

USB2.0 Super Link **Virtual Network** User Guide

Product Overview

USB2.0 Super Link Cable provides user-friendly linking and networking solution for more than two USB host (PCs/Notebooks) via USB 2.0/1.1 interfaces. Equipped with the function of auto detection and switching between USB High-speed (HS) and Full-Speed (FS), the cable enables the host to run appropriate speed. The built-in single-chip solution, USB2.0 Super Link Cable is developed with unique power management technology and two USB2.0 transceiver/controllers with embedded ping-pong FIFOs, and therefore contributes to the performance maximization of the cable.

This Package provides two software applications **Super Link** for the host to host linking, and **Virtual Network** for the host-to host networking.

Super Link enables end-users to access file in the remote computers thought a simple drag and drop procedure. The software also provides a better solution to overcome incompatibility of the “peer-to-peer” communication thought customized application software. Two independent PC hosts can, thus, easily exchange data or information thought the drag and drop procedure. On the other hand, **Virtual Network**, which is developed to be compliant with NDIS solution, enables a simulation of a virtual LAN among peer-to-peer computer via USB port.

Features

- Conforms to USB 12Mbps & 480Mbps Specification, Version 1.1 and 2.0.
- Single chip solution for host-to-host communication.
- File transfer application software running on Windows 98SE/ME/2000 and Windows XP.
- Suitable for mobile and SOHO environment.
- On-chip 3.3V output.
- Internal power-on reset.
- Power management support.
- Smallest completely integrated solution in the market.
- Only requires a single crystal and small serial EEPROM for full implementation.
- High data transfer rate.
- Support TCP/IP, NetBEUI, IPX/SPX protocols.

Conforms to USB 12Mbps & 480Mbps Specification, Version 1.1 and 2.0.

OS Supports

-The applications & driver runs on Windows 98SE/ME/2000/XP.

Package contents

- 1x USB 2.0 Super Link Cable
- 1x Driver CD (includes User's Manual)

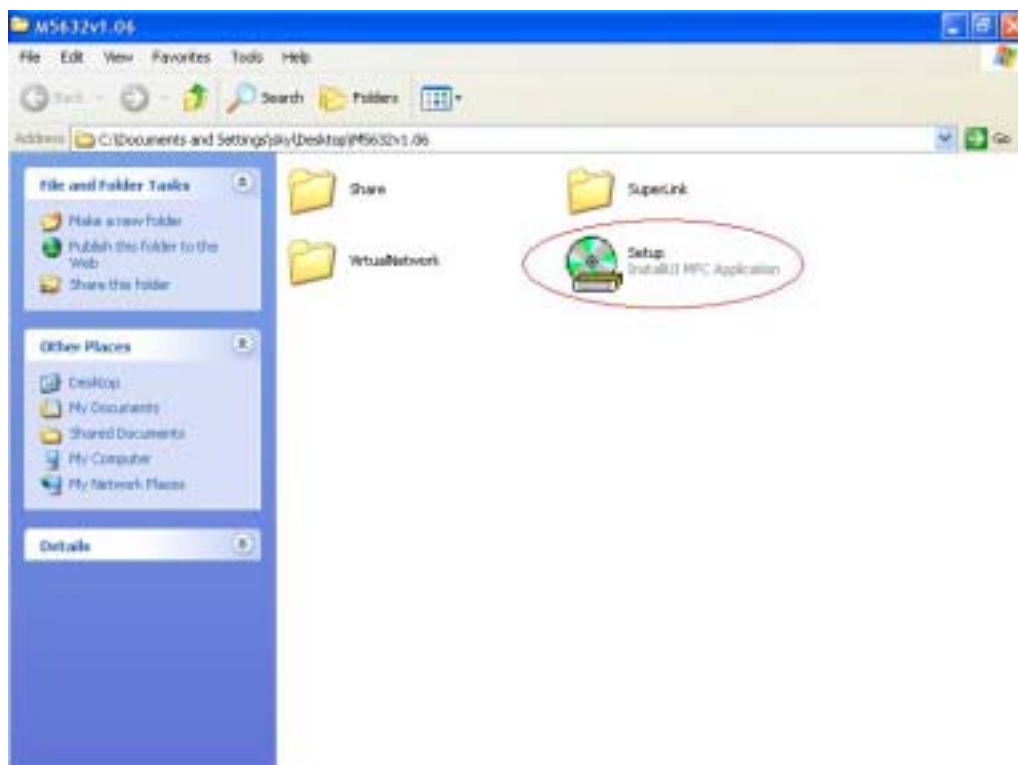
Virtual-Network Hardware installation Win98SE/ME/2K/XP

There are two ways to install the driver

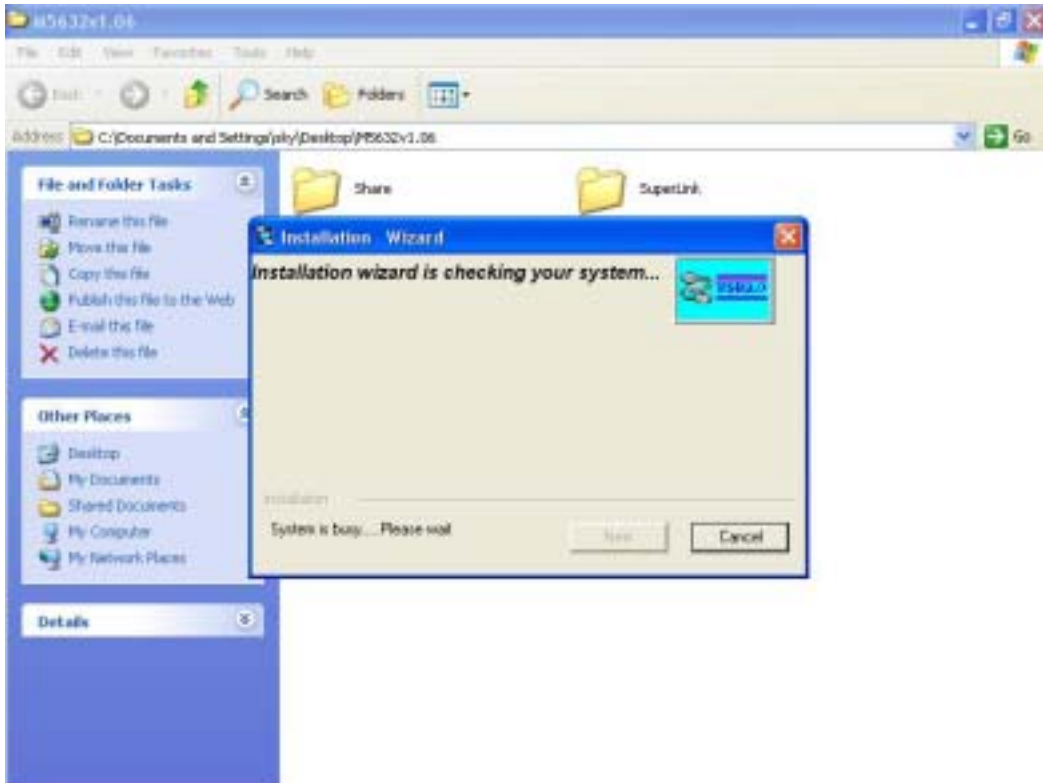
Setup A. Standard setup installation

Note: Please unplug your cable first while install driver

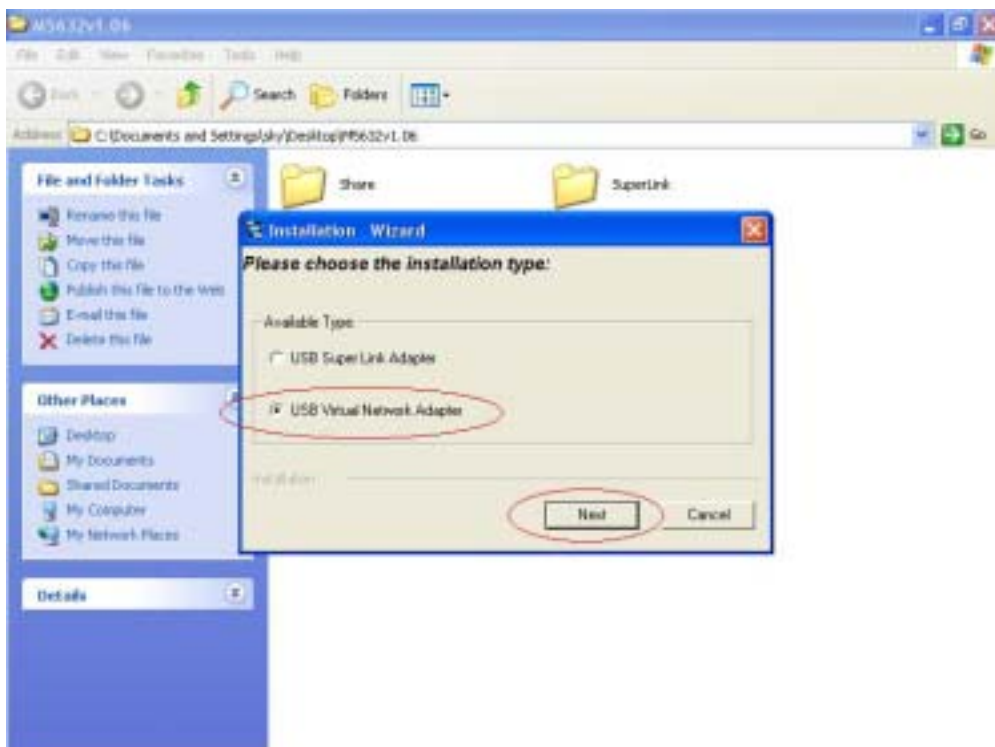
Step 1: From USB2.0 Super Link Driver package, there is a “**setup.exe**” for installing. Please click it then into setup procedures.



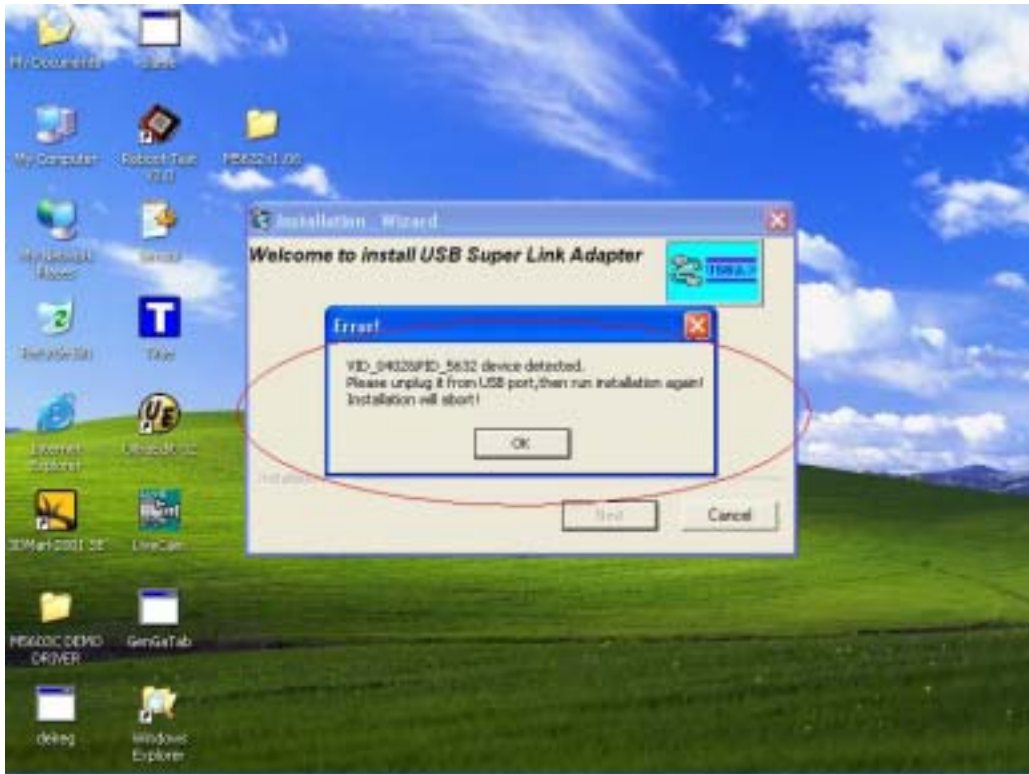
Step 2: Click “**Setup.exe**”, then start to installation steps.



