

# USB-COMI PRO / USB-2COMI PRO USER'S MANUAL

2020 Edition



Titan Electronics Inc.

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## 1 INTRODUCTION

The USB-COMi PRO /USB-2COMi PRO is completely jumperless and free of DIP switches, all configuration is done by software. Just press the button and use the configuration program.

Serial ports on USB allow further use of existing devices, even when the computer doesn't offer serial ports. Now the USB-COMi PRO /USB-2COMi PRO is extremely flexible in offered communication standards. Besides the classical RS232 and RS422 it offers three variants of the RS485 operation. The often-required Termination and Polarization (BIAS) is also provided by built-in hardware, and it is controlled by the same configuration software. The driver allows to configure the serial ports for bitrates of up to 3Mbit/s. In RS232 mode the bitrate is limited to 1 Mbit/s.

Plugging the USB-COMi PRO /USB-2COMi PRO to USB port, the adapter is automatically detected and installed. There are no IRQ & COM port conflicts, since the port does not require any additional IRQ, DMA, memory as resources on the system. The RS-232/422/485 port functions as native Windows COM port, and it is compatible with Windows serial communication applications.

The USB Industrial I/O Adapter provides instant connectivity to RS-232/422/485 communication device for factory automation equipment, multi-drop data collection devices, barcode readers, time clocks, scales, data entry terminals, PC to PC long distance communications and serial communication in harsh environments. The USB Industrial I/O provides industrial solution for applications requiring single node or multi-drop communications over short and long distance.

USB-COMi PRO /USB-2COMi PRO is an innovative USB to serial converter providing the capability of serial devices networking and sharing across any network including Ethernet, WAN, VLAN, VPN and the Internet. The serial devices connected to the adapter can be conveniently shared and accessed over Ethernet by multiple remote client computers.

## 2 FEATURES

### 2.1 USB-COMi PRO

- Adds a high-speed RS-232/422/485 serial port via USB connection
- **Serial operation mode and resistors can be easily changed by software**
- 128 bytes receive and 384 bytes transmit buffer for high speed data throughput
- Requires no IRQ, DMA, I/O port
- RS-232 max bitrates up to 1Mbps
- RS-422/485 max bitrates up to 12Mbps
- Connector: one DB9 male connector one 5-pin terminal block connector
- Auto transmit buffer control for 2-wire RS-485 half-duplex operation
- Termination resistors installed on-board
- RS-232 data signals: DCD, RxD, TxD, DTR, GND, DSR, RTS, CTS, RI
- RS-422 data signals: Tx-, Tx+, Rx+, Rx-, GND, RTS-, RTS+, CTS+, CTS-
- RS-485 data signals: Tx-, Tx+, Rx+, Rx- (4-wire), and data-, data+ (2-wire)
- Monitor LEDs of TxD, RxD, Mode indicating port status
- Easy operating mode configuration and setting
- Virtual COM port drivers provided for Windows 10, 8.1, 8, 7, Vista, 2012, 2008, 2003, XP
- Any serial device connected to USB-COMi PRO can be accessed and used by any client computers over network or across the Internet
- Shares serial port between multiple computers from anyplace in the world via Ethernet/WAN/VLAN/VPN/Internet

### 2.2 USB-2COMi PRO

- Adds two high-speed RS-232/422/485 serial port via USB connection
- **Serial operation mode and resistors can be easily changed by software**
- 128 bytes receive and 384 bytes transmit buffer for high speed data throughput
- Requires no IRQ, DMA, I/O port
- RS-232 max bitrates up to 1Mbps
- RS-422/485 max bitrates up to 12Mbps
- Connector: two DB9 male connector two 5-pin terminal block connector
- Auto transmit buffer control for 2-wire RS-485 half-duplex operation
- Termination resistors installed on-board
- RS-232 data signals: DCD, RxD, TxD, DTR, GND, DSR, RTS, CTS, RI
- RS-422 data signals: Tx-, Tx+, Rx+, Rx-, GND, RTS-, RTS+, CTS+, CTS-
- RS-485 data signals: Tx-, Tx+, Rx+, Rx- (4-wire), and data-, data+ (2-wire)

- Monitor LEDs of TxD, RxD, Mode indicating port status
- Easy operating mode configuration and setting
- Virtual COM port drivers provided for Windows 10, 8.1, 8, 7, Vista, 2012, 2008, 2003, XP
- Any serial device connected to USB-2COMi PRO can be accessed and used by any client computers over network or across the Internet
- Shares serial port between multiple computers from anyplace in the world via Ethernet/WAN/VLAN/VPN/Internet

## 3 SPECIFICATIONS

### 3.1 USB-COMi PRO

<b>USB Bus</b>	
Compliance	USB 2.0 full Speed, USB 1.1 compliant
Speed	12Mbps, full-speed USB
Connector	USB type B
FIFO	128 bytes transmit and 384 bytes receive
Operating Systems	Windows 2000 up to Windows 10 Windows Server 2000 up to 2018 Linux kernel 2.6+ Mac OS X support available
Installation	The driver is already installed (Linux), or automatically downloading and installing device drivers after Device connection (Windows).
<b>Serial Interface</b>	
Interface	RS-232/422/485 configured by software RS485 Termination and Polarization configured by software
Number of Ports	1
Connector	DB9 male and 5-pin terminal block
LEDs	TxD/RxD/Mode for each port
Max. Speed	RS-232:up to 1Mbps RS-422/485:up to 3Mbps
RS-232 Signals	DCD, RxD, TxD, DTR, GND, DSR, RTS, CTS, RI
RS-422 Signals	TxD-, TxD+, RxD+, RxD-, GND, RTS-, RTS+, CTS+, CTS-
RS-485 Signals (4 wire)	TxD-, TxD+, RxD+, RxD-, GND
RS-485 Signals (2 wire)	Data-, Data+, GND
Protection	15kV ESD protection for all signals
<b>Serial Communication Parameters</b>	
Data Bits	7, 8
Parity	None, Even, Odd, Mark, Space
Stop Bit	1, 2
Flow Control	Hardware (RTS, CTS), XON/XOFF
<b>Power</b>	
Power Input	Power supplied via USB connector No external power needed



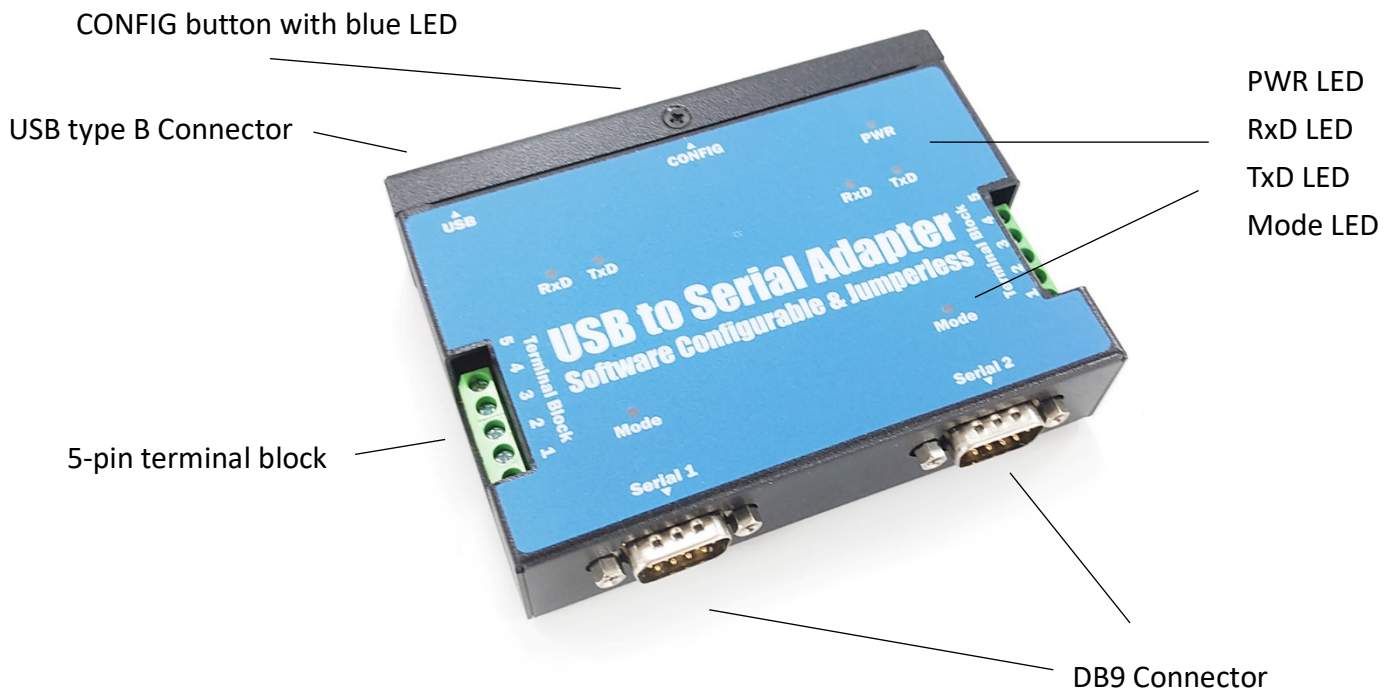
<b>Mechanical</b>	
Dimensions	57 x 72 x 22 mm (W×L×H) 82 x 77 x 22 mm with DB9 connector and ears
Casing	SECC metal chassis with DIN rail bracket
<b>Environmental</b>	
Operating Temperature	0°C to 55°C (32°F to 131°F)
Storage Temperature	-20°C to 75°C (-4°F to 167°F)
Operating Humidity	5% to 95% RH
Safety Approvals	CE, FCC

### 3.2 USB-2COMi PRO

<b>USB Bus</b>	
Compliance	USB 2.0 full Speed, USB 1.1 compliant
Speed	12Mbps, full-speed USB
Connector	USB type B
FIFO	128 bytes transmit and 384 bytes receive
Operating Systems	Windows 2000 up to Windows 10 Windows Server 2000 up to 2018 Linux kernel 2.6+ Mac OS X support available
Installation	The driver is already installed (Linux), or automatically downloading and installing device drivers after Device connection (Windows).
<b>Serial Interface</b>	
Interface	RS-232/422/485 configured by software RS485 Termination and Polarization configured by software
Number of Ports	2
Connector	DB9 male and 5-pin terminal block
LEDs	TxD/RxD/Mode for each port
Max. Speed	RS-232:up to 1Mbps RS-422/485:up to 3Mbps
RS-232 Signals	DCD, RxD, TxD, DTR, GND, DSR, RTS, CTS, RI
RS-422 Signals	TxD-, TxD+, RxD+, RxD-, GND, RTS-, RTS+, CTS+, CTS-
RS-485 Signals (4 wire)	TxD-, TxD+, RxD+, RxD-, GND
RS-485 Signals (2 wire)	Data-, Data+, GND
Protection	15kV ESD protection for all signals
<b>Serial Communication Parameters</b>	

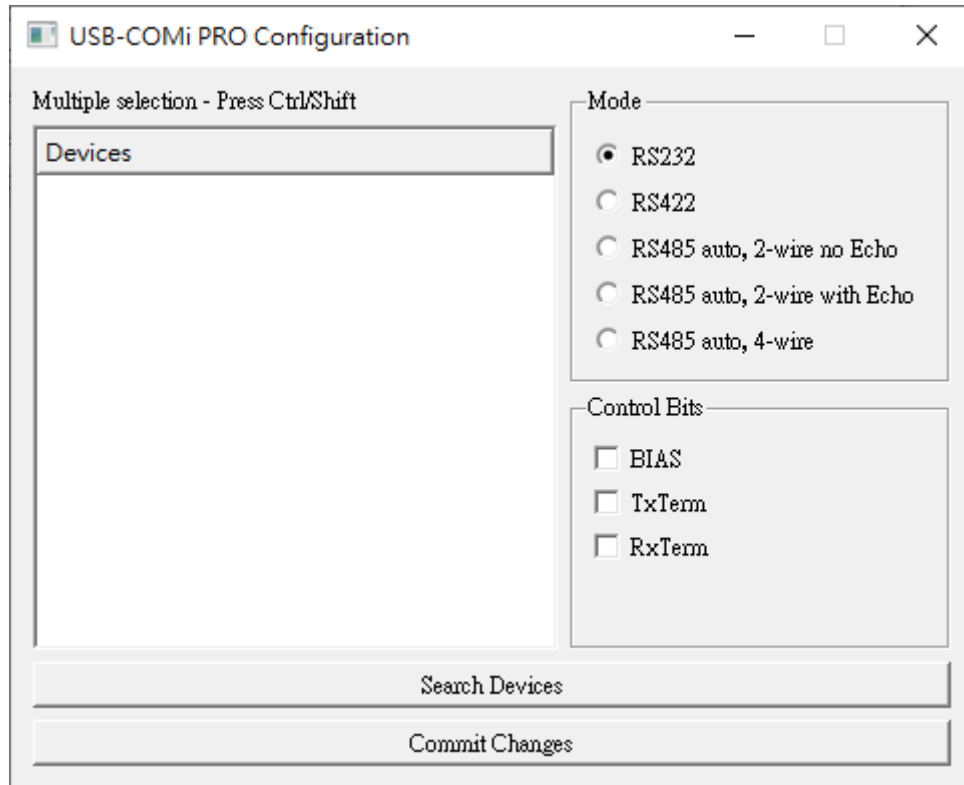
Data Bits	7, 8
Parity	None, Even, Odd, Mark, Space
Stop Bit	1, 2
Flow Control	Hardware (RTS, CTS), XON/XOFF
<b>Power</b>	
Power Input	Power supplied via USB connector No external power needed
<b>Mechanical</b>	
Dimensions	115 x 85 x 26 mm (W×L×H) 137 x 90 x 23 mm with DB9 connector and ears
Casing	SECC metal chassis with DIN rail bracket
<b>Environmental</b>	
Operating Temperature	0°C to 55°C (32°F to 131°F)
Storage Temperature	-20°C to 75°C (-4°F to 167°F)
Operating Humidity	5% to 95% RH
Safety Approvals	CE, FCC

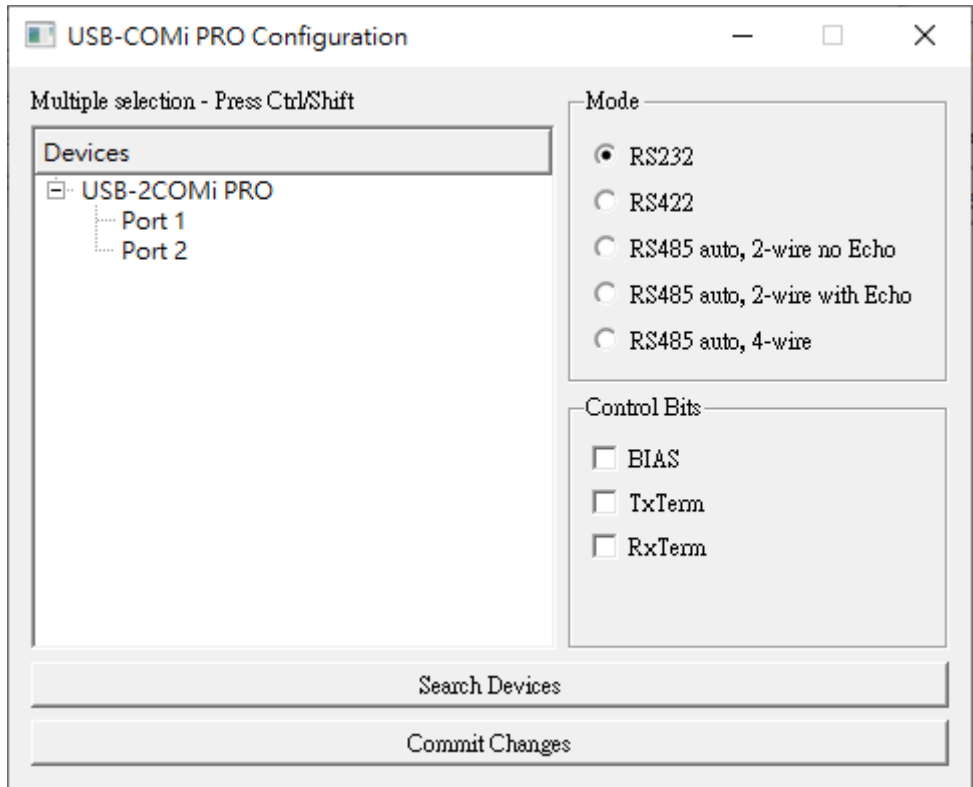
## 4 HARDWARE CONFIGURATION



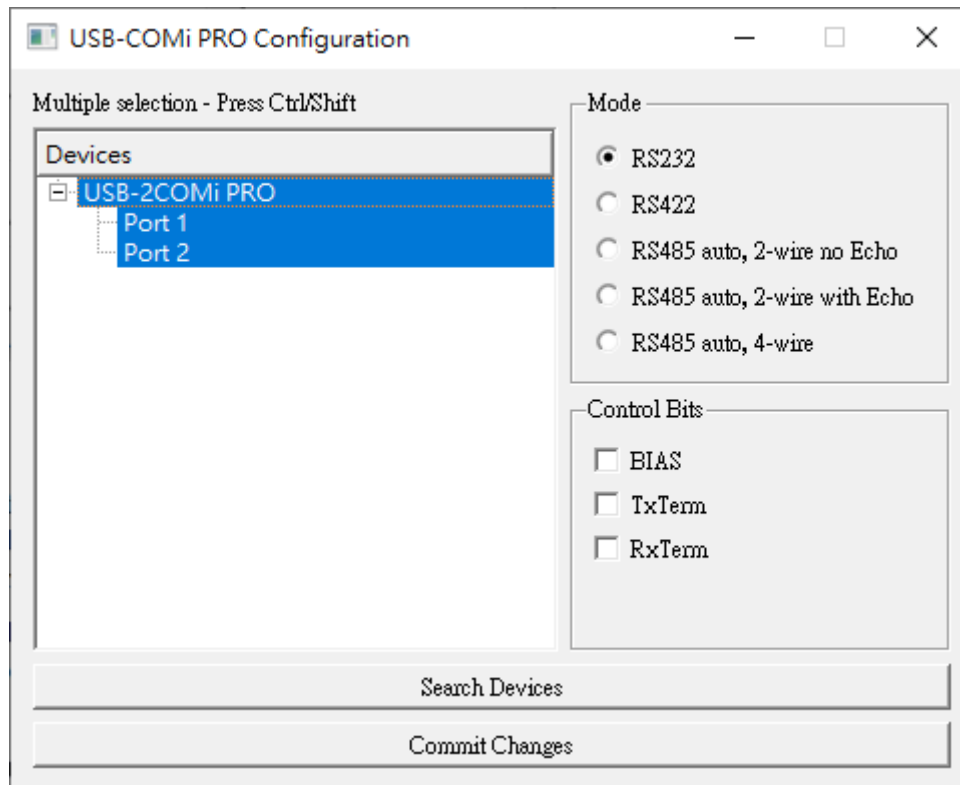
## 4.1 Configuration via Windows Software

Close any application currently operating via the serial port(s) provided by your USB-COMi PRO/USB-2COMi PRO. **Press the CONFIG button until the CONFIG LED light.** Then start the USB-COM\_CFG program, it searches and detects all configurable USB-COMi PRO/USB-2COMi PRO.





