Touch Screen Device Driver Software

User Manual Version 03.08.52P

iTM *Touch*

– Contents –

The software described in this document is provided based on the Software License Agreement, and can be used only when the contents of the agreement.

Introduction

This installation guide provides the information about using the Touch Screen Device Driver software. Read this guide completely so you can fully utilize the functions of this software.

Features

The software lets you use our touch screen controller, the software, just as though you were using a mouse by operating the touch screen on Windows.

1. This touch screen software can implement an operating environment equivalent to the mouse function through operating the touch screen.
2. Because you can use the touch screen software together with a mouse, you can change between the touch screen and the mouse without needing a special setting.
3. Whether you connect the touch screen controller wit a Serial port or USB, you can select the necessary driver at installation.
4. The software lets you customize such functions as changing over the use of mouse's right and left button, details related to clicking, and event customization for touch input, a well as precise calibration function to insure excellent operability in a wide range of applications
5. Supports multi-touch screen function on USB.

Conventions used in this guide

This user's guide uses the following and symbols to represent specific names and displays of the operating systems and the software.

"****"	Represents an icon or buttons, For example, the floppy disk drive icon specifically refers to "3.5-inch FD(A:).
<***>	Represents a key on the keyboard. For example, <Enter>is used to represent the Enter key.
'***'	Represents the window title name, for example, "Add the button mode."
[***]	Represents a character string other than the above. For example. A program in the [Start Menu] I represented as [Program].

When Windows is mentioned in this guide it this guide it means Windows XP operating systems. This software represents the Touch Screen Device Driver Software.

Supported models

● **Supported model** :

- IBM PC/AT or its compatibles

● **Supported operating system :**

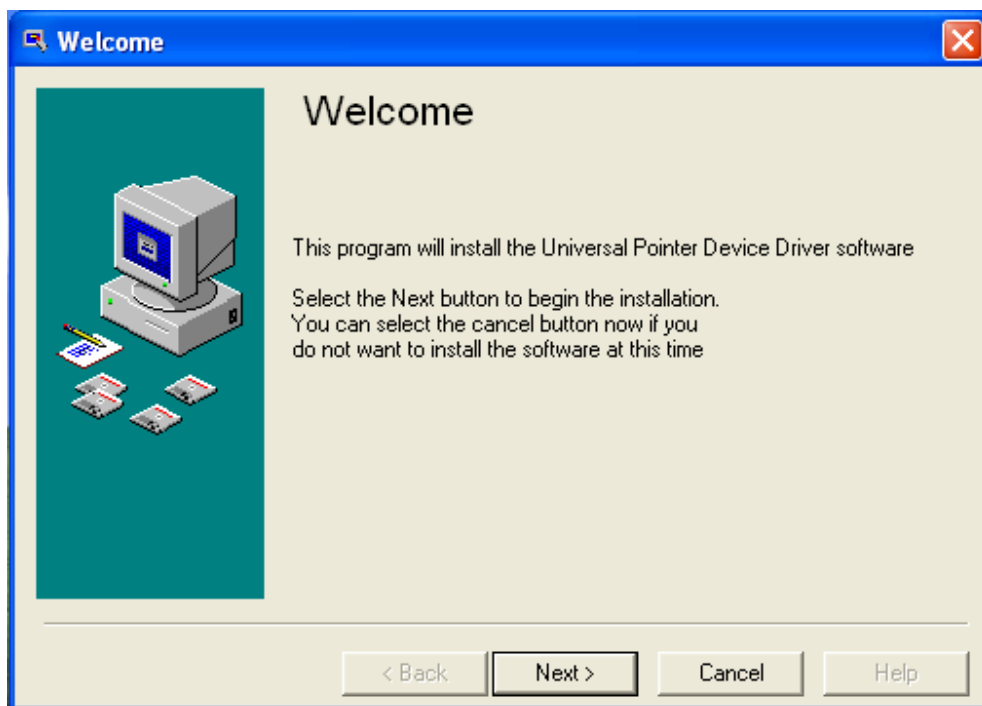- Windows 98, Windows ME, Windows NT, Windows 2000, Windows XP

Remarks

1. The software is for our touch-screen controller. It is not intended for operation with the other Company's touch-screen controllers and the products similar to them.

2. For how to use software, read this guide well. Do not use any other methods with the software

3. The software is not intended for the model of computer and operating system other than the supported ones.

4. Avoid using this software or with similar functions installed. In such a problematic environment the software may malfunction

5. Read the about the driver after executing the installer program (setup.exe). You cannot read about the driver before executing the installer program or operating the touch screen.

Installation

Installation of the software differs, depending on whether a serial port or USB port has been connected to our touch-screen controller. This section describes the procedures for installation and the parts that you need to set individually depending on whether you have a serial or USB port connected.

A. Regular installation steps

1. Turn on the computer's power.

   Turn on the power to boot Windows.

2. Start the Installer.

3. Insert the CD then the software starts automatic installation.

☞ Almost all of the set values displayed in the installer screen are the optimum for most of the user, which requires no modification.

B. Number of devices

- Allows setting the number of touch screens (controllers). Enter the number of touch screen if multiple touch screens are used. Click on "Next (N)" or press <Enter> when finished.
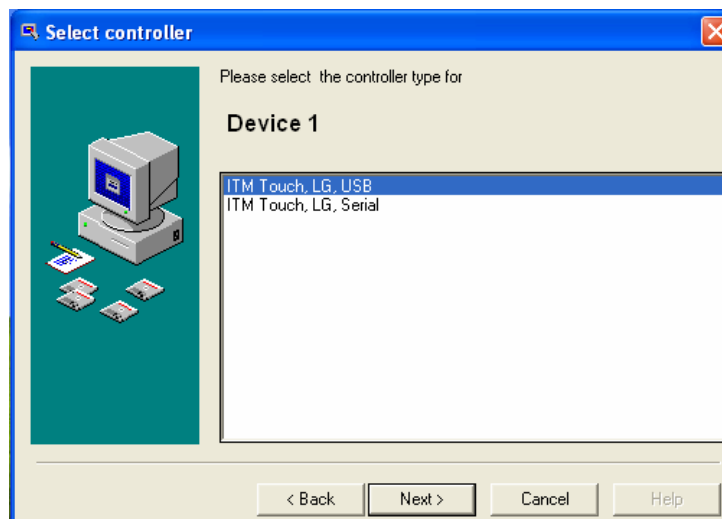

C. Selecting the controller

- During the installation sequence, the screen for selecting the controller will appear. Then, you must select whether you want to connect your touch-screen controller to the serial port or USB.
- To connect the controller with a serial port, choose [ITM Touch, Serial]. Alternatively, to connect the controller with the USB port, choose [ITM Touch, USB].

