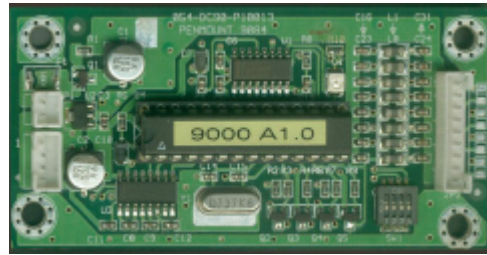


PenMount 9084 Control Board

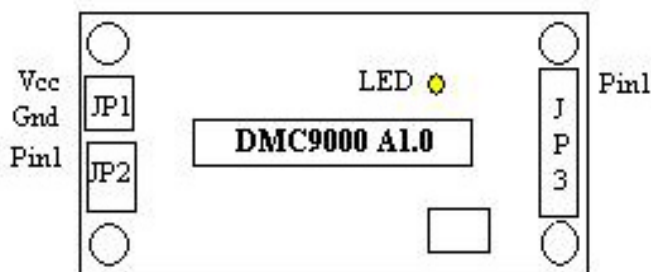


PenMount 9084 control board is a touch screen control board. The touch screen controller is DMC9000 that interfaces analog resistive touch screens to a personal computer through its COM port. PenMount 9084 control board is designed to have a small mechanical size in order to be located inside the system easily. Together with PenMount driver counterparts on various, PenMount9084 control board becomes the most popular touch screen solution worldwide. It's designed to have LED on board to show the touch status and also bundled with three interface cables, customer only needs to power in 5V to 12V DC power to the board, and via RS-232 interface to computer system, PenMount touch screen solution is in your hand.

PenMount 9084 Control Board Features:

- Resolution: 10 bit (1024*1024)
- Design for best touch performance and easy configuration
- Design for best cost arrangement
- Supporting 1024*1024 pen device resolution
- Built-in 10-bit A/D converter inside the DMC9000
- Fast conversion and transmission, 19200 baud rate fixed
- Upgraded noise handling mechanism (3 level scheme)
- Fixed and high-speed sampling rate
- 4-wire and 8-wire touch screen supported
- RS-232 interface supported
- 5V to 12V power input
- Power protection fuse to protect the circuit
- Touch activated indication LED on board

PenMount 9084 Control Board Description



JP1: Power cable: 5V to 12V DC power

JP2: RS-232 cable connector: PIN1: RTS

PIN2: TXD

PIN3: RXD

PIN4: GND

JP3: Touch Screen cable, for 4-wire or 8-wire touch screen

PenMount 9084 Control Board Hardware Installation

1. Connect the RS-232 cable to JP2 on the control board.
2. Connect the RS-232 cable's DB-9 female connector to a 9-pin serial COM port on the back of the computer.
3. Connect the touch screen to the controller using one of the controller interconnect cables (4-wire or 8-wire).
4. Connect the DC power cable to JP1. (5V to 12V)

PenMount Windows NT Driver Users Manual

(PenMount Windows NT driver V1.0.04)

PenMount DMC9000 For Windows NT Software Installation

This driver supports Windows NT. PenMount Windows NT driver detail contents are list as below:

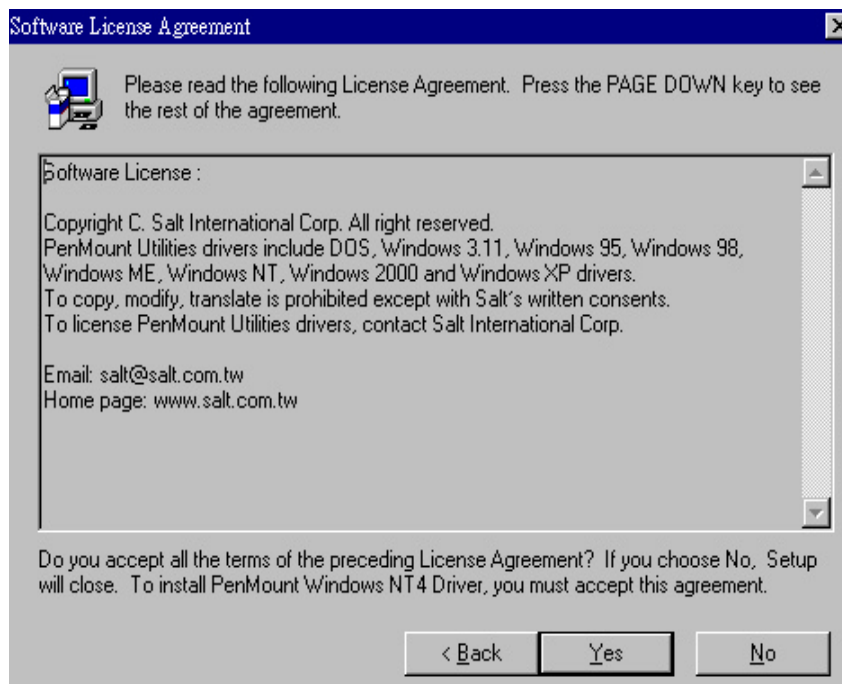
<i>_USER1.HDR</i>	<i>_ISDEL.EXE</i>
<i>_SETUP.DLL</i>	<i>_SYS1.CAB</i>
<i>_SYS1.HDR</i>	<i>_USER1.CAB</i>
<i>_INST32I.EX</i>	<i>_CONFIG.INI</i>
<i>DATA.TAG</i>	<i>DATA1.CAB</i>
<i>DATA1.HDR</i>	<i>INFO.TXT</i>
<i>LANG.DAT</i>	<i>LAYOUT.BIN</i>
<i>LICENSE.TXT</i>	<i>OS.DAT</i>
<i>README.TXT</i>	<i>SETUP.LID</i>
<i>SETUP.INS</i>	<i>SETUP.INI</i>
<i>SETUP.EXE</i>	<i>SETUP.BMP</i>

To install the software to your computer, you must have Windows NT system running. If you have an older version of PenMount Windows NT driver installed in your system, please remove it first. Follow up the steps below to install the PenMount Windows NT driver.

1. Insert PenMount Windows NT driver CD ROM. From the "Start" menu, select "Run".
2. There is one entry "setup.exe" in PenMount Windows NT driver. Or use browse to find it.
3. The screen displays "welcome" message appear. Select "Next".



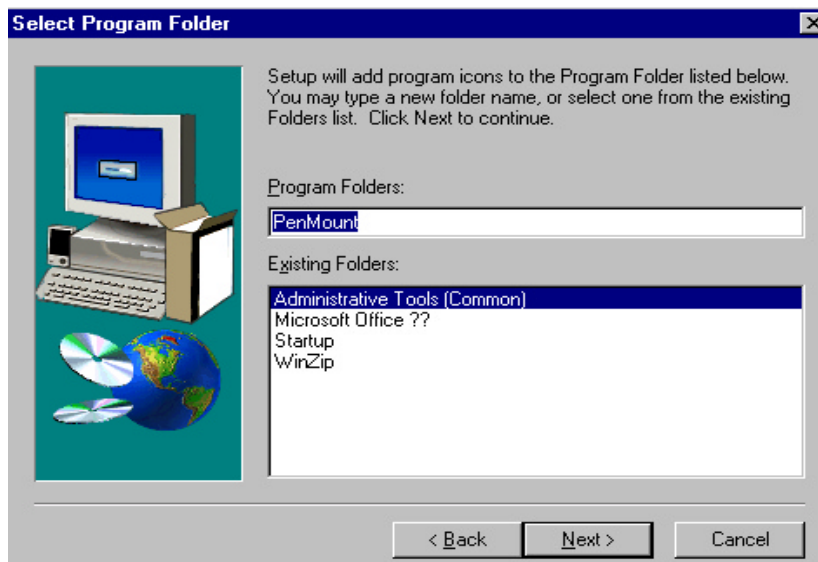
4. The next screens are "Software License Agreement" and "Information", select "Yes" and "Next".