The left panel displays all devices detected by the search. By clicking a port in the left panel, the operation mode is then changed by the radio buttons and the check box in the right panel. The button to “Commit Changes” transfers the required parameters to the selected device. They are stored in nonvolatile RAM and activated after the transfer.

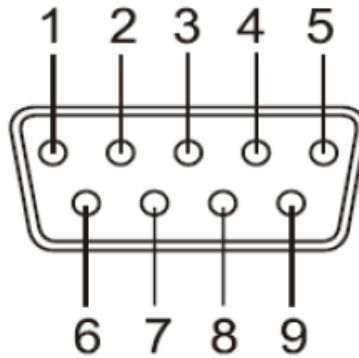


You may select several ports of one device at the same time. This is done by the usual Windows method, i.e. clicking with Shift- or Ctrl-Key pressed. The selected configuration then applies to all selected ports, "Commit Changes" configures all of them at the same time. Finally, in the left panel you may select multiple devices at the same time. The configuration then applies to all ports of all selected devices.

## 5 SERIAL PORT CONNECTOR PINOUT

### 5.1 RS-232 Mode Pinout of 9-pin D-sub Connector

The RS-232 serial ports are configured as data terminal equipment (DTE), with a 9-pin D-sub connector. Pin assignments are according to TIA/EIA-574, which formally defines the assignments for a COM port that are found on many personal computers.



### DB9 Male connector pin numbers

Pin Number	Pin Type	Description	
1	Input	DCD	Data Carrier Detect
2	Input	RxD	Receive Data
3	Output	TxD	Transmit Data
4	Output	DTR	Data Terminal Ready
5	Ground	GND	Signal Ground
6	Input	DSR	Data Set Ready
7	Output	RTS	Request to Send
8	Input	CTS	Clear to Send
9	Input	RI	Ring Indicator

RS-232 pinout for DB-9 connector

### 5.2 RS-232 Mode Pinout of 5-pin Terminal Block

Pin Number	Pin Type	Description	
1	Input	DCD	Data Carrier Detect
2	Input	RxD	Receive Data
3	Output	TxD	Transmit Data
4	Output	DTR	Data Terminal Ready
5	Ground	GND	Signal Ground

RS-232 pinout for 5-pin terminal block connector

### 5.3 RS-422 Mode Pinout

Pin Number	Pin Type		Description
1	Output	TxD-	Transmit Data, negative polarity
2	Output	TxD+	Transmit Data, positive polarity
3	Input	RxD+	Receive Data, positive polarity
4	Input	RxD-	Receive Data, negative polarity
5	Ground	GND	Signal Ground
6	Output	RTS-	Request to Send, negative polarity
7	Output	RTS+	Request to Send, positive polarity
8	Input	CTS+	Clear to Send, positive polarity
9	Input	CTS-	Clear to Send, negative polarity

RS-422 pinout for DB-9 connector

Pin Number	Pin Type		Description
1	Output	TxD-	Transmit Data, negative polarity
2	Output	TxD+	Transmit Data, positive polarity
3	Input	RxD+	Receive Data, positive polarity
4	Input	RxD-	Receive Data, negative polarity
5	Ground	GND	Signal Ground

RS-422 pinout for 5-pin terminal block connector



## 5.4 RS-485 Full-Duplex Mode Pinout

Pin Number	Pin Type	Description	
1	Output	TxD-	Transmit Data, negative polarity
2	Output	TxD+	Transmit Data, positive polarity
3	Input	RxD+	Receive Data, positive polarity
4	Input	RxD-	Receive Data, negative polarity
5	Ground	GND	Signal Ground

RS-485 full-duplex pinout for DB-9 connector

Pin Number	Pin Type	Description	
1	Output	TxD-	Transmit Data, negative polarity
2	Output	TxD+	Transmit Data, positive polarity
3	Input	RxD+	Receive Data, positive polarity
4	Input	RxD-	Receive Data, negative polarity
5	Ground	GND	Signal Ground

RS-422 full-duplex pinout for 5-pin terminal block connector

## 5.5 RS-485 Half-Duplex Mode Pinout

Pin Number	Pin Type	Description	
1	Output/Input	Data-	Transmit/Receive Data, negative polarity
2	Output/Input	Data+	Transmit/Receive Data, positive polarity
5	Ground	GND	Signal Ground

RS-485 half-duplex pinout for DB-9 connector

Pin Number	Pin Type	Description	
1	Output/Input	TxD-	Transmit/Receive Data, negative polarity
2	Output/Input	TxD+	Transmit/Receive Data, positive polarity
5	Ground	GND	Signal Ground

RS-485 half-duplex pinout for 5-pin terminal block connector

## 6 PROPER WIRING FOR RS-422/485 OPERATION

This section will provide proper wiring information about RS-422 and RS-485 data communication. It is necessary to have the basic knowledge in order to avoid or find errors in data transmission. Failures in cabling are responsible for most transmission problems.

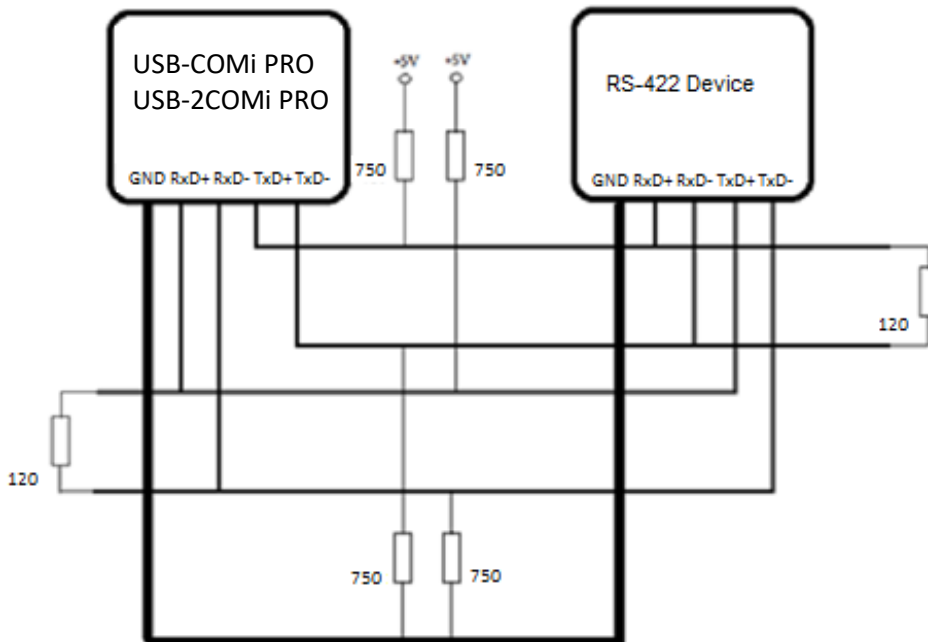
### 6.1 RS-422 & RS-485 Transmission Technique

The RS-422 and RS-485 use the same balanced transmission method. Signals are not transmitted as voltage on a single wire, like in RS-232. Instead, two wires are used; when one carries high voltage, the other one carries low voltage. The signal is defined by the difference in voltage between those two wires. This hardens the transmission against noise. Usually twisted pair cables are used, which further reduces the sensitivity for noise.

To make sure the signals meet the common voltage range, the GND of sender and receiver must be connected somehow. To ensure the signals are in the valid voltage range and the differential voltage can be correctly sensed by the receiver, the GND lines of the transmitter and receiver must be connected.

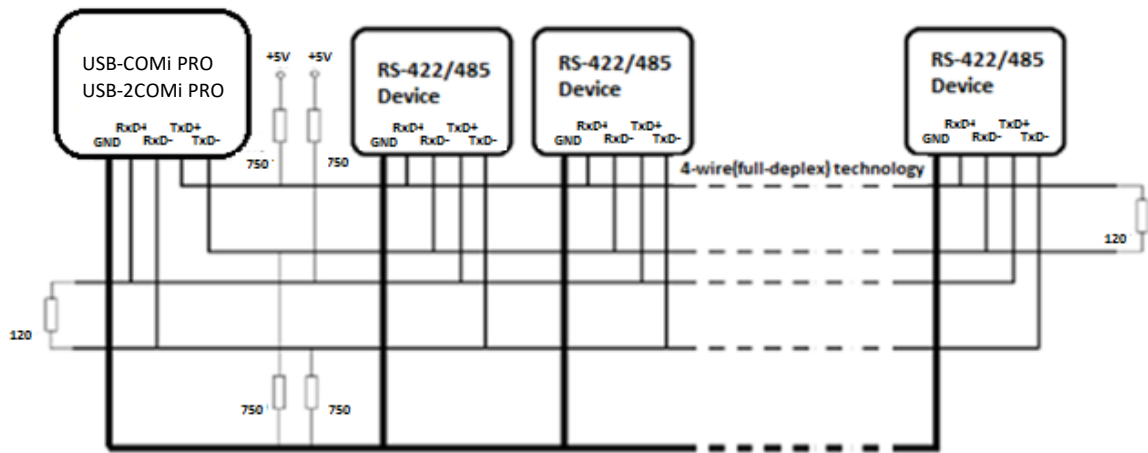
### 6.2 RS-422 Signals Connected

The following diagram shows how RS-422 signals are connected.



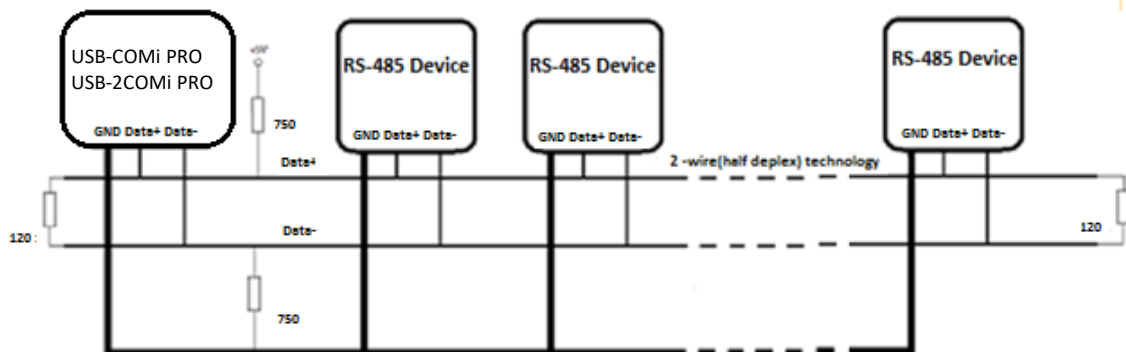
### 6.3 RS-422 & RS-485 4-wire Scheme

The RS-422 requires dedicated wire pairs for transmit and receive. The transmit wires are used to send data to as many as 10 receivers, as stated in the specifications of RS-422. Since the USB-to-Industrial Single RS-232/422/485 Adapter uses the RS-485's line driver technology, up to 32 receivers are possible. The following diagram shows RS-422 and RS-485 4-wire scheme:



### 6.4 RS-485 2-wire Scheme

The following diagram shows RS-485 2-wire scheme:



## 7 INSTALLING WINDOWS DRIVER

In most cases, the Windows driver of the USB-to-Industrial Single RS-232/422/485 Adapter will be installed automatically.

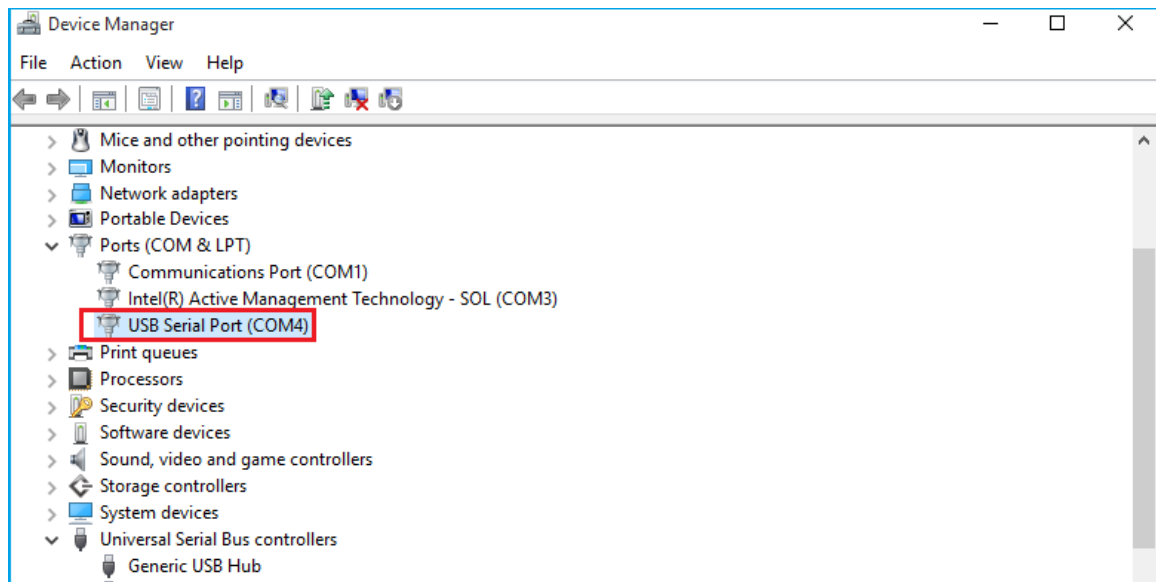
### 7.1 Installing in Windows 10, 8.1, 8, 7, Server 2012 and 2008 R2

Connect your computer to Internet and plug USB-to-IndustrialRS-232/422/485 Adapter to the USB port. The driver will be installed automatically via Internet.

### 7.2 Installing in Windows XP, Vista, Server 2003 and 2008

Connect your computer to Internet and plug the USB-to-Industrial RS-232/422/485 Adapter to the USB port. When asked to install the drivers, allow your computer to search the Internet to load and install the drivers from Windows Update website automatically.

When USB-to-Industrial RS-232/422/485 Adapter driver installation is done, you will find “USB Serial Port (COMX)” under “Ports (COM & LPT)” of device manager.

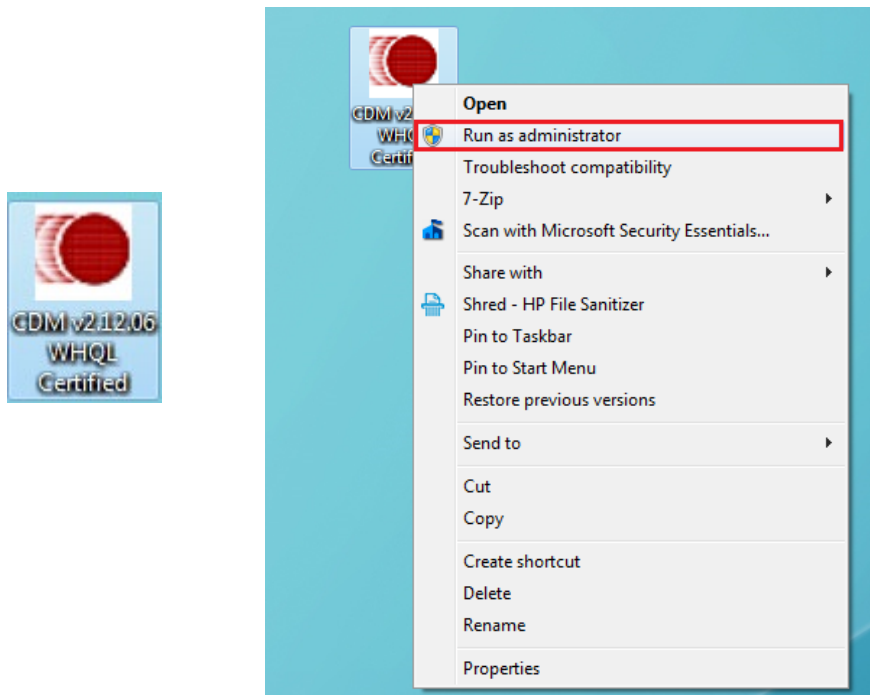


## 8 PRE-INSTALLING WINDOWS DRIVER

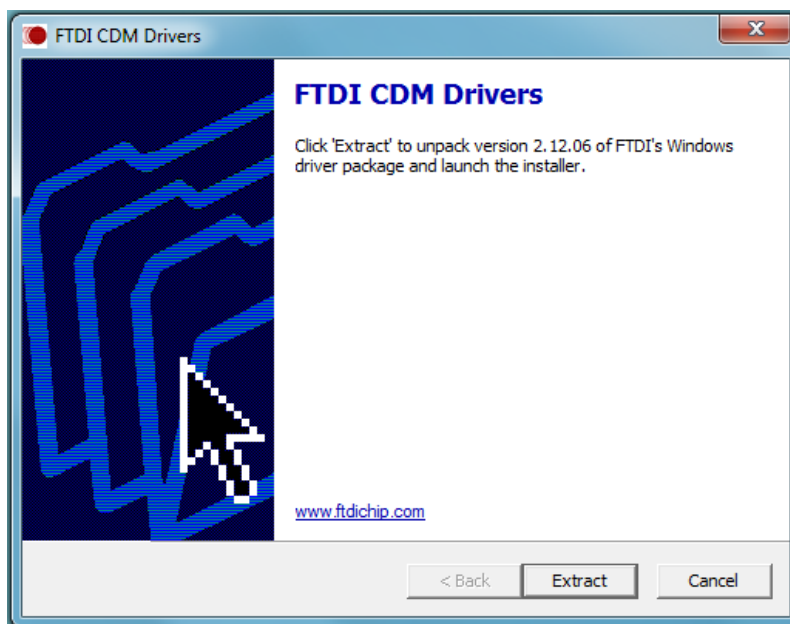
The Windows driver is also available as a setup program (CDMvX.XX.XX WHQL Certified.exe) to pre-install Windows driver into your PC. Run the pre-install setup program before plugging the USB-to-Industrial RS-232/422/485 Adapter into the PC. You can download the setup program (CDMvX.XX.XX WHQL Certified.exe) from:

<http://www.ftdichip.com/FTDrivers.htm>

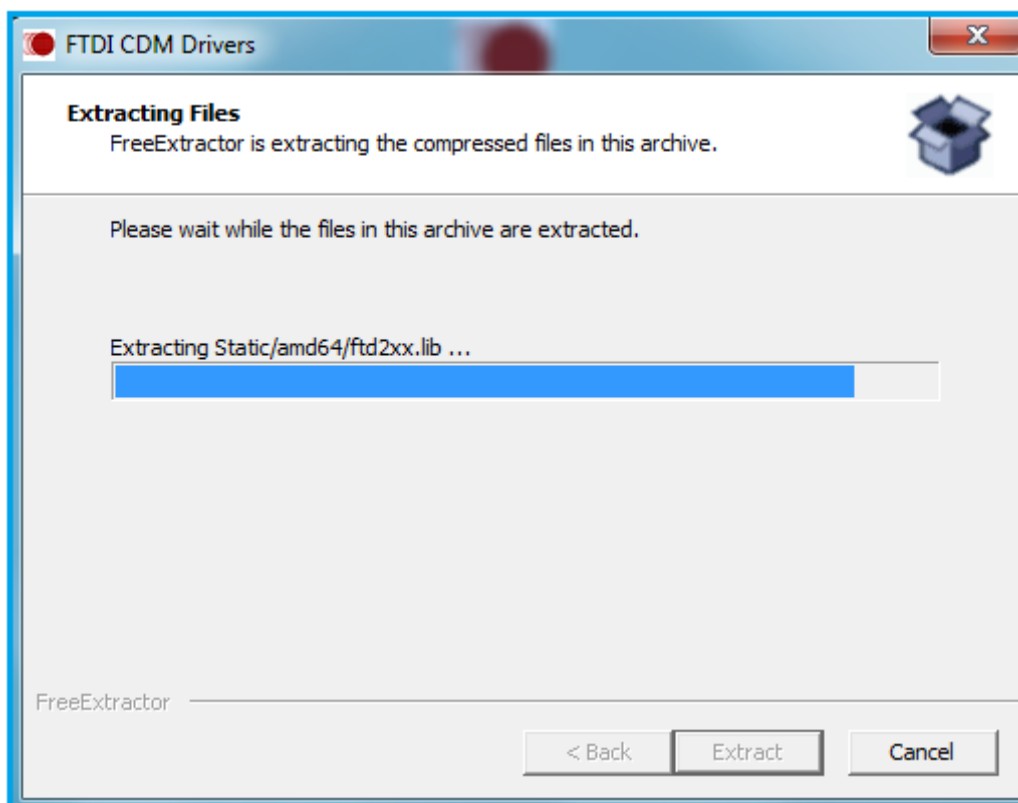
After downloading the driver setup program right click it and select “Run as administrator”



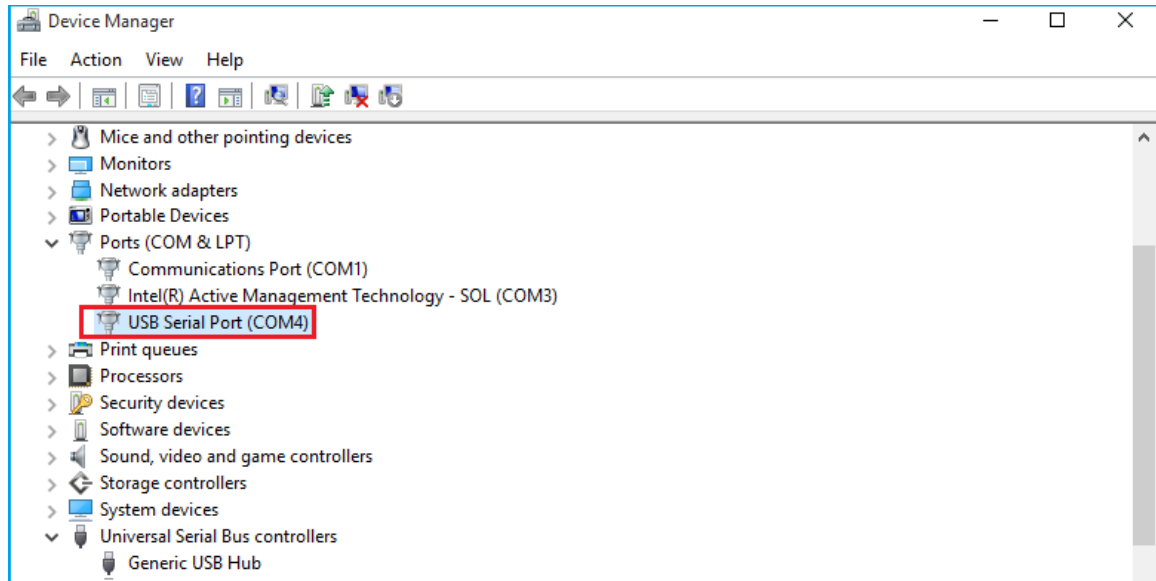
Press the “Extract” button



The driver will now be automatically installed.



Whenever the USB-to-Industrial Single RS-232/422/485 Adapter is plugged into the PC, the Windows driver will be installed and listed in device manager.





## 9 UNINSTALLING WINDOWS DRIVER

The program CDMuninstallerGUI.exe is used to remove installed drivers from the user's system and clean them from the Windows registry. You can download this program (CDMUninstaller\_vX.X.zip) from:

[http://www.ftdichip.com/Support/Utilities\\_hm#CDMUninstaller](http://www.ftdichip.com/Support/Utilities_hm#CDMUninstaller)

### 9.1 Supported Operating Systems

The uninstaller is currently supported on the following operating systems:

- Windows 10/8.1/8/7 (32 and 64-bit)
- Windows Vista (32 and 64-bit)
- Windows XP/2003 (32 and 64-bit)

### 9.2 Running the Application

To run the application, simply double click on the .exe file.

### 9.3 Removing a Driver

The figure below shows the window displayed upon running the application. The vendor ID and product ID text boxes allows the user to enter a 4-character hex value specifying the device that they wish to remove. All installed device drivers can be viewed from within the Windows device manager. The USB-to-Industrial Single RS-232/422/485 Adapter uses the FTDI default Vendor ID (0x0403). Depending on the specific model of USB-COMi PRO/USB-2COMi PRO, the valid Product IDs may be: 0x6001, 0x6010 or 0x6011...etc.



To remove a device, it must be added into the device window. They must all have a unique vendor ID and product ID combination. To remove the device(s) click on the

'Remove Devices' button.

The 'Remove' button will remove the currently selected item from the device window and the 'Clear' button will remove all the devices from the device window.

A message box will confirm successful removal from the system and the device will be removed from the device window. To create an uninstall log file, check 'Generate uninstall log file' prior to removing the device. This will create a text file outlining all operations that were attempted during the removal process that will be saved in the same directory as the .exe file.



## 9.4 Error Messages

If there are no devices specified within the device window the following message will appear. Make sure that at least one device has been specified within the window by using the 'Add' button.



If the application is unable to find any devices matching the vendor ID and product ID when removing a device, the following message box will appear. In this situation make sure that the details that you have entered are indeed correct by checking with the windows device manager.



The Vendor ID and Product ID must be a unique combination, if an attempt is made to add the same device twice the following message box will appear.

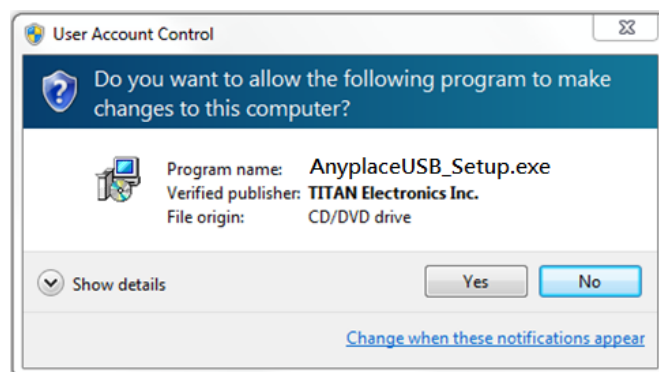


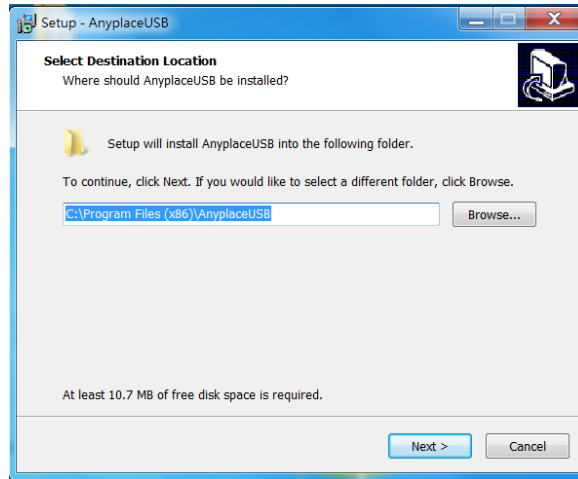
## 10 Share USB Serial Ports to a Network via Internet, LAN, WAN

The AnyplaceUSB software program is an advanced COM port virtualization solution that allows you to share your AnyplaceUSB serial ports over networks easily. The serial ports of AnyplaceUSB-xCOM could be accessed from anywhere in the world via internet, as if it were attached directly to the remote PC.

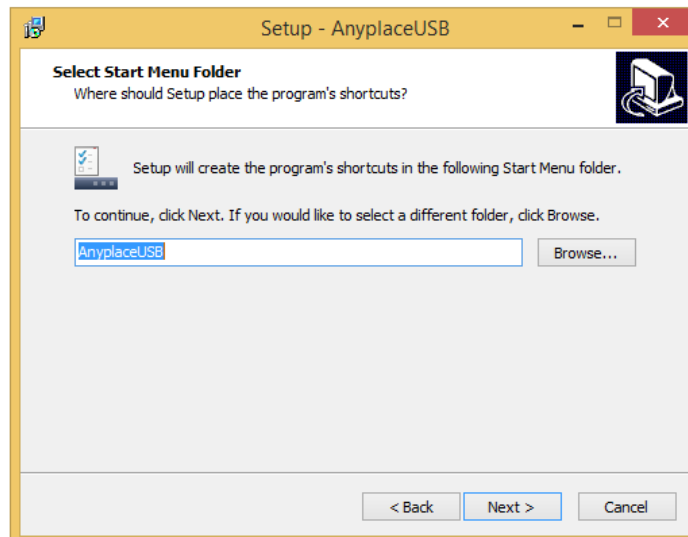
The AnyplaceUSB software program has options to configure your AnyplaceUSB-xCOM Serial Adapter with the options “SERVER” (to share your USB serial ports in network) and “CLIENT” (to connect remote USB serial ports from network).

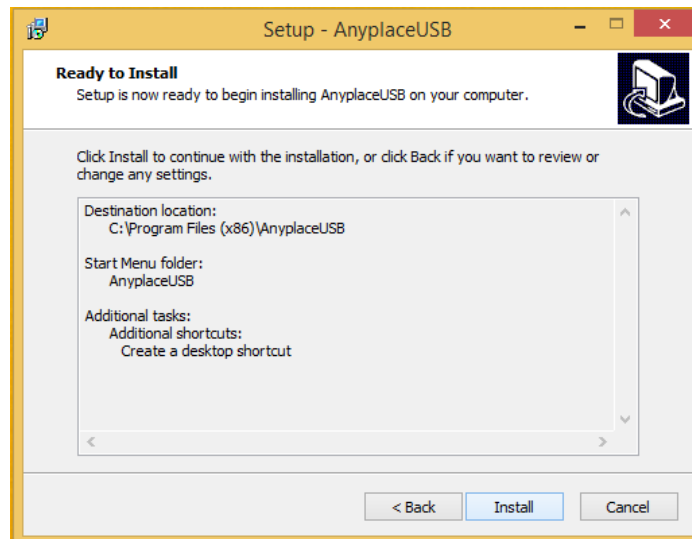
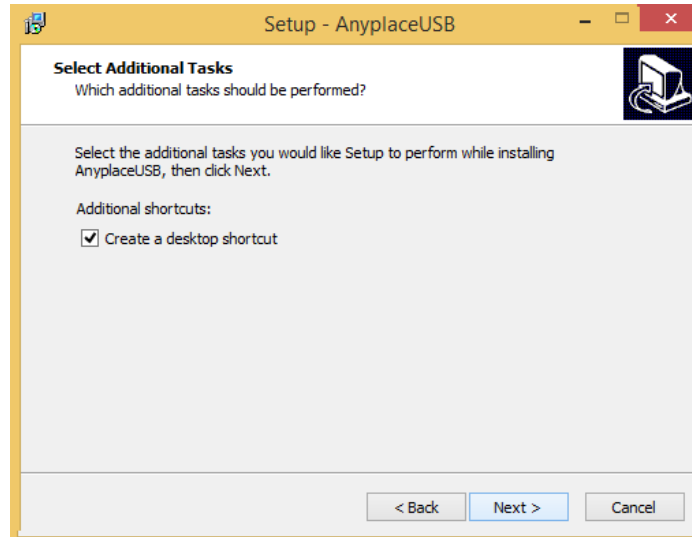
1. Run the pre-install setup program before plugging the AnyplaceUSB-xCOM USB Serial Adapter into the PC. Insert the software CD into your CD-ROM drive. Open files in the CD , and double click “CDMvX.XX.XX\_Setup.exe” to run the setup program from the software CD.
2. Open files in the CD again, and double click “AnyplaceUSB\_setup” to install AnyplaceUSB software program.
3. When the confirmation for “User Account Control” appears, click “Yes” and the “Setup - AnyplaceUSB” message appears. Click “Next” to proceed with the installation of AnyplaceUSB software program.



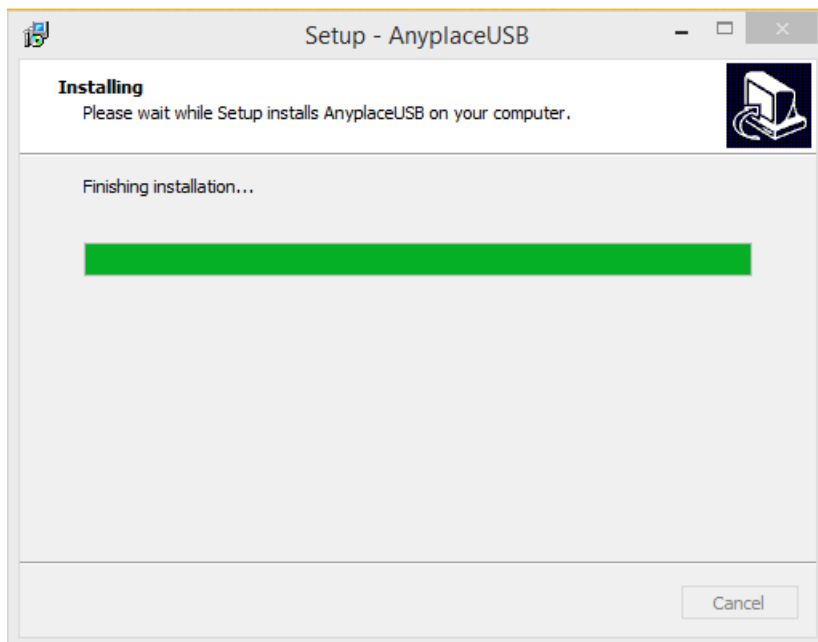


After you click “Next”, you will see following information. Click on “Next” and the “Ready to Install” message appears. Click “Install” to install AnyplaceUSB software program.

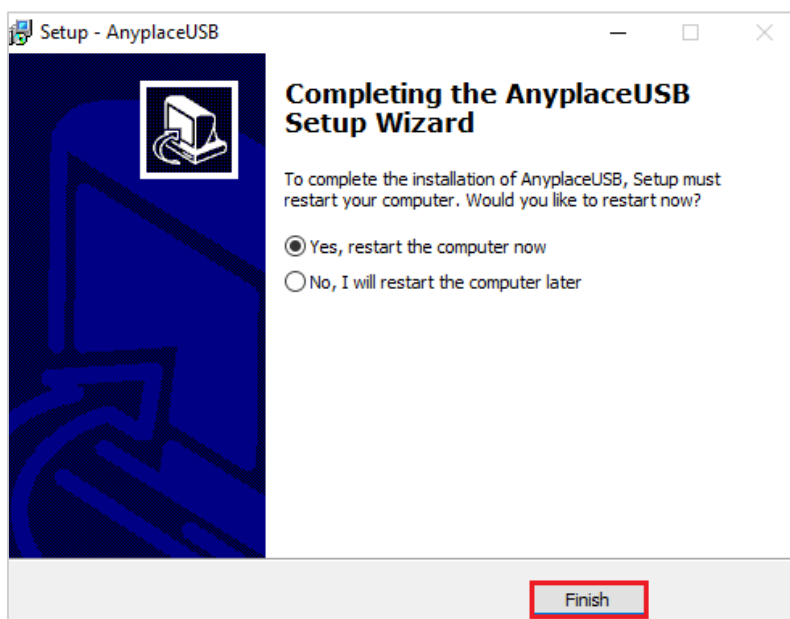




4. After you click "Install" to install AnyplaceUSB software for USB serial adapter, you will see the following information.



5. When the message “Completing the AnyplaceUSB Setup Wizard” appears, click “Finish” to restart the computer and finish the AnyplaceUSB software program installation.



## 11 RUNNING AnyplaceUSB SOFTWARE TO SHARE SERIAL DEVICES

### 11.1 Connect your PC to a Network

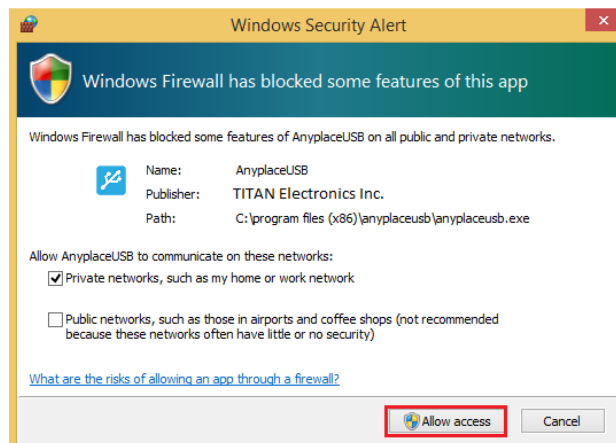
First, connect your PC to a network (Internet/LAN/WAN) environment. This can be a free Ethernet port on your DSL router, Ethernet Hub/Switch, or an 802.11n router/base station.

### 11.2 Connect the AnyplaceUSB-xCOM USB Serial Adapter

Connect the USB cable of AnyplaceUSB-xCOM to an unused USB port on your computer. After connecting the AnyplaceUSB-xCOM to your computer, double click the shortcut icon of “AnyplaceUSB” on the desktop to launch the AnyplaceUSB software program.