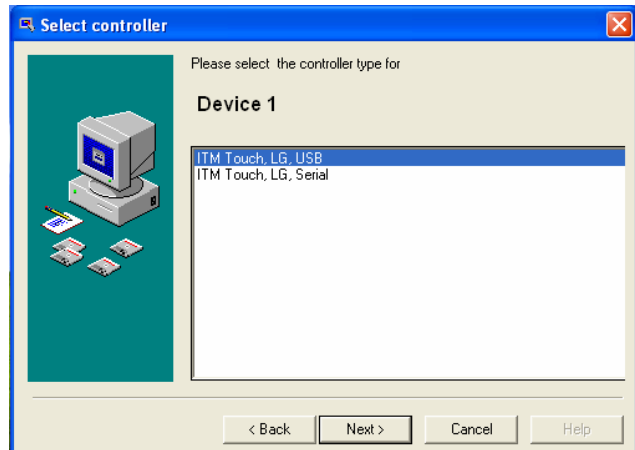**If you choose [ITM Touch, USB], then go to [Complete installation].**

If you choose [ITM Touch, Serial], then go to [Serial port connection].
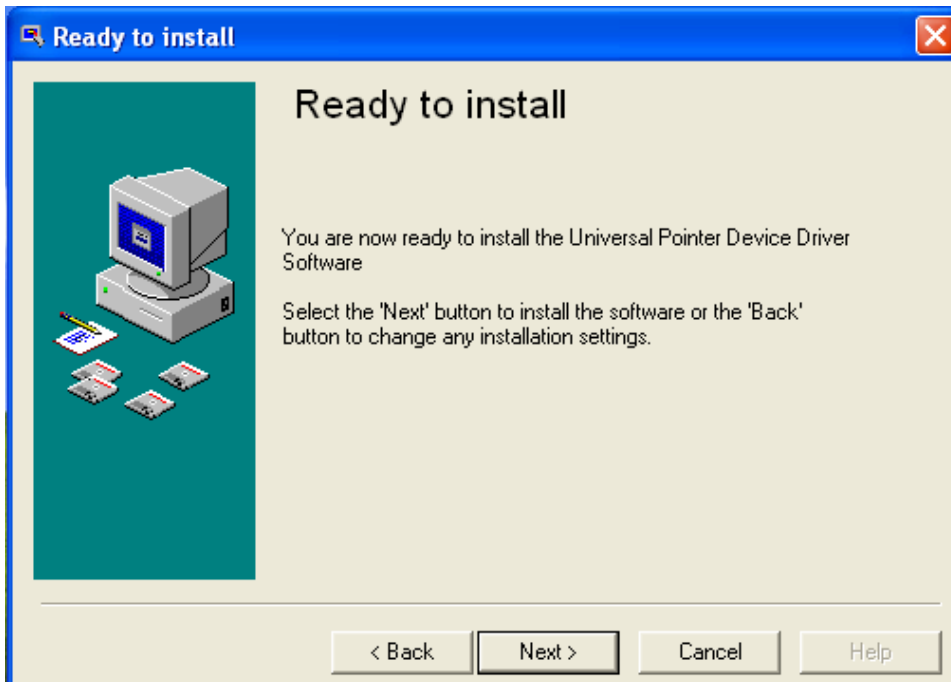
D. Port connection

- If you choose [ITM Touch, Serial], the 'Serial port setting' window appears. If you want to use is COM1 as the serial port, click "Next (N)", or press the <Enter> key. If you want to use COM2 or any other part, choose a port from the Popup menu, click on "Next (N) or any other port, choose a port from the Popup menu, click on "Next (N)", or press the <Enter> key and go to **[Complete installation].**

- If you choose [ITM Touch, USB], click on "Next (N) or the <Enter> key and go to **[Complete installation].**

E. Completing the installation

- For connecting to a serial port, set 'Serial port connection and to [Complete installation]. And in USB connection, set 'Select a controller' and go to the USB port. Click on 'Next (N)' or press the <Enter> key. Then, follow the instructions on the screen.
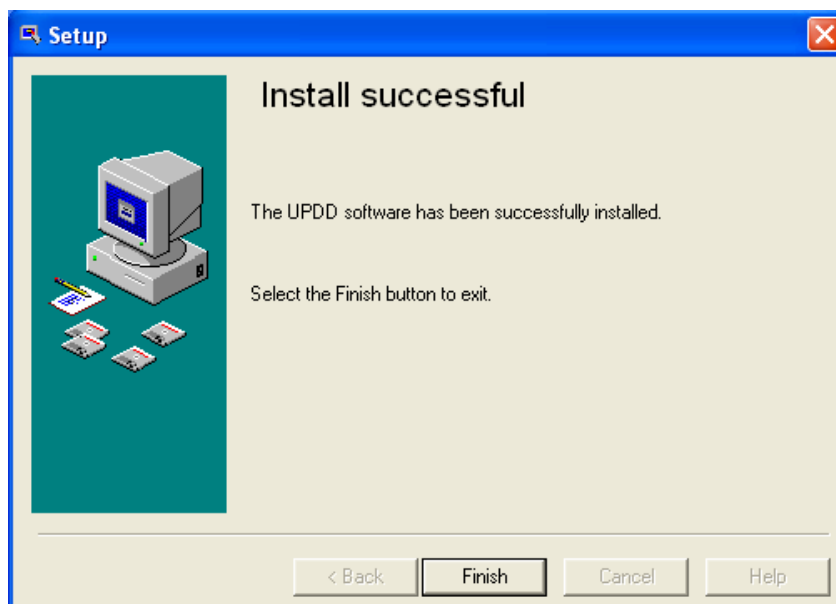
Windows XP user.

- While installation progresses the window entitled 'the installation of the hardware' is indicted. Click on 'continuation©' or press the <Enter> Key. A windows indicated in the same way when USB plug is put in the PC after installation is finished in the case of the USB connection. Click on 'continuation(C)' or press the <Enter> key in the same way in that case as well.

Windows 2000 user.

- While installation progresses the window entitled 'A digital signature wasn't found' is indicated. Click on 'Yes (Y)' or press the <Enter> key. A window is indicated in the same way when USB Plug is put in the PC after installation is finished in the case of the USB connection. Click on 'Yes (Y)' or press the <Enter> key in the same way in that case as well.

F. After completing the installation

- You complete the installation. Click on "Continue", and press the <Enter> key. In the case of WindowsNT Workstation, reboot Windows to activate software. Click on "Yes (Y)", or press the <Enter> key.
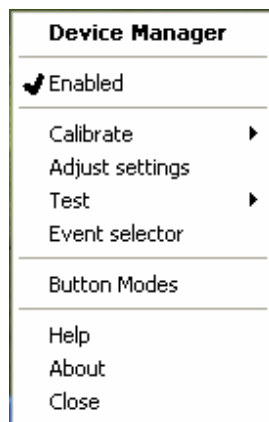

G. Uninstalling the software

- To uninstall the software, run "My Computer", then go to the "Control Panel" and select "Add/Delete Application" to choose the "Universal Pointer Device Driver." Finally click "Change/Remove "After activating the Uninstaller, follow the instructions on the screen to the software. In the case of WindowsNT, reboot Windows to complete the uninstalling.