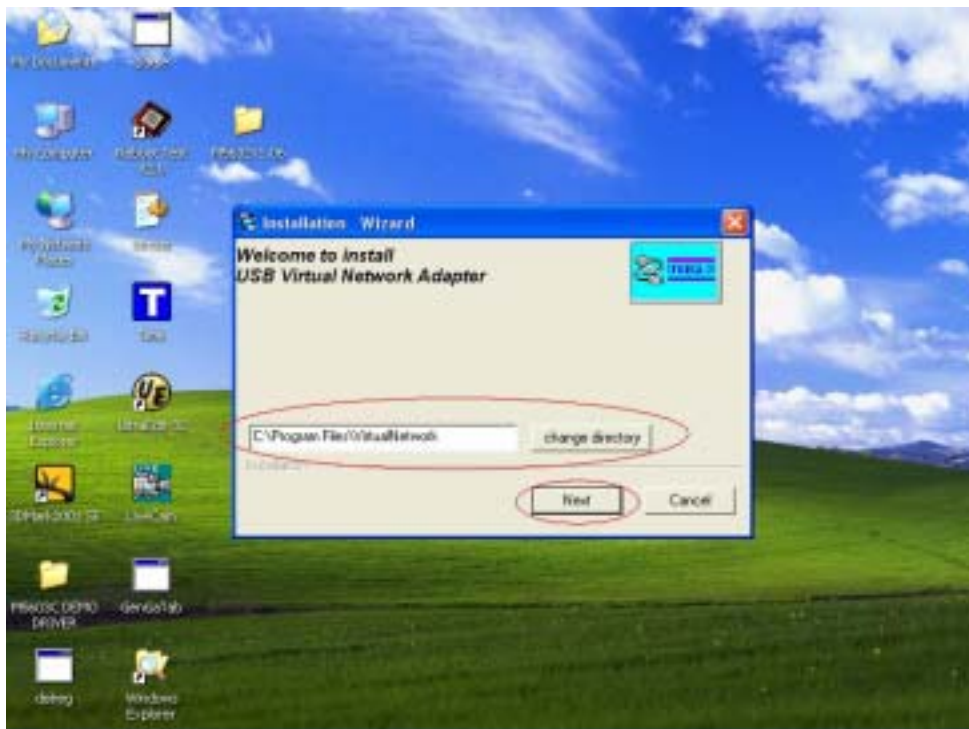
Step 3: There are 2 selections for installing , please select “USB Virtual-Network Adapter” , then click “Next”



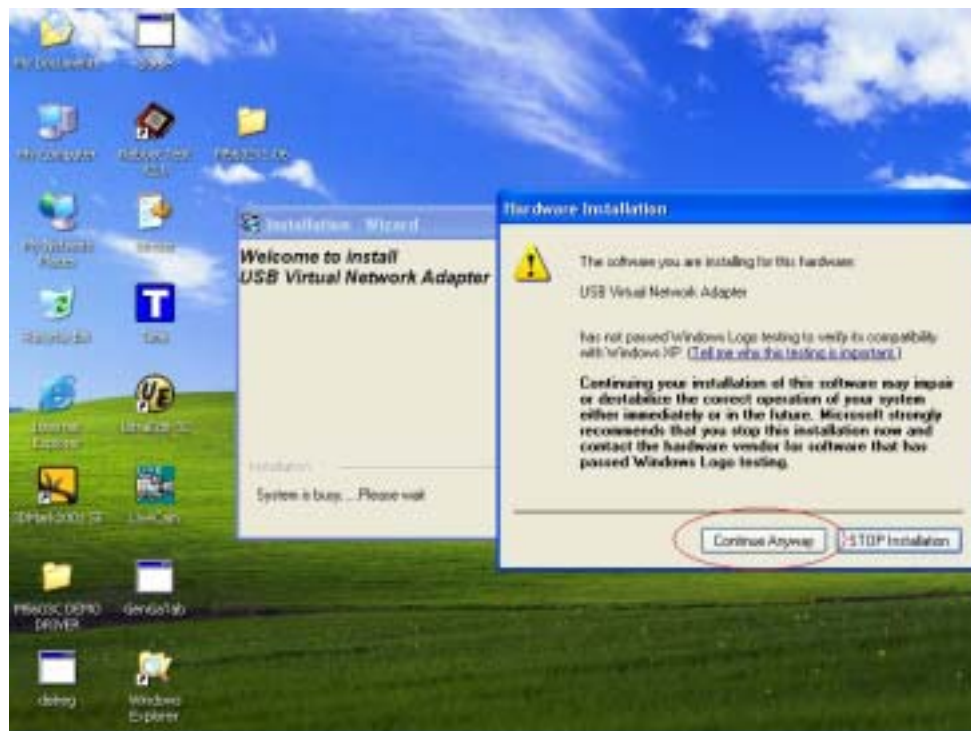
Note : Please unplug your cable first while install driver, or error message would show up.



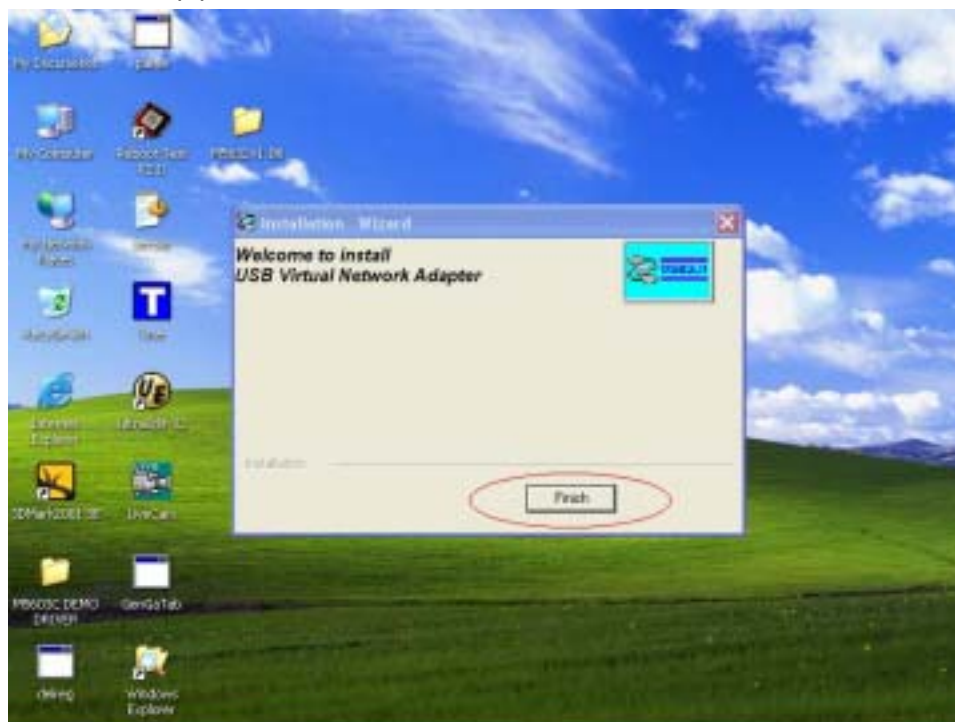
Step 4: Please select the target folder you want to install in or follow default setting, then click "Next"



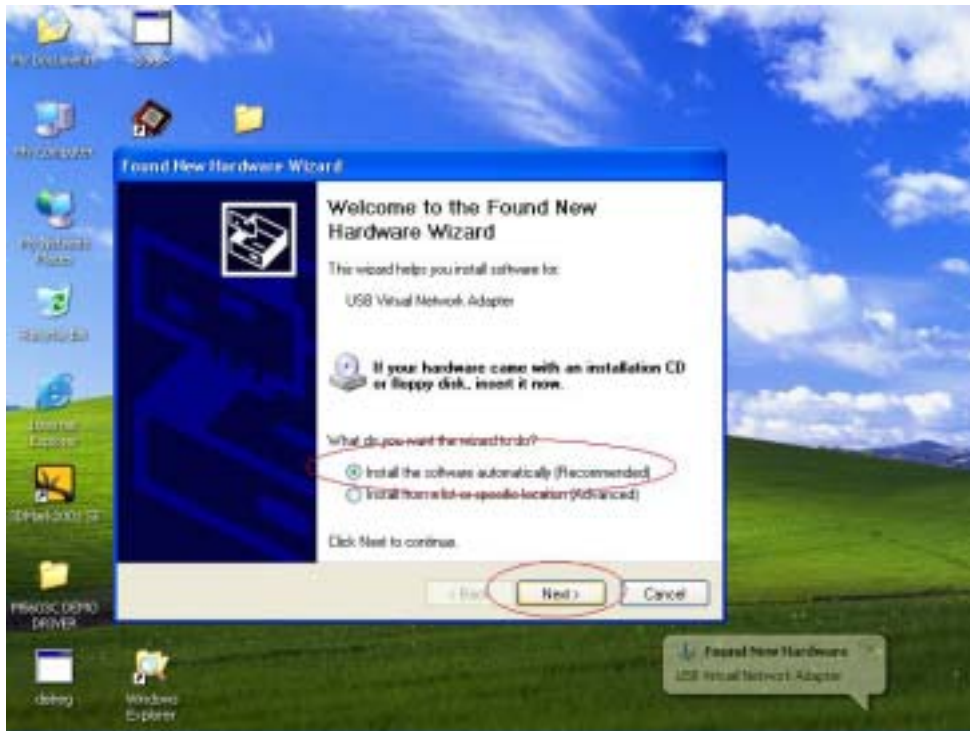
Step 5: In Windows XP system, there will be a software verification requesting windows pop out, just click “**Continue Anyway**”, then continue to install. In Windows 98SE/ME/2K won't have this requesting message.



