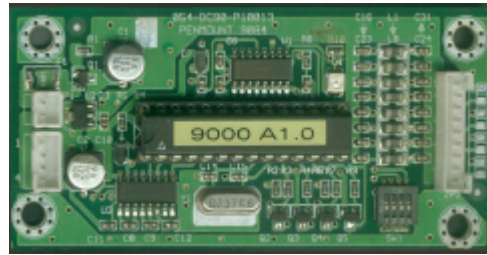


PenMount 9084 Control Board

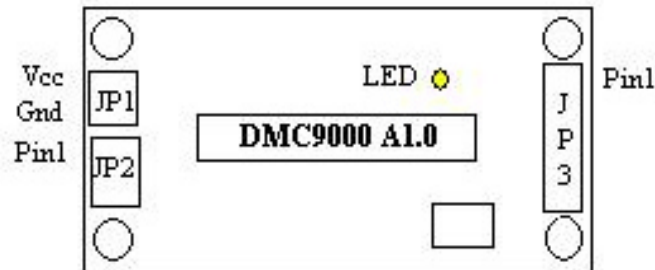


PenMount 9084 control board is a touch screen control board. The touch screen controller is DMC9000 that interfaces analog resistive touch screens to a personal computer through its COM port. PenMount 9084 control board is designed to have a small mechanical size in order to be located inside the system 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 95 Driver Users Manual

(PenMount Windows 95 driver V2.1)

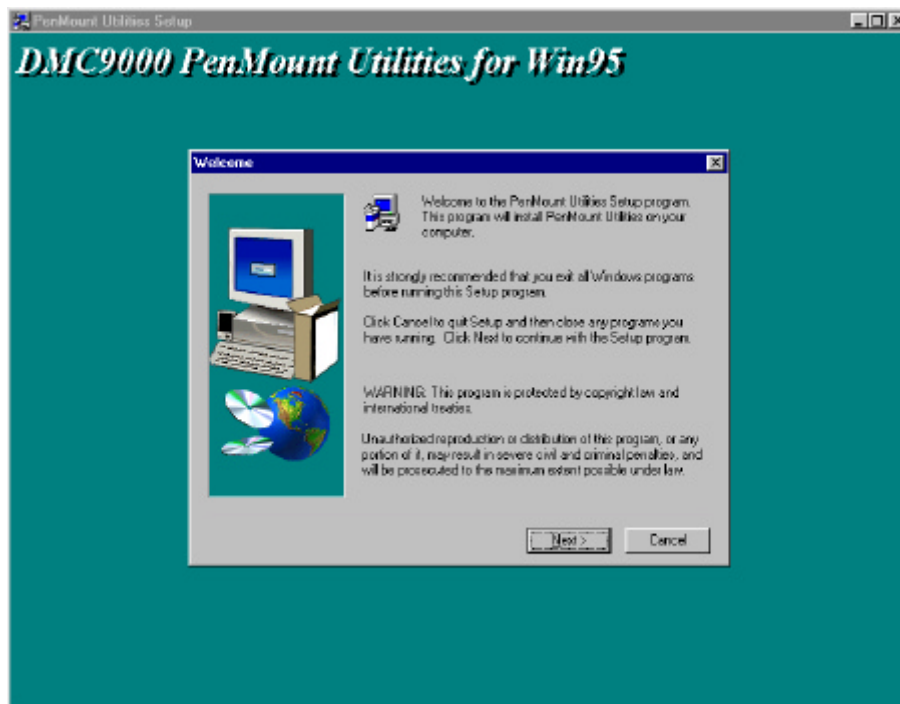
PenMount DMC9000 For Windows 95 Software Installation

This driver supports Windows 95. PenMount Windows 95 driver detail contents are list as below:

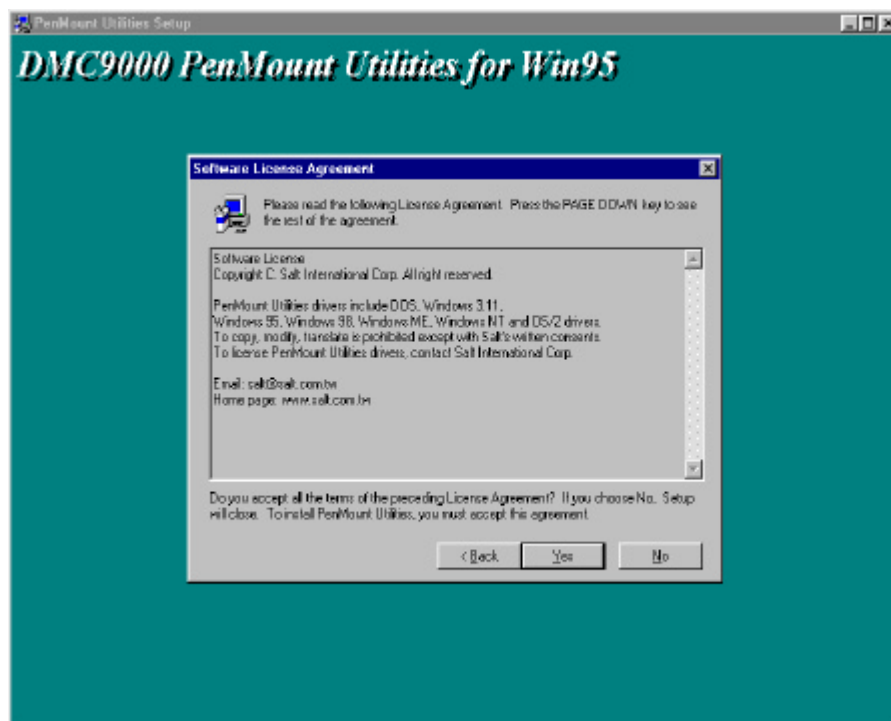
_INST32I.EX	_SETUP.EXE
_ISDEL.EXE	OS.DAT
LANG.DAT	_SETUP.DLL
SETUP.INS	DATA.TAG
SETUP.INI	_SYS1.HDR
_SYS1.CAB	_USER1.HDR
_USER1.CAB	SETUP.LID
SETUP.BMP	DATA1.HDR
DATA1.CAB	LAYOUT.BIN
CONFIG.INI	README.TXT

To install the software to your computer, you must have Windows 95 system running. If you have an older version of PenMount Windows 95 driver installed in your system, please remove it first. Follow up the steps below to install the PenMount Windows 95 driver.

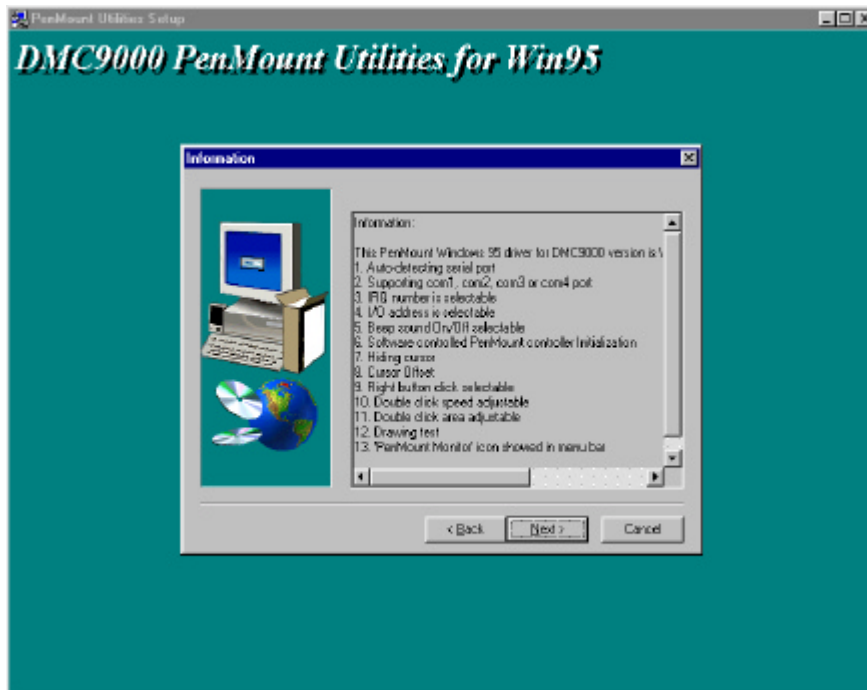
1. From the "Start" menu, select "Run".
2. There is one entry "setup.exe" in PenMount Windows95 driver. Or use browse to find it.
3. The screen displays PenMount logo, copying "installation wizard" and 'PenMount Utilities" screen plus "welcome" message appears. Select "Next".