Before use

Calibration

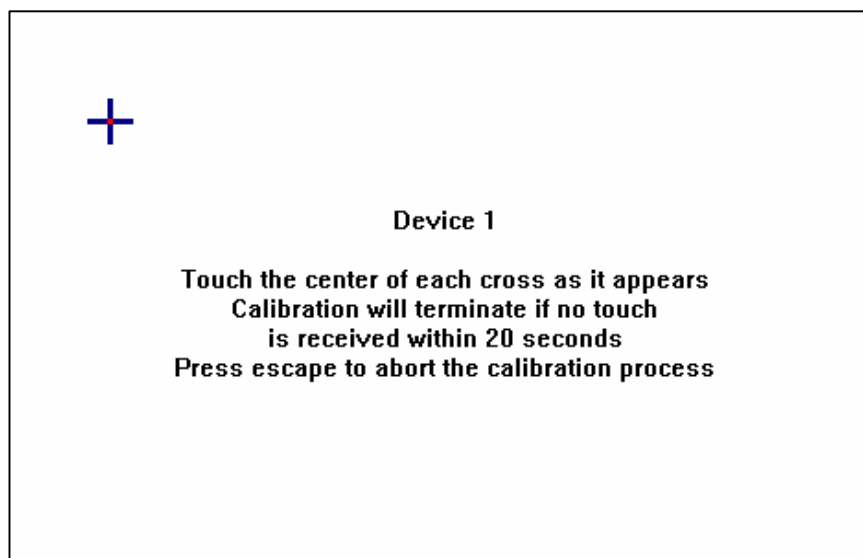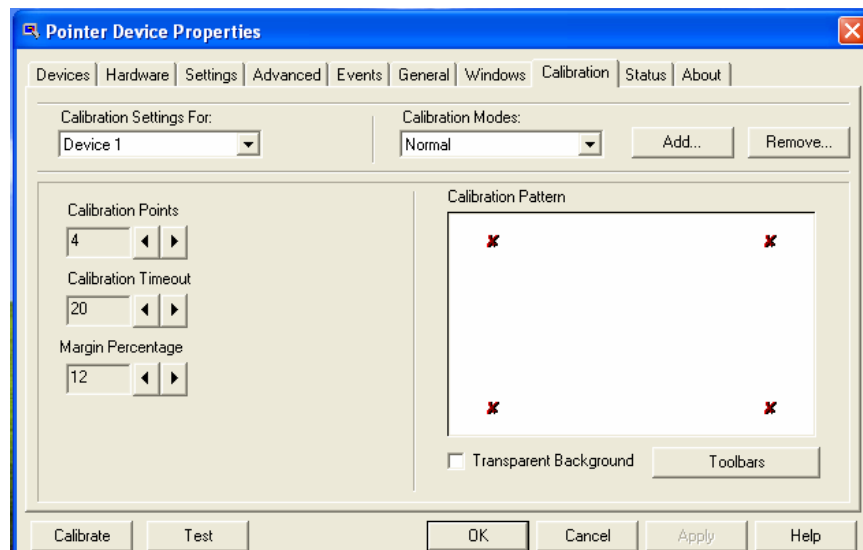**<When an EEPROM Calibration function is not used. >**

- Before you begin to use the touch screen, you need to adjust (calibrate) it. Calibration is a very important so you can align the position where you touch screen with the Windows cursor position. This calibration adjustment lets you operate the touch screen; with ease.

- Once you perform the calibration, the calibration information is stored in Windows, You need not make the calibration every time you boot Windows.

To mask the calibration, click the touch screen's icon at the task tray at the right bottom of the Windows desktop, and select [Star]-. [Program]->[UPDD], then [Control SETTING]. Then, Click "Calibrate" from the "Touch screen Properties" displayed. Then use your finger to touch an arrow at the light gray screen. Touching the section makes an arrow appear at another location. Similarly, touch that location too.

Device Manager
✔ Enabled
Calibrate ▶
Adjust settings
Test ▶
Event selector
Button Modes
Help
About
Close

10:41 AM

- When you have selected all the calibration points, a message "Check calibration". Appears to request you save the calibration data. When you are able to make a touch respond to every mark + you have been made without any trouble, click the "OK" button, or press the <Enter> key. If you touch a place other than the calibration points by mistake, leave it alone for 20 seconds.

Device 1

Touch the center of each cross as it appears
Calibration will terminate if no touch
is received within 20 seconds
Press escape to abort the calibration process

- If you do not make any action for 20 seconds, the calibration you made is discarded and is not saved in Windows.

<When an EEPROM Calibration function is used. >

-If this function is enabled, operation that performs a calibration is the same, as that of the case that the function of EEPROM calibration above mentioned is not used. However, the save place calibration data is in EEPROM. And, when this function is enabled, the position (position of + mask) or a calibration cannot be changed.

<u>*The touch screen coordinates may slip form those at installation with time change. In such a case, it is recommended to make calibration again.</u>
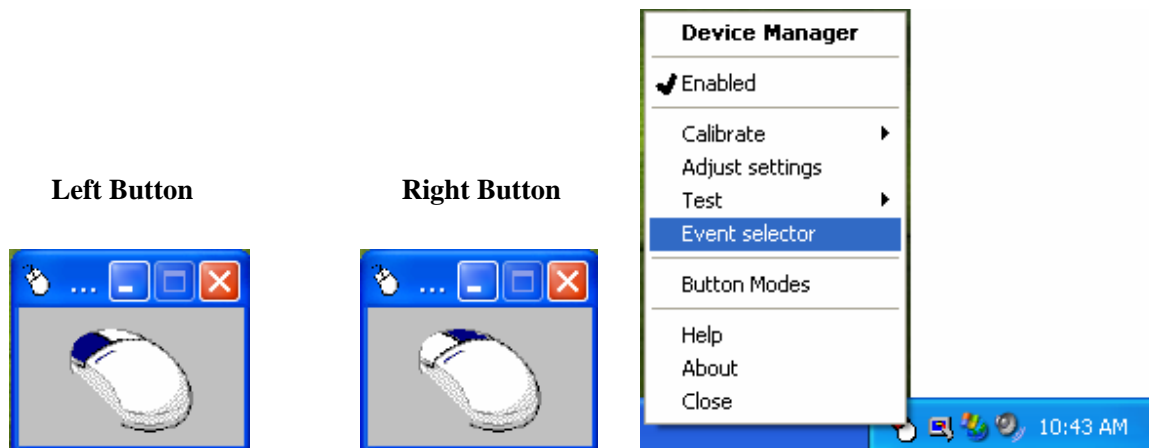
Mouse operation

A. Clicking and dragging

You can use the touch screen to perform such basic operations as click, double-click and drag as follows:

Click   **: Touch the touch screen swiftly.**

Double-click   **: Touch the touch screen twice swiftly**

Drag   **: Drag your finger (or stylus) on the screen.**

B. Right-clicking the mouse

- The touch screen does not provide two buttons unlike a mouse. When you want to perform the right-button operation using the touch screen, do the following:

1) Click the icon at the task, and select the [Event selector]. A small window with a computer mouse appears.

