POSBANK®

POS Thermal Receipt Printer

A11 Prime



Virtual COM for Ethernet Driver/ Configuration Tool

Table of Contents

1. Manual Information 3

2. Usage Environment 3
2-1 Operating System Environment 3
2-2 Supported Printer Models 3

3. Software Installation & Uninstallation 4
3-1 Installation 4
3-2 Uninstallation 5

4. Configuration Tool Usage 6
4-1 Configuration Tool Functions 6
4-2 Printer Search 7
4-3 Configuration of the Ethernet and the Virtual COM Port 8
4-4 Virtual COM Port Addition 9
4-5 Virtual Serial Port Deletion 10

5. Virtual Serial Port Management 11
5-1 Port Deletion Via the Device Manager 11
5-2 Port Setting/Number Modification Via the Device Manager 12

6. Win32 API 14
6-1 File I/O API 14
6-2 Communication API 14
6-3 Precautions for Serial Communication Programming 14

1. Manual Information

This manual provides information on the usage of the “Virtual COM for Ethernet Driver” and “Configuration Tool” software associated with Ethernet interface use on Posbank printers.

This software can be used to set and use the Ethernet interface via the serial communication mode.

We at Posbank 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. Usage Environment

2-1 Operating System Environment

Microsoft Windows XP SP3 (32bit, 64bit)
Microsoft Windows Server 2003 SP1 (32bit)
Microsoft Windows Server 2003 (64bit)
Microsoft Windows VISTA (32bit, 64bit)
Microsoft Windows Server 2008 (32bit, 64bit)
Microsoft Windows Server 2008 R2 (64bit)
Microsoft Windows 7 (32bit, 64bit)
Microsoft Windows 8 (32bit, 64bit)
Microsoft Windows 10 (32bit, 64bit)

2-2 Supported Printer Models

The “Virtual COM for Ethernet Driver” software can be used only with Ethernet-supported printers.

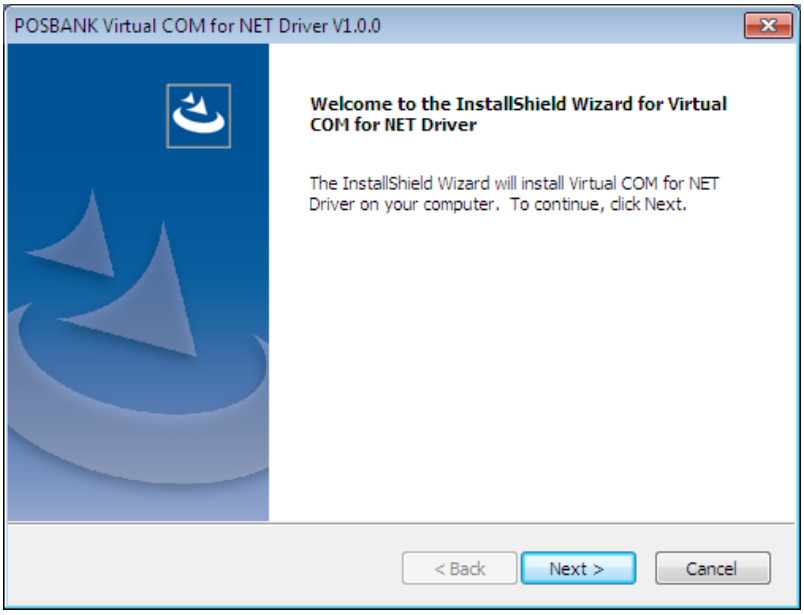
3. Software Installation & Uninstallation