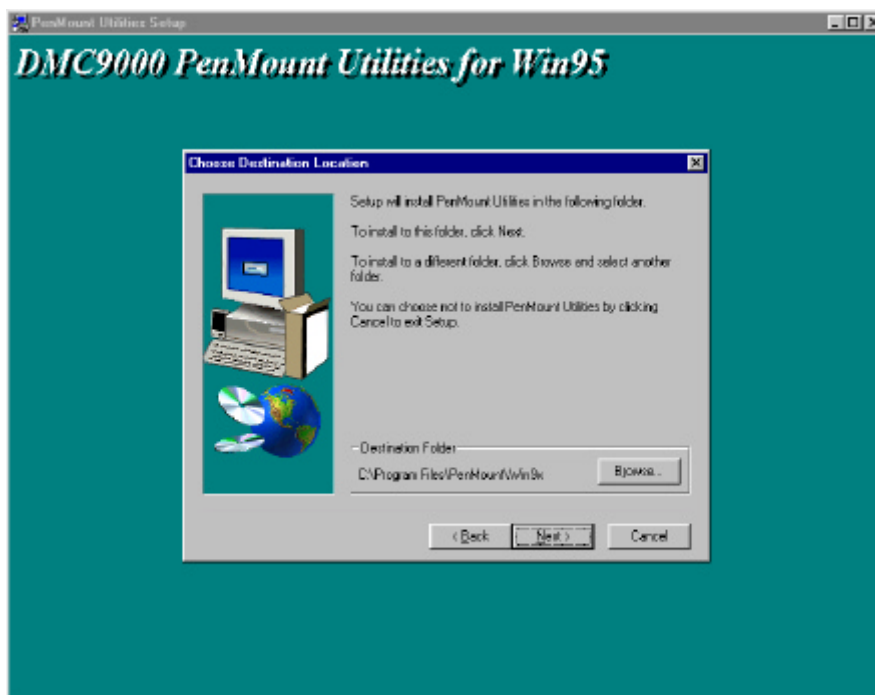
4. The next screens are "Software License Agreement" and "Information", select "Yes" and "Next".



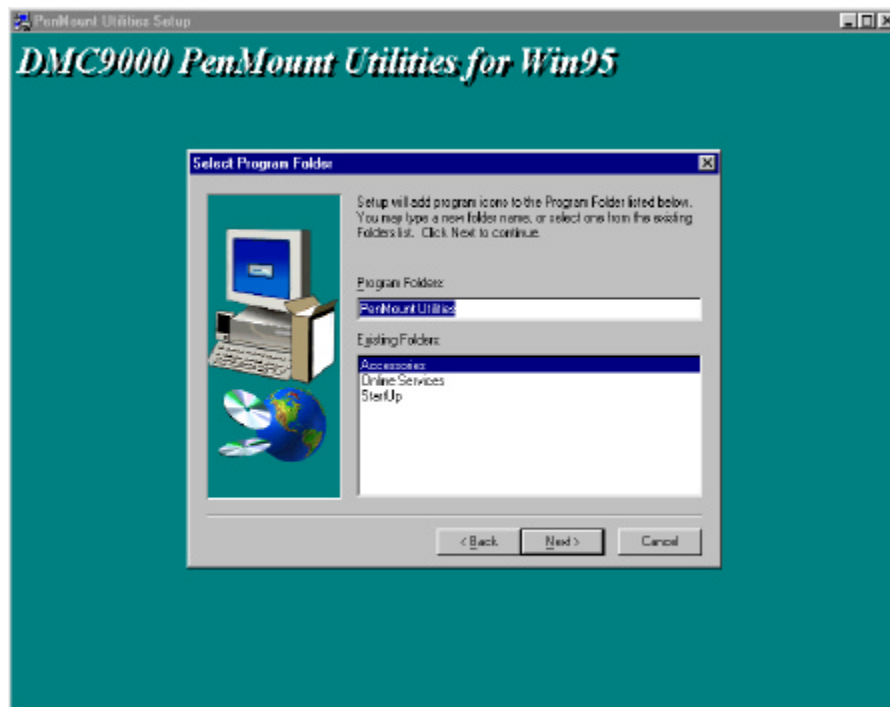
5. The next screen is "Choose Destination Location". It is for Setup installing PenMount Utilities in the folder: C:\Program Files\PenMount\Win9x, Select "Next" or modify the folder name you like to use.