5. The next screen is "Choose Destination Location", it is for Setup installing PenMount Utilities in the folder: C:\Program\ Files\PenMount\NT, select "Next" or modify the folder name you like to use.



6. The next screen is "Select Program Folder, the default is set at "PenMount ", select "Next" or change it.



7. After selecting well, the screen is showing "Start Copying Files", select "Next" for starting copy files to system. The screen now is "Setup Complete", select "Finish".

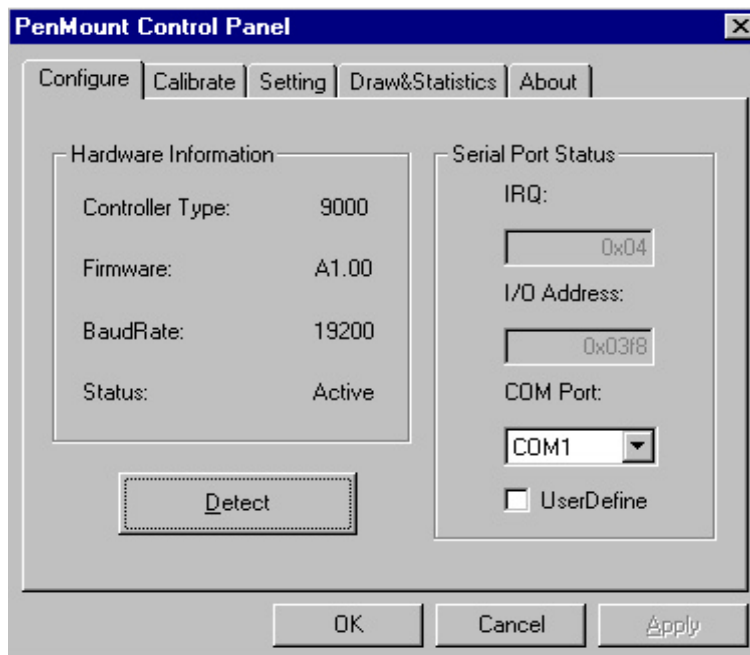


"PenMount Control Panel" now is on the screen. Functions are explained as follows. Set the 'Configure' now by using 'DETECT' icon to auto-detecting the correct com port. And reboot system. After rebooting system, do calibration now, select 'Calibrate' in 'PenMount Control Panel' from 'PenMount Utilities' that is in 'Programs' to adjust the mapping of touch point and screen display.

PenMount Windows NT Driver Functions

A. PenMount Control Panel

Configure:



There are several functions on this configure:

Controller Type:

It shows the PenMount controller type: 9000

Baud Rate:

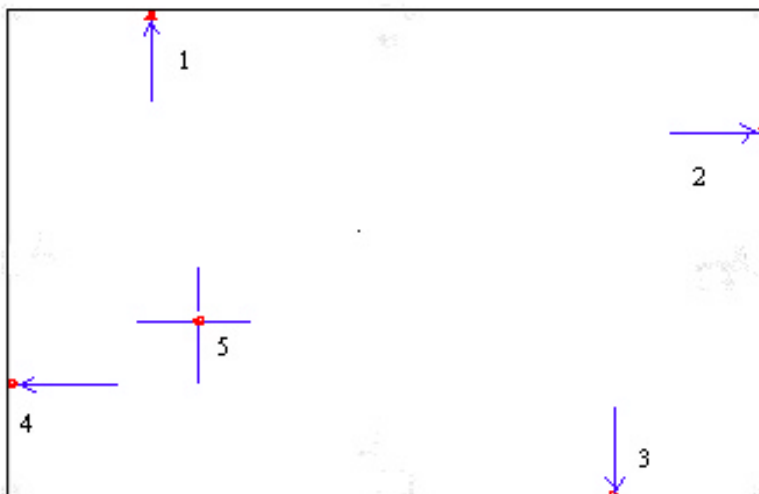
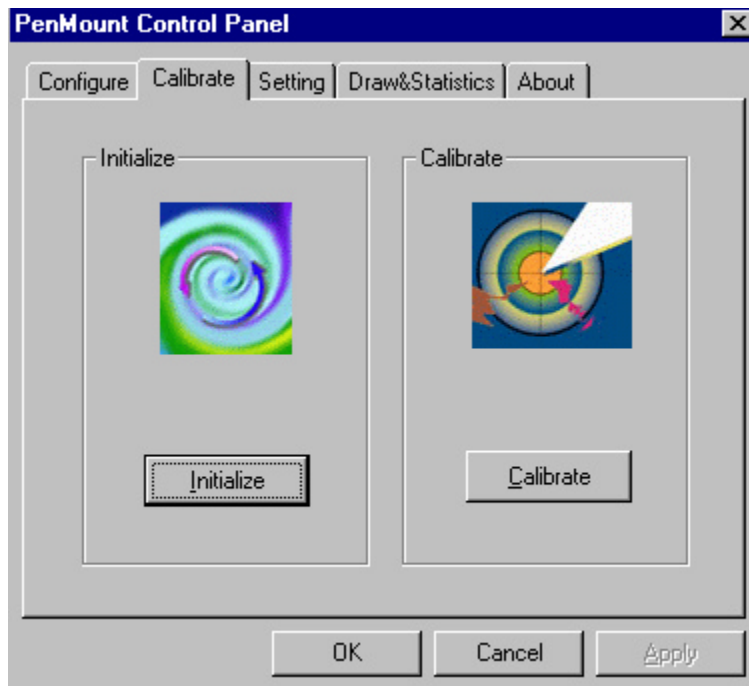
DMC9000 controller baud rate is fixed at 19200;

Detect:

"Detect" icon is the auto-detecting key for detecting COM port, IRQ number, based address.

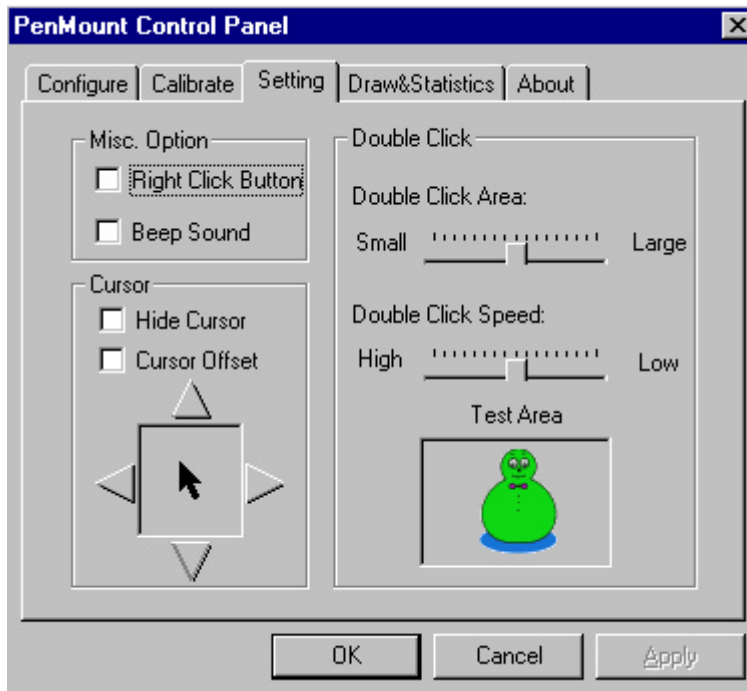
Calibrate:

There are two areas: "Initialize" for initializing the controller and "Calibrate" for adjusting the screen and touch screen matching.



Setting:

There are several functions on this setting:



Misc. Option:

"Right Click Button" is for setting touch click as mouse right button. "Beep Sound" is for turning on or off the beep sound.

