

SystemBase COM Redirector

User Manual



Revision History

Revision Date	Document Ver.	Pages Revised	Revised/Added/Removed	Details of Revision
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1. Before Using

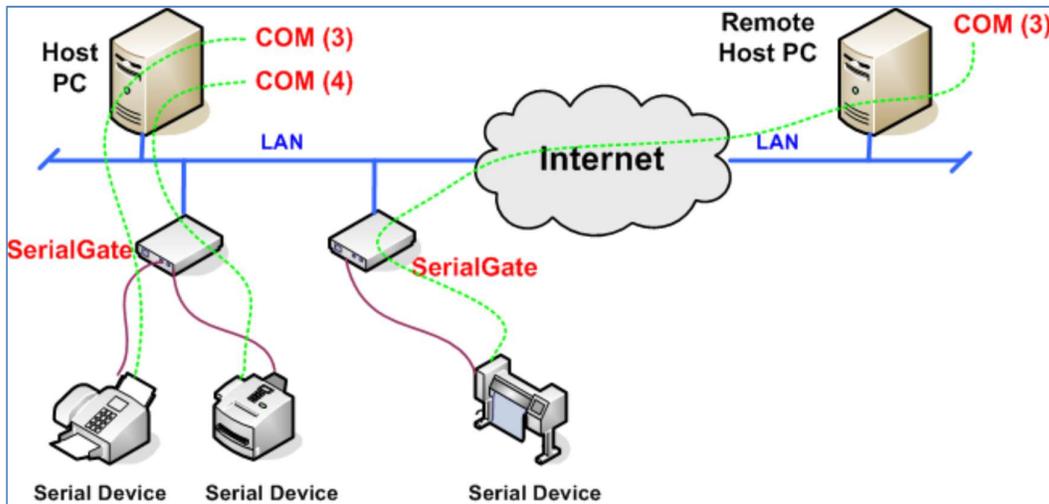
Please be sure to read this manual before using and use the product safely and accurately.

- Pictures and photos in the manual may be different from the physical, and the document is subject to change without notice to improve performance. For the last information, please visit our website (www.sysbas.com).
- To view frequently asked questions and answers, please visit our website and find Support –Technical Support –FAQ section.
- Documents can be downloaded from the product page or Download section.
- Sellers or users should be aware of the fact that this device is intended for industrial use(Class A), not for residential use.
- This device has a potential for radio interference during use and may receive harmful interference from other devices.
- Warranty policy is included in the product packaging.
- This product is domestic(Korea) and cannot be used overseas with different power/frequency.

2. Basic Information

SystemBase COM Redirector v4.0 can create up to 255 virtual COM ports, and allows serial ports of remote device servers connected to the network to be used like COM Ports on PC with COM Redirector v4.0 installed.

The following is a picture of communicating with a serial device connected to the network on a PC with SystemBase COM Redirector installed.



2.1 Software

- 1) Compatible with Windows 7/8.1/10/11, Windows 2008/2012/2016/2019 Server environment, it creates a Windows virtual serial port to make it recognized as a real COM port on the system. Data transmitted to the virtual serial port is converted into TCP/IP packets, enabling communication with Ethernet equipment.
- 2) It supports adding/removing virtual COM Port and real-time port status checking function, providing communication environment settings.

2.2 Operating Environment

The higher the number of virtual COM ports, the higher performance CPU and higher capacity memory are required.

* CPU Recommendation: Pentium 1Ghz or higher

* Memory: 512Mb or higher

* O/S: Windows 7 Service Pack 1 (32bit/64bit)

Windows 8.1 (32bit/64bit)

Windows 10 version 1507~20H2 (32bit/64bit)

Windows 11 version 21H2 (64bit)

Windows Server 2008 R2, Service Pack1 (32bit/64bit)

Windows Server 2012/2016/2019

* Network: 10M Ethernet or higher

* Microsoft's official support for Windows 7 ended on January 14, 2020, which may limit some system features.

2.3 Technical Support

SystemBase provides technical support to customers in three ways.

1) If you visit technical support on our website <http://www.sysbas.com/>, you can receive technical support through frequently asked questions(FAQs) or boards.

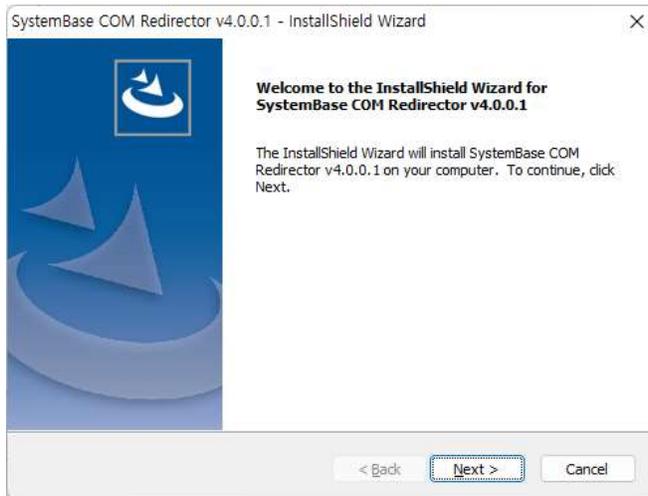
2) If you send an email to the technical supported team(tech@sysbas.com), you can receive an answer in a short time.