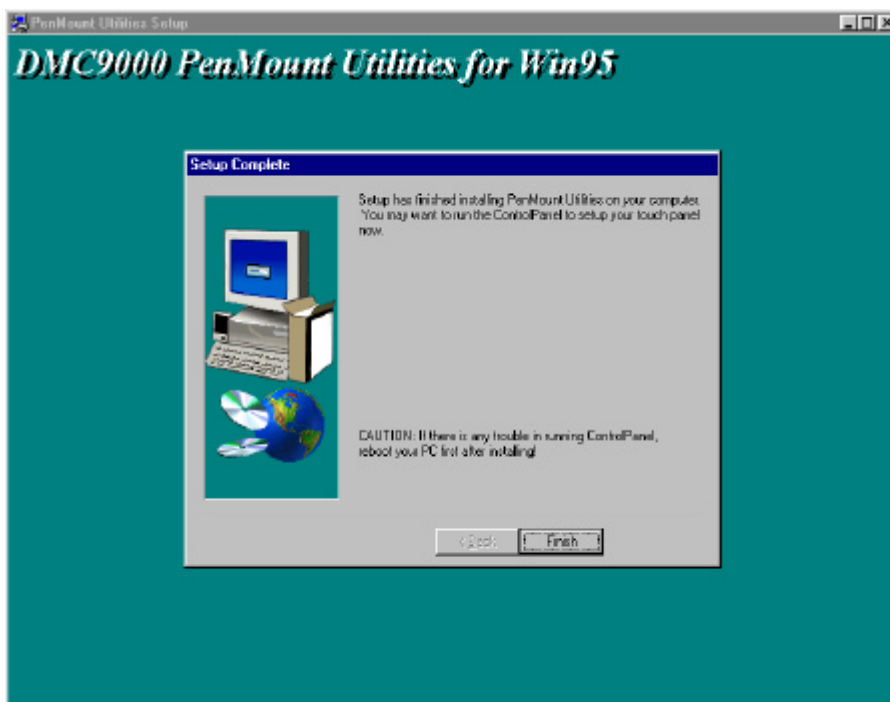
6. The next screen is "Select Program" folder , the default is set at "PenMount Utilities", select "Next" or change it.



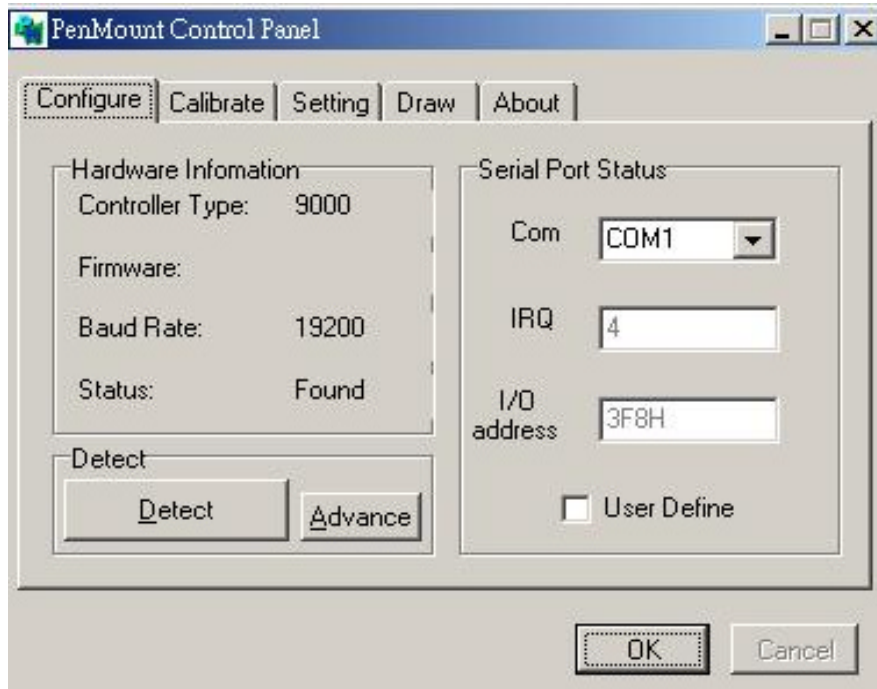
7. The screen is showing "Start Copying Files", select "Next" for starting copy files to system.



