

Tips to fixing Windows 95, 98, 98se, ME, 2000 and XP network problems

Introduction

Although Windows 95-98-98se-ME-2000 and XP Home & Pro advertises itself as offering free and easy home networking, many real-world users are finding this a difficult-to-realize reality. It has been my experience, working with hundreds of Windows ME networks, that there are certain steps that may be needed. Microsoft may consider some of those steps unconventional. Sometimes nobody understands why a problem existed in the first place; some of these steps are equivalent to kicking a jukebox to make it work, without the resulting physical damage that actual kicking has the potential to cause. As a certified computer technician for over 11 years, I have experienced the nuances and perks of nearly every consumer-based Microsoft operating system. It is my goal that I can share with you virtually every common problem and its solution with regards to networking with Microsoft's Windows, and especially Win95 thru ME.

Let's get started! First, see if you can find your specific problem listed between Tips #2 through #25. If not, please start at Tip #1.

Please note: If you are connecting one computer directly to another (without using a hub, switch or router) using a single cable, you **MUST** use a crossover cable. You **CANNOT** use a regular Ethernet cable. For more information about these kinds of cables, see Tips #12 and #13 below.

TIP #1: HOW TO RESET YOUR NETWORKING CONFIGURATION

- 1) For all Windows ME PCs ONLY, download and install the networking patch (whether you think you need it or not, it won't hurt anything) from Microsoft at <http://support.microsoft.com/support/kb/articles/Q272/9/91.ASP>
- 2) Go into your Control Panel and double-click on the Network icon. Make sure you have the following items installed:
 - **Client for Microsoft Networks**
 - **Your Network adapter**
 - **TCP/IP**
 - **IPX/SPX**
 - **File and Printer Sharing for Microsoft Networks**
- 3) If IPX/SPX is not listed, please take the time to install it now. If IPX/SPX and/or Netbeui are not listed as available protocols, please see Tip #2 further down this page.
- 4) Double-click on **Client for Microsoft Networks**. Make sure "**Log on to Windows NT domain**" does NOT have a check in the box next to it. Select "**Logon and restore network connections**". Click **OK**.

- 5) Double-click on your network adapter, and click the **BINDINGS** tab. Make sure both **TCP/IP** and **IPX/SPX** are listed and both are **CHECKED**. Click **OK**.
- 6) Double-click on **TCP/IP**, click on the tab that says **BINDINGS** and **un-check File and Printer Sharing**. Click on the tab that says **ADVANCED**, and where it says “**Allow Binding to ATM**,” make sure the value is **NO**. Ensure there is a **check** in the box at the bottom of the window that says “**Set this protocol to be the default protocol**”. Click **OK**.
- 7) Double-click on **IPX/SPX** and, on the **NetBIOS** tab, make sure it is **UN-checked** where it says “**I want to enable NetBIOS over IPX/SPX**”. (Unless you are connecting to a Windows 2000 PC, in which case you will want this box to remain **checked**). Click on the **Bindings** tab and make sure that **Client for Microsoft Networks** and **File and printer sharing BOTH ARE checked**. Then click **OK**.
- 8) Double-click on **File and Printer Sharing for Microsoft Networks**. Click once on **Browse Master** and make sure its value is set to **Automatic**. Click once on **LM Announce** and make sure its value is set to **NO**. Click **OK**.
- 9) Below the **ADD** button, you’ll see a line that says “**Primary Network Logon**”, click the down arrow in the window below that and select “**Windows Logon**”.
- 10) Below that, you’ll see a button labeled “**File and Print Sharing...**”, click it once. Make sure that “**I want to be able to give others access to my files**” is **checked** and “**I want to be able to allow others to print to my printer(s)**” is also **checked**. Click **OK**.
- 11) Click on the **IDENTIFICATION** tab and change your **workgroup name** to **WORKGROUP** (please use all capitol letters, the workgroup name can be case-sensitive on some PCs).
- 12) Click on the **Access Control** tab and make sure that **Share-level access control** **IS** selected.
- 13) After you have re-booted, make sure you select what resources you want to share on each PC. To share the C: drive, double-click the **My Computer** icon, **Right-click** on the **C:** drive, click on the ‘**Sharing**’ tab and select **SHARED AS** and click **OK**. Repeat this process for sharing Printers (right-click on the printer you want to share), or individual directories (right-click on the yellow folder you wish to share). Optional password protection can be found here as well.
- 14) Make sure you do steps 2 through 13 on all Windows 95 and Windows 98 PC’s on your network as well.
- 15) When you re-boot, you should be able to double-click **My Network Places**, then double-click **Entire Network** and click **VIEW THE ENTIRE CONTENTS OF THIS FOLDER** (on the left side of the window). If the left side says **HIDE THE CONTENTS OF THIS FOLDER**, then you did it correctly. You should see the name **WORKGROUP** here, this should **NOT** be an empty window. If this window is empty or displays any form of error, please continue with these steps and then locate the error, and the prescribed fix, listed below.
- 16) Click **Tools**, click **Folder Options** and click on the **View** tab. Make sure that ‘**Automatically search for network folders and printers**’ **IS** checked. If it is not, select it and click **Apply**. Next, click **OK**.
- 17) Close all windows.