2) Every time you touch the mouse picture, a dark blue mouse button becomes active.

3) Touching the touch screen just after the active button appears; operate it like a mouse button.

Left Button   **Right Button**

Function Setting

- By the default, this software provides the environment similar the ordinary mouse-operating environment. Its flexible customize function facilitates the operating environment which meets a specific application. This section describes [Control setting] which allows you to make various setting.

A. Activating the Adjust setting screen

 Use one of the following methods:
   1. Select and activate "START" → [Program (P)] → [UPDD] → [Control setting.]
   2. Click the icon at the system tray (see the right picture), and select and activate the [Control setting].
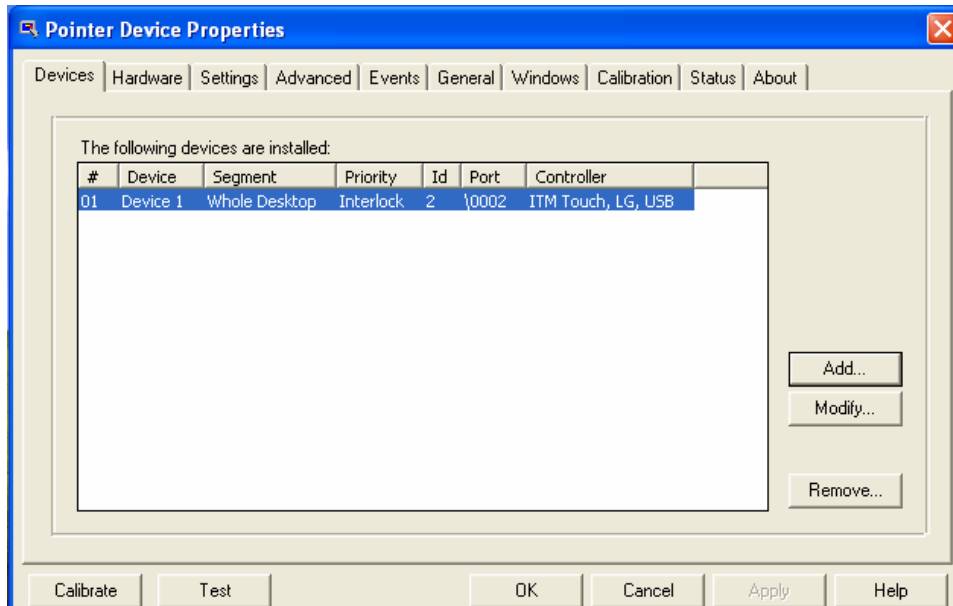
- The 'touch screen driver property' window appears. The screen is divided by several tabs. These tabs are classified for each purpose of setting. They are gathered into one screen for each content respectively; the controller addition is in the [Device] tab, the controller status confirmation is in the [Status tab], and the contents related to calibration is in the [Calibration] tab.

- When you change the setting, be sure to press the "Apply (A)" to apply the changed contents. Pressing the "Apply (A)" button re-initializes the controllers so that the touch screen gives no response for several seconds.

B. Device

You can add a controller, change the name, set the touching area, and delete a controller.

Add:

- You can add a controller. When you add controller, you set [ITM Touch, Serial], [ITM Touch, USB] selection and operation objects to the entire screen or the right half, upper half or the other range and also the device name.

Modify:

- You can change the controller name, change the Interlock Mode, change the Release time and change the operation object.

Interlock Mode:
Allows setting the user level.

Admin	: Allows to use the touch screen anytime and can interrupt when the other user is operating the touch screen.
Interlock	: Allows to use the touch screen when no other user is operating the touch screen. Allows taking over the operation from the other user when the release time of the user has passed and releases the permission. The permission. The permission. The permission is abandoned once admin user starts the operation until admin user releases the permission.
Disable	: Disables the permission and cannot use the touch screen.
Release time	: The time when admin or interlock user releases the permission after the operation (touch screen input) has finished.

Remove:

- You can delete a controller. Click a controller you want to delete, select it and execute "Remove…"
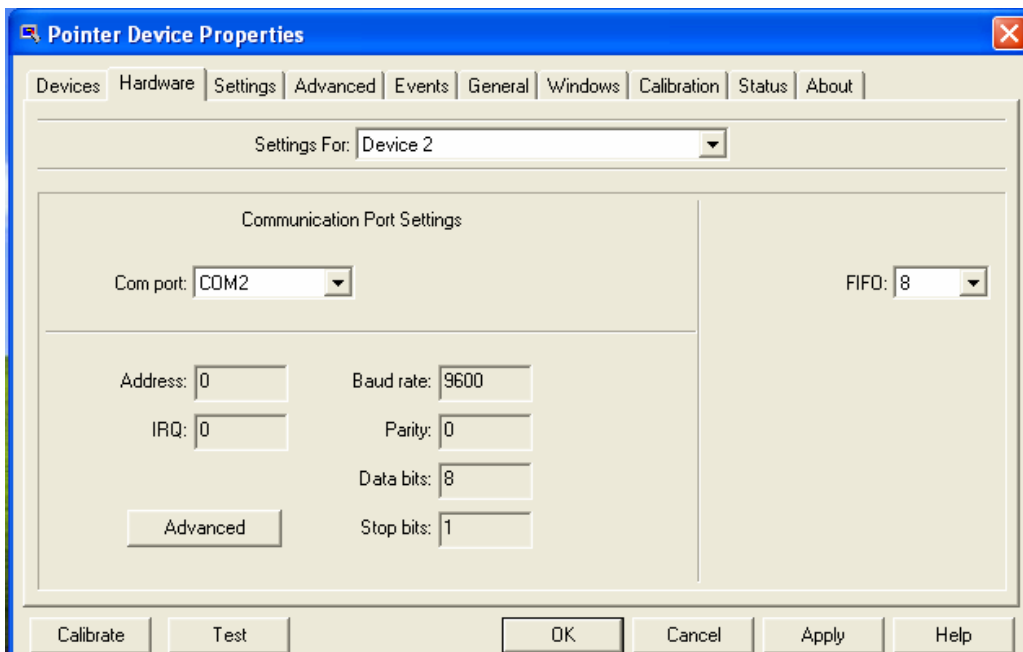
Id : When using USB controller, ID numbers shown on Device Tab is the Ids that are assigned to each controller and cannot be changed with this software. ID is 0 when the touch screen ID is 0 and 1 when touch screen ID is 1. Nothing is displayed when Serial controller use.

Port: In the case of the Serial controller, the COM port connected is displayed. In the case of the USB controller, it is the address automatically assigned form Windows.

