

Infrared TouchScreen Driver

User Manual

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1 Precautions

- ◆ Touchscreen is made of glass material. It's easily breakable from dropping or impact, please handle it with care.
- ◆ Please pull the plug and contact the sales dealer immediately when you smell a bit of unpleasant odor out of touchscreen.
- ◆ Please do not plug-in and plug-out frequently when the computer is on.
- ◆ Please clean the front and rear surface of touchscreen in order to make it best performance.
- ◆ Please do not screw it tight when mounting the touchscreen (i.e. it is desirably fixed up) for fear of deformation.
- ◆ Please contact the sales dealer if there are not adequate components to your touchscreen.
- ◆ New touch screen system comprising of: package contents including touchscreen and PC connection cables, quality-assured card, installation disc including driver and manual.

2 Package contents

Touchscreen

PC connection cables (USB or serial cable, depending on the model you chose)

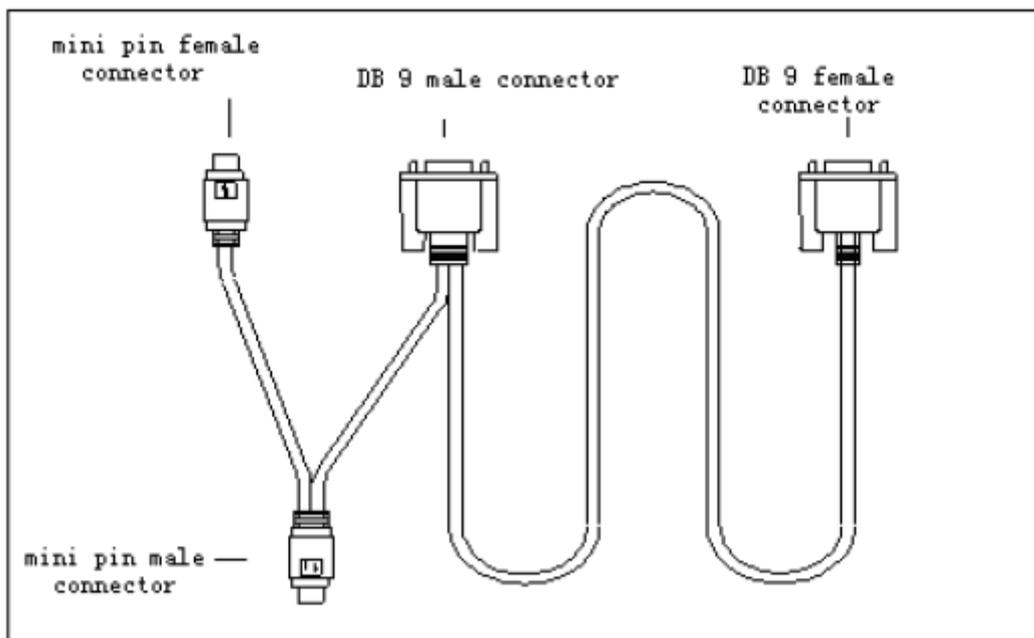
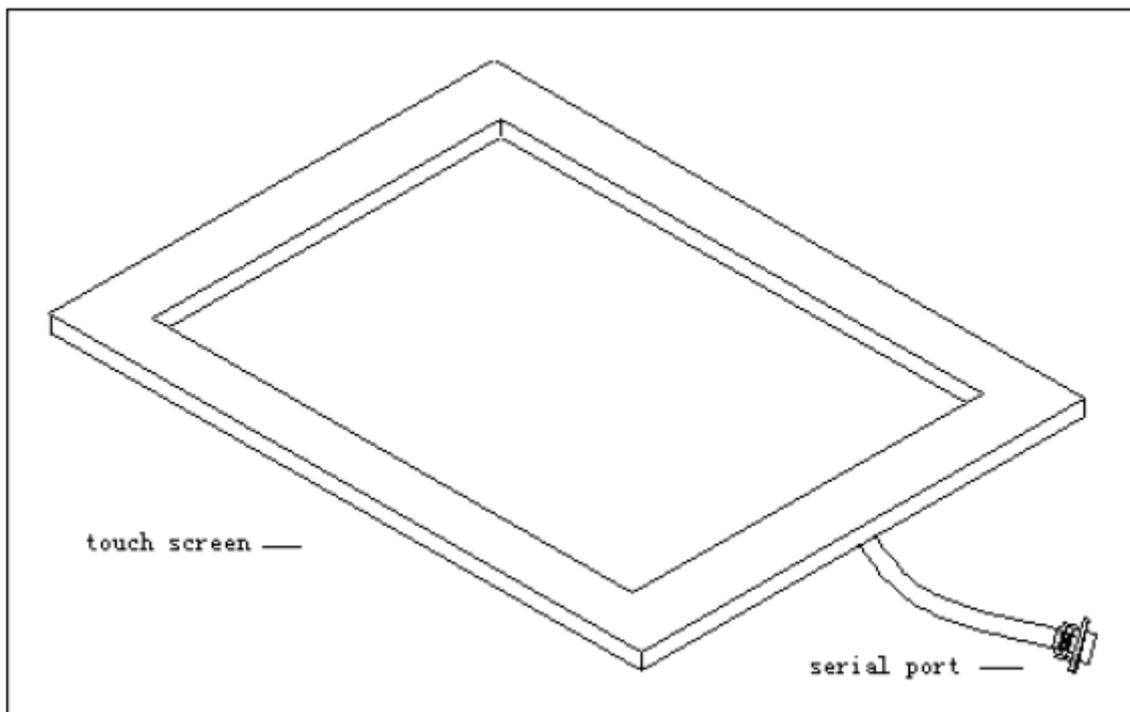


FIG (1) (2) - Serial cable

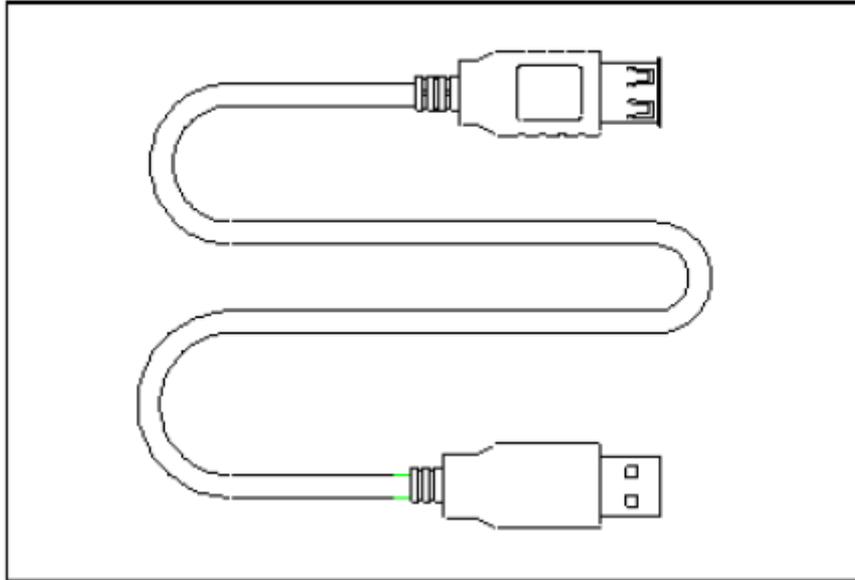


FIG (3) - USB cable

3 Installing and connecting

There are pre-set mounting holes in rear side of touchscreen, that customers can mount the touchscreen on monitor with, and then connect it to PC with cable as shown in FIG (4).

Serial cable connecting

1. Connect DB9 female connector to COM port of PC.
2. Connect ADB male connector to ps2 port of PC.
3. Connect ADB female connector to keyboard.
4. Connect 10 pin connector to 10 pin socket of main control board.