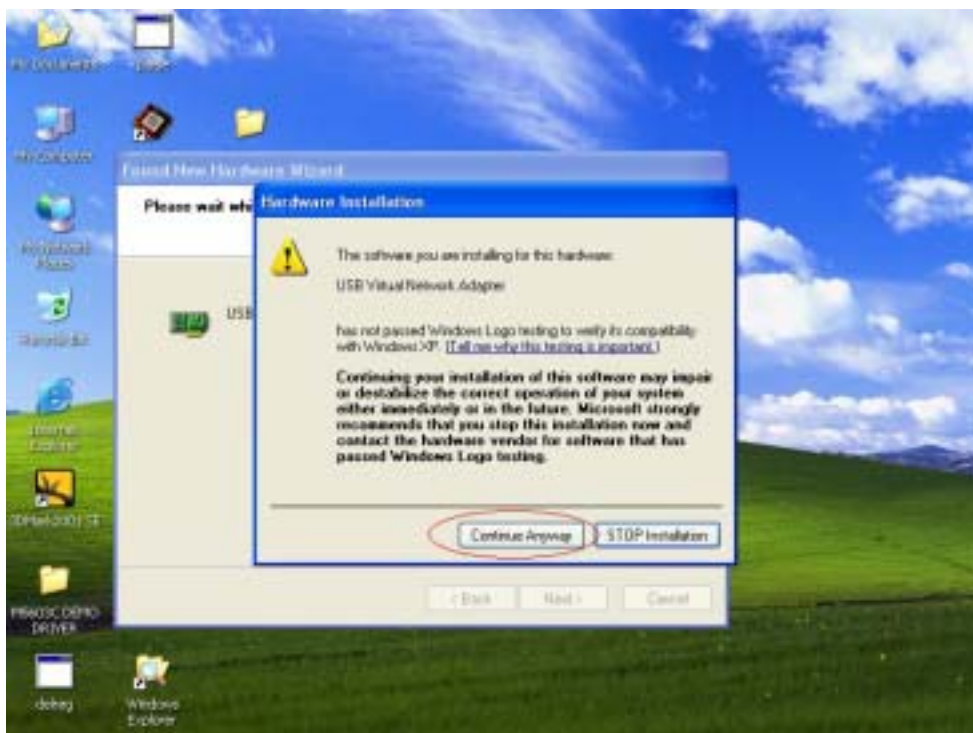
Step 6: Just a few seconds, the completed install windows will pop out, just click “**Finish**” to complete whole setup procedures.



Step 7: Users can plug USB2.0 Super Link Cable in to Host PC, since the necessary components were installed into system, users can just click “**Next**” to let windows auto-search the driver components”.



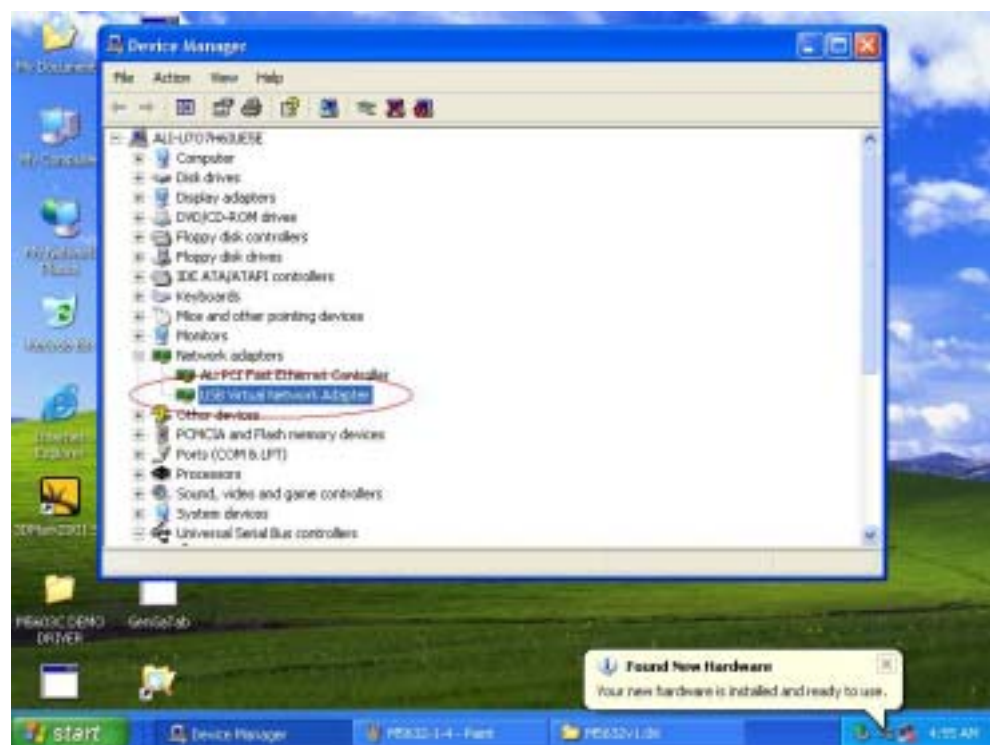
Step 8: Also, in Windows XP system, there will be a software verification requesting windows pop out, just click “**Continue Anyway**”, then continue to install. In Windows 98SE/ME/2K won't have this requesting windows.



Step 9: Just a few seconds, the installation is completed, then press **“Finish”** to completed whole install procedures.

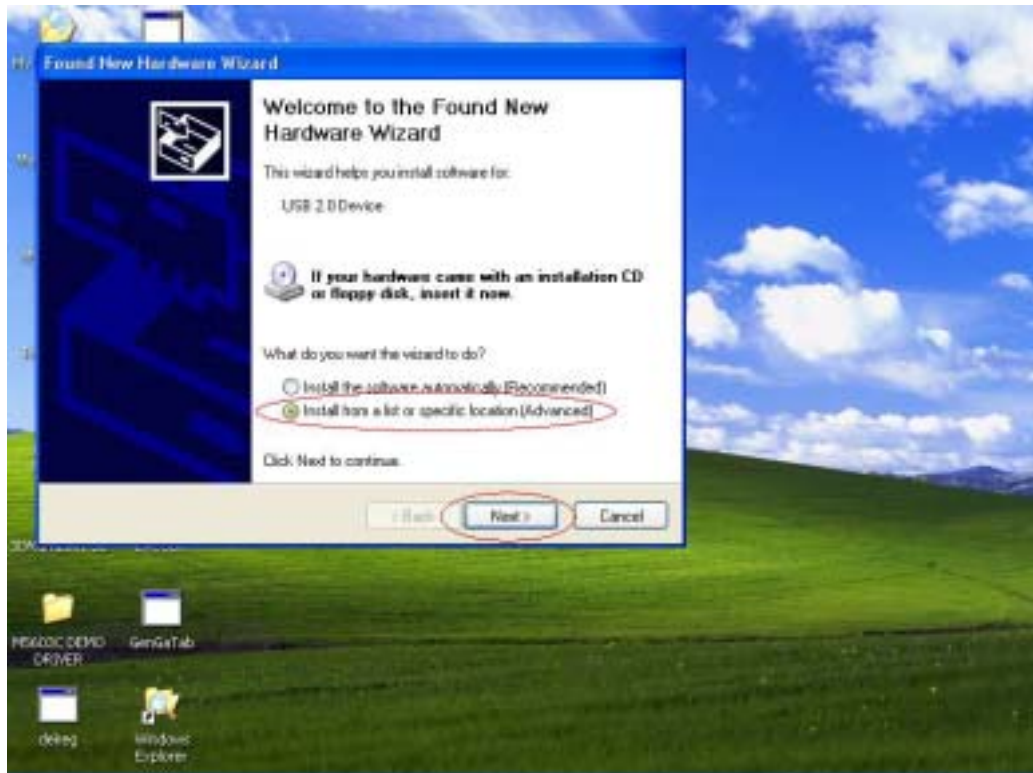


Step 10: To check USB2.0 Super Link Cable whether install succeed, please go to the device manager to find the **“USB Super Link Adapter”** , and the installation is successful.



Setup B. Normal add/remove hardware installation.

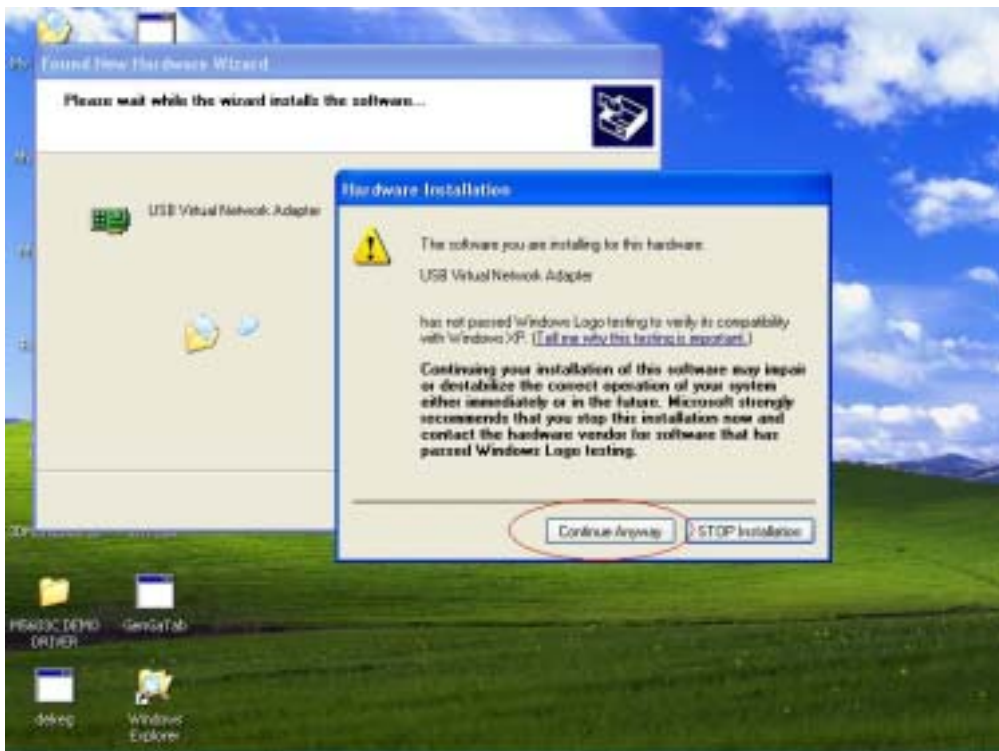
Step 1: Plug the Virtual-Network cable into host first. When the “**Found New Hardware Wizard**” opens, please select the “**Install from a list or specific location (Advanced)**”, then click “**Next**”.



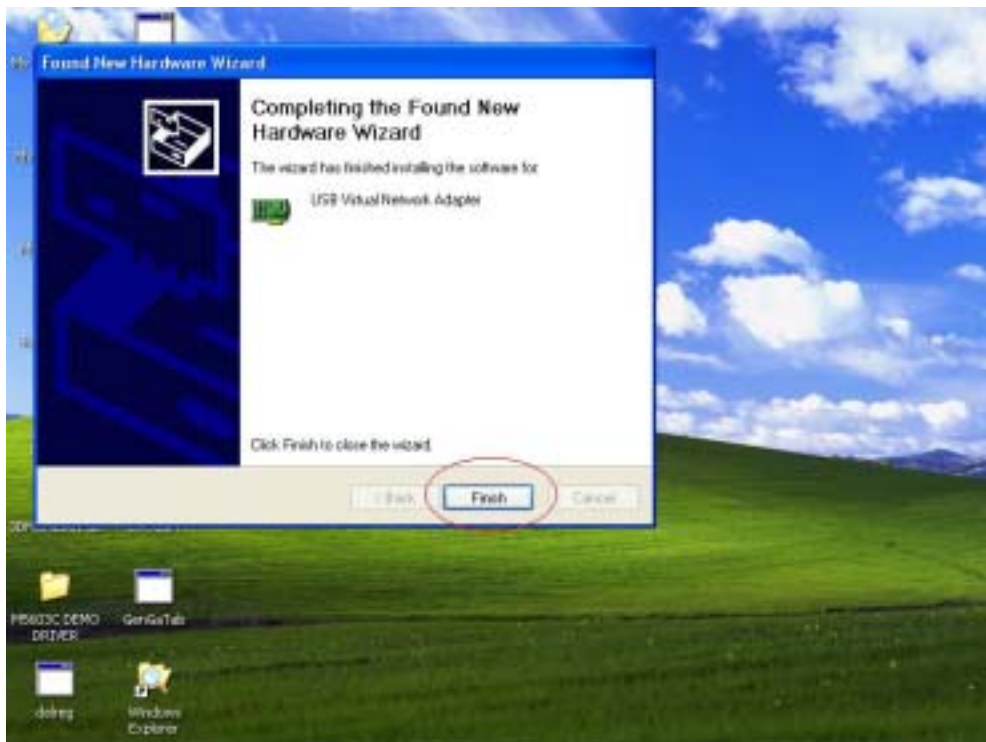
Step 2: Select the correct source file location and click “**Next**”.



