



Infrared TouchScreen Driver User Manual (For Windows)

Beijing IRTOUCHSYSTEMS Technology Co., Ltd

Directory

COPYRIGHT	1
CONTACT INFORMATION	2
1 INSTALLING DRIVER	3
1.1 CONVENTIONAL INSTALLATION	3
1.2 SILENT INSTALLATION	7
2 TOUCHSCREEN CONTROL PANEL	8
2.1 CALIBRATING.....	8
2.1.1 <i>Mapping</i>	8
2.1.2 <i>Full Calibrate and Region Calibrate</i>	9
2.1.3 <i>Reset</i>	11
2.2 SETTINGS.....	12
2.2.1 <i>Modes</i>	12
2.2.2 <i>Options</i>	13
2.2.3 <i>Sound</i>	16
2.3 DIAGNOSING	18
2.3.1 <i>Diagnose Device</i>	18
2.3.2 <i>Save Information</i>	21
2.3.3 <i>Send Feedback</i>	22
2.4 SUPPORTING	23
3 UNINSTALLATION	24
3.1 CONVENTIONAL UNINSTALLATION.....	24
3.2 SILENT UNINSTALLATION	25
ATTACHMENT - GENERAL SETTING OF THE TOUCHSCREEN (AS REFERENCE)	26

Copyright

PLEASE READ THIS AGREEMENT CAREFULLY BEFORE USING THE DRIVER.

THE PROGRAM WILL BE LICENSED TO YOU ONLY IF YOU FIRST ACCEPT THE TERMS OF THIS AGREEMENT. BY USING THE PROGRAM YOU AGREE TO THESE TERMS. IF YOU DO NOT AGREE TO THE TERMS OF THIS AGREEMENT, PROMPTLY RETURN THE UNUSED PROGRAM TO THE PARTY FROM WHOM YOU ACQUIRED IT TO RECEIVE A REFUND OF THE AMOUNT YOU PAID.

The Program is owned by Beijing IRTOUCHSYSTEMS Technology CO., LTD. (IRTOUCH) or one of its DISTRIBUTORS (IRTOUCH) or supplier, and is copyrighted and licensed, not sold.

The term "Program" means the original program and all whole or partial copies of it. A Program consists of machine-readable instructions, its components, data, audio-visual content (such as images, text, recordings, or pictures), and related licensed materials.

1. LICENSE

IRTOUCH grants you a nonexclusive license to use the Program.

You may 1) use the Program to the extent of authorizations you have acquired and 2) make and install copies to support the level of use authorized, providing you reproduce the copyright notice and any other legends of ownership on each copy, or partial copy, of the Program.

If you acquire this Program as a program upgrade, your authorization to use the Program from which you upgraded is terminated.

You will ensure that anyone who uses the Program does so only in compliance with the terms of this Agreement.

You may not 1) use, copy, modify, or distribute the Program except as provided in this Agreement; 2) reverse assemble, reverse compile, or otherwise translate the Program except as specifically permitted by law without the possibility of contractual waiver; or 3) sublicense, rent, or lease the Program.

TRANSFER OF RIGHTS AND OBLIGATIONS

You may transfer all your license rights and obligations under the written permission by IRTOUCH for the Program to another party. The transfer of your license rights and obligations terminates your authorization to use the Program.

2. GENERAL

Nothing in this Agreement affects any statutory rights of consumers that cannot be waived or limited by contract.

IRTOUCH may terminate your license if you fail to comply with the terms of this Agreement. If IRTOUCH does so, you must immediately destroy the Program and all copies you made of it.

ANY ACTION OF INFRINGING THE COPYRIGHT AGREEMENT WILL BE SUED FOR.

3. TRADEMARK ACKNOWLEDGEMENTS

IRTOUCH is registered trademark by Beijing IRTOUCHSYSTEMS Technology Co., Ltd, Any company or individual will not have right to use, copy, modify, excerpt, sale the all parts of the brand or without any written-permission by IRTOUCHSYSTEMS.

Contact Information

If you have any other enquiries or questions, please feel free to contact with us:

Beijing IRTOUCHSYSTEMS Technology Co., Ltd

Address: 4th Floor, M8 Building, NO 1 East Jiuxianqiao Road, Chaoyang District, Beijing, P.R.China

Code: 100015

Customer server line: +86-10-84573457

E-mail: service@irtouch.com


Technical support line: +86-10-84573166 +86-10-84571219

E-mail: tech@irtouch.com

Website: www.irtouch.com

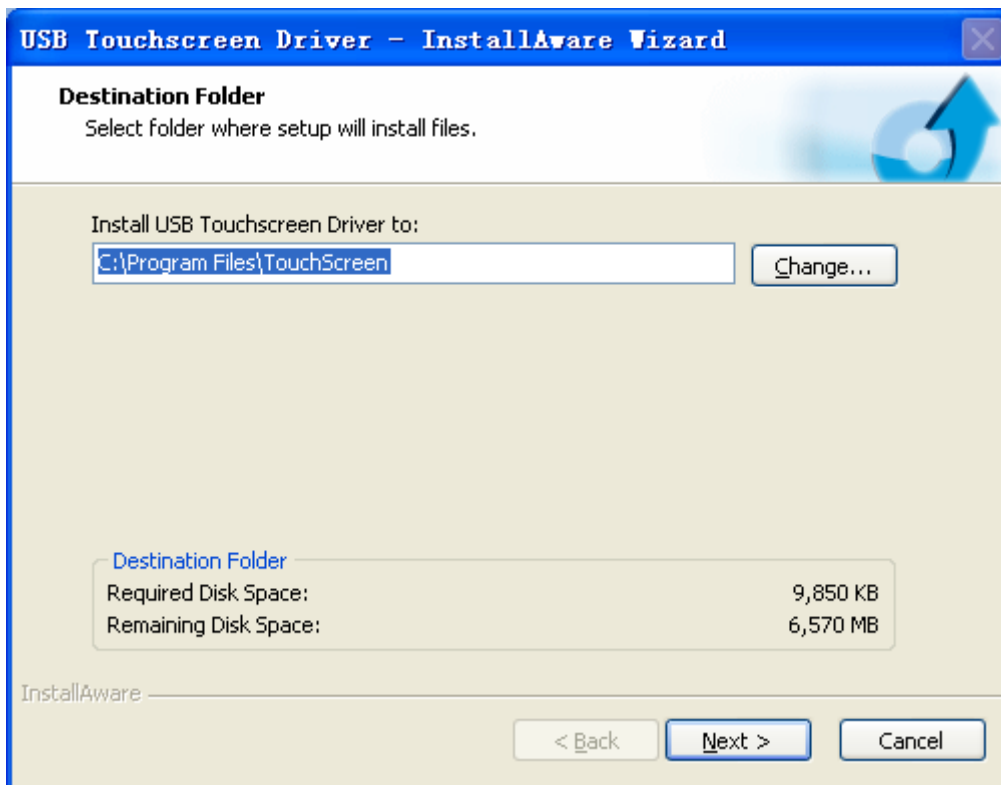
1 Installing Driver

1.1 Conventional Installation

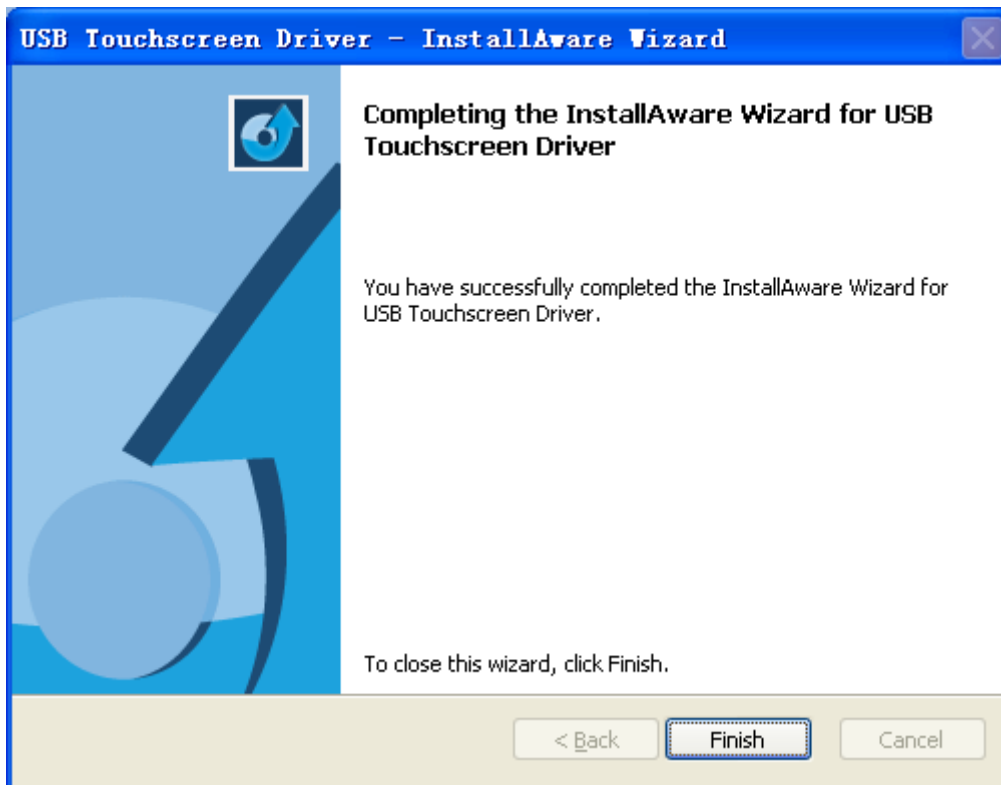
Step1: Double-click driver installation “setup.exe”  , interface into the driver installation;

Notes: If your computer system is Windows Vista, please right click “setup.exe” and choose “Run as Administrator”.

Step2: The default installation path of the driver is “C:\Program Files\TouchScreen”, you can click “Change...” to select another installation path, and then click “Next”, as shown in:



Step3: Driver installation is complete, click “Finish” to close the wizard, as shown in:



Step4: Plug the end of the USB connecting line to the USB port of the computer, then toolbar at the lower right corner of the computer prompts: “Found New Hardware”, as shown in the following figure. The new hardware is installed and ready to use:

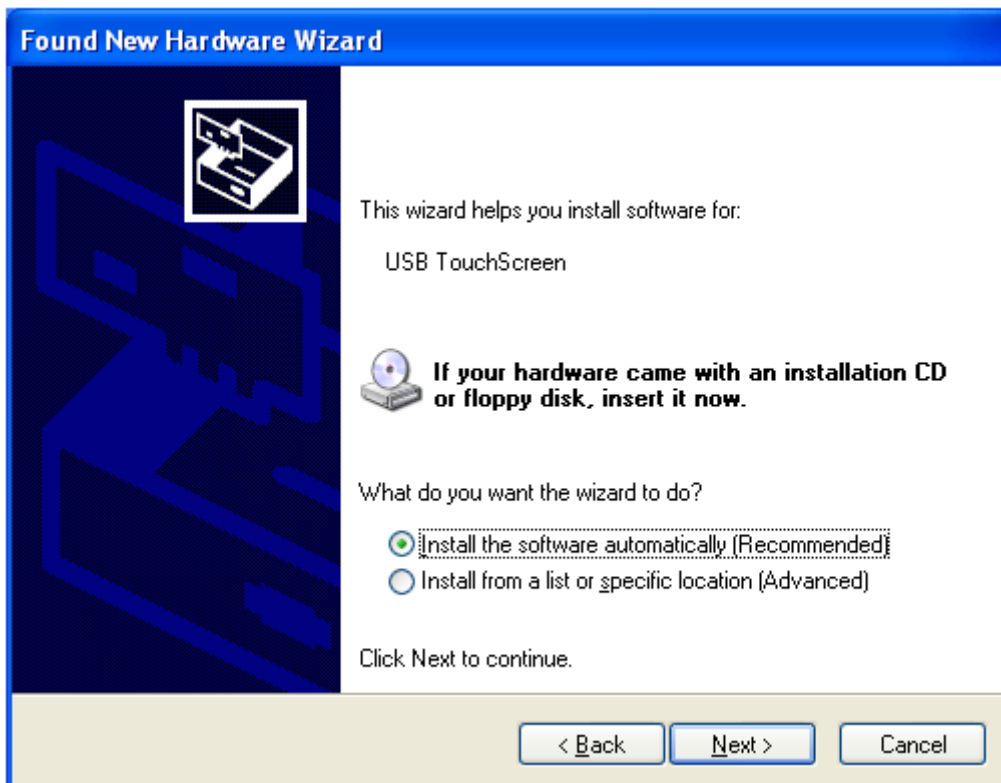


Notes: Now the driver has been installed to your computer, system will automatically retrieve the driver. But it is suggested that you restart your computer and please wait 5 seconds before you use the touchscreen. And moreover, some computers need to take the following steps to find the new driver.

Step5: In the pop-up “Found New Hardware Wizard” window, choose “No, not this time”, and then click “Next” to continue, as shown in:



Step6: Choose “Install the software automatically”, and then click “Next”, as shown in:



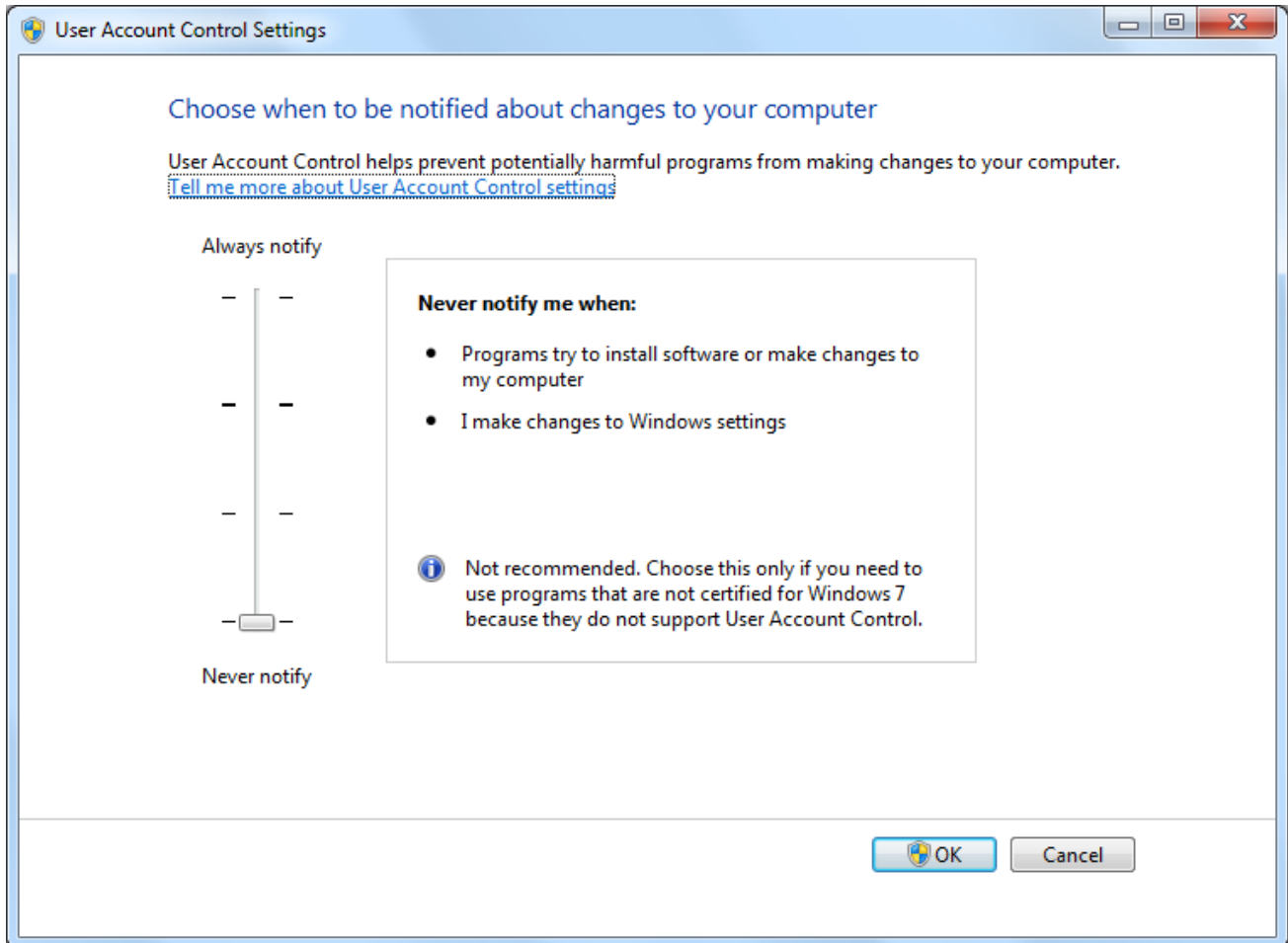
Step7: Click “Finish” to complete the driver installation, as shown in the following figure. Toolbar at the lower right corner of the computer prompts:”Found New Hardware”, the new hardware is installed and ready to use:



Notes: *If hardware compatibility warning appears during the installation, please click “Continue Anywhere”, as shown in:*



Notes: In order to use the driver better, for Windows Vista and above computer operating editions, it is suggested that you close UAC (User Account Control). Method is as follows: open “Control Panel”-“User Accounts”-“User Account Control Settings”, choose “Never notify” from “Choose when to be notified about changes to your computer”, as shown in:



1.2 Silent Installation

Step1: Follow “Start”-“Run” and input “cmd” to enter DOS operating environment;

Step2: Input the driver installation package folder’s path, and then click “Enter”;

Step3: Run the following command line and then click “Enter” to start install the driver:

`setup.exe /S`

setup.exe is the name of the driver installation file.

2 TouchScreen Control Panel



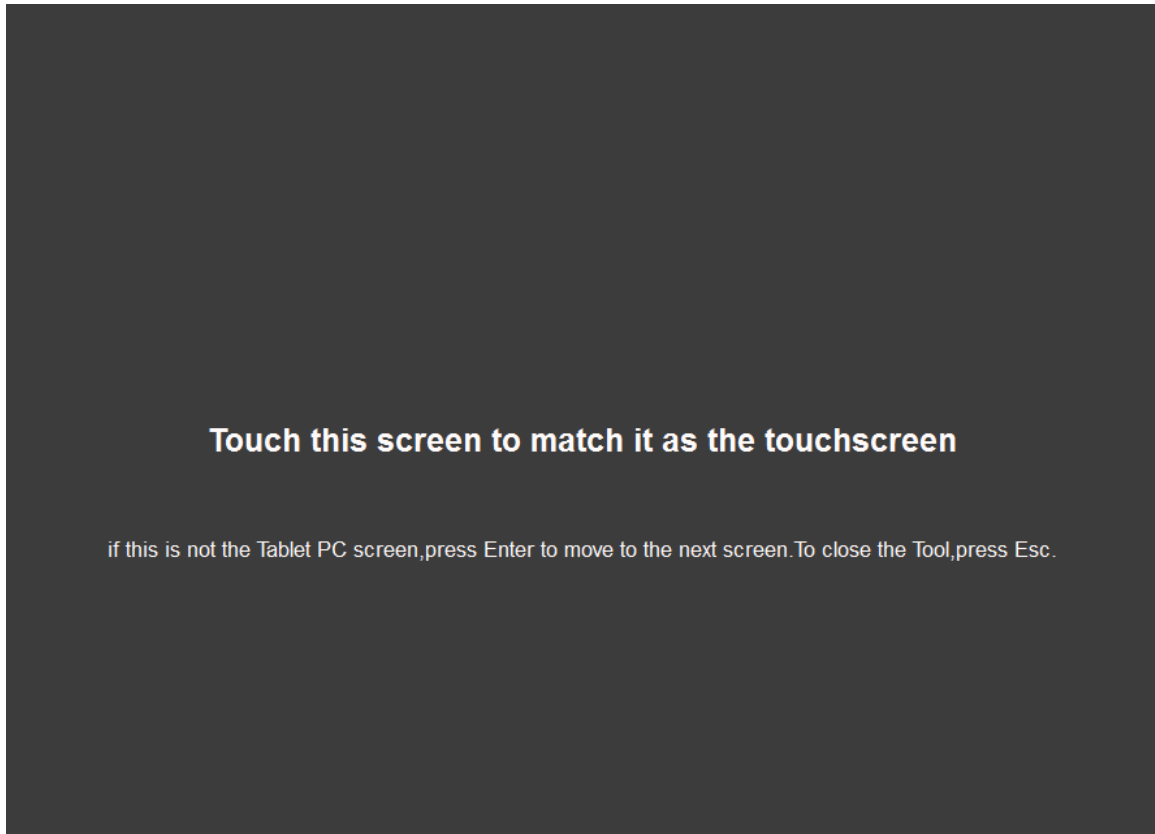
Double-click the shortcut button on the desktop, open the TouchScreen Control Panel, as shown in:



2.1 Calibrating

2.1.1 Mapping

TouchScreen Control Panel provides adjustment and configuration with touchscreens, and supports compatibility of multi-touchscreens at the same PC. The panel shows the basic information of the touchscreen and calibration. If several touchscreens are mounted on the PC and the system is set to “multi-screens display”, then all the touchscreens will be shown in the Touch Screen List. Before calibrate each touchscreen, you need to set the corresponding relationships between the monitors and the touchscreens, otherwise the touchscreens won’t work. The method is: click [**Calibrating**] - [**Mapping**] button on TouchScreen Control Panel, the setting window pops up, as shown in:



According to the steps that click on the touchscreen and click "ENTER" to complete mapping. Match numbers of the touchscreens to the monitor numbers, that is match the touchscreen now being clicked to the monitor showing text. After you have set the corresponding relationships between the monitors and the touchscreens, save and exit.

Notes: Windows 7 computer systems have the function of "Multi-touchscreen" (Mapping), which is not supported by Windows XP. So for Windows 7 computer systems, users can use the function of "Multi-touchscreen" comes with the systems. But for Windows XP computer systems, only HID mouse device is a kind of multi-touch device, so this function is not supported in Windows XP.

2.1.2 Full Calibrate and Region Calibrate

After setting the corresponding relationships between the monitor and the touchscreen, you can calibrate each touchscreen. The method is to choose a touchscreen from the list, click [**Calibrating**] - [**FullCalibrate**] , [**Calibrating**]-[**RegionCalibrate**] and the calibration window appears, as shown in:



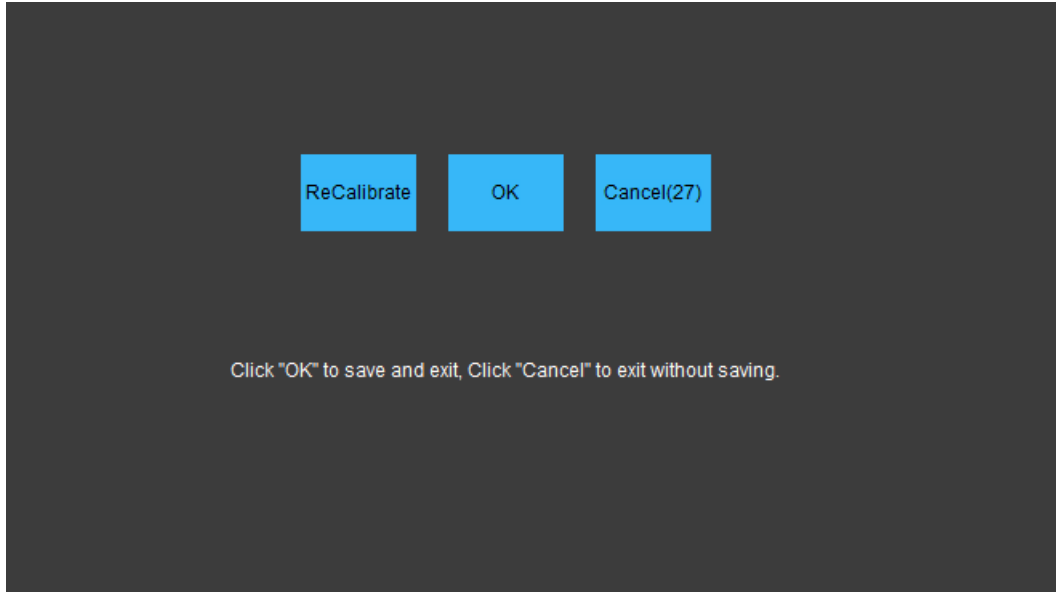
Click center of the butt mark, don not lift your finger until data of the point has been collected. Collect data of each calibration point one by one in the same way to calibrate the touchscreen.

There are optional two ways of calibration: 4 points and 25 points. See “2.2.2.Options” for reference.

When calibrating, you can press “Backspace” key to return to the previous calibration point and restart to calibrate from that point.

When calibrating, you can press “Esc” key to exit.

After calibration, three buttons appear, as shown in:



- ① **[ReCalibrate]**: to calibrate again;
- ② **[OK]**: to save the calibration result and exit;
- ③ **[Cancel]**: to exit without saving the calibration result.

After calibration, The **[Reset]** button is enabled.



2.1.3 Reset

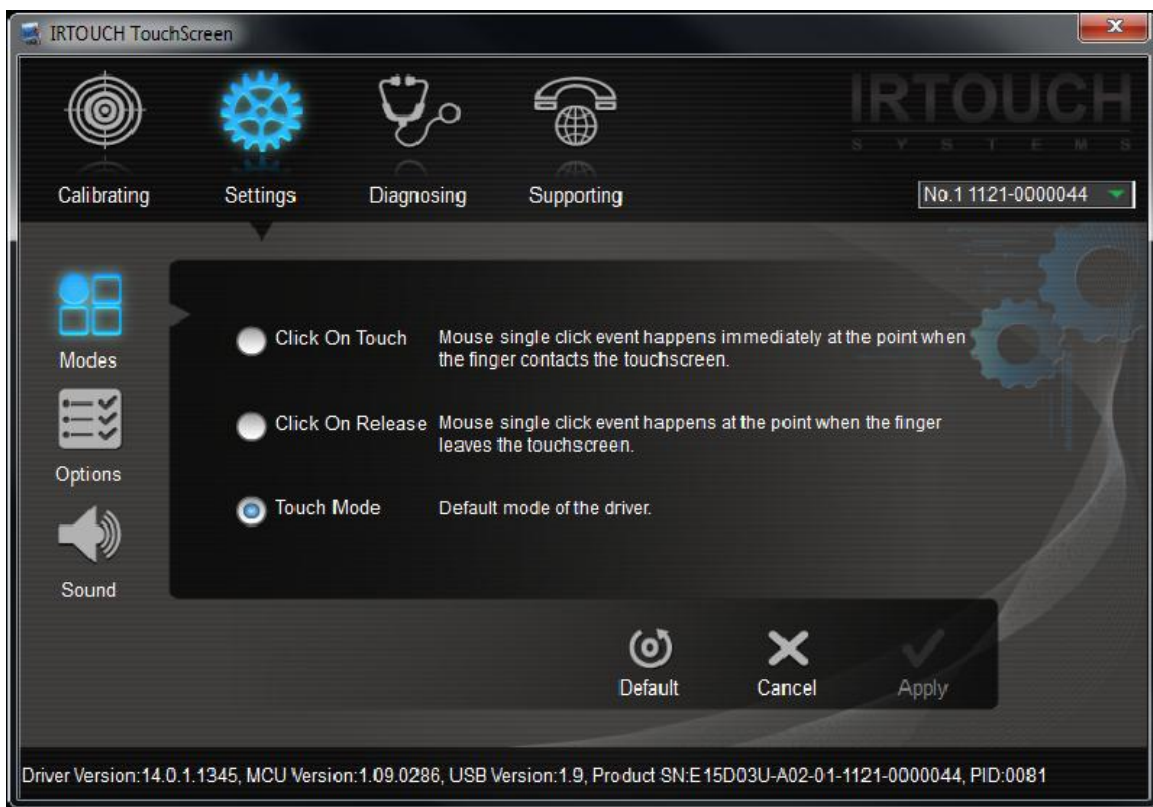
Choose a touchscreen from the list, click **[Calibrating]** - **[Reset]** to abandon the previous calibration result and use the default calibration data. The Reset button is disabled.

2.2 Settings

Notes: For the detailed descriptions of those functions, you can refer to the introduction of the rest of this chapter. You can flexibly set related parameters according to hardware statuses and external factors, so as to achieve the best practical effects. See “Attachment - General setting of the touchscreen (As reference)” for reference.

2.2.1 Modes

Click the [Settings] - [Modes] button on the TouchScreen Control Panel, the “Modes” panel appears, as shown in:



There are three touch modes:

1. Click on Touch:

Mouse single click event happens immediately at the point when the finger contacts the

touchscreen. The mode is applied only to click objects, but not to drag objects. Touchscreens in the mode responds fastest and are usually used for clicking big buttons. Under this mode, Beep mode that can be used is only “Beep on Touch”.

2. Click on Release:

Mouse single click event happens at the point when the finger leaves the touchscreen. You can move the pointer or finger without lift until you accurately hitting the object that you want to click. Touchscreens in the mode are usually used for clicking small buttons or clicking hyperlinks on a Web page, such as POS and Web applications. Under this mode, Beep mode that can be used is only “Beep on Release”.

3. Mouse Emulation:

Default mode of the driver. Full emulation of mouse functions, including left-clicking, moving, lifting, and dragging objects. The mode is very suitable to the following applications: writing, drawing, and dragging maps. Under this mode, you can choose any mode among the three Beep modes.

Tips: For Windows 7 computer systems, the option is “Touch Mode”.

2.2.2 Options

Click the [Settings] - [Options] button on the TouchScreen Control Panel, the “Options” panel appears, as shown in:



1. Enable Touch:

Enable (default)/disable touchscreen.

2. Hide Cursor:

Hide cursor without turn off the mouse functions. Because mouse cursor is not necessary in some cases, such as clicking big buttons, playing animations and children education in “Click on Touch” mode.

Notes: For Windows 7 computer systems, the function of “Hide Cursor” is gray and not optional. If you need, please use the similar functions of the operating systems’. There are two reasons why “Hide Cursor” is not optional in Windows 7: (1) Dynamic mouse pointer is not easy to forbid or replace in Windows 7; (2) If “Hide Cursor” is forced to run, it will seriously affect the human-computer interaction experience of gesture recognition in Windows 7.

3. Enable Right Click:

Enable (default)/disable right click function. Click and press on any area of the screen for a while, then the right-click pop-up menu will appear. This function is only available in “Touch Mode” mode.

You can set the features of the function in “Right Click Settings” on the right side of the panel. See “4 Right Click Settings” for reference.

4. Right Click Settings

You can set the features of the function in “Right Click Settings” on the right side of the panel:

- ① **Delay:** to set the pop-up time, the higher the value, the slower the pop-up time, range from 1000~8000 (unit: millisecond).
- ② **Area:** to adjust the jitter-range of the touch surface within limit of error, the higher the value, the wider the jitter-range, range from 4~32 (unit: millimeters).

After setting, right-click menu will pop up so long as the finger contacts the screen for a while (Delay) within the range (Area).

5. Enable Antishake:

Enable (default)/disable antishake function. When this option is checked, you can set the value of the smoothness. See “6. Smoothness Settings” for reference.

6. Smoothness Settings

You can drag the slider to adjust the value of the smoothness, from 0 to 12.

Tips: The higher value of the smoothness, the better effect of writing or drawing, but the higher requirement of the computer system configuration. The lower value of the smoothness, the faster of writing or drawing. It is recommended that you use the default setting (the value set to 1).

7. Touch Sensitivity Settings

Through touch sensitivity settings, you can set a number of touch delay (Delay) to allow a time for

the fingers' lifting and dropping when touching. You can also set an allowed touch scope (Area) as the fingers' stay area.

You can set the features of the function in "Touch Sensitivity Settings" on the right side of the panel:

- ① **Delay:** to adjust the number of touch delay, the higher the value, the longer the delay time, range from 50~1000 (unit: millisecond).
- ② **Area:** to adjust the effective area of the touch scope, the higher the value, the wider the effective area, range from 0~50 (unit: millimeter).

8. Calibrate Settings

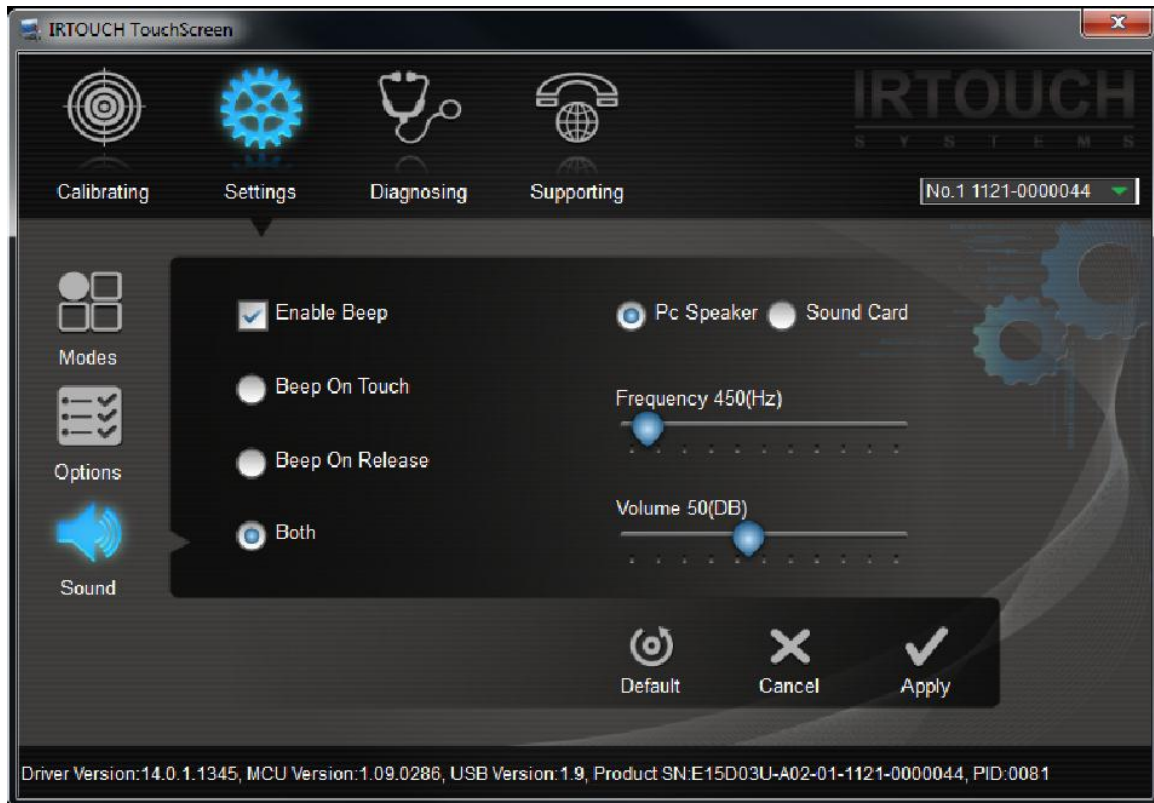
There are optional two ways of calibration:

- ① **4 Points:** 4 points calibration.
- ② **25 Points:** 25 points calibration.

By default, 4 points calibration is used.

2.2.3 Sound

Click the [Settings] - [Sound] button on the TouchScreen Control Panel, the "Sound" panel appears, as shown in:



1. Enable Beep:

After checking the option, Beep mode enables. As a result, when mouse click event happens, a sound tip prompts.

You can set the features of the function in “Beep Mode” and “Beep Type Settings” on the right side of the panel. See “2 Beep Mode setting” and “3 Beep Type Settings” for reference.

2. Beep Mode Settings:

- ① **Beep On Touch:** sound tip prompts immediately when the finger contacts the touchscreen.
- ② **Beep On Release:** sound tip prompts at the point when the finger leaves the touchscreen.
- ③ **Both:** sound tip prompts when the finger contacts and leaves the touchscreen. Under this mode, only “Touch Mode” can be used.

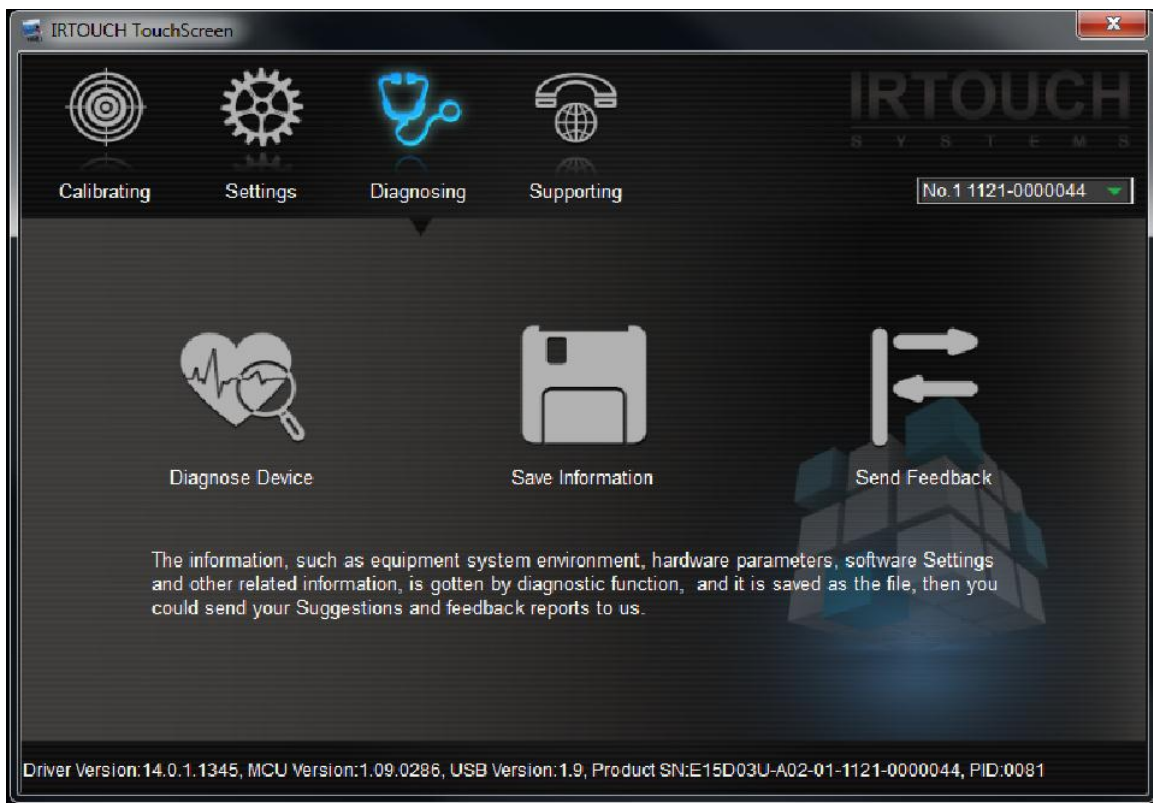
3. Beep Type Settings:

- ① **PC Speaker:** send out beep through the default PC card, and you can adjust the frequency (Frequency) and duration (Duration) of beep to change the sound.
- ② **Sound Card:** send out sound through the sound card.

Notes: "PC Speaker" and "Sound Card" are mutually exclusive, you can only choose one of them. And for Windows XP and Windows Vista of 64 bits, "PC Speaker" is not supported.

2.3 Diagnosing

Diagnosing is used to get information, such as equipment system environment, hardware parameters and software settings. Those information is saved as a file then you can send your suggestions and feedback reports to us. Click the [**Diagnosing**] button on the TouchScreen Control Panel, the "Diagnosing" panel appears, as shown in:



2.3.1 Diagnose Device

TouchScreen Control Panel provides diagnosis to touchscreens, it obtains the operating system

version, touch screen software version, touch screen system service status, touchscreen attributes, and touchscreen communication status, touchscreen drive configuration, work mode, physical parameters, the firmware version, USB version, bar code information, etc. The method is: click **[Diagnosis]** - **[Diagnostic Equipment]** for completing diagnosis function, there is the text appeared operation executing operation in the diagnosis process below the panel.

The diagnosis result is as follows,

```
Microsoft Windows [Version 6.1.7600]
TouchScreen Driver version is 14.0.1.1345.
Service Diagnose start...
open SCManagersuccess.
OpenService success.
Get Service state success.
Service state running.
Close SCManager success.
Close service success.
Service Diagnose finished.

Device attributes Diagnose start...
The TouchScreen device could be touched.
The TouchScreen device is ready.
The TouchScreen device is multi-touch.
The TouchScreen device is Integrated touch.
The TouchScreen device support 2 points.
Device attributes Diagnose finished.

Communication Diagnose start...
Open the TouchScreen device success.
0xAA 0x01 0x71 0x02 0x81 0x00 0xF4
Send command packet success.
0xAA 0x10 0x71 0x01 0x81 0x02
Command packet get is correct.
close the TouchScreen device success.
Communication Diagnose finished.
```

ReadParameters Diagnose start...

Open the TouchScreen device success.

TouchScreenProductId is TUC_PRODUCTID_0x0081

Driver Config :

- mode : Touch Mode
- EnableTouch : TRUE
- EnableRightClick : TRUE
- CalibrateType : 4 points
- EnableDoubleClick : TRUE
- HideCursor : FALSE
- EnableBeep : FALSE
- BeepType : PC speaker
- BeepMode : Both
- BeepFrequency : 450
- BeepDuration : 50
- Smoothness : 12
- RightClickTime : 10
- RightClickArea : 36
- DoubleClickTime : 0
- DoubleClickArea : 0
- Antijamming : FALSE
- EnableAntishake : TRUE

work mode : Touch.

CPU Id : 57105427-30325030-066F0038

Interface type : Windows Driver.

Physic Parameters :

- DefaultOrigin : error
- PhysicalOrigin : error
- width : 474
- height : 296
- horizontal light : 75
- vertical light : 47
- max points : 2
- scan method : 0
- scan interval : 0

Customized : 52
horizontal left invalid interval : 0.00
horizontal right invalid interval : 0.00
vertical top invalid interval : 0.00
vertical bottom invalid interval : 0.00
horizontal light interval : 0.00
vertical light interval : 0.00
margin used under windows 8 : 0.00
offset used under windows 8 : 0.00

White board :

nCount : 0
nPos : 0
dLeftInterv : 0.00
dDownInterv : 0.00
dUpInterv : 0.00
dMidInterv : 0.00
dWidth : 0.00
dHeight : 0.00
dRightInterv : 474.00
nScrWidth : 474
nScrHeight : 296

close the TouchScreen device success.

ReadParameters Diagnose finished.

SoftwareVersion Diagnose start...

Open the TouchScreen device success.

TouchScreen MCU version is 2.00.0396.

TouchScreen USB version is 2.0.