* When a controller cannot be used, the item of the controller is displayed in a red character.
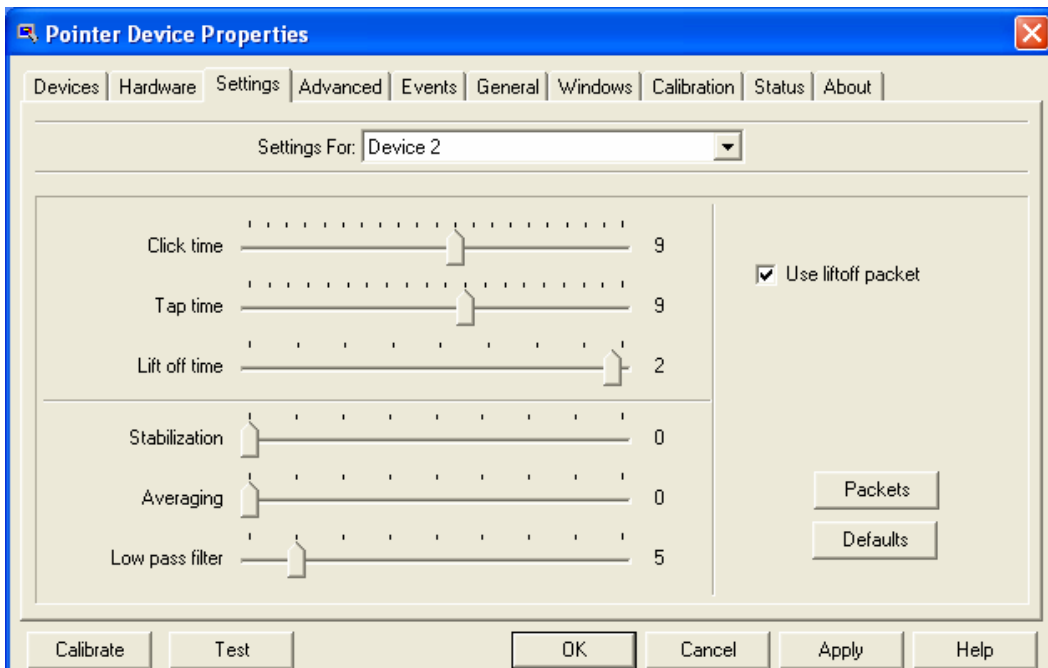
C. Hardware

- Perform the communications setting of the controller installed in [Devices]. In [ITM Touch, USB], setting is automatically done and requires no manual intervention. In [ITM Touch, Serial], when you change a COM number, use the [Port] setting.

Com port : You can set the number of a serial port to be connected.

D. Setting

- You can set a feeling of operation when you touch the touch screen. Some of the items work in linkage with [Event] and [Button mode].

Click time:
   - When [Time] is specified in [Events], you can set the time from touching to clicking.

Tap time:
   - When [Tap~] is specified in [Events], you can set the validity time taken for the second touch to be regarded as a click.

Lift off time:
   - When [using the lift off packet is set to OFF, you can set the time taken to regard finger (pen) having been detached from actual detaching the finger (pen) from the touch screen.

Stabilization:
   - You can set the degree of the function that the cursor insists to stay at a fixed position. The cursor does not move until the movement amount of the touch input position exceeds a specified amount. It has been initially set to O and no stabilization works. The more the set value is, the stronger the stabilization force is.

Averaging:
   - You can set the degree of the function that the cursor insists to stay at a fixed position. It differs form [Stabilize] in that while in stabilization, the cursor does not move from the same position
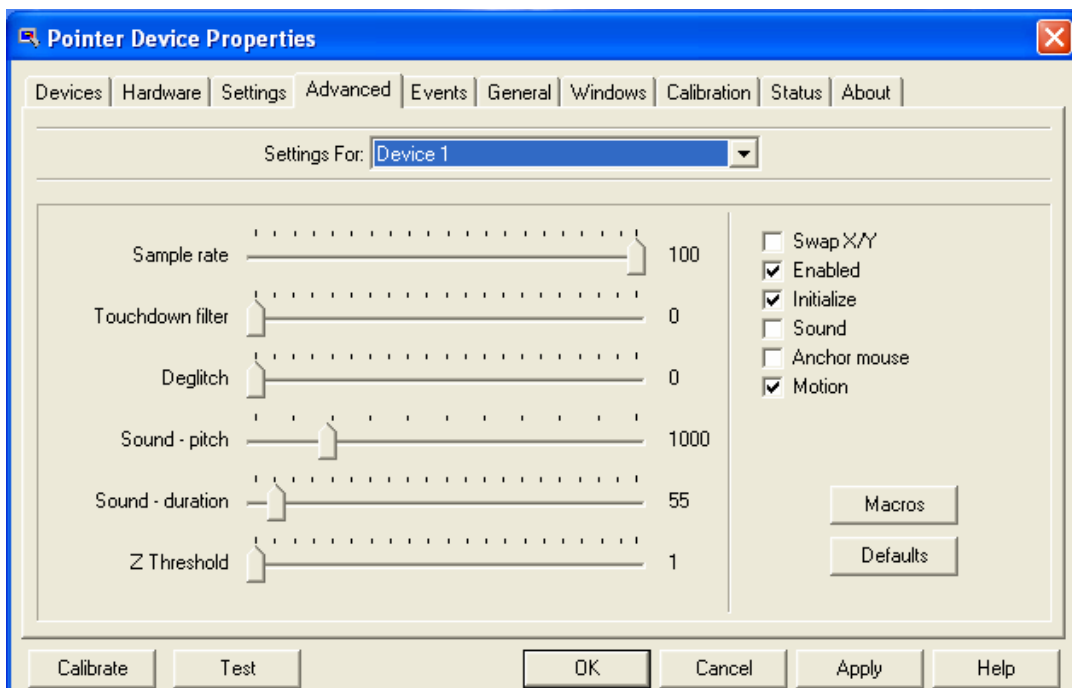
- Until the movement amount of the touch position exceeds a specified amount; this item stimulates swift movement to the touch position. The initial setting is O, and no averaging works, the more the set value is, the greater the averaging force is.

Use of a lift-off packet:
- Turning on the check lets a touched finger (pen) to be regarded as having been detached immediately when it has been detached. Do not check the item when you enter characters.

E. Advanced

- You can make more detailed setting of the functions provided by this software. However, a mistaken setting causes the touch screen not to work. Only the user familiar with the touch screen controller can make the setting.

Sound pitch:
- Sets the frequency of the click sound. The more the set value is, the higher the sound is.