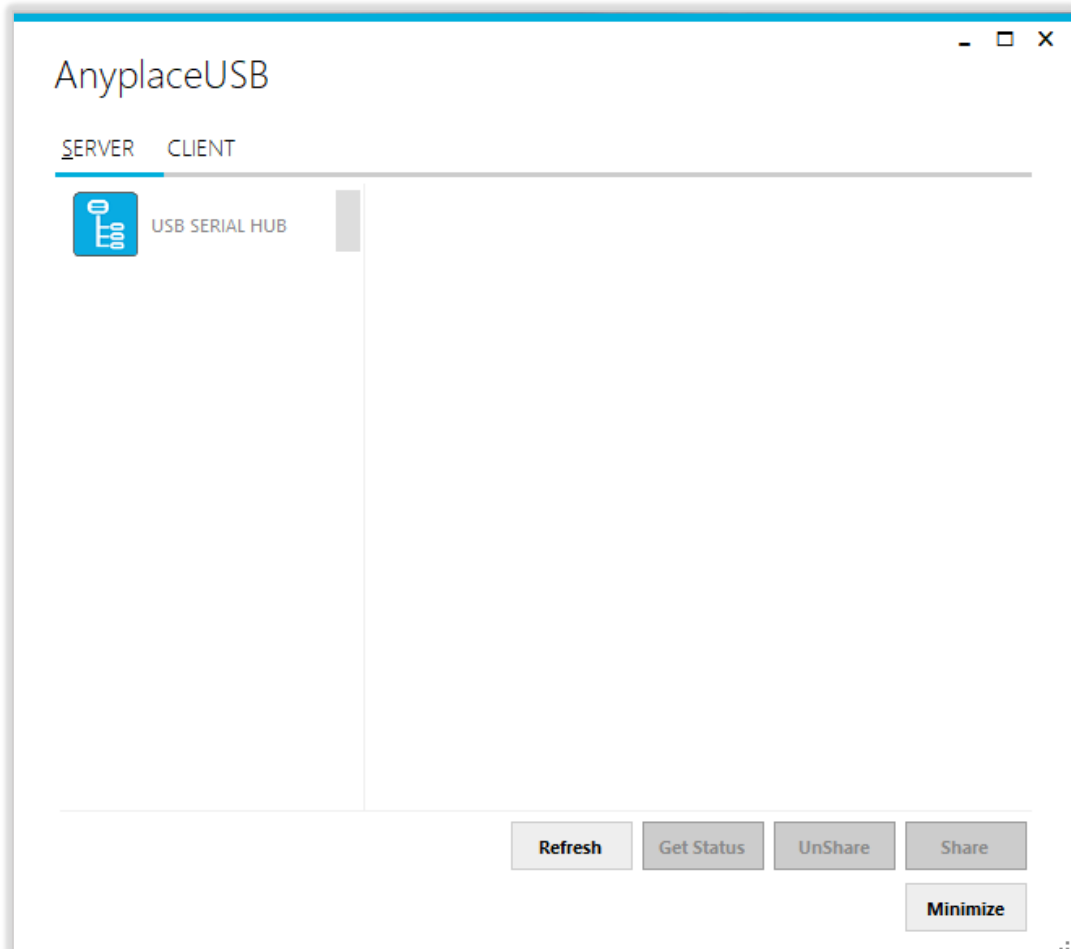
When you start the program for the first time, your Windows OS will prompt you for Firewall access. Please make sure you unblock the software or grant it access, otherwise the program will not work correctly.



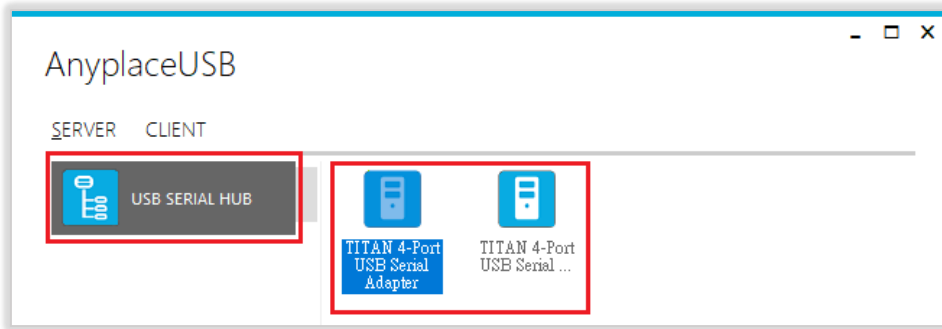


## 11.3 Running AnyplaceUSB Software Program in SERVER mode

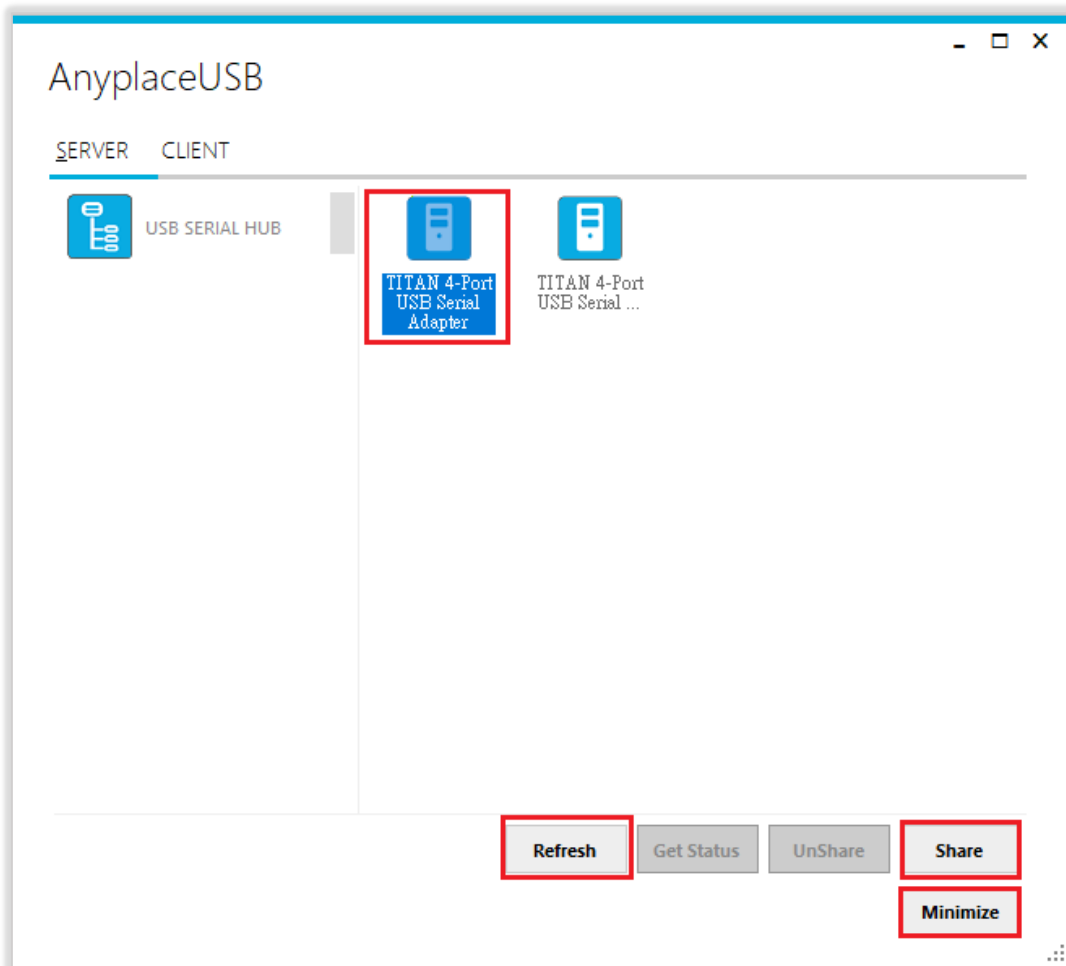
Once you have started up the AnyplaceUSB software program, you will see the main window of AnyplaceUSB software program as shown below:



The main window consists of two toolbars (SERVER and CLIENT). When you are under the "SERVER" toolbar, you will see a "USB SERIAL HUB" on the left side of the main window. Click on this "USB SERIAL HUB" and a tree view will display a list of the USB serial adapters, i.e. TITAN 4-Port USB Serial Adapter or FT231X USB UART, on the right side of the main window.



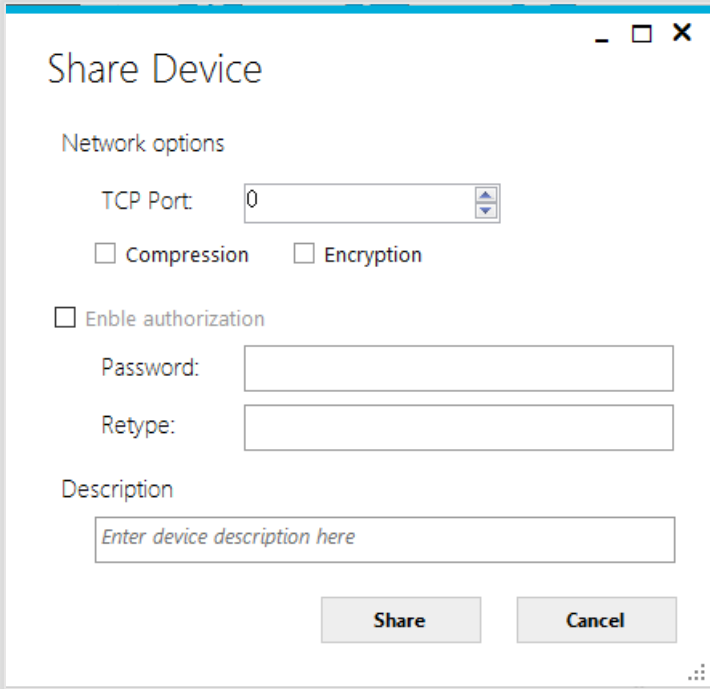
After clicking any TITAN 4-Port USB Serial Adapter or FT231X USB UART device, the **“Share”** button will become available.



*Note: AnyplaceUSB software program must not be closed in order to be able to continue sharing serial ports and devices. Please consider using the “Minimize” button described in the later sections.*

## 11.4 Share the USB Serial Port to Network

To share the USB serial port to a network (Internet/LAN/WAN), click the **“Share”** button and a “Share Device” control panel for this USB Serial Adapter, i.e. TITAN 4-Port USB Serial Adapter or FT231X USB UART device, will appear. Following shows the “Share Device” control panel:

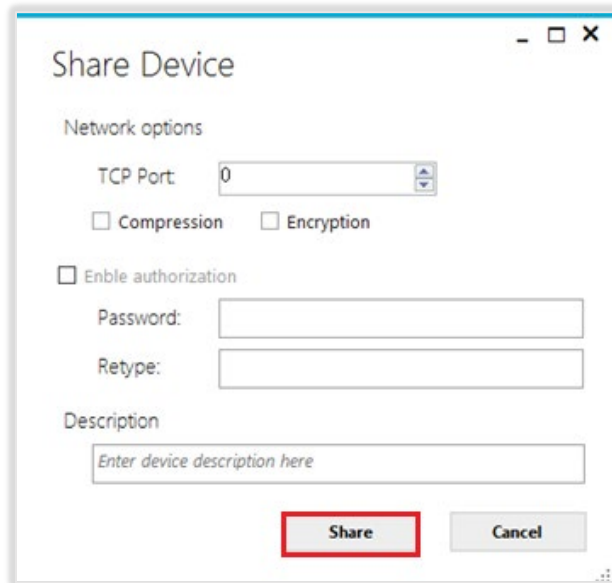


The image shows a Windows-style dialog box titled "Share Device". It contains the following elements:

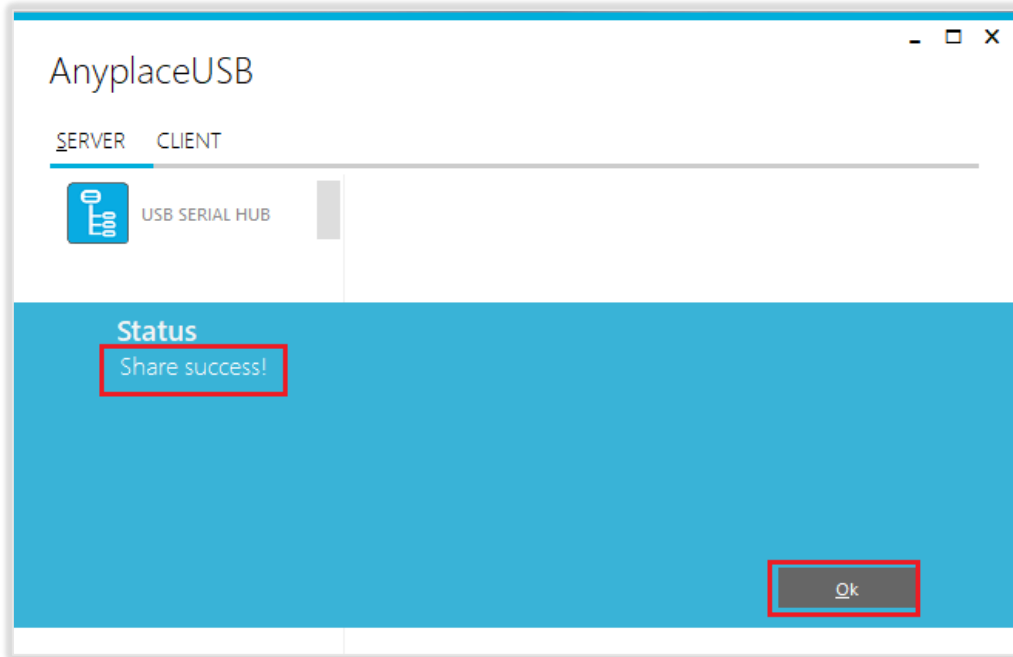
- Network options**
  - TCP Port: A text box containing the number "0" with a small up/down arrow on the right.
  - Compression
  - Encryption
- Enable authorization
  - Password: A text box.
  - Retype: A text box.
- Description**
  - A text box with the placeholder text "Enter device description here".
- At the bottom, there are two buttons: "Share" and "Cancel".
- Standard window controls (minimize, maximize, close) are in the top right corner.
- A small icon of three dots is in the bottom right corner.

## 11.5 Share the USB Serial Device Automatically

You can share the USB serial device automatically; under “Share Device” control panel to click “Share” button, and the AnyplaceUSB software program will set the TCP port number automatically.

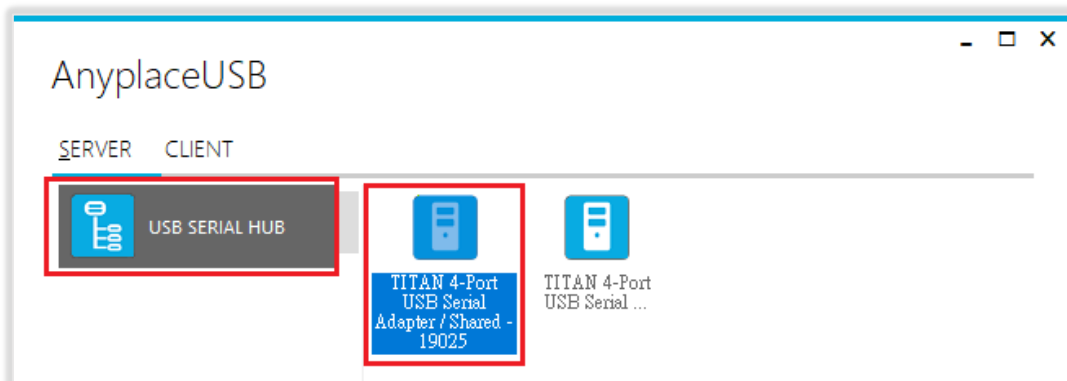


After clicking “Share”, you will see the “Share success!” message. Click “Ok” to finish the USB serial port sharing setup. After clicking “Ok”, the AnyplaceUSB software program will be restarted.



*Note: The share USB serial port process resembles sharing your USB device to other users on the network. However, unlike file sharing, A USB serial port becomes inaccessible for local usage once it is shared.*

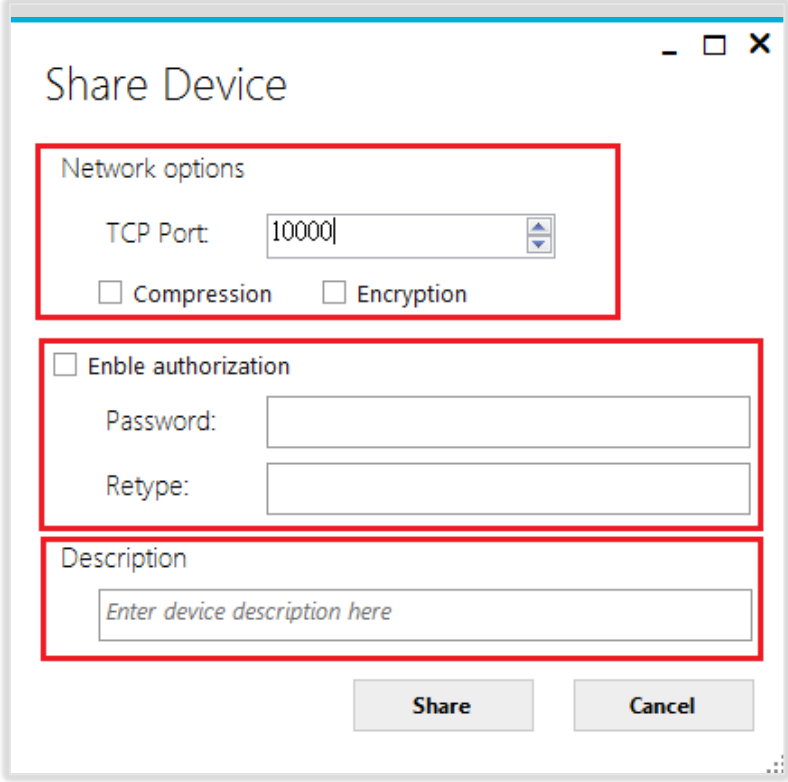
Click on the “USB SERIAL HUB” again to display all the USB Serial Adapters, i.e. TITAN 4-Port USB Serial Adapter or FT231X USB UART USB device. You will see that the shared TITAN 4-Port USB Serial Adapter or FT231X USB UART USB device will have the words “Shared” and its TCP port number appended to the name of the device (e.g. /Shared-19025)



*Note: AnyplaceUSB software program must not be closed in order to be able to continue sharing serial devices. Please consider using the “Minimize” button described in the later sections.*

## 11.6 Share the USB Serial Device with Manual Options

Under “Share Device” control panel, you can find three options: “Network options”, “Enable authorization” and “Description”.