3) If you want faster technical support, you can get customer support over the phone. The phone number is +82-2-855-0501.

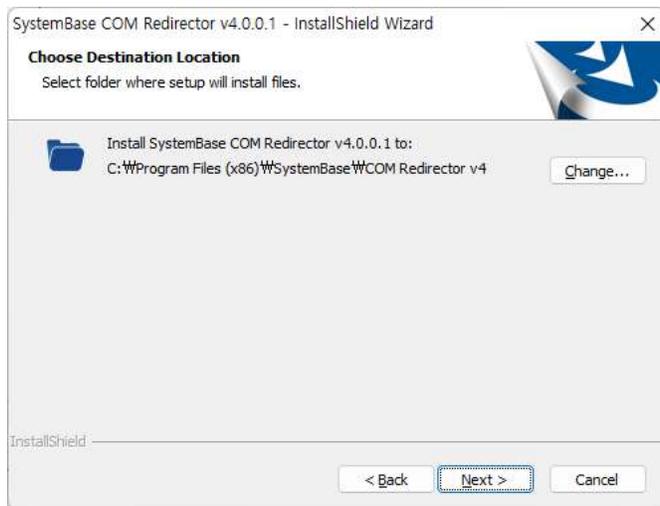
3. How to Install/Uninstall

3.1 Install

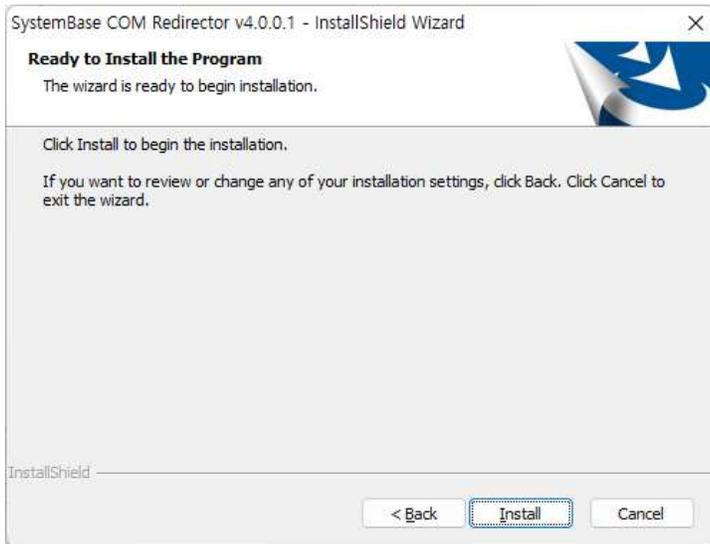
Run SystemBase COM Redirector Setup v4.0.exe. Once the installer runs, select the [Next] button as below.



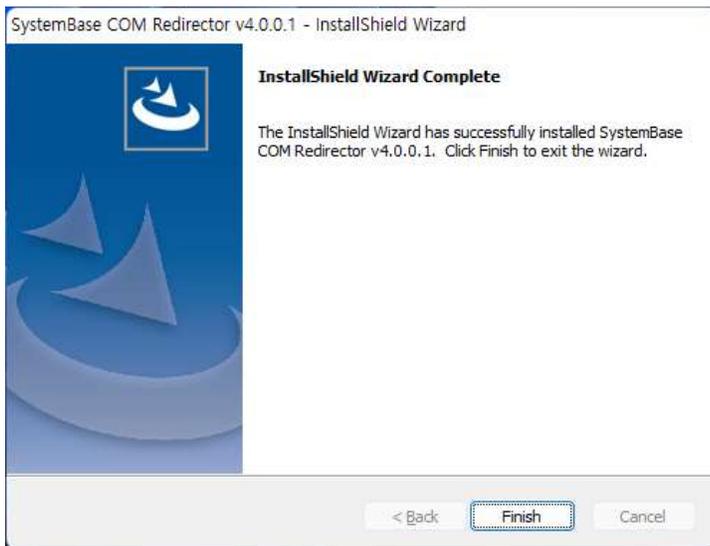
Choose Destination Location window pops up. After selecting the location, click the [Next] button.



The installation location is specified. Press the [Install] button to proceed with the program installation.



When the installation is completed, select the [Finish] button to complete the installation.



When the installation is completed, a link to the COM Redirector Control v4.0 shortcut is created on the desktop.

