



Software Manual

Virtual Com for NET Driver

Rev. 1.03

Metapace T-3

Metapace T-3II

Metapace L-1

Metapace L-2

Metapace L-22D/23D

Metapace L-42D/43D

Metapace L-42T/43T

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1. Manual Information

This manual contains the instructions for using “Virtual COM for NET Driver” software for Metapace printers.

You can set Ethernet interfaces to serial communication type using this software.

※ Latest version can be downloaded from the Metapace home page.
(www.metapace.com)

We at Metapace maintain ongoing efforts to enhance and upgrade the functions and quality of all our products. In following, product specifications and/or user manual content may be changed without prior notice.

2. Operating Environment

The “Virtual COM for NET Driver” and “Configuration Tool” programs operate under the following conditions.

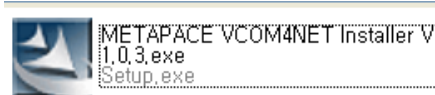
2-1 Recommended Specifications

Hardware	IBM PC/AT or compatible devices
Supported Operating Systems	Windows XP / Windows Server 2003 / Windows VISTA/ Windows Server 2008 / Windows 7 / Windows 8 / Windows Server 2012
Hard Disk Capacity	Minimum 1Mbyte of free space
Memory Capacity	Over 128Mbytes of memory

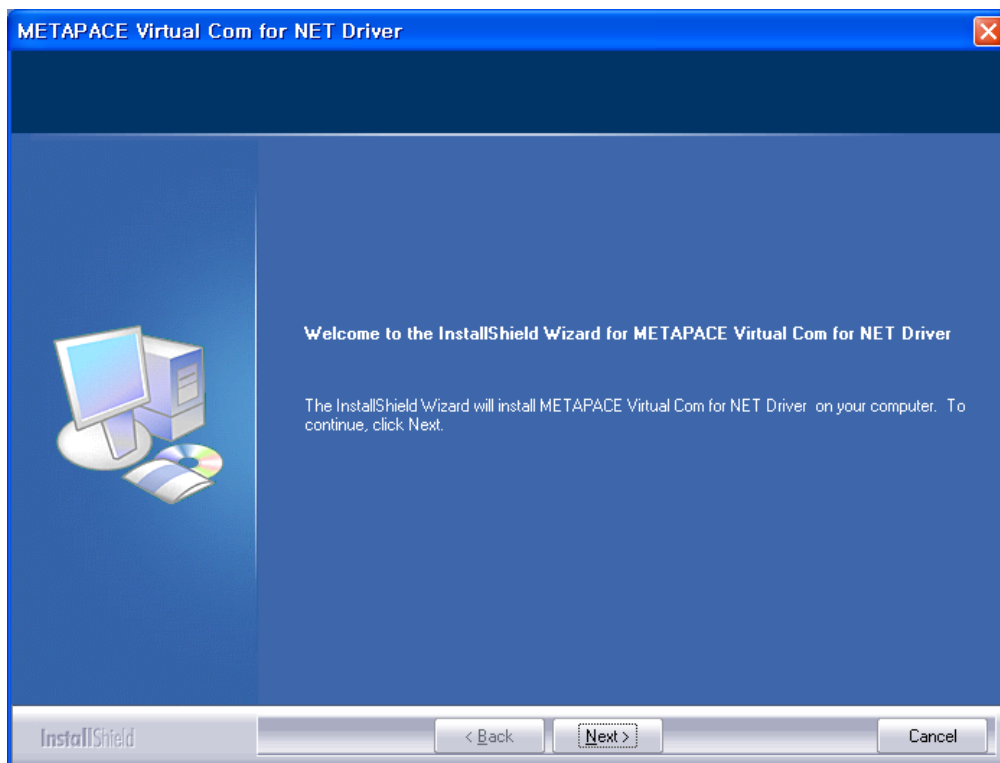
3. Software Installation & Deletion

3-1 Installation

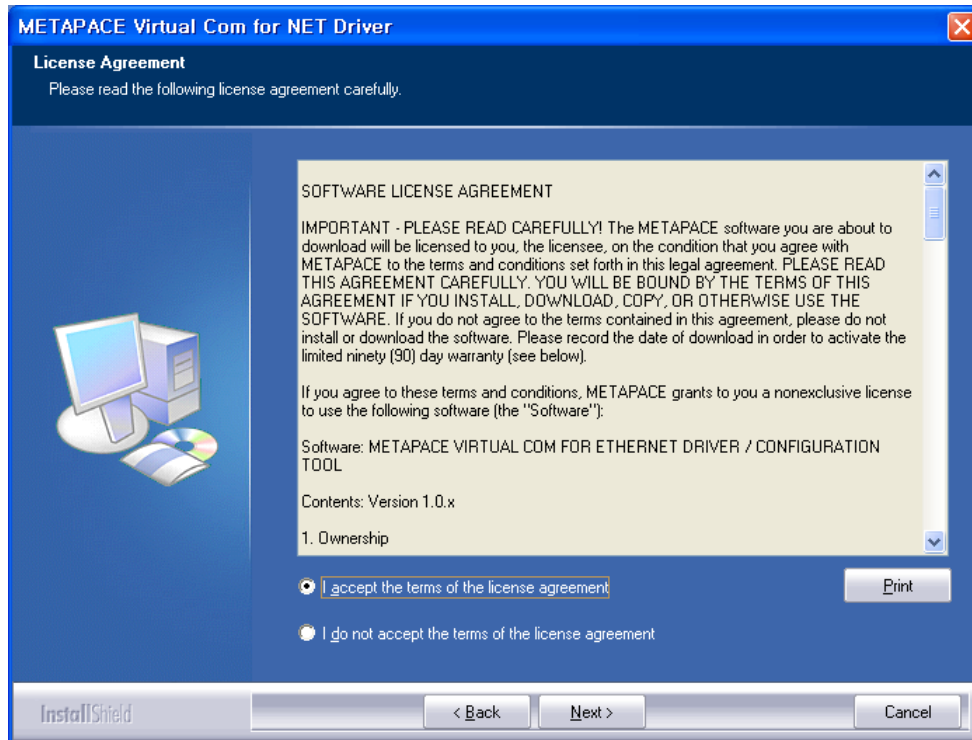
- 1) Execute the “Metapace VCOM4NET Installer V1.x.x.exe” file.
(This file must first be downloaded.)



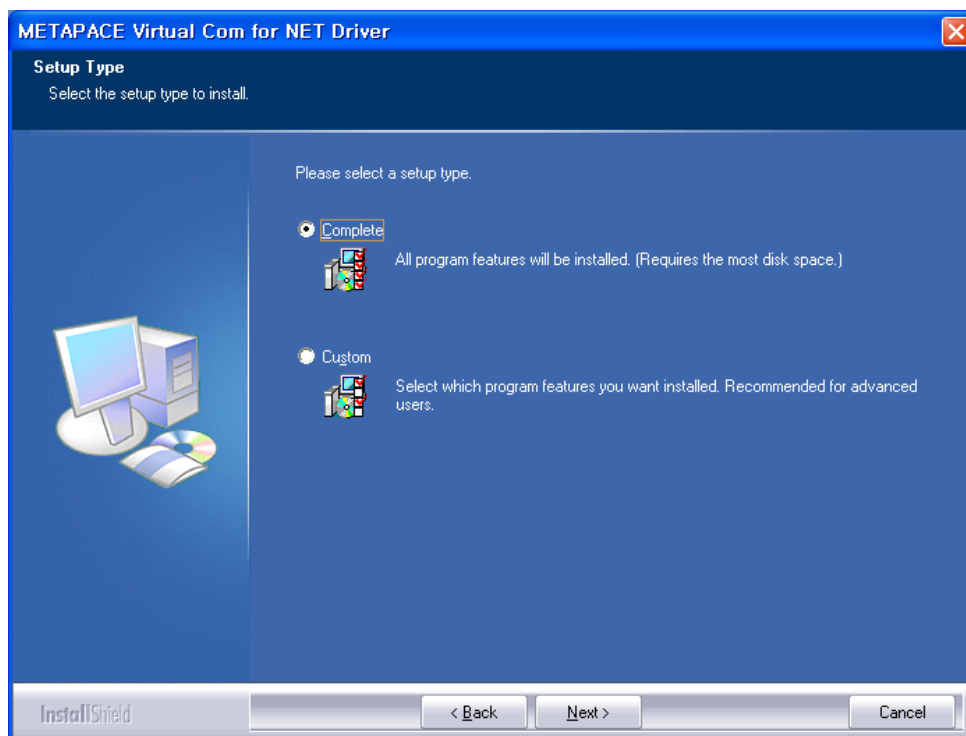
- 2) Click the “Next” button.



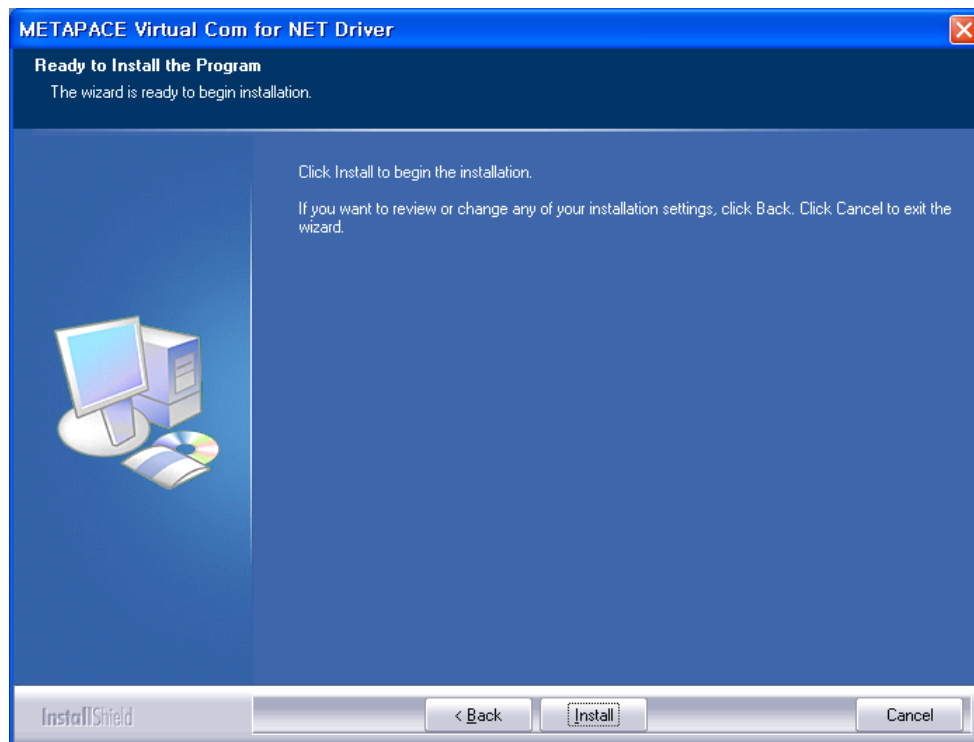
- 3) Accept the terms of the software license, and click the “Next” button.



- 4) Select between complete installation (Complete) and user-defined installation (Custom), and click the “Next” button.



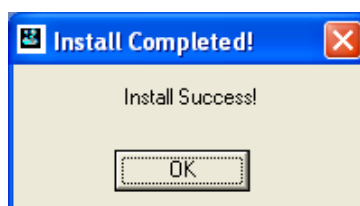
- 5) Clicking the “Install” button begins the installation process.
(Install to: C:\Program Files\Metapace\VCOM4NET Driver\)



- 6) During installation, the following message will appear. Click the “Continue Anyway” button.

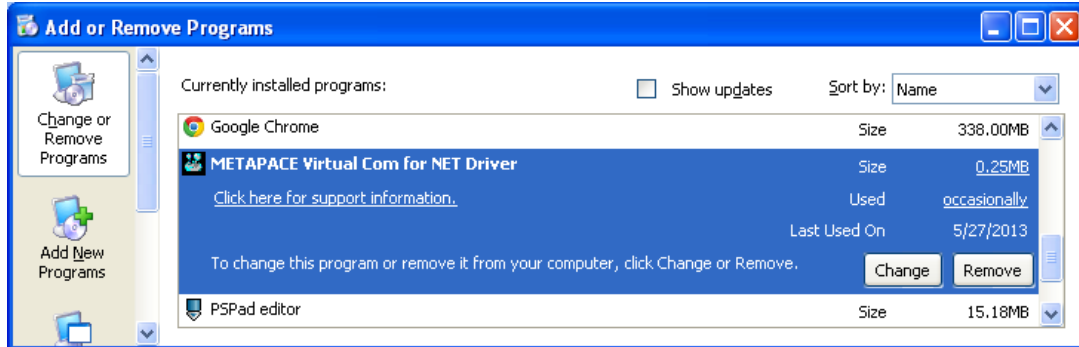


- 7) The following message appears upon the successful completion of installation.

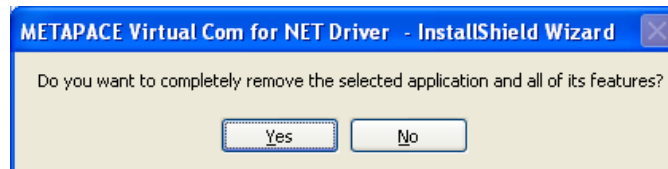


3-2 Deletion

- 1) Click and activate the “Add/Remove Programs” icon in the Control Panel.
- 2) Select “Metapace Virtual Com for NET Driver ” and click the “Change/Remove” button.



- 3) Click the “Yes” button to completely remove the application.



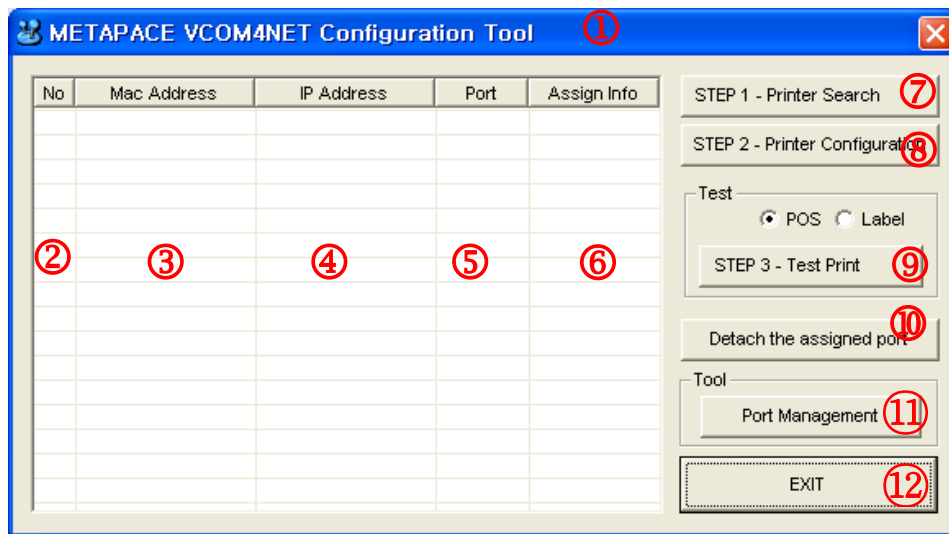
4. Configuration Tool Usage

The “Configuration Tool” program can be used to create a serial port, and set and/or delete printer devices.

4-1 Configuration Tool Functions

After completing installation via the Installer file, run the “Configuration Tool” program. The program location is indicated as follows.

(Start Program Menu-> Metapace -> Virtual Com For NET Driver -> Click the “Configuration Tool “ shortcut icon.)



The “Configuration Tool” functions are described as follows.

- ① Main Screen
 - This is the main screen of the “Virtual COM for NET Configuration Tool” program.
- ② Printer Device Sequence Number
 - This function displays the connection sequence of printer devices.
- ③ Mac Address of the connected Printer via the Ethernet interface
 - This function displays the printer device models that are turned on and connected via the Ethernet interface.
- ④ IP Address
 - This function displays the current IP Address of the connected printer via the Ethernet Interface.
- ⑤ Port Number
 - This function displays the current Port Number of the connected printer via the Ethernet Interface.

⑥ Assigned Info

- This function displays the current set virtual serial port number. If one is not set, the status is shown as “Not Assigned”.

⑦ STEP 1 – Printer Search

- This function is used to search the printer device models that are turned on and connected via the Ethernet interface.

⑧ STEP 2 – Printer Configuration

- This function is used to configure the Ethernet Interface and the Virtual Serial port Number.

⑨ STEP 3 – Test Print

- This function is used to perform a print test on the printer selected from the list box. The serial port must be set in order to perform a print test.

⑩ Detach the assigned port

- This function is used to disconnect a connection between a printer selected from the list box and a virtual serial port.

⑪ Port Management

- This function is used to add/remove virtual serial ports.

⑫ Exit

- This function is used to exit the “Configuration Tool” program.

※ **NOTE**

Each time the “Configuration Tool” program is executed, each port driver is updated. While processing, the following warning message will appear.



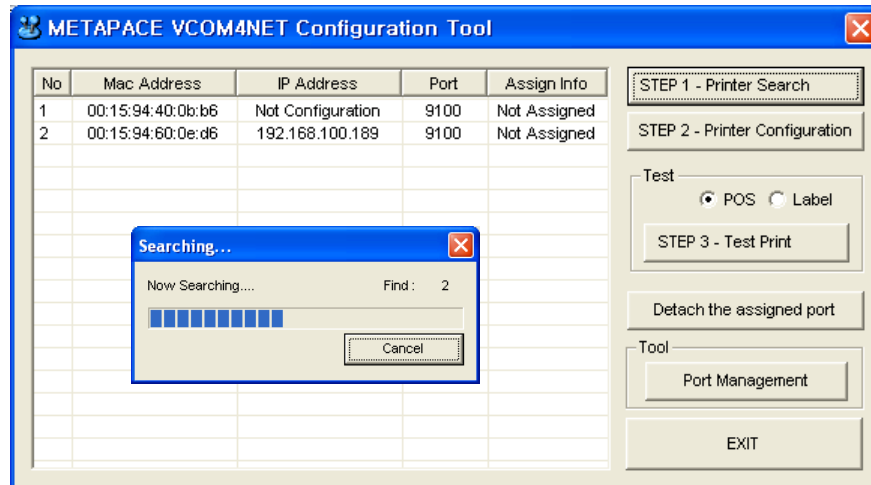
When the warning message appears, click the “Continue Anyway” button to go to the next process.

While updating is in progress, the warning message will appear once for each registered virtual serial port. Because of the Initialization of Virtual port Information,

It needs to save again the Virtual port Information while executing the “Configuration Tool”. (Will not appear if using Windows 2000)

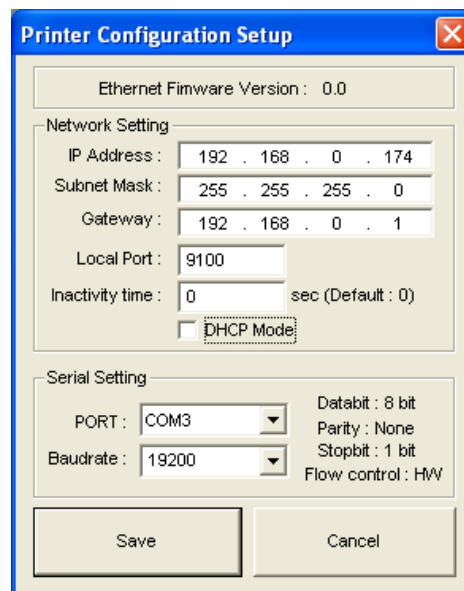
4-2 Printer Search

The “Configuration Tool” program is used to search the printer. To search the connected printer via Ethernet interface, click the “STEP 1 –Printer Search” button in the “Configuration Tool”. The following window appears during the searching the printer.



4-3 Configuration of the Ethernet and the Virtual COM Port

To configure the Ethernet and the Virtual COM port, click the “STEP 2 –Printer Configuration” button in the “Configuration Tool”. Clicking the Configuration” button brings up the following dialog box.



- 1) Enter the IP Address, Subnet Mask, Gateway, Local Port, and Inactivity Time in the Network Setting section of the Ethernet interface card settings.
- 2) Select the port number to be used from the added virtual serial ports list to set the virtual port, and designate the Baudrate. Match the Baudrate to that specified on the test page printout from the corresponding printer.

3) After completion of settings, click the “Save” button to save the setting values.

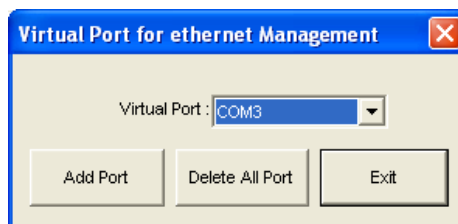
※ NOTE

- For information regarding the “Network Setting” section, submit an inquiry to the network administrator of the corresponding area.
- When connecting a virtual serial port, if the corresponding port is connected to another printer, the existing connection is automatically disconnected and the connection is made to the selected printer.
- The test page printout is generated by holding down the “Feed” button while turning the printer power on.
- Following the saving of settings, a printer search is repeated.

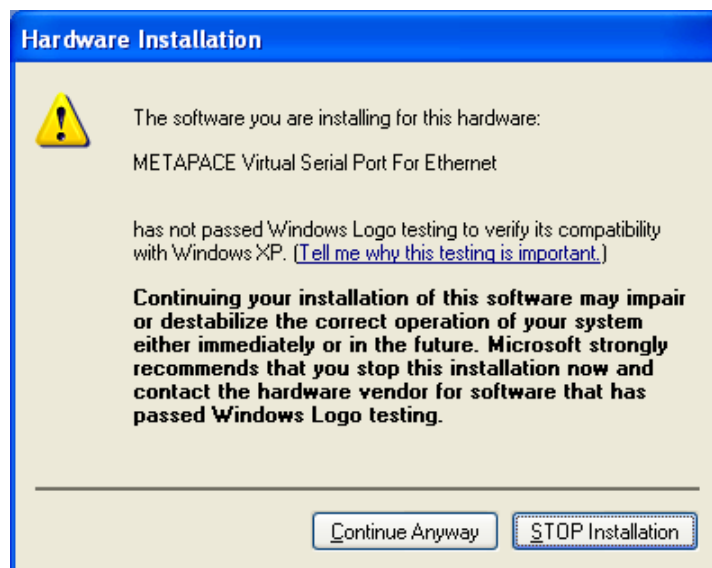
4-4 Virtual COM Port Addition

The “Configuration Tool” program is used to add a virtual COM port. To create a port, click the “Port Management” button in the “Configuration Tool”.

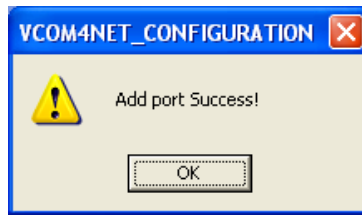
1) Clicking the “Port Management” button of the “Configuration Tool” brings up the following dialog box.



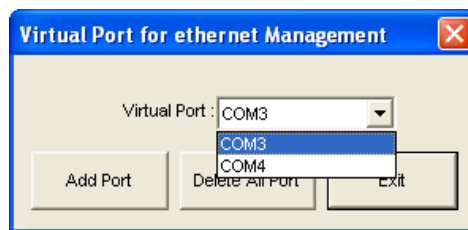
2) Click the “Add Port” button to add a port. The following warning message appears when adding a port if using a Windows XP or higher operating system.



- 3) Click “Continue Anyway” on the warning message, and the following message will appear upon port addition success.



- 4) If the port has been added successfully, the virtual serial port added will appear as follows.



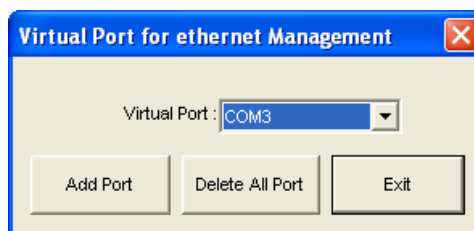
※ NOTE

When adding a virtual serial port via the “Add Port” function, the port number indicated in “COM#” is determined according to the operating system.

Refer to section 5 (Virtual Serial Port Management) of this manual for information on modifying the virtual serial port number. In addition, the warning message appears once for each virtual serial port added.

4-5 Virtual Serial Port Deletion

Click the “Port Management” button to delete the connection settings of virtual serial ports. The “Delete All Port” button can be used to delete all virtual serial ports.



4-6 Firmware Update of the Ethernet Interface

- 1) To update the Ethernet interface firmware, the firmware update file must first be prepared.
- 2) After setting the file to a specified folder, click the “Firmware Update” button.
- 3) The file is selected, and the Ethernet interface firmware is updated.

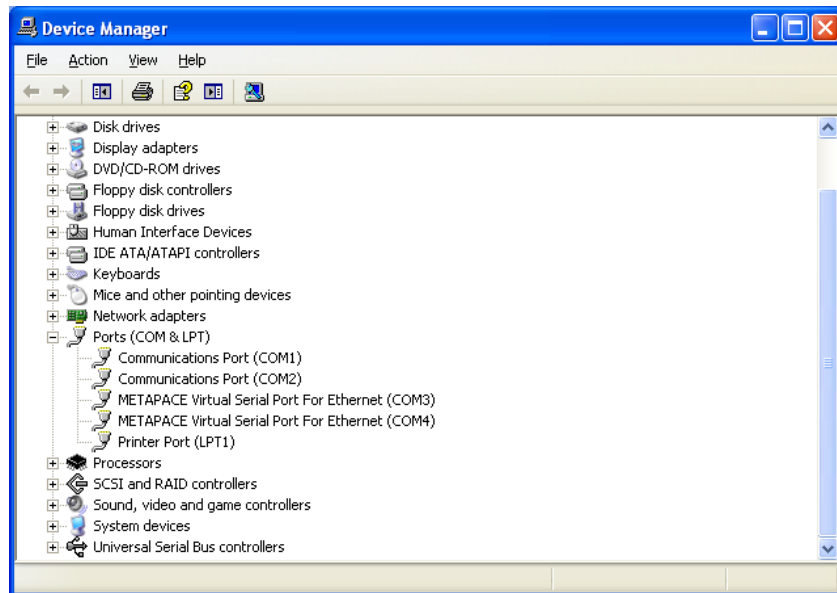
※ NOTE

- The “Firmware Update” button and its function differs from that of the printer firmware update, and thus a different utility must be used for the firmware upgrade of the printer itself.
- If the printer power is turned off during a firmware update, damage to the Ethernet interface card may result.

5. Virtual Serial Port Management

Port number modification, port deletion, and serial communication setting are done via the Device Manager.

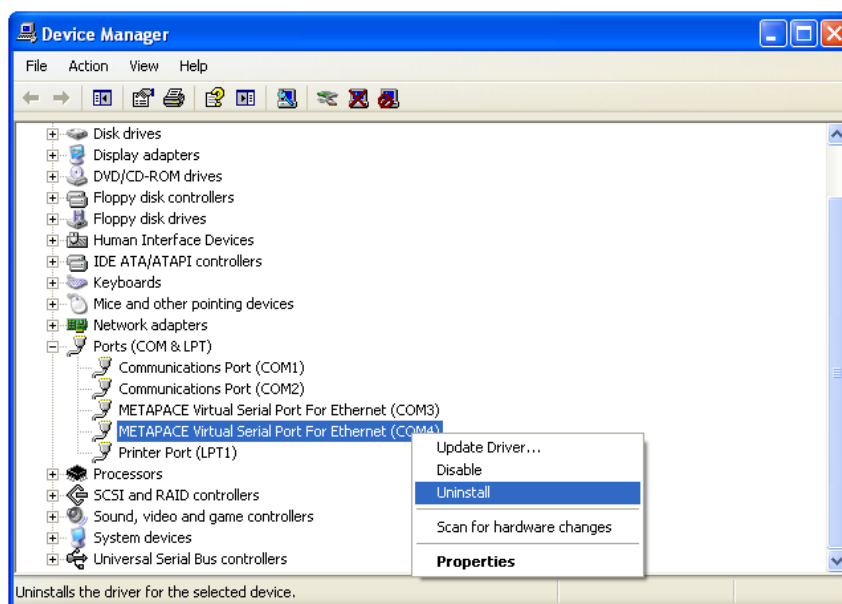
Control Panel -> System -> Device Manager: Upon examination of the ports (COM & LPT) section, the port(s) added previously via the “Configuration Tool” program can be seen.



5-1 Port Deletion Via the Device Manager

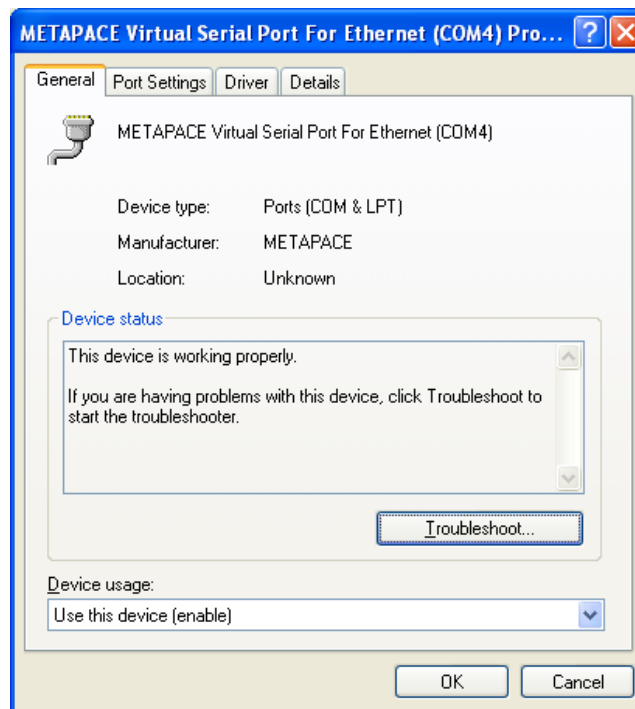
Select the virtual serial port to be deleted and click the right mouse button. On the popup menu, select “Uninstall” to delete the port.

Following deletion, the “Configuration Tool” program must be executed, and the changes must be updated.

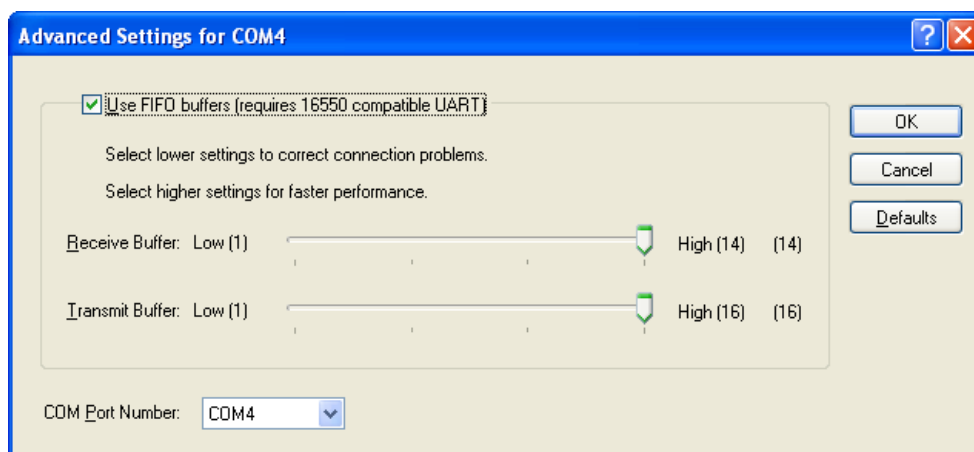


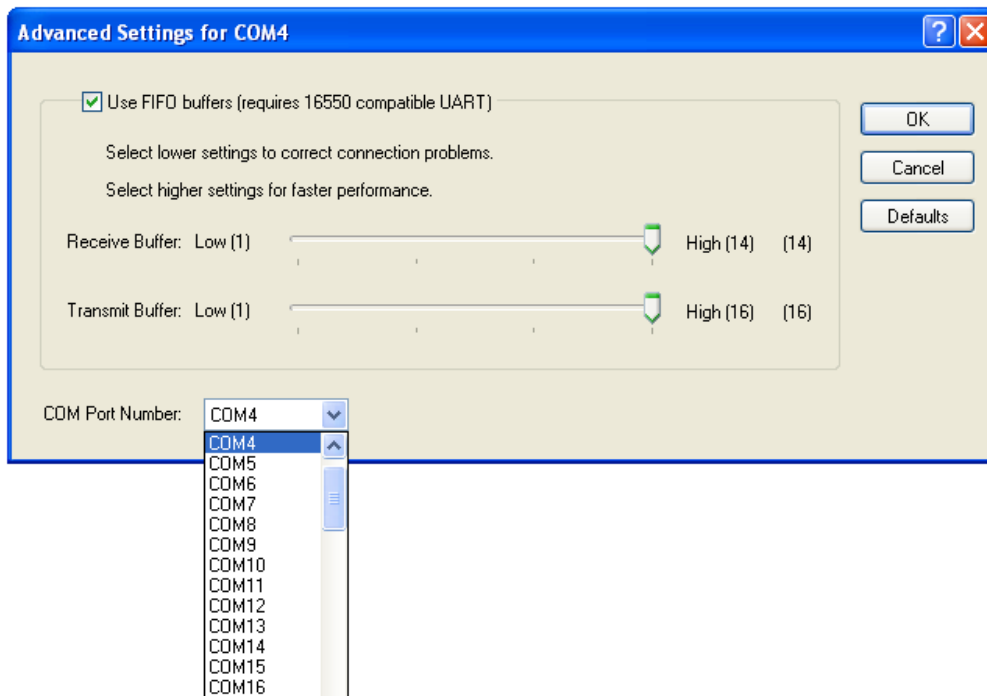
5-2 Port Setting/Number Modification Via the Device Manager

- 1) Select the desired virtual serial port and click the right mouse button. On the popup menu, select “Properties”.
- 2) In the “Properties” window, click the “Port Settings” tab.
- 3) The “Port Settings” tab can be used to set the baud rate, data bits, parity, stop bits, and flow control of a port.



- 4) Click the “Advanced” button to modify the port number and/or designate buffer settings. Modification of buffer settings is not recommended. The COM port number is changed by selecting a number in the combo box.





Following port modifications, the settings utility must be run to update changes.
If a printer was connected previously, the connection setting must be disconnected.

※ CAUTION

The selecting port must not already be in use.

Following port modification, clicking the “Yes” button can result in the appearance of a warning message. Click the “Yes” button to finalize and set the modified information and settings.

Port modification on certain operating systems will require the repeat opening of the Device Manager to confirm changes.

6. Win32 API

The “Virtual COM for NET Driver” program can be used in serial communication programming. Refer to Microsoft MSDN regarding the Win32 API for serial communication.

※ NOTE

Currently, only basic serial communication APIs are supported.
In the future, additional APIs suited to user needs are set to be added.

6-1 File I/O API

- 1) CreateFile(): Supported
- 2) WriteFile(): Supported
- 3) ReadFile(): Supported
- 4) CloseHandle(): Supported

6-2 Communication API

- 1) BuildCommDCB(): Supported
- 2) BuildCommDCBAndTimeouts(): Supported
- 3) CommConfigDialog(): Supported
- 4) DeviceIoControl(): Supported
- 5) GetCommModemStatus(): Supported
- 6) GetCommState(): Supported
- 7) GetCommTimeouts(): Supported
- 8) PurgeComm(): Supported
- 9) SetCommState(): Supported
- 10) SetCommTimeouts(): Supported

6-3 Precautions for Serial Communication Programming

With CreateFile, any port name ranging from 1 to 9 may be used as “COM1” to “COM9”.
To use ports 10 to 256, the following format must be used, “\\\\.\\COM10” to “\\\\.\\COM256”.