

**MOXA Smartio & Industio Family
Windows 2000 Driver Installation Guide**

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1. Introduction

The Installation Guide provides the procedure about MOXA multiport boards driver installation under Windows 2000 for all users.

The Windows 2000 driver for MOXA Smartio & Industio family multiport boards support following products.

- **PCI Boards : C168H/PCI, C104H/PCI, CP -114, CT-114I, CP -132**
- **ISA Boards : C104 series, C168 series, CI-104J, C102, C114HI, CI -132, CI-134**

For latest driver update, please refer to our web site at following address.

<http://www.moxa.com> or <http://www.moxa.com.tw>

2. PCI Boards Driver Installation Procedures

This paragraph illustrates the driver installation for MOXA Smartio & Industio PCI board under Windows 2000.

Note:

- Please refer to the User's Manual for hardware installation prior to install the board.
- The following illustration and demonstration will be based on C168H/PCI. The installation procedure for C104H/PCI, CP -114, CT-114I, CP-132 is same as C168H/PCI.

First time Installation Procedure

1. PC power off.
2. Insert the PCI series board of MOXA Smartio & Industio Family into the PC's PCI slot.
3. PC power on.
4. The Windows 2000 can auto-detect the newly device and activate "Found New Hardware" for a suitable device driver via Plug & Play function.

Under the panel of "Found New Hardware Wizard", click [Next] to continue.

(As Figure.2-1~ Figure.2-2)



Figure.2-1



Figure.2-2

5. Choose "Search for a suitable driver..." and click [Next] to continue. (As Figure.2-3)



Figure.2-3

6. Choose "Specify a location" and [Next] to install the board's driver. (As Figure.2-4)



Figure.2-4

7. Insert the MOXA Driver CD-ROM and specify driver location for the Wizard. Assume that the CD-ROM driver letter is "F:", enter the driver location in the Windows. Then press [OK] to continue. (As Figure.2-5)

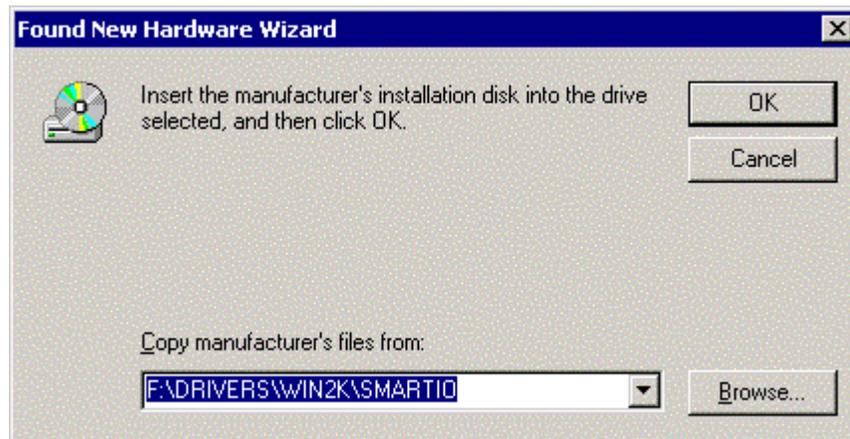


Figure.2-5

8. Press [OK], Windows will copy all necessary files into the system. Press [Next] to continue. (As Figure.2-6)

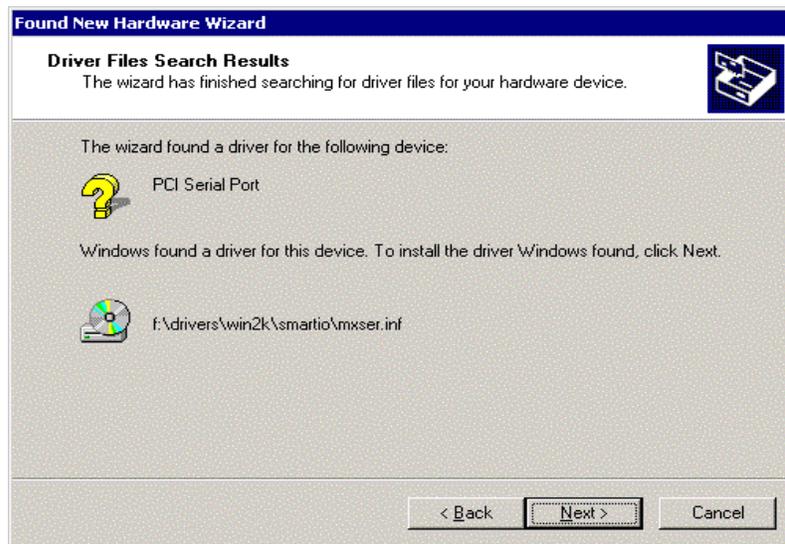


Figure.2-6

9. Next, the Window "Completing the Found New Hardware Wizard" appears with the model number for the board. It means, Windows has finished the board's driver installation. Click [Finish] to continue rest of driver installation. (As Figure.2-7)



Figure.2-7

10. The screen pops up “ Found New Hardware Wizard “ window to continue the rest of procedures. Click [Next], when the “Found New Hardware Wizard” appears.

(As Figure.2-8 ~ Figure.2-9)