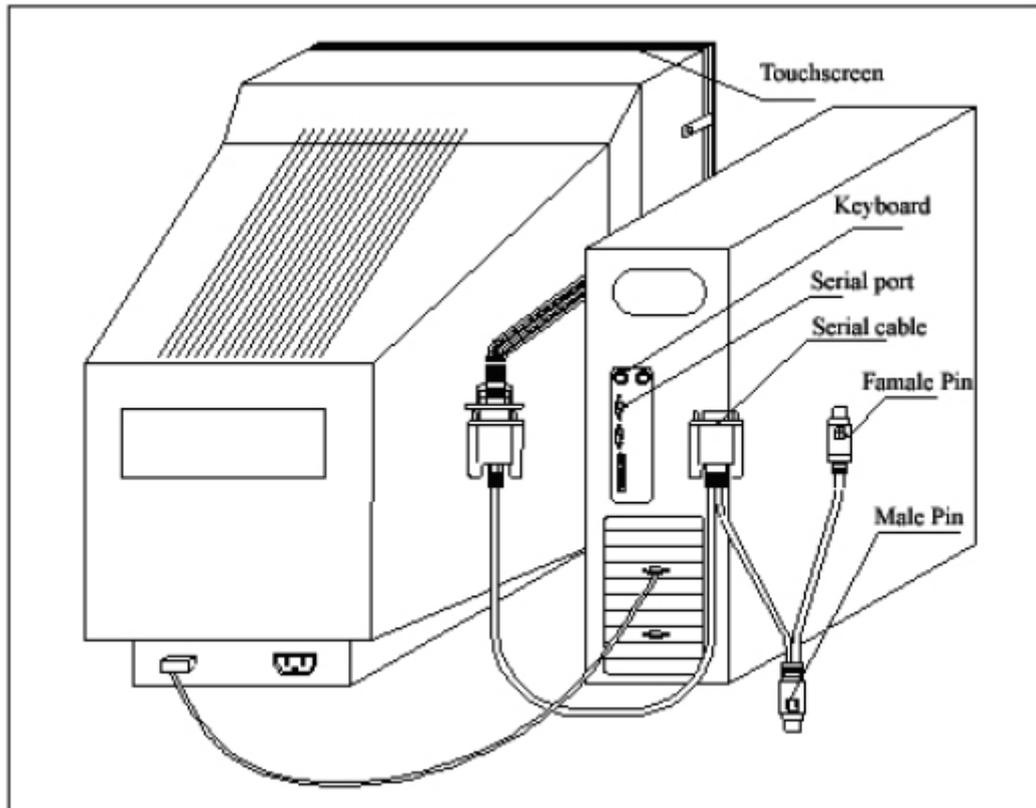


FIG (4) - USB cable connecting

Connect USB port of touchscreen and USB port of PC with USB cable.

4 Installing Driver

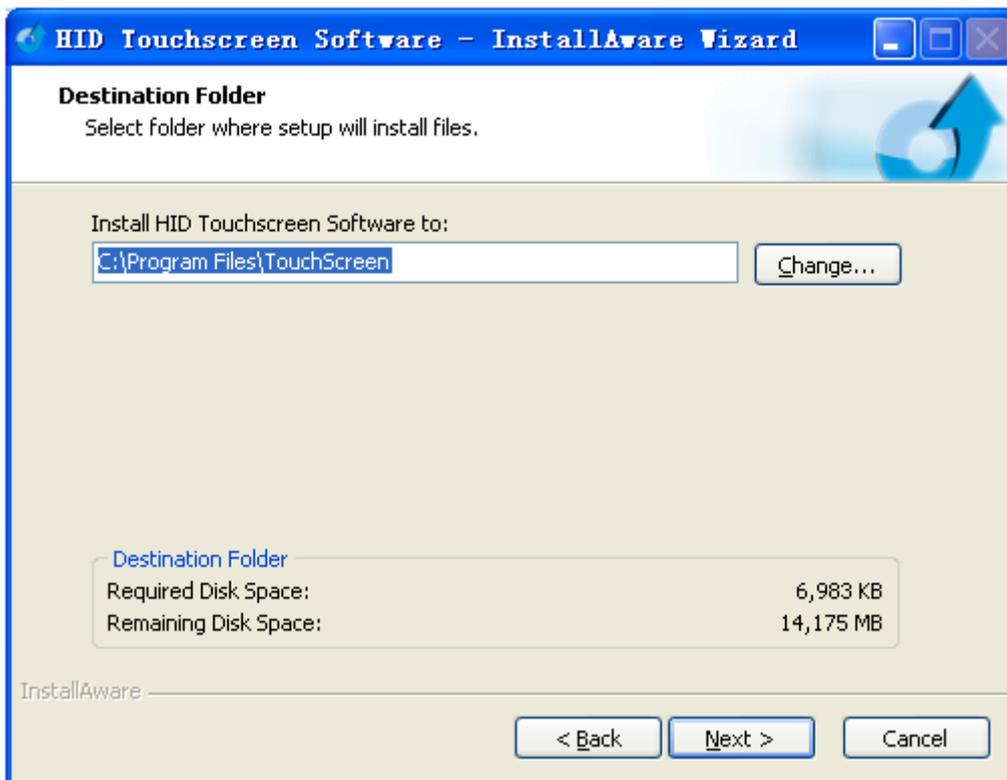
4.1 Manual Installation

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

Step 2: Click "Next" and start to install the drives:



Step 3: 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:

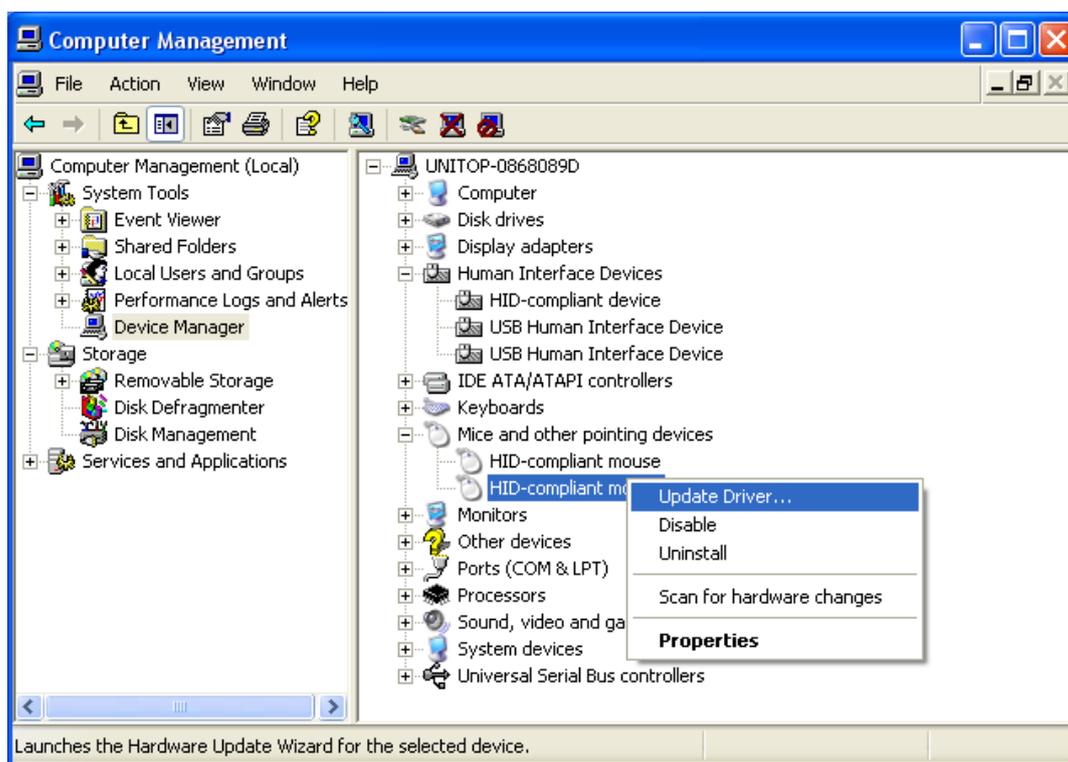


Step 4: Driver installation is complete, click “Finish” to close the wizard, as shown in:



Noted: The driver need to be installed by manually since the WHQL certification has not made.