8. The screen now is "Setup Complete". Select "Finish".



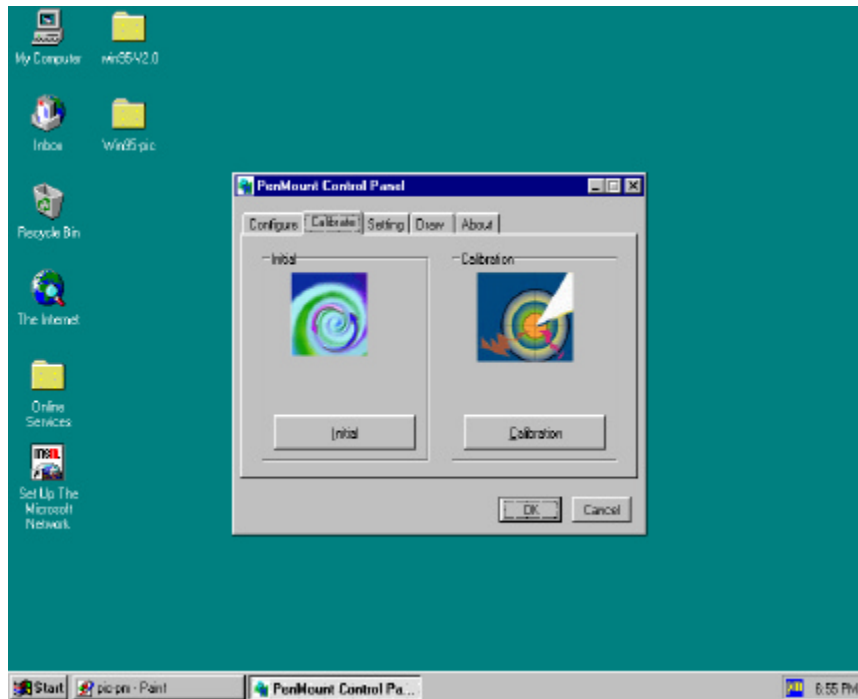
"PenMount Control Panel" is on the screen now. Functions are explained below. Set the 'Configure' for correct Com port, IRQ number and base address now.



If your touch screen is connected to com1 or com2 port, you could use 'DETECT' button to do auto-detecting the com port. If you do not know which com port connected, 'Advance' detect button could support you to find the correct data. Before selecting this 'Advance Detect' button, you have to STOP all other programs first, otherwise it maybe cause other programs out of control. The third way is input the data directly by selecting 'User Define' button.

After selecting, the system will ask to reboot. Reboot the system, PenMount touch screen is working now.

After reboot system, do Calibration, select 'PenMount Control Panel' from 'PenMount Utilities' that is in 'Programs', or select the 'PM Control Panel' from 'PM' icon in menu bar. See below PenMount Windows 95 Driver Functions on how to do calibration.

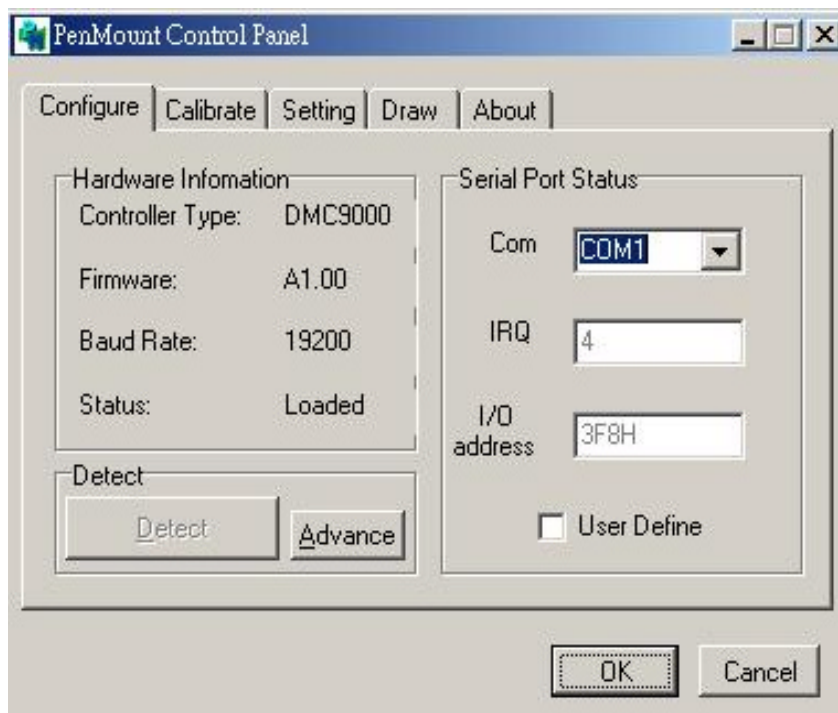


PenMount Windows 95 Driver Functions

A. PenMount Control Panel

Configure:

It is for setting hardware connecting, especially for RS-232 port, IRQ number and based address.