Figure.2-8



Figure.2-9

11. Choose "Search for a suitable driver..." and click [Next]. (As Figure.2-10)

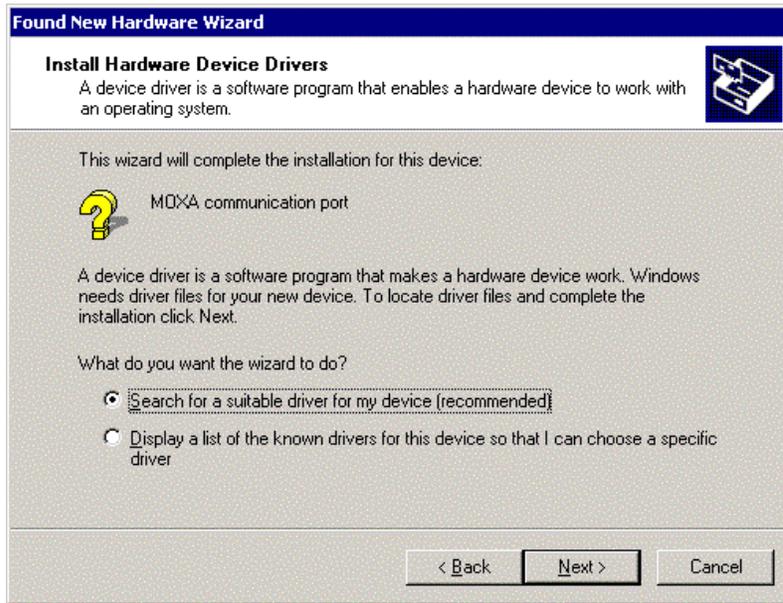


Figure.2-10

12. Choose "Specify a location" and [Next] to install the driver. (As Figure.2-11)

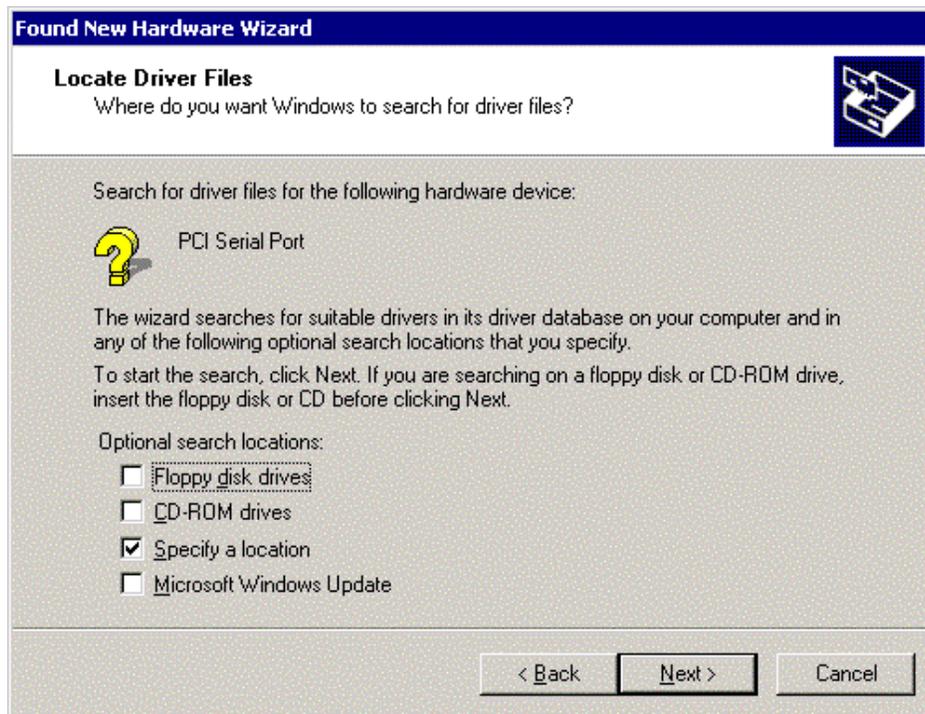


Figure.2 -11

13. Insert the MOXA Driver CD-ROM and specify driver location for the Wizard. Assume that the CD-ROM driver letter is "F:", enter the driver location in the Windows. Press [OK], Windows will copy all necessary files into system. Then press [Next] to continue.

(As Figure.2-12)

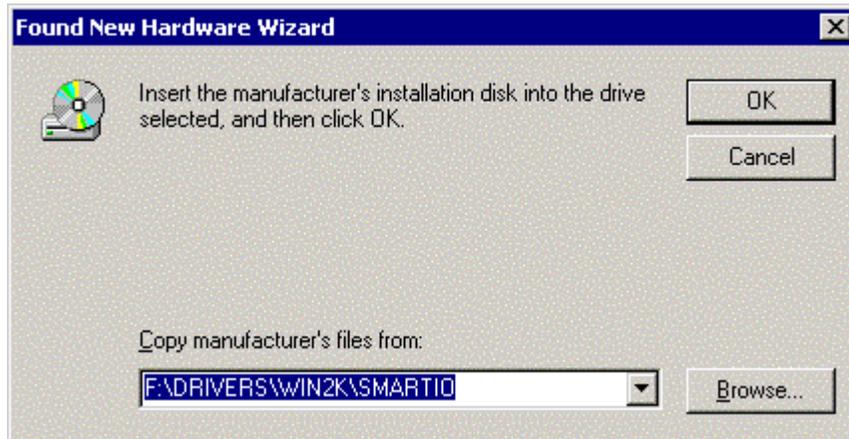


Figure.2-12

14. Next, the Windows appears the message for driver search result with MOXA communication port to inform you that Windows found a driver for your device. Click [Next] to start installation. (As Figure.2-13)



Figure.2-13

15. After all files copy to the system, the window “Found New Hardware Wizard” displays ” MOXA Port0”. It means, Windows has finished the port0’ driver installation and click [Finish] to install other ports’ installation. This procedure will take for a while depends on the number of ports you install. (As Figure.2-14 ~ Figure.2-15)



Figure.2-14



Figure.2-15

The whole procedure is finished, When the “Found New Hardware” disappears.

If you would like to know the result of this installation, please refer to the chapter four

“Check the Installation Result”.

3. ISA Boards Driver Installation Procedure

This driver installation supports the MOXA Smartio and Industio ISA Boards, which include C104 series, C168 series, CI -104J, C102, C114HI, CI-132, CI-134 under Windows 2000.

The ISA boards have to adjust the I/O address and IRQ by running the io-irq.exe under pure DOS for the I/O address and IRQ configuration first. The I/O address and IRQ should avoid conflicting with other devices, or Windows will ask you to reboot the PC, it means you have to verify all available devices' I/O address and IRQ. Please refer to the chapter regarding H/W Installation of MOXA User's Manual for more information.

The following procedure will base on our factory default settings.

- **I/O Address** : **180**
- **Interrupt Vector** : **1C0**
- **IRQ** : **10**

First Time Installation Procedure

1. PC power off.
2. Insert the ISA series boards of MOXA Smartio or Industio Family into the PC's ISA slot.
3. PC power on.
4. Select "Start"→"Settings"→ "Control Panel"→"System"→ "Hardware" → "Hardware Wizard". Under the panel of "System Properties", click "Hardware Wizard" to enter the procedure of "Add/Remove Hardware Wizard". Click [Next] to continue.