Sound duration:
- Sets the period of the click sound. The more the set value is, the longer the click sound is.
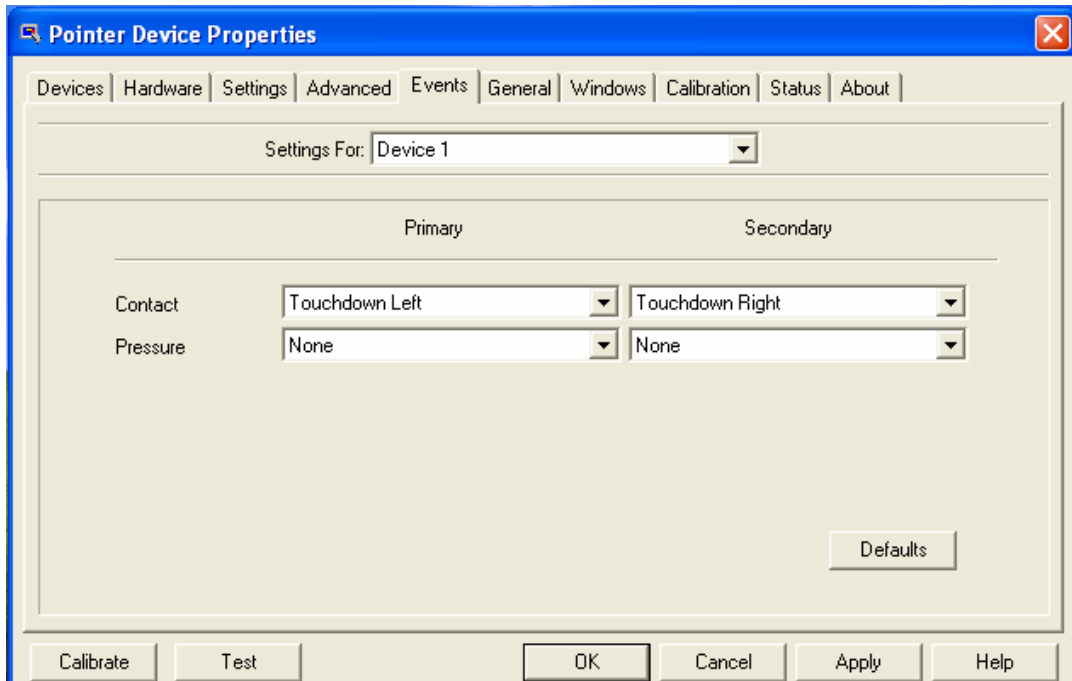
Sound:
- Turns ON / OFF the click sound

* The other items do not require any setting change.

F. Event

- Selects the function when you touch the touch screen. By the default, the [Primary] setting is applied to the touch operation. When the [Secondary] setting is used, use the [Event Selector] to click the mouse picture or text. Set the right button active or [Secondary].

Touchdown:
- The first touch makes the mouse button be clicked.

Tap:
- The first touch moves the mouse cursor, but does not click the button and the second touch causes it to be clicked. To set the allowable period between the first touch and the second touch,
  Use [Setting] → [Tap time].

Time:
- At touching, you cannot click the button until the touch position becomes stable (the touch is stopped.)
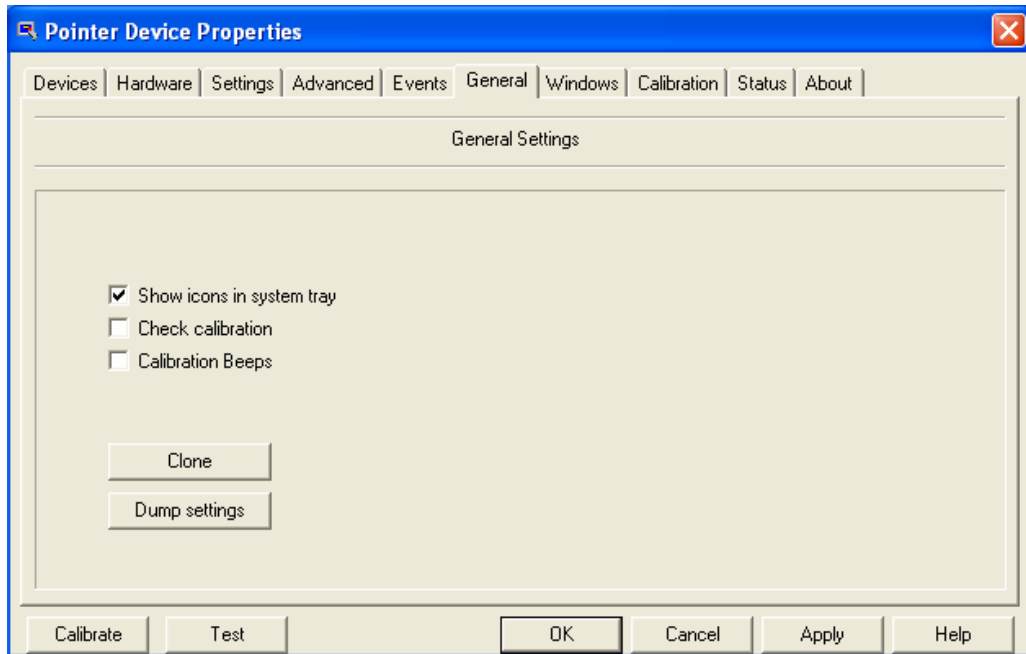 **Use the [Setting] → [Click time].**

Lift off:
- At touching, the cursor is moved and no button is clicked. When your finger (pen) is detached, the item is used for clicking or double-clicking the button.

G. General

- Sets the basic setting of the software. In almost all cases, the default setting needs not be changed.

Show icons in system tray:
   - Sets whether or not you display an icon at the system tray.

Check calibration:
   - After calibration is completed, a dialog box appears which confirms whether or not you store calibration data. When storing data, click [OK].

Calibration beeps:
   - When touching the calibration point, you can set whether or not you make the sound to confirm that it has been entered.

Clone:
   - Re-installation is used for reproducing the previous environment due to some reason. After clicking the button, C:\Program Files\UPDD\upddclon.reg is created. Make folder "updd_ext" in the layer which is the same as the installer "setup.exe". Executing "setup.exe" at this state, "upddclon.reg" is applied.
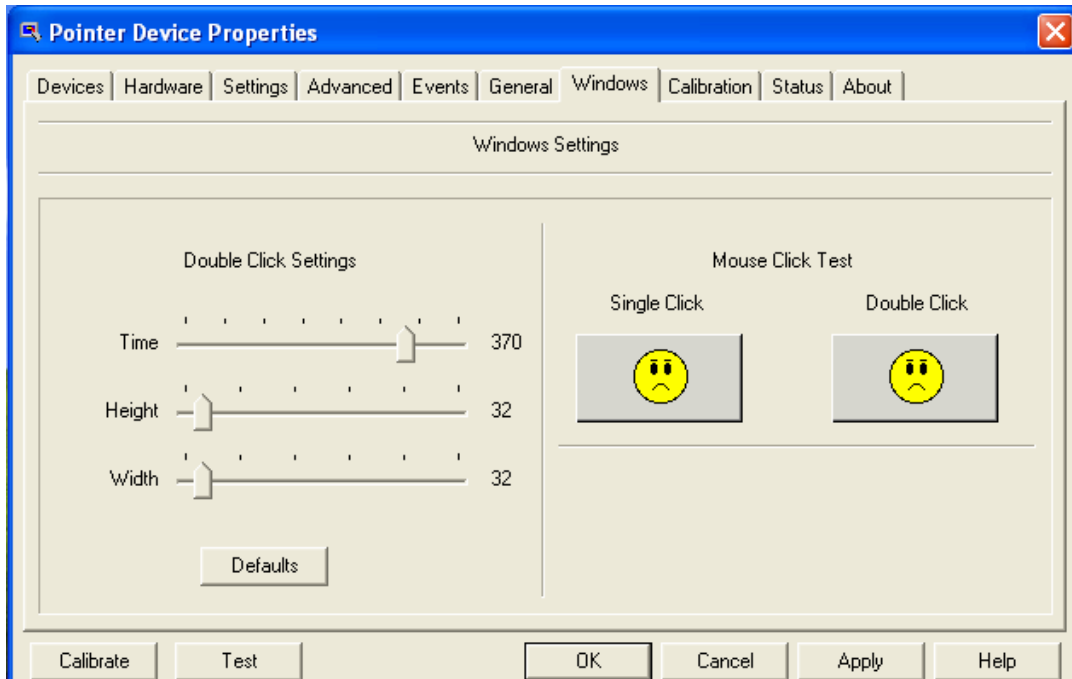
   eg: C:\setup.exe
   C:\updd_ext\upddclon.reg

