



These instructions may not be what you need. Refer to pictures for the basic setup that will get you going.

How it all works-

Basically, what happens is that you run an application that acts as a serial to TCP proxy on the host computer, I.E the computer with the scanner connected to a physical com port. The serial data is transformed into TCP data with digibit. That data (in TCP form) is sent to the guest computer, I.E. the computer with the HW virtual com port software. HW virtual com port will create a virtual com port that the scanner software can connect to. Once connected, the data from the virtual com port is sent to the the network port and IP address specified in the options. When the serial to TCP proxy (digibit) receives the data it sends it to the scanner and vice versa. A wireless serial port (in the case of wifi) if you will. So you can literally control your scanner any where in the world. Audio is set up with auto answerer in skype or other voip software.

Self explanatory..

1) Start digibit. Select your com port of which you have the scanner connected. Make sure the speed is set correctly to your scanner's settings. I use 9600 for the speed to insure there won't be errors. Set the socket port of the TCP connection you will port forward. Use a port number of 30000-65000 to insure there won't be any conflicts. I use something like 41300 for the port. If this is only going to be used on the local network in your home, you do not have to port forward anything in the router.

2) On the laptop or the computer that will be receiving the TCP serial data, you will run the virtual com port software called HW Virtual serial Port. This software creates a virtual com port for the scanner software or other application to receive serial data over TCP. That means a laptop that doesn't have a com port can now use scanner software.

Setup of HW Virtual serial Port is as follows:

A) IP address- IP Address is the other computer's IP address you will connect to that has the scanner physically connected to the com port. For example: 192.168.1.200. (Refer to notes) If this was a connection from outside of your network, then port forwarding must be used and the IP address would be your external IP that your ISP gives you. Not your local IP address. Like 72.123.123.444 instead of something like, 192.168.1.200. Keep in mind that if you will use this outside of your network, you should make sure your external IP address never changes and that port forwarding is on and configured properly in the router. See

notes below.

B) Port- There are two port sections. The first is all you are concerned about. The second says, "server port" that one you don't worry about. Enter the port you used in digibit. in the first box. The second will need a port number because the software will complain. Enter anything.

C) Click the settings tab: Here you will make sure "NVY Enable" is checked off and "keep connection" is on. Every option should be unchecked except for the "Connect to device, even if VSP port is closed." Make sure that it is checked off. Hide to tray, Log files, start at windows start up and all the other options are your decision. They are not required to be on for this to work.

3) Firewall- Make sure digibit will allow in/out connections and that HW Virtual Serial Port will allow in/out connections through your firewall's on both computers.

Once all that is done, the first thing you do is click enable in digibit. Now go to the computer that will use the scanner software with the virtual com port and make sure the scanner's software com settings are set correctly. Like the speed, 9600, bits:9, Parity: None, StopBits: None. You may want to set a delay in the scanner software to 60ms or more. I have found sometimes that there are communications errors. This is, I think, primarily due to the computer's processor. Where the virtual serial port software or scanner software may need higher priority. To do this, Open task manager (ctl + alt and del) and right click the process name and set the priority to high. Do not go above that! Now after the scanner software is set up, exit it! Go into HW Virtual Serial Port and click the button, "Create COM." Then open the scanner software. You should have a successful connection to the computer that has the physical com port. Congrats, you now have a wireless serial port. :D

If you create another connection through another IP address, like using SSH, you need to stop then start digibit again. You should also delete and create the virtual com port and restart the scanner software. Always, always create the com port with HW Virtual Serial Port BEFORE you start the scanner software. Starting the scanner software before you create the virtual com port has caused problems. Also, the scanner software may not see any com port to use.

Notes-

To see your computer's IP address, look in the task bar for a little computer and double click it. Click properties, and the support tab. Just IP address is what you after. If the little computer icon is not there, go to "My Computer", on the left click "Control Panel" and find "Network Connections." Click once on the Local area connection icon and look to the left. Your IP address for that computer is there. Your external IP address (the one given to you by the ISP) can be obtained by many web sites, This one will do. <http://my-i-p.com/> (It's at the top).

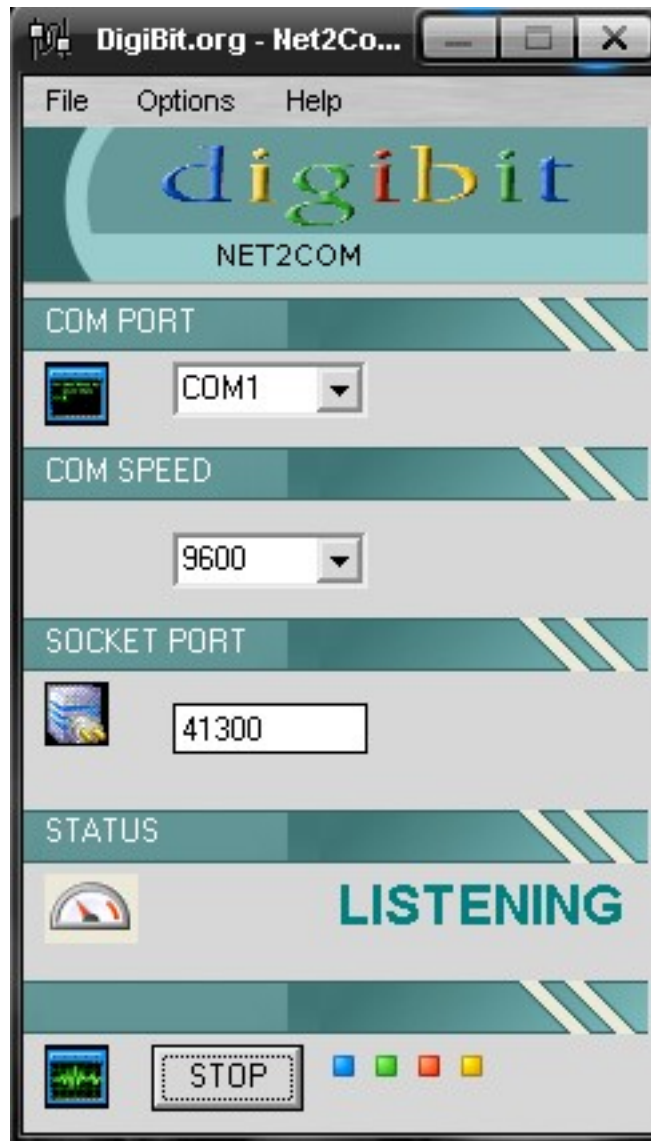
In external applications you may need a small client program that will update your IP address to a DNS service. That way, instead of using your external IP address to make a connection to your modem, you will use a DNS name. Such as comport.dyndns.com So that no matter what your external IP address changes to, your DNS name will always point to your computer.



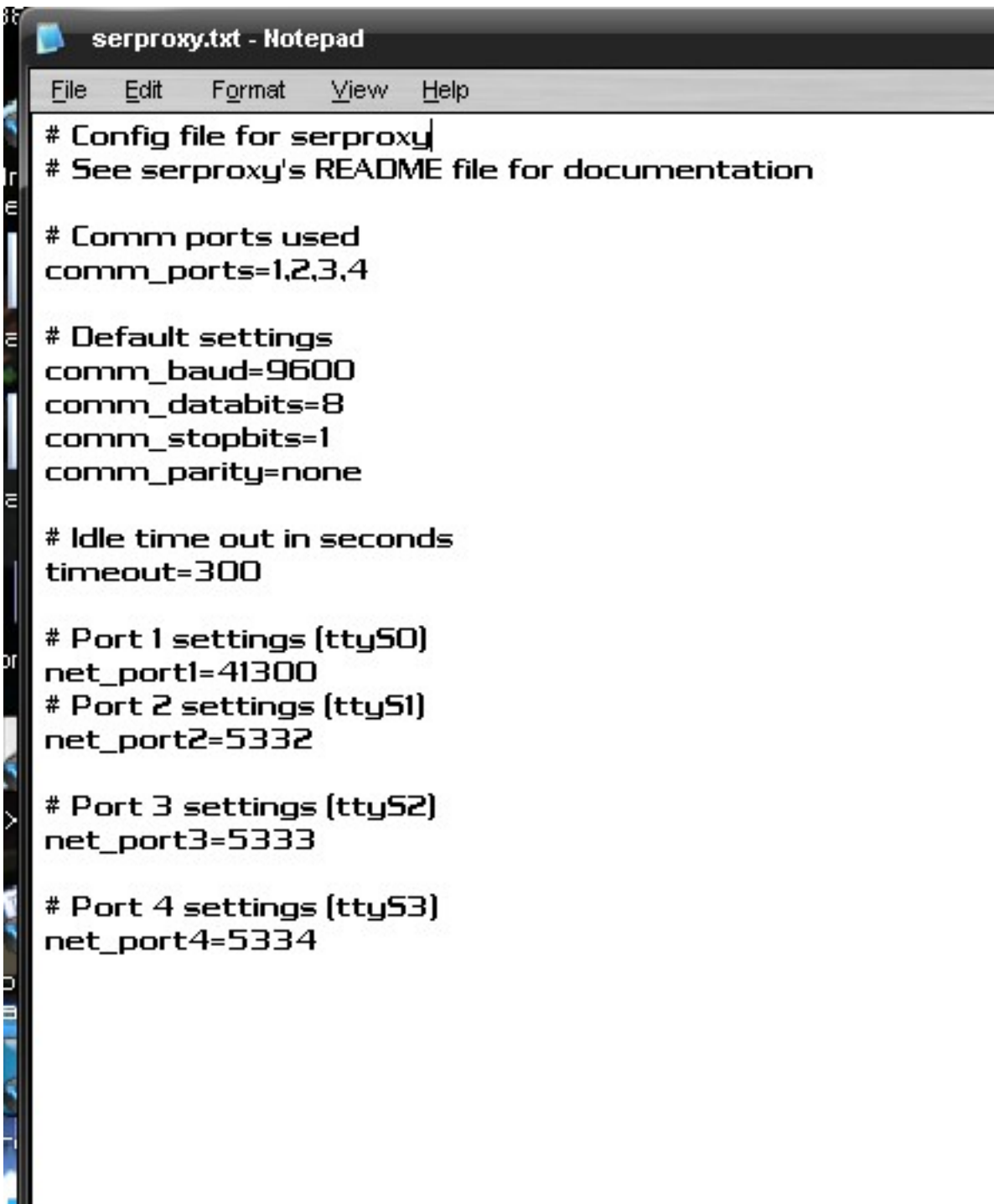
If you have a dynamic IP address, I.E one that changes or want to make sure that if it does change you can still make an external connection, create a free DNS name. <http://www.dyndns.com/services/dns/dyndns/> Then download an update client that you will run on the computer at home that has the digibit application running. <http://www.dyndns.com/support/clients/> This service includes a port number. http://www.no-ip.com/services/managed_dns/free_dynamic_dns.html A website to guide you on port forwarding. http://www.portforward.com/english/routers/port_forwarding/routerindex.htm Find your router and choose a program. Use this as a guide only! Only the port you use for the digibit application and HW Virtual Serial Port is the port you forward to the computer that has the scanner physically connected. One port! Unless you will use more than one scanner or serial interface those will require their own port number.



The digibit application that runs as the proxy



Serproxy is highly customizable



```
# Config file for serproxy
# See serproxy's README file for documentation

# Comm ports used
comm_ports=1,2,3,4

# Default settings
comm_baud=9600
comm_databits=8
comm_stopbits=1
comm_parity=none

# Idle time out in seconds
timeout=300

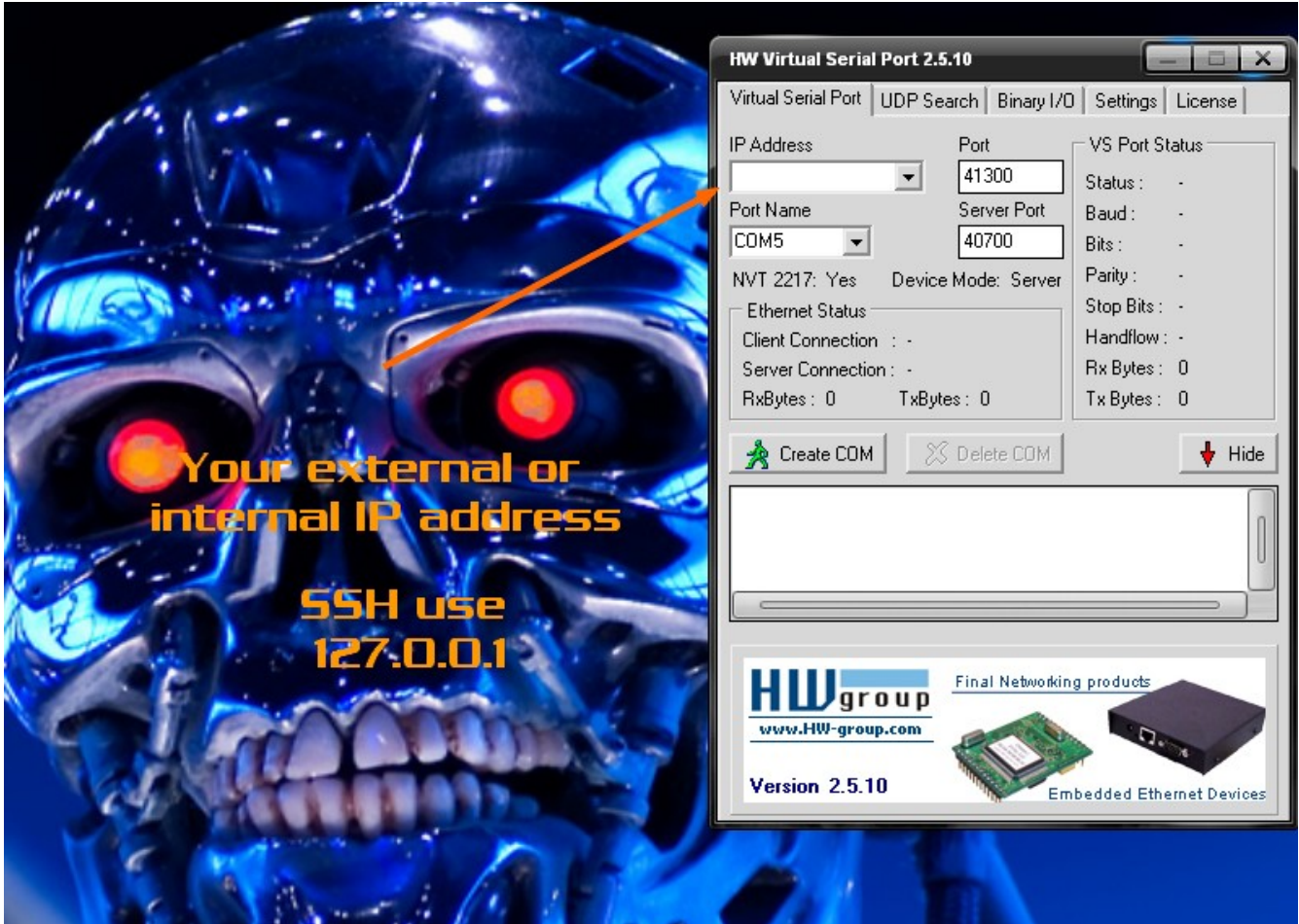
# Port 1 settings (ttyS0)
net_port1=41300
# Port 2 settings (ttyS1)
net_port2=5332

# Port 3 settings (ttyS2)
net_port3=5333

# Port 4 settings (ttyS3)
net_port4=5334
```



HW virtual serial port config.



Your external or internal IP address

SSH use 127.0.0.1

HW Virtual Serial Port 2.5.10

Virtual Serial Port | UDP Search | Binary I/O | Settings | License

IP Address: [] Port: 41300 VS Port Status: Status: -

Port Name: COM5 Server Port: 40700 Baud: -

NVT 2217: Yes Device Mode: Server Parity: -

Ethernet Status: Stop Bits: -

Client Connection: - Handflow: -

Server Connection: - Rx Bytes: 0

RxBytes: 0 TxBytes: 0 Tx Bytes: 0

Create COM Delete COM Hide

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Version 2.5.10 Embedded Ethernet Devices



HW virtual serial port settings

HW Virtual Serial Port 2.5.10

Virtual Serial Port | UDP Search | Binary I/O | Settings | License

TEA Key

1: 3:
2: 4:

Use TEA Auth.

NVT

NVT Enable

NVT Filter

NVT Port Setup

Keep Connection

Log files enabled

HW VSP works as the TCP Server only

Create VSP Port when HW VSP startup

Hide to Tray when HW VSP startup

Don't create VSP Port if Ping to remote device failed

Connect to device, even if VSP Port is closed


Use Ping to keep connection Renew automatically


Reset VSP Port driver when first instance of HW VSP is executing

Virtual Loopback

External NVT commands control remote I/O:




Start HW VSP with Windows startup

 Save Settings Now

 Report VSP Setting

HWgroup
www.HW-group.com

Final Networking products

Version 2.5.10

Embedded Ethernet Devices