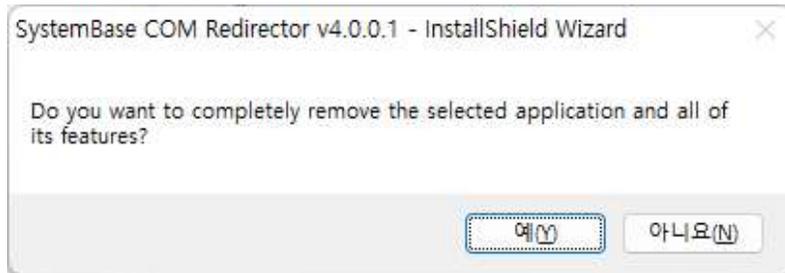


3.2 Uninstall

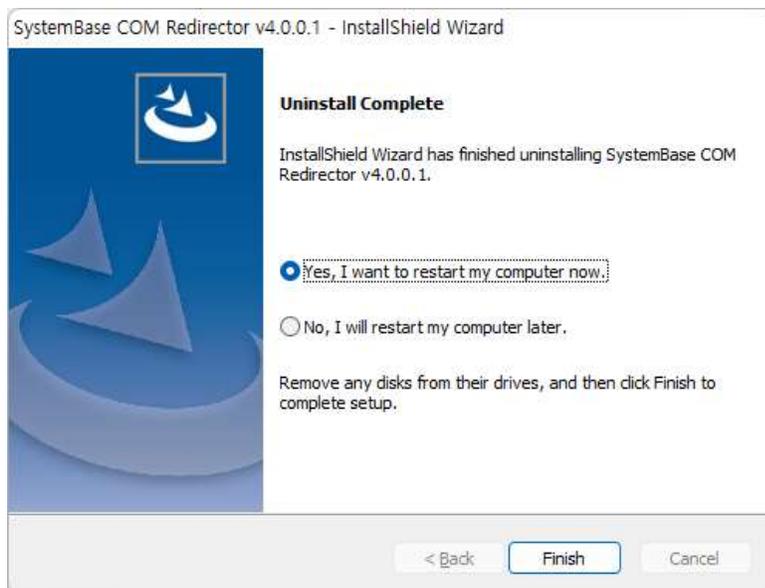
Once running the Uninstall of the SystemBase COM Redirector v4.0 program, all installed programs and virtual COM ports are deleted. It can be executed on “Start → All Programs → SystemBase → COM Redirector v4.0 → Uninstall”.



When the confirmation window pops up, select the [Yes] button to proceed with the deletion process.

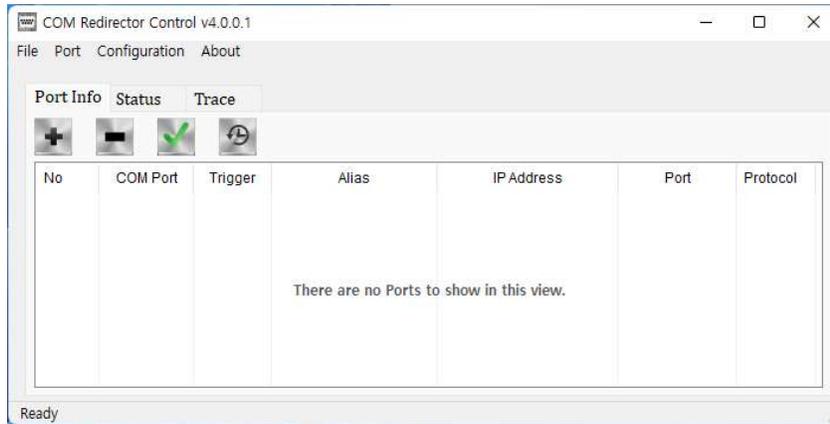


When the Uninstall process is completed, select the [Finish] button to reboot the system.



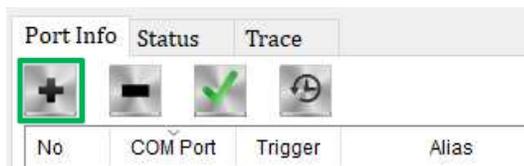
4. How to Add/Remove Ports

COM Redirector Control v4.0 enables setting up virtual COM ports and adding/removing up to 255 ports.

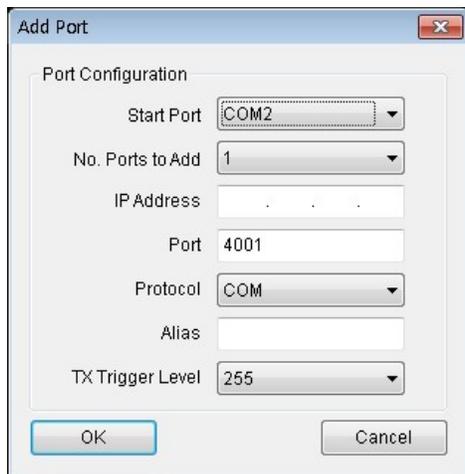


4.1 Add Virtual COM Port

You can add a virtual COM Port by clicking the [Add Port] button as below.



When you click the [Add Port] button, you will see a window where you can add ports as below, and the options are as follows.



- **Start Port**

You can add multiple ports at the same time and specify port number that starts.

- **No. Ports to Add**

Specify how many ports to add consecutively based on the Start Port number above.