(As Figure.3-1~ Figure.3-2)

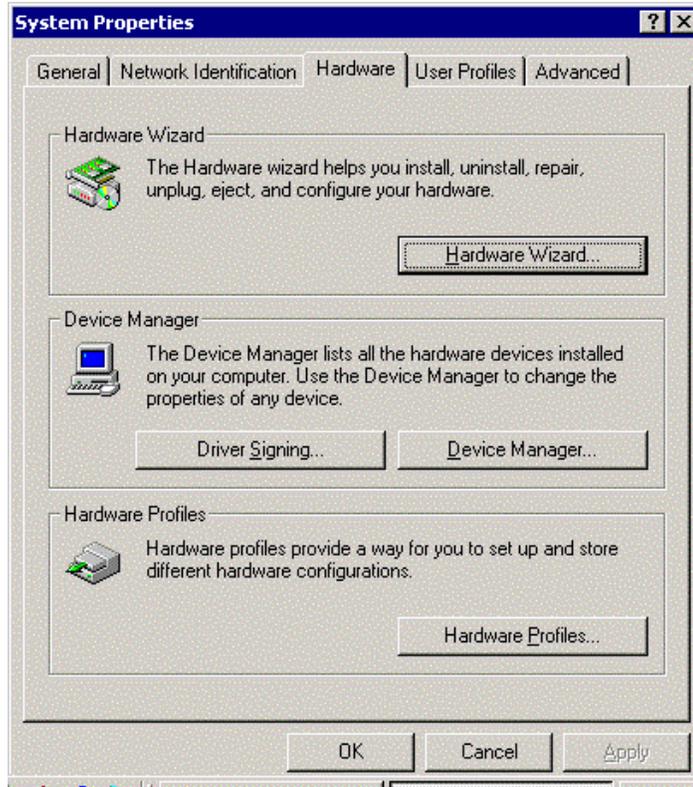


Figure.3-1



Figure.3-2

5. In the Window of "Add/ Remove Hardware Wizard", choose the " Add/Troubleshoot a device..." and click [Next] to enter the procedure of devices selected. (As Figure.3-3)

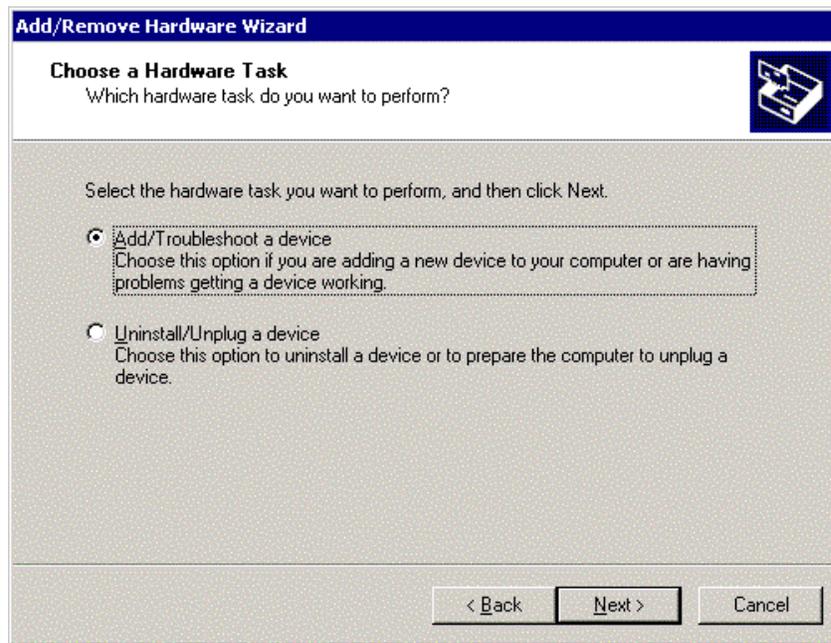


Figure.3-3

6. The next procedure is for users to choose a hardware device from devices list box. Select "Add a new device" and click [Next]. (As Figure.3-4)

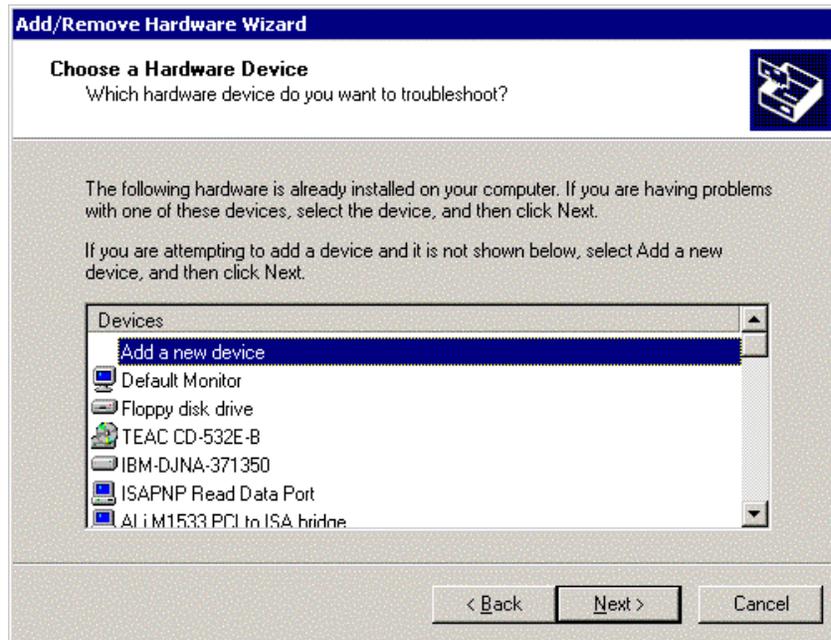


Figure.3-4

7. Select " No, I want to ..." and click [Next]. (As Figure.3-5)

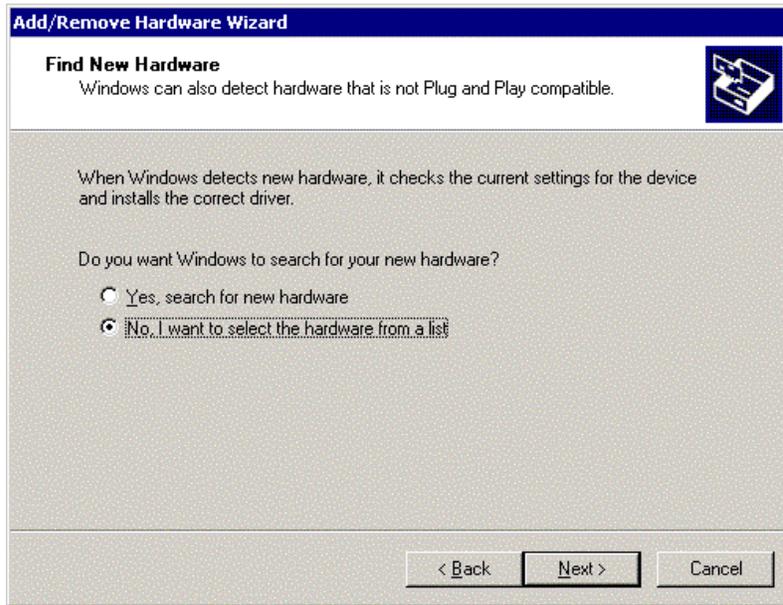


Figure.3-5

8. In the "Hardware Type", select " Multi-port series adapters" and click [Next] to enter the Manufacturers/ Models list box. (As Figure.3-6)

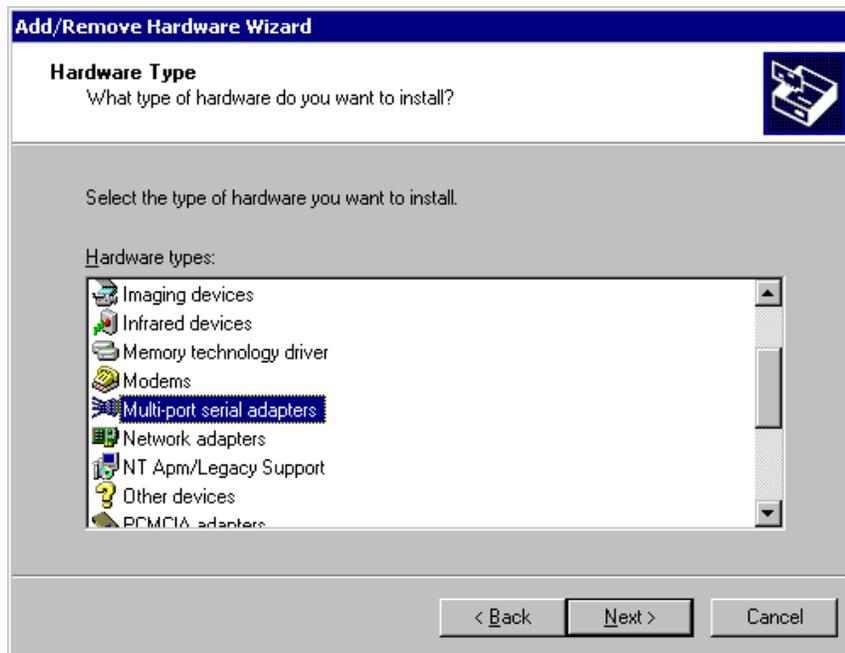


Figure.3-6

9. Press [Have Disk...] to enter the Window of “ Install From Disk “ and insert the CD-ROM contained the driver of MOXA Smartio and Industio Family.
10. Insert the MOXA driver CD-ROM and specify for the Wizard. Assume that the CD-ROM driver letter is “F:”, enter the driver location into the Windows. Press [OK] to continue.

(As Figure.3-8)

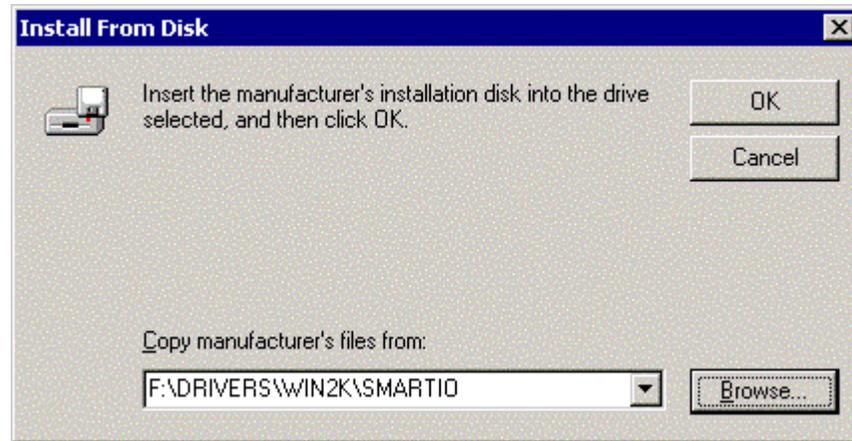


Figure.3-8

11. Next, select the proper model number for your MOXA board. Click “Next” to continue

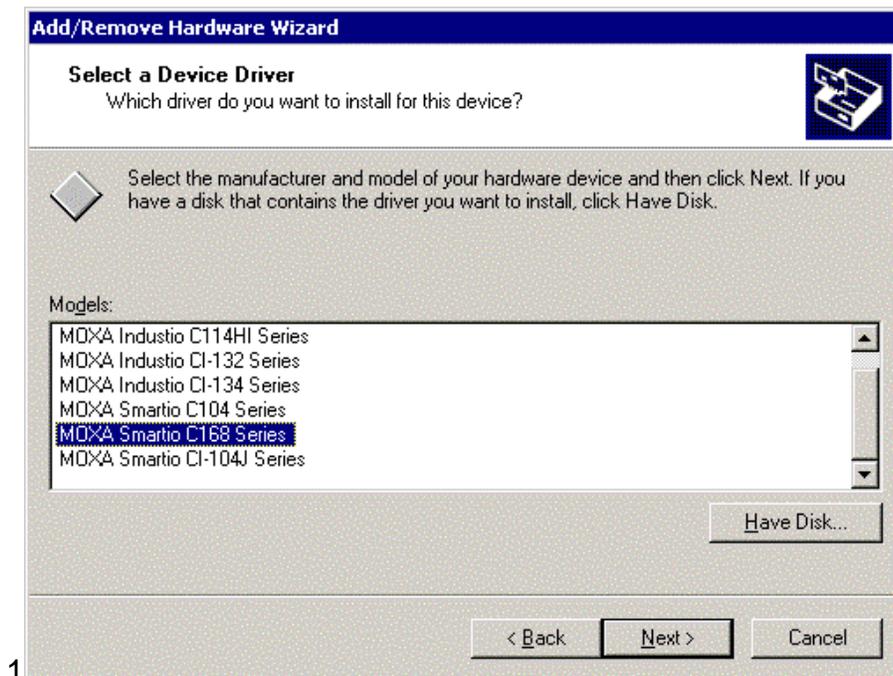


Figure.3-9

- Next, the screen appears the message “Driver Files Search Results” with the model number of MOXA Smartio or Industio Family to inform users that Windows found a driver for this board. Click [Next] to continue.

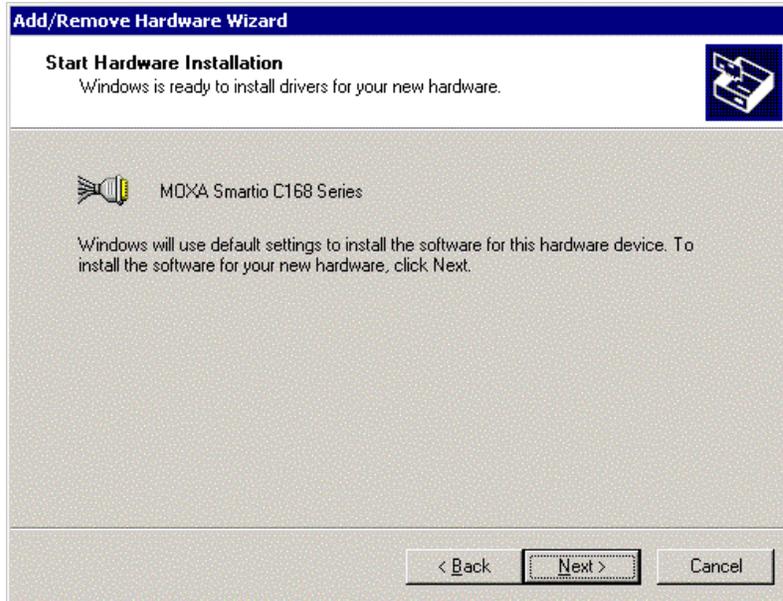


Figure.3-10

- Click [Finish] to continue the rest of ports' driver installation. And then, click [Next] to continue. (As Figure.3-11 ~ Figure.3-12)



Figure.3-11



Figure.3-12

14. Choose the "Search for a suitable driver..." and click [Next] to search for the suitable driver. (As Figure.3-13)

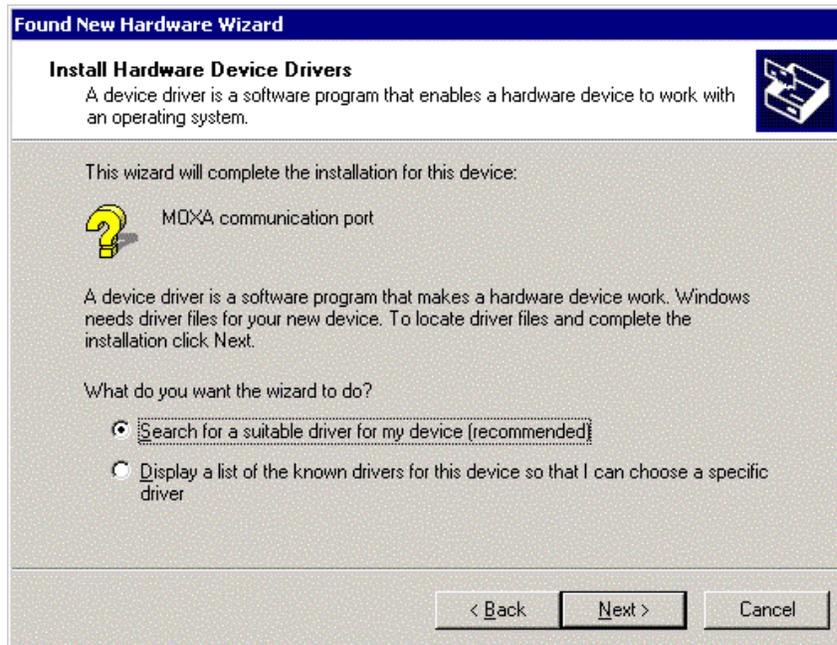


Figure.3-13

15. Select "Specify a location" and [Next] to install the driver. (As Figure.3-14)

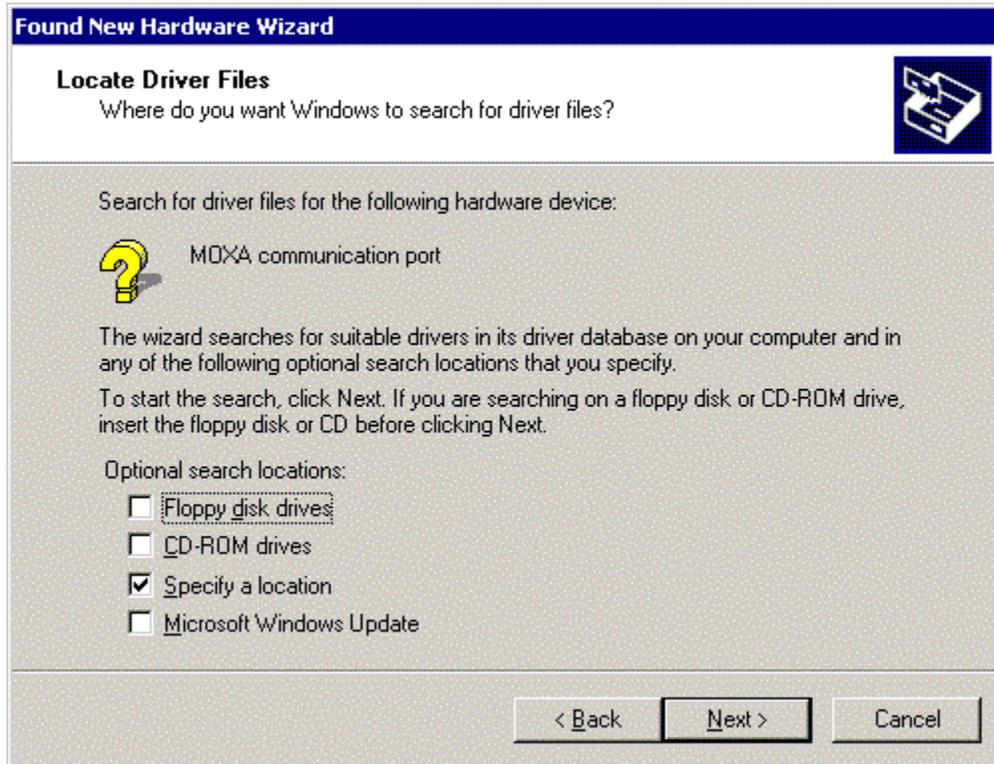


Figure.3-14

16. Insert the MOXA driver CD-ROM and specify for the Wizard. Assume that the CD-ROM driver letter is "F:", enter the driver location into the Windows. Press [OK] to continue.

(As Figure.3-15)

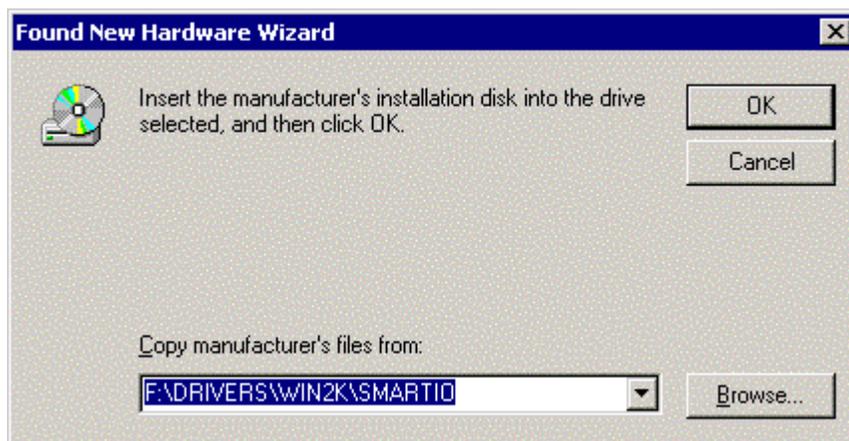


Figure.3-15

17. The window appears the message "Driver Files Search Results" with the name of MOXA communication port to inform you that Windows found a driver for your device. Click [Next] to continue. (As Figure.3-16)



Figure.3-16

16. After all files copy to the system, the window “Found New Hardware Wizard” displays” MOXA Port0”. It means, Windows has finished the port0’ driver installation and click [Finish] to install other ports’ installation.

(As Figure.3-17 ~ Figure.3-18)



Figure.3-17



Figure.3-18

4. Change the Multi-port Board Properties

If your ISA board configuration is not set as default, you'll need to change the driver's settings to match hardware configuration.

4.1 Select "Start" → "Settings" → "Control Panel" → "System" → "Hardware" → "Device Manager".

4.2 Expand the "Multi-port Serial Adapters", you will see the MOXA board model number. Double click on the model number. Select "Resources" tab in MOXA board property window.

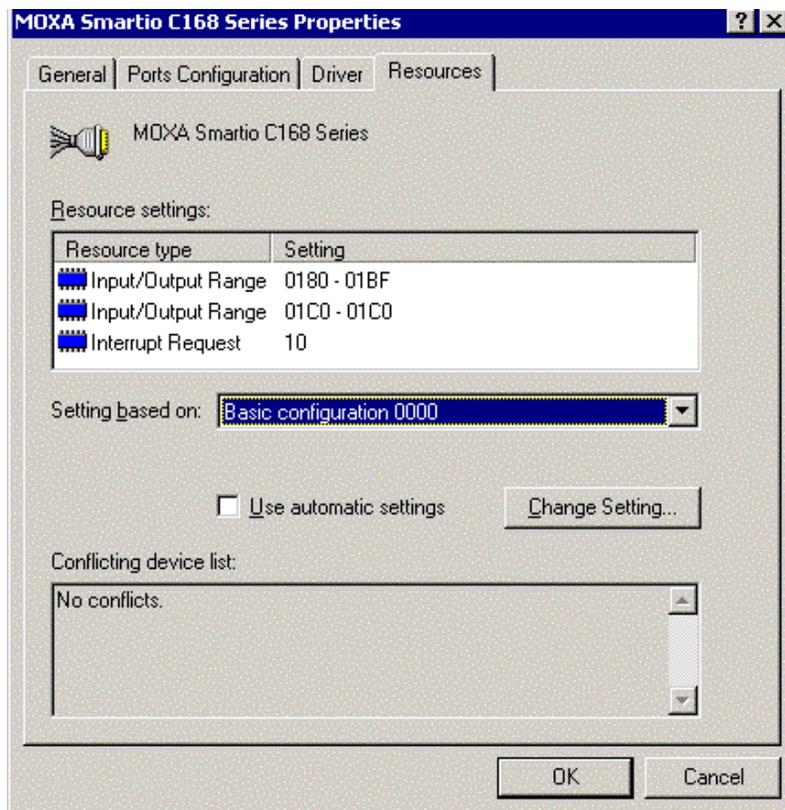


Figure 4.1

- 4.3 Select “Basic configuration 0000” in setting based on:” option.
- 4.4 Highlight “Input / Output range” and click “Change Setting...”. You may change I/O address settings in “Edit Input / Output Range” window. Click [OK] to back to board properties window. (As Figure 4.2)

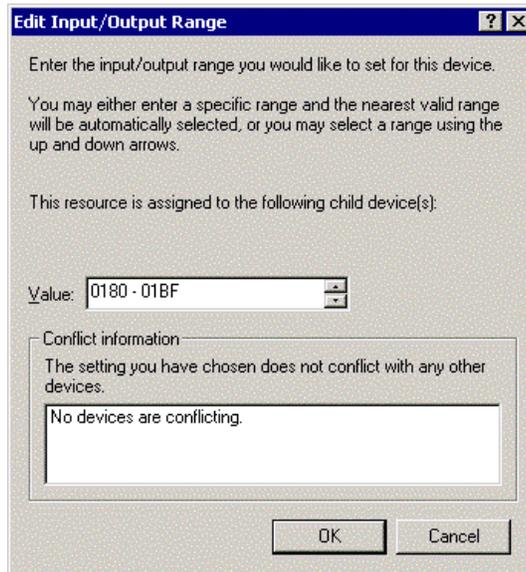


Figure.4-2

- 4.5 Highlight “Input / Output Range” and click “Change Setting...”.You may change Interrupt Vector settings in “Edit Interrupt Request” window. Click [OK] back to board properties window. (As Figure 4-3)

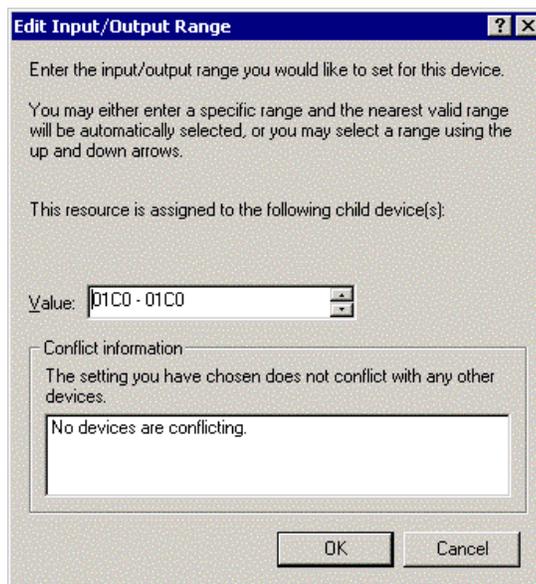


Figure. 4-3

4.6 Highlight “Interrupt Request” and click “Change Setting...”. You may change IRQ setting in “Edit Interrupt Request” window. Click [OK] back to board properties window.

(Figure. 4-4)

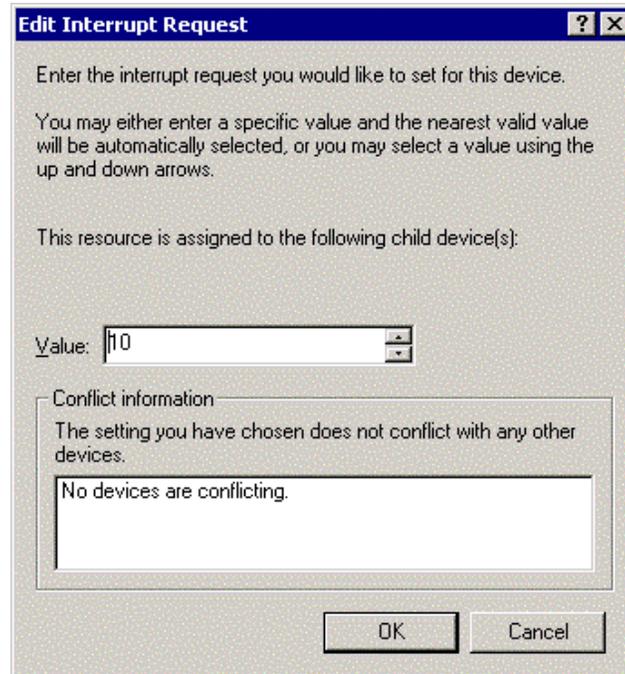


Figure4-4

4.7 In board properties window, click [OK] to finish the configuration. Then click [Yes] in “System Setting Change” WINDOW TO RESTART Windows system. (Figure. 4-5)



Figure.4-5

5. Check the Installation Result

Note: The following procedures are based on MOXA C168H series.

To check the Installation Result, there are three approaches as following.

5.1 Device Manager:

- a. You can diagnose the installation result by selecting “Start” → “Settings” → “Control Panel”→ “System”→ “Hardware”→” Device Manager”. If the driver installation for new added device is successful, you can see the model number of the Moxa board.
- b. Click “Device Manager” to enter the devices’ list box.
Select the “Mutiu-port serial adapter” and “Ports(COM&LPT)” folder and expend them.
- c. In Device Manager you can see the model number of MOXA boards after expanded the “Multi-port series adapters”. (As Figure.5-1~ Figure.5-2)
- d. You may expand the “Ports (COM<P)” to check the status of COM ports. All illustrated in figure2, the illustration is successful. If there’s any mark on the icon, the installation may have problem.
- e. You may refer to Even Log for detail reason.

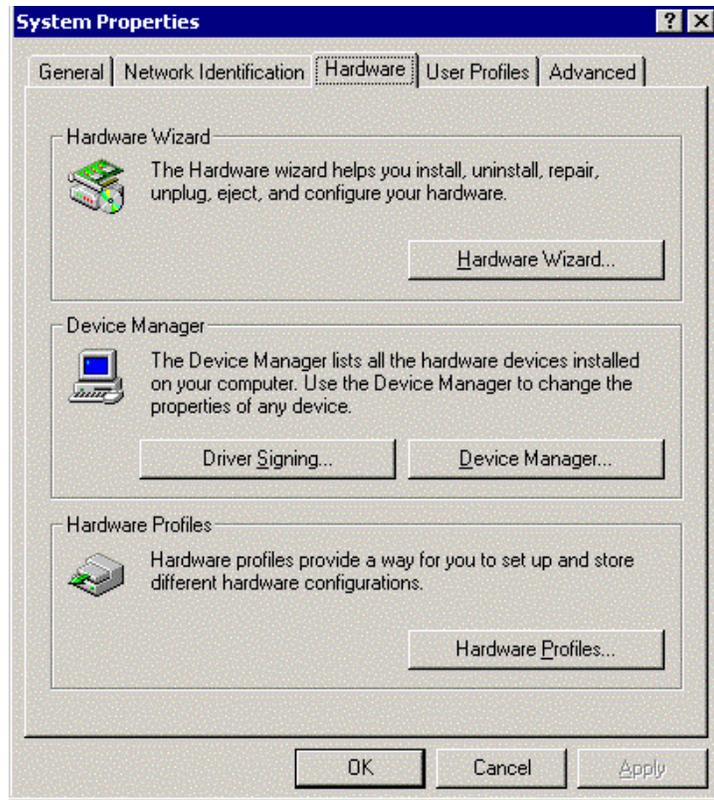


Figure.5-1

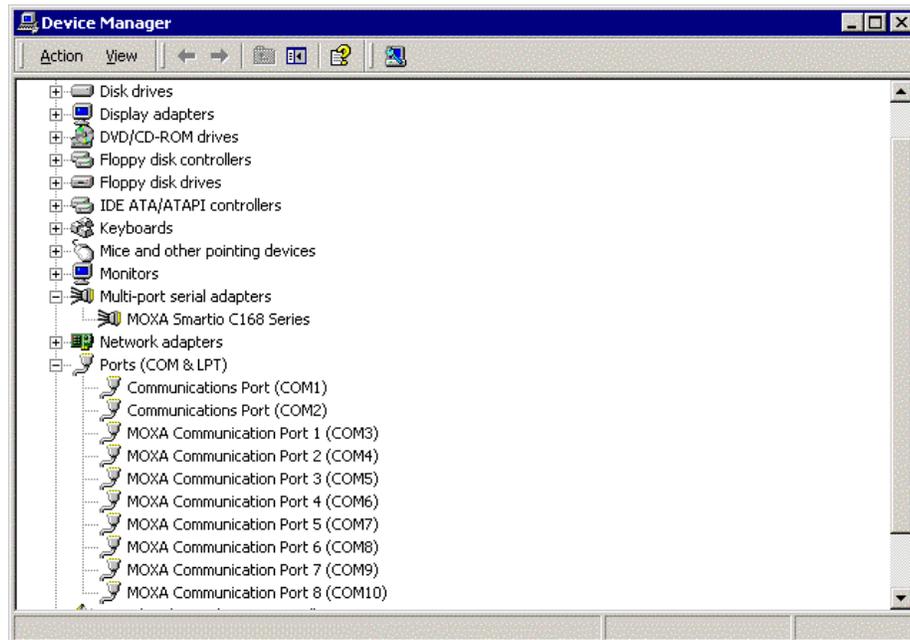


Figure.5-2

- 5.2 **PComm Diagnostic**, which is a convenient diagnostic program for MOXA boards only, provides internal and external testing as IRQ, TxD/RxD, UART, CTS/RTS, DTR/DSR, DTR/DCD test and so on. This program can verify correct operation of both the H/W and S/W for all MOXA boards and ports.

To run diagnostic, click on **“Start” → “Programs” → “PComm Lite 2000 Ver.1.0” → “PComm Diagnostic”**.

Please refer to on-line help of PComm Lite 2000 for more information.

- 5.3 **Even Log**: To check the Even Log for MOXA boards, click **“Start” → “Settings” → “Control Panel” → “Administrative Tools” → “Event Viewer”** to enter Event Viewer program. in system category, find latest warning message relevant to MOXA driver.

6. Uninstall

1. Select "My computer" → "Control Panel" → "System" then enter the picture of "System Properties".

Under the panel of "System Properties", select "Hardware" then click "Device Manager" into the devices selected list. (As Figure.6-1)

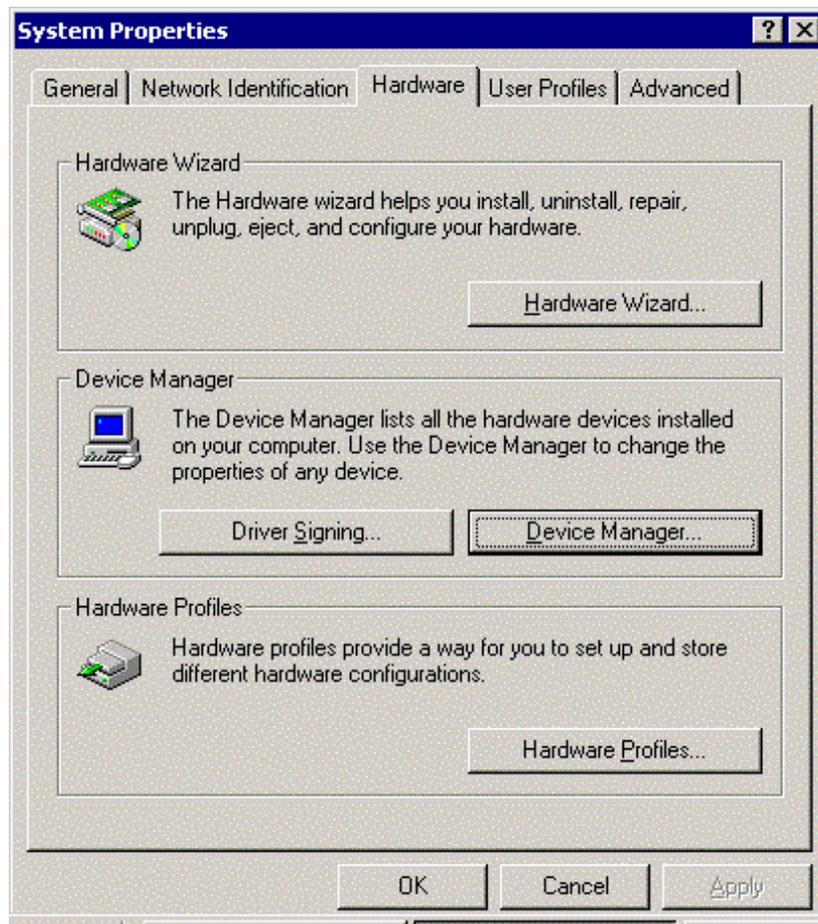


Figure.6-1

2. Select "Multiport serial adapters" and expand it, you can see the model number of the board. Select it and click right-hand key of mouse, you can see selected list. And then select "uninstall" to remove the device you have installed from your system. (As Figure 6.2)

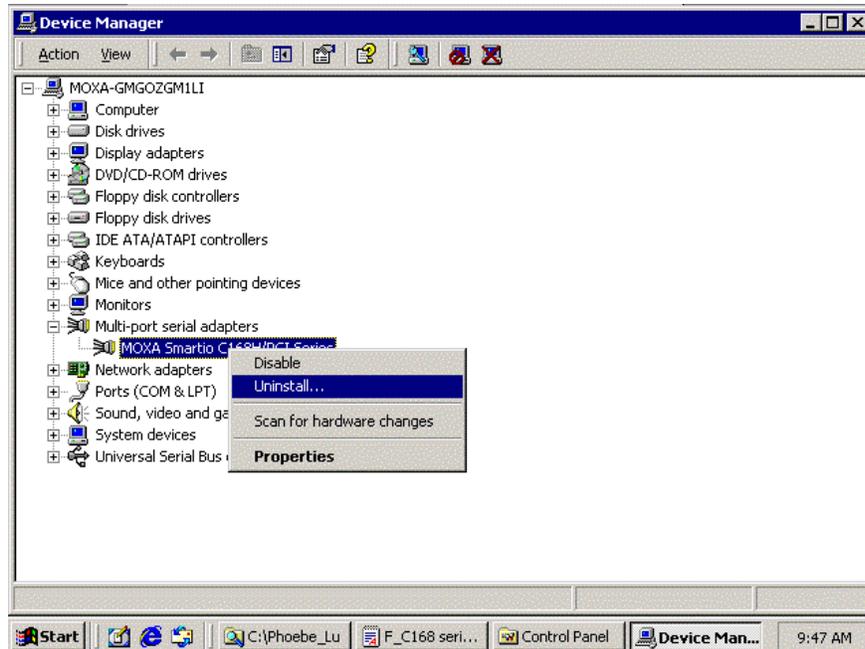


Figure.6-2

3. Click [OK] return to the default status. (As Figure.6-3)



. Figure.6-3

- 4.

4. Click [Finish] to close this wizard. (As Figure.6-4)



Figure.6-4