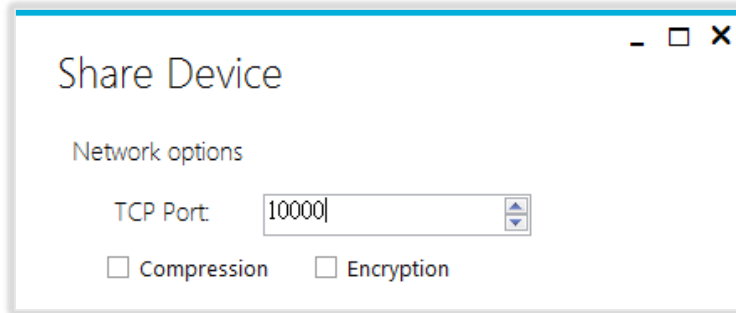


The screenshot shows a Windows-style dialog box titled "Share Device". It contains three main sections, each highlighted with a red rectangular border:

- Network options:** This section includes a "TCP Port" field with the value "10000" and a spin button. Below it are two checkboxes: "Compression" and "Encryption", both of which are currently unchecked.
- Enable authorization:** This section starts with an unchecked checkbox labeled "Enable authorization". Below this are two text input fields: "Password:" and "Retype:".
- Description:** This section contains a single text input field with the placeholder text "Enter device description here".

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

Under “Network options”, you can set TCP port number manually, from TCP port  by inputting the TCP port number, which will be used in connection.



You can also enable traffic encryption by ticking the encryption box  Encryption . It is recommended for security reasons. All data sent will be encrypted, although it may slightly slow down the communication speed.

The traffic compression option helps speed up interaction with serial port devices and reduces Internet traffic. You can enable traffic compression option by ticking the compression box  Compression .

Under “Enable authorization” option, by enabling password authorization, you can use a password to secure connection. The client computer should paste the same password in order to establish connection.

Tick the “Enable authorization” box and enter your desired “Password” twice to confirm the password setting. After clicking “Share”, the shared serial port will have password protection.

Enable authorization

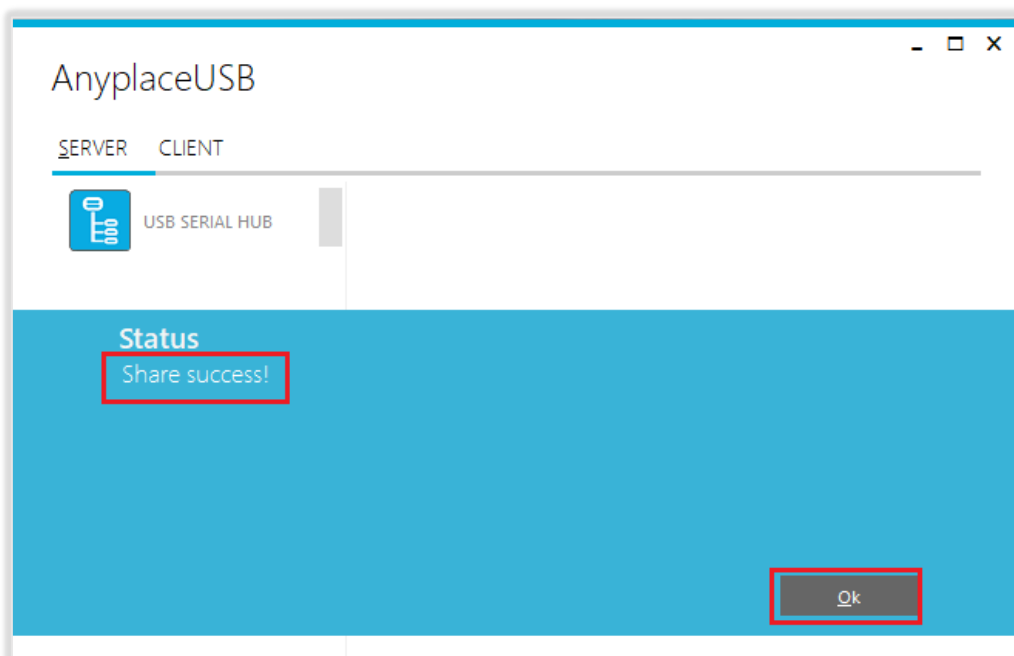
Password:

Retype:

Description

Under “Description” option, you can enter a text to add a description for your shared serial device. After sharing this serial device, the client computer will be able to see the description next to the USB serial device.

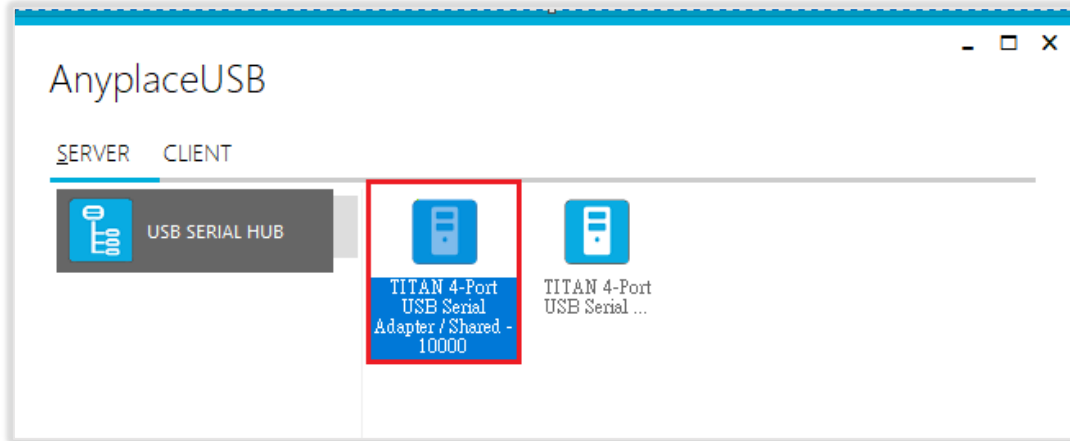
After finishing all option settings and clicking “Share” you will see the “Share success!” message. Click “Ok” to finish the USB serial device sharing setup. After clicking “Ok”, the AnyplaceUSB software program will be restarted.



*Note: The share USB serial port process resembles sharing your USB devices to other users on the network. However, unlike file sharing, A USB serial port becomes inaccessible for local usage once it is shared.*

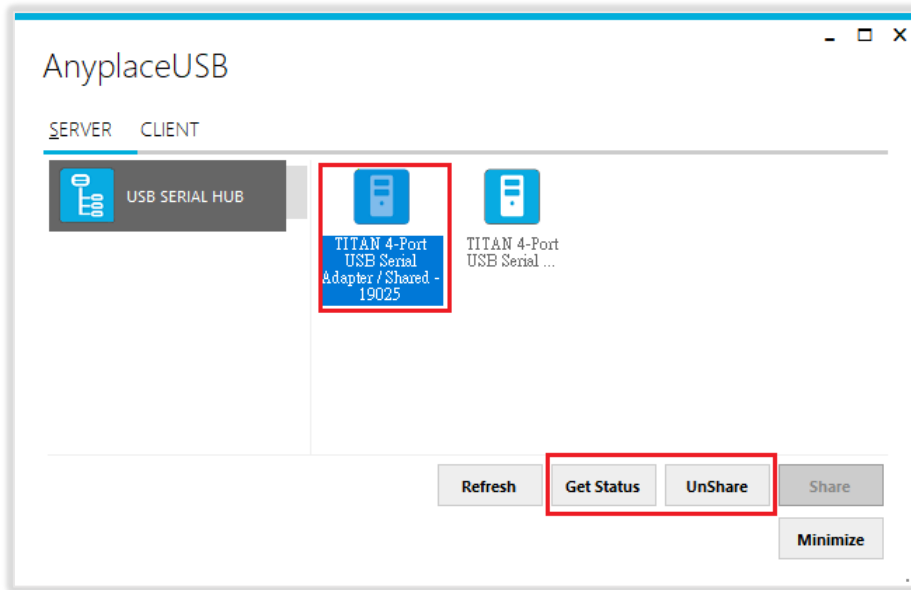


Click on the “USB SERIAL HUB” again to display the TITAN 4-Port USB Serial Adapter or FT231X USB UART USB serial device. You will see that the shared TITAN 4-Port USB Serial Adapter or FT231X USB UART USB device will have the words “Shared” and its TCP port number appended to the name of the device (e.g. /Shared-10000)



*Note: AnyplaceUSB software program must not be closed in order to be able to continue sharing serial ports and devices. Please consider using the “Minimize” button described in the later sections.*

After sharing USB serial device successfully, the buttons “**UnShare**” and “**Get Status**” becomes available.



## 11.7 Get Status for Shared USB Serial Device

Click the “**Get Status**” button to get the status of shared USB serial device. When this USB serial device is not being used by other users on the network, it will show “waiting for connection/xxxxx (TCP port number)”.



When this USB serial device is connected by other users on the network (Internet/LAN/WAN), it will show “connected/xxxxx (TCP port number)/john-PC (client PC name or IP address)”.

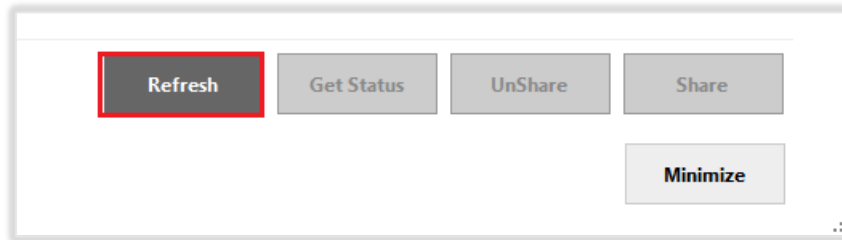


## 11.8 Un-share the USB Serial Devices

To un-share the USB serial device from a network (Internet/LAN/WAN), click the **“UnShare”** button to make this USB serial device inaccessible remotely. After clicking **“UnShare”**, the AnyplaceUSB software program will be restarted and the USB serial device will be available locally.

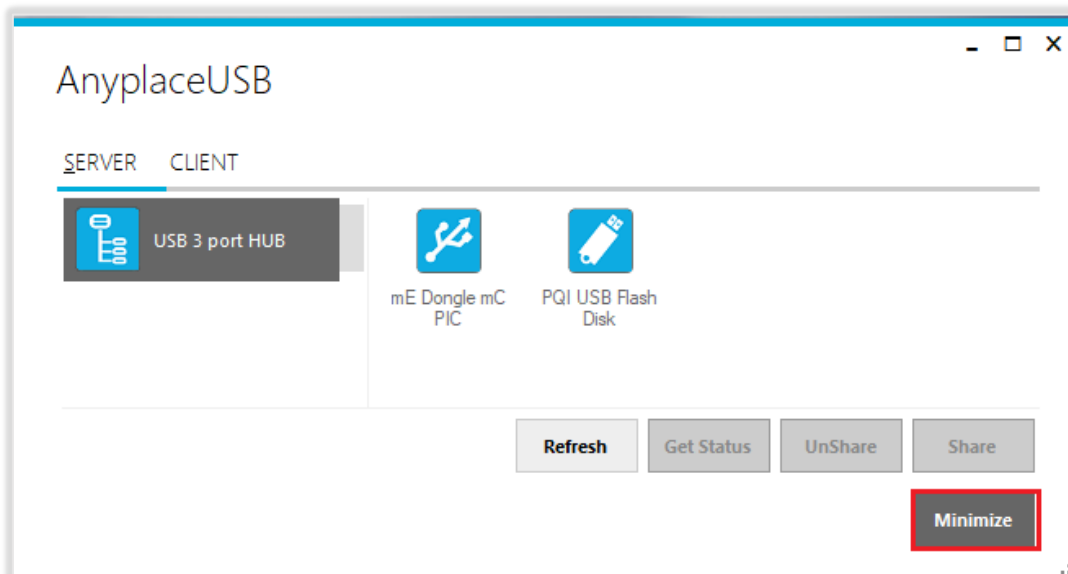
## 11.9 Refreshing the Information of Shared USB Serial Devices

The information on the main window of AnyplaceUSB software program may be incorrect or absent in some cases. In case this happens, you can click the **“Refresh”** button to reload the information for shared USB serial devices.

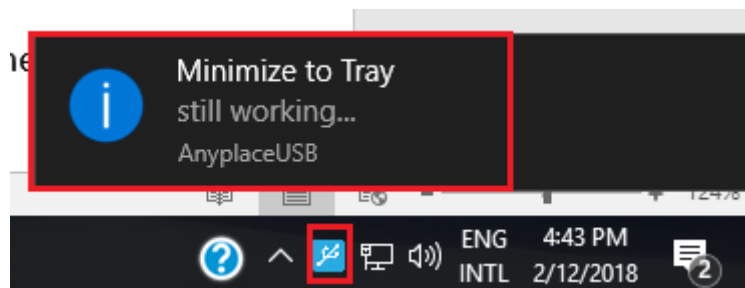


## 11.10 “Minimize” Button

You can click on the **“Minimize”** button to minimize the window of AnyplaceUSB software program to the system tray.



After clicking on “Minimize”, you will see “Minimize to Tray” message and the window of AnyplaceUSB software program will move to the system tray.



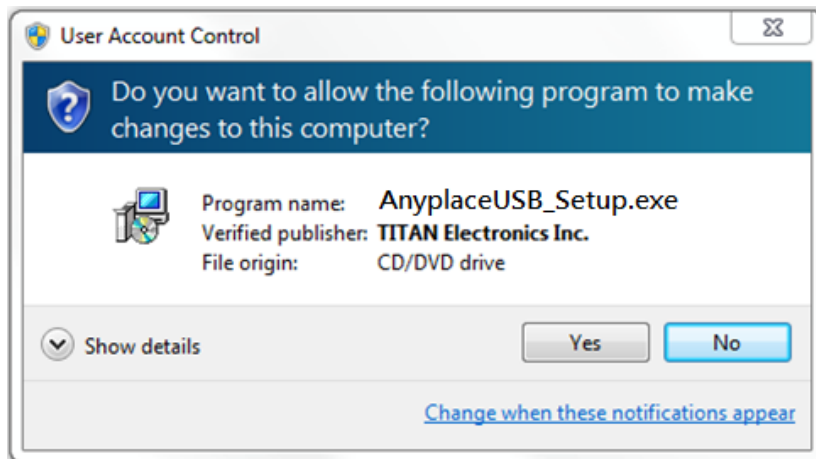
## 12 CONNECT TO REMOTE USB SERIAL DEVICES

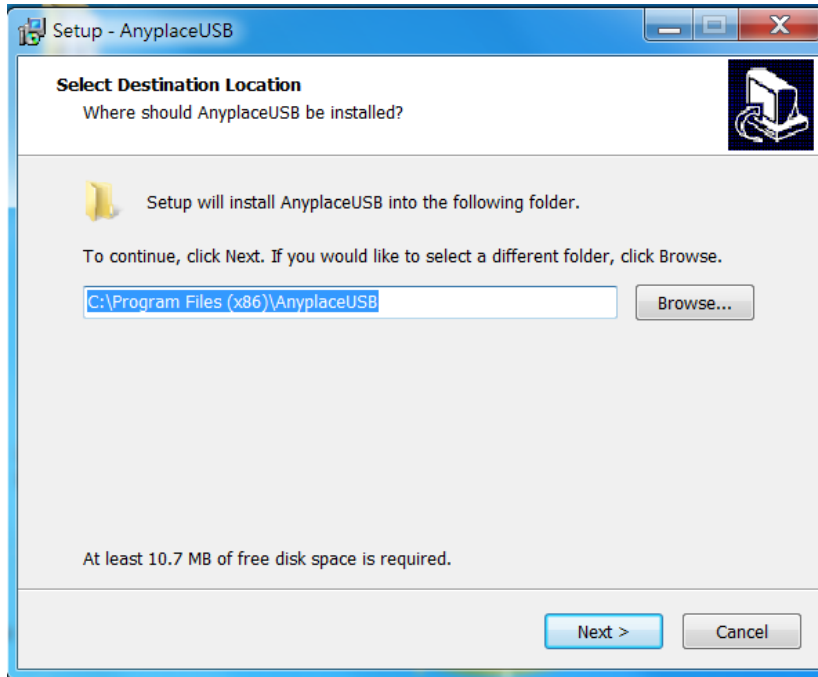
### 12.1 Install AnyplaceUSB Software Program in Client Computer

Insert the software CD into your DVD-ROM drive or download the AnyplaceUSB software program from [www.titan.tw](http://www.titan.tw).

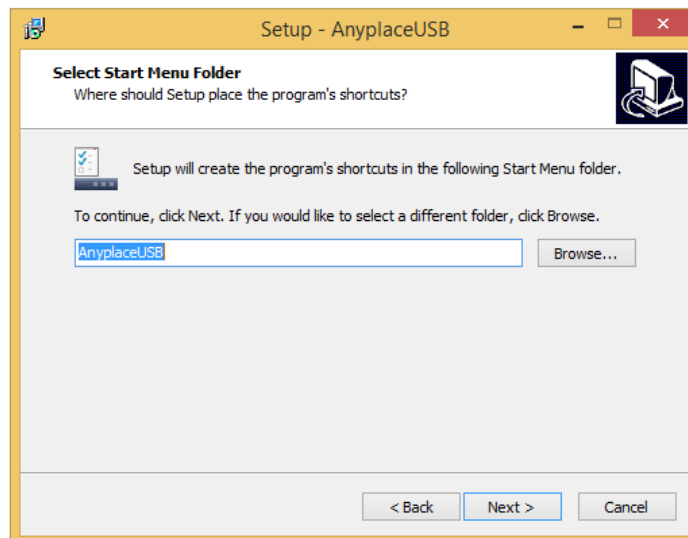
Open the “AnyplaceUSB\_setup” file to install AnyplaceUSB software program.

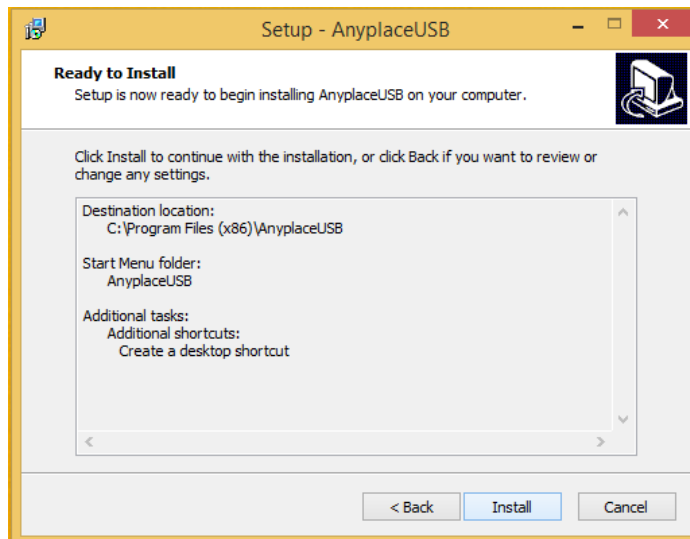
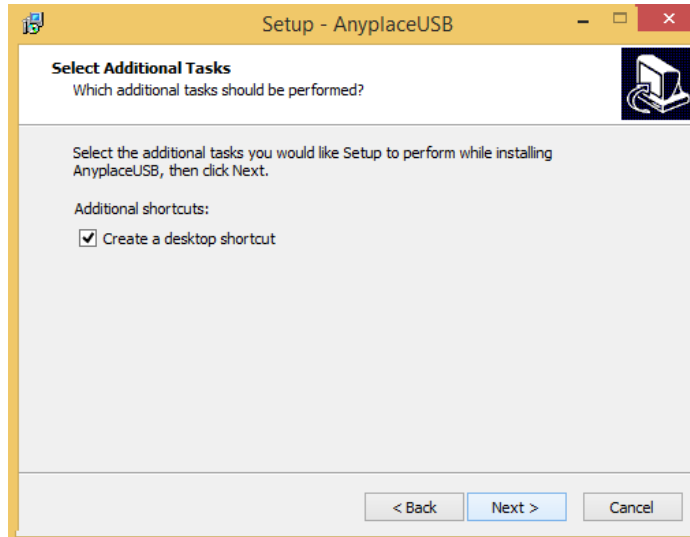
When the confirmation for “User Account Control” appears, click “Yes” and the “Setup - AnyplaceUSB” message appears. Click “Next” to proceed with the installation of AnyplaceUSB software program.



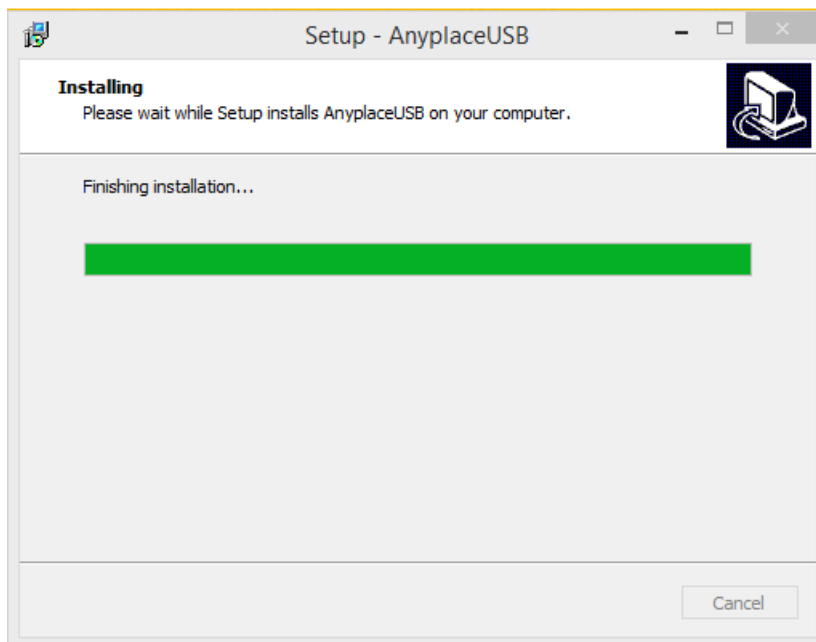


After you click “Next”, you will see following information. Click on “Next” and the “Ready to Install” message appears. Click “Install” to install AnyplaceUSB software.

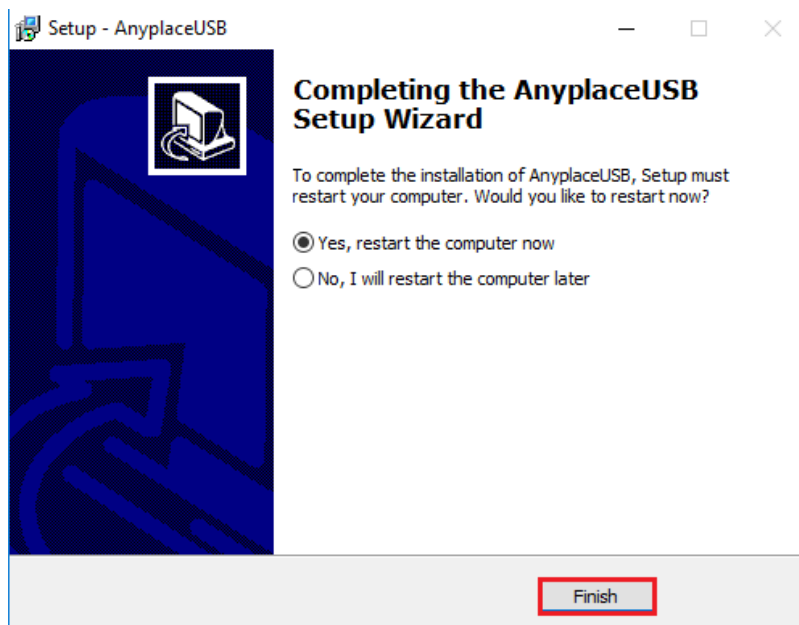




After you click “Install” to install AnyplaceUSB software program in the client computer, you will see the following information.



When the message “Completing the AnyplaceUSB Setup Wizard” appears, click “Finish” to restart the computer and finish the AnyplaceUSB software program installation.





## 12.2 Running AnyplaceUSB Software Program in Client Computer

Please connect your client computer to a network (Internet/LAN/WAN) environment.

Double click the shortcut icon of “AnyplaceUSB” on your client computer to launch AnyplaceUSB software program.



When you start the program for the first time, your Windows OS will prompt you for Firewall access. Please make sure you unblock the software or grant it access, otherwise the program will not work correctly.

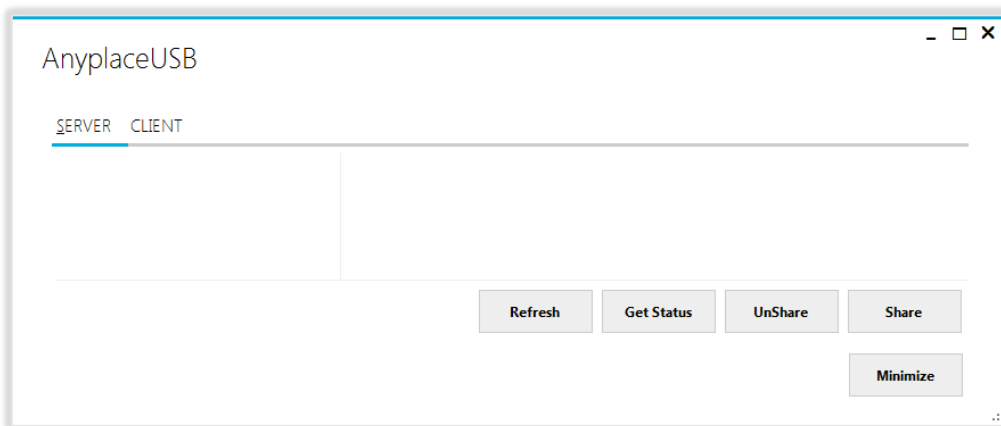


## 12.3 Running AnyplaceUSB Software Program in CLIENT Mode

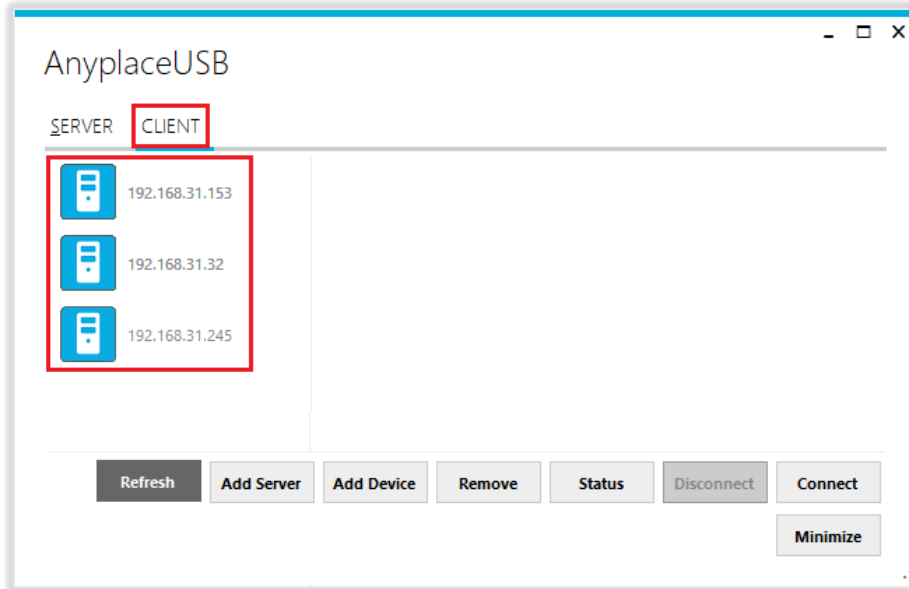
The AnyplaceUSB software program client mode can discover remote AnyplaceUSB serial devices, shared on the server computer, installed in your local network automatically. In most cases, there is no need to specify remote IP address or the hostname of the server computer. Select the correct server from the list in order to connect to the remote shared USB serial devices.

To connect from client computer to a remote AnyplaceUSB serial device shared on the server computer, you should first find available shared AnyplaceUSB serial devices and add them into client computer. The shared AnyplaceUSB serial devices are detected by AnyplaceUSB software program.

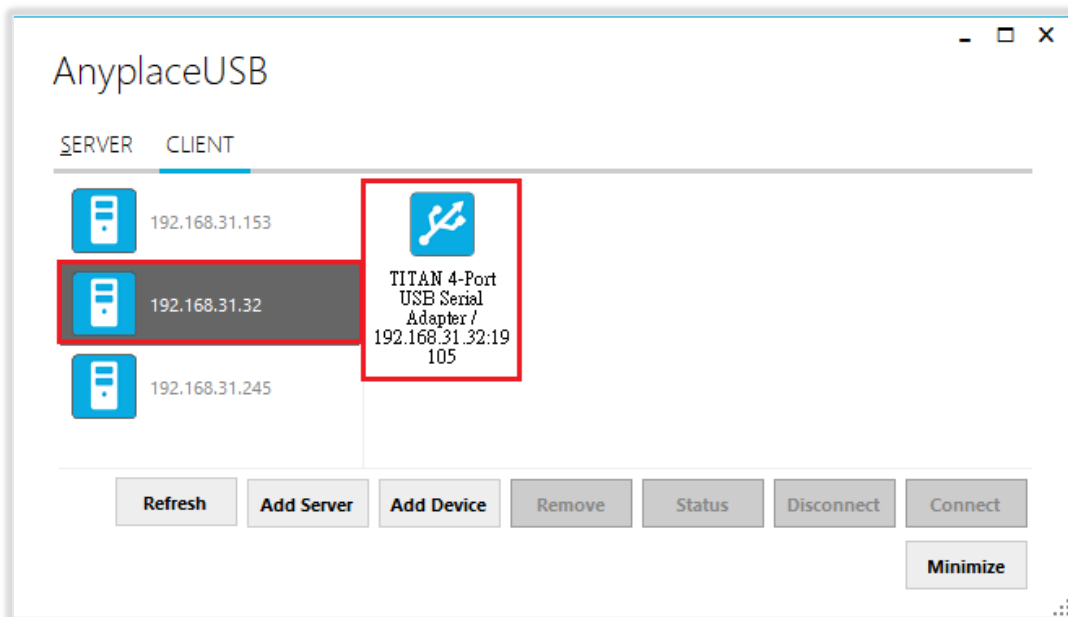
Once you have started up the AnyplaceUSB software program, you will see the main window as shown below.



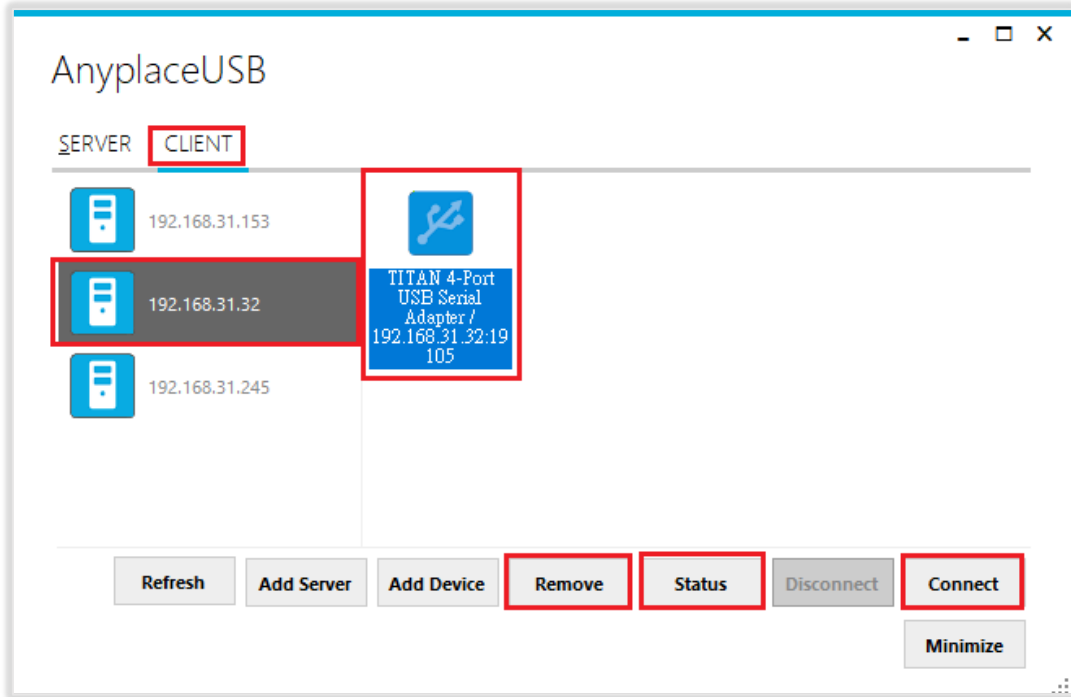
The main window consists of two toolbars (SERVER and CLIENT). Select "CLIENT" to connect to remote shared AnyplaceUSB serial devices. After selecting "CLIENT" you will see remote server computers with their IP addresses on the left of the main window, which displays all remote server computers discovered on the network.



Click on any remote server computer, the remote shared AnyplaceUSB serial device will be detected automatically and displayed.



After you click any remote shared AnyplaceUSB serial device shared on the server computer, the “Remove”, “Status”, “Connect” buttons become available.



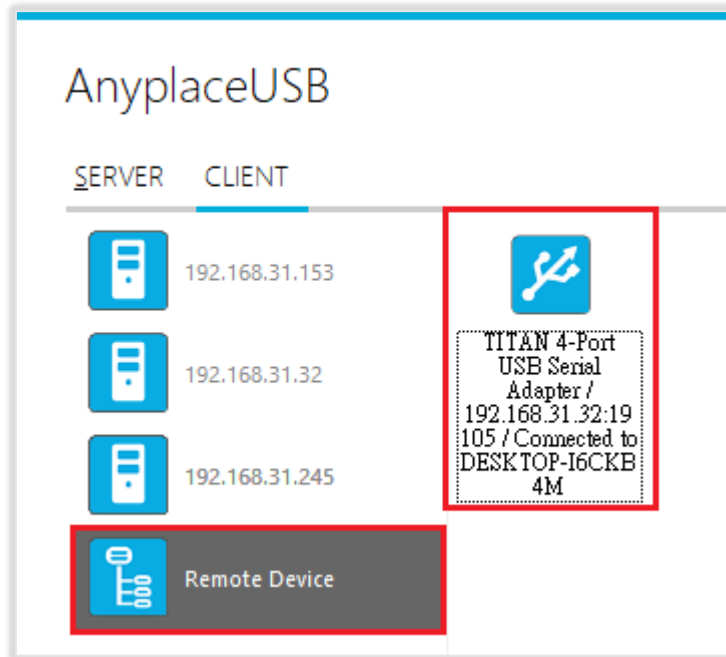
## 12.4 Connect Remote Shared Serial Device to your Computer

To connect the remote shared AnyplaceUSB serial device to your computer (client), click the **“Connect”** button to connect this remote shared USB serial device. You will see a **“Connect success!”** to indicate success. This may take a while depending on the speed of your server and client computers, and the speed of your network. Please refrain from rapidly connecting to and disconnecting from the same USB serial device in a short period of time, as this may be a cause for communication errors. Click **“Ok”** to finish connecting to the remote shared AnyplaceUSB serial device to your PC system.

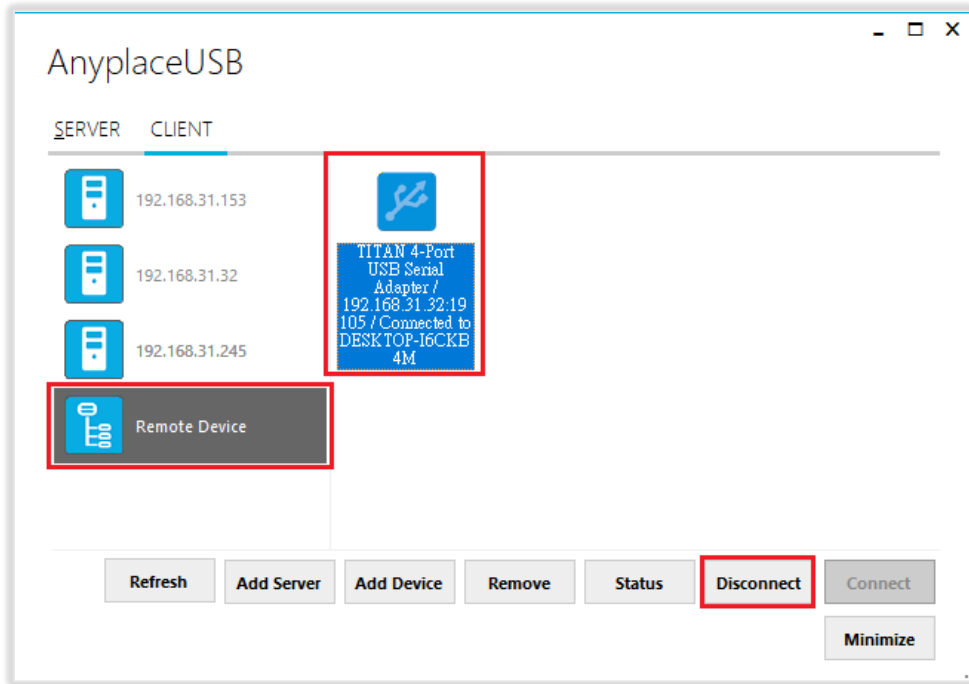


After connecting to the remote shared AnyplaceUSB serial device in your computer successfully, you will see a **“Remote Device”** on the left of the main window. Click on this **“Remote Device”**, and you will find a duplicated remote shared USB serial adapter. The computer will install drivers for this remote shared USB serial adapter

automatically. However, if your Windows OS doesn't install the USB serial driver for this remote shared AnyplaceUSB serial device, you need to install the USB serial driver manually.