Cursor:

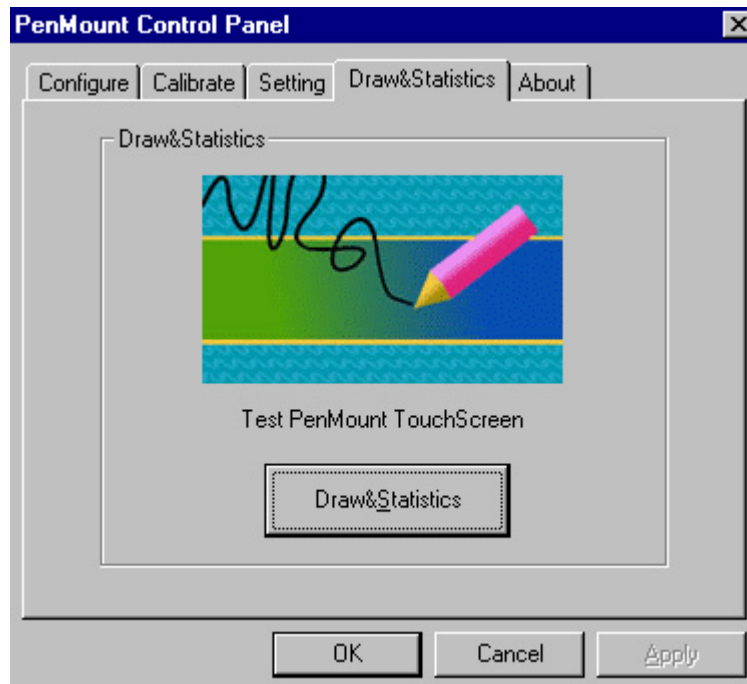
"Hide Cursor" and "Cursor Offset", user may offset the touch cursor display place by tuning the "Cursor Offset" function.

Double Click :

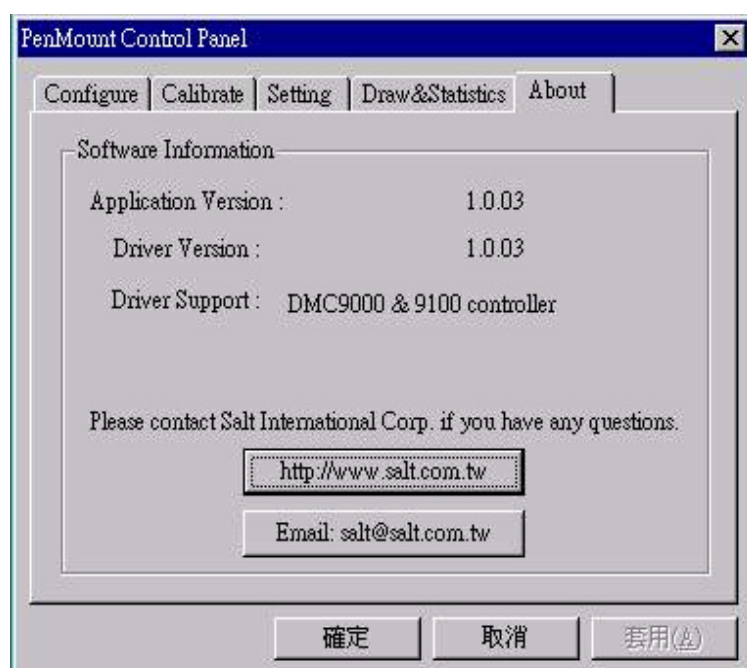
There are three areas, "Double Click Area", "Double Click Speed" and "Test" area. There is a tumbler swing once you double click in the test area. Move the button of "Double click Area" and "Double Click Speed" to adjust the double click performance

Draw&Statistics:

Test or demonstrate PenMount touch screen operation, also the touch location is shown on the display, touch “Draw&Statistics” to start.