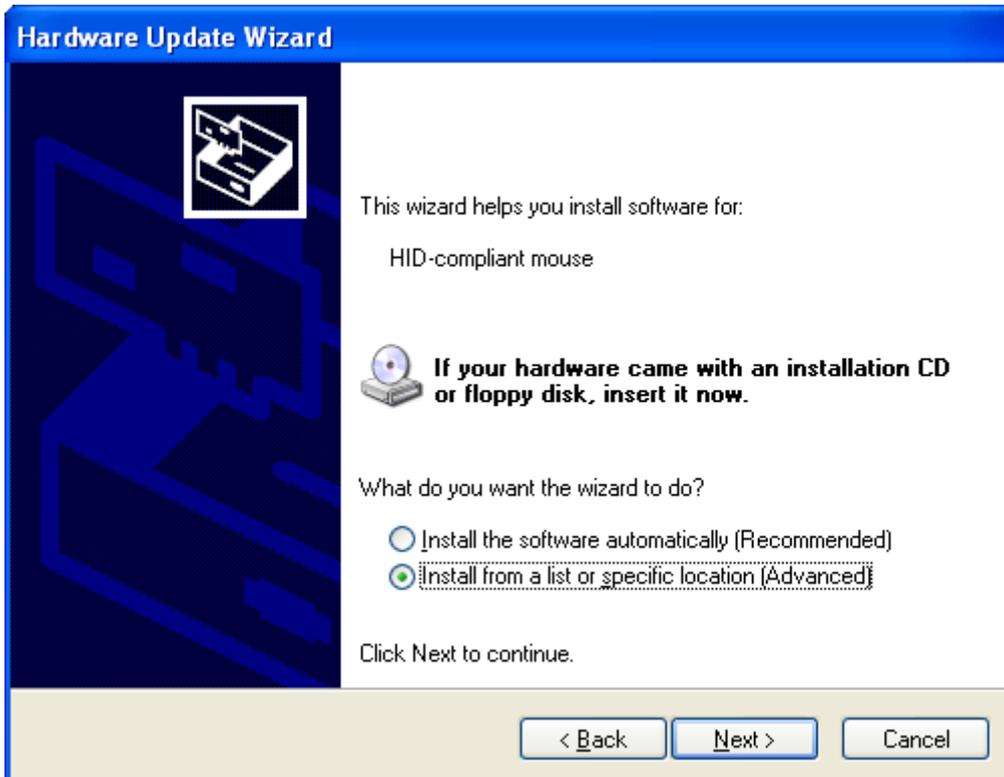
Step 1: Connect touchscreen to the computer. Follow “Device Manager” → “Mice and other pointing devices”, touchscreen in mouse mode, and choose “HID-compliant mouse”, right clicking, then click “Update driver...” in the pop-up pull-down menu, as shown in:



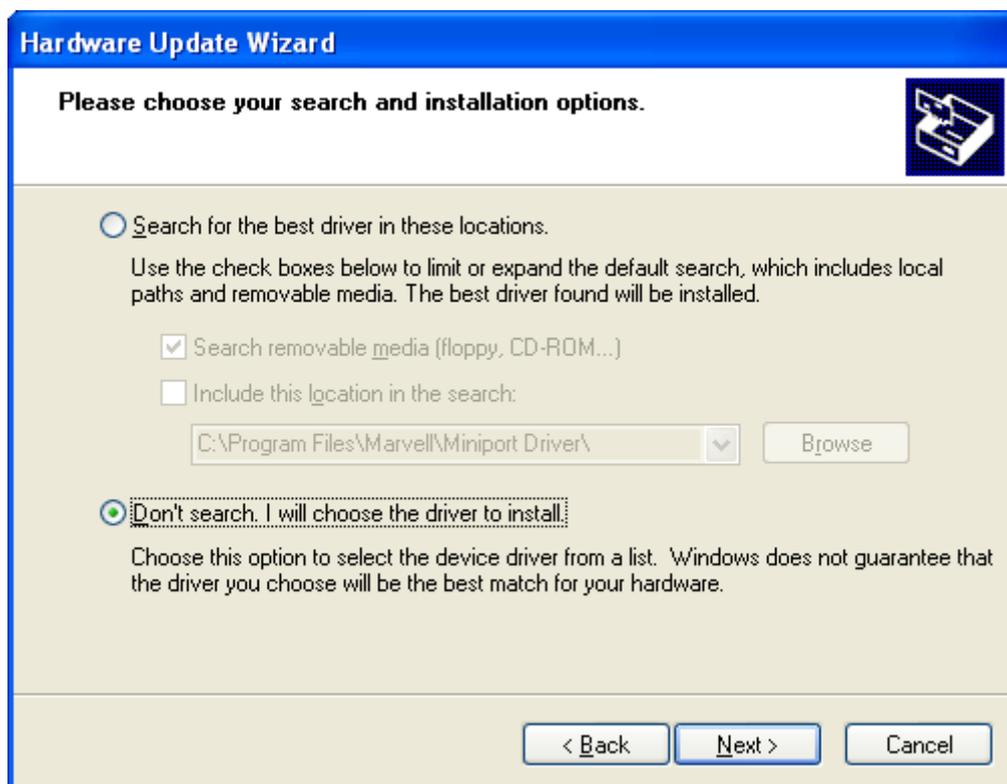
Step 2: In hardware update wizard window, choose “No, not this time”, and then click “Next”, as shown in:



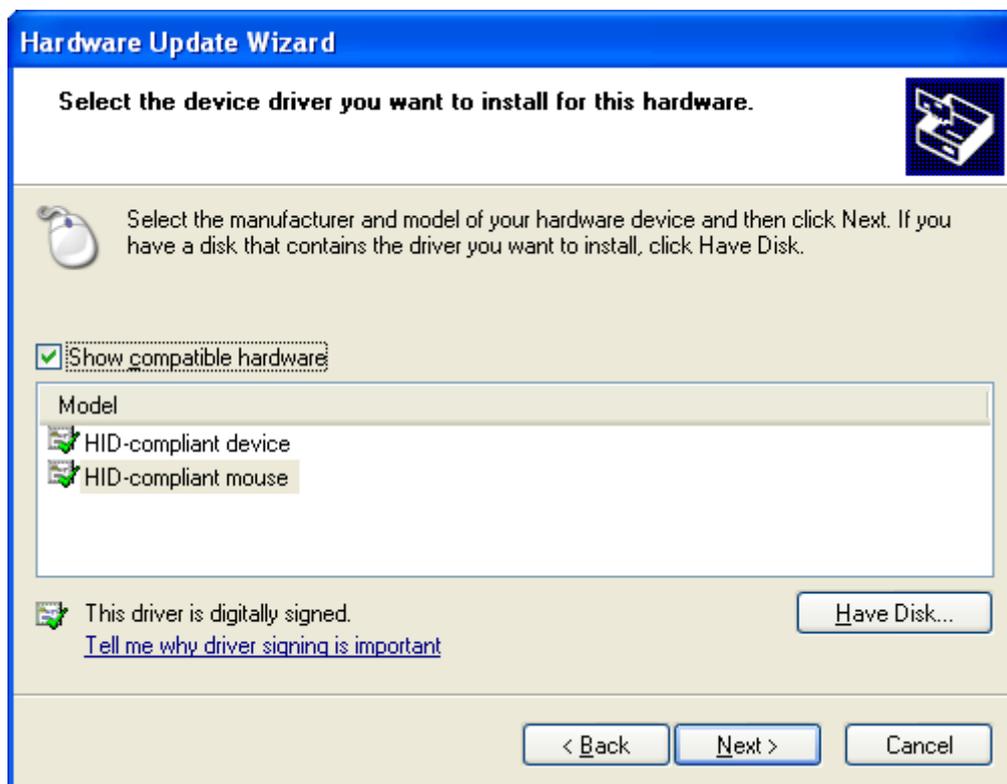
Step 3: Choose “Install from a list or specific location [Advanced]”, and then click “Next”, as shown in:



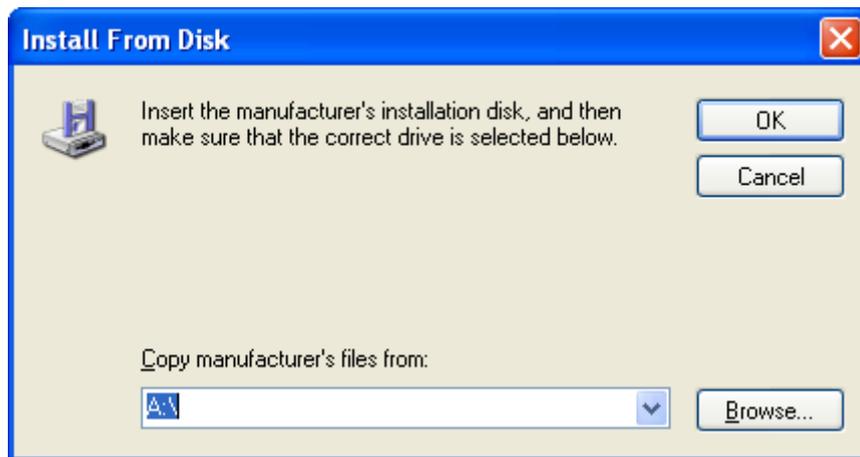
Step 4: Choose “Don’t search. I will choose the driver to install.”, and then click “Next”, as shown in:



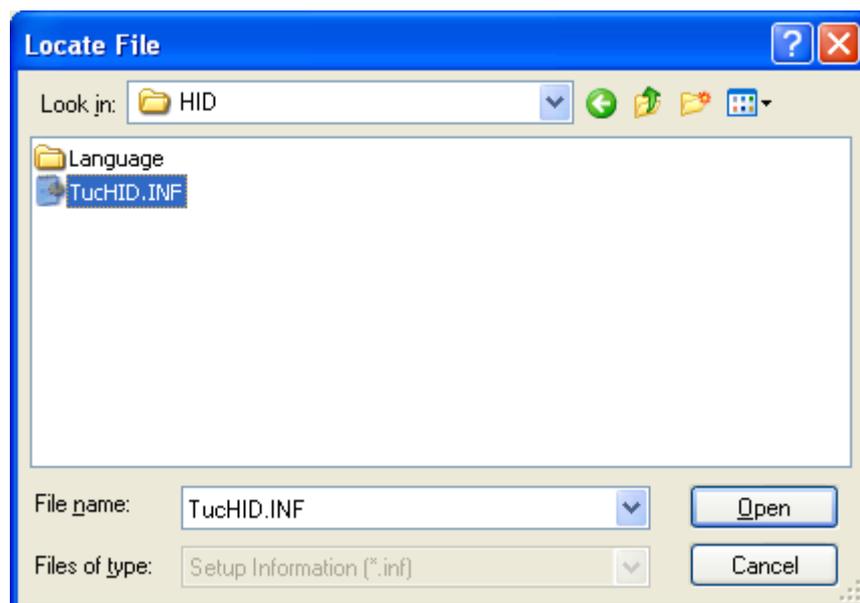
Step 5: Click “Have Disk...” to continue, as shown in:



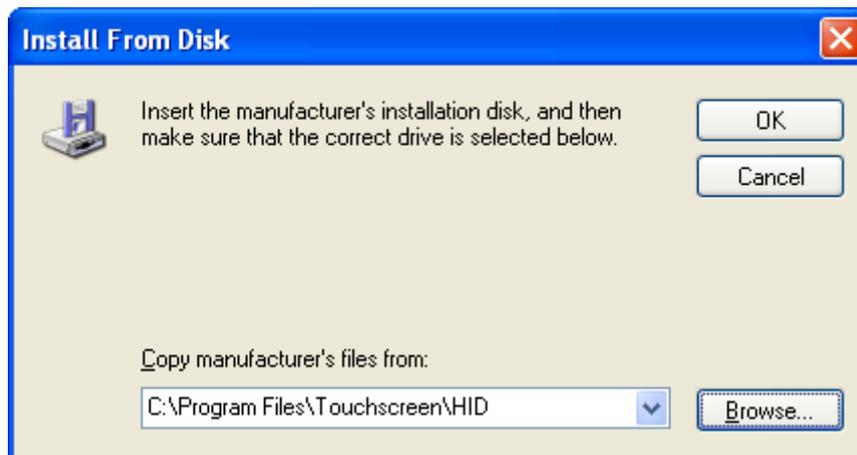
Step 6: Click “Browse...” to continue, as shown in:



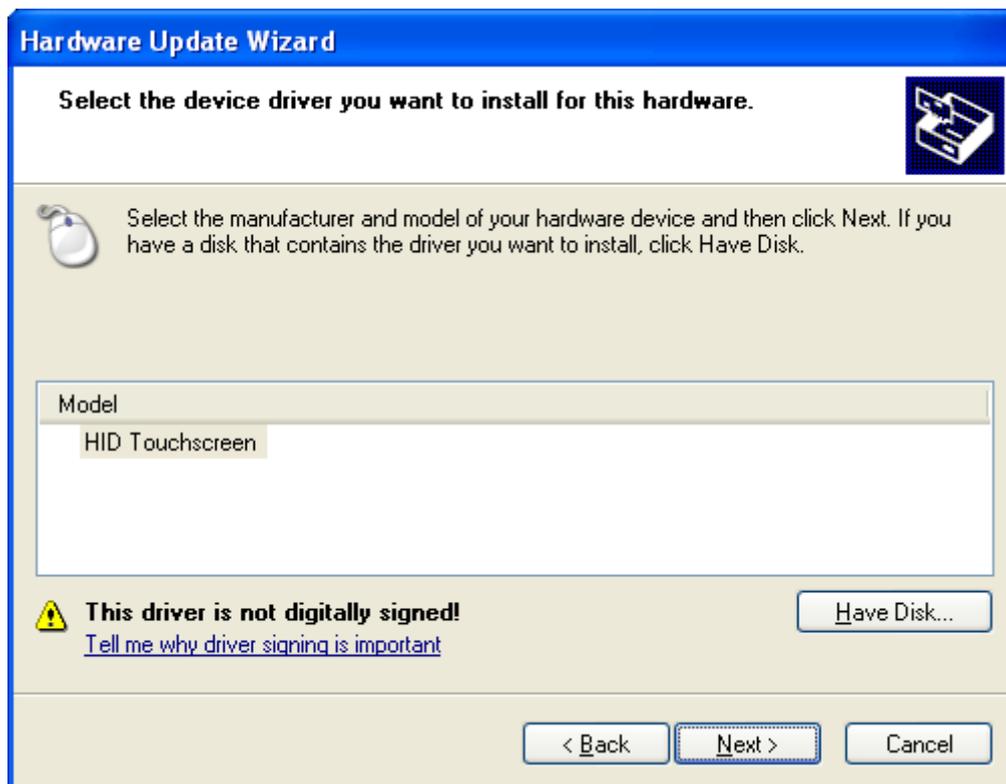
Step 7: Choose file “TuchID.INF” in the directory of “C:\Program Files\TouchScreen\HID”, and then click “Open”, as shown in:



Step 8: Click “OK” to continue, as shown in:



Step 9: Click “Next” to continue, as shown in:



Step 10: If hardware compatibility warning appears during the installation, please click “Continue Anyway”, as shown in:



Step 11: After finish touchscreen driver installing, click "Finish" to end (as shown in the following figure). Toolbar at the lower right corner of the computer prompts "Found New Hardware" to tell you that the new hardware is installed and ready to use (as shown in the following figure). "HID-compliant mouse" will change to "HID Touchscreen" (as shown in the following figure).



4.2 Silent Installation

Step 1: Follow "Start" ->"Run" and input "cmd" to enter DOS environment;

Step 2: Enter the path to folder of driver install application, and then click "Enter";

Step 3: Run command line: "Setup /S /v/qn" and click "Enter". The driver will be installed to your



computer and a shortcut will be created on your desktop.

