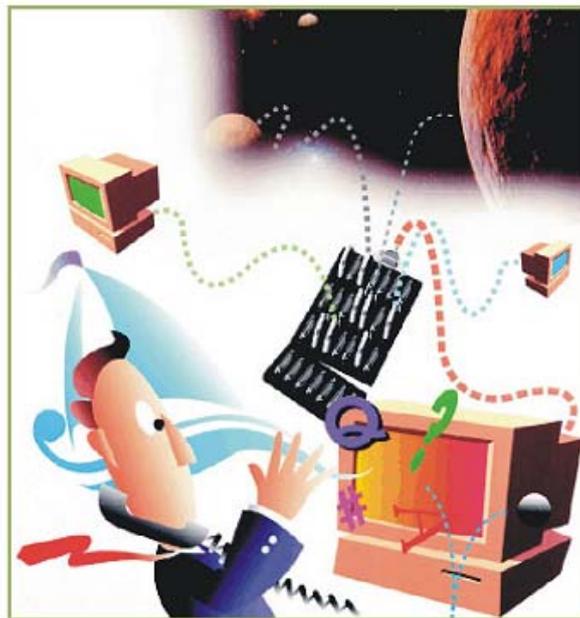


MultiPort PCI

English Software Manual

2010.2.08
Version 1.4



Serial Communication Experts
SystemBase
Since 1987

Revision History

Revision Date	Version	Pages	Description
10/24/2008	1.0	All	Renewal by hjnoh
9/4/2008	1.1	Partial	Fixed by hjnoh
5/22/2008	1.2	Partial	Fixed by hjnoh
10/09/2009	1.3	Partial	Fixed by khheo
2/08/2010	1.4	Partial	Fixed by ghpark

Copyright 2006 SystemBase Co., Ltd. All rights reserved.

Internet Webpage: <http://www.sysbas.com/>

Tel: 82-2-855-0501 FAX: 82-2-855-0580

16F Daerung Post Tower-1, 212-8, Guro-dong, Seoul, Korea

For any inquiries or comments, contact tech@sysbas.com

Table of Contents

- Windows 98 Device Driver Installation.....	4
- Windows 98 Device Driver Removal.....	10
- Windows 2000 Device Driver Installation.....	11
- Windows XP/2003 Device Driver Installation.....	15
- Windows Vista/2008/7 Device Driver Installation.....	17
- Windows Device Driver Configuration	22
- Windows Device Driver Removal.....	28
Windows NT	29
- Device Driver Installation	29
- Device driver Removal.....	32
Linux	33
- Downloading Linux Device Driver	33
- Device Driver Installation/Removal.....	33
SCO Open Server Release 5	35
- Device Driver Installation	35
- Device Driver Removal	39
Solving Problems	41
- General Issues	41
- Windows.....	41
- Linux.....	42
- Linux, SCO Unix	42

- Windows 98 Device Driver Installation

1. Turn off your PC.
2. Insert MultiPort/PCI board into anyone of PCI slots.
3. Connect the port box to the board.
4. Turn on the PC.
5. Start Windows 98.



6. Press the "Next" button.



7. Select the "Search for the best driver for your device" and press the "Next" button.



8. Select the "Specify a location" and insert the provided device driver disk into CD-ROM drive and set path to "[CDROM]\DRIVERS\PCI\Win98,2000,XP,2003,Vista,2008,7" and press the "Next" button.

Windows 98 Device Driver Installation



- If the CD-ROM auto-run application appears when you insert Device Driver CD, please terminate it. (The disk doesn't support automatic device driver installation in Windows 98.)

9. Press the "Next" button and Auto-Files-Copied.



10. Press the "Finish" button.



11. Press the "Next" button.

Windows 98 Device Driver Installation



12. Press the “Next” button.



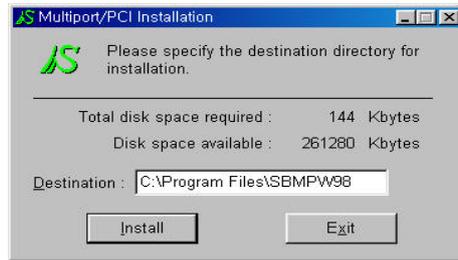
13. Select the “Specify a location” only and set the path to “D:\DRIVERS\PCI\Win98,2000,XP,2003,Vista,2008,7” and press the “Next” button.



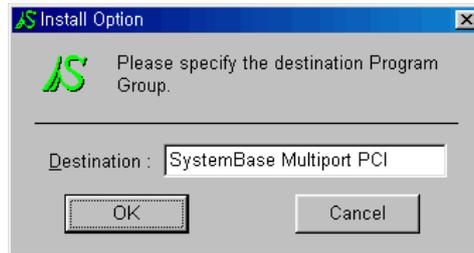
14. Press the “Next” button and ports is created.

15. Execute Installer for Multiport configuration program.
 (“[CDROM]\DRIVERS\PCI\Win98,2000,XP,2003,Vista,2008,7\INSTALL.EXE”)

Windows 98 Device Driver Installation

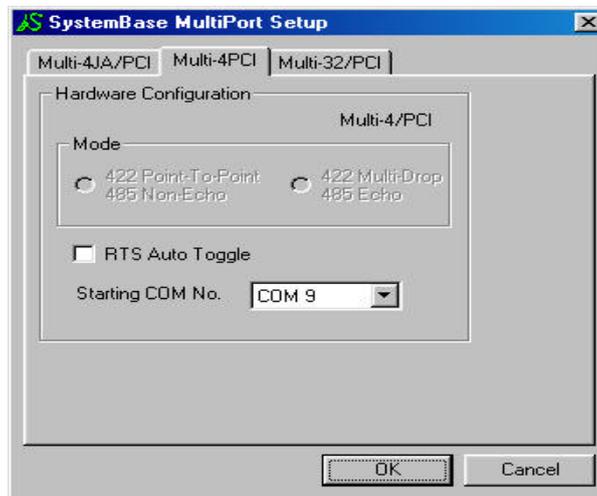


16. Press the "Install" button and Auto-Files-Copied.

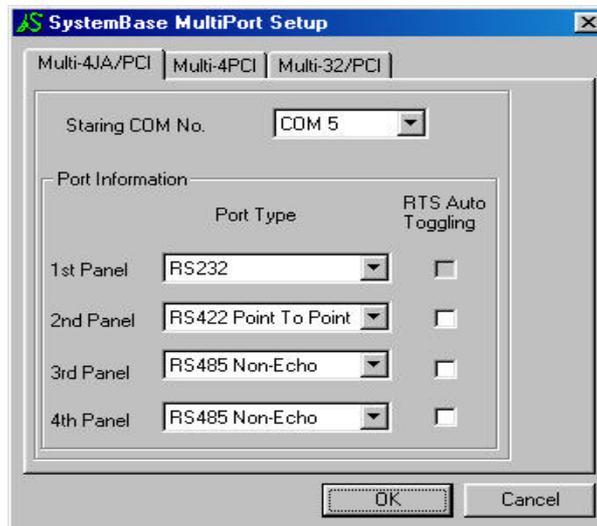


17. Press the "OK" button and register Program Group. MultiPort Setup Program is executed automatically at this time. It shows the number of as tabs as cards you installed.