There are several functions on this configure:

Controller Type:

It shows the PenMount controller type, DMC9000

Baud Rate:

For DMC9000, baud rate is fixed at 19200.

Detect:

It is for detecting the connected port either in com1 or com2 only.

Advance:

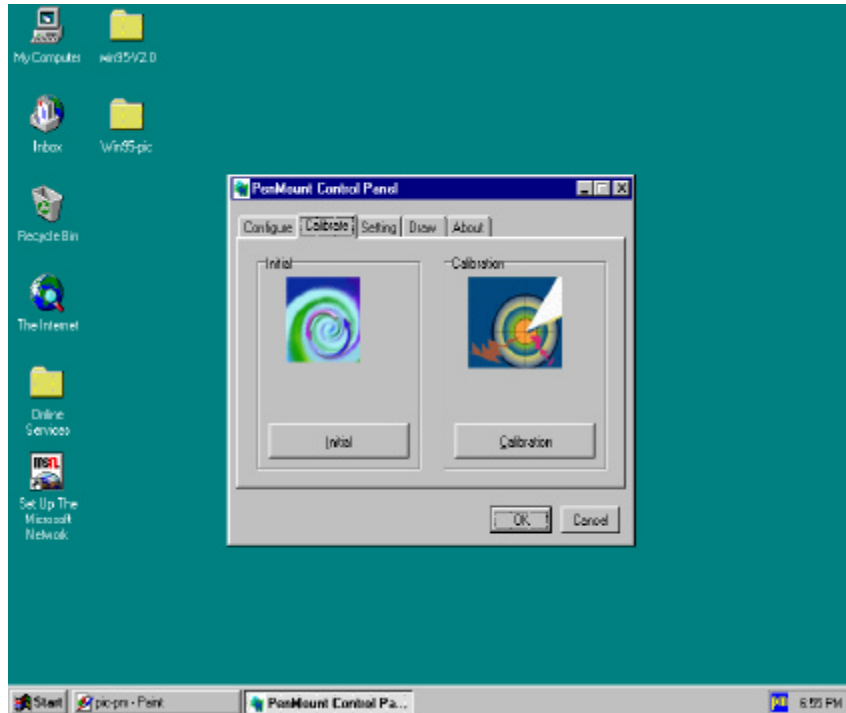
This function is to detect com1 to com4 port, it will detect the com port and IRQ number in sequence. **You have to STOP all other programs running before you select “Advance” detecting.**

User Define:

To input the data from keyboard

Calibrate:

"Initial" and "Calibration" function is available here.

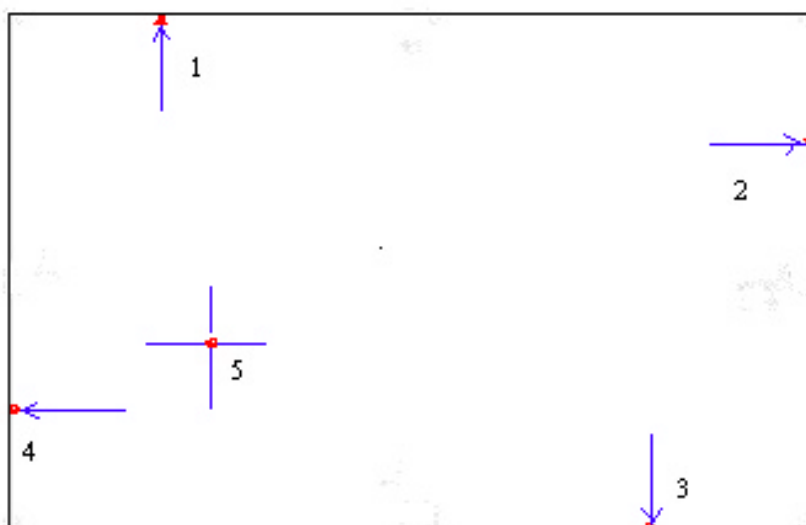


Initial:

To re-initial PenMount touch screen controller

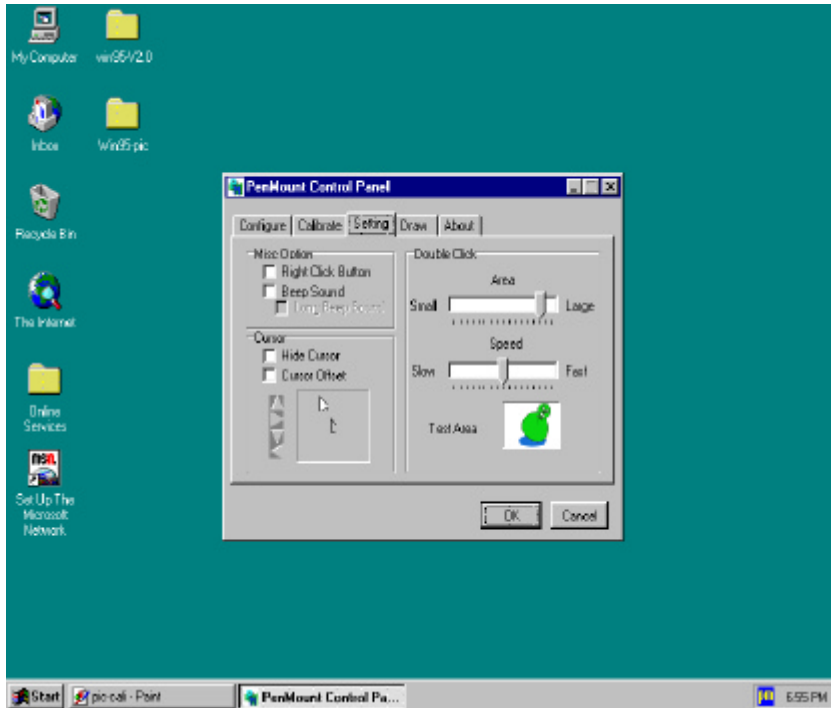
Calibration:

To adjust the display with touch panel, click "Calibration" and follow the calibrate point to do calibration, there are five points on screen for calibration.



Setting:

For setting cursor, turn on/off beep sound, change mouse button and offset touch area, speed,..etc..



There are several functions on this setting:

Misc. Option:

Here is for setting "Right Click Button" and turn on/off "Beep Sound" and "Long Beep Sound".

Cursor:

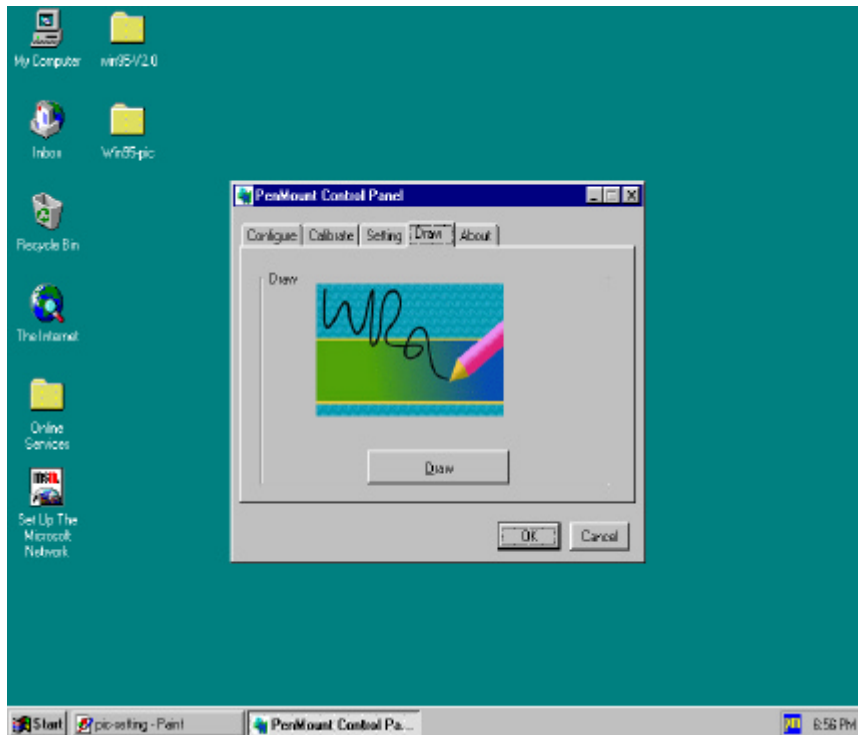
To set the cursor either "Hide Cursor" or "Cursor Offset". For cursor offset, use arrow key to offset cursor displayed location.

Double Click :

This area is for double click adjustment and test area, move the button of "Double Click Area" and "Double Click Speed" to have good performance of double click. "Test" area is for test the double click performance, once double click on this "Test" area, the tumbler will swing to and fro.