*** Installation and uninstallation process in this document is written based on Windows 7**

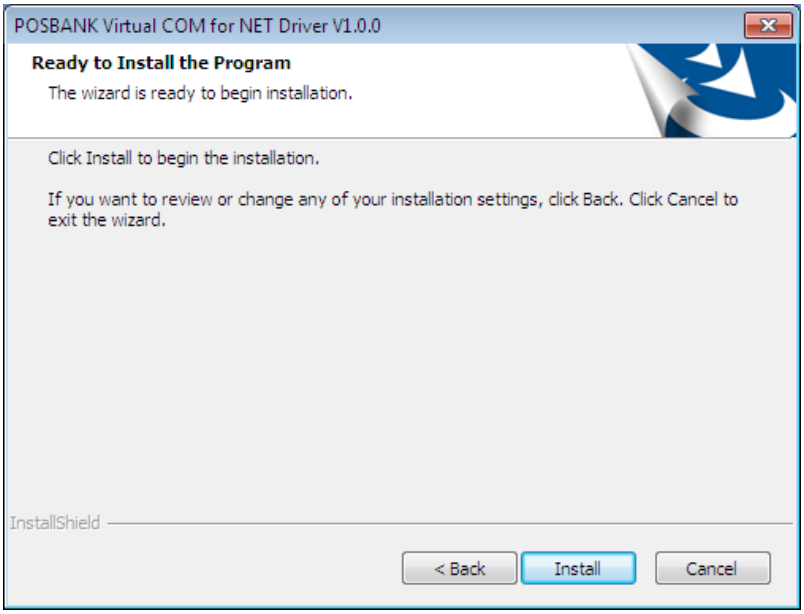
3-1 Installation

1) Execute the installation file.

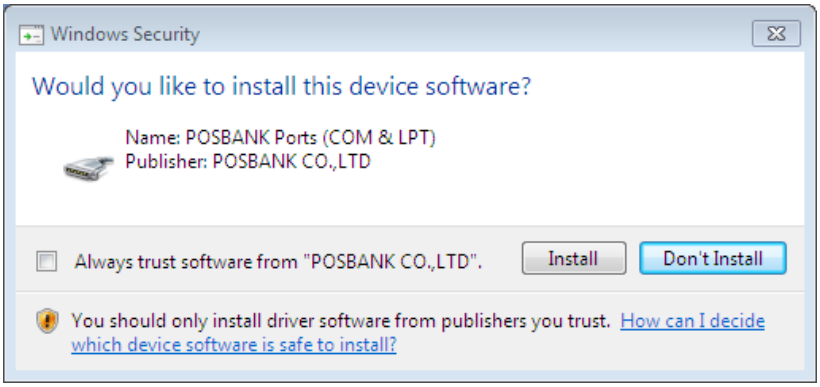
2) Click the “Next” button.



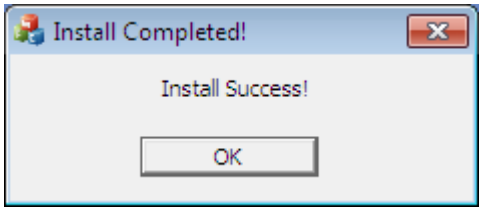
3) Clicking the “Install” button begins the installation process.



4) When the following message appears, click the “Install” button.



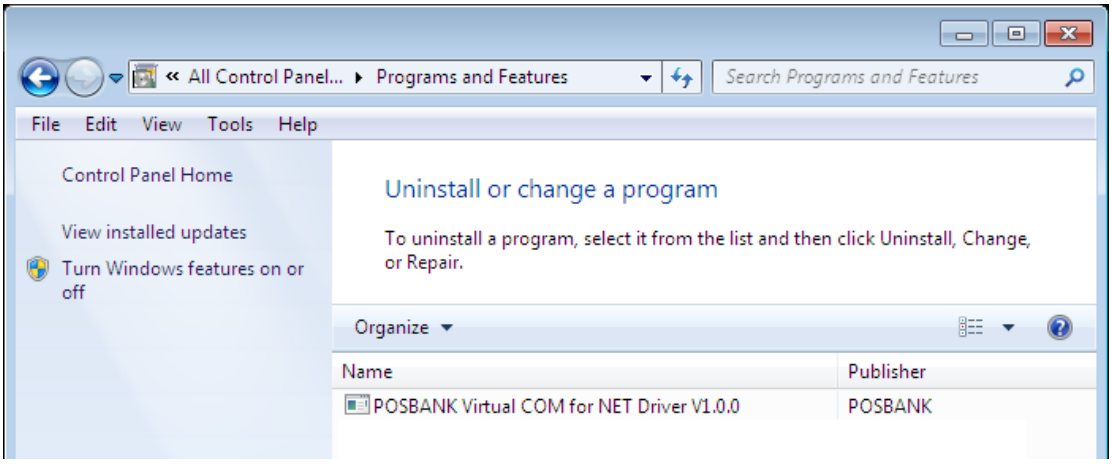
5) The following message appears upon the successful completion of installation.