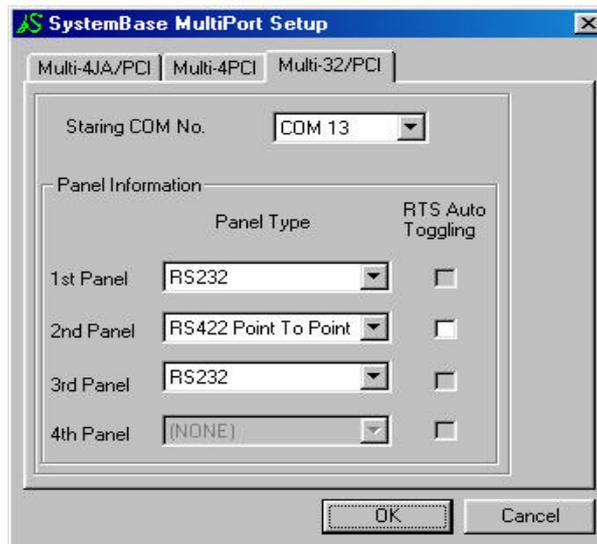
(Multi-4/PCI Card Installation Setting View)



(Multi-4JA/PCI Card Installation Setting View)



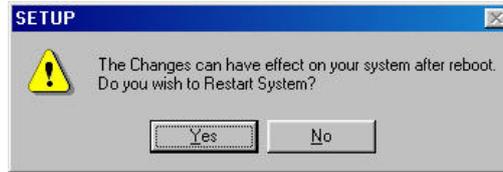
(Multi-32/PCI Card Installation Setting View)



18. In case of RS422 port or panel, you can change and specify point-to-point or multi-drop mode. In case of RS485 port or panel, you can change and specify non-echo or echo mode. When you use multi-drop mode or RS485 card, if you select "RTS Auto-toggle" our device driver will process Output Control (RTS toggling) automatically.
19. Set starting-port-number as you want. This port number will be the first serial port's name for the O/S.

Windows 98 Device Driver Installation

20. Press the “OK” button to finish Multi-Port Setup program.

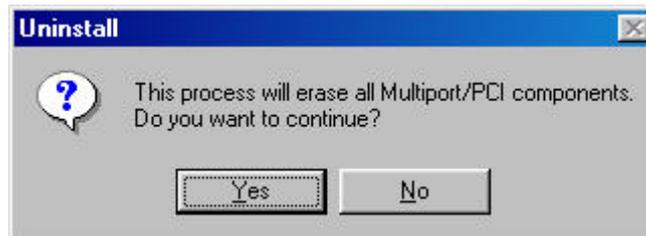


21. Press the “Yes” button to reboot your system.

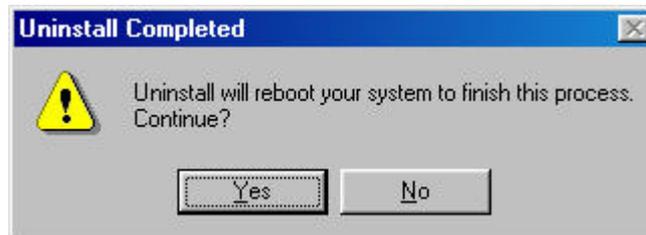
- When you want to change MultiPort Setting, execute “MultiPort Setup” program registered in “SystemBase MultiPort PCI” program group of “Start” Menu.

- Windows 98 Device Driver Removal

1. Execute MultiPort Setup program registered in "SystemBase MultiPort PCI" folder of Start Menu
2. Click "Yes"



3. Click "Yes" to reboot.



- Windows 2000 Device Driver Installation

1. Turn off your PC and insert MultiPort/PCI board into anyone of PCI slots.
2. Connect the port box to the board.
3. Turn on the PC.
4. Start Windows 2000.
5. New hardware is detected at this time.

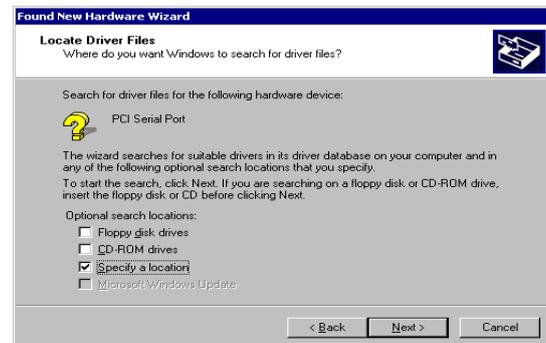


6. Press the "Next" button.



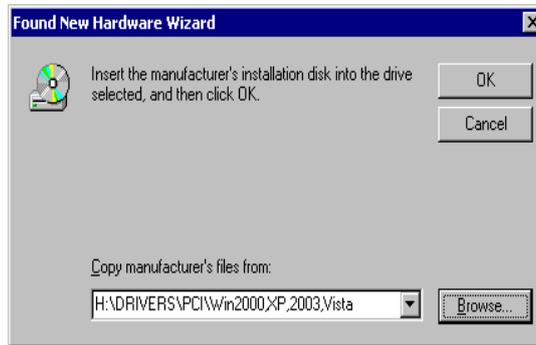
7. Select the "Search for a suitable driver for my device" and press the "Next" button.

8. Insert the provided device driver disk into the CD-ROM drive and press the "Next" button.

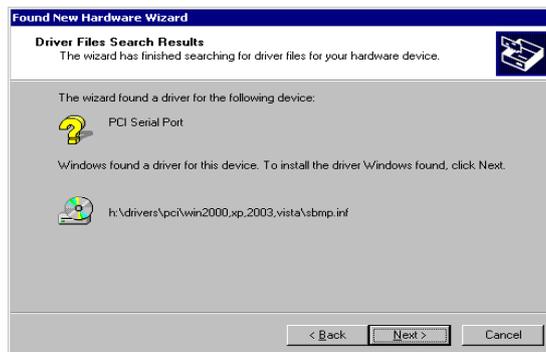


Windows 2000 Device Driver Installation

9. Select the "Specify a location" and Press "OK" button.



10. Select the "Browse..." and Specify [CDROM]\DRIVER\PCI\Win2000,XP,2003,Vista,2008,7". Press "OK" button.



11. Press the "Next" button.



12. Press the "Next" button.

Windows 2000 Device Driver Installation



13. New hardware is detected. Press the "Next" Button.

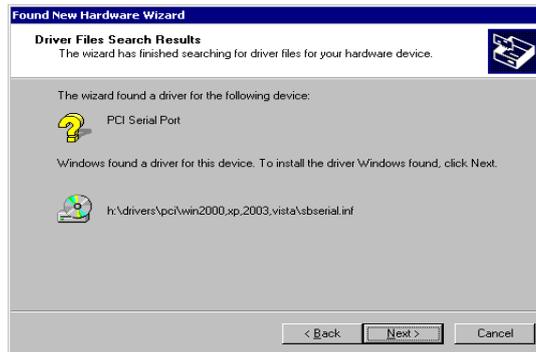


14. Press the "Next" button.



15. Select the "Specify a location" and press the "Next" button.

Windows 2000 Device Driver Installation



16. Press the “Next” button.



17. Press the “Finish” button.

18. Remaining ports are installed automatically.

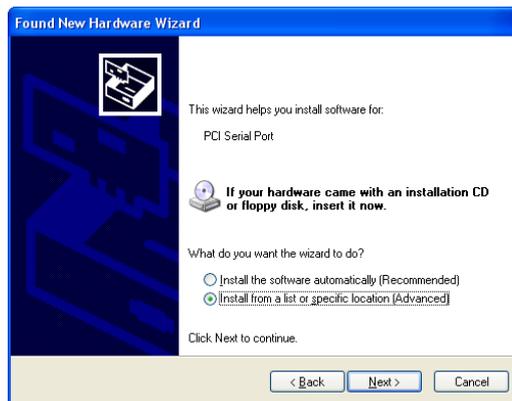


19. After all installations are completed, you can check the device information in [Setting]→ [Control Panel]→ [System]→ [Hardware]→ [Device Manager].

- If Windows ask you which device driver is to be installed while device driver installing or you would like to install the driver manually, please use this location:
- “[CD-ROM]DRIVERS\PCIIWin98,2000,XP,2003,Vista,2008,7”

- Windows XP/2003 Device Driver Installation

1. Turn off your PC and insert MultiPort/PCI board into PCI slot.
2. Connect the port box to the board and turn on the PC. Insert install CD.
3. Found new hardware wizard begins.



4. Select "Install from a list or specific location" and click "Next".



5. Select "Search for the best driver in these locations" and "Include this location in the search". Click "Next". Specify the location as below.