- **IP Address**

IP address of the device to be used. It is applied to all ports added in this window and can be applied individually later, even if not specified currently.

- **Port**

Port number of the device to be used. If multiple ports are added, consecutive values are specified based on this value, which can be specified individually later.

- **Protocol**

Decide the communication method with the device. Basically "COM" method is used, and if you want to encrypt, optional 'Encryption' is supported.

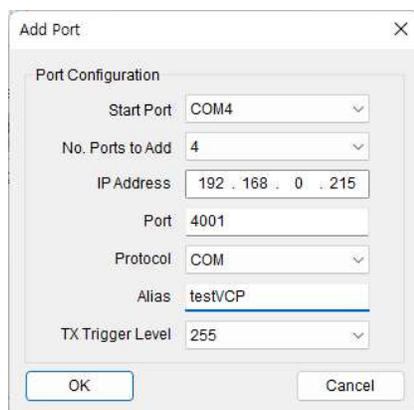
- **Alias**

Give the port a nickname and it is applied to all ports added in this window. Applied Alias can be checked in the device administrator.

- **TX Trigger Level**

If the size of the data to be transferred from COM Redirector to the device server is equal to or larger than the TX Trigger Level, the transmission will begin.

In the Option Settings window, set the option according to the purpose as shown in the example below.



The screenshot shows a dialog box titled "Add Port" with a close button (X) in the top right corner. Inside the dialog, there is a section labeled "Port Configuration" containing several input fields and dropdown menus:

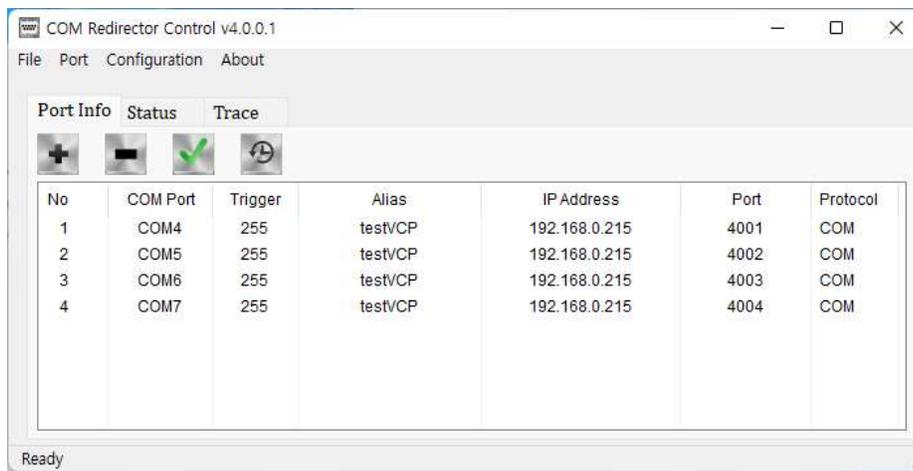
- Start Port:** A dropdown menu with "COM4" selected.
- No. Ports to Add:** A dropdown menu with "4" selected.
- IP Address:** A text input field containing "192 . 168 . 0 . 215".
- Port:** A text input field containing "4001".
- Protocol:** A dropdown menu with "COM" selected.
- Alias:** A text input field containing "testVCP".
- TX Trigger Level:** A dropdown menu with "255" selected.

At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

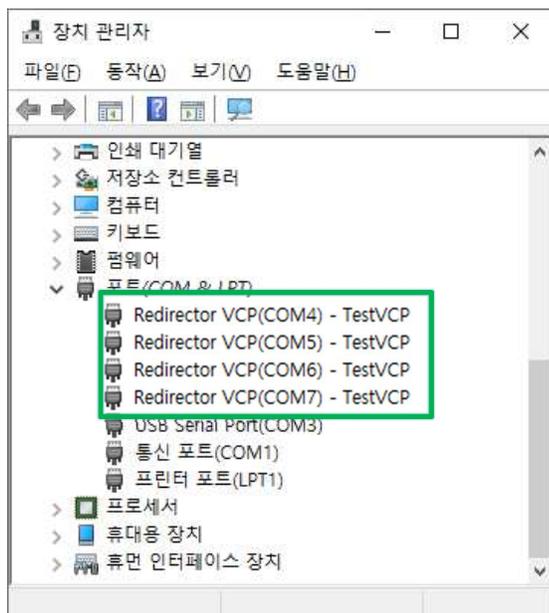
When the setup is completed, click the [OK] button to start driver installation. At this time, the driver installation window pops up and shows the installation process.



After the installation is completed, you can check the information on the installed port through Port Info when the driver installation indication window disappears.