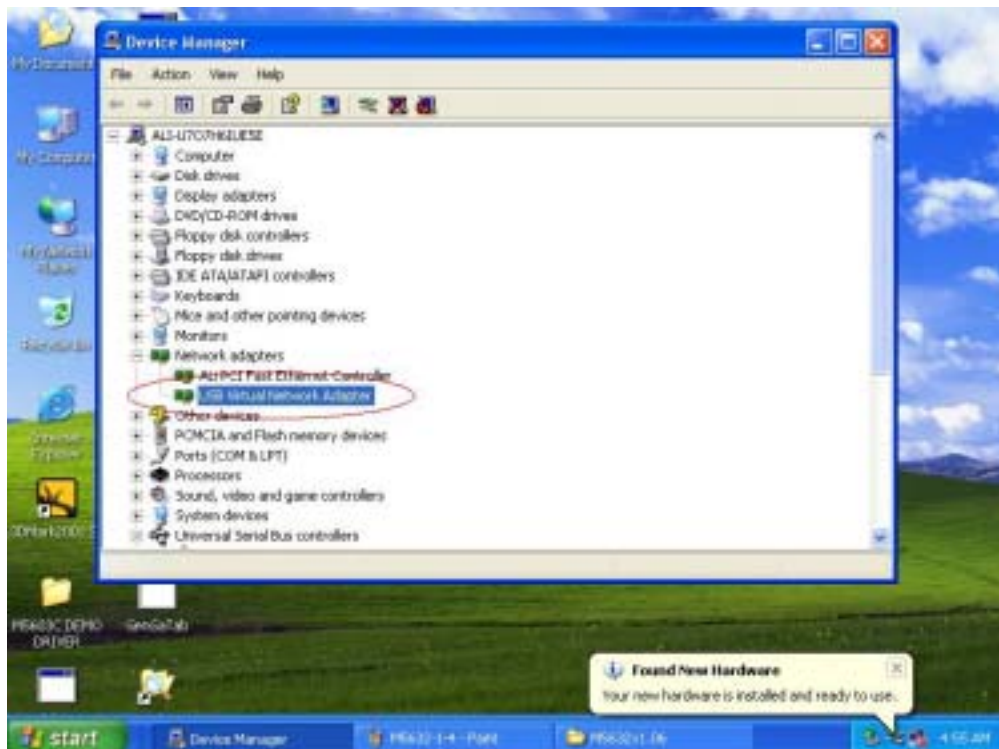
Step 3: Also, in Windows XP system, there will be a software verification requesting windows pop out, just click **“Continue Anyway”**, then continue to install. In Windows 98SE/ME/2K won't have this requesting windows.



Step 4: Just a few seconds, the driver is installed completely, and click **“Finish”**.



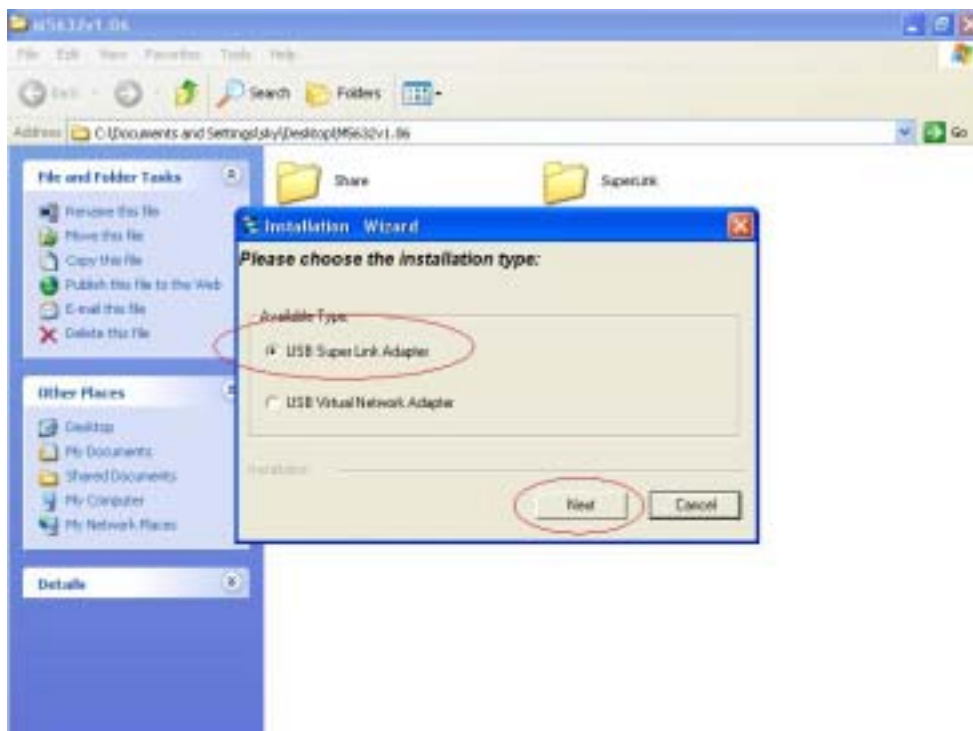
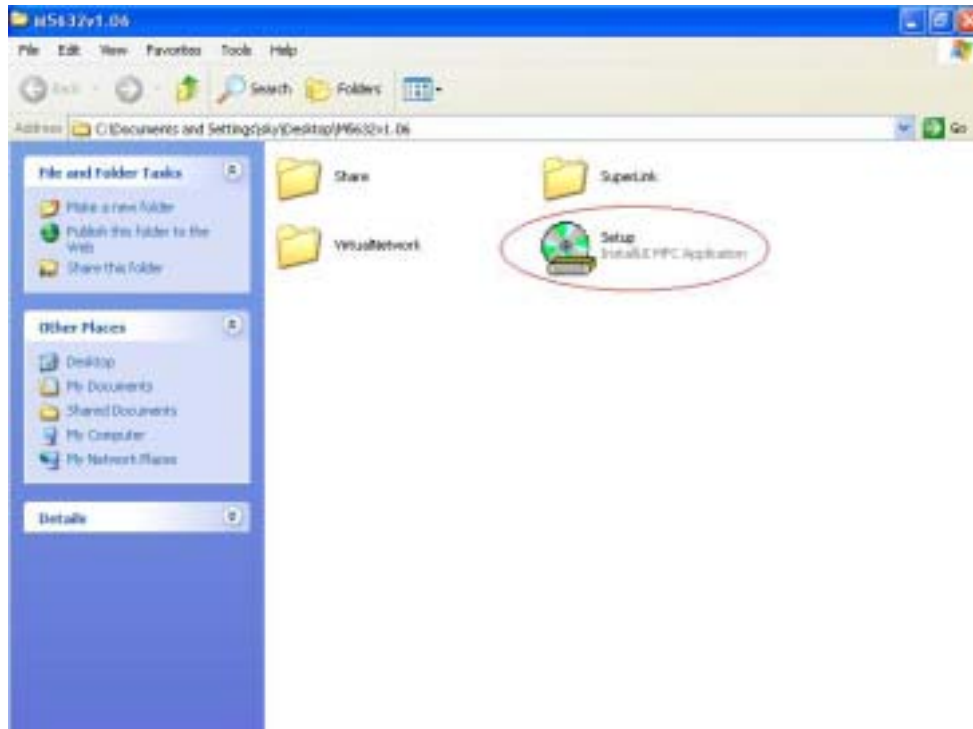
Step 5: To check USB2.0 Super Link Cable whether install succeed, please go to the device manager to find the **“USB Virtual-Network Adapter”**.



Note : How to switch to Super-Link mode from Virtual-Network

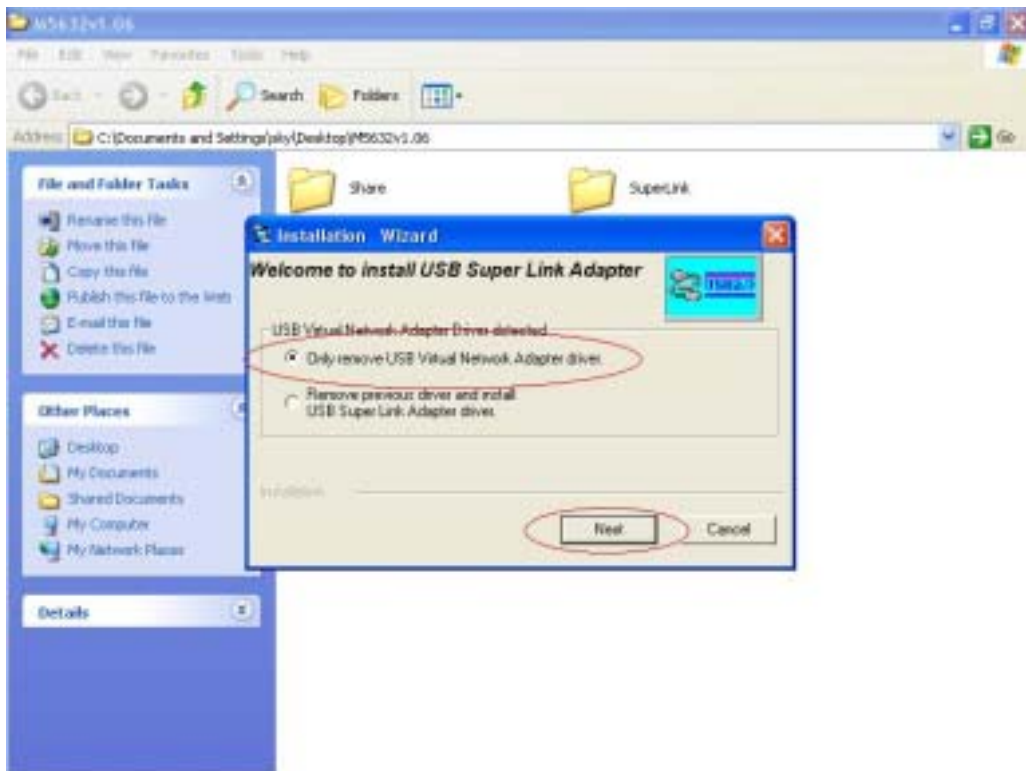
Since USB2.0 Super Link Cable support multi-functions by different driver, user can switch **Virtual-Network** to **Super-Link** via driver exchanging.

Step 1: Click **Setup.exe** first, and select menu will pop out, select the “USB Super-Link” item, and click “**Next**”.

