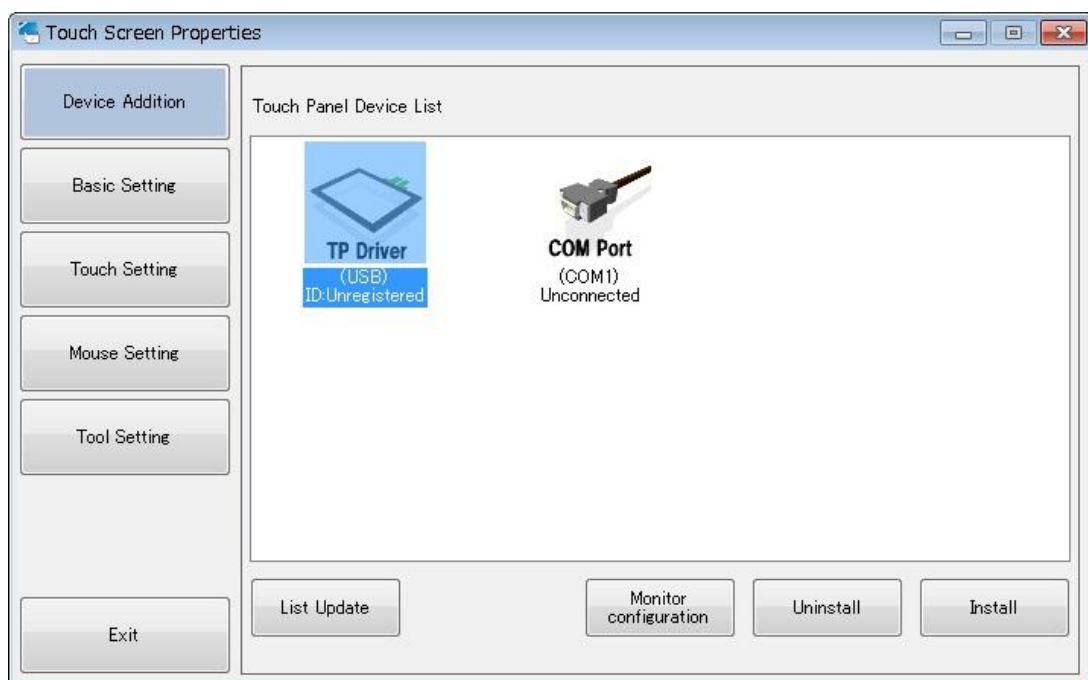
The windows setup below is necessary for touch input under Windows7/8 environment.

4. TabletPC Setting (refer to [9-1. Touch Screen Configuration])

Open Tablet PC Settings from Touch Setting screen, and execute [Setup] under Configure.

***This procedure is not necessary for mouse input.**

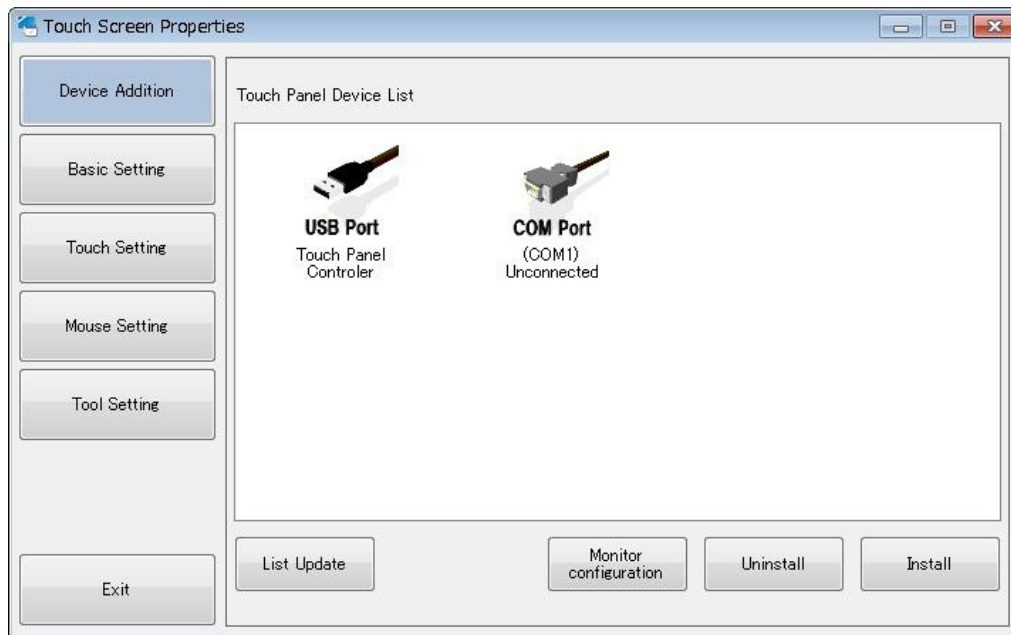
Once the installation is completed successfully, the icon of touch screen driver, its connection method, and ID will appear.



7. Device Addition

7.1. Touch Panel Device List

The connected USB touch screen controller and/or connectable COM port will be indicated.



The connected DUS touch screen controller, connectable COM port, and installed driver will appear in icons.





The list will be automatically updated at connecting/disconnecting of the USB touch screen controller.

There will be no automatic update during install and uninstall.

The list can be updated manually as well, by clicking the [List Update] button.

*The distance between the icons depends on the OS setting of icon distance.

The icons to appear on the Touch Panel Device List are as below.

Icon	Connection Type	Note
 <p>USB Port Touch Panel Controler</p>	USB	This icon will not appear if a driver is already installed.
 <p>COM Port (COM1) Unconnected</p>	COM Port VCP Port	This icon will not appear if a driver is already installed.
 <p>TP Driver (USB) ID:1</p>	Installed Driver USB driver	This icon indicates that a driver is already installed on the touch screen connected via USB.
 <p>TP Driver (COMx) ID:1</p>	Installed Driver COM driver	This icon indicates that a driver is already installed on the touch screen connected via USB, COM, or VCP.

7.2. Install

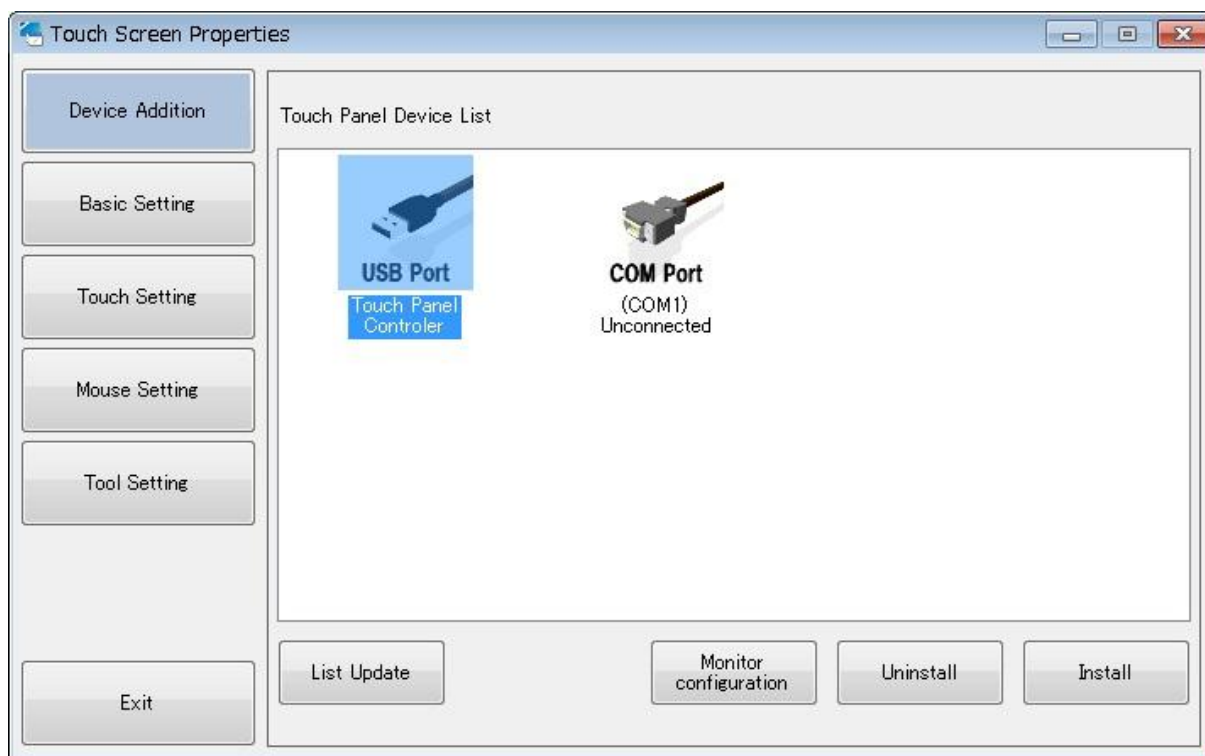
This section is about installing the touch screen driver.