To check the remote shared AnyplaceUSB serial device, please click on this remote shared AnyplaceUSB serial adapter again. You will see that this shared AnyplaceUSB serial device is connected to your computer and the “Disconnect” button is available.



Other computers in the same network will also see this remote shared AnyplaceUSB serial adapter connected to your computer, and will not be able to connect to this remote shared AnyplaceUSB serial adapter unless you disconnect it.

## 12.5 Disconnect Shared USB Serial Device from your Computer

To disconnect a remote shared USB serial device from your computer, click the **“Disconnect”** button to disconnect this remote shared AnyplaceUSB serial device from your computer. You will see a **“Disconnect success!”** message to indicate success. Click **“Ok”** to finish disconnecting the remote shared USB serial devices from your computer.



*Note1: The AnyplaceUSB serial device disconnected from remote sharing still remains shared on the server computer. Therefore, it is inaccessible through the local usage of server computer.*

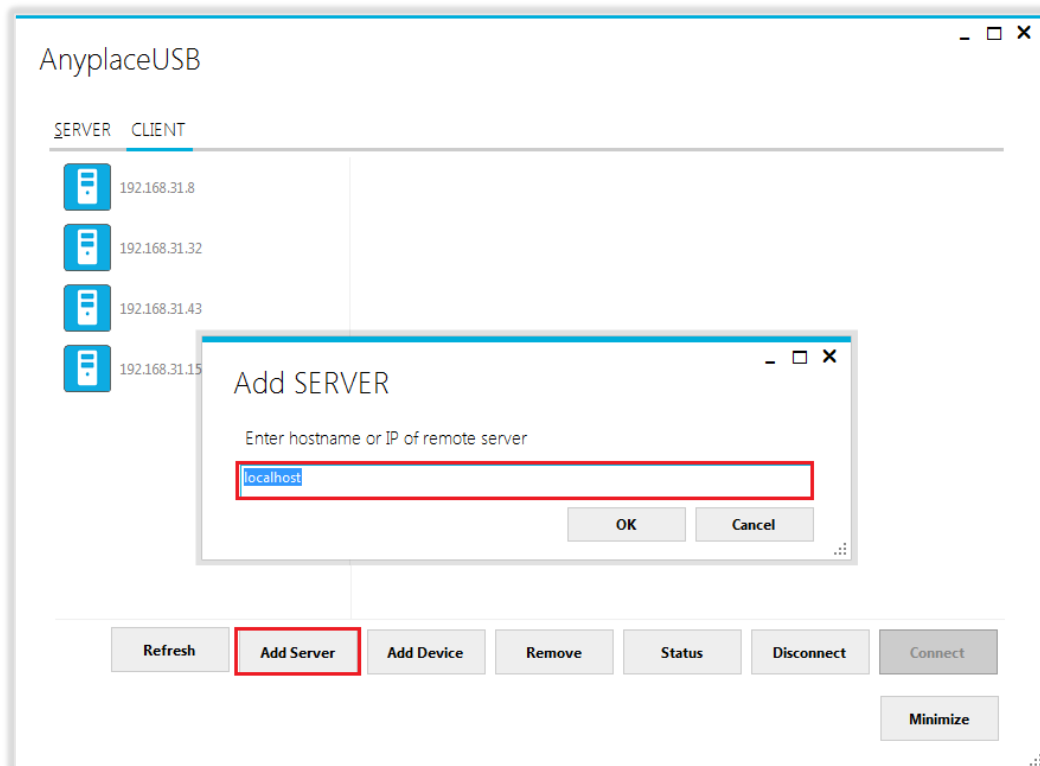
*Note2: After the AnyplaceUSB serial adapter disconnected from remote shared server*

computer. Please wait about 2 minutes to unload the pervious driver before connecting the serial adapter again, otherwise the serial ports will not work correctly.

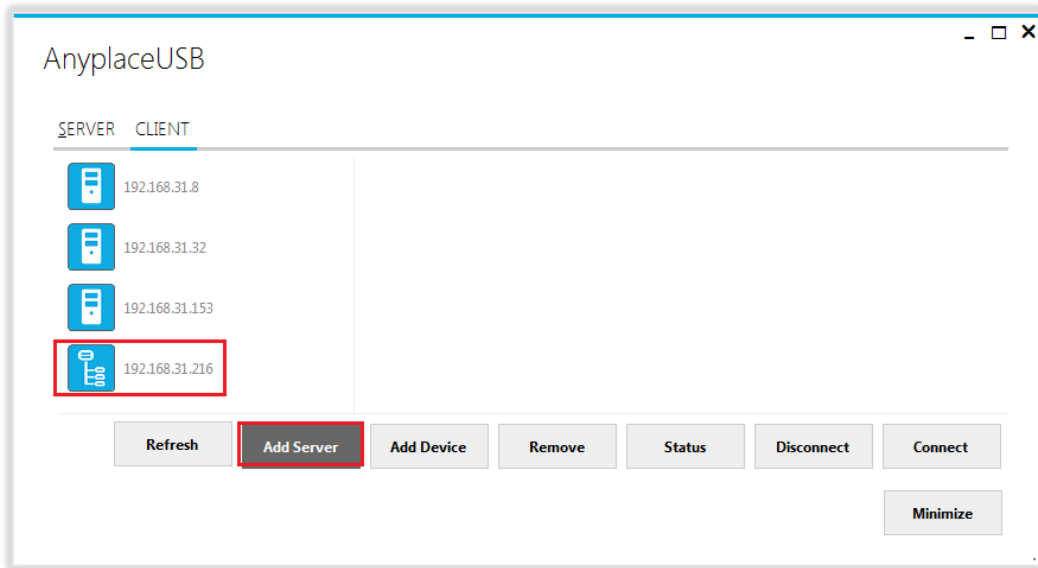
## 12.6 Other Buttons in CLIENT Mode

### 12.6.1 “Add Server” Button

If the remote server computer was not detected automatically, for example, when server computer is located in different subnet, you can search for it manually. Click “Add Server” and enter host name or IP address of the remote server computer, then click “OK” to finish adding a remote server computer manually.



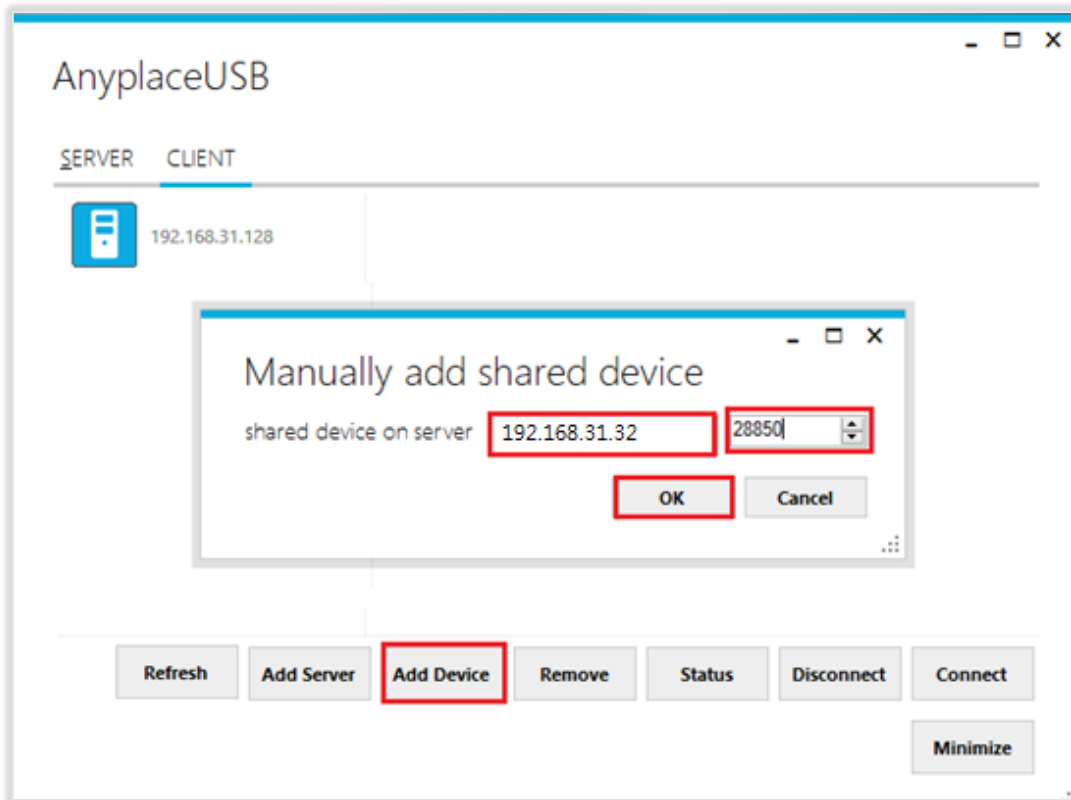
After adding a remote server computer manually, you will see the remote server computer (with IP address) added on the left of the main window.



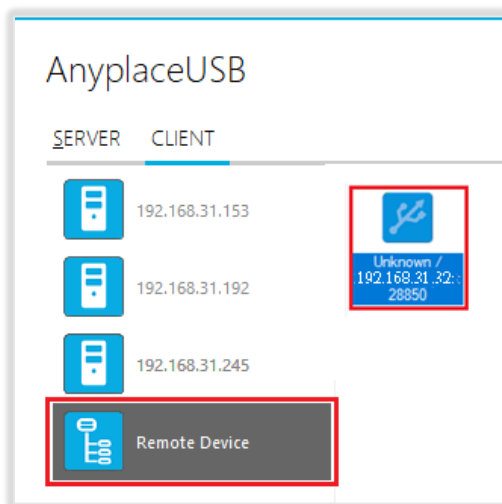
### 12.6.2 “Add Device” Button

You can also use the “Add Device” button, in case you know the IP address of remote server computer and the TCP port number, on which an AnyplaceUSB serial device is shared. Click “Add Device”, enter host name or IP address of the remote server computer, and the TCP port number of the remote shared serial device in “Manually add shared device”. Click “OK” to finish adding a remote shared serial device in your computer manually.

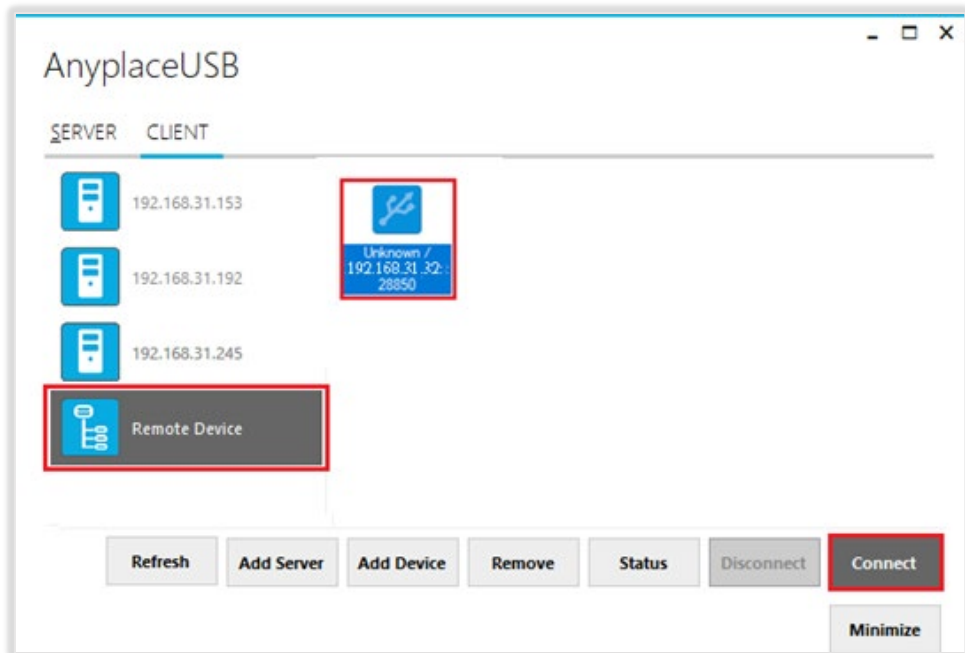




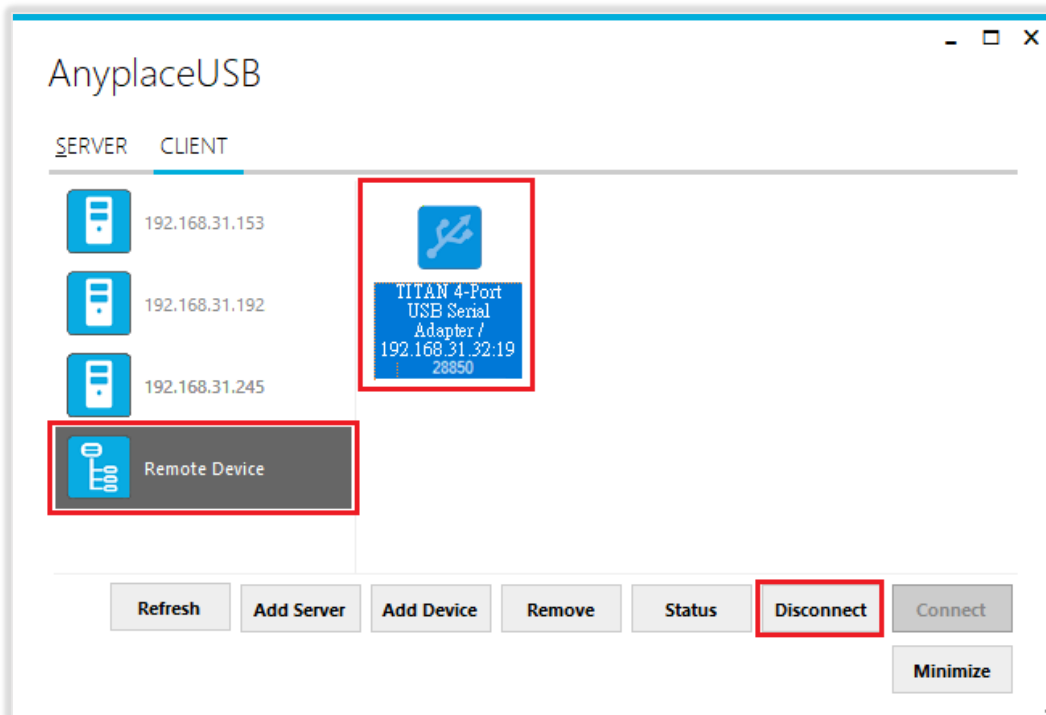
When you add a “Remote Device” manually, you will see an “Unknown” device added under “Remote Device”.



Click **“Connect”** to connect to this unknown USB device and you will see a “Connect success!” message to indicate success. Click “Ok” to finish connecting to the “Unknown” USB device into your computer.

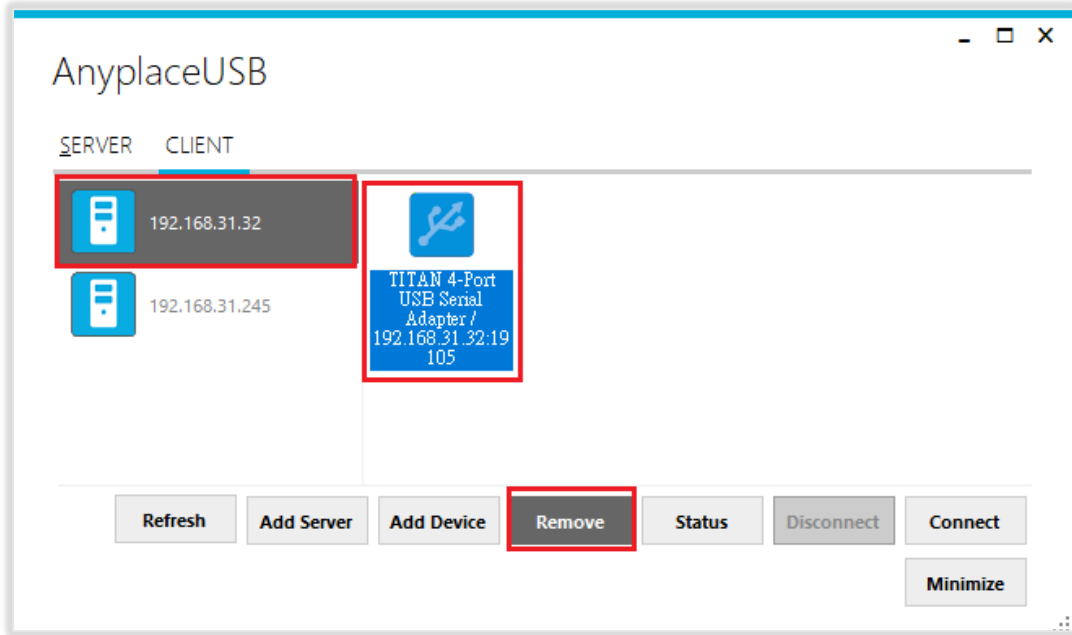


After connecting the “Unknown” USB device into your computer successfully, it will change to a remote shared USB serial device with device description, and the “Disconnect” button becomes available; the computer will install USB serial driver for this remote shared USB serial device automatically. However, if your Windows OS doesn’t install the USB serial driver for this remote shared USB serial device, you need to install the driver manually.



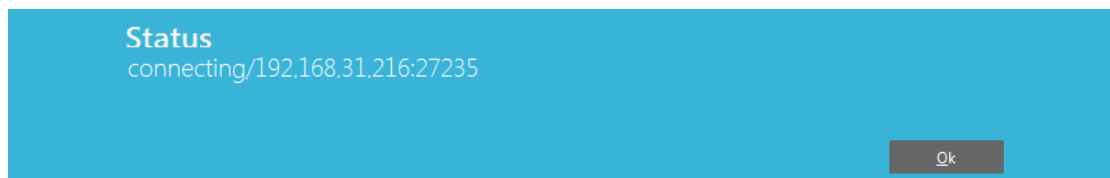
### 12.6.3 “Remove” Button

To remove a server computer or a remote shared USB serial device from your computer manually, select a server computer or a remote shared USB serial device and click “Remove”. You will see the server computer or remote shared USB serial device removed from your computer.



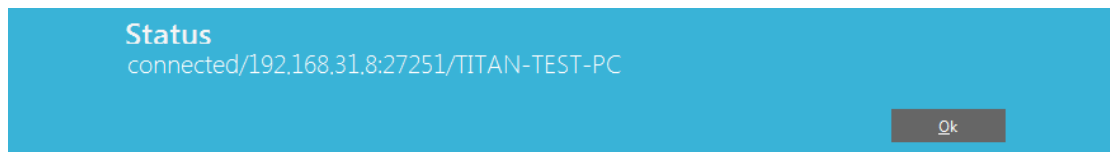
### 12.6.4 “Status” Button

Click the “**Status**” button to get the status of shared USB device. When this USB serial device is not being used by other users on the network, it will show “connecting/192.168.31.216:27235 (IP address and TCP port number of remote shared USB serial device)”.



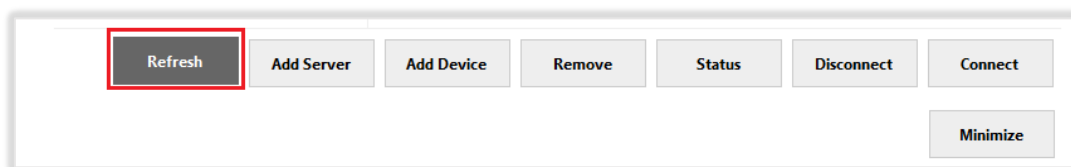
When this USB serial device is connected by other users on the network (Internet/LAN/WAN), it will show “connected/192.168.31.8:27251 (IP address and TCP

port number of remote shared USB device)/TITAN-TEST-PC (client computer name or IP address)”.



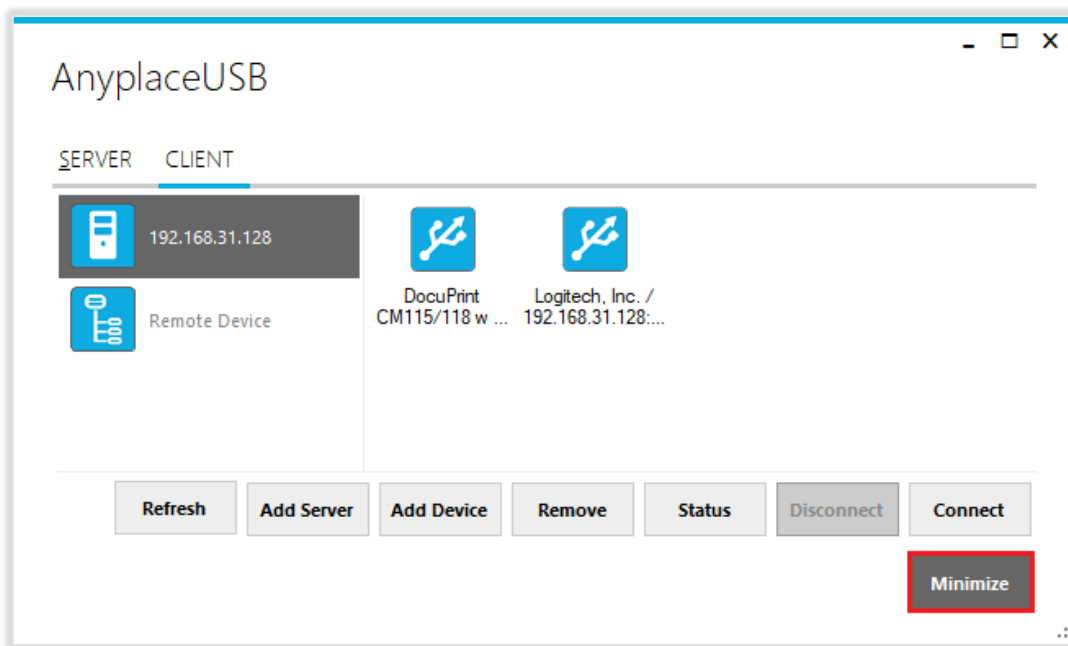
### 12.6.5 “Refresh” control button

The information on the main window of AnyplaceUSB software program may be incorrect or absent in some cases. In case this happens, you can click the “Refresh” button to reload the information for shared USB serial device.

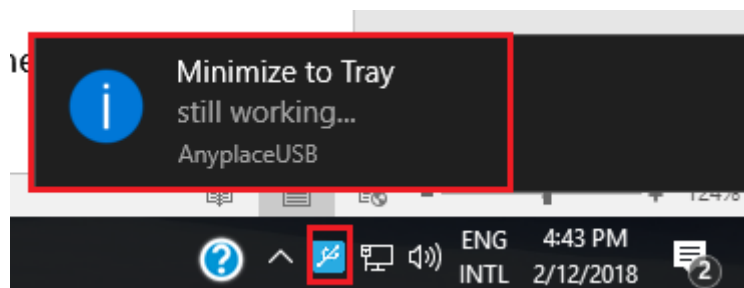


### 12.6.6 “Minimize” control button

You can click on the “Minimize” button to minimize the window of AnyplaceUSB software program to the system tray.



After clicking on “Minimize”, you will see “Minimize to Tray” message and the window of AnyplaceUSB software program will move to the system tray.

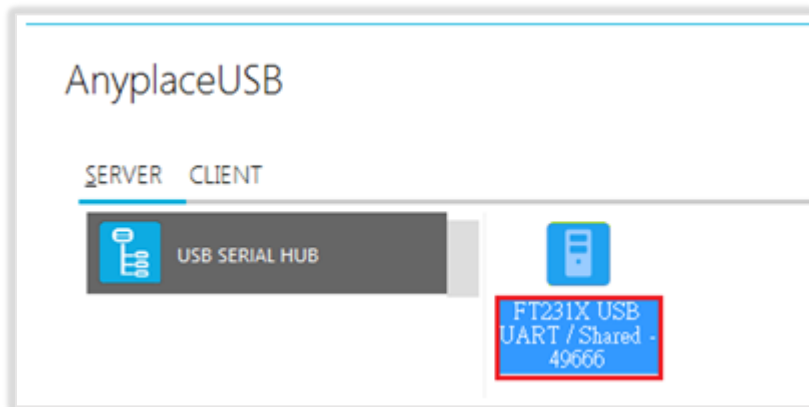


## 13 HOW TO SHARE SERIAL DEVICES VIA INTERNET

AnyplaceUSB-xCOM can share USB serial port over the Internet, allowing you to use the shared USB serial device anywhere in the world when connected to the Internet.

### 13.1 Share the AnyplaceUSB Serial Devices on Local Network First

To share a serial device via Internet, please first refer to page 21~26, and share your desired USB serial device on the local network. After sharing the USB serial device on the local network, click on the shared USB serial device to check its TCP port number (For example, the shared serial device may show “FT231X USB UART/Shared-49666”. In this case, the number “49666” would be its TCP port number).



### 13.2 Checking the IP address for Server Computer

To check the IP address of the server computer you can execute the command “ipconfig” under “Command Prompt” for Windows OS. You can find its IP address under the section “IPv4 Address” (for example: 192.168.31.32)

```

Command Prompt
Microsoft Windows [Version 10.0.16299.192]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\Users\TITAN test PC 1>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::e9c6:8987:b8f2:cc82%13
    IPv4 Address. . . . . : 192.168.31.32
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.31.1

Tunnel adapter Teredo Tunneling Pseudo-Interface:

    Connection-specific DNS Suffix  . : 
    IPv6 Address. . . . . : 2001:0:9d38:90d7:1c9c:3230:8957:6b6d
    Link-local IPv6 Address . . . . . : fe80::1c9c:3230:8957:6b6d%10
    Default Gateway . . . . . : ::

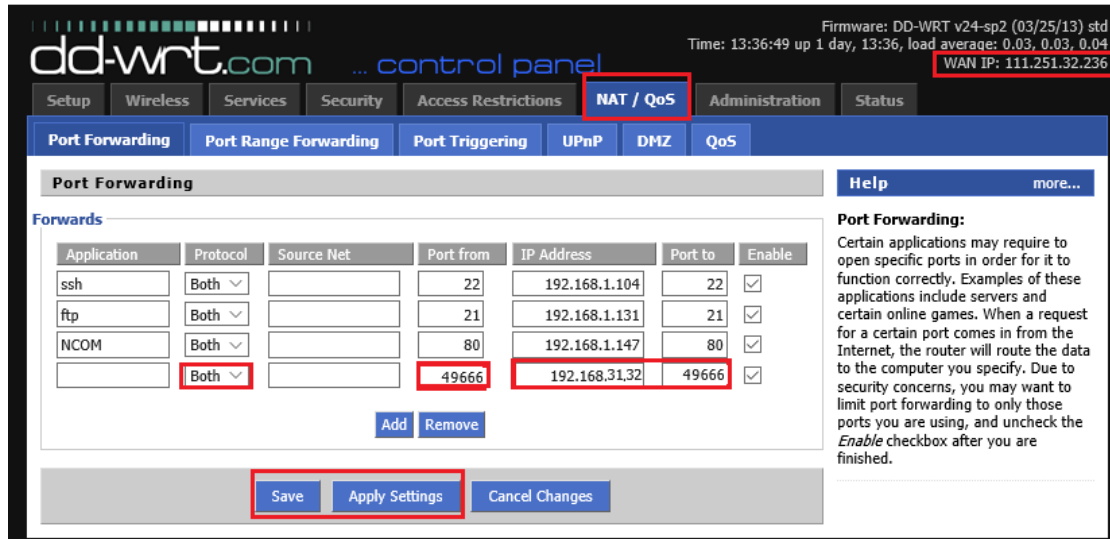
C:\Users\TITAN test PC 1>
    
```

### 13.3 Port Forwarding to Shared Serial device

Port forwarding is a way to make a computer on your home or business network accessible to other computers on the internet, even though they are behind a router; Port forwarding needs to be set up in your router, and the method may differ depending on the brand and model of your router. Following is an example of the steps required for port forwarding:

1. Please login to your router.
2. Navigate to your router’s port forwarding section by referring to its manual.
3. Create the port forward entries in your router. For example, in this case, the IP address of the server computer with the desired shared USB serial device is 192.168.31.32 and has a TCP port number of 49666. The router will have to be set up as shown in the figure below.





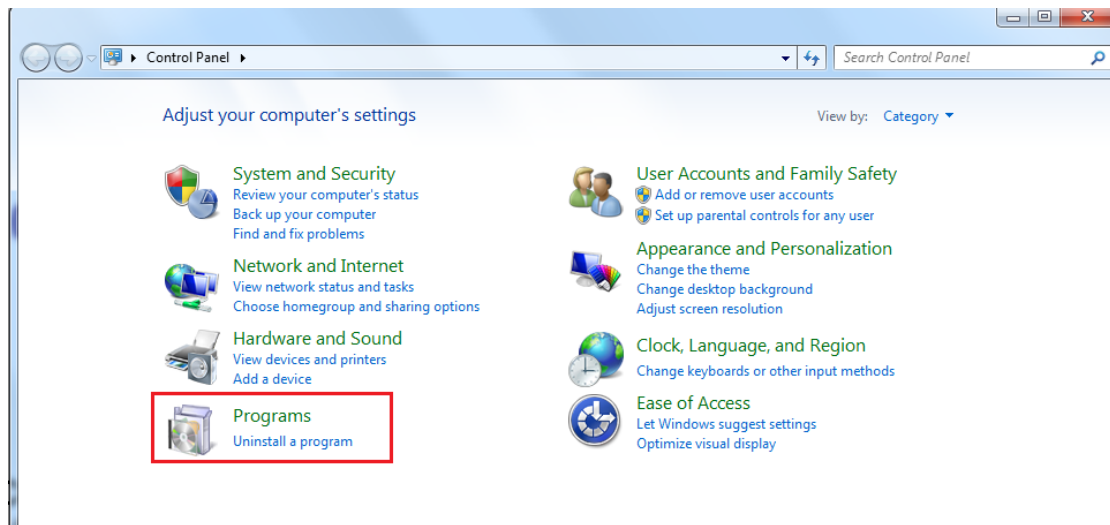
After you enter the IP address and TCP port number for port forwarding, don't forget to apply the setting and save it. You must also remember the router IP address (for example, in this case, the IP is shown on the top right corner as WAN IP: 111.251.32.236)

After port forwarding, you can use "Add Device" (refer to page 37) to test that your port forwarding rules are set up correctly. Click "Add Device" and enter the router's IP address and the TCP port number of remote shared USB serial device. Click "OK" to finish adding a remote shared AnyplaceUSB serial device to your computer.

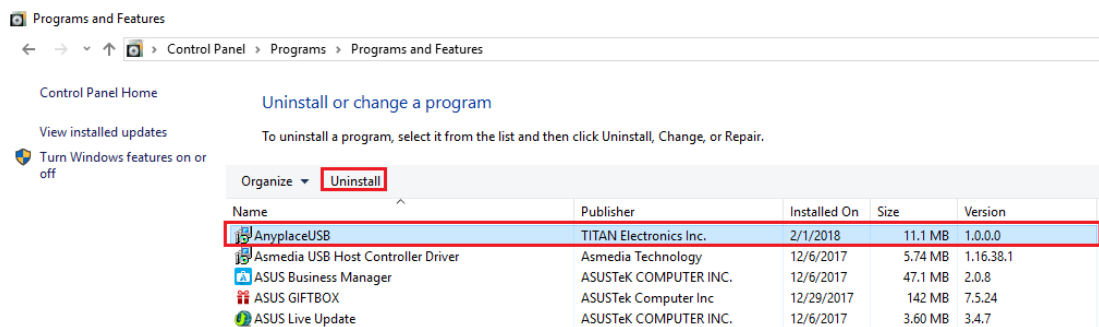
## 14 AnyplaceUSB SOFTWARE UNINSTALLATION

### 14.1 Uninstalling AnyplaceUSB Software Program

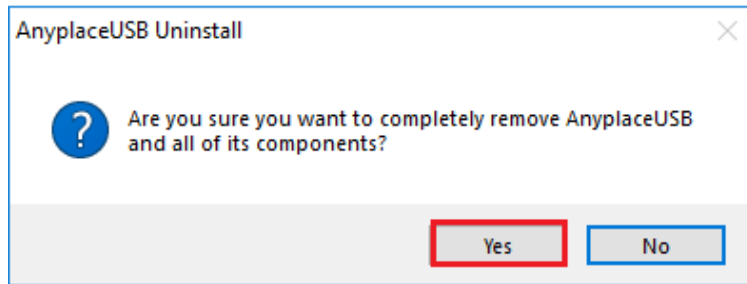
To uninstall AnyplaceUSB software program, click the "Start" button and navigate to "Control Panel". Choose "Uninstall a program" under "Programs".



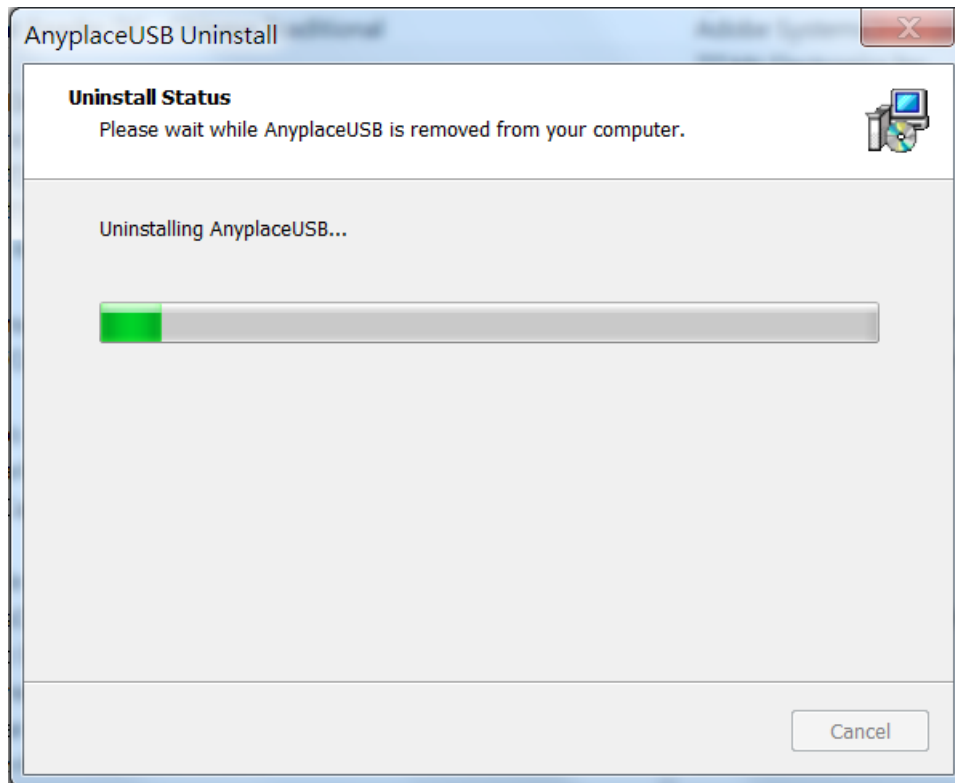
After you click "Uninstall a program", a list of all your installed programs will be shown. Select "AnyplaceUSB" and click on "Uninstall" to uninstall AnyplaceUSB software program.



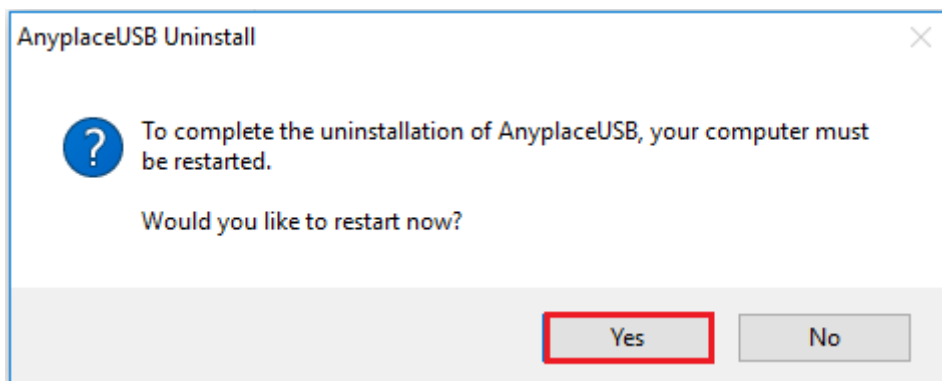
When you click on "Uninstall", a message will ask "Are you sure you want to completely remove AnyplaceUSB and all of its components?" Confirm by clicking "Yes".



When uninstalling AnyplaceUSB software program, you will find the following message.



After successfully removing AnyplaceUSB software program, a message stating that "To complete the uninstallation of AnyplaceUSB, your computer must be restarted." will be shown.



Click on “Yes” to restart your computer to finish removing AnyplaceUSB software program.