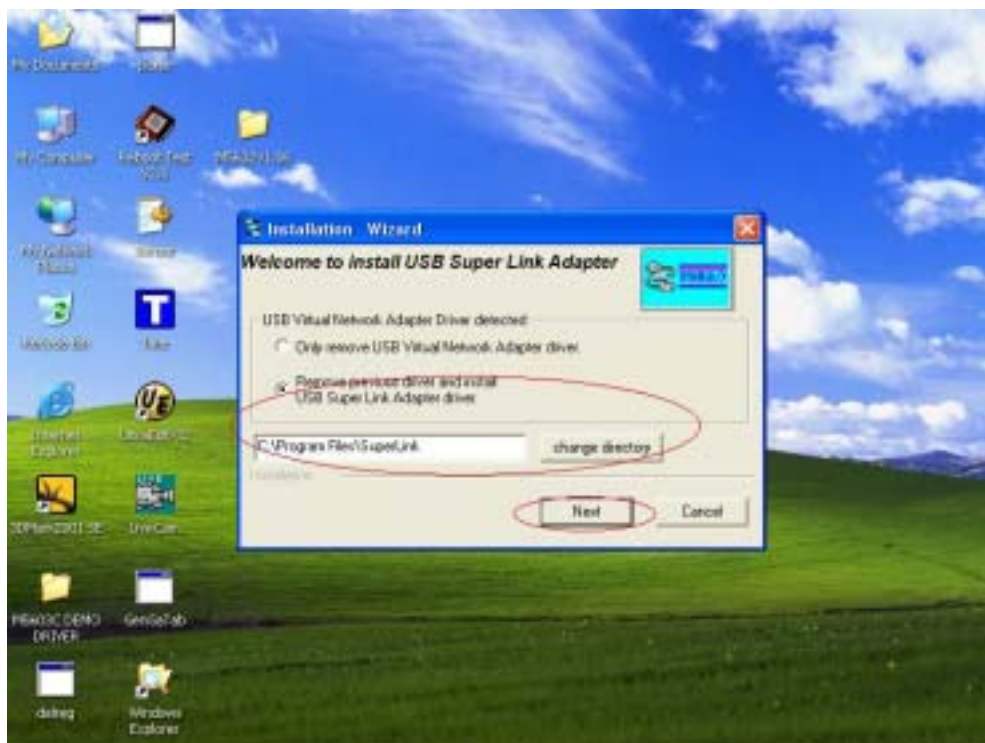


Step 2: User can select only remove **Virtual-Network** driver or install **Super-Link** driver.

Option 1: Just remove driver.



Option 2: Or install another driver : Super-Link driver, and fill in the target folder or follow up default setting. Click **“Next”**



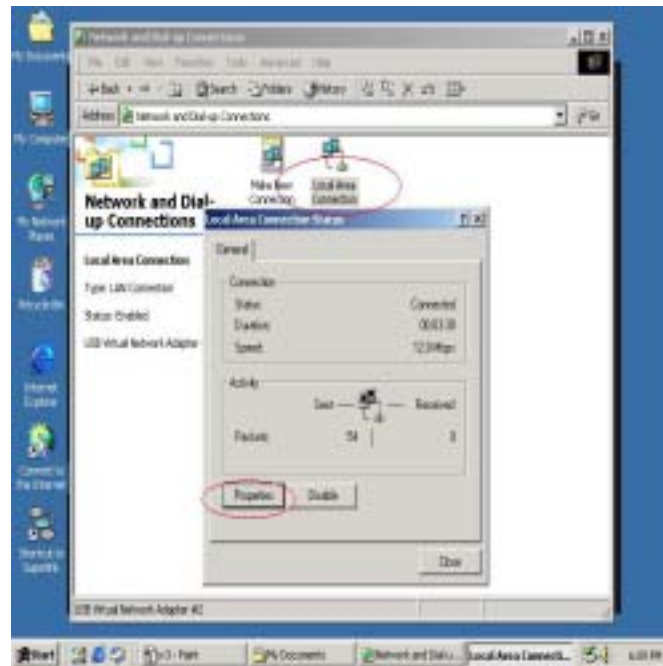
Also, just wait a few seconds, and the driver is uninstalled or switched to Super-Link.

Virtual-Network software application setting

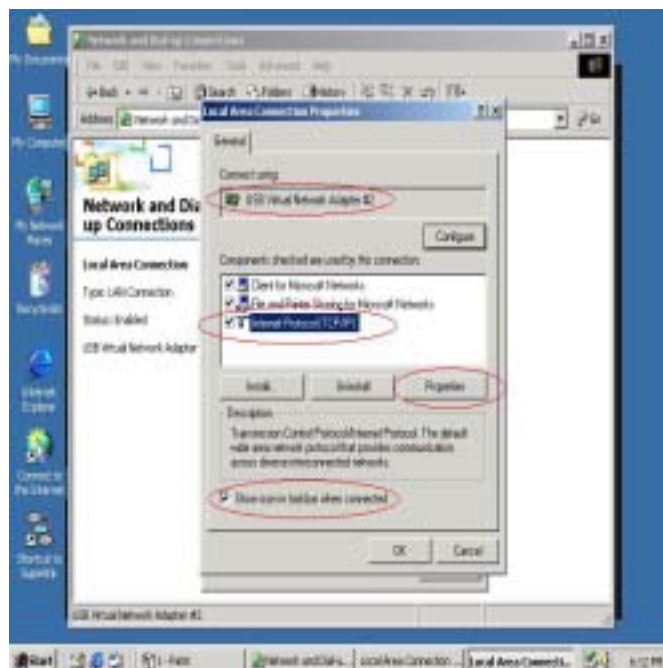
Peer-to-Peer File-Sharing with Virtual-Network connection. (For Windows 98/ME/2K/XP, both sides setting are the same)Steps by Steps to enable Internet Connection sharing on a network connection:

A. Manual IP addresses setting.

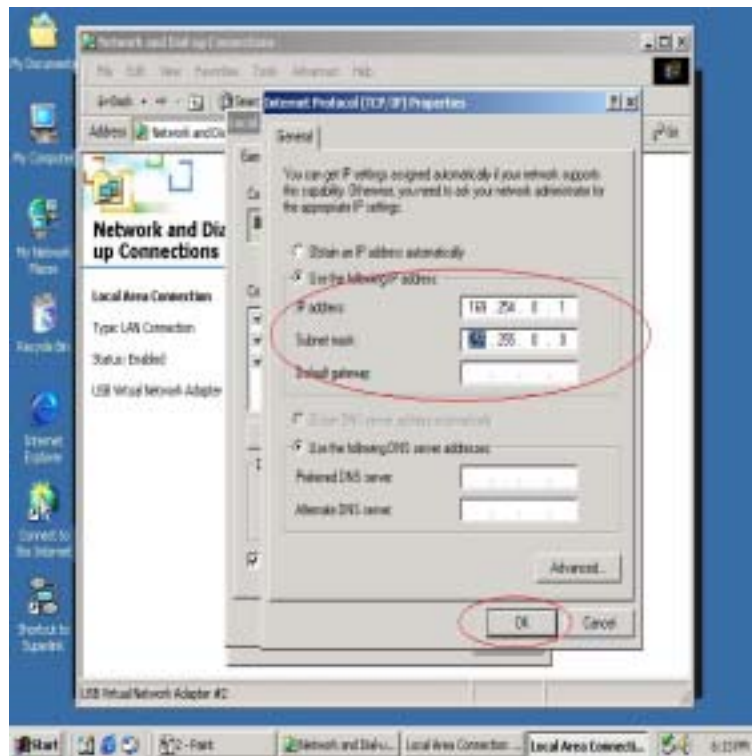
Step 1: Open Network Connections (Click **Start**, clicks **Control Panel**, click **Network** and **Internet Connections**, and then click **Network Connections**).



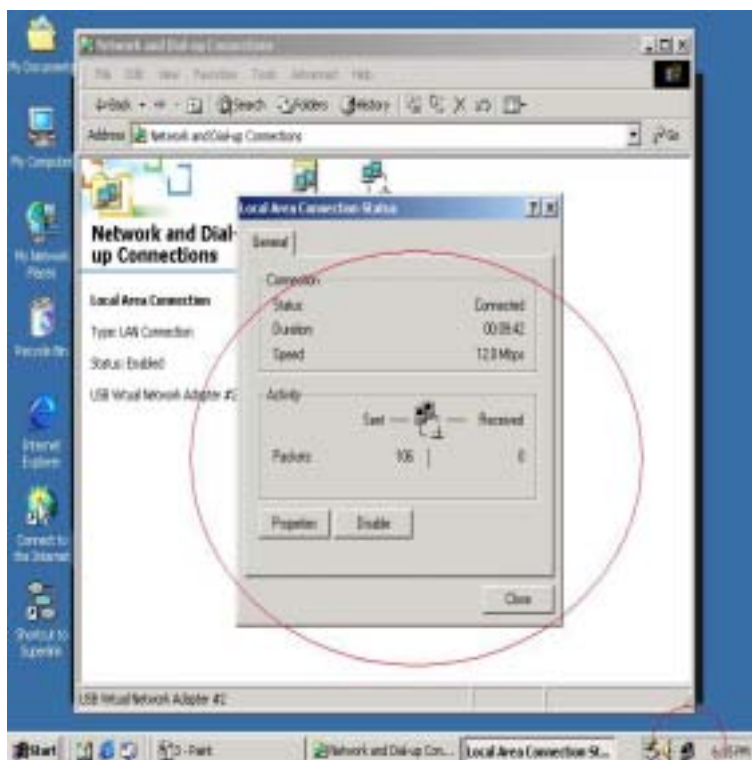
Step 2: Select "Internet Protocol (TCP/IP) ", and click "Properties".



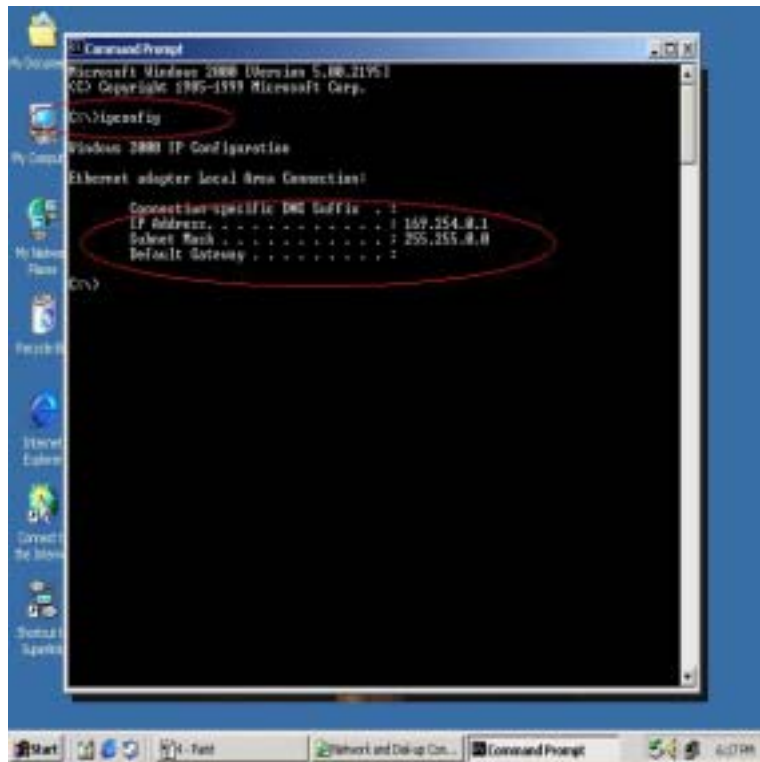
Step 3: Fill in default IP address value : "169.254.x.x", and click "OK".



Step 4: User can check the connection information to verify whether IP address is settle done.