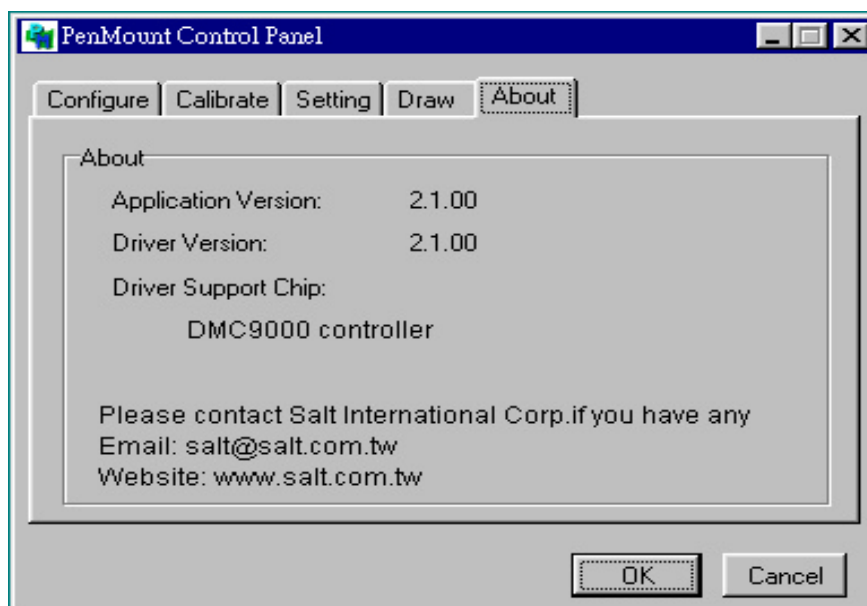
Draw:

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



About:

It shows information about PenMount controller and this driver version.



B. PenMount monitor

The PenMount monitor icon is shown in the menu bar of Windows 95 system when turn on PenMount Monitor from PenMount Utilities. There are several functions on PenMount monitor :

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 95 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. The cursor will be disappeared until turn off this 'Hide Cursor' function.

■ Cursor Offset:

Adjust the cursor offset from 'SETTING' of PenMount Control Panel. Mouse cursor will be offset as per setting.

■ Beep Sound:

On or off beep sound.

■ Exit:

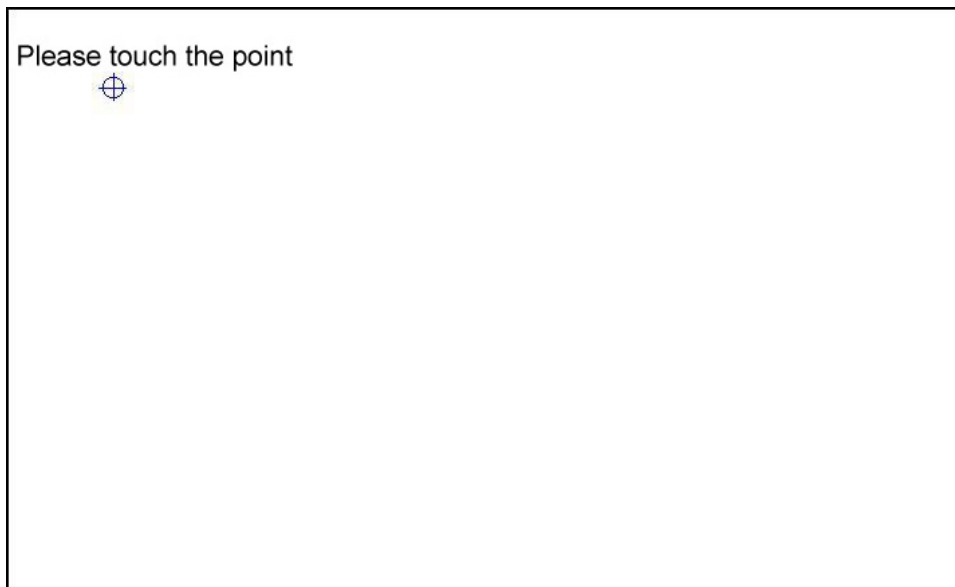
Close the PenMount Monitor function.

C. PenMount Rotating Functions:

PenMount driver for Windows 95 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 95 driver

Before you uninstall PenMount Windows95 driver, please 'EXIT' the 'PenMount monitor' in menu bar first. 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 Windows95 driver. After reboot system, PenMount Windows95 driver is removed from system.