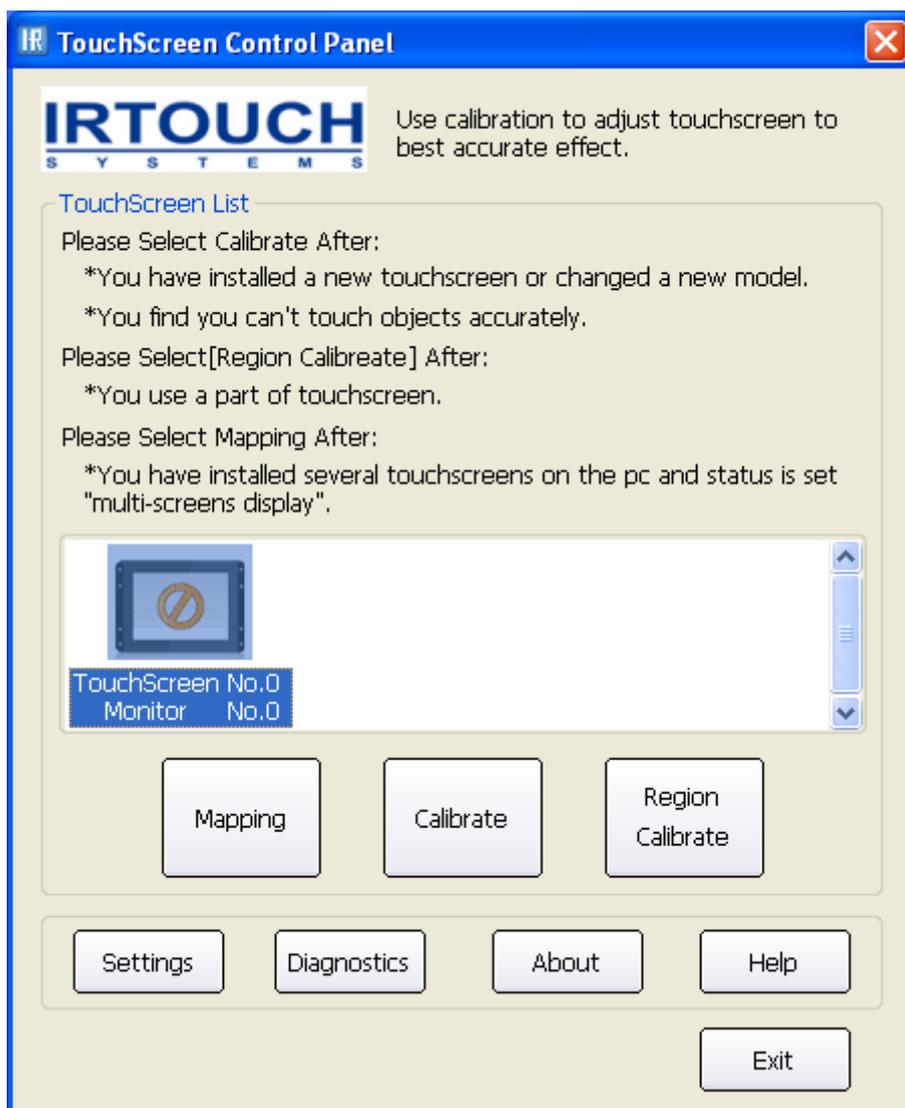
5 HID TouchScreen Control Panel



Double click the shortcut on the desktop, or follow "Start" -> "All programs" -> "HID Touchscreen Software" -> "HID Touchscreen Control Panel" to open the touchscreen control panel.

5.1 General Control Panel menu

The control panel provides adjustment and configuration with USB and IR touchscreen of serial port and supports compatibility of multi-touchscreens at the same PC. This window shows the basic information of the touchscreen and calibration. If several touchscreens are mounted on the PC and status is set "multi-screens display", Then not only one touch screen will show in the Touch Screen List ,user may use the button [Match] and must choose monitor related to each touchscreen before calibration, otherwise the touchscreen won't work. The setting of multi-touchscreens at the same PC comprising of Steps: the butt mark will appear on the center of each monitor screen in master slave sequence operated by program after user click "Match". If does so, use may click the center of the butt mark so as to acknowledge the mounted-touchscreen. If there is no information of touchscreen on the monitor, user is required to press "Esc" or wait for 15 seconds, then program will pass the current the setting of touchscreen and continue automatically the next one.



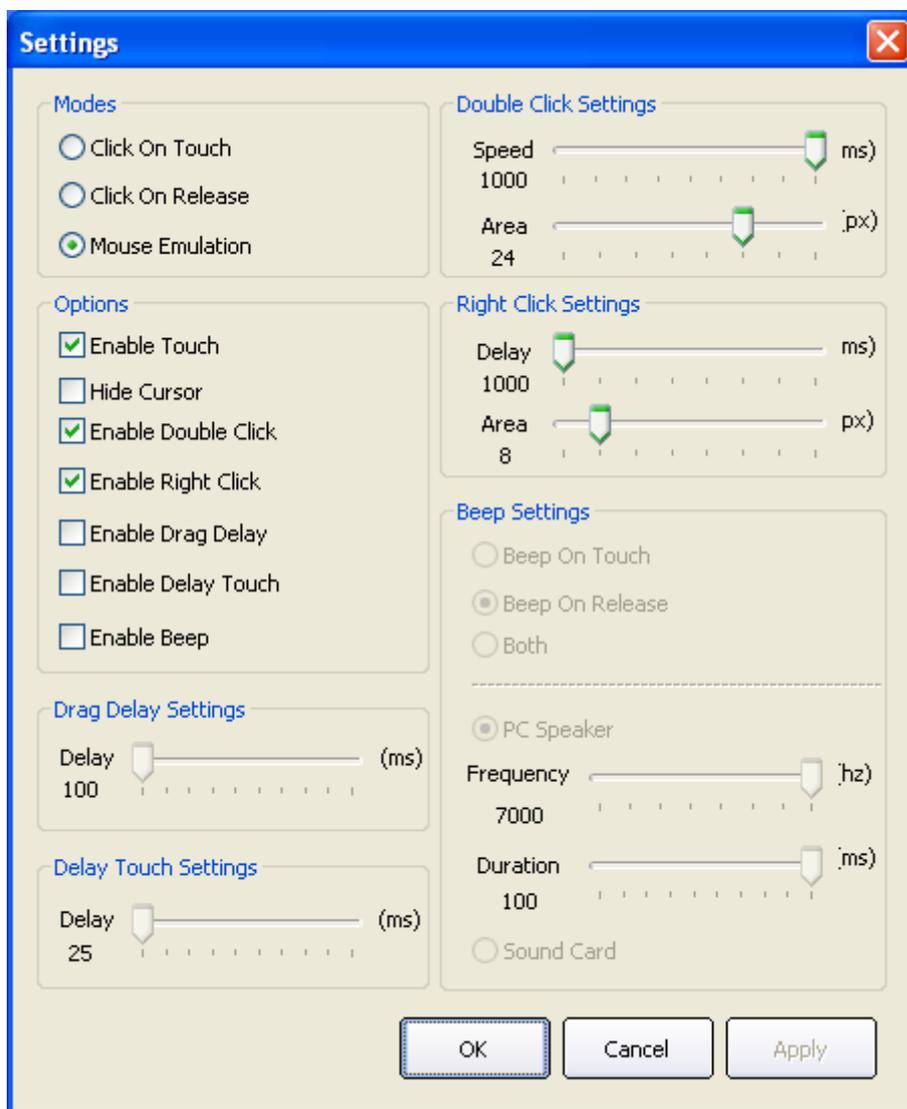
1. Calibrate: Be true of Single Mode and Dualview Mode. Select the touchscreen you want in the list and Click [Calibrate]. After calibration, the touch screen's center will show blue sign "√".
2. Region Calibrate: Be true of Horizontal Span Mode and Vertical Span Mode. Select the touchscreen you want in the list and Click [Region Calibrate], Press the left mouse button to draw a rectangle around the area (>200*200) you wish to calibrate. After calibration, the touch screen's center will show blue sign "√".

Calibration comprising of steps: select a touchscreen in the information list, then click "calibrate" button when the calibration window shows up. Calibration is done by clicking on 4 calibration points so that user only clicks the center of the bull's-eye in sequence. If failing to hit the bull's eye, user may move the pointer or fingers to the center of it again and lift based on the utilization of Click on

Release when calibration. Press “Esc” button to exit calibration. After calibration the “recalibrate”, “OK”, “cancel” buttons will show up. “ReCalibrate” means recalibration; “OK” means saving and exit; “Cancel” means exit without saving.

5.2 Settings

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



5.2.1 Modes

There are three touch modes:

1. **Click on touch**

Mouse single click event happens immediately at the point when the finger contacts the touchscreen, not for dragging objects. In this mode the touchscreen responds fastest, it's usually used for big button applications.

2. **Click on Release**

This is the default mode. Mouse click event happens at the point where the finger leaves touchscreen; in this mode the finger moving position is followed by eyes and precisely controlled, therefore it's suitable for small buttons or hyperlink of web pages, such as POS, WEB applications.

3. **Mouse Emulation**

Full emulation of mouse functions including left-button click, moving, lifting, and dragging; if writing, drawing, or dragging map are required, this mode is well suitable to the above application.

5.2.2 Options

1. **Enable Touch:**

Enable(default)/disable touchscreen.

2. **Hide Cursor:**

Hide cursor without closedown of the mouse function; Because Mouse cursor is not used in some applications but always is applied to such filed as big button, playing animation or children education in "Click On Touch" mode.

3. **Enable Double Click:**

Same as the function of Mouse Double Click. Double click on the same setting area of objects in a short time. The "Double Click Settings" property can be set so as to get the best performance on Double Click. "Delay" unit is "millisecond". The higher the value, the longer the effective time

interval between the double clicks raising the function of Double Click. "Area" is used for either amplifying or reducing the Double Click area. The higher the value (unit: pixel), the more sensitive the response of Double Click. Double-click should be utilized in the applications such as "Click on touch"," Click on Release"," Mouse Emulation".

4. Enable Right Click:

To enable right-click function. Click and press on any area on the screen for two seconds, the right-click pop-up menu will show up. Right-click is only available in Mouse Emulation mode. User may adjust the number of "delay" in "Right Click Settings" if finding the pop-up time is either fast or slow. Notice: the higher the value, the slower the pop-up time. "Delay" unit is "millisecond". The "area" is used for adjusting the jitter-range of the touch surface within limit of error (unit: pixel). The higher the value, the wider the jitter-range. Right Click menu will pop up so long as the finger contacts the screen for a while within the range.