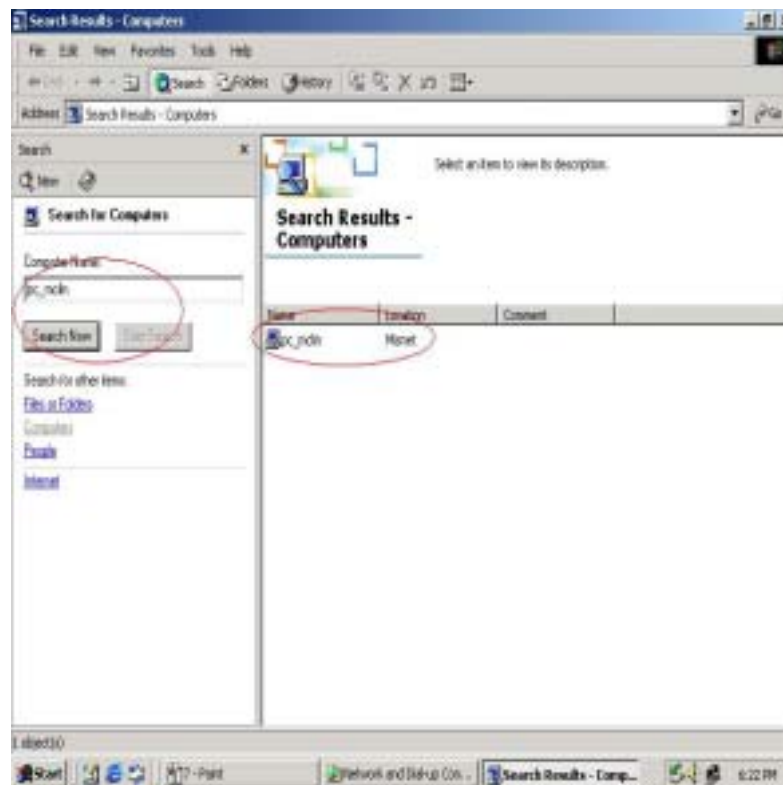
Step 5: Or use windows command prompt : "IPCONFIG" to check the connection status.



Step 6: Another connection of Virtual-Network setting in another computer is the same. User can use "My Network Places" and "Search for computer" to find the connected computer.



Step 7: Fill in the computer name to search target computer in the network.

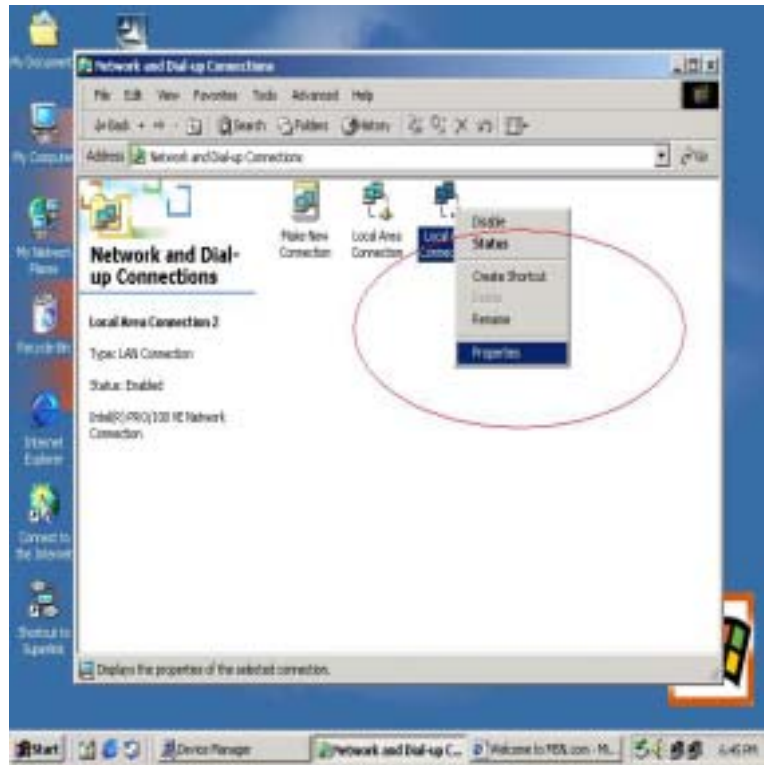


B. Auto-detected IP address setting

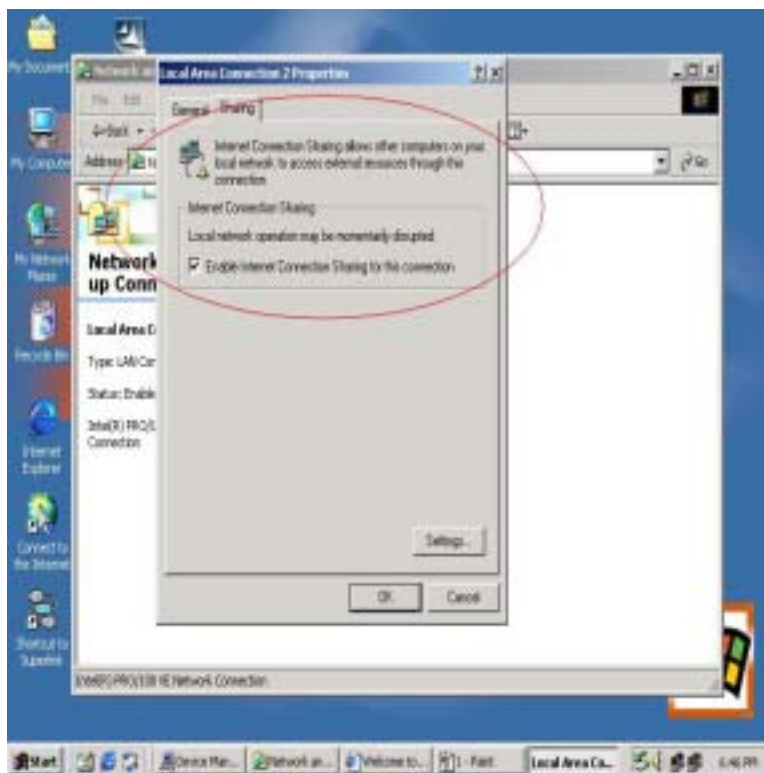
Two computers share in internet resource with USB2.0 Super Link Cable Virtual-Network connection, For Win98SE/ME/2K/XP, user has to wait for windows O.S. assigning IP address about 2~3 minutes while connected. And the following steps are same as manual IP address setting.

Setup A: computer which is external internet connection. (LAN or Modem)

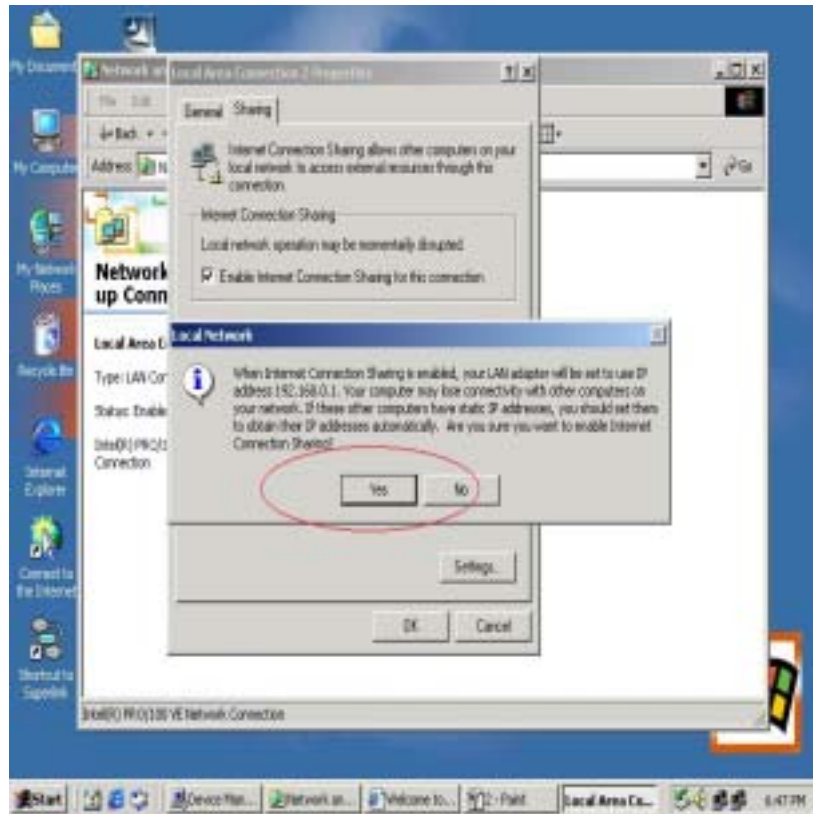
Step 1: Enable the local connection (internet connection) properties to setup internet sharing.



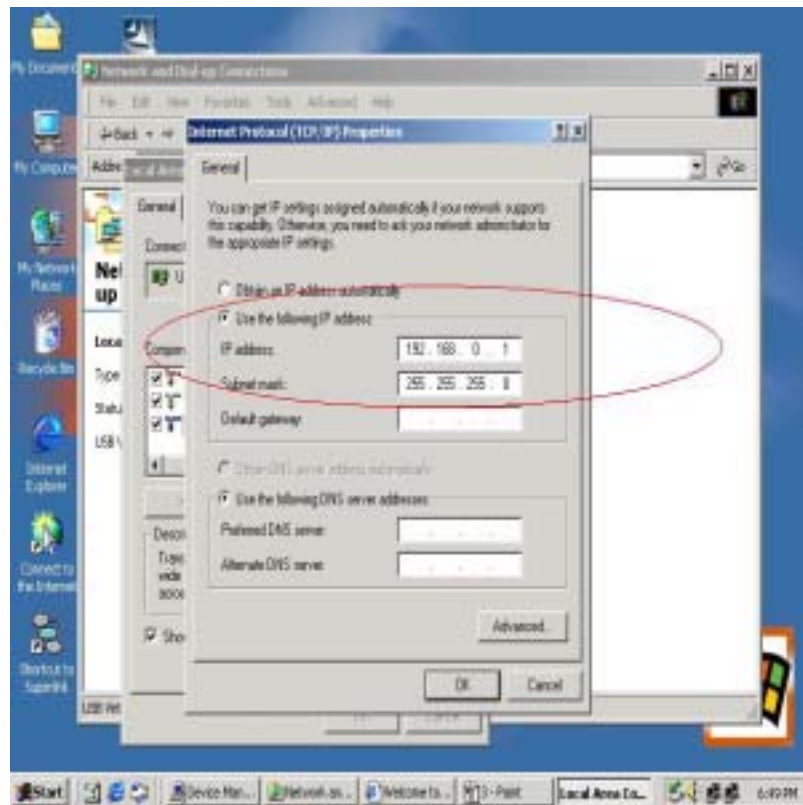
Step 2: Select “Sharing” and click “Enable Internet Connection Sharing for this connection” and click “OK”



Step 3: Windows O.S. will force to assign a default IP address (192.168.0.1) for this sharing, please just click “OK”.