- x86 Windows: "[CD-ROM]:\DRIVERS\PCI\Win98,2000,XP,2003,Vista,2008,7".
- x64 Windows: "[CD-ROM]:\DRIVERS\PCI\WinXP,2003,Vista,2008,7 x64".



6. A warning window may show up. Click "Continue Anyway".

Windows XP/2003 Device Driver Installation



7. Install finished for multifunction adapter. Press the "Finish" button.



8. Steps 3 ~ 7 will be repeated to install serial ports. This will be repeated for the number of serial ports.



9. After a successful installation, "SystemBase Multiport" can be seen under "Multifunction adapters" and "MultiPort/PCI – Serial Port" can be seen under "Ports (COM & LPT)" in device manager.

- Windows Vista/2008/7 Device Driver Installation

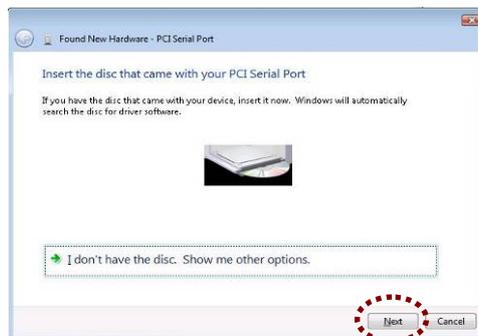
1. Turn off your PC and insert MultiPort/PCI board into anyone of PCI slots.
2. Connect the external port box to the board.
3. Turn on the PC power.
4. Start Windows Vista/2008/7.
5. Pop-up message “New Hardware found” will appear. Select “Locate and install driver software (recommended)”. If pop-up message “New Hardware found” does not appear, please proceed as instructed on #9.



6. When the following windows appears, select “Don't Search Online”



7. “Insert the disc” message window will appear. Insert the driver CD into the CD-ROM and click “Next”. Device driver will start automatic installation.

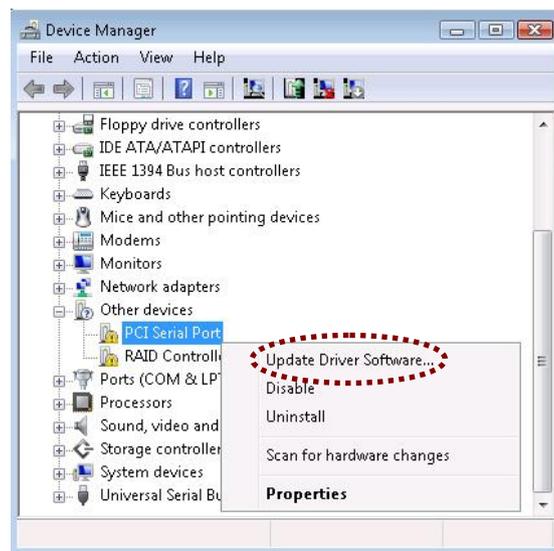


Windows Vista/2008 Device Driver Installation

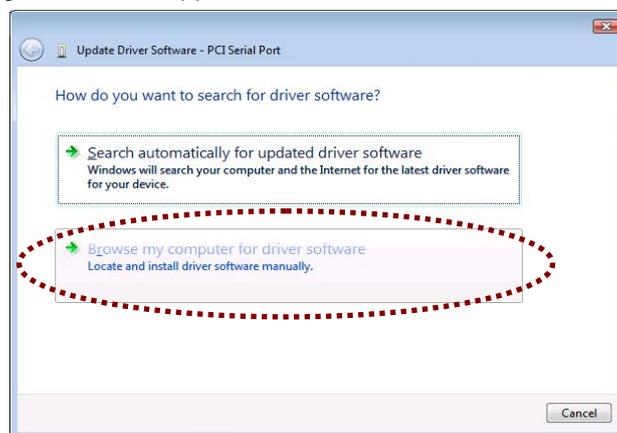
8. “Software successfully installed” message box will appear. Click “Close”. PCI Serial Port has now been installed. Next step is to install driver for each separate ports. Proceed as instructed on #16.



9. In case “New Hardware found” window does not appear, driver must be installed manually. Go to Control Panel → Device Manager.
10. Right click PCI Serial Port Under Other Devices, and click “Update Driver Software”.

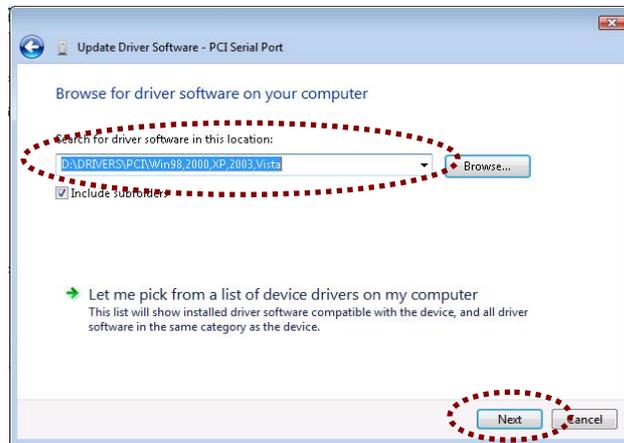


11. The following window will appear. Click “Find driver software from selected location”



Windows Vista/2008/7 Device Driver Installation

12. "Find driver software from selected location" window will appear. Click "Find" and select "[CDROM]:/DRIVERS/PCI/Win98,2000,XP,2003,Vista,2008,7" for its location. Then click "Next"



13. "Windows Security" window will appear. Click "Install this driver software."



14. Once installation is complete, "Driver software has been updated." Message box will appear. "PCI Serial Port" is now successfully installed. Click "Close". Next step is to install driver for each separate ports.

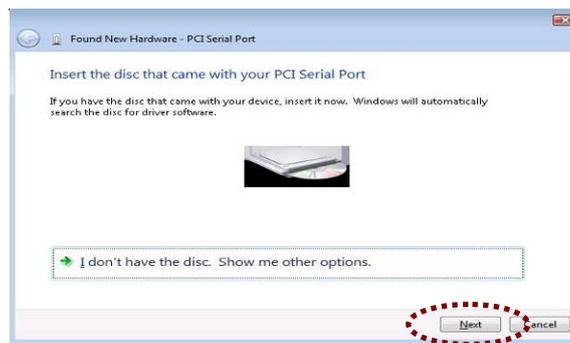


Windows Vista/2008 Device Driver Installation

15. If "PCI Serial Port" has been successfully installed, "New Hardware found" Message box will appear. Click "Find & Install driver software."



16. "Insert the disc that came with your PCI Serial Port" Message box will appear. Click "Next"



17. Windows Security" window will appear. Click "Install this driver software."

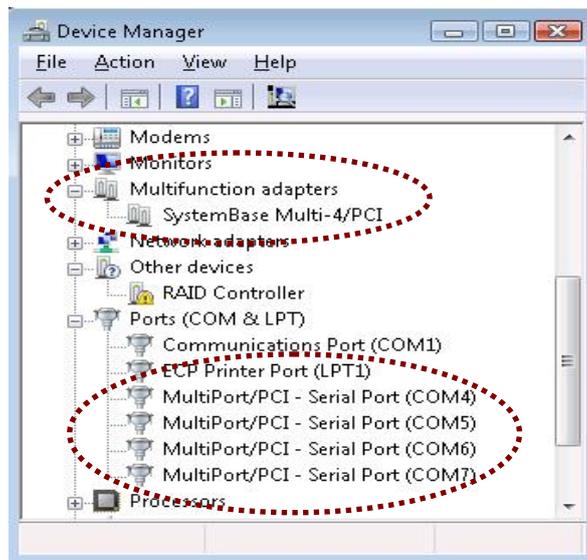


Windows Vista/2008/7 Device Driver Installation

18. "Software has been successfully installed for this device." Message box will appear.
Click "Close"