5. Enable Drag Delay:

The function show the amount of millisecond "Drag Delay" will take to be enabled after you click that. Drag Delay may be adjusted to the correct value if the object can not be precisely selected or if jitter happens to cursor when you touch. The unit is millisecond.

6. Enable Delay Touch:

After this function is enabled, high speed touch or scratch on the screen becomes ineffective. It is the very effective for touch to maintain steadily for a time in specified area.

7. Enable Beep

This function enables and disables beep on PC built-in speaker, and sets the cycle and frequency of beep. User could press the button [Apply] to enable beep after choosing [Enable touch] and vice versa. There are three Beep modes:

- a) **Beep on touch:** Mouse single click event happens immediately at the point when the finger contact the touch screen,
- b) **Beep on Release:** Mouse click event happens at the point where the finger leaves touch screen
- c) **Both:** Mouse click happens at the point when the finger contacts the touch screen and at the point where the finger leaves touch screen.

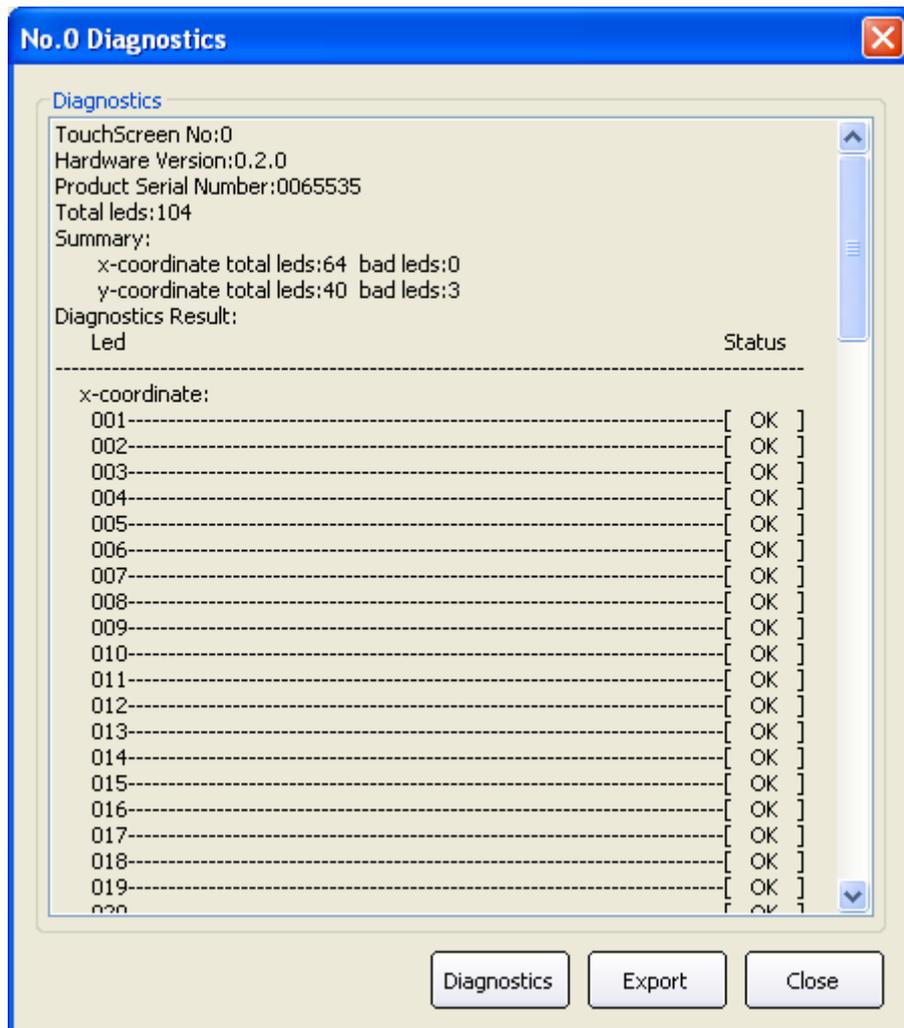
You can set the features of the mode in “Beep Settings”:

- 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: According to hardware statuses and external factors, we can flexibly set related parameters, so as to achieve the best practical effects. Reference to the tail end accessory.

5.3 Diagnosis

Diagnose the state of appointed touch screen. Through diagnosis, can get firmware version number, touch screen serial number, lamp state (Good/Bad). Click (Export) button to save diagnostic result as file.



6 Function as a command line parameter

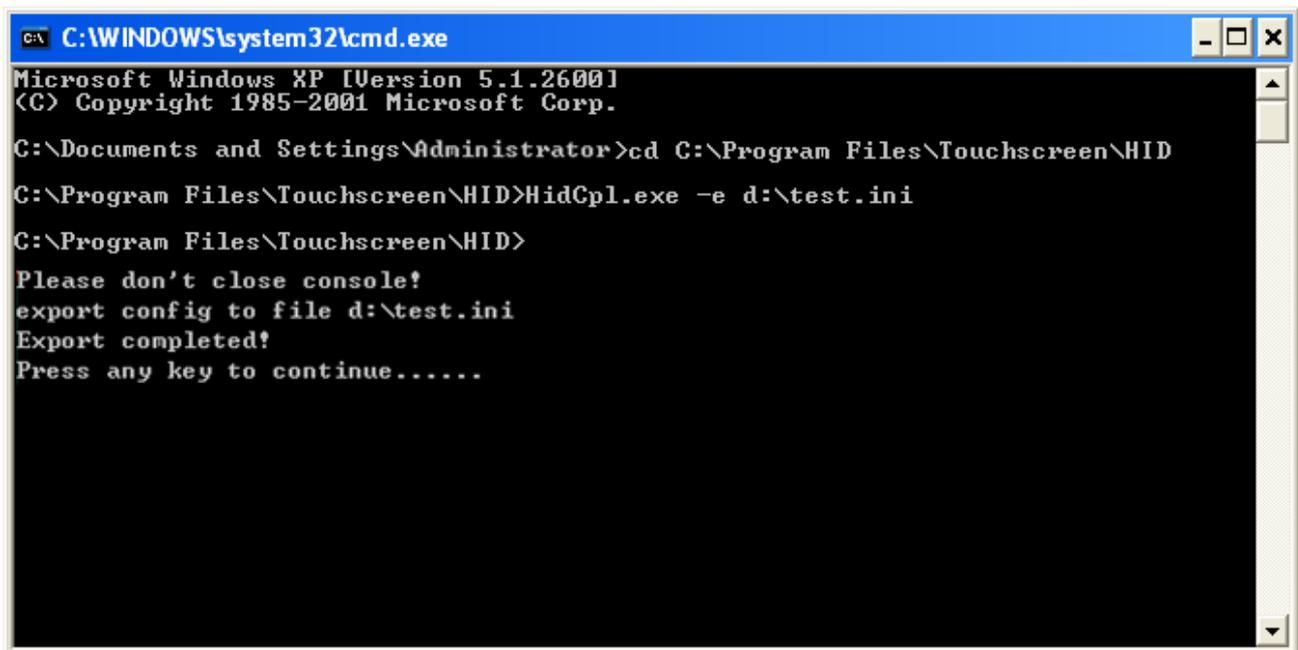
6.1 Exported File

Follow "Start" -> "Run" and input "cmd" to enter DOS environment, and then run export command line:

application program name -e file name

(e.g. HidCpl.exe -e d:\test.ini)

The type of exported file name must be configuration-setting file, namely suffix is ini. The content of exported file includes three items: function item attribute value (Drive Option), calibration attribute data value (Calibrate Option) and brim acceleration attribute data value (Edge Option).