Step 4: USB2.0 Super link Cable Virtual-Network local connection will be forced to set IP address as below :



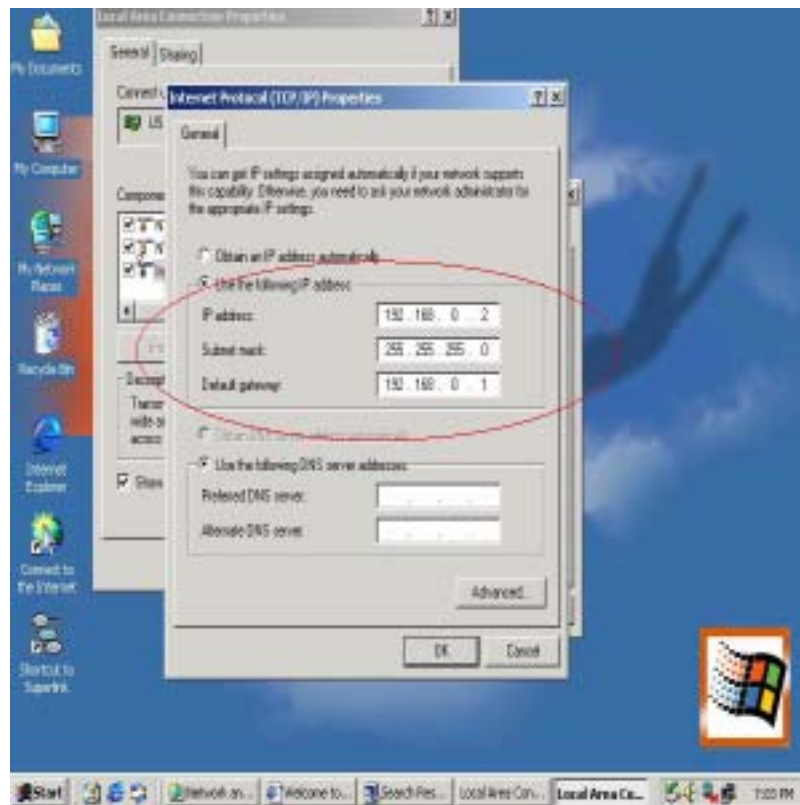
Setup B: Computer which is only local connection with A-computer.

Step1: Enable the local connection (Virtual-Network) properties to setup the suitable IP address/Mask/gateway :

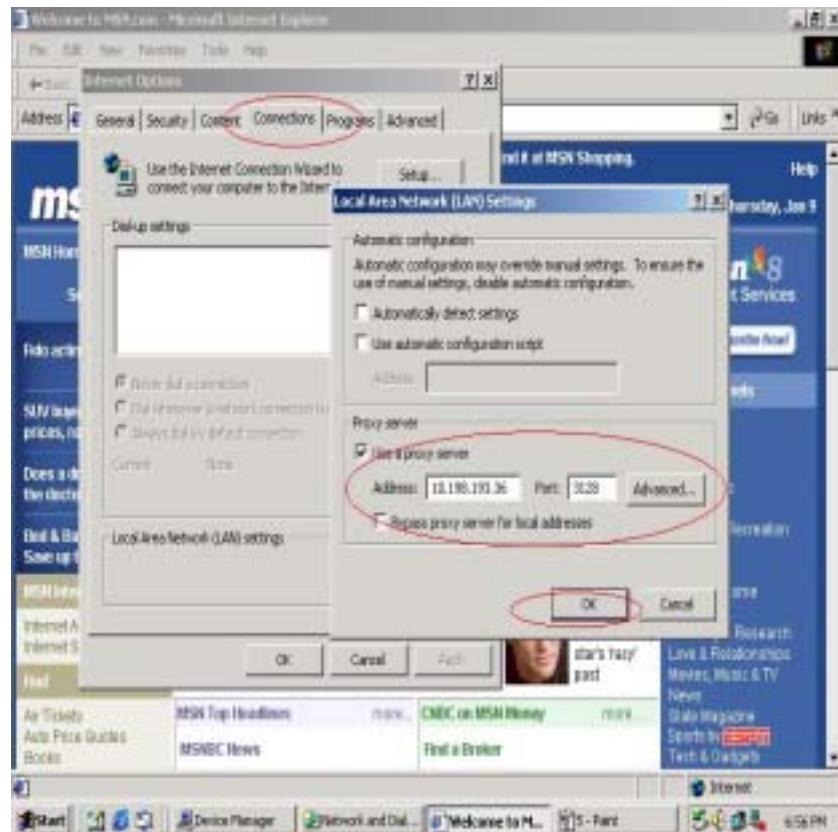
IP address : **192.168.0.x**

Subnet mask : **255.255.255.0**

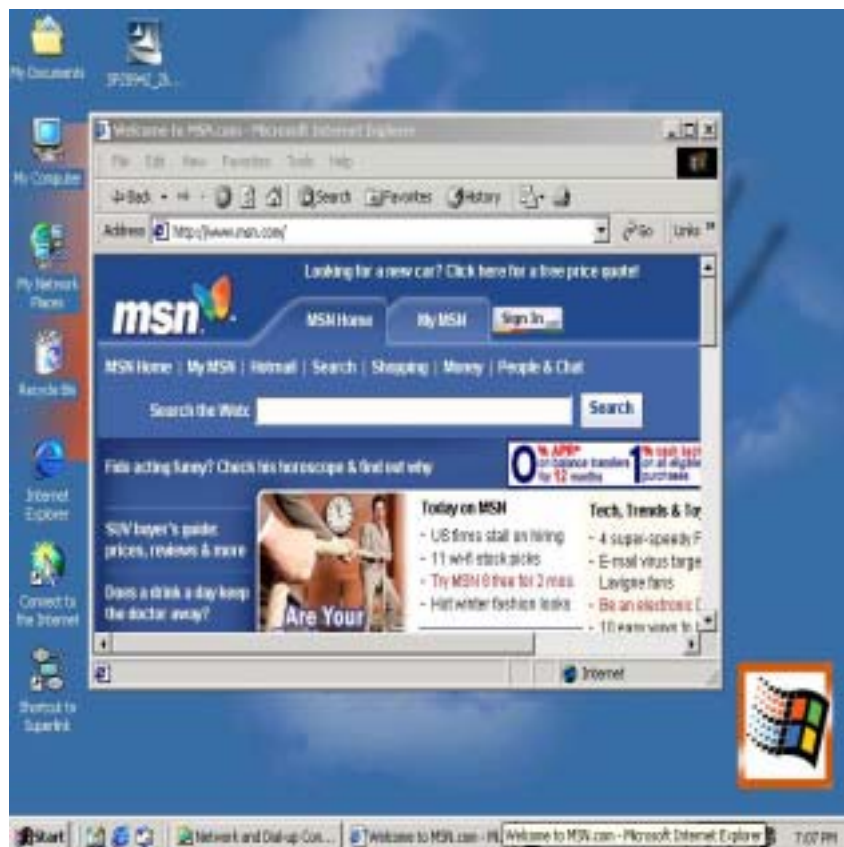
Default gateway : **192.168.0.1**



Step 2: Also, do not forget to set correct Internet connection value which should be same as **A-computer**.



Step3: B-computer is available to share the internet resource from A-computer.

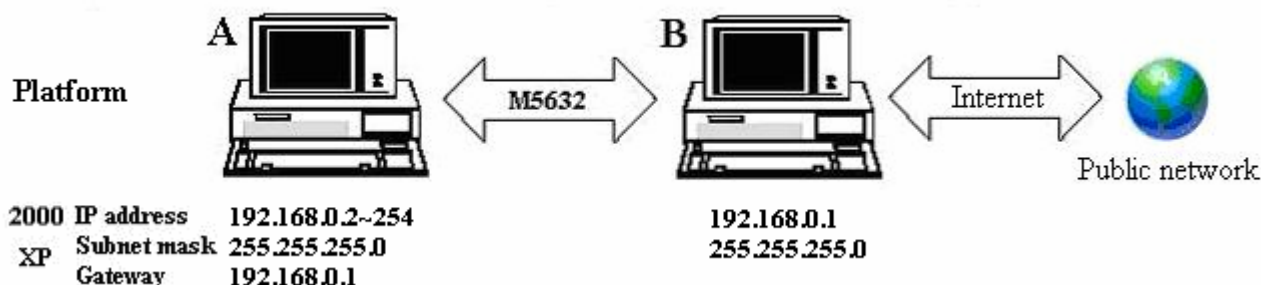


Note : General internet setting for Internet Connection Sharing

- a) User must be logged on as an administrator or a member of the Administrators group in order to complete this procedure.
- b) Under **Internet Connection Sharing**, in **Home networking connection**, select any adapter that connects the computer sharing its Internet connection to the other computers on user's network.
- c) When user runs the **Network Setup Wizard** and enables **Internet Connection Sharing**, certain protocols, services, interfaces, and routes are configured automatically. The following describes these configured items.

Configured item	Action
IP address 192.168.0.1	Configured with a subnet mask of 255.255.255.0 on the LAN adapter that is connected to the home or small office network.
Autodial feature	Enabled.
Static default IP route	Created when the dial-up connection is established.
Internet Connection Sharing service	Started.
DHCP allocator	Enabled with the default range of 192.168.0.1 and a subnet mask of 255.255.255.0. Unique addresses in the range 192.168.0.2 to 192.168.0.254 are allocated to private network clients.
DNS proxy	Enabled.

If users are enabling Internet Connection Sharing on a LAN connection, TCP/IP for the LAN Interface that is connected to the Internet must be configured with a default gateway. The TCP/IP addressing for this interface may be a static address or dynamic addressing using DHCP. For example :

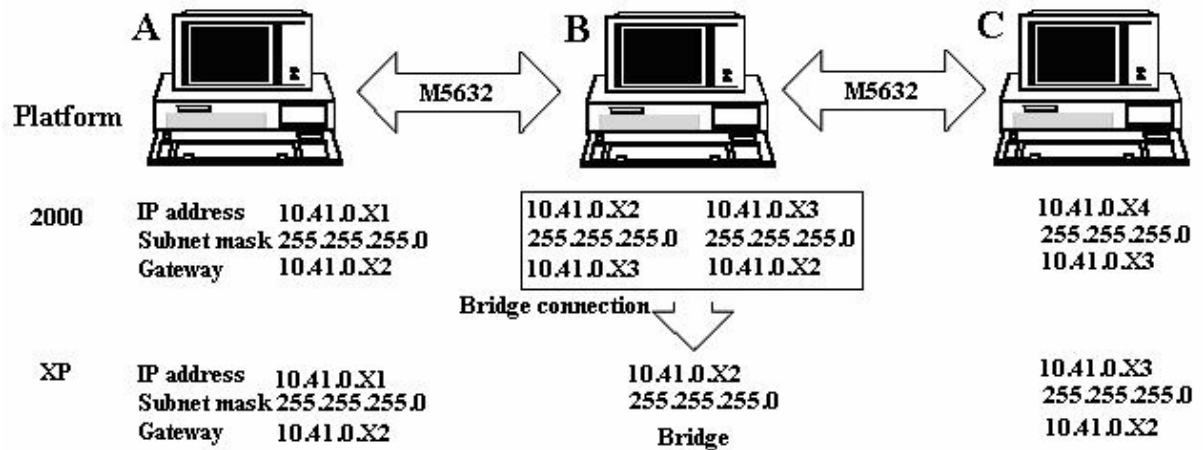


- d) To enable Internet Connection Sharing (ICS) Discovery and Control on Windows 98, Windows 98 SE, and Windows Millennium Edition computers, run the **Network Setup Wizard** from the CD or floppy disk on these computers.
- e) For ICS Discovery and Control to work on Windows 98, Windows 98 Second Edition, and Windows Millennium Edition computers, Internet Explorer version 5.0 or later must be installed.
- f) Internet Connection Sharing is not available on Windows XP 64-Bit Edition.