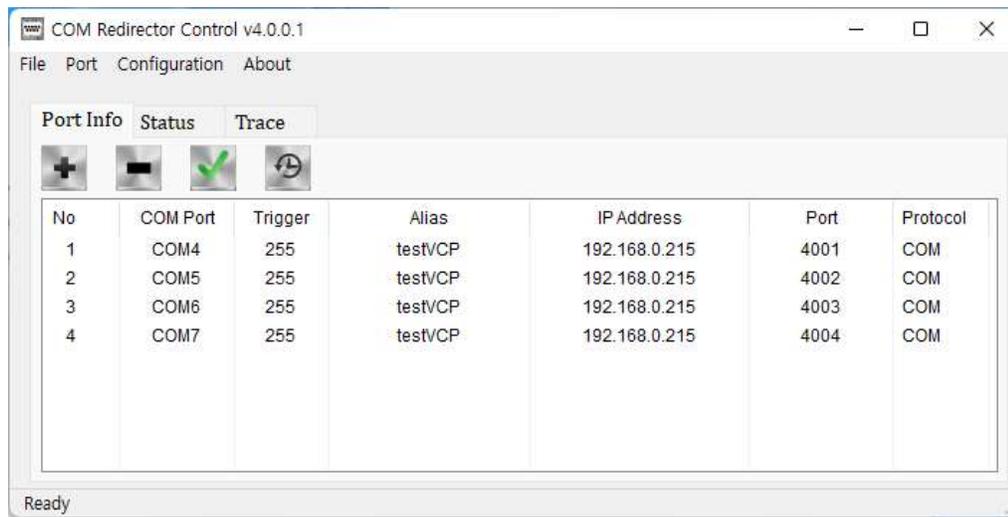


You can also check the Driver Add Status in the device administrator.

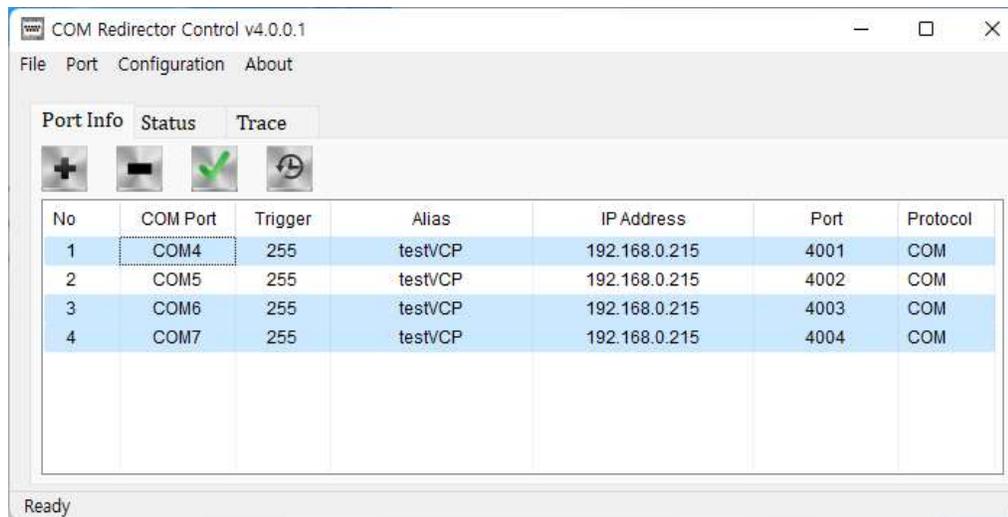


4.2 Remove Virtual COM Port

The order of removing the virtual port is as follows. Select the port you want to remove with left-click.



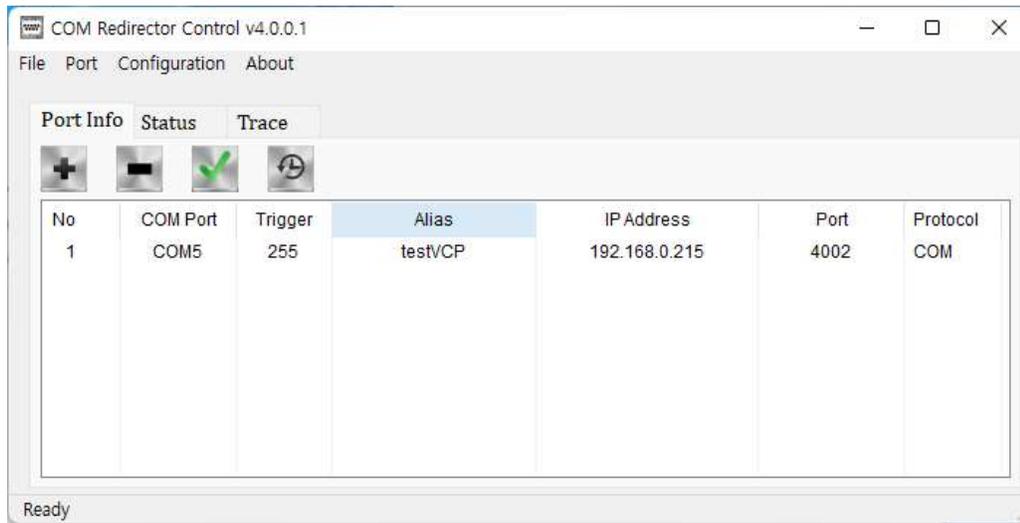
You can specify multiple ports to delete with Ctrl + left-click, or you can select multiple ports to remove through mouse drag.