Follow the procedures below for installation.

Connect the touch screen before starting installation.

*If DMT-DD is installed, connection is USB, and the OS is Windows7 or later versions, the driver will be installed automatically once the controller is connected.

1. Select the device intended to be installed.



Select the device from the Touch Panel Device List for install, and click [install].

Or touch the touch screen you intend to install. The controller connected to the touched touch screen will be selected.

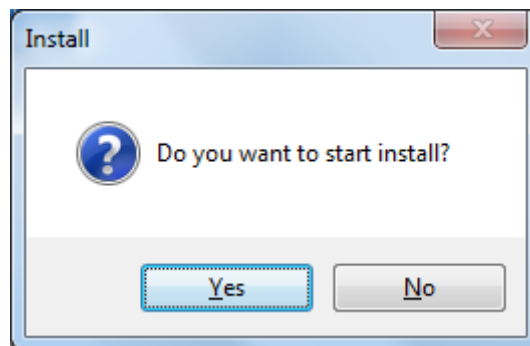
The installable devices are as below.

Controller	VID / PID	Connection
DUS series (FW-Ver7)	0x0AFA / 0x07D2	USB / Serial
DUS series (FW-Ver8)	0x0AFA / 0x07D3	
MTR series	0x0AFA / 0x03EC 0x0AFA / 0x03ED 0x0AFA / 0x03EE 0x0AFA / 0x03EF	
TSC series	0x0AFA / 0x03E8	

In case of serial connection, install cannot be started if connection with the controller is not recognized when the [Install] button is clicked.



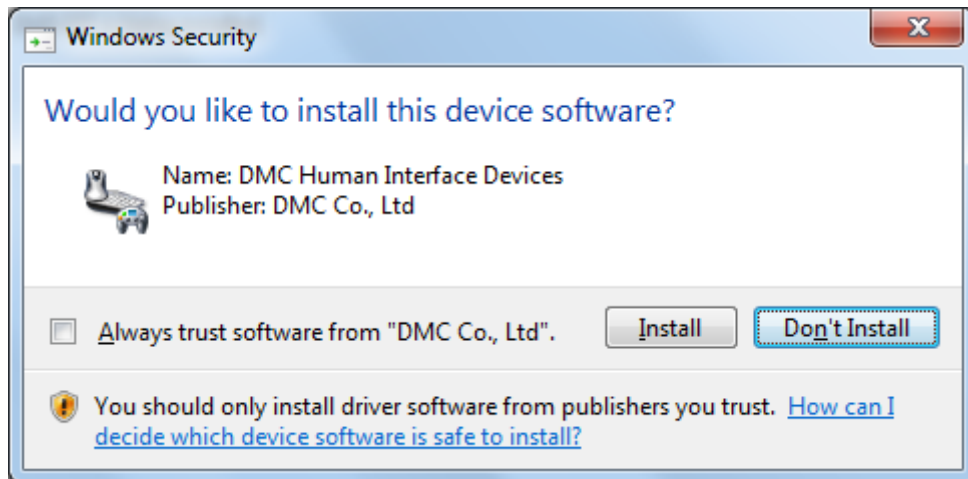
2. The confirmation dialog will appear. Select [Yes].



3. The dialog below will appear at the initial install.

Windows7 or above

Select [Install].



WindowsXP

Select [Continue Anyway].

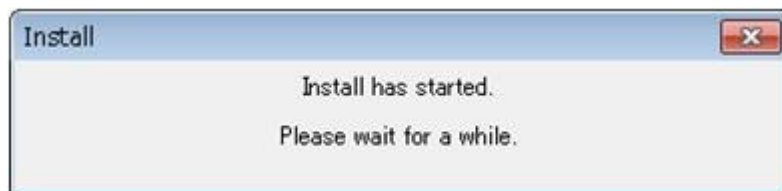


The screen above may appear several times. Click [Continue Anyway] each time.

Under WindowsXP environment, the screen below may appear during install.
The install will be performed automatically. Do not click anything.



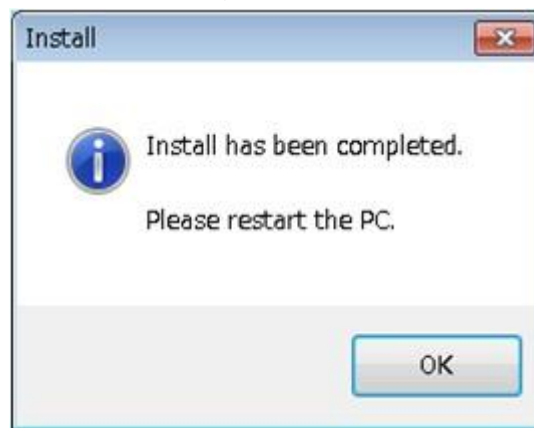
4. Install will begin, and the indication below will appear. Please wait for a while.



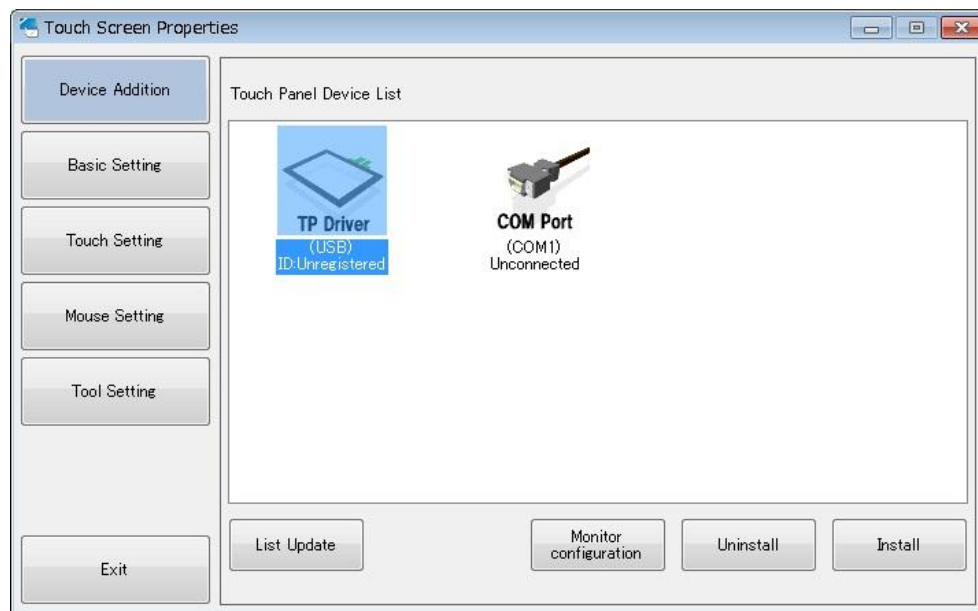
5. Device will be checked once install is completed. Please wait for a while.



6. Once install is completed, the dialog below will appear. Click OK.



7. Install completion



Once install is completed, [TP Driver] will appear in the [Touch Panel Device List]. Restart the PC after the install completion.

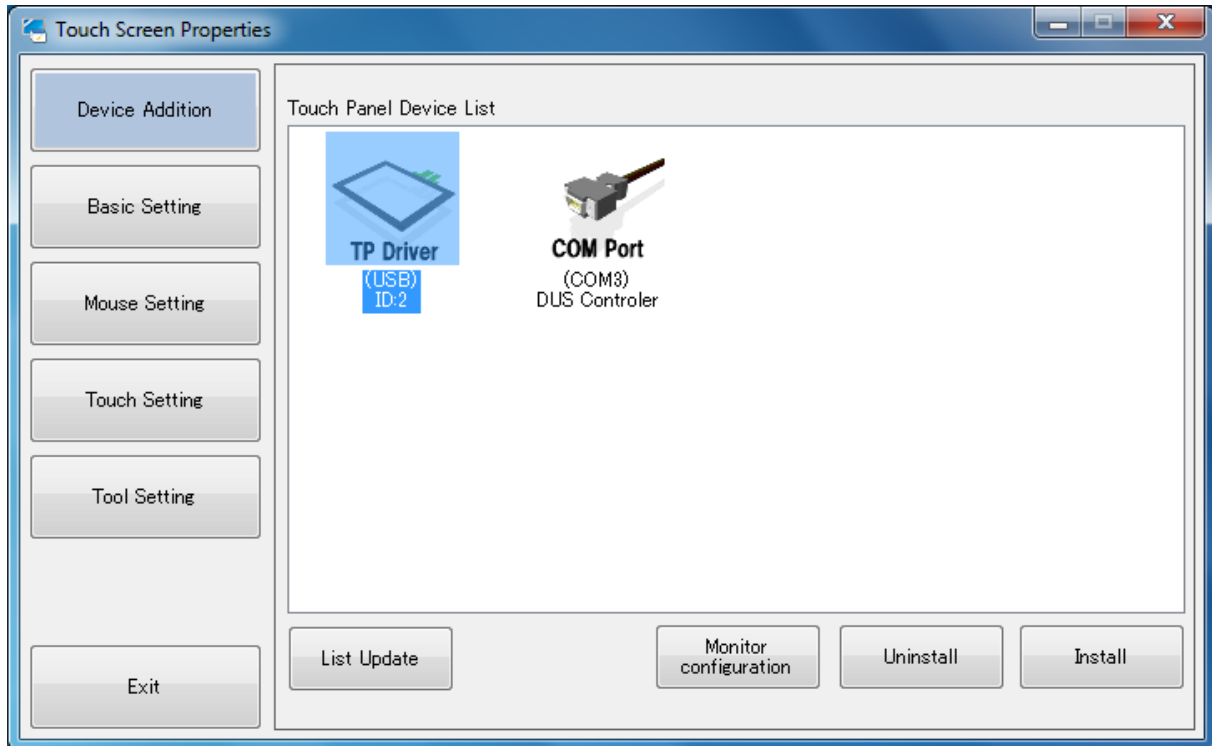
The install is completed at this point.

7.3. Uninstall

Uninstall the touch screen driver, and install Windows standard driver.

Follow the steps below for uninstall.

1. Select the device intended to be uninstalled.



Select the driver icon on the [Touch Panel Device List], and click [Uninstall].

Or touch the touch screen you intend to uninstall. The driver software related with the touched touch screen will be selected.

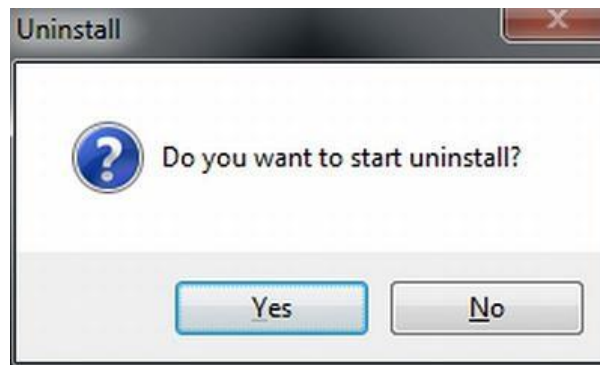
<Note>

- How to uninstall the driver for TSC controller used via USB communication

USB connection driver for TSC controller cannot be uninstalled from the setting tool “Touch Screen Properties”. (Even if driver uninstallation is conducted, the same touch driver will be reinstalled by PnP of the USB cable because Windows has no standard driver for the TSC controller).

If you wish to uninstall the driver, uninstall the whole DMT-DD from Windows “Control Panel”. TSC driver will be uninstalled once DMT-DD is uninstalled.

2. The confirmation dialog will appear. Select [Yes].



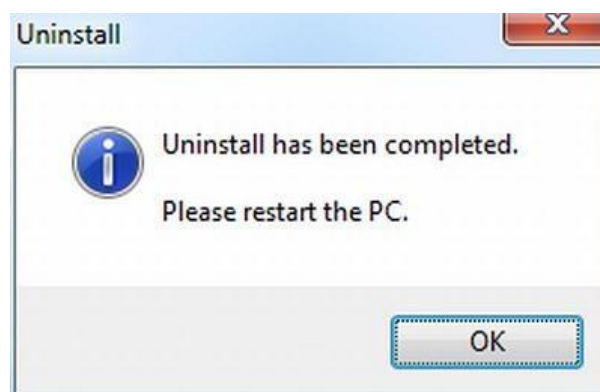
3. The device is being uninstalled. Wait for a while.



4. Uninstall has been completed. The device is being checked. Wait for a while.



5. Uninstall has been completed. Click [OK] and restart the PC.

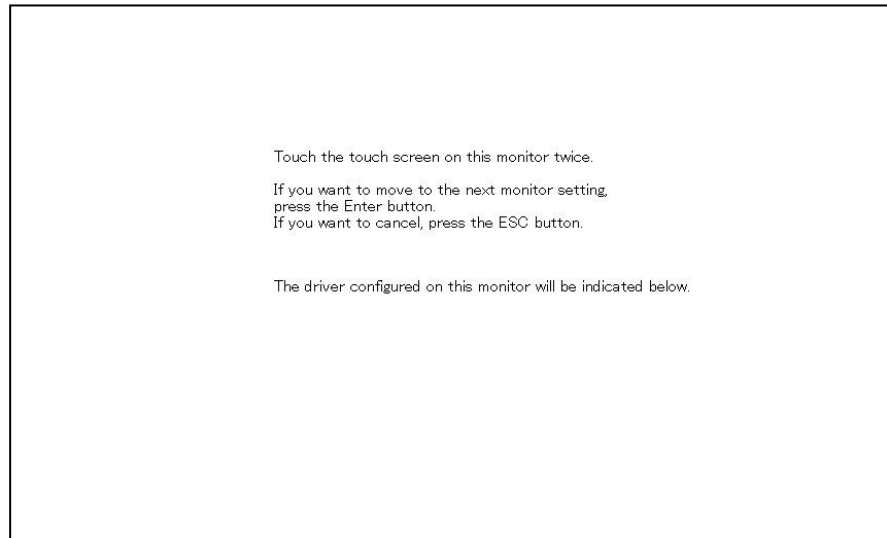


Uninstall is completed at this point.

7.4. Monitor Configuration

This function needs to be executed if mouse operation under multi-monitor environment is needed.

1. Click the Monitor configuration button in the Device Addition screen.
2. The screen like below will appear, starting on the leftmost monitor to another.

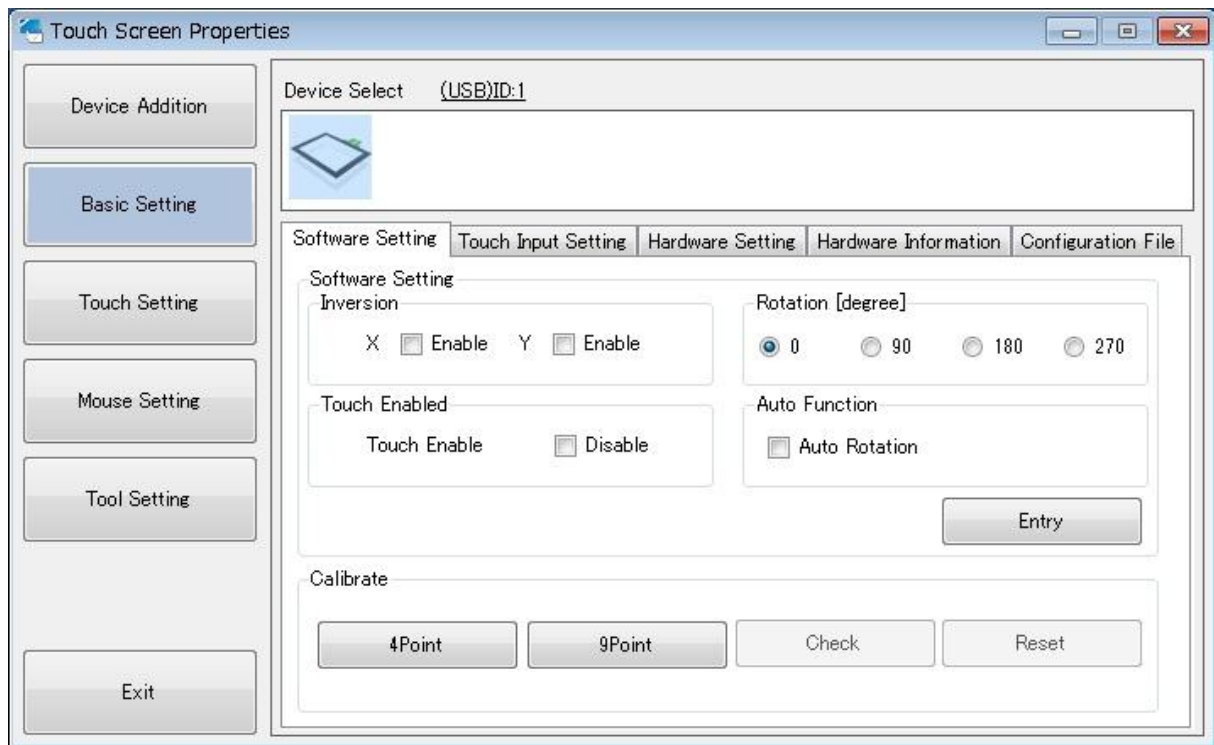


3. Tap the touch screen on this screen twice.
4. The touched touch screen will be indicated on the screen



5. Once the setting for the current monitor is completed, press [Enter].
If there are multiple monitors, the screen on the procedure2 will appear on the next onitor.
6. Once pressing [Enter] on the last monitor, the setting is completed.
Press ESC if you want to cancel in the middle.

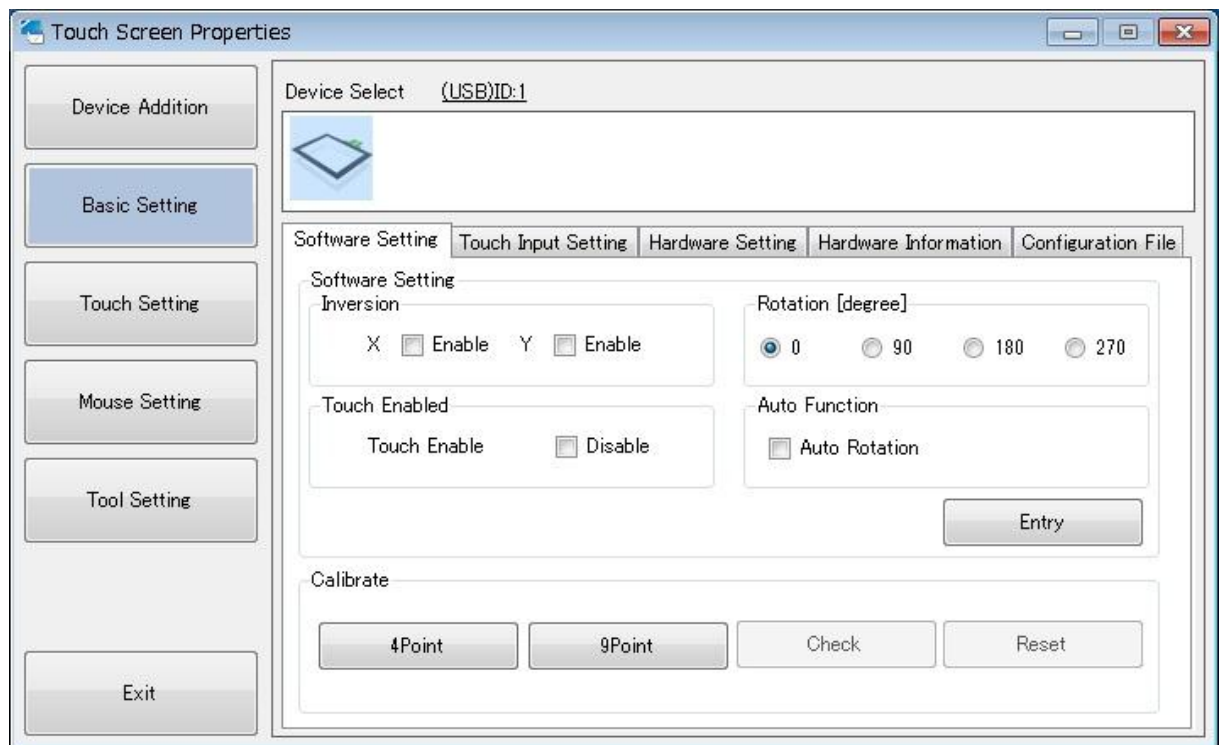
8. Basic Setting



You may make settings and maintenance for the driver and controller individually.

Select the driver or touch screen controller from [Device Select]. Or touch the touch screen you intend to configure settings on. The driver or touch screen controller related with the touched touch screen will be selected.

8.1. Software Setting



You can configure settings on the driver or touch screen controller being selected.

- **X-axis Inversion**

If enabled, X-axis coordinates will be inversely outputted at touches.

This function is not enabled by default

- **Y-axis Inversion**

If enabled, Y-axis coordinates will be inversely outputted at touches.

This function is not enabled by default

- **Rotation**

X-axis and Y-axis coordinates will be outputted in rotation of 0, 90, 180, and 270 degrees.

The default setting is [0 degree].

- **Touch Enabled**

Touch input can be disabled if checked.

This function is not enabled by default.

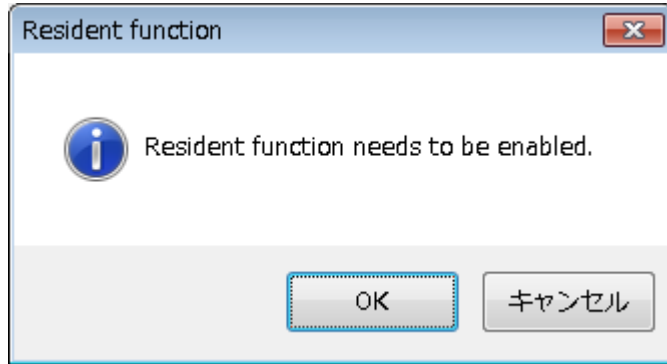
■Auto Rotation

If checked, Auto-rotation function performed by resident function will be enabled.

This function is for mouse operation only (refer to 8-6).

For more details, refer to the section 11.[Tool Setting] in this manual.

If “Auto-rotation” is checked when resident function is disabled, the following dialog will appear.



This function is not enabled by default.

- **Calibration**

- Calibrate

Software calibration can be performed.

The software calibration will be necessary if MTR and/or TSC controller for a resistive touch screen is used. The software calibration will adjust the touched points and cursor positions.

Select the driver, then touch [4Ponit] or [9Point] under [Calibrate].

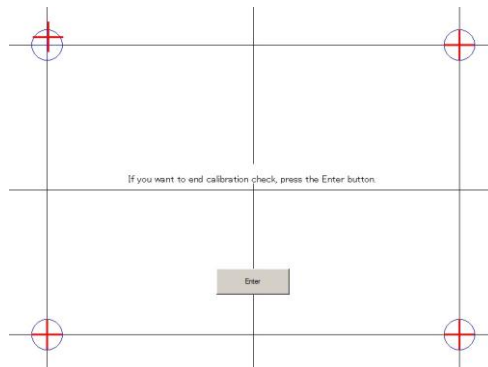
Setup of monitor configuration (and TabletPC Setting if touch input is necessary) needs to be completed before executing this function.

- Reset

If you want to reset the calibration result, execute reset.

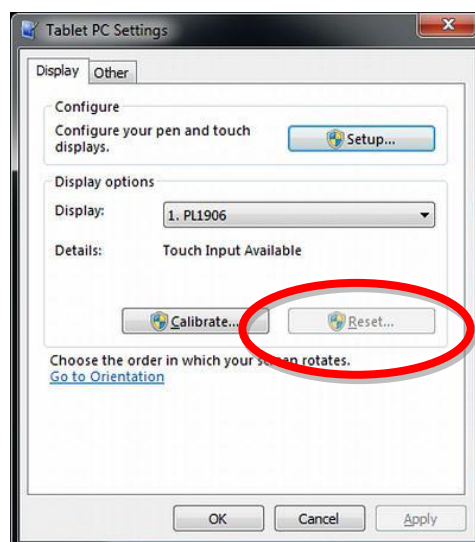
- Check

Calibration result can be checked. The ideal points will be indicated with blue while the touched correction points will be indicated in red.



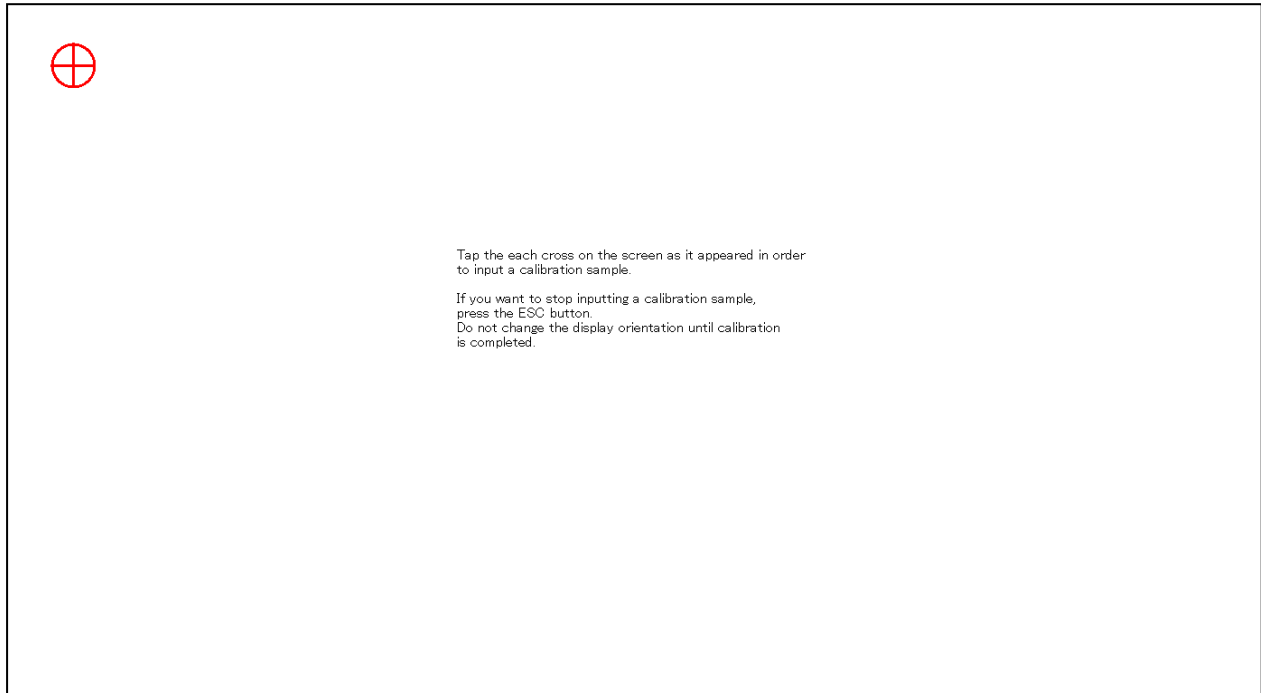
Press [Enter] to finish the check.

Note) If you want to perform calibration with this function, do not use the Windows standard calibration function. If settings are already performed with Tablet PC Settings, reset is required beforehand.

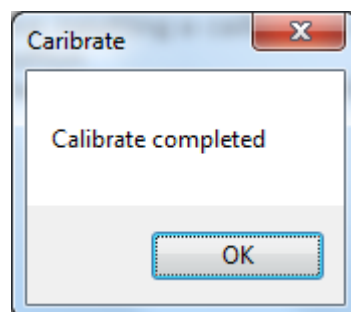


- **Calibration method**

1. Execute [4Point] or [9Point] under [Calibrate] in Software Setting.
2. The calibration screen will appear on the monitor with the touch screen related with the selected driver.



3. Touch the center on the marker on the screen. After it is touched, the next marker will appear. Touch the markers as they appear.
4. After all the marks are touched, the calibration will be finished. The dialog below will appear. Click [OK] to end the calibration.



8.2. Touch Input Setting



■ Touch Input

Touch input setting of the driver selected on the combo box can be configured. After the configuration is made, click [Entry].

◇ Click Timing

● Normal Mode

Touch down will cause touch down, touch up will cause touch up.

● Click at touch up

Click (touch down → touch up) will be caused at the timing of touch up.

Even for touch output (touch.mfd), the pointer will be changed to cursor.

● Click at touch down

Click (touch down → touch up) will be caused at the timing of touch down.

Even for touch output (touch.mfd), the pointer will be changed to cursor.

Default: Normal Mode

<Note> If [Click at touch up] or [Click at touch down] is selected, right click by long touch will not work.

■ Touch Sound

Touch sound of the currently-selected driver can be configured. Click [Entry] after configuration.

■ Play Type

- Disabled
No touch sound
- Hardware
BEEP on the motherboard sounds.
*This function depends on the hardware.
- Software
BEEP sounds from the speaker.
- File
Specified wav file will sound from the speaker.

■ Sound Timing

- At touch up
Touch sound will be caused at the timing of touch up.
- At touch down
Touch sound will be caused at the timing of touch down.
- During touch down
Touch sound will be caused all through touch down.

■ Frequency (Hz)

Touch sound frequency can be configured.
The available frequency range is 37 Hz – 32767 Hz.
Default: 1000 Hz

■ Sound Duration [ms]

Touch sound duration can be configured.
The available duration range is 1 ms – 5000 ms.
Default: 55 ms

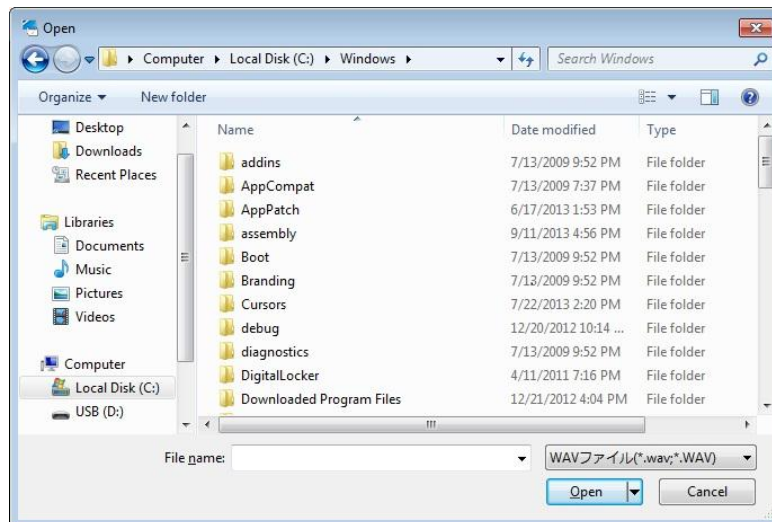
■ Name of the file to play

Path of the wav file to be played will be indicated.

■ File selection (if Play Type is File)

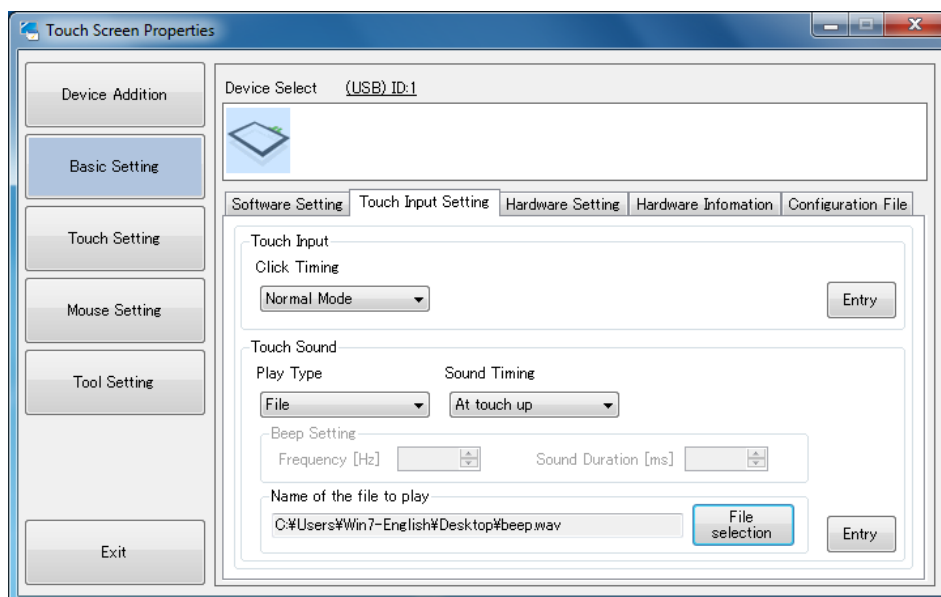
Select the wav file to play.

1. Click the [File selection] button.
2. The dialog below will open.



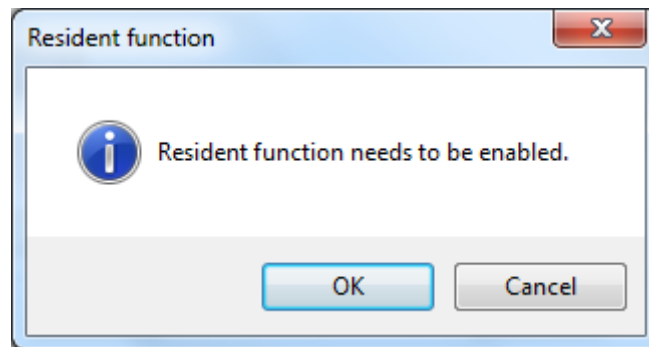
Select a [wav] file.

3. After the selection, path of the selected wav file will be indicated.

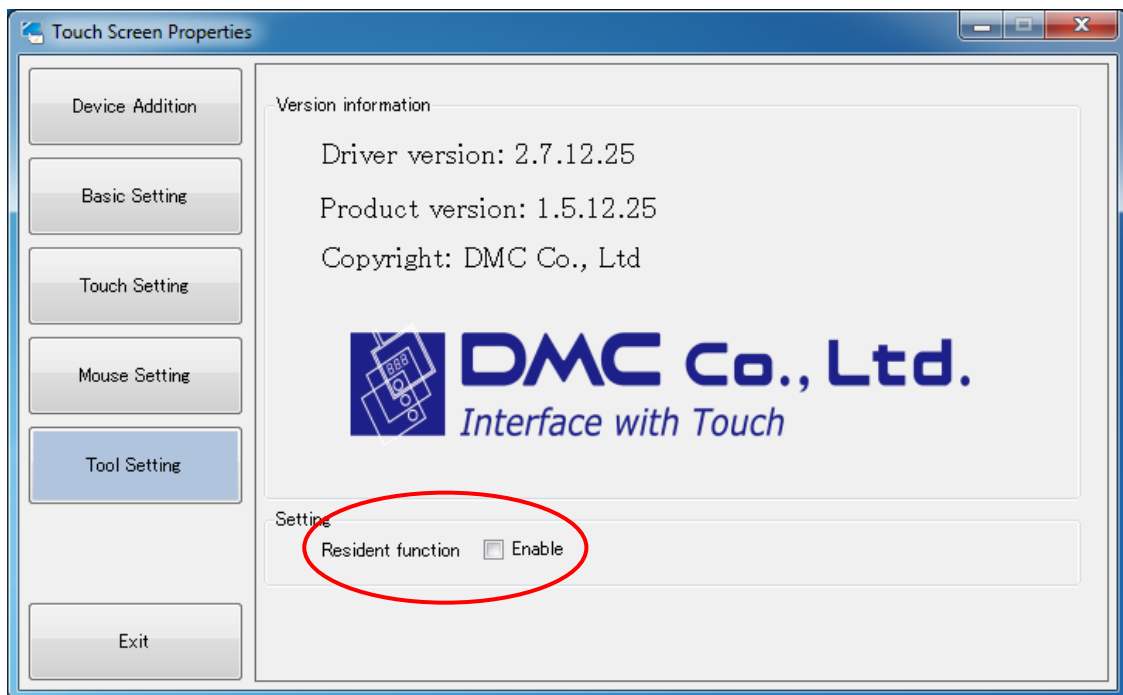


■ Touch Sound and Resident function

If you intend to select either [Software] or [File] for touch sound, Resident function needs to be enabled beforehand. If the resident function is disabled, the dialog below will appear at registration.



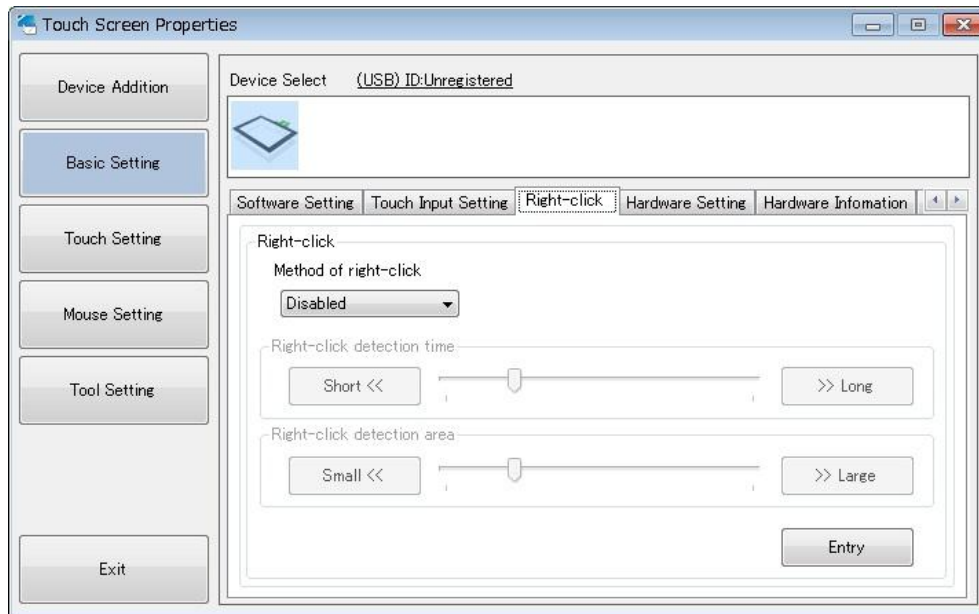
After selecting [OK], Resident function will be enabled, and touch sound will be on. Settings for Resident function can be configured on the [Tool Setting] screen as well.



Refer to the section 11 [Tool Setting] in this document for more details.

8.3. Right-click Setting

This setting screen will appear only if mouse input is available on the selected device.



- Method of right-click
 - Disabled
 - No right-click input
 - Long touch
 - Touch and hold the finger down on the touch screen will cause right-click input
 - 2-point touch
 - Touch the touch screen with two fingers will cause right-click input.

Default: Disabled.

- Right-click detection time *This setting is available only if Method of right-click is Long touch.
Right-click will be caused if touch duration passes the specified time.

Default: [300]ms / shortest [100]ms / longest [1000]ms

- Right-click detection area *This setting is available only if Method of right-click is Long touch.
If the touching finger moves (slides) greater than the specified area, right-click will not be caused.

Default: [300] / minimum[100] / maximum [10000]

8.4. Hardware Setting

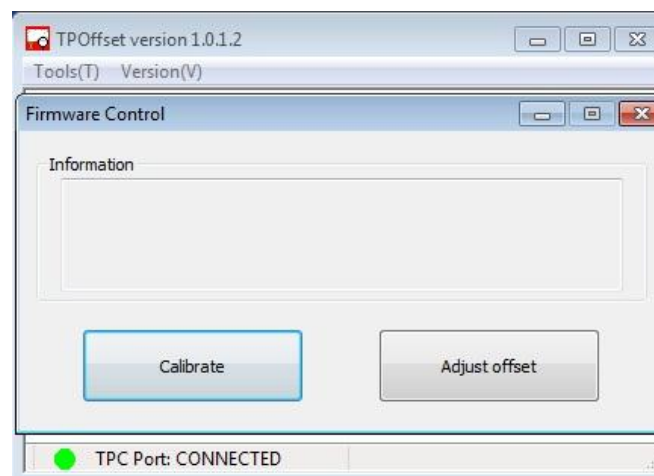
*Hardware setting will appear only if DUS controller is connected. There is no hardware setting for TSC controller.



• Touch Screen Maintenance (TPOffset)

You may make the maintenance on the driver or touch screen controller being selected. Click the [Open] button.

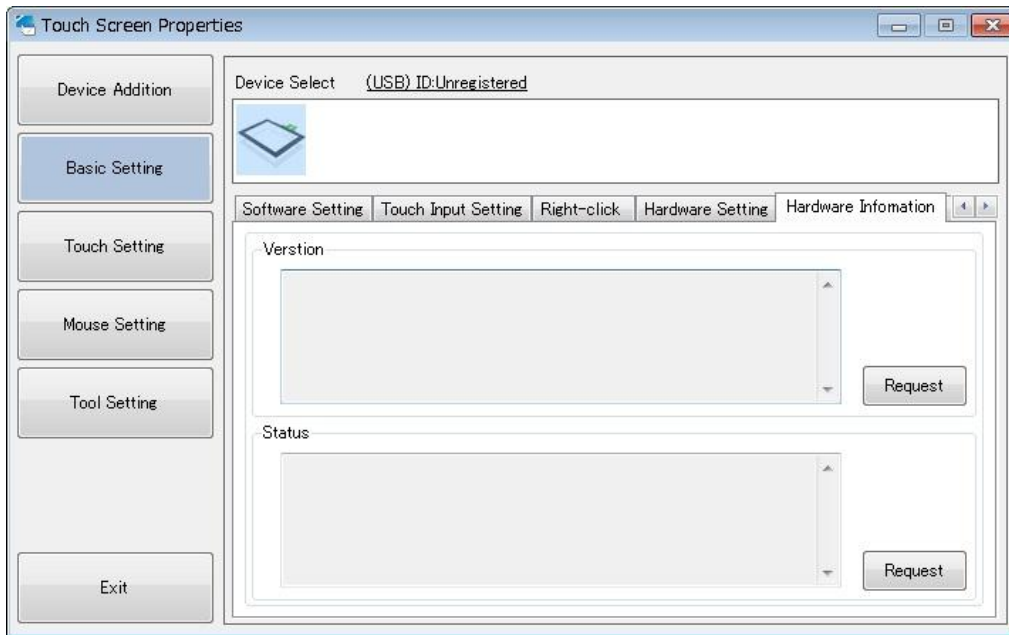
Maintenance Tool Screen



* The setting tool cannot be operated when the maintenance tool is open.

* The setting tool will end automatically.

8.5. Hardware Information



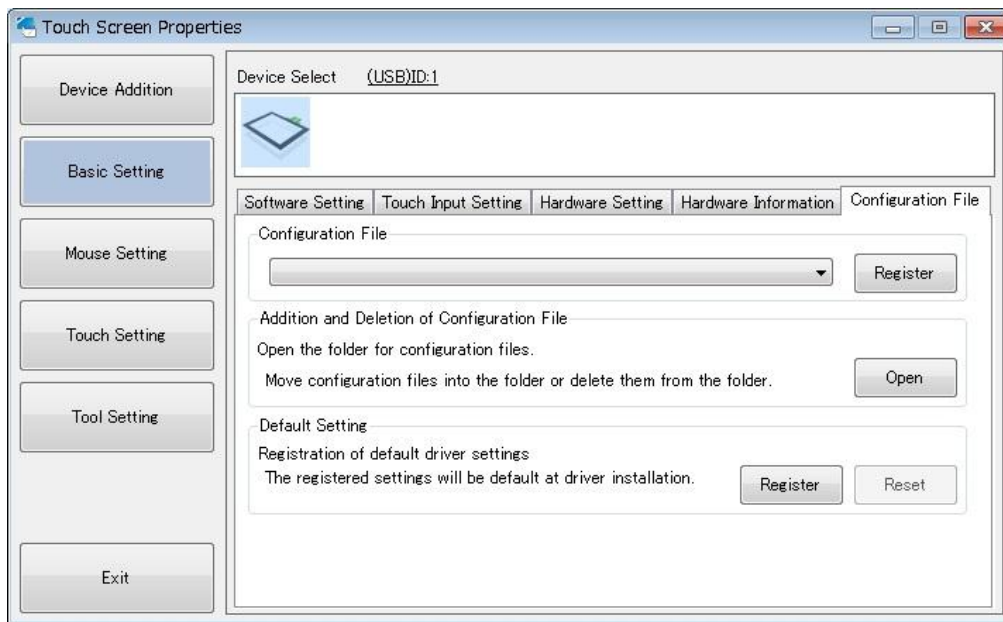
- **Version**

You may check the version of the controller or touch screen driver being selected. Click the [Request] button, then the controller version of the connected controller will be indicated.

- **Status**

You may check the status of the driver or touch screen controller being selected. Click the [Request] button, then the current status will be indicated.

8.6. Configuration File



- **Configuration File**

You may change the configuration file of the driver or touch screen controller being selected. Click the [Register] button after selecting the configuration file.

[Touch.mfd] : for using touch output

[mouse.mfd] : for using mouse output

The default configuration file is [Touch.mfd].

Please choose [Mouse.mfd] when you use this on Windows XP.

- **Addition and Deletion of the Configuration Files**

The configuration files can be added or removed on Explorer of Windows. Click the [Open] button.

This is not usually used.

- **Default Setting**

The default settings at initial connection will be registered. The setting items for registering the default values are as follows.

The registered settings will be used as the initial values at driver installation.

Software Setting [Inversion], [Rotation], [Touch Enabled], [Auto Rotation], [Calibrate]

Touch input Setting [Click Input], [Touch Sound]

Right-click Setting [Method of right-click], [Right-click detection time], [Right-click detection area]

Device Addition [Monitor configuration]

If you wish to delete the registered settings, click [Reset.]

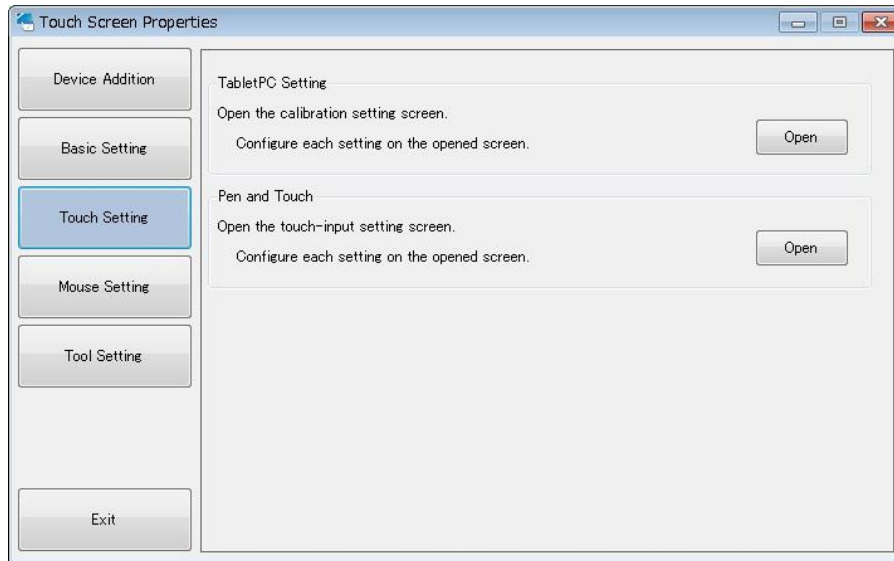
Note

Take note of the below if the default values are to be used under multi-monitor environment

Due to individual variability of monitors, calibration setting can be incorrect when default values are used. In this case, perform calibration for each controller.

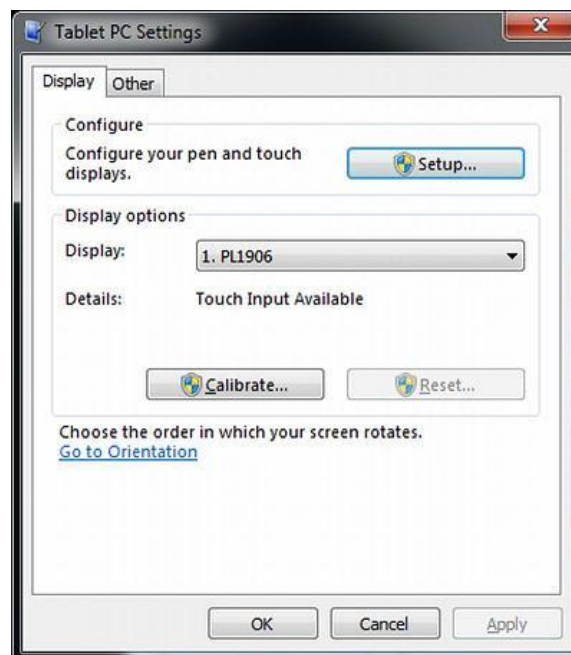
9. Touch Setting

The screen below will appear only under Windows7 or above.



- Tablet PC Settings

Click [Open], then the Windows standard setting screen will open.



Display configuration and calibration can be performed.

■ Pen and Touch

Click [Open], then the Windows standard setting screen will open.

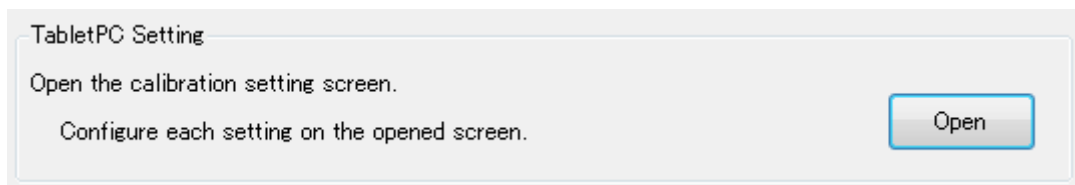


Touch input adjustment and flick/gesturing touch operation setting can be performed.

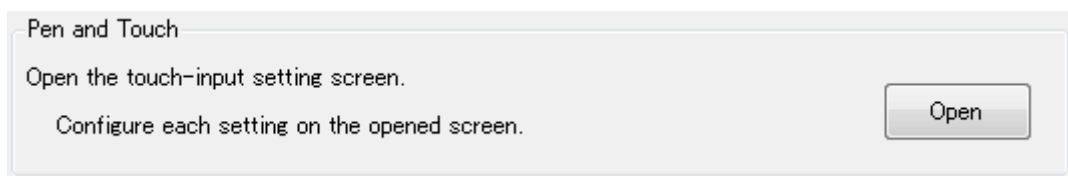
9.1. Touch Screen Configuration

If touch screen is to be used on Windows 7 or above, the following configuration will be required.

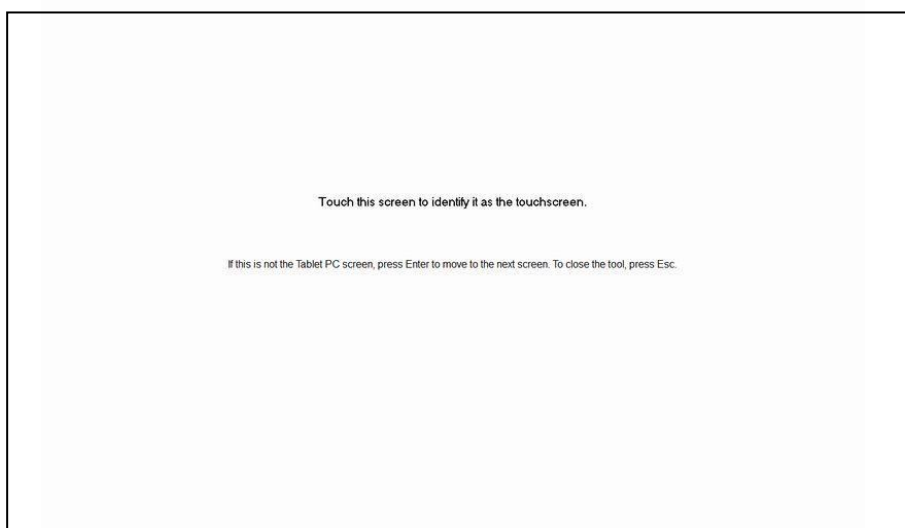
1. Click [Open] in [TabletPC Setting].



2. Select [Setup] in [Configure].



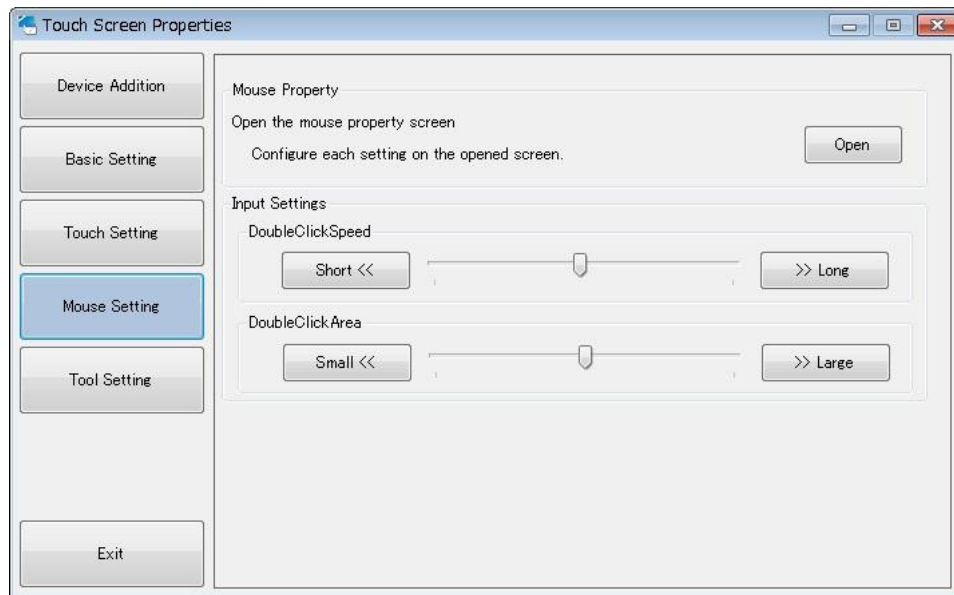
3. Touch the touch screen on which the message below is appearing.



4. Repeat the procedure 3 above as many as number of the displays.

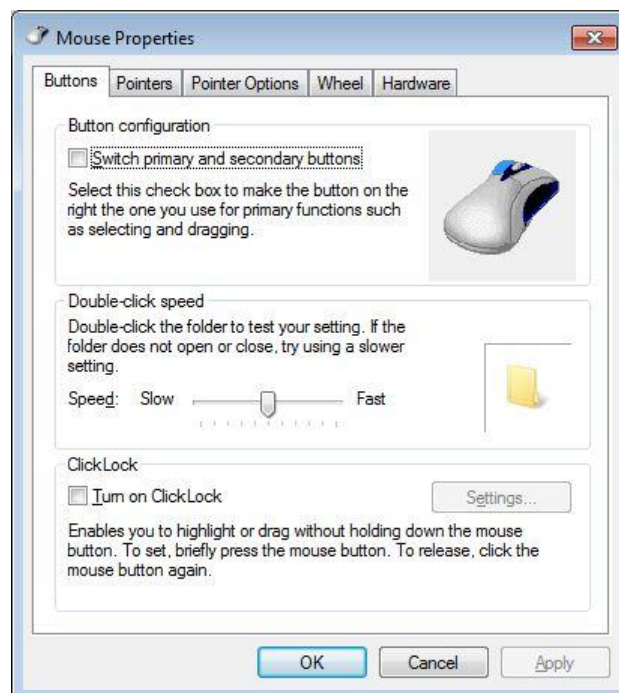
Once the setting above is completed, the cursor will become to appear on the monitors at touch.

10. Mouse Setting



■ Mouse Property

Click [Open] to open the Windows standard mouse property screen.



■ Input Settings

• Double-clickSpeed

Setting for interval of the time between 2 successive clicks to recognize double-click

• Double-clickArea

Setting for the area to recognize double-click (The area within which 2 successive clicks are recognized as double-click)

11. Tool Setting

Version information and setting will be indicated.



Version information of driver and the setting tool (Touch Screen Properties) can be checked.

■ Resident function

Some functions may require registration of resident function.

Configure enable/disable of the resident function in this screen if necessary

■ Resident function checkbox

[Checked]

Resident function will be enabled, and the function will be automatically performed at boot-up.

[Unchecked]

Resident function will be disabled.

*The resident function is disabled (unchecked) by default.

Resident function

When resident function is enabled, the following functions can be enabled at each setting screen.

1.Touch Sound

If [Software] or [File] is selected at [Touch Sound] setting, the touch sound configured at the setting will be played at touch.

->For how to configure the touch sound, refer to the section 8-2 [Touch Input Setting] in this manual.

2.Auto Rotation Function

This function is for mouse operation only.

For touch operation, output coordinates will be automatically rotated by Windows. Do not enable this function unless coordinates are not automatically rotated by Windows under an unusual environment.

■Note

If display setting (extend/duplicate) is changed, [Monitor Configuration] at [Device Addition] needs to be performed again. (Refer to the section 7-4 [Monitor Configuration] for details.

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