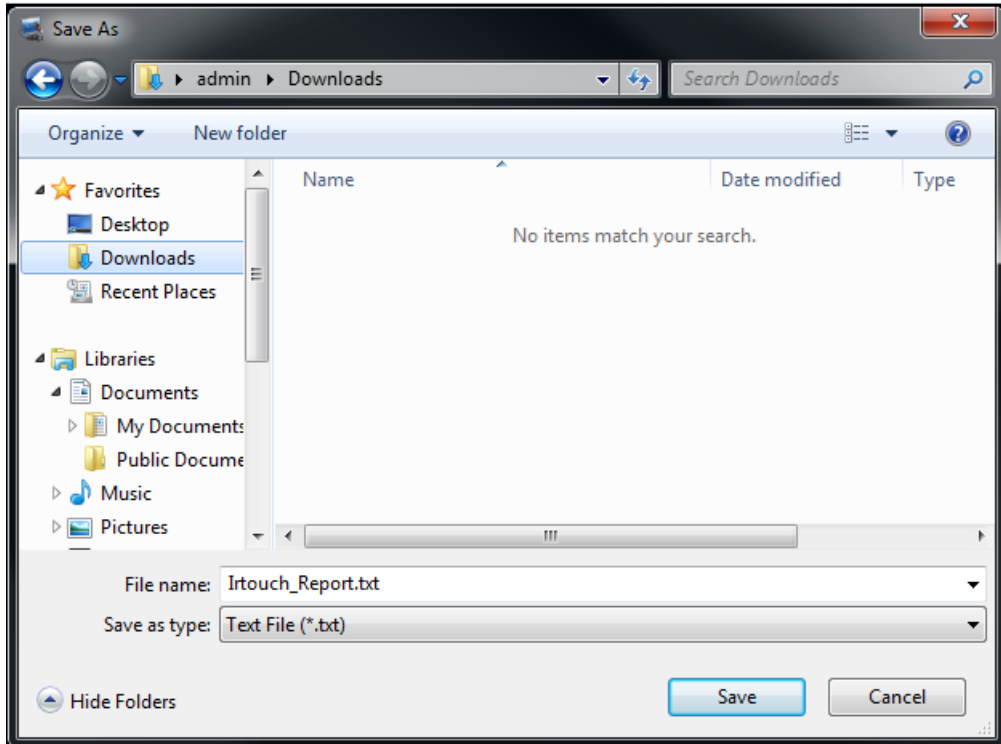
TouchScreen Barcode is K22D03U-A02-01-1241-01000007S.

close the TouchScreen device success.

SoftwareVersion Diagnose finished.

2.3.2 Save Information

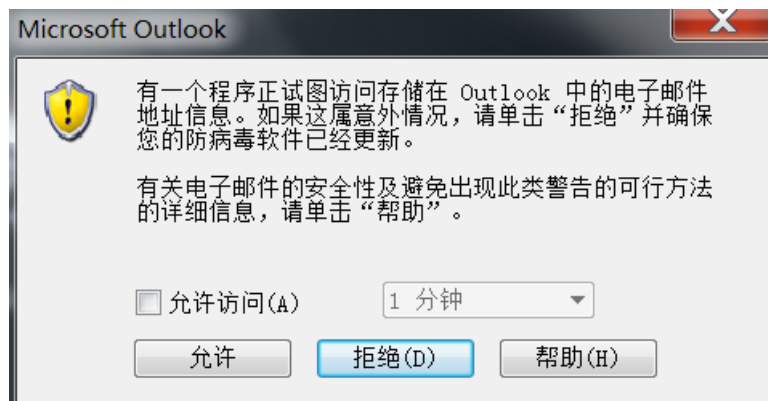
Click the [**Diagnosing**] – [**Save Information**] button on the TouchScreen Control Panel, the “Save information” panel appears, as shown in:



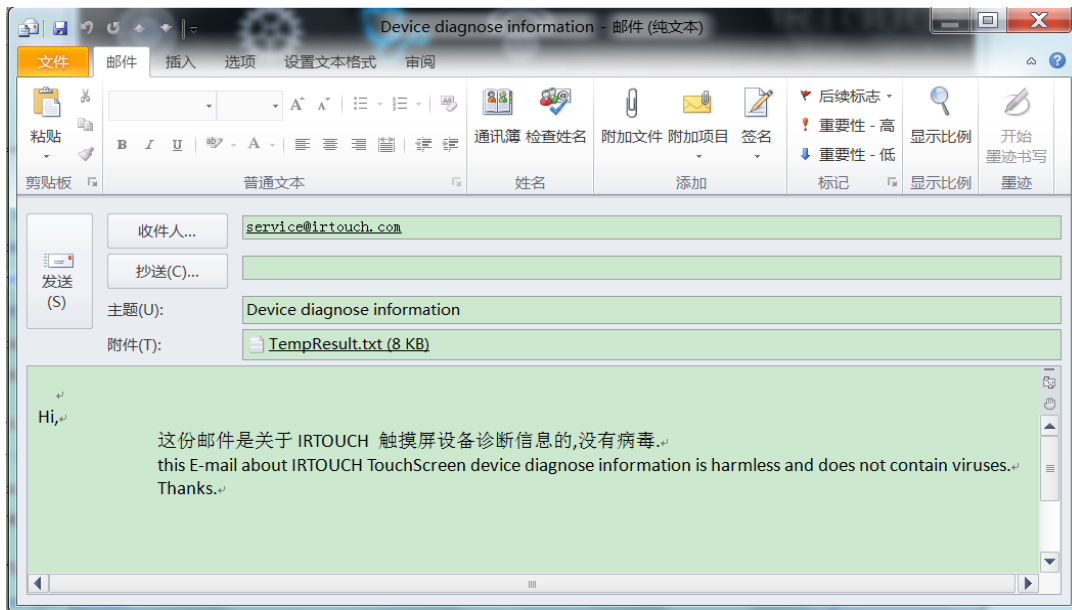
The result can be saves to the specified folder.

2.3.3 Send Feedback

Click the [**Diagnosing**] – [**SendFeedback**] button on the TouchScreen Control Panel, the “Save information” panel appears, as shown in:



Click the [**Allow Access**] button on the panel, the “Email Client” appears, as shown in:



Click “Send” to send the feedback as a mail.

2.4 Supporting

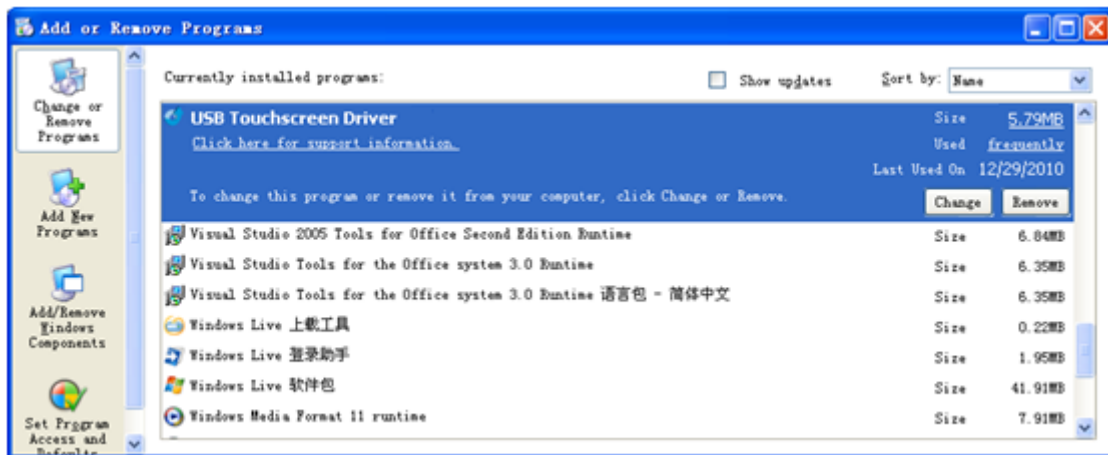
Click the [**Supporting**] button on the TouchScreen Control Panel, the “Supporting” panel appears, as shown in:



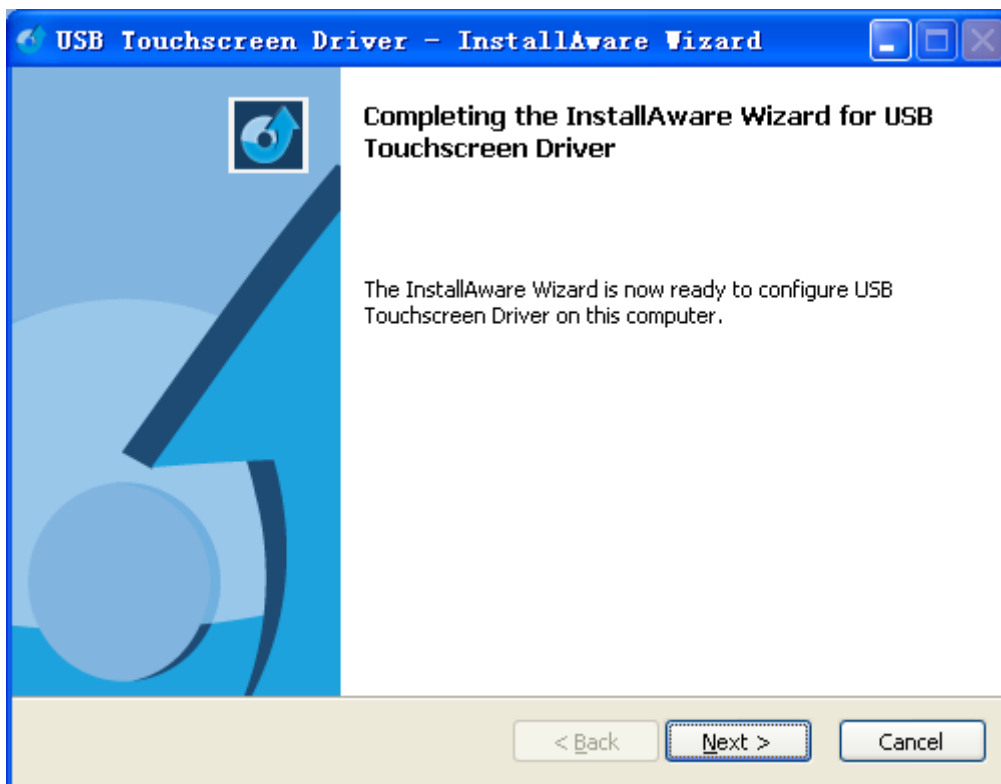
3 Uninstallation

3.1 Conventional Uninstallation

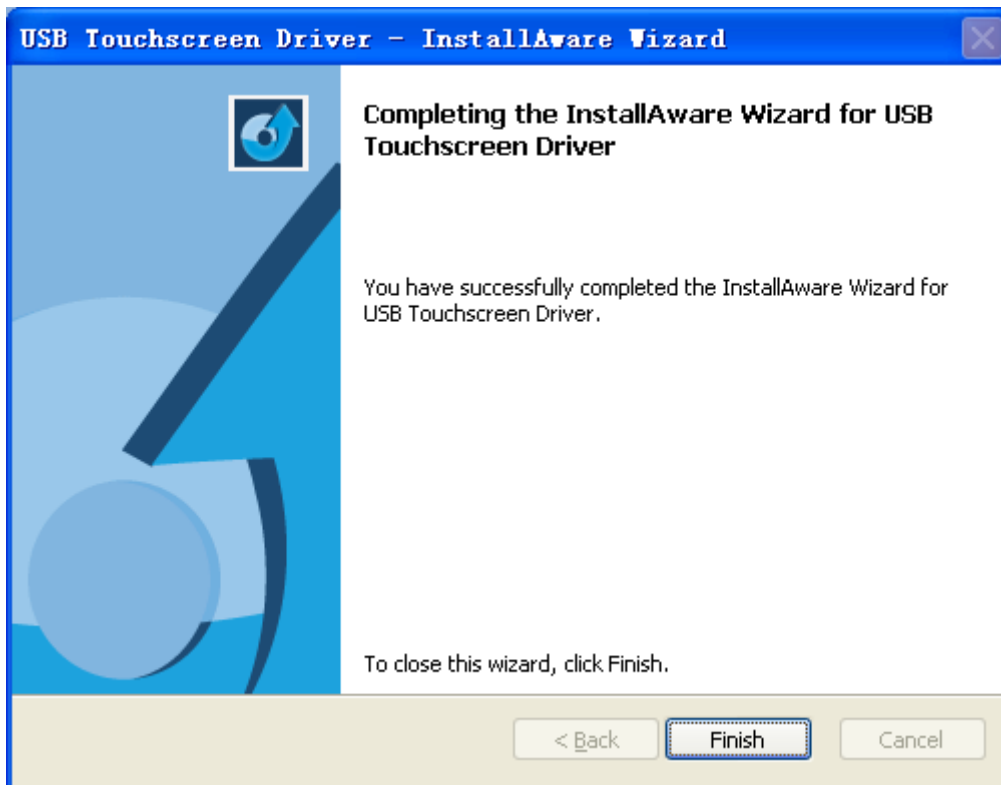
Step1: Click “Control Panel”-“Add or Remove Programs”, select “USB TouchScreen Driver” from the list, then click “Remove” button to uninstall the driver, as shown in:



Step2: Click” Next” to start the uninstallation driver, as shown in:



Step3: Driver uninstallation is complete, click “Finish” to close the wizard, as shown in:



3.2 Silent Uninstallation

Step1: Follow “Start”-“Run” and input “cmd” to enter DOS operating environment;

Step2: Input the driver installation package folder’s path, and then click “Enter”;

Step3: Run the following command line and then click “Enter” to start uninstall the driver:

setup.exe /s MODIFY=FALSE REMOVE=TRUE UNINSTALL=YES

setup.exe is the name of the driver installation file.

Attachment - General setting of the touchscreen (As reference)

Select “**Mouse Emulation**” mode, then check “**Enable Touch**”, “**Enable Right Click**” and “**Enable Antishake**” in “Options”. Whether checking “**Hide Cursor**” or “**Enable Beep**” depends on your actual conditions.

Setting Description:

1. Touch Sensitivity Settings:

Through touch sensitivity settings, you can set a certain time and scope for the fingers’ lifting and dropping when touching. In general, “**Delay**” is set to 300ms (0.3 second), “**Area**” is set to 8mm.

2. Right Click Settings:

Click and press on any area of the screen for a while, then the right-click pop-up menu will appear. This function is only available in “Touch Mode” mode. In general, “**Delay**” is set to 1000ms (1 second), “**Area**” is set to 8mm.

3. Smoothness Settings

You can drag the slider to adjust the value of the smoothness, from 0 to 12. The higher value of the smoothness, the better effect of writing or drawing, but the higher requirement of the computer system configuration. The lower value of the smoothness, the faster of writing or drawing. It is recommended that you use the default setting (the value set to 12).

(Please refer to the User Manual for detailed information.)