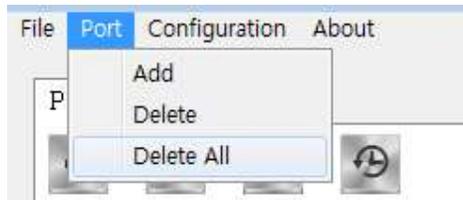
Once the selection is completed, you can remove the selected port by clicking [Delete Port].



When it is done, you can check if the Port has been properly removed through Port Info.



You can also remove the entire installed COM Ports by running Port → Delete All from the top menu.



※ Note: After removing the virtual COM Port, the system must be rebooted to reflect the changes normally.

5. How to Use COM Redirector

This chapter describes how to utilize the ports added in COM Redirector Control v4.0 and how to change the setting information.

5.1 View Port Settings

Running installed COM Redirector Control v4.0 allows you to check the information on installed virtual ports through Port Info information as follows.

Port Info						
No	COM Port	Trigger	Alias	IP Address	Port	Protocol
1	COM2	255	TestVCP	192.168.0.224	4001	COM
2	COM4	255	TestVCP	192.168.0.224	4002	COM
3	COM5	255	TestVCP	192.168.0.224	4003	COM
4	COM6	255	TestVCP	192.168.0.224	4004	COM

If you click on the item name defined in Port Info, you can sort it by item. The below screen is arranged in descending order based on the COM Port name when click on the "COMPORT" item.

No	COM Port
4	COM7
3	COM6
2	COM5
1	COM4

5.2 Change Port Settings

Items that can be changed through Port Info are as follows:

Alias

IP Address

Port

Protocol

Select the item you want to change and left-click again, to modify the value as follows. The revised Alias can also be checked through the device manager.

Port Info						
No	COM Port	Trigger	Alias	IP Address	Port	Protocol
4	COM6	255	Rename	192.168.0.224	4004	COM
3	COM5	255	TestVCP	192.168.0.224	4003	COM

The four items mentioned previously can be changed as above, and Protocol can be changed to a combo box as below.

Port Info						
No	COM Port	Trigger	Alias	IP Address	Port	Protocol
4	COM6	255	Rename	192.168.0.224	4004	COM
3	COM5	255	TestVCP	192.168.0.224	4003	COM
2	COM4	255	TestVCP	192.168.0.224	4002	Encryption

After changing the settings, click the [Apply] button to apply the changes.

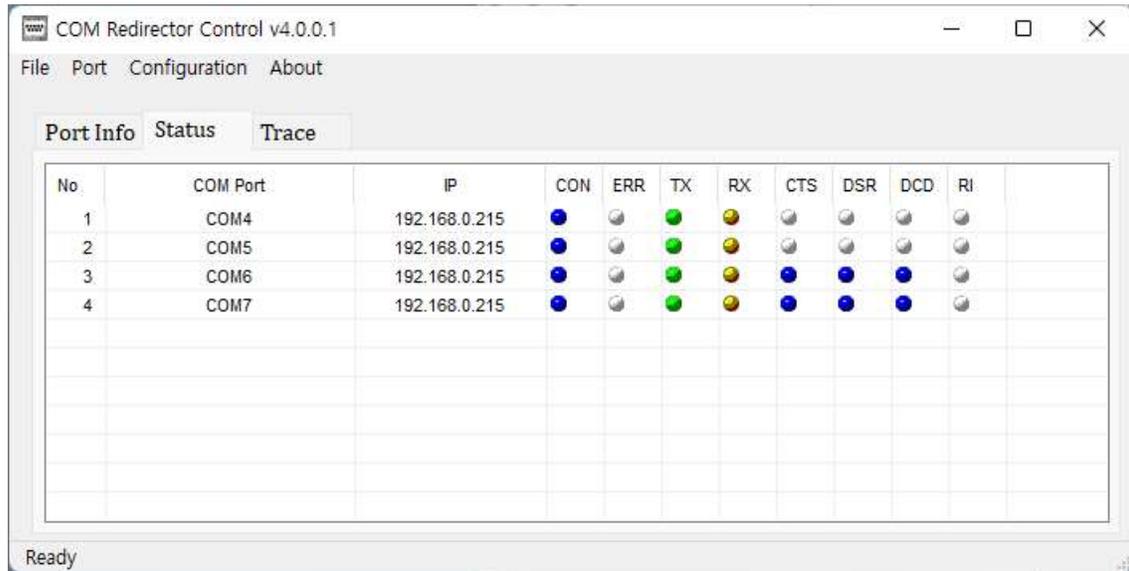


If you want to cancel the setting change, click the [Cancel] button. However, you can cancel only until clicking the [Apply] button.