Damp settings:
   - Used for damping the setting. The directory to be damped varies depending on the OS.

H. Windows

- Make the setting for double-clicking.

Time:
   - Set the allowable time form the first touch to the second touch, the greater the set value is,
   the longer the allowable time is.

Height:
   - At the second touch, set the number of dots in the vertical allowable value for which the
   position is regarded as the same as the first touch, if a too small value is set, note that you
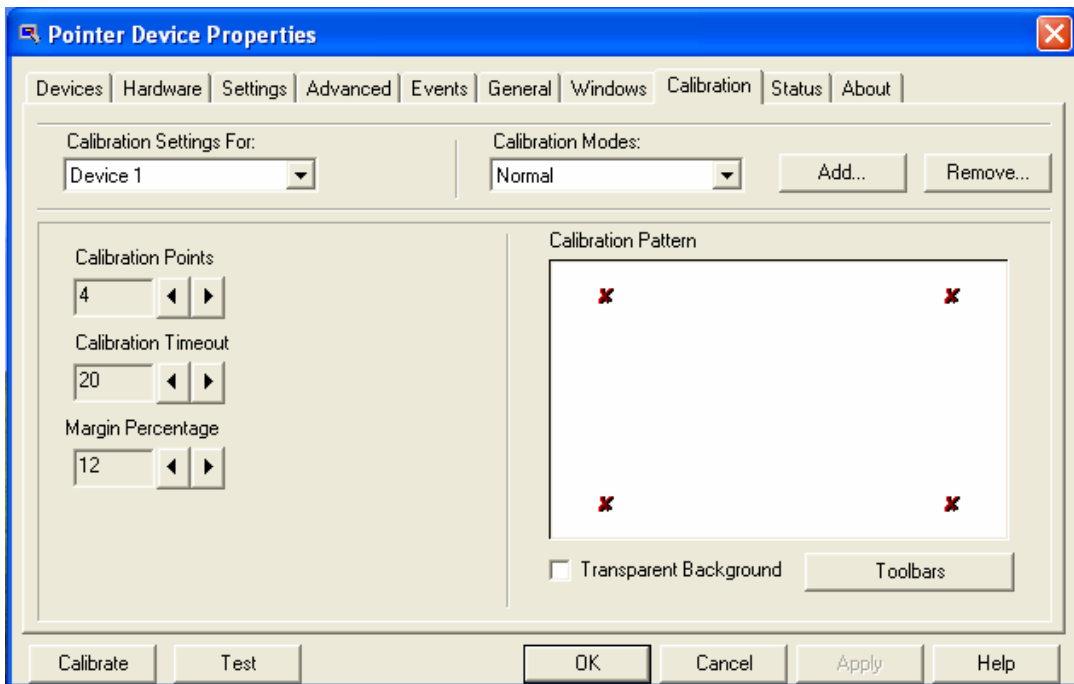   cannot double-click the button.

Width:
   - At the second touch set the number of dots in the right and left allowable value for which
   the position is regarded as the same as the first touch. If a too small value is set, note that
   you cannot double-click the button.

Mouse Click test:
   - Used for confirming the operation after setting. For the single-click test, click the [single
   click] icon, and for the double-click test, click the [Double click] icon.

I. Calibration

- Makes the setting for calibration. For calibration, multiple settings are allowed. Yon can change such setting items as the number of compensation points and timeout value for each setting.

Calibration setting:
   - When multiple controllers are listed in the device, select a calibration controller.

Calibration mode:
   - Adding a mode in the [Calibration mode] allows you to have multiple calibration data items, Use the [Add] button to add a mode, and use the [Delete] button to delete a mode.

Calibration point:
   - Sets the number of calibration points. By the default, it is 4 points, and according to the need, 2 to 25 points can be set.

Timeout:
   - At calibration, if you do not touch the button for a while after the calibration screen has appeared, timeout occurs. Set the timeout value. By the default, it is set to 20 (seconds.) According to the need, you can set a maximum of 60 (seconds).

Start in at:
   - When the screen edge is 0%, set at what percent position you display the calibration point. By the default, it is set to 12%.
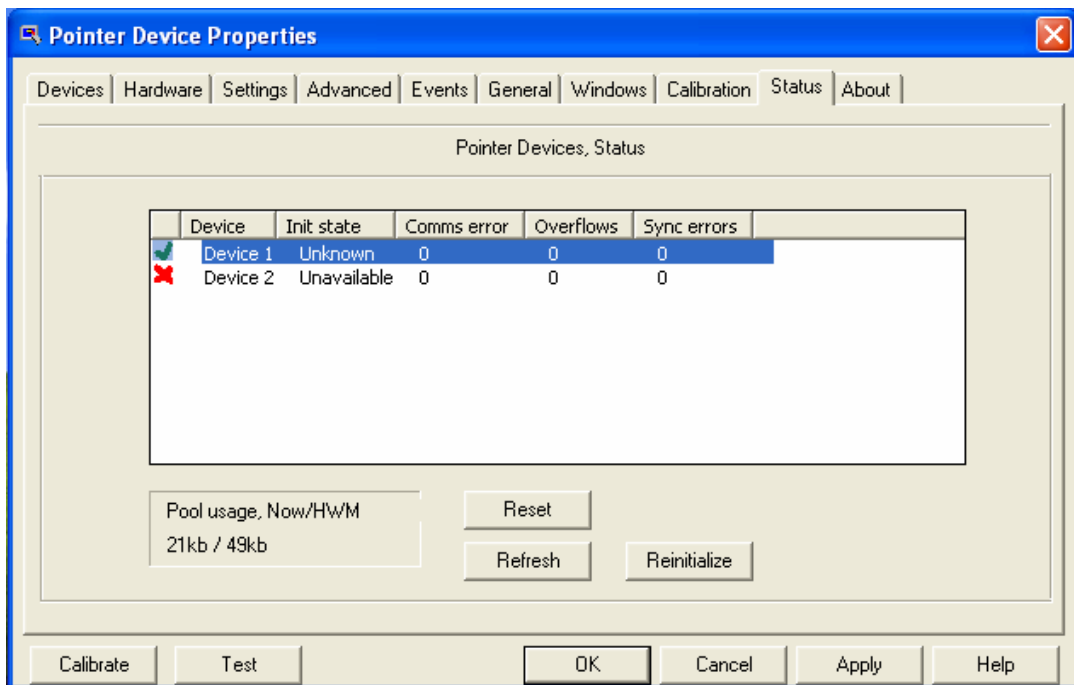
Transparent background:
- Turning on the check allows you to display the desktop at the background of the calibration screen.

EEPROM Calibration;
- If the check is turned on, the save place of calibration data is in EEPROM. And, when this function is enabled, the position of calibration (start in at) cannot be changed.

K. Status

- You can confirm the controller status display, and re-initialize the controller.

Re-initialize:
- Re- initializes the controller. In almost all cases, this button operation is not required. When [ITM Touch, Serial] is selected for the controller, and the controller is connected after booting Windows, press the "Re-initialize" button for re-initialize the system.
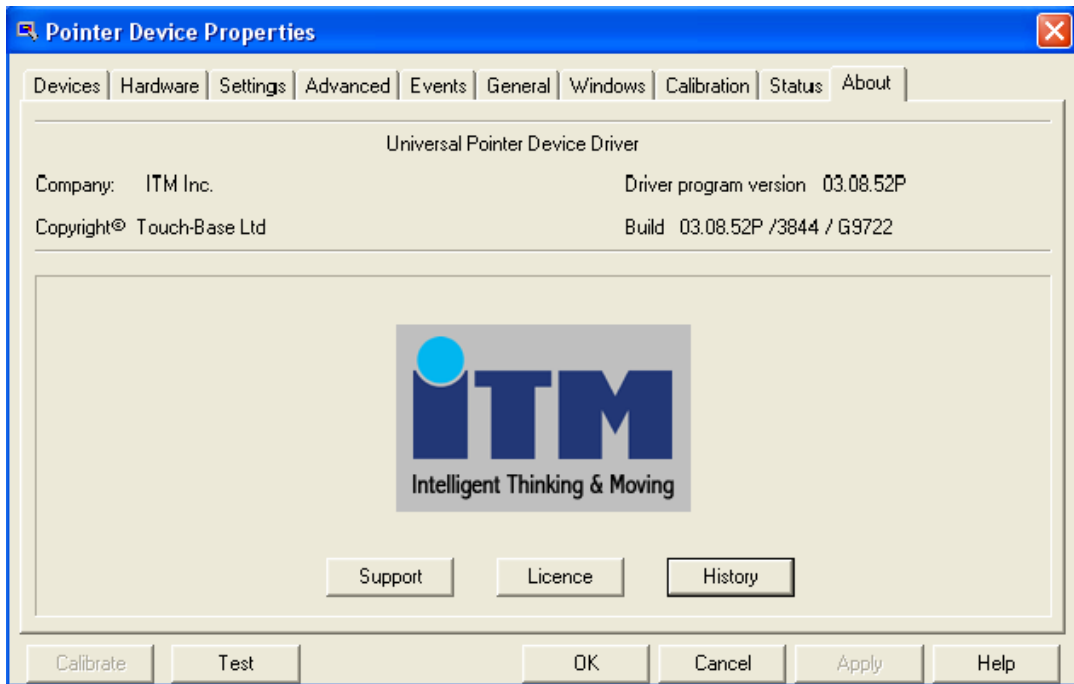
Reset:
- Resets the initial state to the up-to-date display.

Refresh:
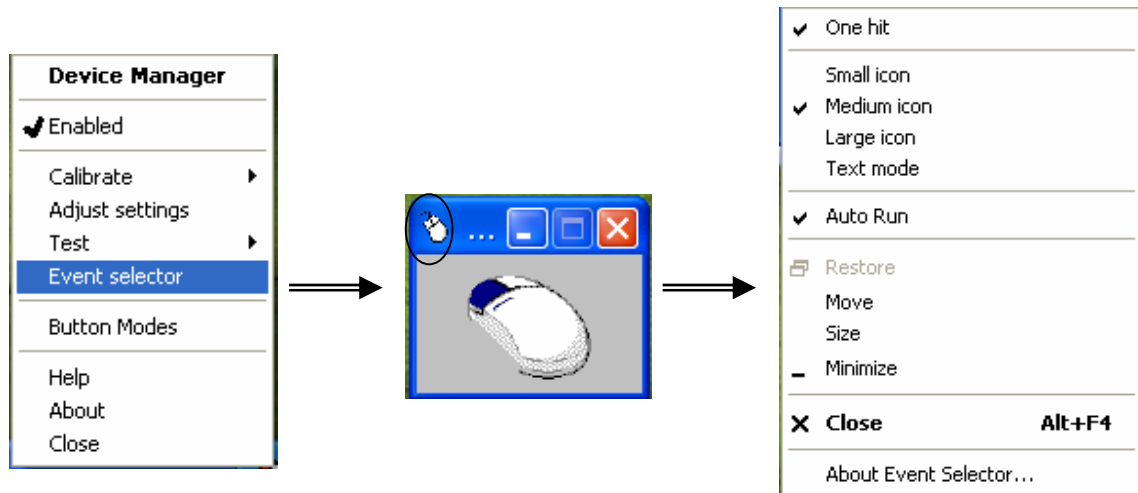- Clear the [Com port error], [Overflow], and [Synchronize error] values.

L. About

You can get the information related with UPDD and technical support.

● **Support :**
You can get the information of company which provide technical support.

● **Licence :**
You can see the licence of UPDD.

● **History :**
You can see the history of version changed.

M. Event selector

- Using the Event Selector allows you to classify the left and right clicking of the mouse button.

1. Activating the Event Selector
- Select "Start" → [Program(P)] → [UPDD] → [Event Selector].
  Or click the icon at the system tray (see the right picture), and select and activate the [Event Selector].

2. Settings
- To select the Event Selector, click a small mouse picture at the left top of the window, and select a menu displayed.

Small icon   : Displays a smaller size mouse picture in Windows.

Medium icon   : Displays the standard size mouse picture in Windows.

Large Icon   : Displays a larger size mouse picture in Windows.

Text mode   : Provides text display in Windows. One hit:
                           Enables only once touch in the right-click setting.

One hit   : Enables only once touch in the right-click setting.

Please check below before calling

Touch Screen does not work properly

☐ **Make sure that the software is installed properly..**

☐ **Check the interface cable connection.**

    - [ITM Touch, Serial] : RS-232C cable

    - [ITM Touch, USB]: USB cable

☐ **Try reconnecting the interface cable.**

Touched area and the on-screen cursor does not match

☐ **Try reconfiguring the calibration**