19. Your Multiport driver is successfully installed if following items can be found under "Device Manager". (Follow steps #8 ~ #11 to enable "Device Manager")
- "SystemBase Multi-4/PCI" under "Multi-functioned Adaptor" category
 - "MultiPort/PCI-Serial Port(COM #)" under "Port" category
 - Recurrence of Serial Port should equal to the number of serial ports



- Windows Device Driver Configuration

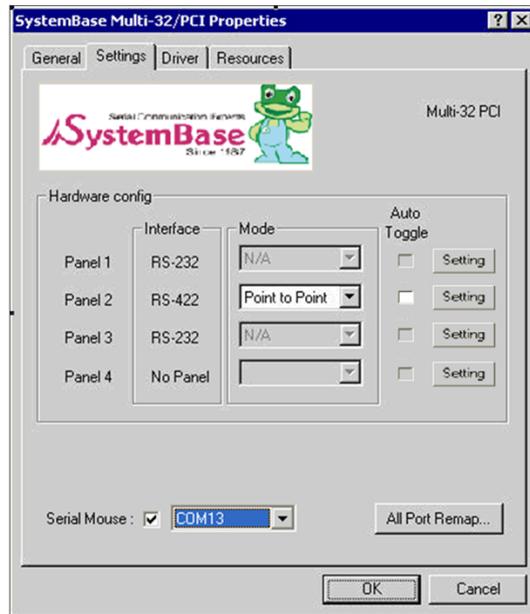
Since configuration setting is done by hardware after VA2 version, you don't need to conduct bellow procedure.

1. If you want to change the configurations of ports and MultiPort card, Click the right button of your mouse when you locate that mouse in "SystemBase Multi-*/PCI" item of "Multifunction adapters" category like this view below, and press the "Properties".



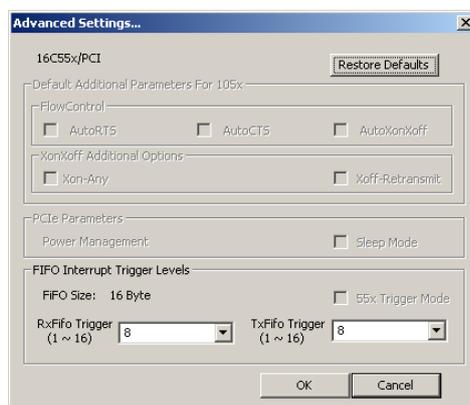
(Multi-4JA/PCI Card Installation Setting View.)

Windows Device Driver Configuration



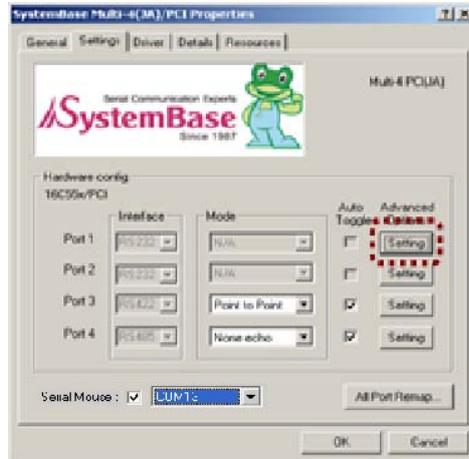
(Multi-32/PCI Card Installation Setting View.)

- Confirm hardware setting first. If already it had been done by hardware, aware the change on setting.
 -
2. Click “Settings” tab and you can see like a view above. In case of RS422 port or panel, you can change and select point-to-point or multi-drop mode. In case of RS485 port or panel, you can change and select non-echo or echo mode. When you use multi-drop mode or RS485 card, if you select “RTS Auto-toggle” our device driver processes Output Control (RTS toggling) automatically.
 3. “Advanced Options” configuration. Bellow is Multi-4JA/PCI Card Installation Setting View. Click “Setting” tab of red dotted line on Advanced option and you can see “Advanced Setting”

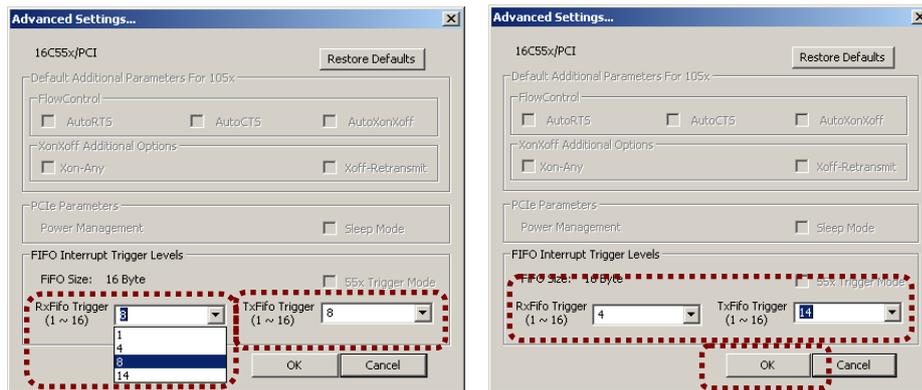


Windows Device Driver Configuration

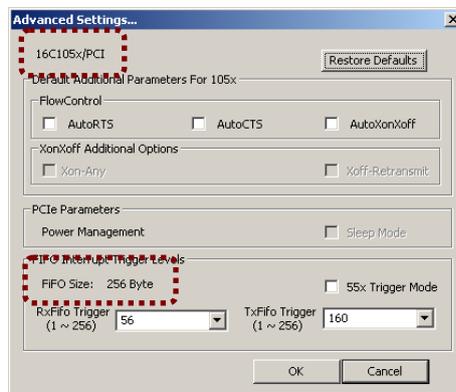
4. Below is “Advanced Setting” View. If UART type is 16C55x, FlowControl Parameter part would not be activated. In this case, you can control only Trigger level of FIFO.



5. In the case of 16C55x, FIFO Interrupt Trigger Level setting is like below view. You can select “1,2,4,8” on Rx/Tx FIFO Combo Box. Then Click “OK”.

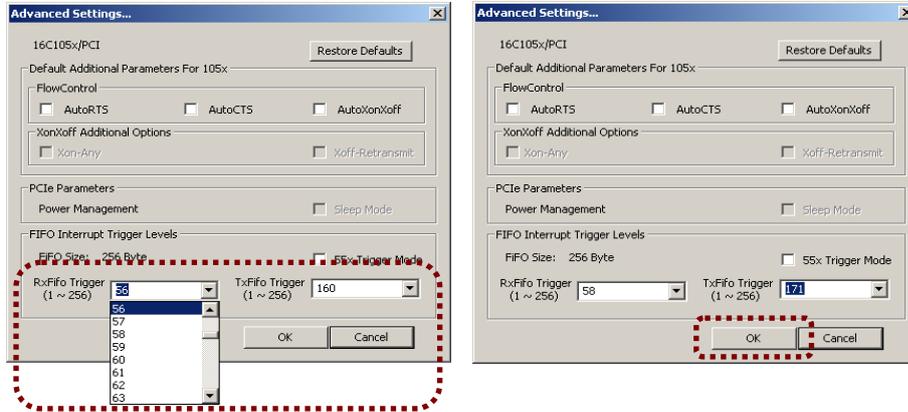


6. “Advanced Settings” view. If UART type is 16C105x, FlowControl would be activated and the FIFO size occupies “256”.