5.3 View Port Settings in Real Time

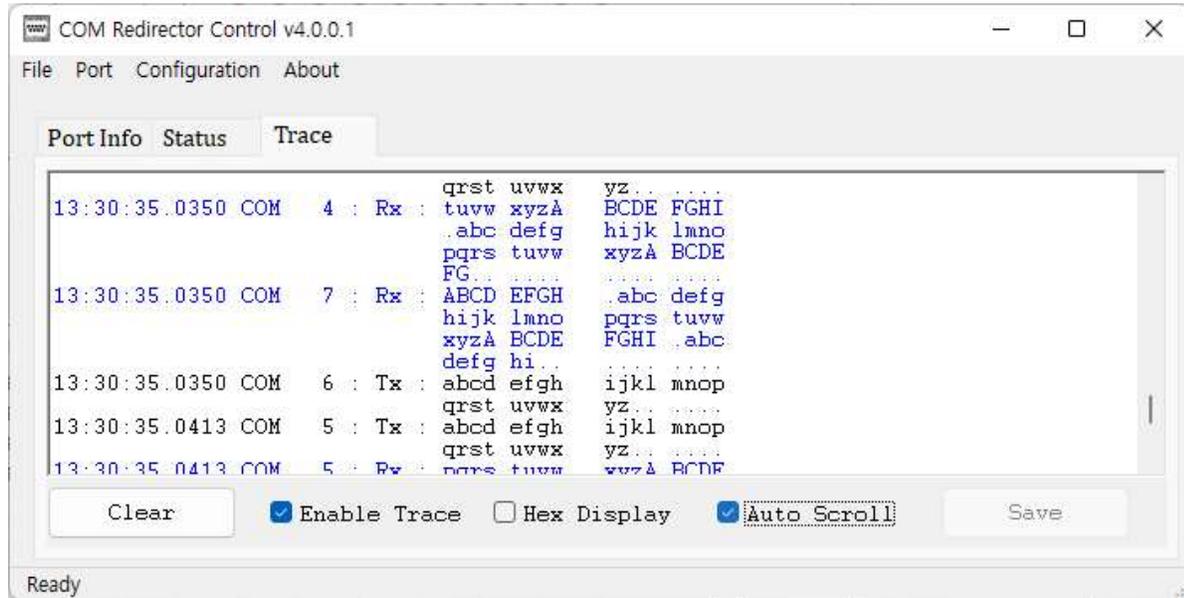
Click the [Status] tab to check the current status of the COM port in real time.



- CON: Turns on blue when the port is connected to the device.
- ERR: Turns on red if there is a problem with connection with the device.
- TX: Turns on green when data is being transmitted.
- RX: Turns on yellow when data is being received.
- CTS~RI: Indicates the state of the corresponding COM port. It turns on blue.

5.4 Check Communication Contents(Trace Function)

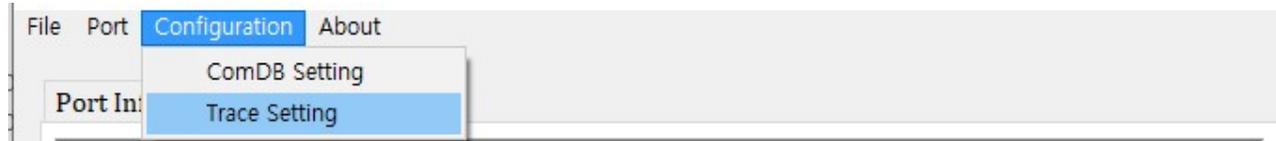
Click the [Trace] tab to check the communication transmission/reception contents.