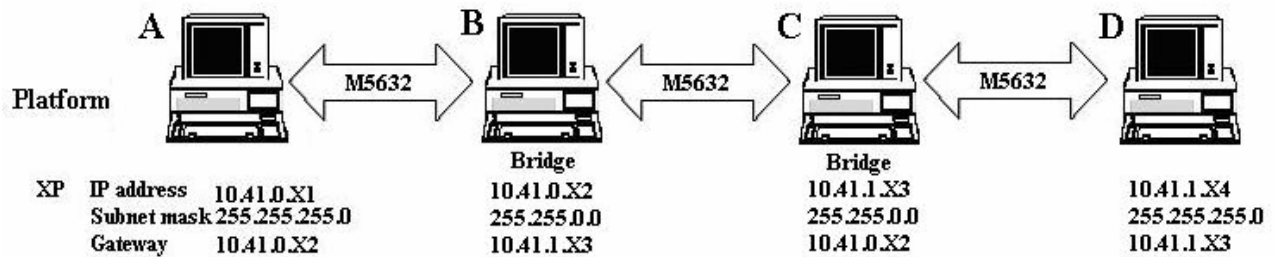
Three or more computers share in internet resource with the Virtual-Network connection. (Bridge-computers are for Windows XP only, other local computers are for Windows98/ME/2K/XP)

Setup Bridge-computer which is connected 2 or more local connections of USB2.0

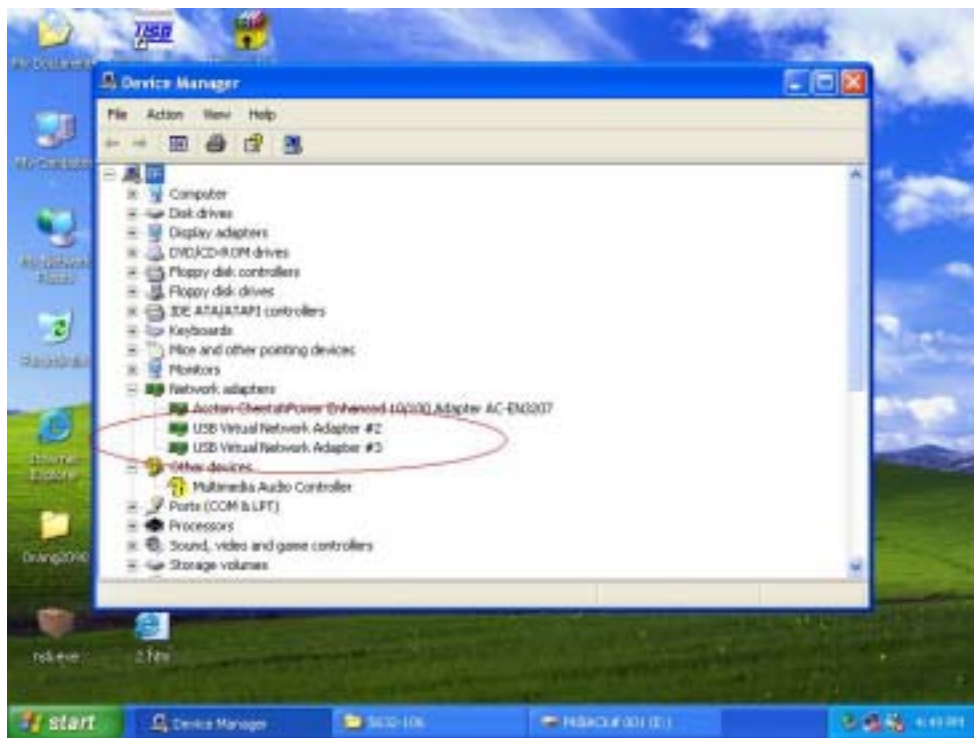
Super Link Cable Virtual-Network. For example:



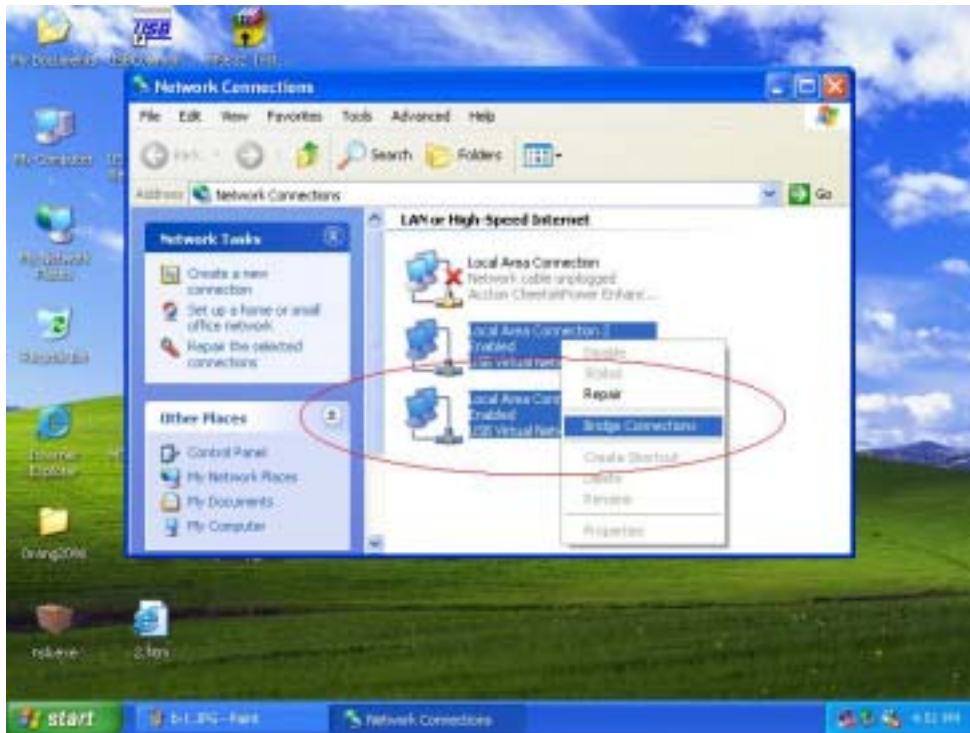
To stride across



1. User can find 2 or more USB Virtual-Network connections in the bridge computers.



2. Open Network Connections (Click Start, click Control Panel, click Network and Internet Connections, and then click Network Connections). Under LAN or High-Speed Internet select each of the private network connections that you want to be part of the bridge. Right-click one of the highlighted private network connections, and then clicks Bridge Connections.

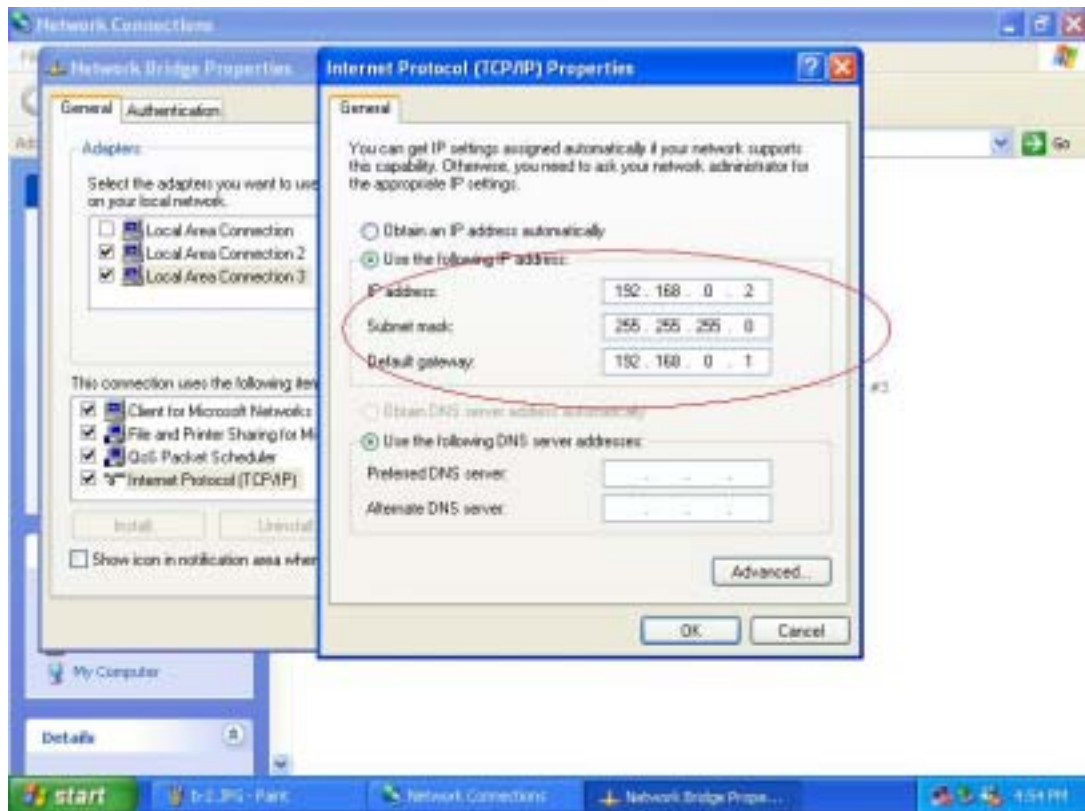


3. IP address setting is same as Peer-to-peer internet resource sharing. User have to manual fill into correctly value of bridge connection :

IP address : **192.168.0.x**

Subnet mask : **255.255.255.x**

Default gateway : **192.168.0.1**



Setup first computer which is connected to internet service to share resource to bridge computers or other local computer. Actually, the setup method is same as peer-to-peer internet service sharing.

Setup other local computers that wonder sharing the internet resource via bridge computers.

The setup method is same as peer-to-peer internet service sharing.

Note: General setting for 3 or more local connections of computers for sharing Internet service.

- a) User must be logged on as an administrator or a member of the Administrators group in order to complete this procedure.
- b) User must select at least two eligible network connections in order for **Bridge Connections** to create a bridge.
- c) Only Ethernet, IEEE-1394 adapters, M5632, or Ethernet compatible adapters such as Wireless and home phone-line adapters (HPNA), can be part of the network bridge.
- d) User cannot create a bridge connection on a computer running Windows 2000 or earlier versions of Windows.
- e) If you remove adapters from the network-bridge, and less than two adapters remain,

Network Bridge will not perform its intended function, but it will continue to use system resources.

- f) Network bridges with M5632 connection support traffic using Internet Protocol version 4 (IPv4) only.
- g) Network Bridge is not available on Windows XP 64-Bit Edition.

ANNEX-A : Allowing Internet Gaming on Your Network

To run Internet games between computers through **USB2.0 Super Link Cable** and computers on the Internet, you must ensure that the Internet game traffic is forwarded by the network that are between your **USB2.0 Super Link Cable** and the Internet. If the network between your **USB2.0 Super Link Cable** and the Internet is a computer running Windows XP and Internet Connection Sharing, you must configure Internet Connection Sharing settings to pass the game traffic.

If the network device is a firewall or security gateway, it must be configured to pass the game traffic between your **USB2.0 Super Link Cable** and the Internet. In this case, contact your network administrator who will identify the specific type of traffic used by the Internet game and configure the firewall to forward the traffic.

If this configuration is not done, Internet game clients on your network will be unable to connect to Internet game servers on the Internet and Internet game clients on the Internet is unable to connect to Internet game servers on your network. For example:

