



VSP  
Virtual Serial Port Management Software  
User Manual

Version 3.0.0, Jun. 2016

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## Statement

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### Conventions Used in the Manual

Technical or printing errors might exist in the product or the instruction manual; therefore, Shenzhen 3onedata Technology Co., Ltd. reserves the right to change the manual entirely or partially with no advance notice required. Due to the improvement of the management software, the version of software that you are using might not be the latest or the perfect version. The manual is only for your reference, and please contact us if you have any questions.

### Revision Histories

Version NO.	Data	Cause
V1.0.0	2011.01	Document creation
V1.1.0	2011.06	Software upgrade
V1.1.1	2011.07	Modify document
V2.1.1	2014.05	Software upgrade
V3.0.0	2016.06	Software upgrade

### Attentions:

Please read through the following conventions before reading the manual:



: Necessary explain information.



: Specify things need to pay more attention.

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## Chapter 1 Installation Instructions

### 1.1 Preparative

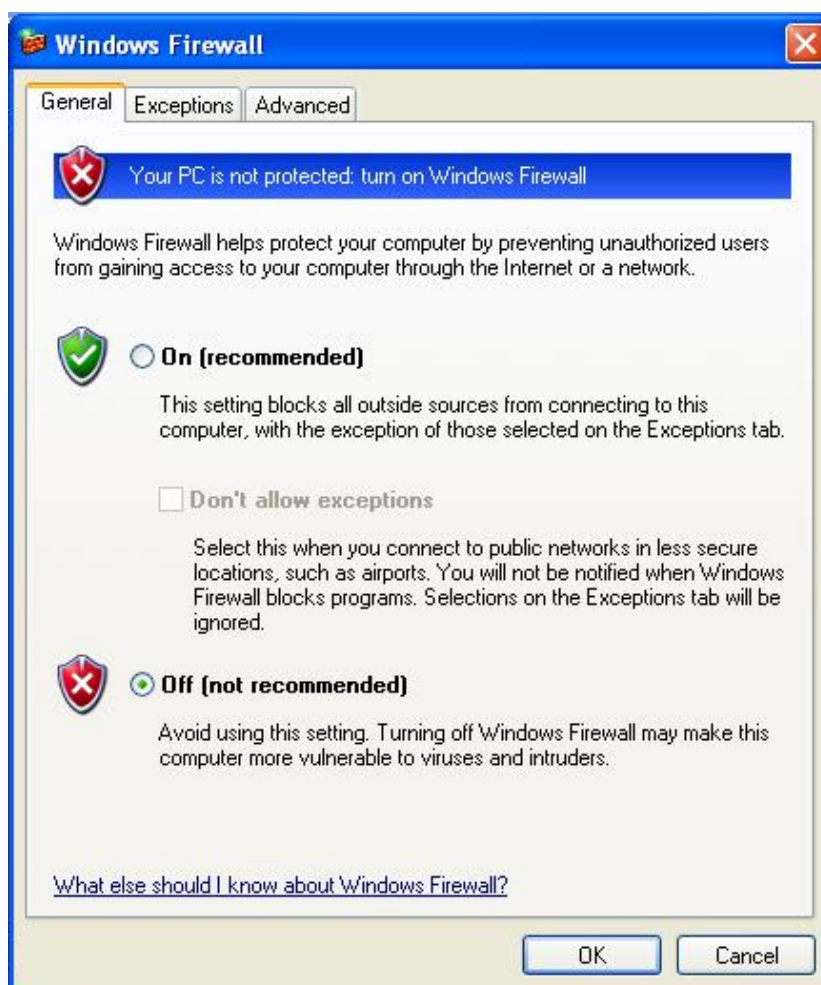
Installation the VSP software into a PC, then connect NP301 into a network. Then set your device according to your using requirement.

1. The software supports Microsoft Windows 2000, XP, 2003, Server 2008, Win7, Win8, Win10 (32 bit) operation system
2. Default IP address is 192.168.1.X network segment, before install Link Wizard, please close the firewall and exit antivirus software for a while.

**Especial attention:** Windows XP operation system, please close firewall at first!

Close XP operation system firewall:

Start→Control Panel→Security center→windows firewall, enter in windows firewall interface, choice” off”, click “OK”



(Figure 1.1.1)


Win7 operation system:


### Customize settings for each type of network

You can modify the firewall settings for each type of network location that you use.


[What are network locations?](#)


#### Home or work (private) network location settings

-  ☐ Turn on Windows Firewall
- ☐ Block all incoming connections, including those in the list of allowed programs
  - ☒ Notify me when Windows Firewall blocks a new program

-  ☒ Turn off Windows Firewall (not recommended)

#### Public network location settings

-  ☐ Turn on Windows Firewall
- ☐ Block all incoming connections, including those in the list of allowed programs
  - ☒ Notify me when Windows Firewall blocks a new program

-  ☒ Turn off Windows Firewall (not recommended)

(Figure 1.1.2)

## 1.2 Installation

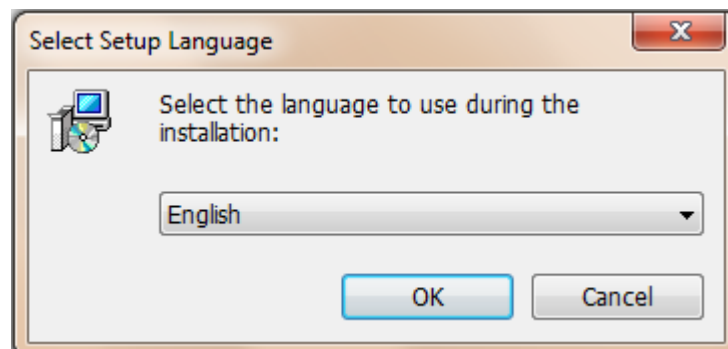
Install program, Figure 1.2.1;



(Figure 1.2.1)

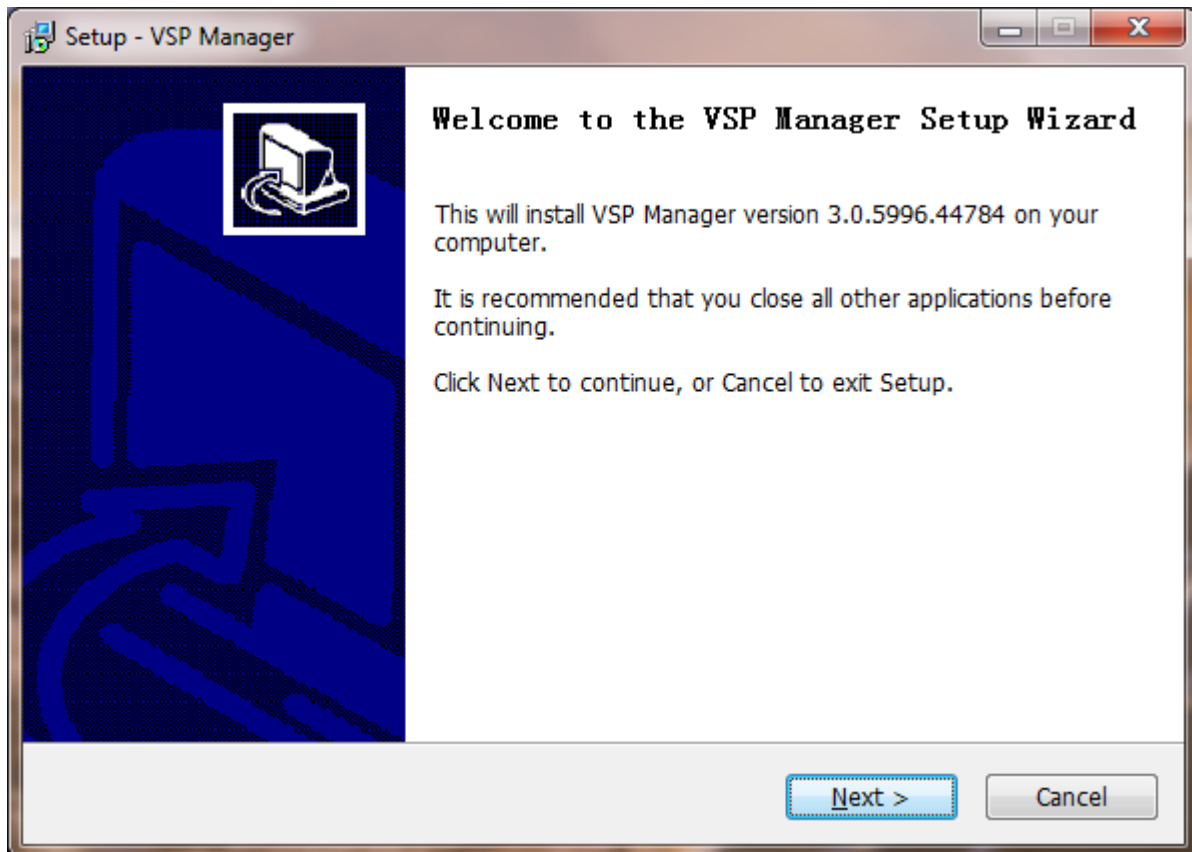
### Installation procedures:

1. Run the software as (Figure 1.2.1), enter in the installation interface as (Figure 1.2.2), start to install



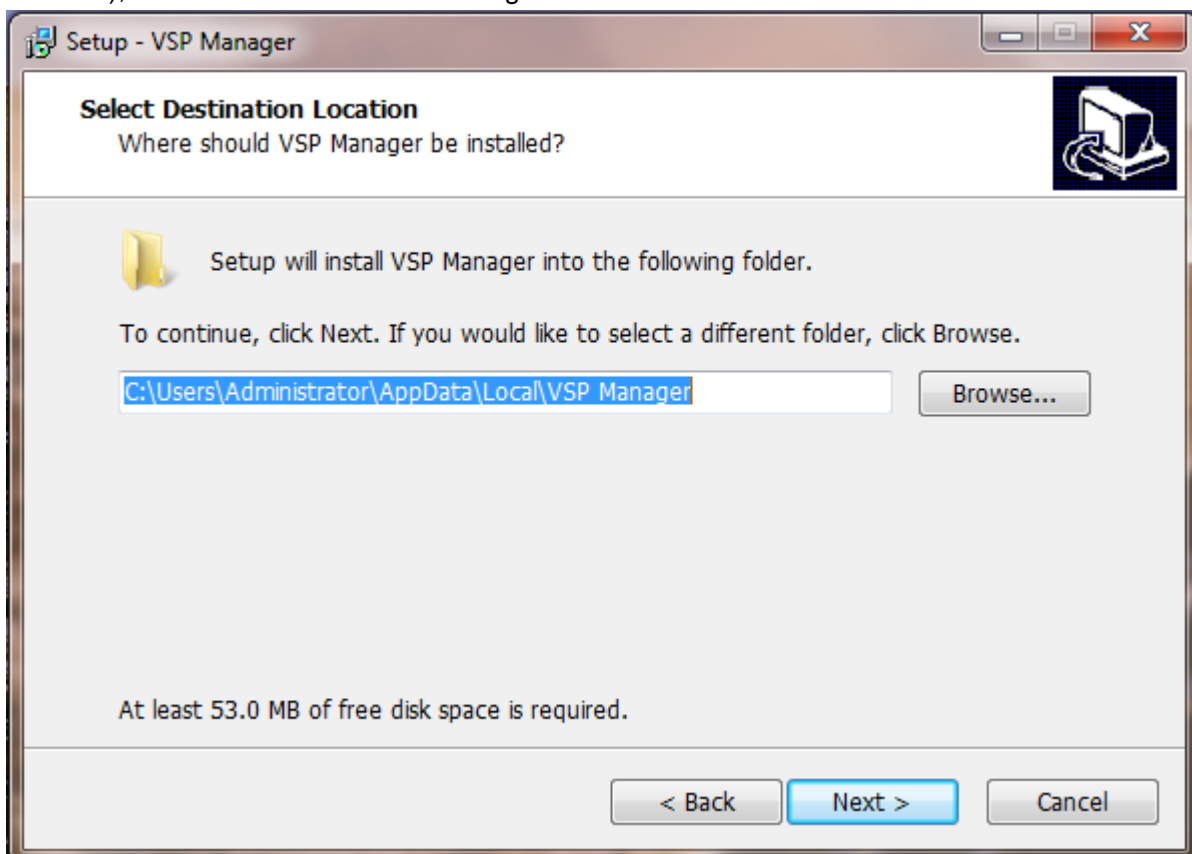
(Figure 1.2.2)

Select the language, into the interface, as shown in Figure 1.2.3, start the installation.



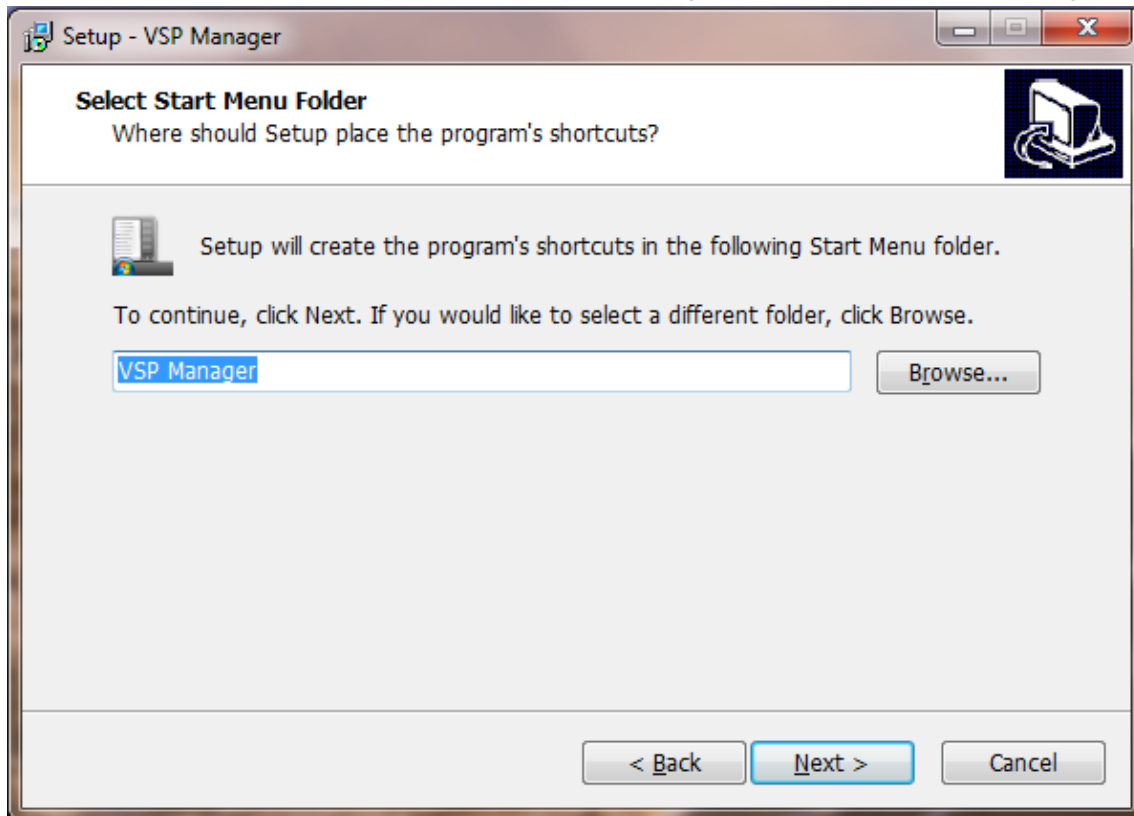
(Figure 1.2.3)

2. Click "**Cancel**", can stop installation procedures, click "**next**", enter into the display interface as (figure 1.2.4), Choice installation route through "**Browse**".



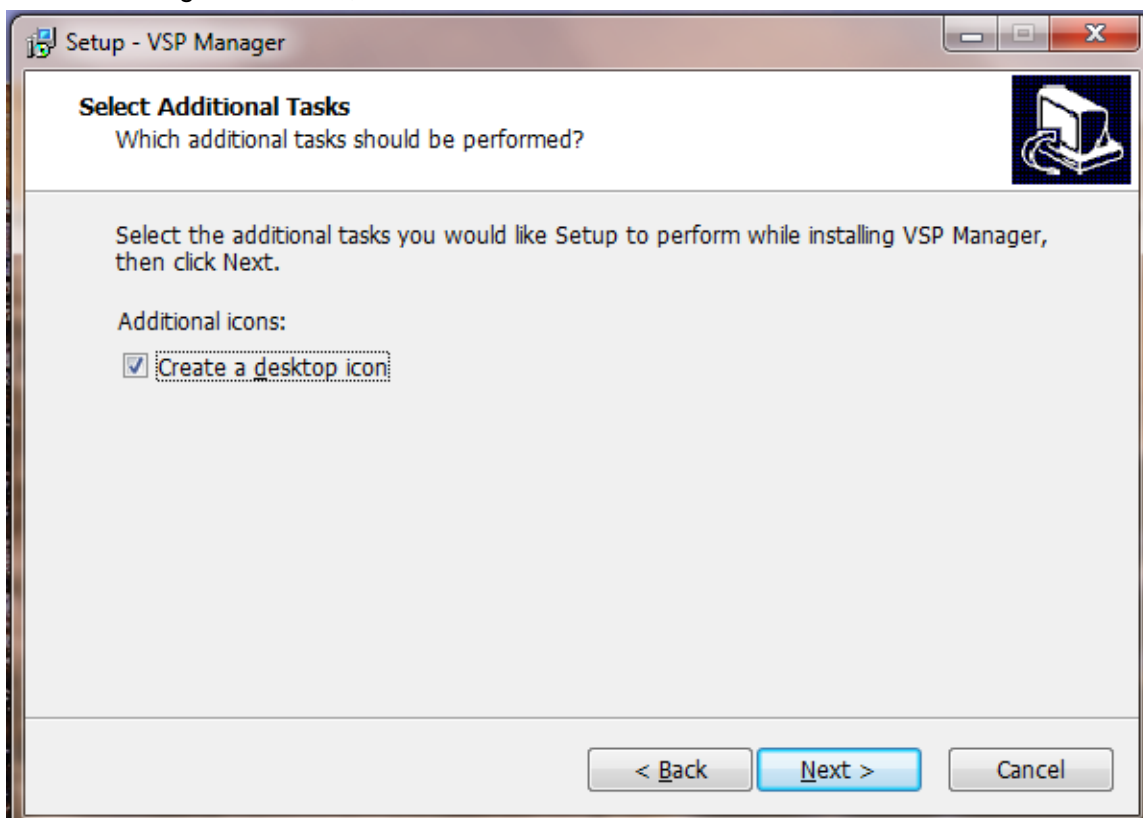
(Figure 1.2.4)

3. Click **"Next"**, can choice the file that has the shortcut through [Browse] after installation, figure 1.2.5.



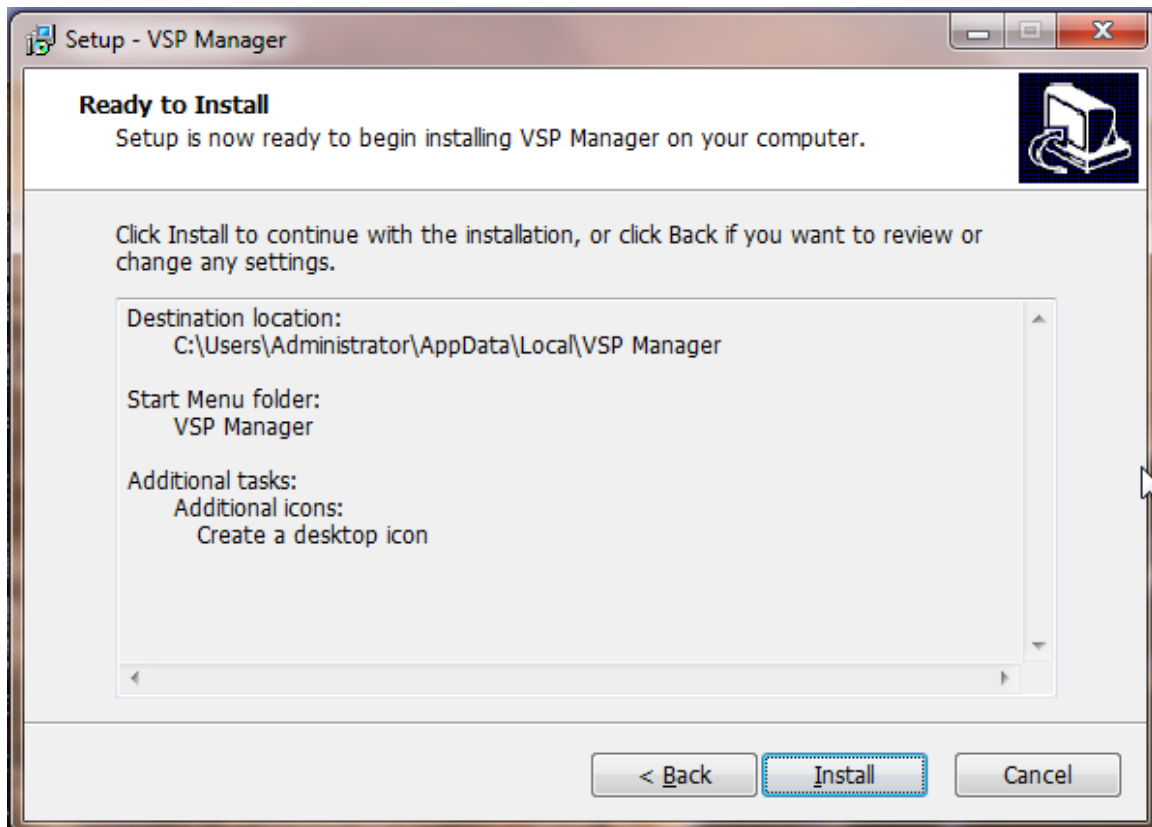
(Figure 1.2.5)

4. Click next, can choice "Create a desktop icon" as figure 1.2.6, (If making tick, The desktop will have a shortcut icon as figure 1.2.10) ,



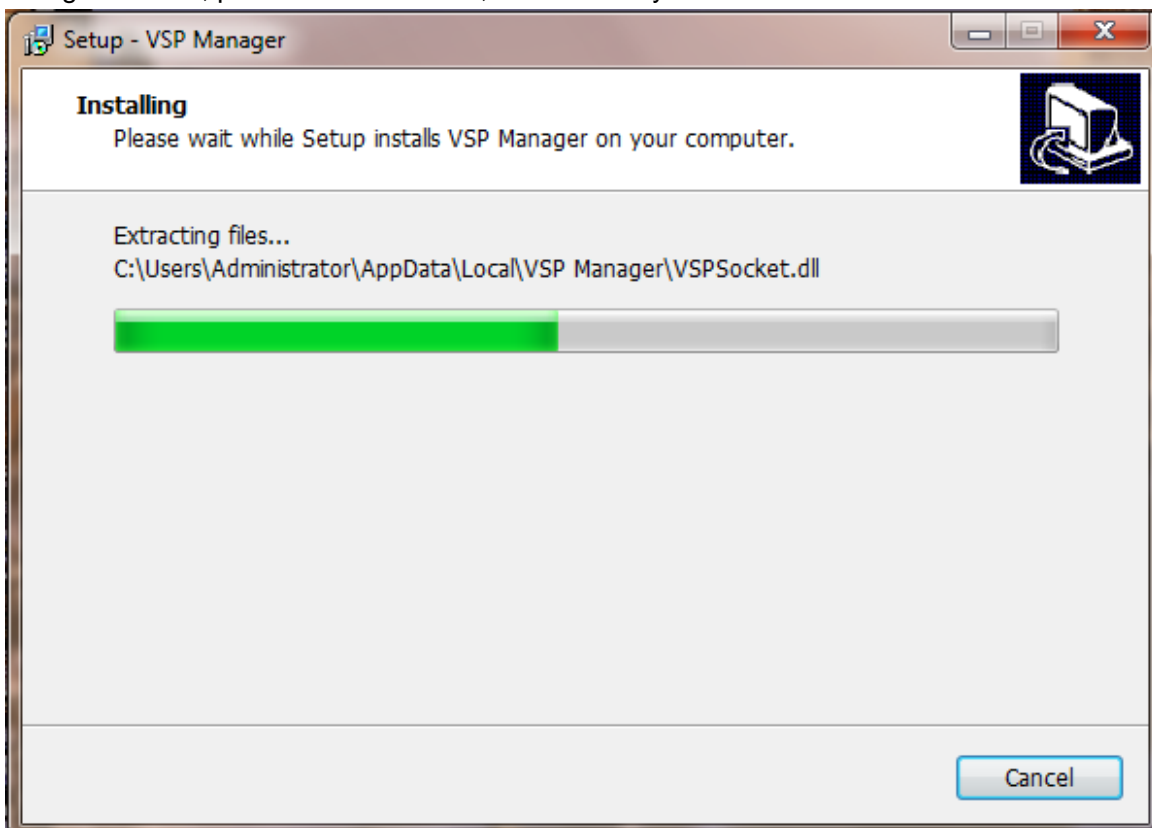
(Figure 1.2.6)

5. Click next, if you making tick "create a desktop icon", enter into the installation interface as figure 1.2.7



(Figure 1.2.7)

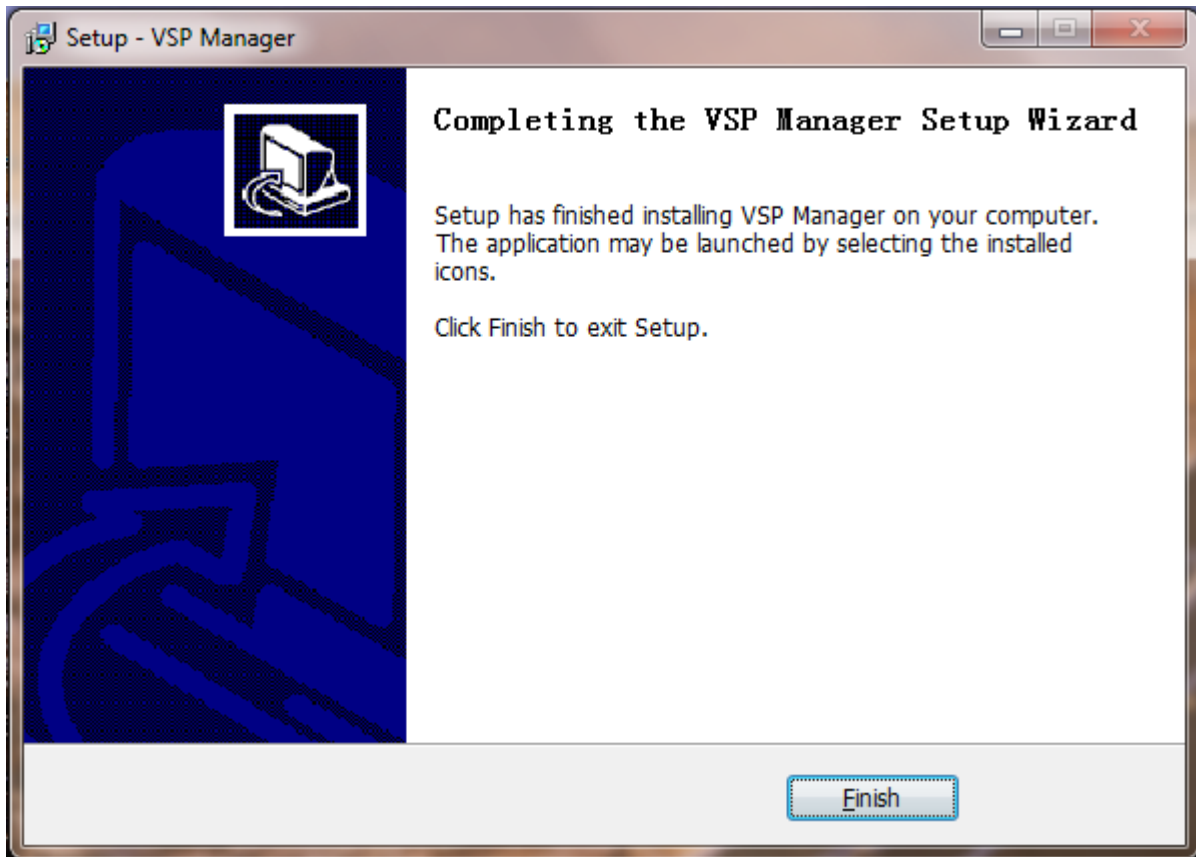
6. Click "install", There will have a DOS black screen as figure 1.2.8, it shows the installation procedure is installing the driver, please do not close it, let it close by itself.



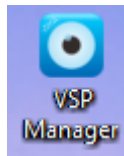
(Figure 1.2.8)



7. Click “Finish” figure 1.2.9. Please check the folder under the installation route have “VSP Manager” or not, if you make tick on” Create a desktop icon”, you will see an Icon on the desktop as figure 1.2.10.



(Figure 1.2.9)

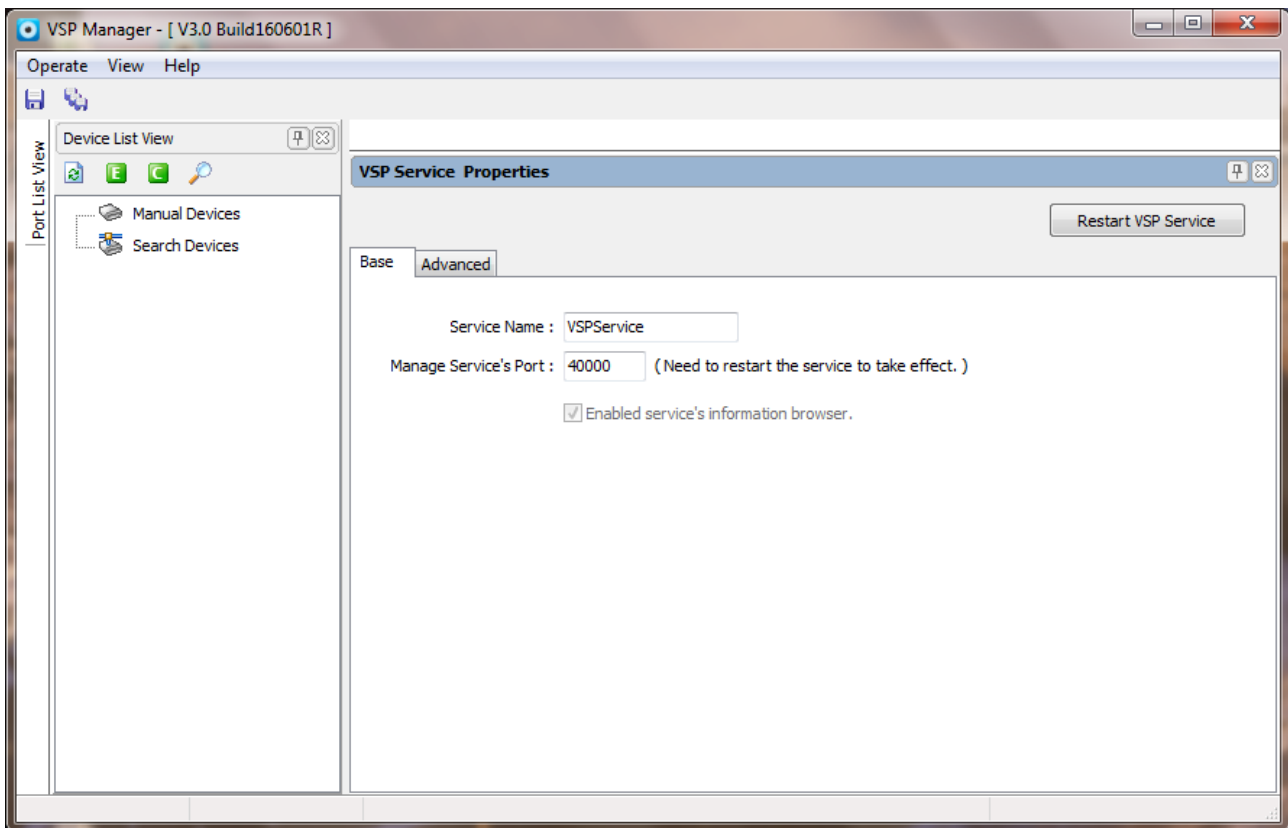


(Figure 1.2.10)

## Chapter 2 Software Function

### 2.1 software interface

Finished install the software, Double click figure 1.2.10, enter into the device manager interface as figure 2.1.1. When the port 40000 of host computer is not available, you can change the port of the managed VSP service and restart it.

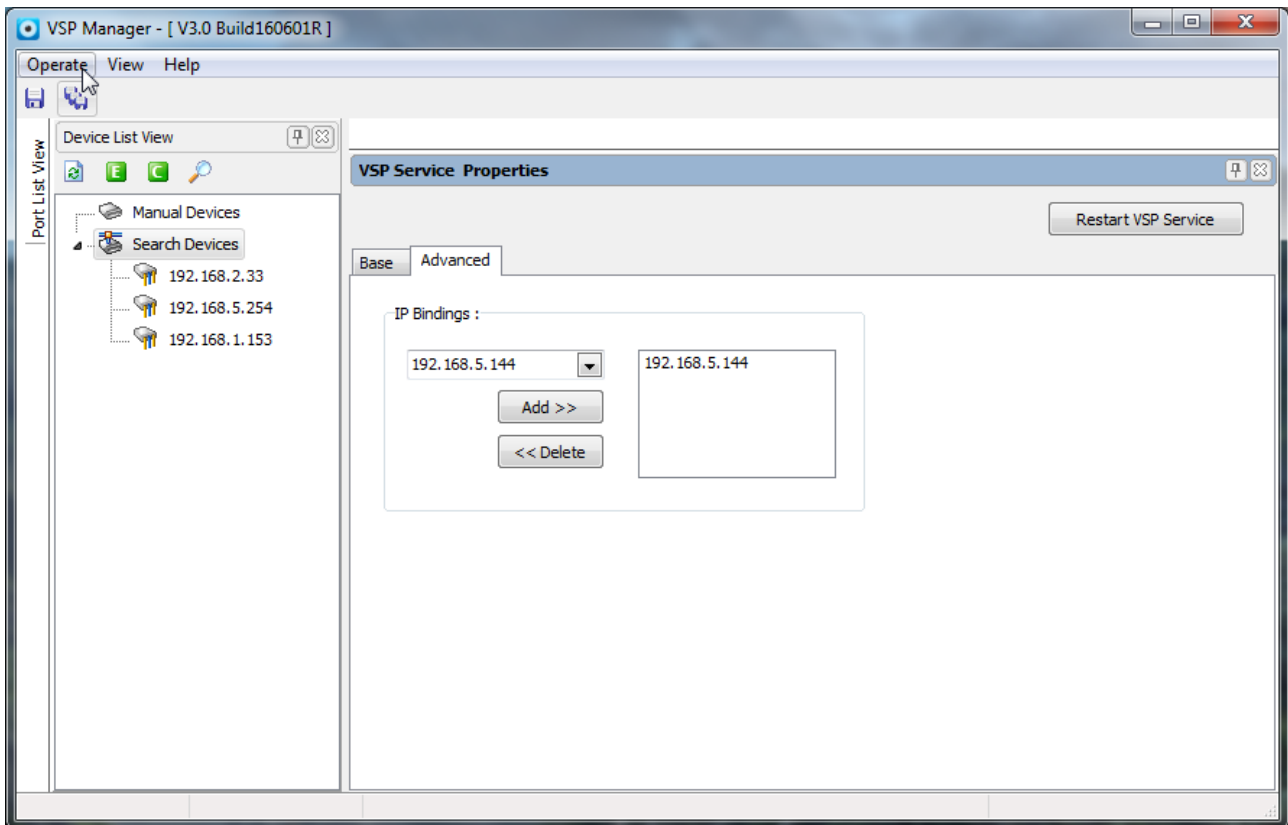


(Figure 2.1.1)

### 2.2 Device management

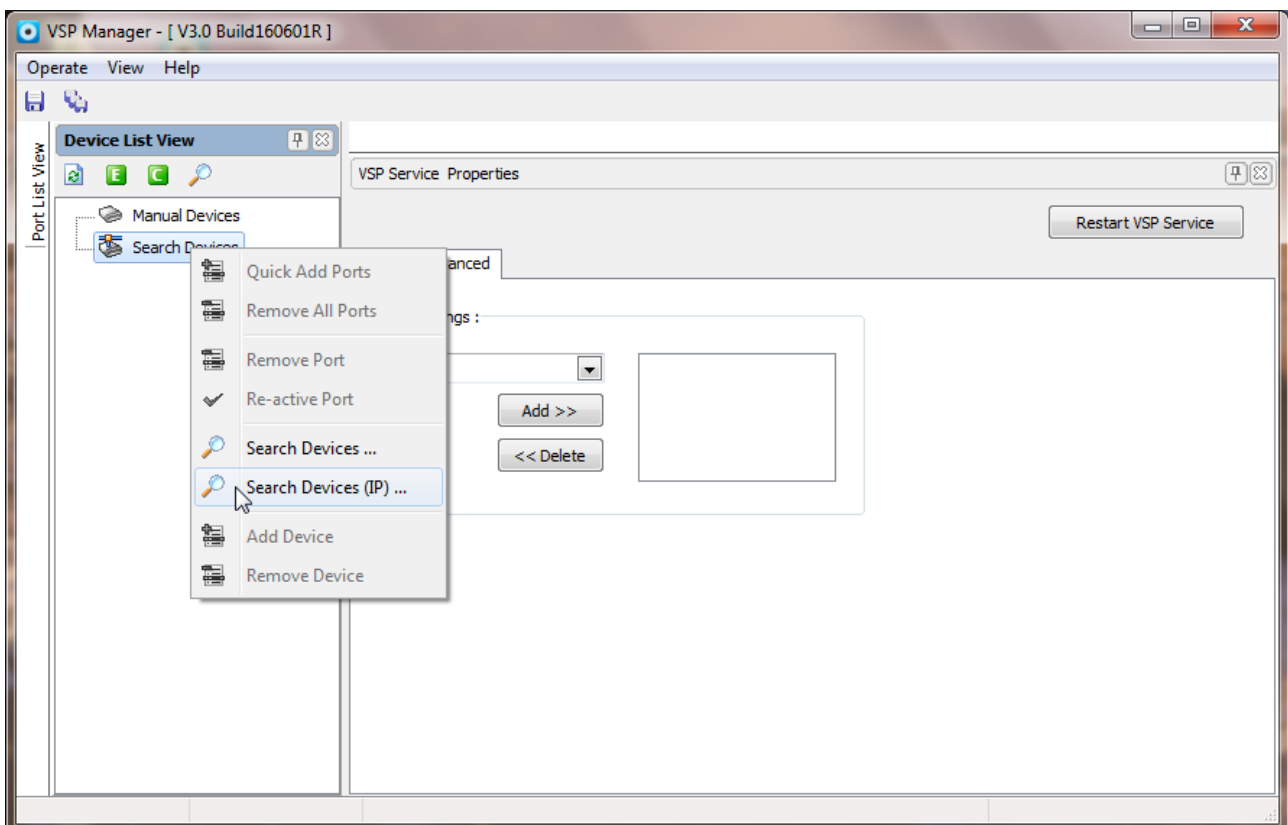
#### 2.2.1 Search device

When the host has multiple network cards, should be connected to the device, and to bind the required use of the network card. Select the IP you want to bind, click add, save and restart the VSP service, or may not search the device, as shown in figure 2.2.1.1



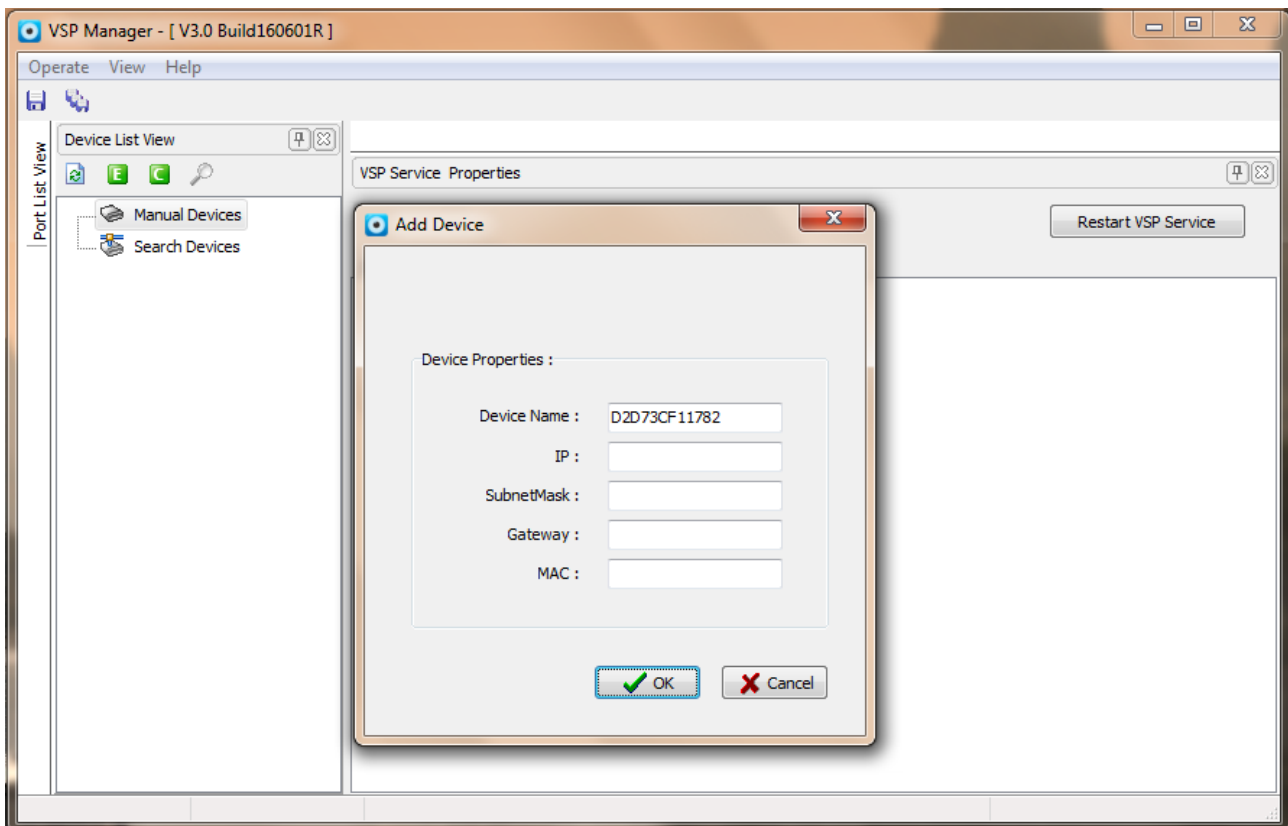
(Figure 2.2.1.1)

Search device: click search device, and then click on the search icon or right click “search devices” on the same network segment of UPD broadcast packet search. You can also right click the “search device (IP)” for the specified IP for unicast search, as shown in figure 2.2.1.2.



(Figure 2.2.1.2)

Manual Device: when the auto search device cannot be found to the device, using a manual search, add the specified IP, right-click the manually add devices, fill in the specified IP in IP column, as shown in Figure 2.2.1.3



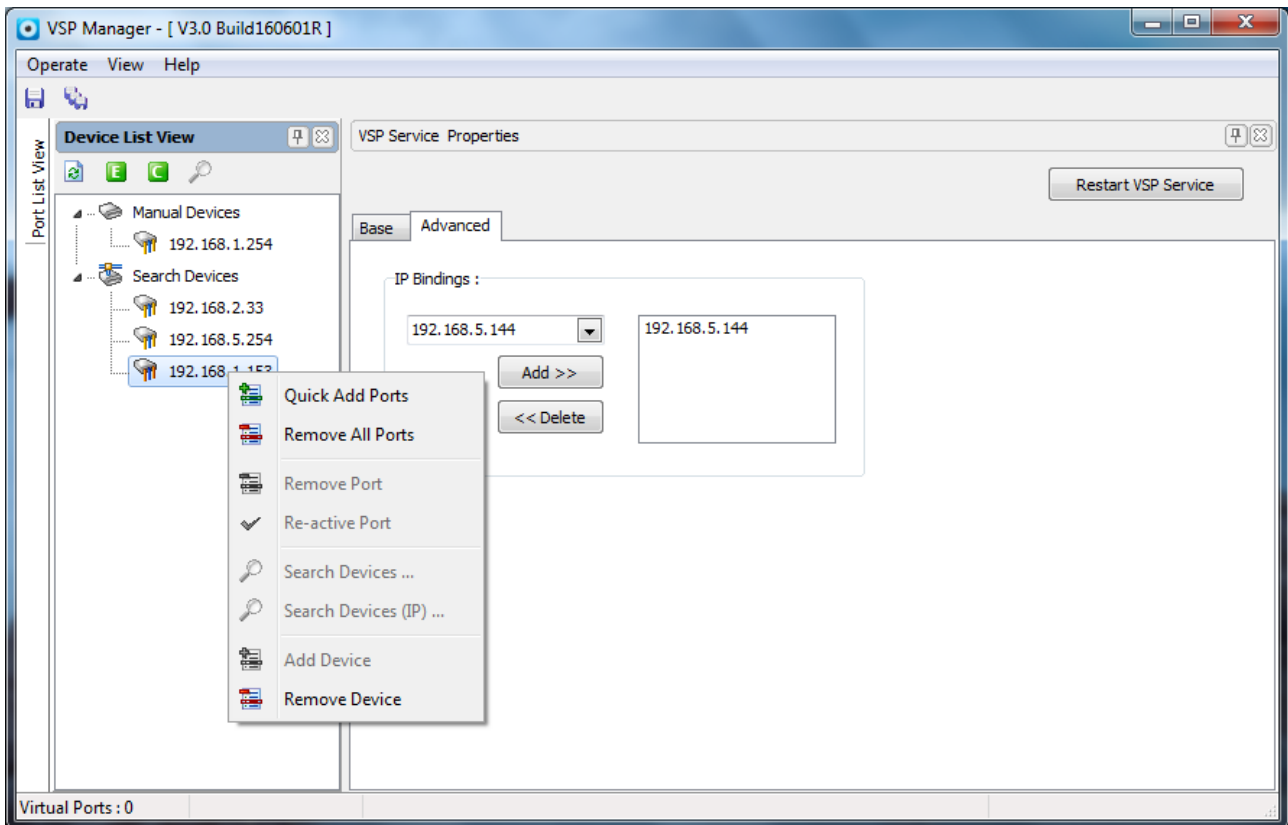
(Figure 2.2.1.3)



Manual search need to know the device IP to search. If you do not know the device IP, will be linked to the device in the same segment, click search device, you can find the device IP.

## 2.2.2 Delete device

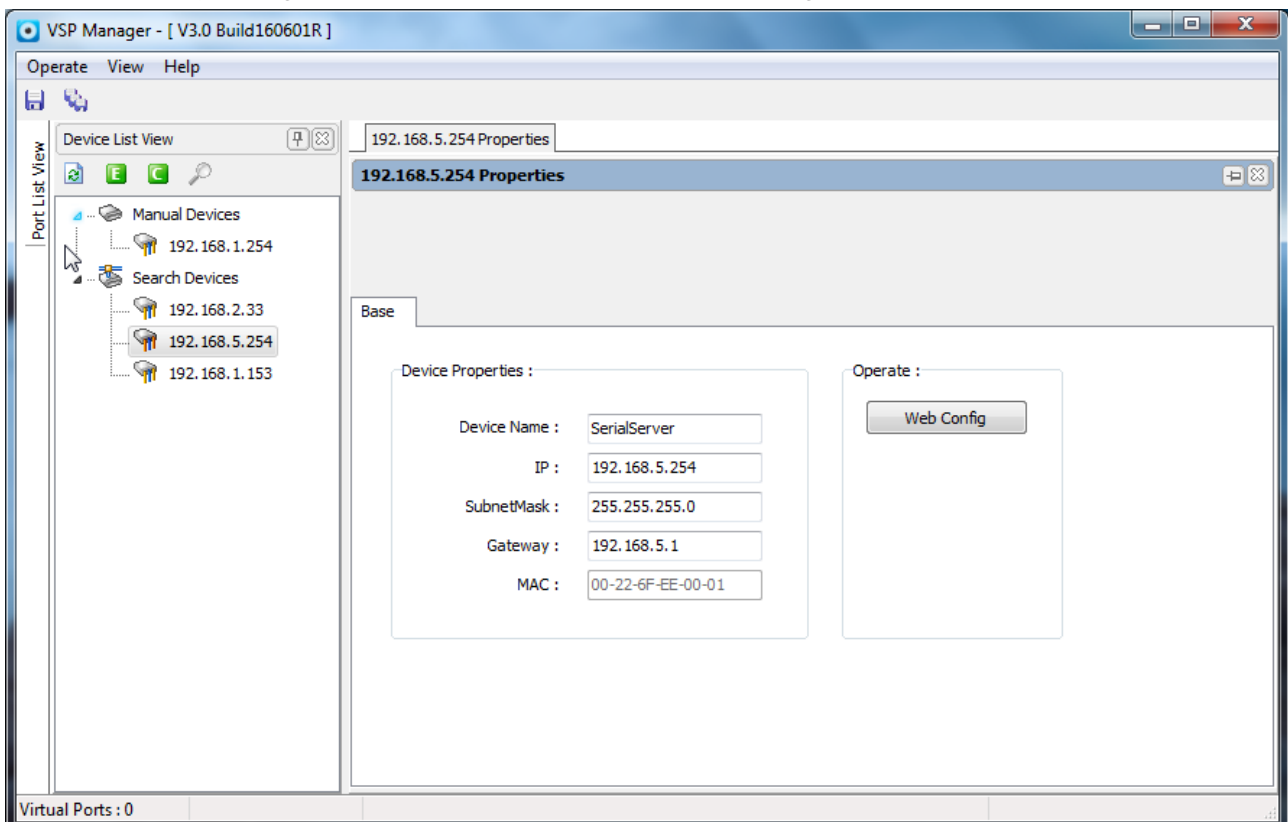
Delete device for manual device and search device, right - click “manual device” or “search device” option to select “remove device”, as shown in figure 2.2.2



(Figure 2.2.2)

### 2.2.3 Modify device information

Double click on the search to the device, the device will pop up the property bar, can change the device name, IP address and other information, to save after the change to take effect. Manually added devices can only change the device name and IP. As shown in figure 2.2.3.



(Figure 2.2.3)



1. When modifying the device IP, please ensure that the device does not create a virtual serial port, otherwise it will cause the serial port due to IP without changing and cannot be used.
2. Change IP can be changed to automatically add the device IP, change not to manually add equipment to the IP, you need to manually change the IP.

## 2.2.4 Configuration interface

Open the WEB configuration interface with the default browser, can just use in the device that already searched. Click “configuration interface” Enter into WEB managed directly, default user name and password is admin, as (Figure 2.2.4).



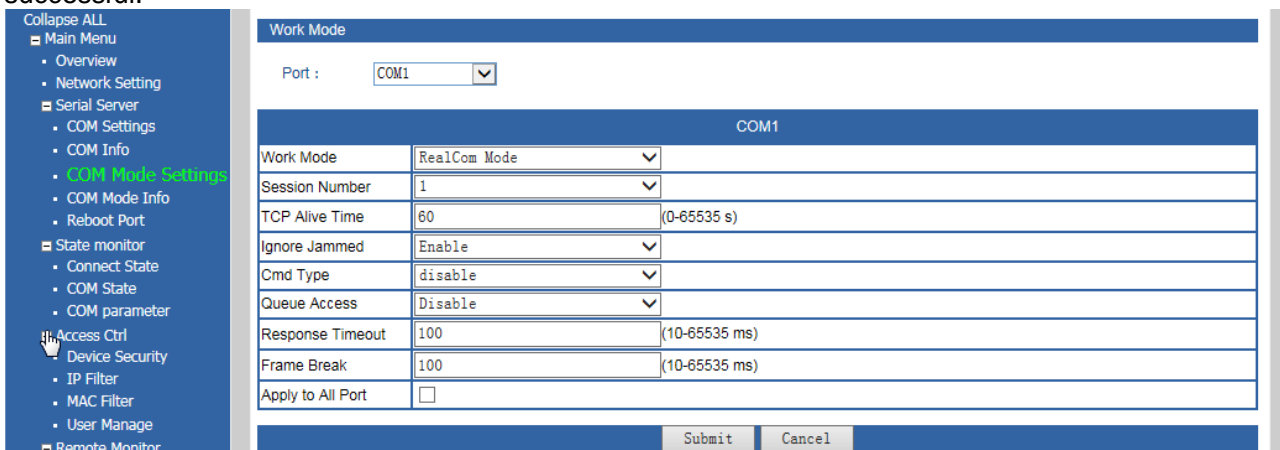
(Figure 2.2.4)

## 2.3 Virtual serial port management

### 2.3.1 Create serial port

Mode configuration

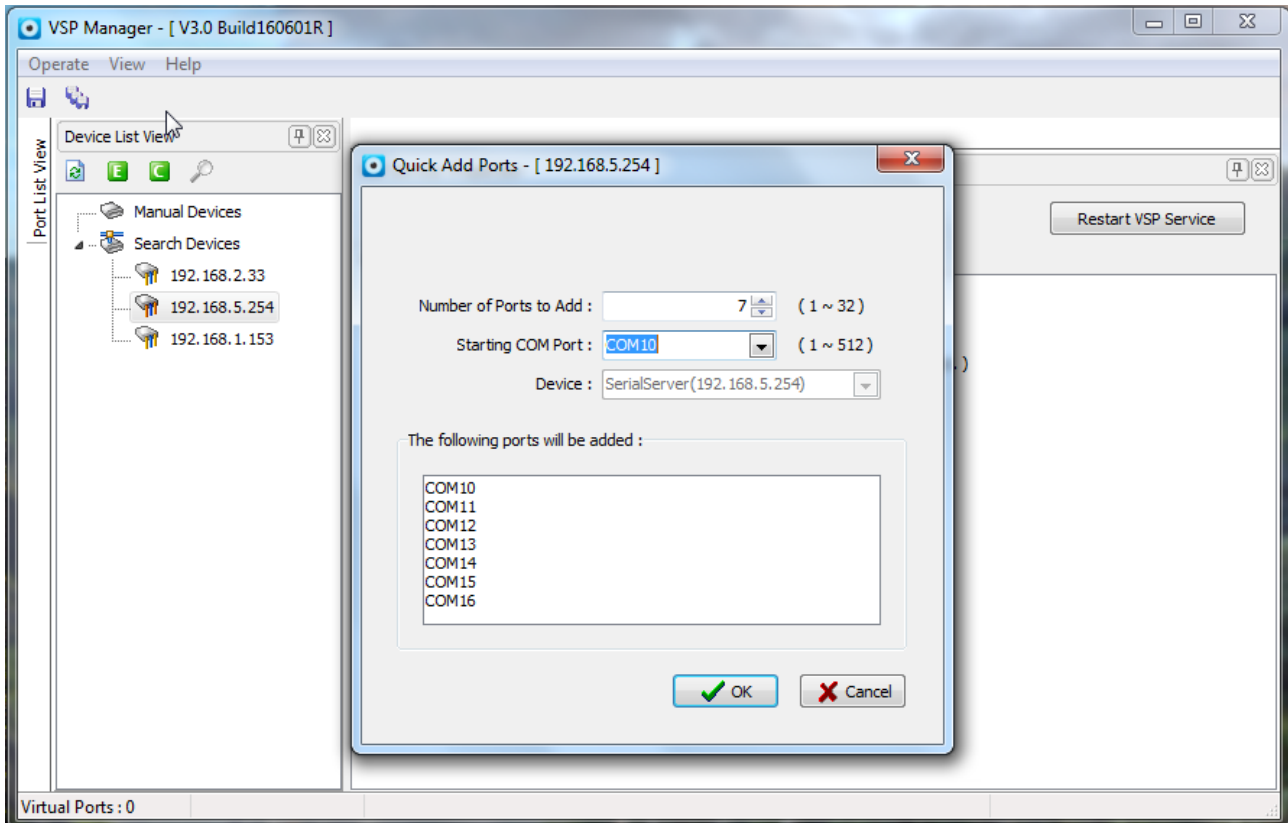
To create a virtual serial port that the device should be the corresponding configuration, the serial device configured to Realcom mode, as shown in figure 2.3.1. Realcom default connection mode is TCP Client mode. Virtual serial port will try to establish a TCP connection with the remote device, if the connection is disconnected, the program will be immediately re connected until the connection is successful.



(Figure 2.3.1.1)

### Virtual serial port

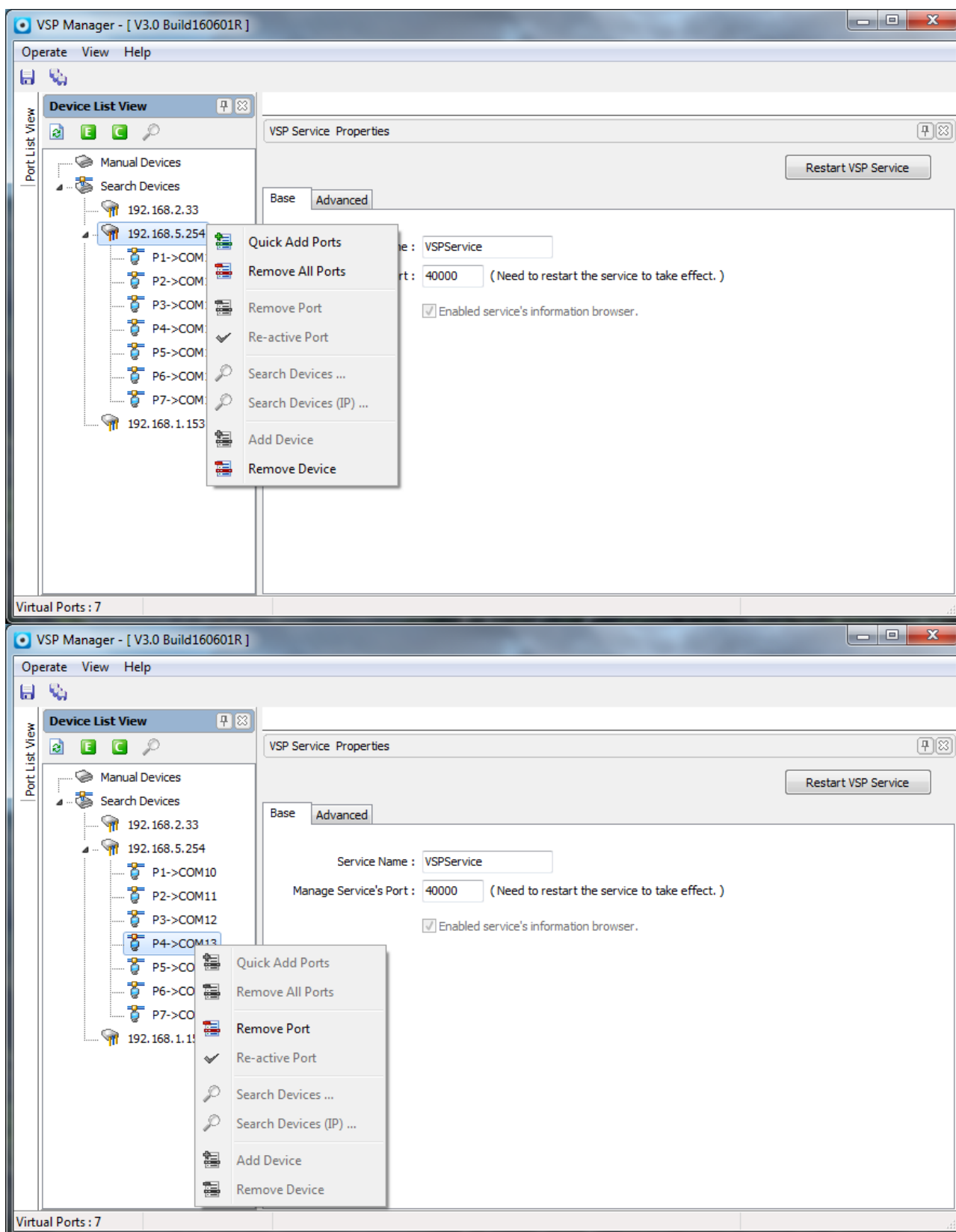
Right click device IP selection to quickly add ports, can create 1-32 a virtual serial port, serial range available for 1~512, serial number from need to create, to create a serial number, serial number listed in the interface, as shown in Figure 2.3.1.2.



(Figure 2.3.1.2)

### 2.3.2 Delete serial port

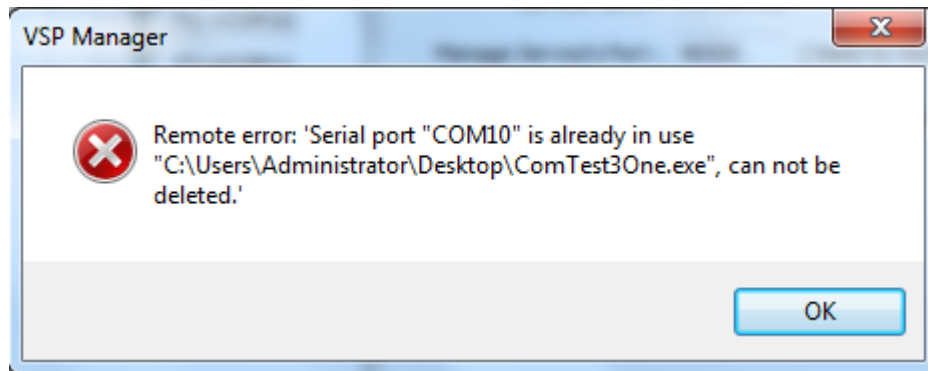
When we need to delete all of the serial port, we can right click device IP and choose “Remove all ports” to delete all serial ports. In this way, only in the all the serial port is not connected that delete port can successes. When need to delete a serial port, we can right click serial port that we want to delete. As shown in figure 2.3.2.1.



(Figure 2.3.2.1)

Note: if the serial port is being used, we cannot delete it, otherwise there will be a prompt. As shown in figure 2.3.2.2.







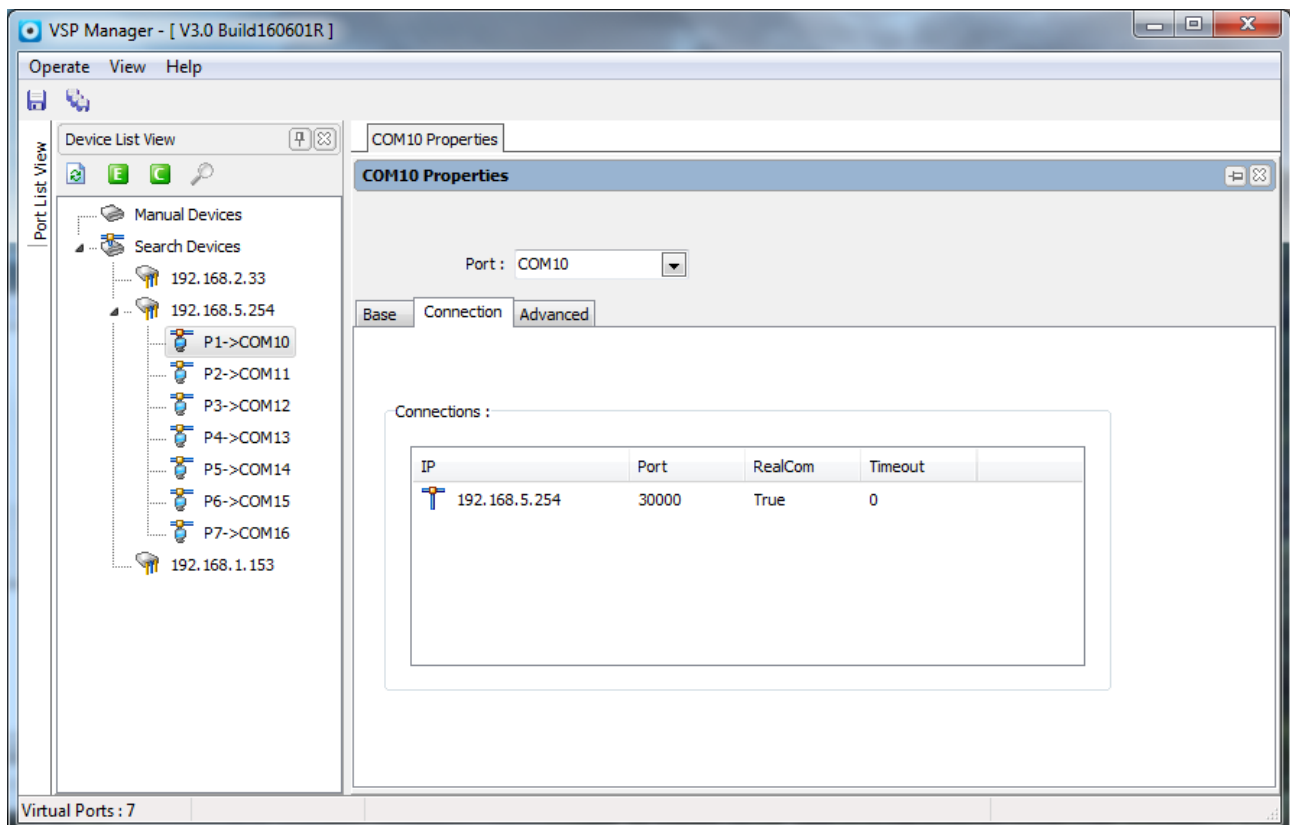
(Figure 2.3.2.1)

### 2.3.3 View virtual serial port parameters

Virtual serial port configuration information

Double click on the need to view the serial port, pop-up Properties menu bar, you can view the serial port's basic information, connection status, advanced parameters and other information. When the serial port is open, cannot be modified, can only view, the interface as shown in figure 2.3.3.

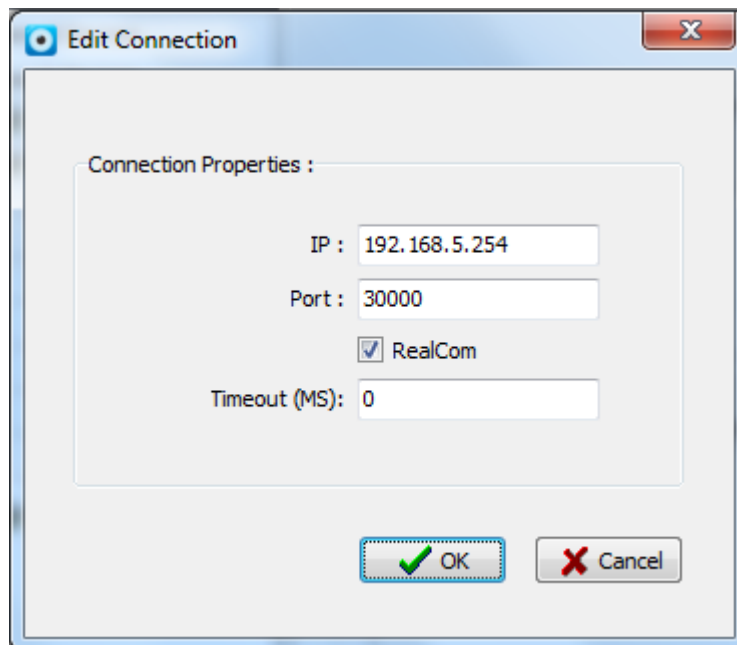
Can view the TCP connection status, if it has been connected, it is connected to the display icon  , if the display icon  indicates that the connection has been disconnected.



(Figure 2.3.3)

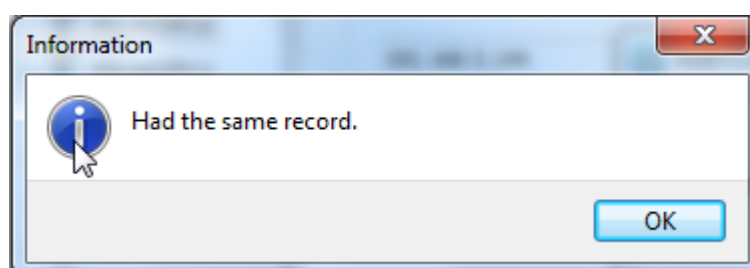
### 2.3.4 Modify serial port parameters

Change serial port parameters. If you want to delete virtual serial port connection, right-click on the existence of a connection, select Delete connection; if you want to modify the connection, right-click and select Modify, pop as the window shown in Figure 2.3.4.1 modification to the current connection; if you want to add connection directly in the space below the right click option to add connection.



(Figure 2.3.4.1)

Due to the connection is disconnected system will automatic and remote devices to re connect, so the system does not allow the existence of both IP and port number are identical to the remote devices, if add a already exists in other virtual serial port IP and port number, the system will give the corresponding prompt, as shown in Figure 2.3.4.2.



(Figure 2.3.4.2)

If you want to change more serial port parameters and advanced options can be the corresponding configuration can be set for virtual serial port opening time, waiting for a network connection time, strict baud rate and keep alive parameters. As shown in figure 2.3.4.3.

The screenshot shows the 'Advanced' tab of a configuration window. It contains three sections: 'DataTrans Properties' with two spinners for wait times (both set to 3000), 'Virtual Serial Port Properties' with an unchecked 'Strict Baudrate' checkbox, and 'Keep alive setting' with a checked 'Send keep alive packets' checkbox and two spinners for keep alive time (30000) and interval (100).

Section	Parameter	Value
DataTrans Properties	Wait for VSP open, the max number of milliseconds (0 ~ 60000)	3000
	Wait for network connect, the max number of milliseconds (0 ~ 60000)	3000
Virtual Serial Port Properties	Strict Baudrate	<input type="checkbox"/>
Keep alive setting	Send keep alive packets	<input checked="" type="checkbox"/>
	Keep alive time (milliseconds)	30000
	Keep alive interval (milliseconds)	100

(Figure 2.3.4.3)

Parameter description:

Waiting for the virtual serial port to open the time: (0~60000)

Waiting for network connection time: (0~60000)

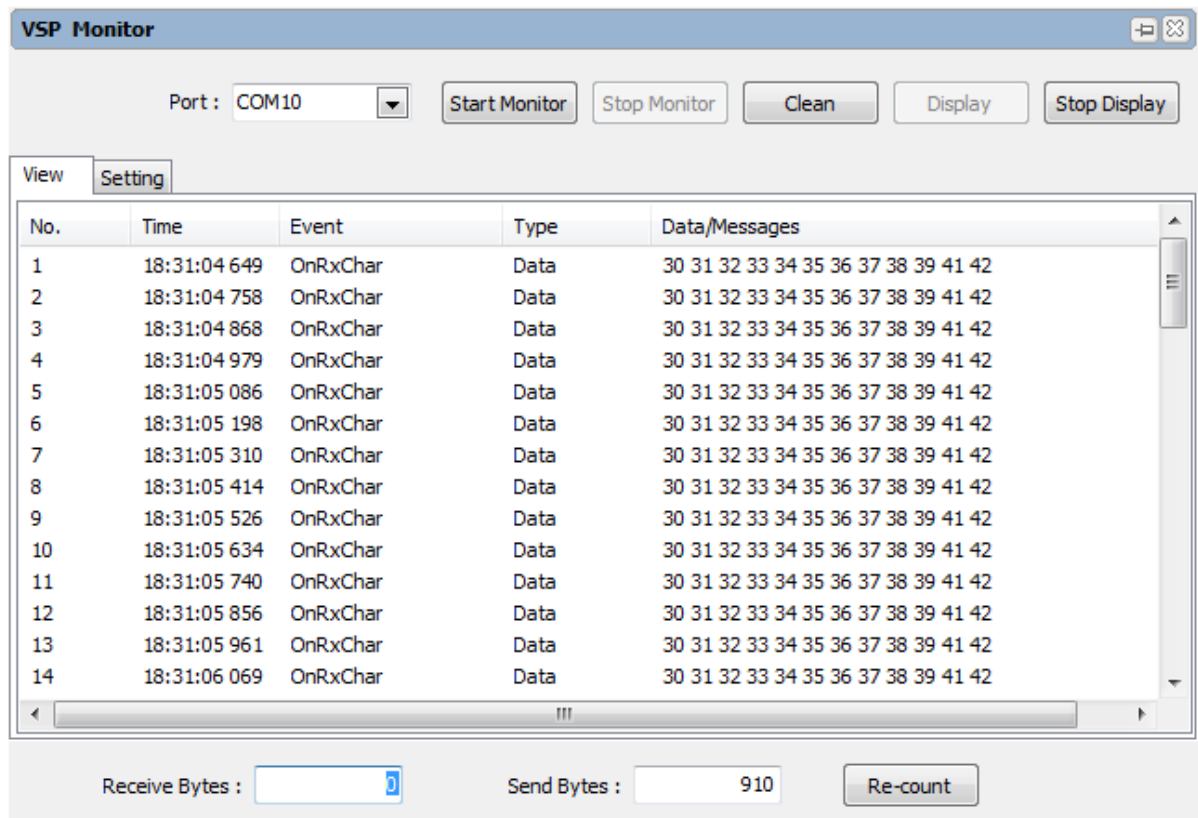
Strict baud rate mode: when to send a one-time than 8192 bytes suggested use strict baud rate model to prevent data unpacking (default). When using multiple serial communication and recommend the use of non strict baud rate model.

Keep alive package: according to set the time interval to send a package, check the status of the device connection, if there is no answer for the 3 time will be disconnected.

## 2.4 Monitor management

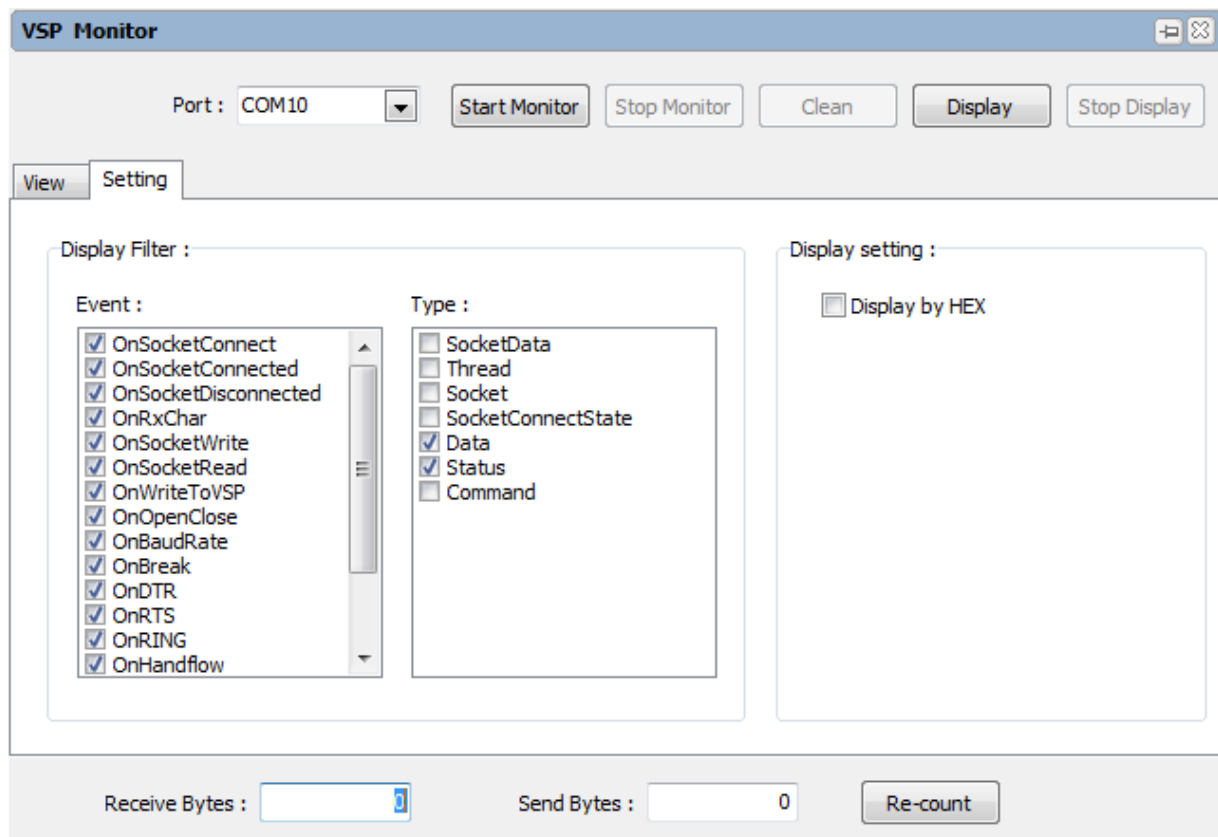
### 2.4.1 Monitor configuration

Click on the menu bar to display, select in the drop down menu bar display “VSP monitoring” option, select the monitor port, click on the button control, and then click “view”, to the monitoring interface such as shown in Figure 2.4.1.1 shows.



(Figure 2.4.1.1)

Select the settings option, the interface as shown in Figure 2.4.1.2, you can choose to monitor the event and type. You can choose HEX or ASCII code to display the character to receive and send data.



(Figure 2.4.1.2)



Monitoring function is used to debug, open this feature will affect the performance of the service, resulting in increased service memory, it is recommended not to use the monitoring function for a long time.

### 2.4.2 Clear monitor information

Click the "clear" button, will all the information of the monitoring, but the count will not be cleared.

### 2.4.3 Re-count

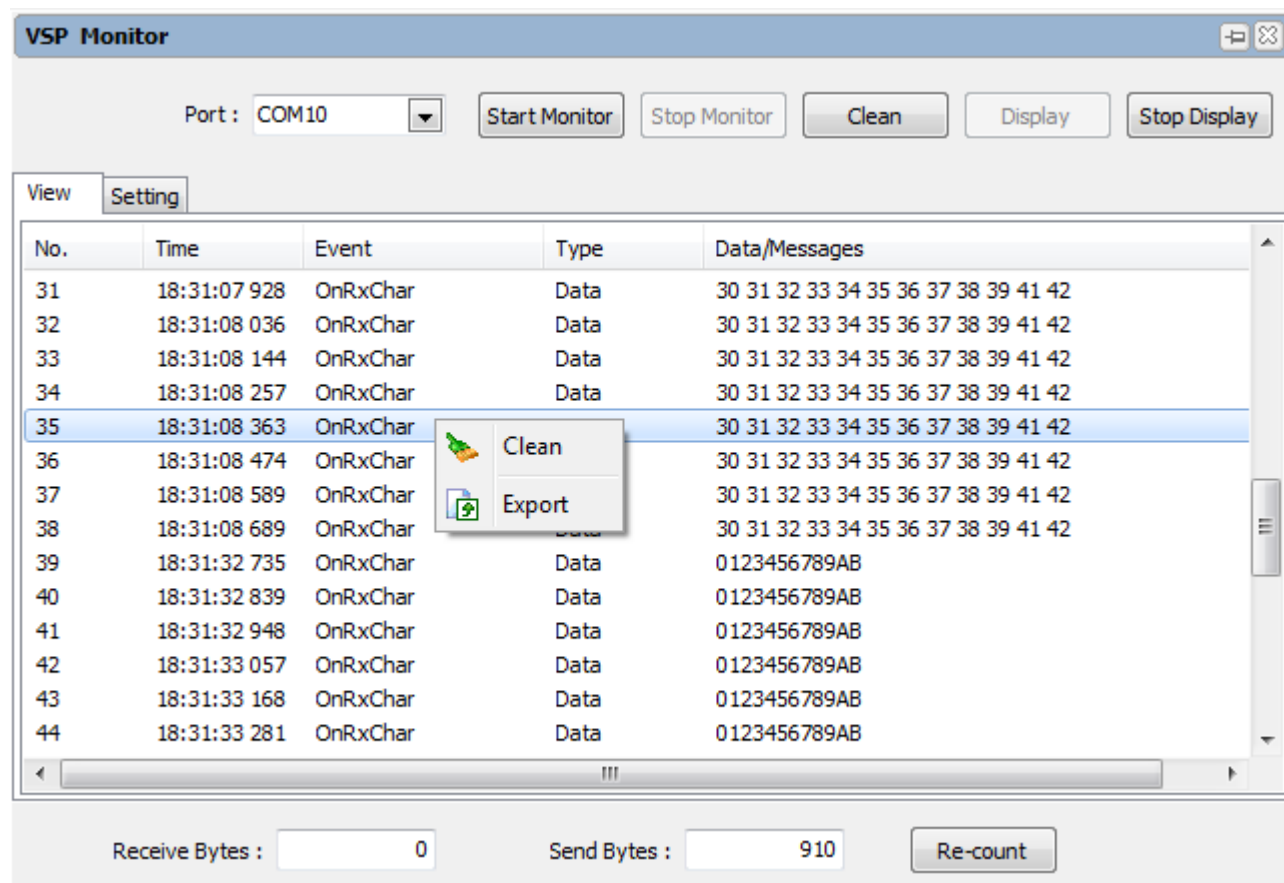
When the monitor is started, the program automatically statistics virtual serial port to receive and send the number of bytes, you can click on the re-count to zero.

### 2.4.4 Display and stop display

When the display is stopped, the program only count receives and sends the data byte of the serial port, and no longer displays the sending and receiving information.

### 2.4.5 Save monitoring information

In stop monitor or stop display state, data displayed in the area right click to display "clean / export" interface, click on the "export" to save the current display monitoring information, select the path to save, in the form of the ". TXT" file save monitoring data. As shown in figure 2.4.5.



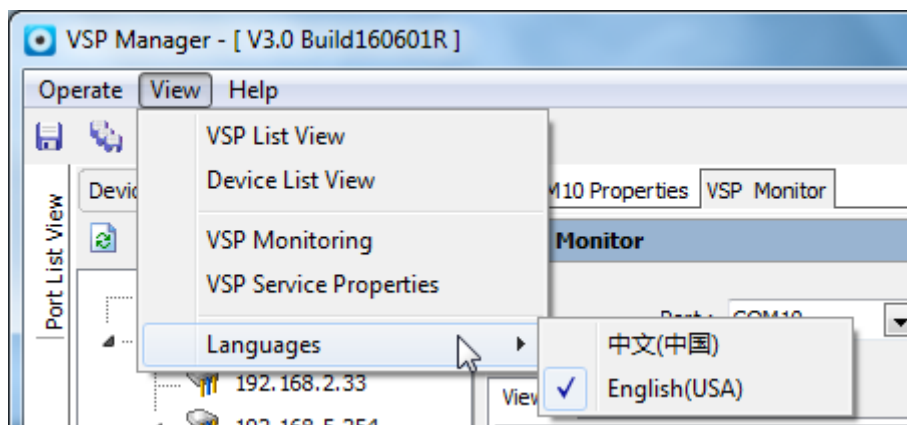
(Figure 2.4.5)



Monitoring is to debug, that will affect the performance of the program, it is recommended to stop monitoring under the normal use.

## 2.5 Language setting

Select the "language" option in the "view" option, which is shown in Figure 2.5. Please select the language you need, and then restart the software interface to take effect.



(Figure 2. 5)

## 2.6 Frequently asked questions (FAQ)

### 1. After the normal setup, why not open the software interface?

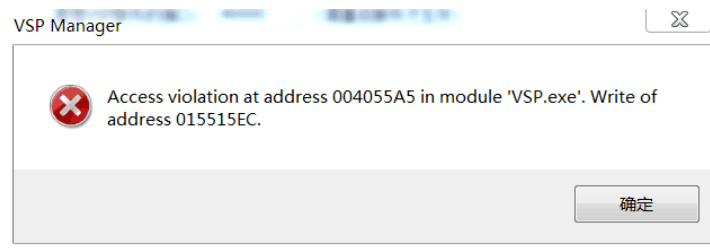
After loading the program, double-click the VSP software shortcut to open the interface of the software, may be due to service is not enabled, here you need to manually in the [Administrative Tools] - [service] - [VSP Service] interface, start service. Service starts to open the software interface again.

May also be due to the server or client port is occupied, check whether other program has occupied the "client 40001", "server 40002, 40000" these port numbers, if occupied please lifting the occupation, if unable to lift occupy please contact us.

### 2. After closing the VSP software, once again open the VSP software prompted "VSP Manager cannot be repeated to start"?

View start task manager process, if there is "vsp.exe \* 32" process is not over, please manually end the "Vsp.exe \* 32" process and then open the client to use.

### 3. Why there will be an error when the normal operation?



When the error prompt similar to the picture shown above is shown, please do it again.

#### 4. Why normal operation will appear "Error 10053", "Error 10054" and other similar tips?

Appear similar to the reasons for the prompt may be caused by abnormal service, in the client interface, click on the VSP service to see whether the normal operation of the client. If again open the client cannot be opened, please go to the "start task manager" check VSP service is normal, if normal service is in the client interface to restart services; if the service does not exist, please [services] interface service can be started.