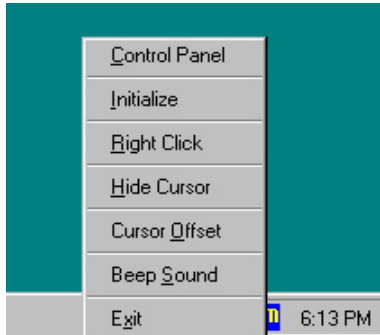


About:



B. PenMount monitor

The PenMount monitor icon is shown in the menu bar of Windows NT system when turn on PenMount Monitor from PenMount Utilities. There are several functions on PenMount monitor :



■ Initial :

To reset PenMount controller chipset. Normally, user does not need to reset the controller chipset, PenMount Windows NT driver will check the controller chipset automatically.

■ Right Click Button:

When select this function, there is a mouse icon shown in the right-bottom place of screen. It shows 'left button' being as default for normal use, touch this mouse icon to change the next touch to be 'Right Button' function. After one touch, the mouse icon will change to 'Left Button' automatically. If user needs to use right button again, user has to touch the mouse icon again for changing the button function.

■ Hide Cursor:

To hide cursor, if user select to hide cursor, the cursor will be disappear until turn off this 'Hide Cursor' function.

■ Cursor Offset:

Adjust the cursor offset from 'SETTING' of PenMount Control Panel. Once select this function, mouse will be offset according to setting.

■ Beep Sound:

Turn on or off beep sound.

■ Exit:

Close the PenMount Monitor function.

C. PenMount Rotating Functions:

PenMount driver for Windows NT supports several rotating software such as

Portrait' s Pivot Screen Rotation Software

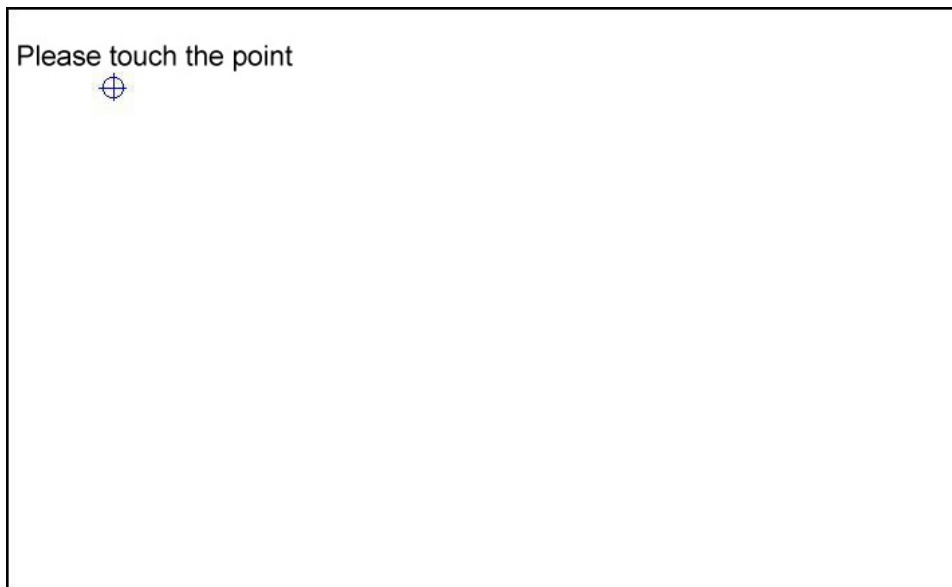
ATI Display Driver Rotate Function

nVidia Display Driver Rotate Function

SMI Display Driver Rotate Function

How to operate the rotate function:

1. Install the rotate software first.
2. Chose the rotate function, and then you will see the calibration point, please touch that point, and cursor will map the rotation itself.



How to uninstall PenMount Windows NT driver

Before you uninstall PenMount Windows NT driver, please ‘EXIT’ ‘PenMount Monitor’ that is in menu bar.

From ‘PenMount Utilities’ of ‘Programs’, select ‘Uninstall’ utility, computer will ask you “are you sure you want to completely remove ‘PenMount Utilities’ and all its components”? Select ‘Yes’ to remove PenMount Windows NT driver.