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Administrator>cd C:\Program Files\Touchscreen\HID
C:\Program Files\Touchscreen\HID>HidCpl.exe -e d:\test.ini
C:\Program Files\Touchscreen\HID>
Please don't close console!
export config to file d:\test.ini
Export completed!
Press any key to continue.....
```

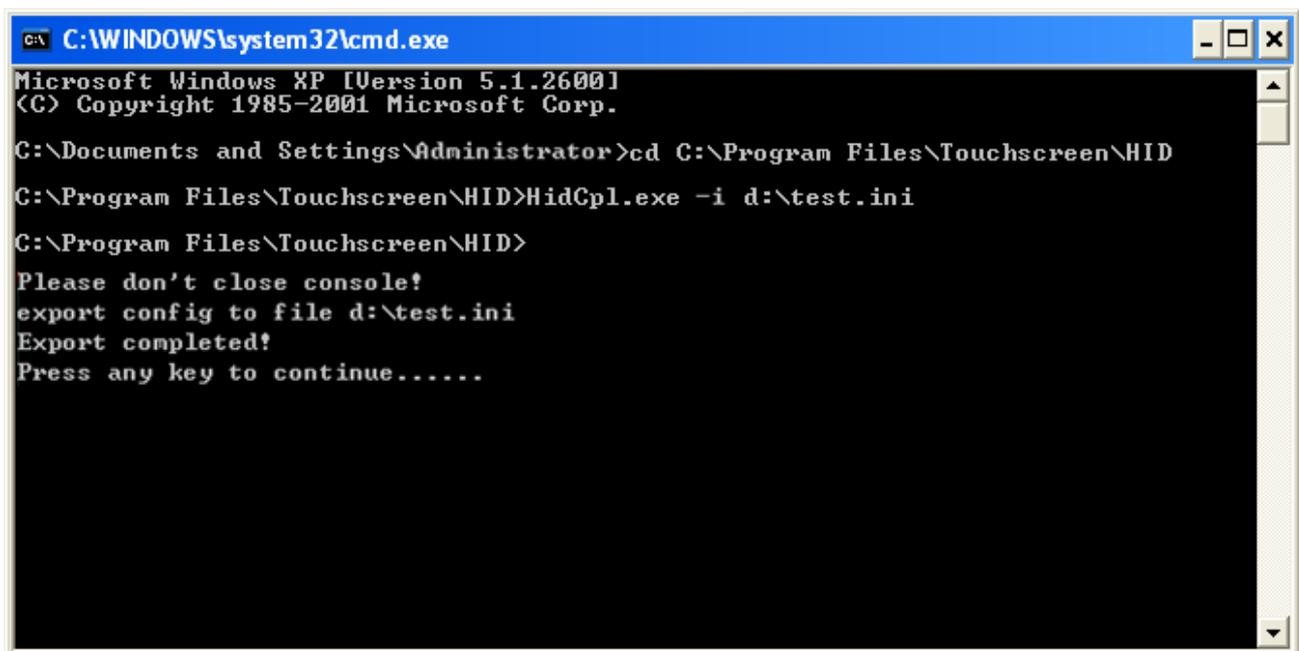
6.2 Imported File

Change every item attributes in exported file, and then run import command line:

application program name -i file name

(e.g. HidCpl.exe -i d:\test.ini)

Then can accordingly rejecter the function option in Settings page.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Administrator>cd C:\Program Files\Touchscreen\HID
C:\Program Files\Touchscreen\HID>HidCpl.exe -i d:\test.ini
C:\Program Files\Touchscreen\HID>
Please don't close console!
export config to file d:\test.ini
Export completed!
Press any key to continue.....
```

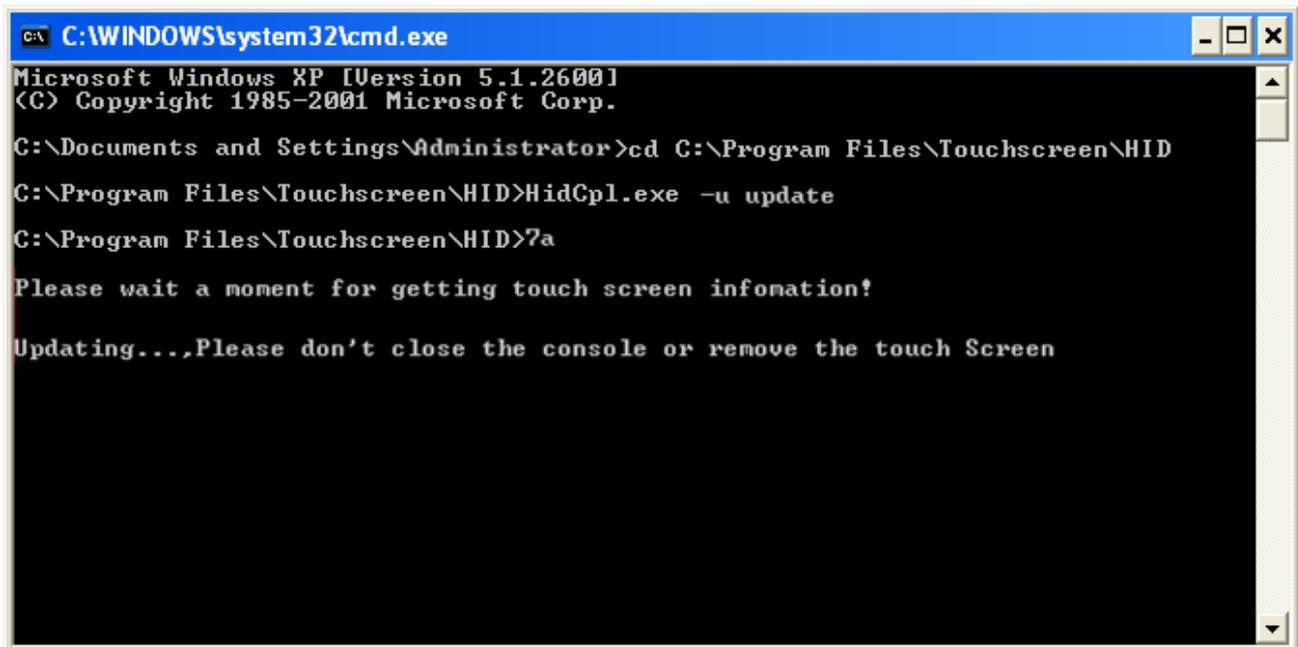
6.3 Firmware Upgrade

Run command line:

application program name -u upgrade file name

(e.g. HidCpl.exe -u update).

At this time, touch screen-touching is unavailable. The system updates touch screen kernel program, waiting for about one minute, it will show updating successfully. Now touch screen can be used normally.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Administrator>cd C:\Program Files\Touchscreen\HID
C:\Program Files\Touchscreen\HID>HidCpl.exe -u update
C:\Program Files\Touchscreen\HID>7a
Please wait a moment for getting touch screen infonation!
Updating...,Please don't close the console or remove the touch Screen
```

7 Edge Acceleration

Sometimes it is difficult to touch toward the edge of touch screen. We can set touch screen touch-accelerating area by this tool, when the cursor enters into the acceleration area, it will get acceleration function to make edge-touching easy.

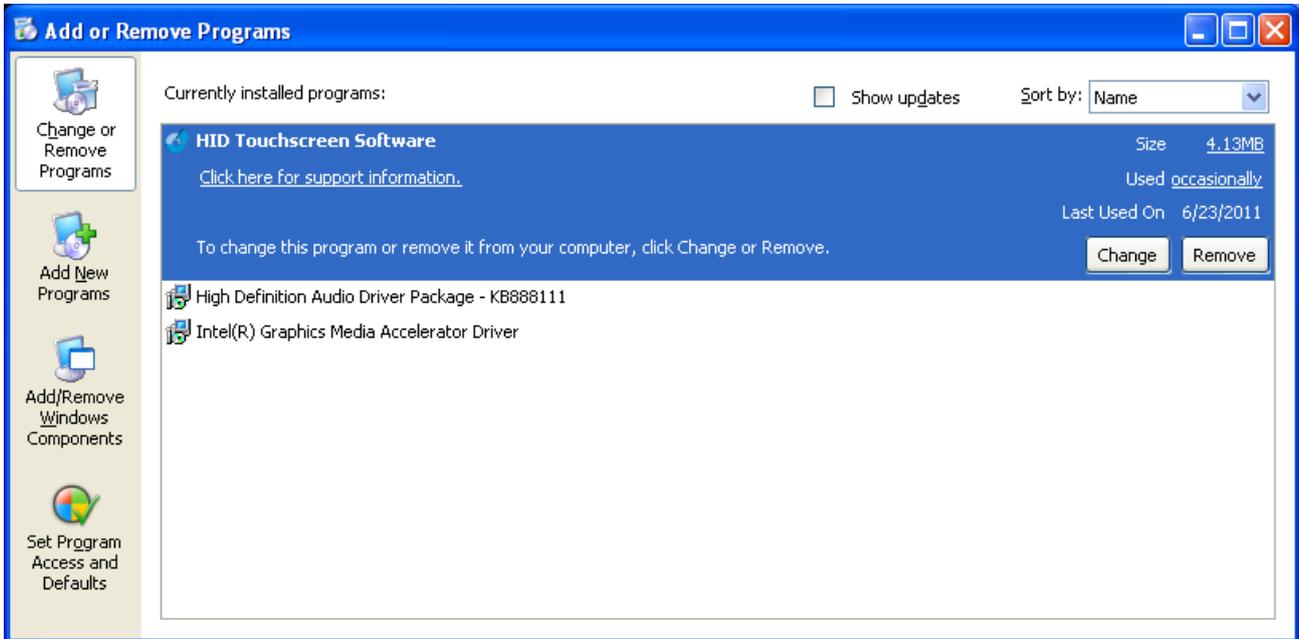
Configurable parameter includes:

- ◆ Start/banned edge-accelerating function.
- ◆ Cursor acceleration value. This value can be set to a value of 0 – 10, where 1 represents un-accelerating.
- ◆ The position of edge-accelerating rectangle boundary.
- ◆ The size of edge-accelerating rectangle boundary.

Once the cursor goes beyond rectangle boundary, it will get accelerated. There are two methods to set these parameters: adjust the size of rectangle boundary or change its position by mouse; input value in dialog box directly. After refiguring the setting in “cursor accelerating” dialog box, click “Apply” button, change will be available. Before using this function, must calibrate touch screen.

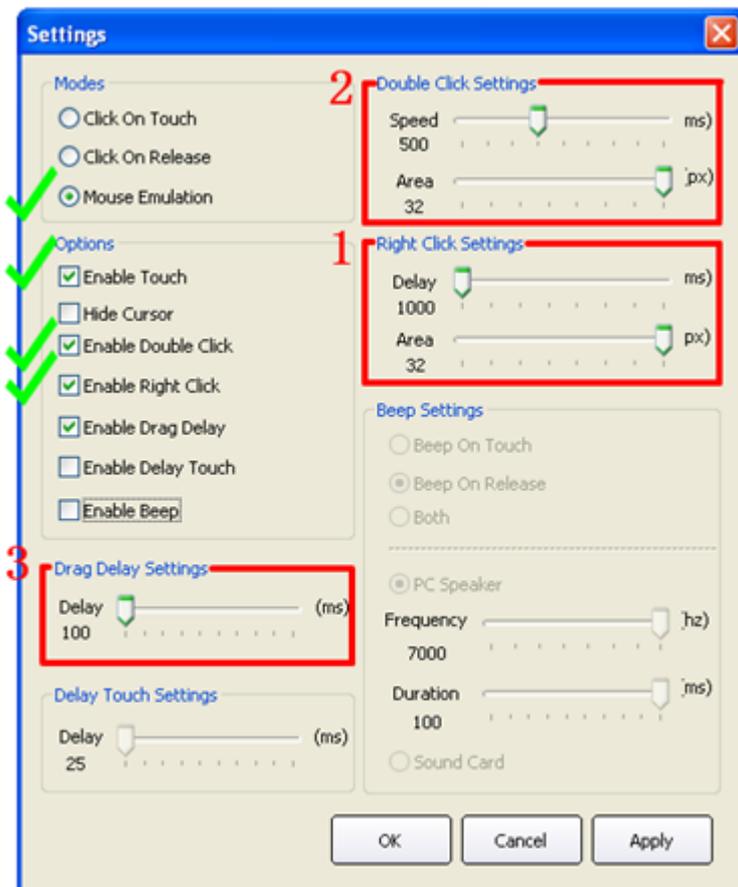
8 Uninstallation

Open “Control Panel” and choose “Add or Remove Programs”, select “HID Touchscreen Software” from the list, then click “Remove” button to uninstall the driver, as shown in:



Attachment 1 - General setting of the touchscreen (As reference)

Select “**Mouse Emulation**” mode, then check “**Enable Touch**”, “**Enable Double Click**” and “**Enable Right Click**” in “Options”. In general, it is not recommended that you check “**Enable Delay Touch**” in order to avoid slowing the touch response. It is proved null if you quickly click or drag the touch point. Whether check “**Hide Cursor**” or “**Enable Beep**” depends on your actual conditions.



1. 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 “**Mouse Emulation**” mode. In general, “**Delay**” is set to 1000ms (1 second), “**Area**” is set to 32.

2. Double Click Settings:

Same as the function of Mouse Double Click. Double click on the same setting area of objects in a short time may open up the object. In general, “**Delay**” is at 500 to 550, “**Area**” unit is 32.

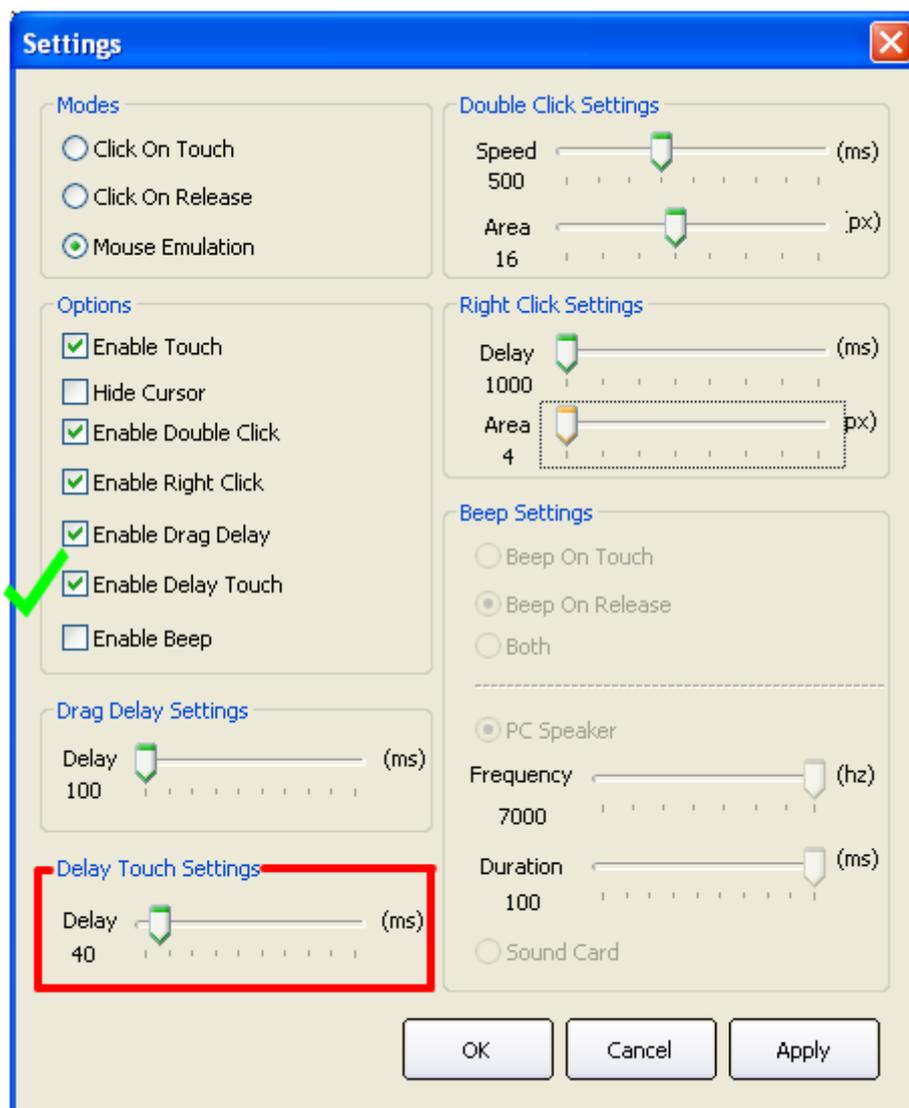
3. Drag Delay Settings:

The function shows the amount of millisecond “**Drag Delay**” will take to be enabled after you click that. Drag Delay may be adjusted to the correct value if the object cannot be precisely selected or if jitter happens to cursor when you touch. The unit is millisecond.

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

Attachment 2 - Setting of touchscreen in strong light, rain and snow condition (As reference)

The snow and rain drop will be mistakenly a single touch. So the function of “Enable Delay Touch” may be selected in driver to avoid the above error without the normal manipulation. The function of “Enable Delay Touch” will do the work to prevent the false touch. Each value should be gradually set in “Delay Touch Settings” after fulfillment of “Enable Delay Touch”. “Delay” is set to 40.



Notes: you may find touch response in the state of dullness after enabling the function of “False touch rejection”.