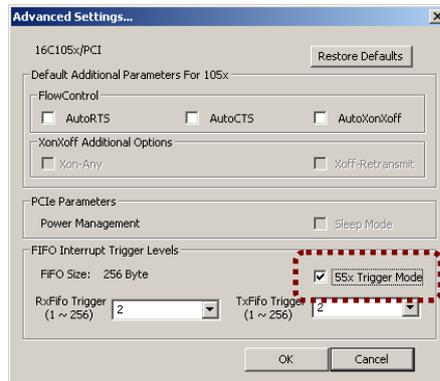


Windows Device Driver Configuration

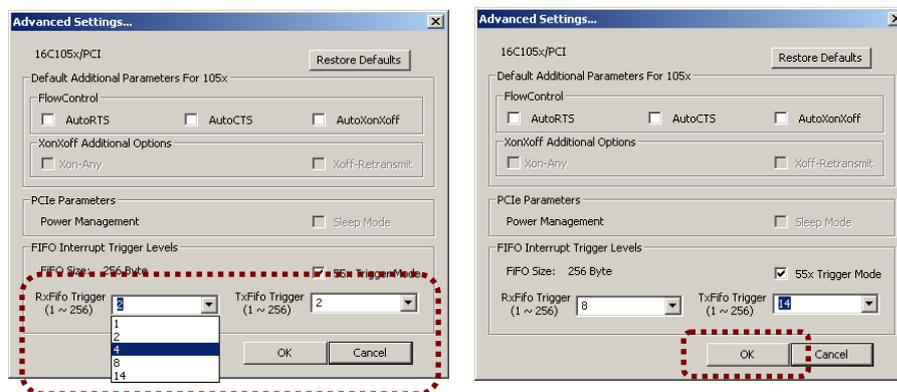
- As you can see in bellow views, you can select “FlowControl” radio button and change the “Interrupt Trigger Level” by selecting on Combo Box. Then Click “OK” to finishing setting.



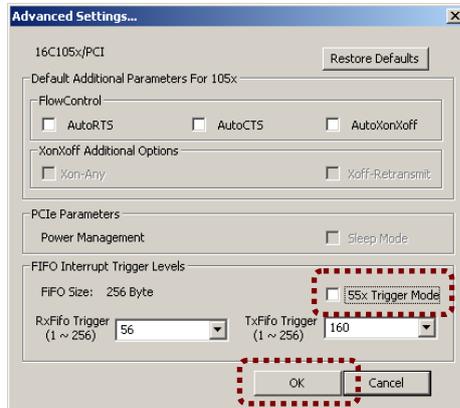
- If 16C105x Type multiport is connected devices which deal with small/low speed data input and output, Interrupt could be delayed owing to big Trigger Level. In this case, check “55x Trigger Mode”, “55x Trigger Mode” is not suitable for large/high speed data.



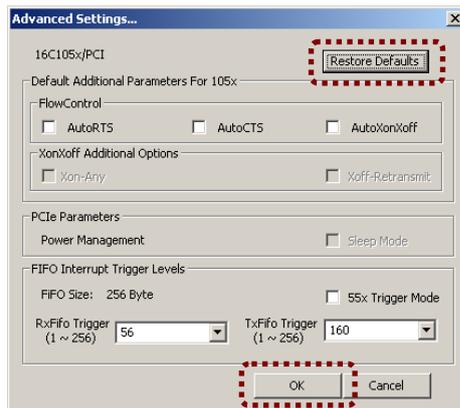
- The methods of use are same with 16C55x type. After configuration, Click “OK” to finish setting.



10. A method to get back 16C105x Mode is not to check "55x Trigger Mode". Then Click "OK" to finish setting



11. Click "Restore Defaults" to set back default values. Click "Ok" to finish settings.



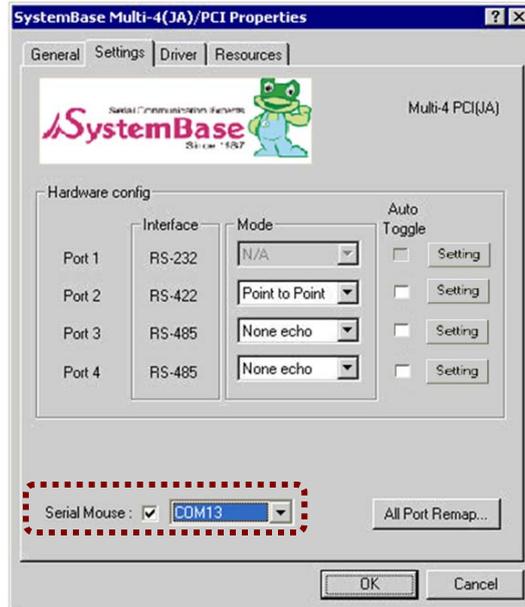
12. When you press the "All Port Remap..." button, you can see like a view below. If you want to change port name of all ports sequentially, modify it. Specify this port name as you want and click the "OK" button. The port names of the device will be rearranged.



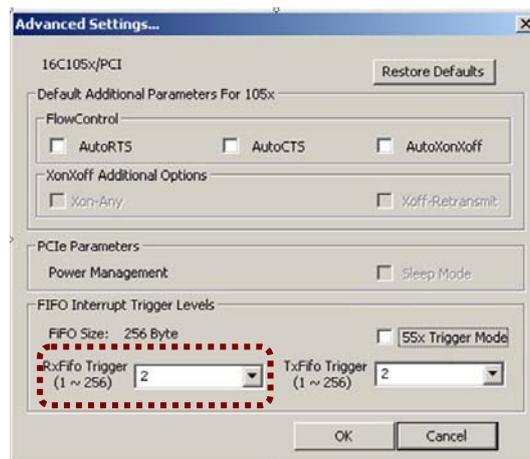
- You can use serial port without rebooting if you did "Device Manager Action(A) Scan for hardware changes"

Windows Device Driver Configuration

- When you want to use the serial mouse, check "Serial Mouse" item. the optimized FIFO setting will be applied for the serial mouse.



- If you select "No Select", the serial mouse setting isn't applied to all COM ports.
 - If you select "COM x", you can select COM port number to apply the serial mouse setting.
 - If you select "All Serial" item, the serial mouse setting is applied to all COM Ports
- If external model is not recognized correctly in device manager. Adjust "RxFifo Trigger" value of "Advanced Setting" to below 4.



- Windows Device Driver Removal

This page applies to Windows 2000 and higher versions. For Windows 98, refer to Windows 98 device removal section.

1. Insert the provided device driver disk into the CD-ROM drive. (If you see auto-run program of driver disk, terminate it.)

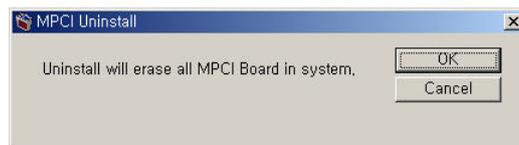
2. Execute the uninstaller program.

For x86 Windows

("DRIVERS\PCI\Win98,2000,XP,2003,Vista,2008,7\ Uninstall.exe")

For x64 Windows

("DRIVERS\PCI\WinXP,2003,Vista,2008,7 x64\Uninstall.exe")



3. Press the "OK" button.



4. The removal process will be in progress.



5. When you press the "OK" button, the removal process is completed.

Windows NT

- Device Driver Installation

1. Turn off your PC.
2. Insert MultiPort/PCI board into anyone of PCI slots.
3. Connect the port box to the board.
4. Turn on the PC.
5. Start Windows NT 4,0 and logon with the account which has the Administrator author.
6. Insert the provided MultiPort/PCI Installation Disk into the CD-ROM drive. You may see the auto-run program like this. If the installer application doesn't appear, Please execute "Setup.exe" file in root directory of CD-ROM manually.



7. Press the "PCI Multiport / Modem" button.



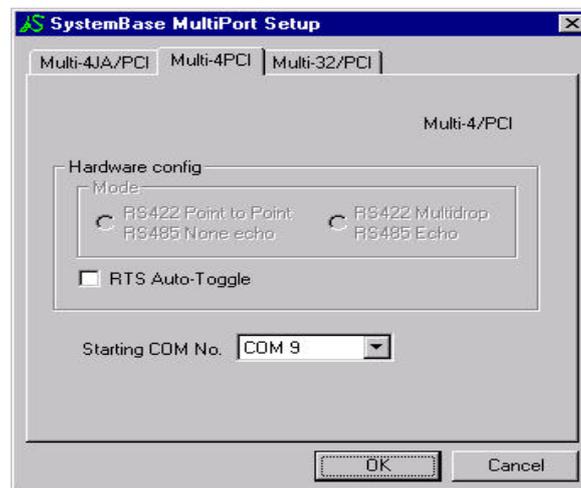
8. Press the "Install Device Driver" button. The driver installer will be appeared like below:



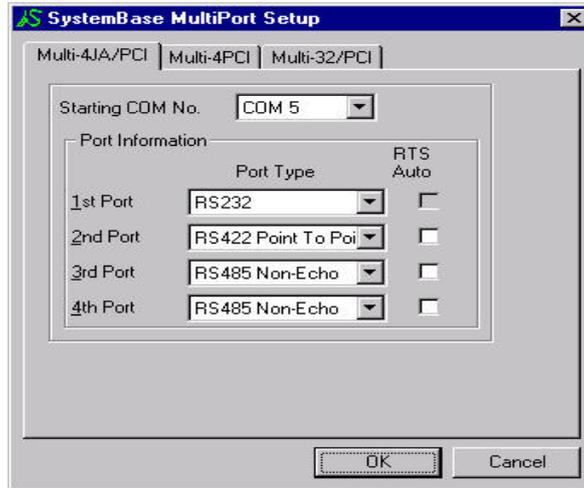
9. Press the “Install” button and Auto-Files-Copied.



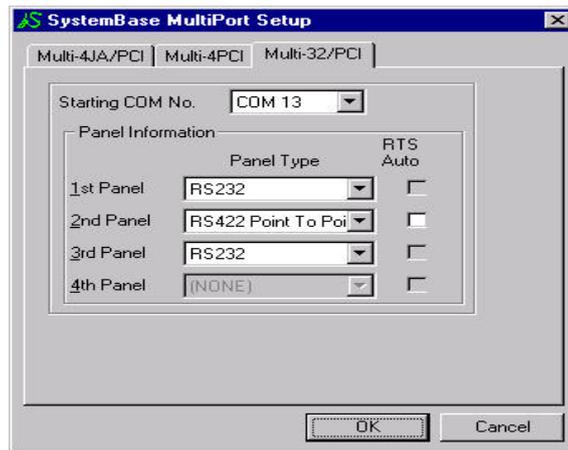
10. Press the “OK” button to register configuration utility to Program Group. MultiPort Setup program is executed at this time. The program shows the information of cards you installed.



(Multi-4/PCI Card Installation Setting View)

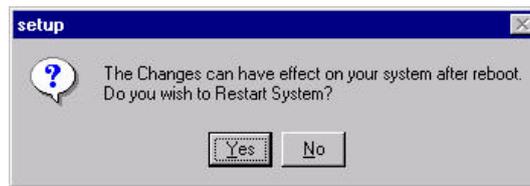


(Multi-4JA/PCI Card Installation Setting View)



(Multi-32/PCI Card Installation Setting View)

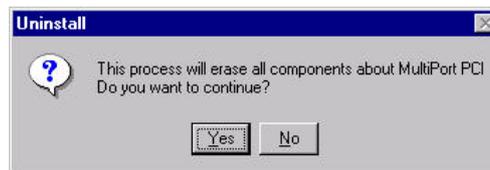
11. In case of RS422 port or panel, you can change and select point-to-point or multi-drop mode. In case of RS485 port or panel, you can change and select non-echo or echo mode. When you use multi-drop mode or RS485 card if you select "RTS Auto-toggle" our device driver processes Output Control (RTS toggling) automatically,
12. Set the starting-port-number as you want. The serial port names are allocated sequentially by this name.
13. Press the "OK" button to finish MultiPort Setup program.



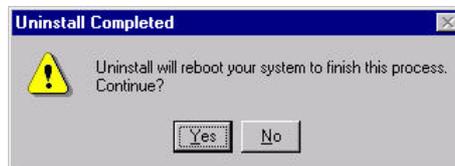
14. Press the “Yes” button to reboot your system.
 - If you want to modify your MultiPort adapters after this time, please execute configuration utility (Setup) from “SystemBase MultiPort PCI” program group of “Start” menu

- Device driver Removal

1. Execute uninstaller program registered in “SystemBase MultiPort PCI” program group of “Start” Menu.



2. Press the “Yes” button.



3. Press the “Yes” button to reboot your system.

Linux

- Downloading Linux Device Driver

Please download the proper MultiPort driver files for each MultiPort on our website and follow the procedures below.

1. Download the proper versioned MultiPort driver for each MultiPorts on SystemBase website: <http://www.sysbas.com>
2. Unzip the downloaded file.
3. Check your Linux Kernel version and save the proper file to a storage device.(※ If saved to a floppy disk, please note all previously stored data will be deleted.)

- Device Driver Installation/Removal

1. Turn off the power of PC.
2. Install the board to the PCI/PCIe slot of PC.
3. Connect the port box (panel) to the board.
4. Turn on the power of PC.
5. When booting is completed, log on as administrator
(you can download the driver file from our homepage or CD-Rom)
6. Copy the driver file to current directory.
7. Execute the driver file.

```
[~/tmp] ./sysbas_mpdru.v10.sh

=====
SystemBase Multiport PCI/PCIe Board Installation
Version : 4.0   revision: 2009-12-15
          contact: tech@sysbas.com
=====

1 board(s) installed
Board No.1 : Multi-4 PCIe (rev 10)
             /dev/ttyMP0 (RS232 , 16C105X)
             /dev/ttyMP1 (RS232 , 16C105X)
             /dev/ttyMP2 (RS232 , 16C105X)
             /dev/ttyMP3 (RS232 , 16C105X)
[~/tmp] ls
sysbas_mpdru.v10.sh  sysbas_multiport
```

8. After installation is completed, "sysbas_multiport" directory is made and multiport type and version, interface type(RS232/422/485), port numbers are displayed on the screen.

9. To test whether multiport is running normally or not, execute “sb_test” program located in “[current directory]/sysbas_multiport”.

```
[~/tmp] cd sysbas_multiport/
[~/tmp/sysbas_multiport] ls
Makefile  Uninstall  sb_test.c
[~/tmp/sysbas_multiport] make
gcc      -c -o sb_test.o sb_test.c
rm -f sb_test
gcc      -o sb_test sb_test.o
[~/tmp/sysbas_multiport] ls
Makefile  Uninstall  sb_test  sb_test.c  sb_test.o
```

10. To see how it works, execute “sb_test”.

```
[~/tmp/sysbas_multiport] ./sb_test
Usage: ./sb_test [Port Name] [Baudrate] [TestMode]
Port Name : /dev/ttyMP0 ~ /dev/ttyMP32
Baudrate  : 9600, 19200, ...
TestMode  : 0(Loopback) 1(Send) 2(Recv)
```

11. If com ports are normally set, you can see below screen

```
[~/tmp/sysbas_multiport] ./sb_test /dev/ttyMP0 9600 0
Loopback Test Mode ?
a
ab
abc
abcd
abcde
abcdef
abcdefg
abcdefgh
abcdefghi
abcdefghij
abcdefghijkl
abcdefghijklm
abcdefghijklmn
```

12. To remove the drivers, move to the install directory and execute “Uninstall”

```
[~/tmp/sysbas_multiport] ./Uninstall █
```

13. Execute “Remove”, then script will remove installed driver files.

```
Remove Multiports PCI/PCIe Driver...!!
remove device(/dev)....done
modify /etc/rc.d/rc.local....done
[~/tmp/sysbas_multiport] █
```

SCO Open Server Release 5

- Device Driver Installation

- Please make a floppy disk for device driver installation. To make this, boot Windows O/S, put formatted floppy into the FDD and run “Install.bat” file in “[CD-ROM]\Drivers\PCI\SCO” folder.

1. Turn off the power of PC.
2. Install the board to the option slot of PC.
3. Connect the port box(panel) to the board.
4. Turn on the power of PC.

```
SCO OpenServer (TM) Release 5  
Boot :
```

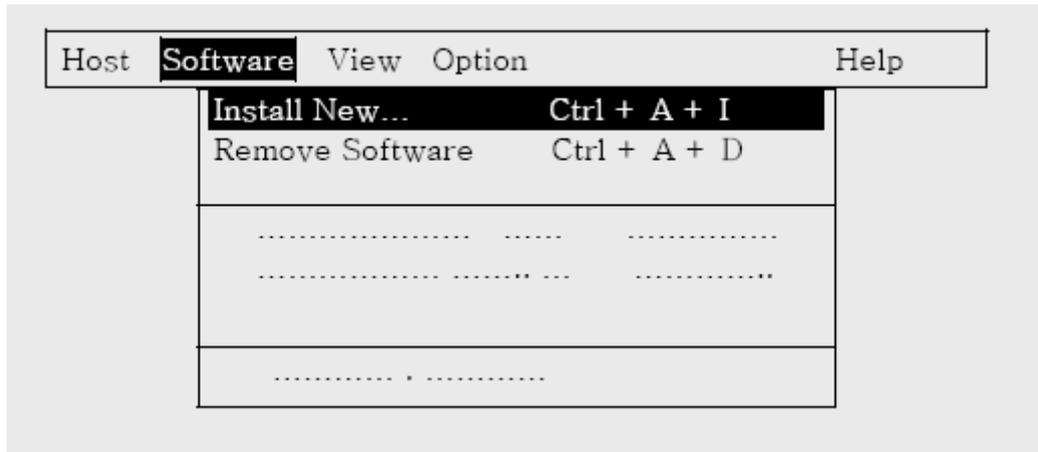
5. <Enter>

```
INIT : SINGLE USER MODE  
Type CONTROL-d to Proceed with normal startup,  
( or give root password for system maintenance ) :
```

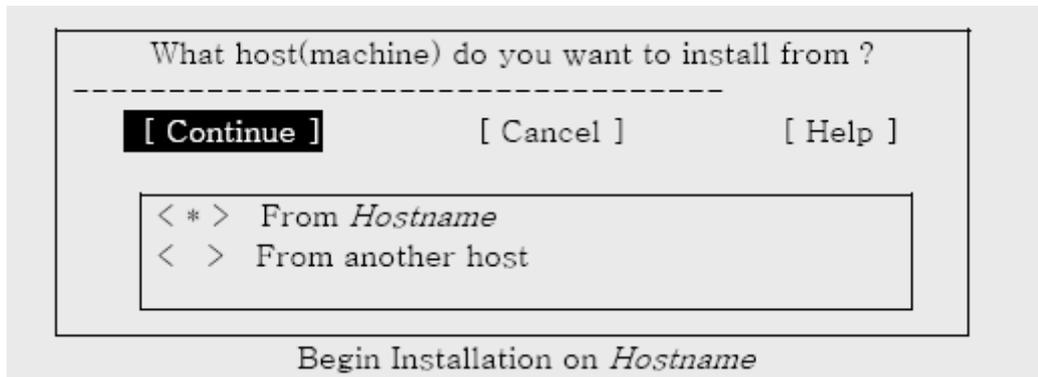
6. Enter Password to go into the “Maintenance mode” (<Enter> if there is no password.)

```
.  
.
```

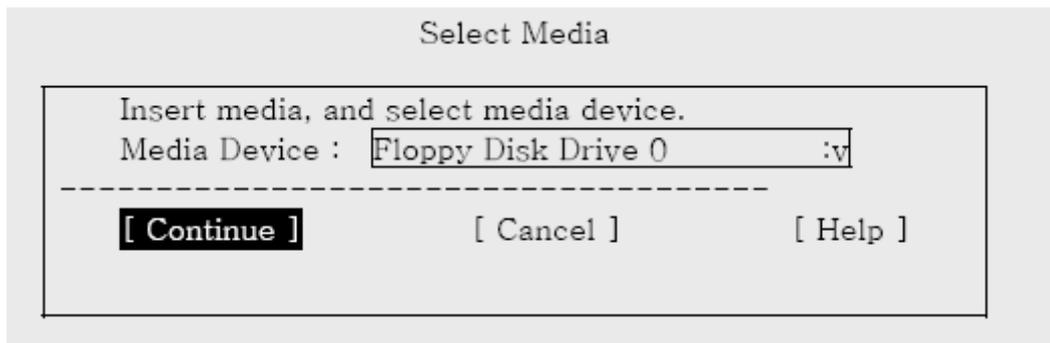
7. # custom ↵
8. Select the ‘Software’ by using the arrow key. Select “Install New” by using the arrow Key.



9. Select 'From Hostname'



10. After Inserting floppy drive 'A:', Select 'Floppy Disk Drive 0' by using the arrow Key.



11. After you check 'Multiport/PCI Device Driver Version 1.0', Select 'Install' by using the arrow Key.

```
Multiport / PCI Device Driver Installation
Copyright (c) 2001 SystemBase Co., Ltd.
All rights Reserved.

Installation Multiport / PCI Device Driver Version 1.0

Rebuild the kernel now (y/n) ? :
```

12. Enter 'y' for building kernel. Type 'y' <ENTER>

```
The UNIX Operating System will now be rebuilt.
This will take a few minutes. Please wait.
Root for this system build is /
The UNIX kernel has been rebuilt.

Do you want this kernel to boot by default? (y/n)
```

13. Type 'y' <ENTER>

```
Backing up unix to unix.old
Installing new unix on the boot file system
The kernel environment includes device node files and /etc/inittab.
The new kernel may require change to /etc/inittab or device nodes.

Do you want the kernel environment rebuilt? (y/n)
```

14. Type 'y' <Enter>

```
Setting up new kernel environment
Driver installation complete.
Please remove the floppy now.

Press <Enter> to continue :
```

15. After removing the floppy driver disk, <Enter>.

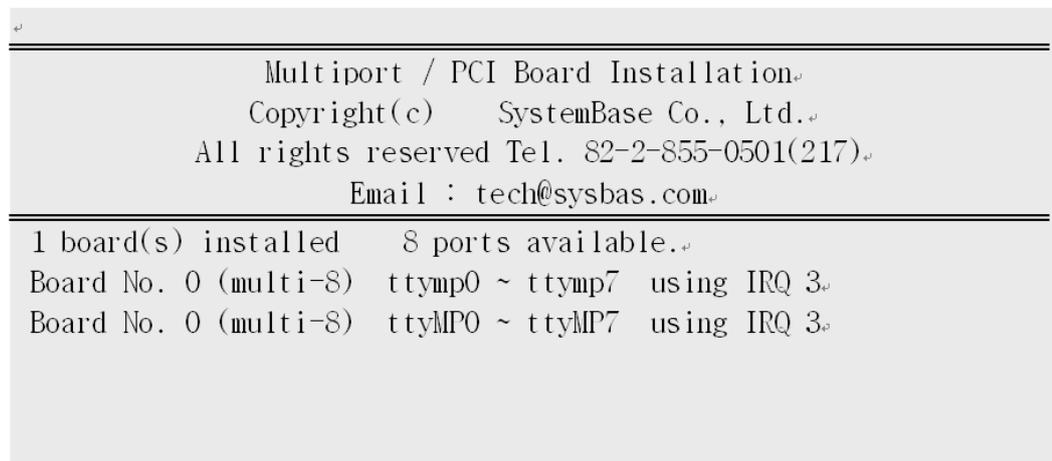


16. <Enter>

17. # sync ↵

18. # init 6 ↵

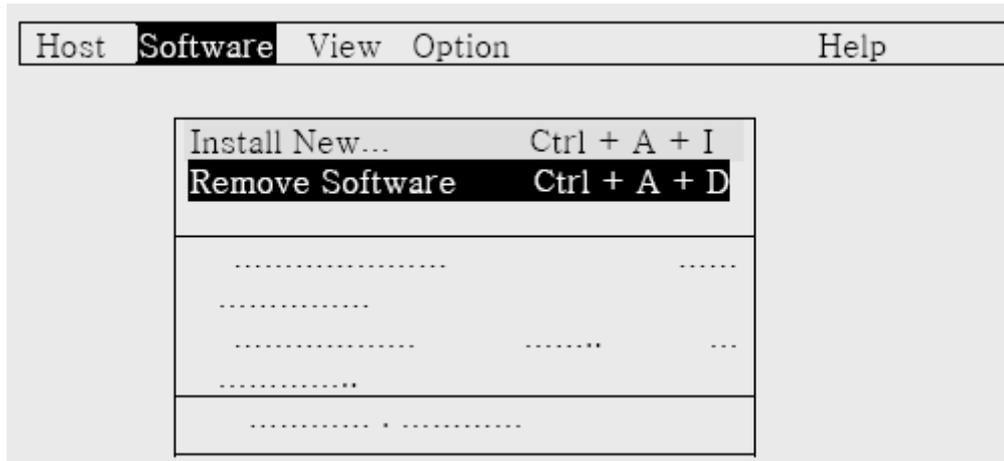
19. Check the screen below after system rebooting.



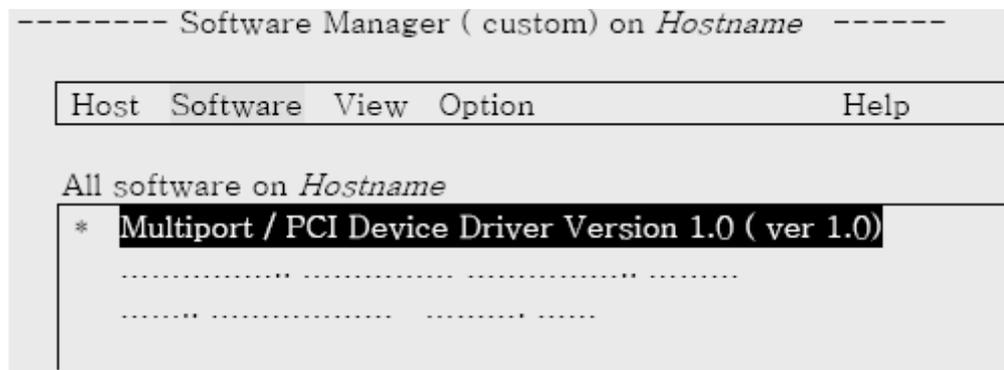
- ttymp means "Not-Using modem signals" and ttyMP means "Using modem Signals".

- Device Driver Removal

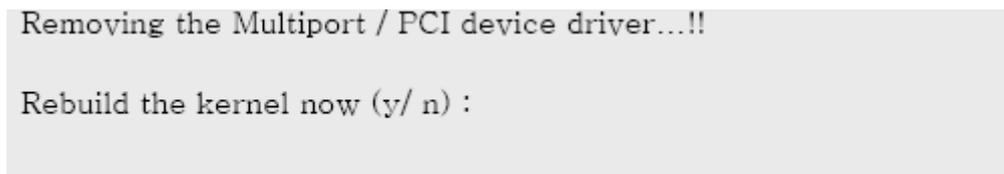
1. # custom ↵
2. Select 'Software' by using the arrow Key. Select 'Remove Software' by using the arrow Key.



3. Select "Multiport/PCI Device Driver Version 1.0(ver1.0)".



4. After you check device driver name, select 'Remove'.
5. Enter 'y' for building kernel.



6. Type 'y' <ENTER>

```
The UNIX Operating System will now be rebuilt.
This will take a few minutes. Please wait.
Root for this system build is /
The UNIX kernel has been rebuilt.

Do you want this kernel to boot by default? (y/n)
```

7. Type 'y' <ENTER>

```
Backing up unix to unix.old
Installing new unix on the boot file system
The kernel environment includes device node files and /etc/inittab.
The new kernel may require change to /etc/inittab or device nodes.

Do you want the kernel environment rebuilt? (y/n)
```

8. <ENTER>

```
Setting up new kernel environment

Press <Enter> to continue :
```

9. <ENTER>, and driver removal is completed.

```
Message

Removal complete
[ OK ]
```

Solving Problems

- General Issues

1. The MultiPort does not work properly even after it has been successfully installed
 - One of major reasons MultiPort boards do not work properly is mostly interrupt collisions. This is not a frequent problem because PCI boards are automatically assigned interrupts. However, reasons for interrupt collisions or abnormal operation of PCI boards can be classified into three.
 - Since there are no reserved resources in the system, PCI may use an already assigned interrupt number. It is required to install MultiPorts again by disabling IRQ numbers (such as IRQ3 and IRQ7) that have been assigned but not used in the CMOS setup program in order to make those interrupts available.
 - PCI boards may use IRQ numbers occupied by ISA boards. In such a case, the PCI bus does not recognize the interrupt number assigned to the ISA board, resulting in malfunction of the PCI board. To solve such a problem, you should change the interrupt number of the ISA board or change the slot position of the PCI board.
 - There may be a specific motherboard that assigns interrupt numbers on each slot in the CMOS set up program, or sets ISA/PCI PnP by interrupt numbers. At this time, PCI board is not successfully working if the PCI slot has a wrong IRQ number assigned or all IRQ numbers are set to ISA. As a solution to this problem, unused IRQ numbers should be set to PCI PnP.

- Windows

2. When any device driver is installed under Windows operating systems, information of the boards and external port boxes in the system is not identical to the data displayed by the setup program.
 - Windows 98/NT is designed to automatically get the number of boards and even the interface type of port boxes for multi-32/PCI in order to show the data on the setup screen. If the screen is not normally displayed, it is not allowed to use MultiPorts. This is caused by low quality products or connectors that may experience problems connecting the board and external port box or between external port boxes. First, turn the system off and check the connection status again to verify if the connection is poor. If this problem persists even if the connector is fault free, please contact us.

- Linux

3. When any device driver is installed under Linux environment, a kernel version error message appears.

- Linux has a variety of kernel versions. It is not a rare case that the kernel used is not consistent with that of the driver system. This can be easily solved changing the kernel version in the source file(drivers). However, version 2.0.x is not compatible with 2.2.x. Accordingly, you can upload the source file(drivers) using vi editor first and update the kernel version information(e.g. 2.2.5->2.2.10)

- Linux, SCO Unix

4. Under SCO UNIX or Linux environment, any MultiPort serving as a terminal is not logged to the appropriate port.

- First, be sure to review the details in Q1. Use the cat command to check if the port is available. If there is no trouble, check the details of the /etc/inittab files. Change to respawn the getty program of the appropriate port. If this has also no trouble, it is considered as poor cable connection or that Baud rate, Data bits and Parity bit are not properly set on the port. At this time, check the cable connection and the port of gettydefs(getty used) file.

5. Any MultiPort serving as a terminal under SCO UNIX environment is not logged to the appropriate port even after you entered your user ID and password(while the message notifying successful logging to the port appears).

- This happens when the appropriate port is locked. Especially, if it frequently occurs when the system is not normally terminated after logging to the port, that's why the SCO UNIX kernel locks the specific port. To solve the problem, use the following procedure.

1. #scoadmin [ENTER]
2. Select SYSTEM from the menu.
3. Select Terminal Manager from the menu.
4. Execute Unlock on the menu.
5. Select the port name to be unlocked.
6. Quit

Solving Problems

6. When the printer is used through the connection to the port under the SCO UNIX or Linux environment, the printer does not work or the data is not correct.

- First, be sure to review the details in Q1. Use the cat command to check if the port is available. If not available, the problem is caused by unmatched speed between the port for and printer or troublesome flow control. Please check the Baud rate of the port for /etc/gettydefs (getty used) file and add Flow Control (IXON, IXOFF) flag.

7. It is not available to answer the phone when the modem is used through a connection to the port under the SCO UNIX or Linux environment.

- First, be sure to review the details in Q1. Use /etc/inittab file to check if the getty program of each port is set to respawn, and also use the cat command to check if the port is available. If not available, it is because the modem has not been set in auto answer mode. The auto answer mode is the default value but it may be changed by unexpected problems or events. The setting ATSO=1 should be achieved at the environment where AT Command is available (cu, minicom etc).