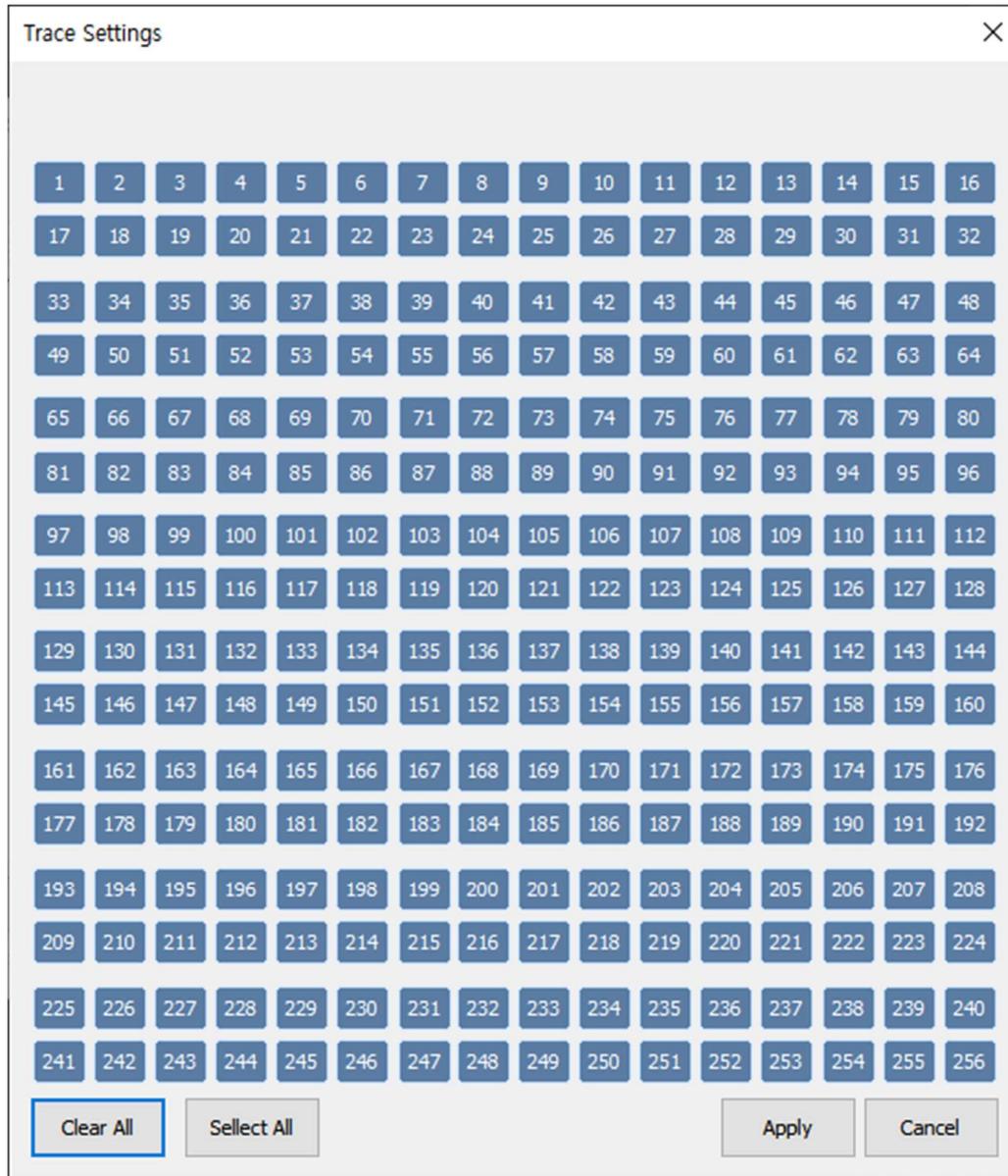
- Click the [Clear] to delete the output log contents.
- Check the [Enable Trace] check box to output the log. When unchecked, the log will not output.
- Check the [Hex Display] check box to output the log with the hex value when outputting. When unchecked, only the ASCII value will output. Auto When the Auto Scroll check box is selected, scroll down to always show the latest logs on the screen when the logs are output.
- Check the [Auto Scroll] check box to scroll down to always show the latest logs on the screen when logs are output.
- The [Save] button can only be used when Trace is stopped. It stores the log as a file.
- Log contents are output in the order of Time / COM Port # / Tx • Rx classification / Data.
- Tx is output in black and Rx is output in blue.

※ Note: The program may slow down when transmitting/receiving a large amount of data, so please activate "Enable Trace" only when necessary.

You can use the Trace function by selecting only the Port you want.



After clicking Configuration → Trace setting from the top menu, the Port selection screen pops up as below.



The default value: all ports are Trace targets.

In the dialog, the number corresponds to the port number. By mouse clicking on this number part, you can select it as a Trace target or exclude it from the Trace target.

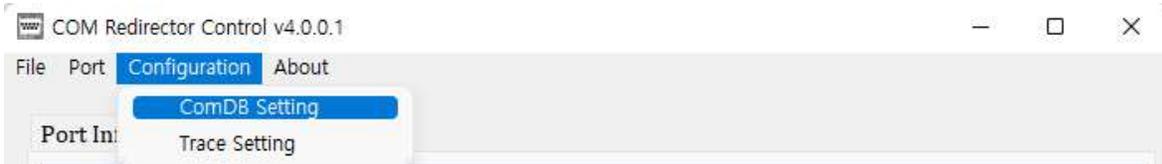
- [Clear All] button excludes all ports from Trace.
- [Select All] button targets all ports for Trace.
- [Apply] button reflects the currently changed settings.
- [Cancel] button ignores the changed settings and close the dialog box.

6. How to Use COM Port Database

This chapter describes how to add and delete COM Port Database through COM Redirector Control v4.0.

6.1 Change COM DB

Run the ComDB Setting window by selecting Configuration → ComDB Setting from the program top menu.



The ComDB Setting window displays the current COM DB status.

COM Port device exists and the status of COMDB cannot be changed.

COMPort device does not exist, but it is in use in COMDB.

The COMPort device does not exist and is not used in the COMDB either.

Do not change			Use the com db			Do not use com db									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112

You can change the status by clicking on individual ports in the COM DB Setting window. After changing the port state, select the [Apply] button to complete the setting.



Using the [Clear All] button, you can disable COM DB port information except for existing COM Port devices.



7. Copyright

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Working Hour

MON ~ FRI 9:00 ~ 18:00