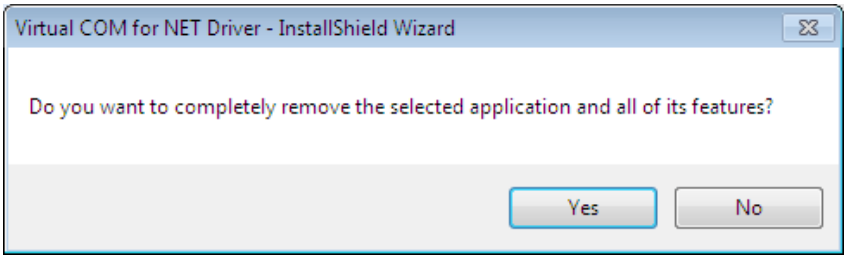
3-2 Uninstallation

1) Click and active the “Uninstall a program” or “Programs and Features” icon in the Control Panel.

2) Select “POSBANK Virtual COM for NET Driver” and click the “Uninstall“ button.



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

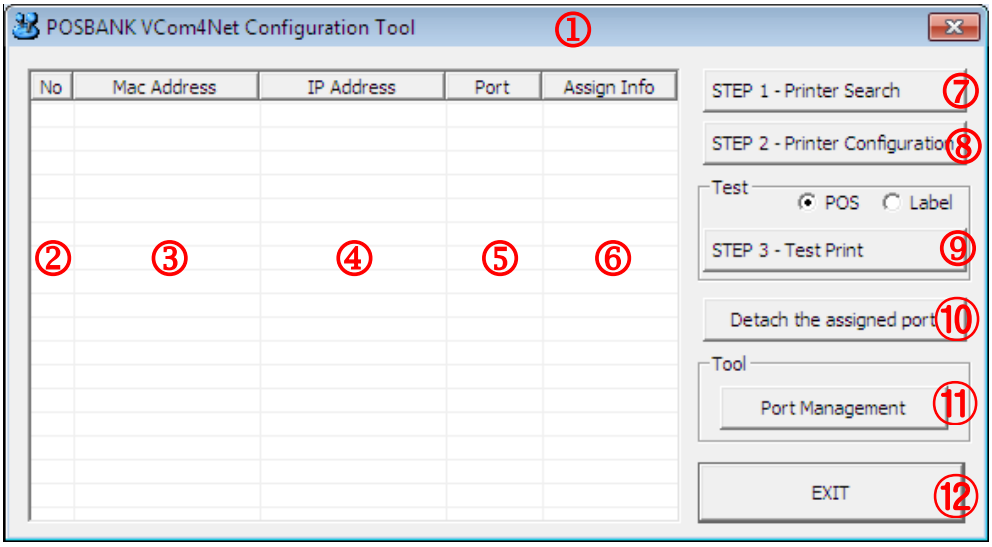


4. Configuration Tool Usage

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

4-1 Configuration Tool Functions

Select from “Start ▶ All Programs ▶POSBANK ▶Virtual COM for NET Driver” and open “VCOM4NET Configuration Tool”.



The “Configuration Tool” functions are described as follows.

① Main Screen
- This is the main screen of the “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.

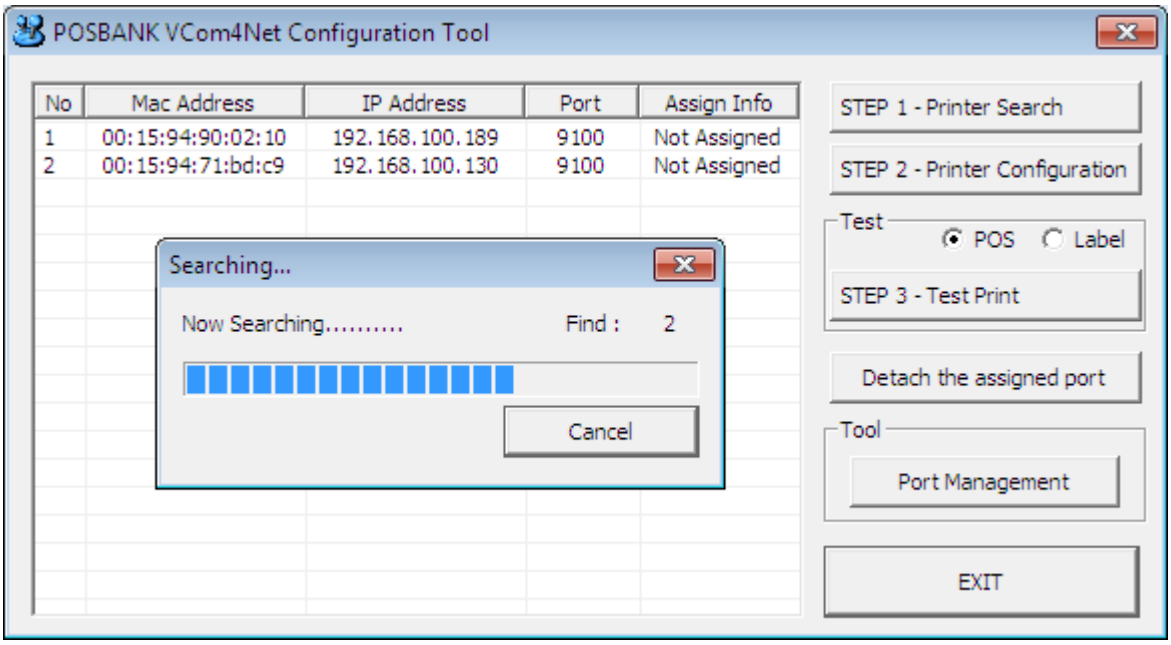
⑩ Detach the assigned port
- This function is used to disconnect a connection between a printer selected from the list box and a virtual serial port.

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.

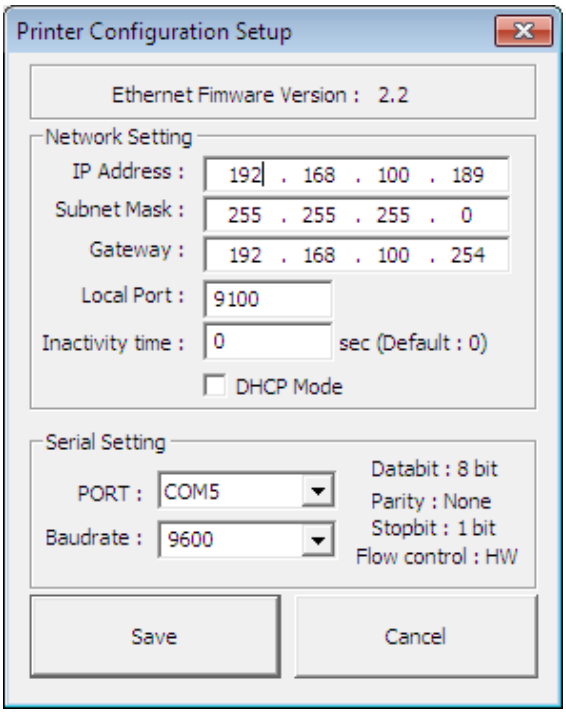
4-2 Printer Search

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 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.

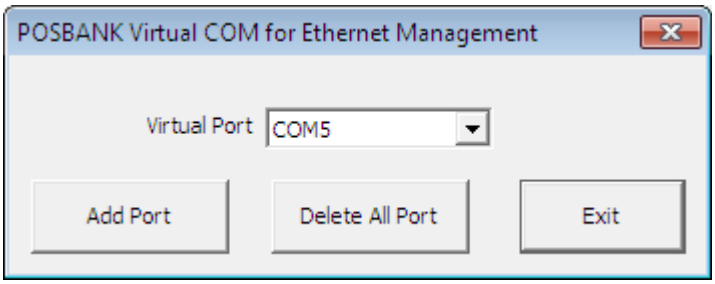
※ NOTE

- 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.
- Following the saving of settings, a printer search is repeated.

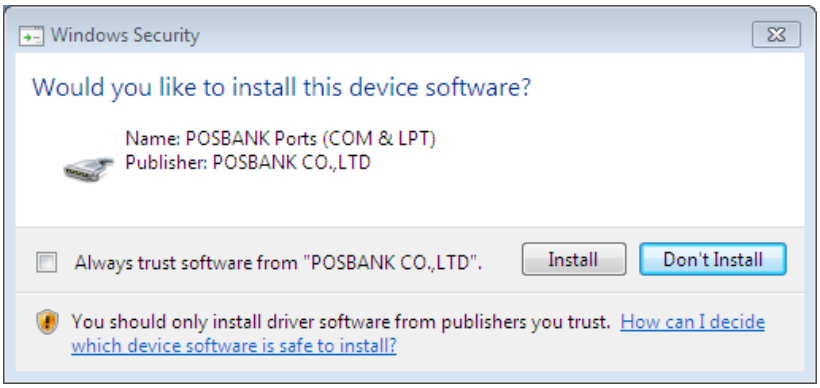
4-4 Virtual COM Port Addition

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”.

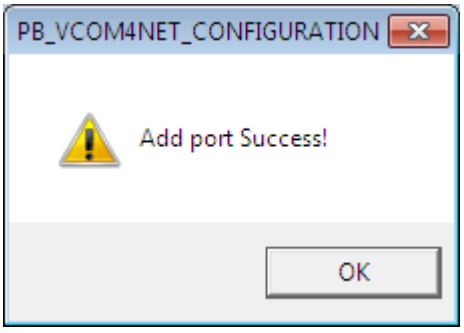
1) Clicking the “Port Management” button of the “Configuration Tool” brings up the following dialog box.



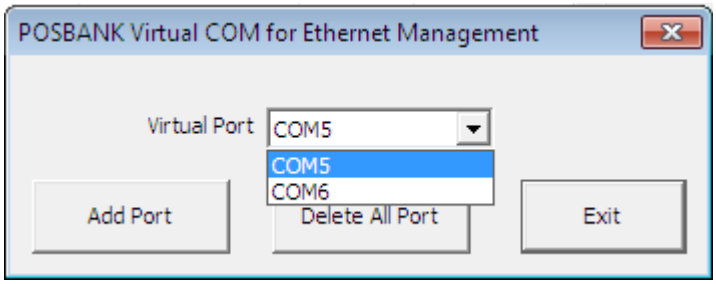
2) Click the “Add Port” button to add a port.
Click “Install” when “Windows Security” screen below appears.



3) 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.

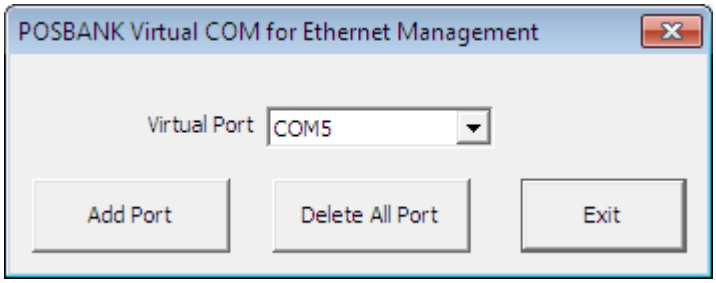


※ NOTE

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

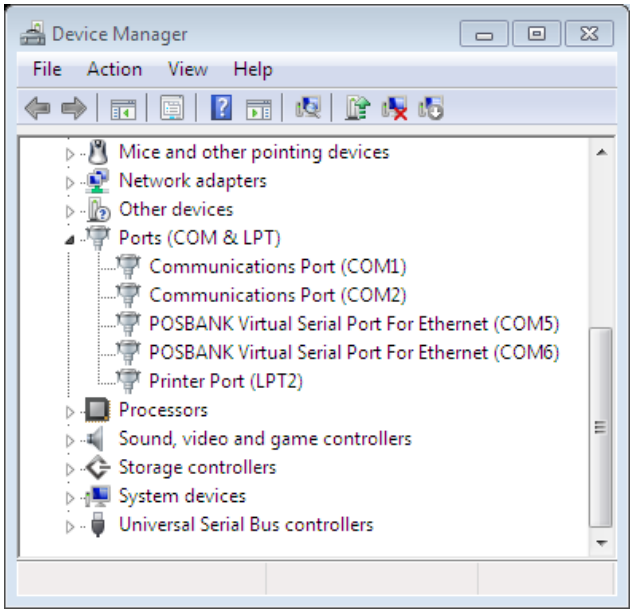
Click the "Port Management" button to delete the connection settings of virtual serial ports. The "Delete All Port" button can be used to delete all virtual serial ports.



5. Virtual Serial Port Management

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

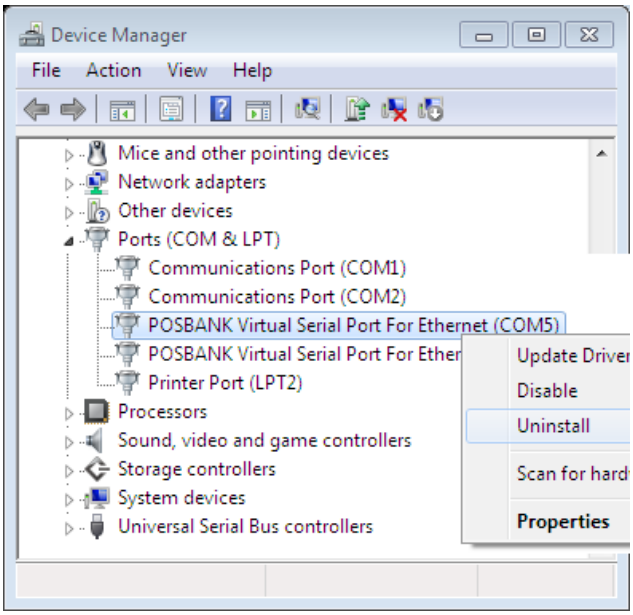
Control Panel -> System -> Device Manager: Upon examination of the ports (COM & LPT) section, the port(s) added previously via the “Configuration Tool” program can be seen.



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.

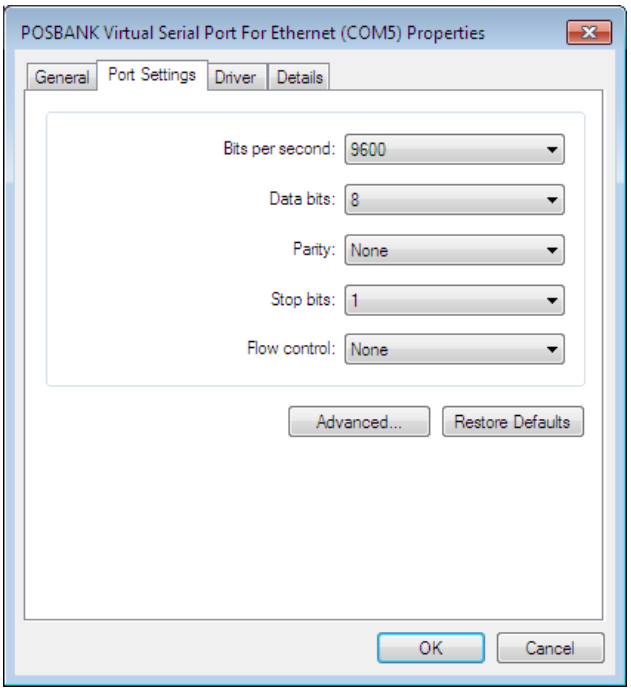


5-2 Port Setting/Number Modification Via the Device Manager

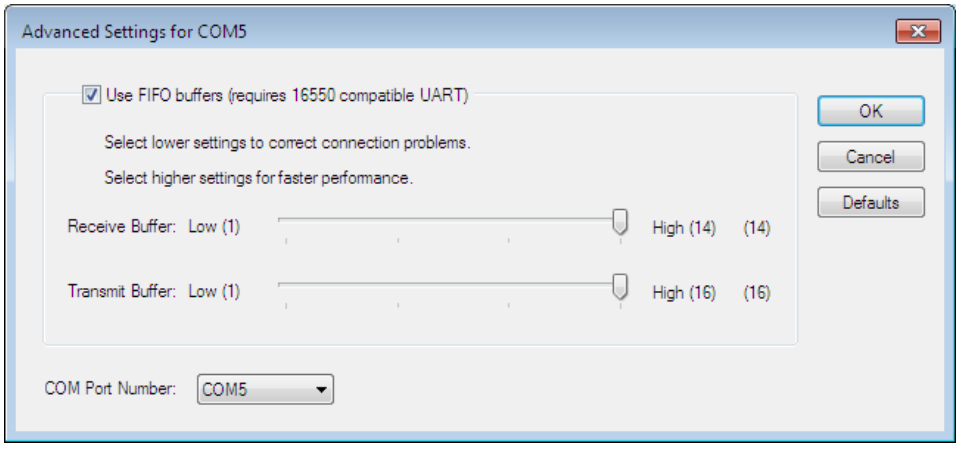
1) Select the desired virtual serial port and click the right mouse button. On the popup menu, select "Properties".

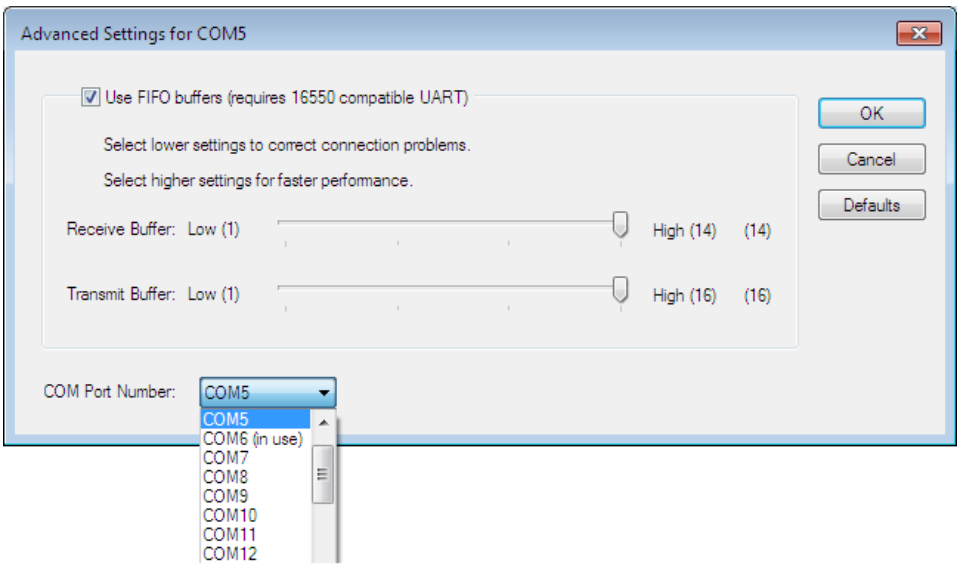
2) In the "Properties" window, click the "Port Settings" tab.

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.





5) 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 Ethernet Driver” program can be used in serial communication programming. Refer to Microsoft MSDN regarding the Win32 API for serial communication.

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

1) 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”.