- 18) Click **Start**, click **Run** and type **REGEDIT** and hit enter.
- 19) Click the “+” symbol next to **Hkey_Current_User**, click the “+” symbol next to **Software**, click the “+” symbol next to **Microsoft**, click the “+” symbol next to **Windows**, click the “+” symbol next to **Current Version**, click the “+” symbol next to **Explorer**, click the “+” symbol next to **NetCrawl** and then click on the yellow folder next to **Printers**.
- 20) Select each item listed in the window to the right, by clicking once on it, and then press the delete button. DO NOT REMOVE THE FIRST ITEM LABELED “(DEFAULT) Value Not Set”. Repeat this process until the window on the right is empty except for “(Default) value not set”.
- 21) Next, just below the yellow ‘**Printers**’ folder, you should see another yellow folder labeled “**Shares**”, click once on the yellow folder. Repeat the same process used in step 20.
- 22) Click **Registry** (at the top of the window) and Click **Exit**.
- 23) Re-boot the PC.

The network should now work. If it does not, see the common problems and their resolutions listed below.

TIP #2: NetBEUI and/or IPX/SPX are not in the list of network protocols available

- 1) Click Start, click Run, type MSCONFIG (hit enter)
- 2) Click the button labeled “Extract File...”
- 3) For the name of the file you want to restore, type NETBW.INF.
- 4) Restore from your Windows Millennium CD (if your CD is your D: drive, type: D:\WIN9X).
- 5) Save File In: C:\WINDOWS\INF
- 6) Once the file is restored, repeat this process with NETTRANS.INF (during Step 3), and then once more with RPCLTC5.DLL (during Step 3), only extract this last file to C:\WINDOWS\SYSTEM (during Step 5).
- 7) Back in your network properties, click Add, click Protocol, click Add, click the Have Disk button, click the Browse button, and go to C:\Windows\Inf and on the left you should see NETTRANS.INF, click once on it and click OK. NetBEUI and/or IPX/SPX should now be listed as available protocol options in your network properties.
- 8) This information is now covered in a Microsoft Knowledgebase article:
<http://support.microsoft.com/support/kb/articles/Q193/6/37.ASP>

TIP #3: If you double-click on My Network Places, and then double-click on Entire Network and receive the error “Cannot browse network”, do the following steps:

- 1) Microsoft has acknowledged there is a potential problem with Windows Me attempting to contact the master browser for the workgroup over one protocol, instead of attempting to contact the master browser over both protocols. They have provided a ‘patch’ for this, but you must contact their technical support to receive it. Please see this Microsoft Knowledgebase article:
<http://support.microsoft.com/support/kb/articles/Q284/0/84.ASP>

- 2) There is, however, an alternative to this support patch. On the computer that will be on most often, in its Control Panel, double-click the Network icon, double-click File and Printer Sharing for Microsoft Networks, and where it says Browse Master, set it to enable.
- 3) On all the other PC's on the network, set the above setting to DISABLED, so that only ONE PC is running with Browse Master ENABLED.

TIP #4: If you are getting a SCRIPT ERROR when you double-click My Network Places:

- 1) You must have the Microsoft utility 'Tweak UI' installed and configured it to replace the first icon that appears on the desktop. Please see this Knowledgebase article:
<http://support.microsoft.com/support/kb/articles/Q190/6/43.ASP>
- 2) Change this option back to its default setting, which should be My Documents.

TIP #5: If you can see the workgroup listed in My Network Places, but after double-clicking it, you see an empty window:

- 1) Apply the same steps as in Tip #3 or...
- 2) See if you can do a Search for the PCs by their name. Also try to ping each PC. If that functions correctly, the problem might be that during the set up of the Home Networking Wizard, Microsoft somehow renames your Workgroup to be "Mshome" (the default value) EVEN IF you have specified your own name. Here is the fix:
- 3) Click Start, click Run, type REGEDIT (hit enter)
- 4) Find "Mshome" (which should be in My Computer\HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\VxD\VNETSUP)
- 5) Right click on Workgroup (on the right hand panel) -> Modify- Change the "Value Data" to whatever your workgroup name is.
- 6) If that does not work, you might also try adding these lines to your registry:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Network\RealMode Net]
"preferredredir"="nwredir"
"Autologon"="1"
"transport"="*nwlink,*netbeui,"
"netcard"=""
```

TIP #6: Windows Family Logon is missing from your Network Control Panel.

- 1) The file you will need to extract is NETFAM.INF:
- 2) Click Start, click Run, type MSCONFIG (hit enter)
- 3) Click the button labeled "Extract File."
- 4) For the name of the file you want to restore, type NETFAM.INF.
- 5) Restore from your Windows Millennium CD (if your CD is your D: drive, type: D:\WIN9X).
- 6) Save File In: C:\WINDOWS\INF.

- 7) Back in your network properties, click Add, click Client, click Add, and Microsoft Family Logon should appear.

TIP #7: Network keeps getting disconnected or you are getting lots of collisions.

- 1) Plug and Play has, more than likely, set the IRQ or other memory address and is sharing it with another device. Both devices cannot be active at the same time.
- 2) I recommend setting the Network card manually using the software that comes with the card or downloading the software from the manufacturer's web site.
- 3) Use an IRQ and memory address that is not currently in use and go in to your computer's BIOS, under Plug And Play, select MANUAL and turn off the IRQ that you assigned to the network card.

TIP #8: While transferring large files from one PC to another, the network speed seems to drop and the process seems to take much longer than it should.

Try limiting Windows VCACHE setting to 32 Meg regardless of the amount of RAM on the system. I suggest you download and install Cacheman (<http://www.outertech.com>). This application lets you change the VCACHE settings easily. Set maximum and minimum disk cache to 32768 and CHUNKSIZE to 512.

TIP #9: Network Is Slow for Linksys adapter cards.

- 1) In some cases when the driver is installed properly and no errors are reported in Device Manager, some users may experience delays with transferring files or having problems browsing the network. If the protocols and the File and Print Sharing are setup properly, try changing the Transmit setting in the card.
- 2) Go to Control Panel and open Network. Highlight the network card driver in the list and click Properties. Click on the Advanced tab. Highlight **Transmit Threshold** and change the value option to **Store and Forward** (this setting will solve most problems; you can also try other values). Click OK. Click OK again. Windows may ask for the installation files and ask you to restart the computer. Click Yes to restart.
- 3) Please note: Not all network cards may have this as an option.

TIP #10: Network is slow for other adapter cards.

Visit this page for more info: http://algi273qy50xj.bc.hsia.telus.net/network_slow.htm

TIP #11: When I map a network drive to a drive letter assignment, I do not receive any error message, but I also don't see the mapped drive.

More than likely you have the Microsoft utility 'Tweak UI' installed. It has an option under the My Computer tab to enable or disable certain drive letters. Ensure you enable the drive letter you are mapping.

TIP #12: What is a crossover cable?

A cable's job is to send and receive data. If pins 1 and 2 send data and pins 3 and 6 receive data, when you plug this cable directory from one PC into another PC, the PC's will each attempt to send data on Pins 1 and 2 at the same time. Neither PC will receive any data. A crossover cable reverses the wiring on one end of the cable so that the send

wires on one side become the receive wires on the other side. A hub, switch or router does this for you without the need for special wiring.

TIP #13: Where can I get a crossover cable and how much are they?

The cables can be found anywhere computer networking supplies are sold. CompUSA, Fry's Electronics, Best Buy... they all have these cables. They typically run \$5-\$20, depending on length.

TIP #14: When I set the access privileges to Share-level or User-level, after I shut down the PC and log back in again the change does not take affect.

- 1) Try making the change in Safe Mode and then re-starting in normal mode. Be sure to click OK after making the change.
- 2) To start Windows Me in Safe mode:
 1. Click Start | Shut down | Restart | OK.
 2. Hold down the CTRL key until the Windows Startup Menu appears.
 3. Enter the number for Safe mode and press ENTER.

TIP #15: All of my mapped drive letters appear as open windows when I start up my computer.

- 1) This can be caused by Norton Internet Security software. Please see this link for more info:
<http://service1.symantec.com/SUPPORT/nip.nsf/docid/2000040412261536&src=w>
- 2) As an alternative, you can delete the offending drive letters in the contents of this registry setting:
HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\MountPoints_WantUI
- 3) Please note - the last part of the registry key may have a different name on your PC, but whatever that first yellow folder is called, check its contents. Remove the drive letters you don't want to see. Please remember to back up your registry before modifying it!

TIP #16: When attempting to update Windows Me, I get the following message: "Your organization has decided to provide software updates internally rather than through Windows Update. To download updates for your Windows computer, please see your Network Administrator".

- 1) It appears that this error message is given if the file wupdinfo.dll is either missing or damaged. To restore it, follow the steps below.
- 2) Click on Start\Search\For Files and Folders.
- 3) Type wupdinfo.dll into the Named field.
- 4) Make sure that it is looking in your C: drive and click Search Now.
- 5) If it finds this file, right-click and Rename it to wupdinfo.old. If you do not find it, then continue on with the next step.
- 6) Close the Search window.
- 7) Now click on Start, Click Run and type MSCONFIG in the blank and click OK.

- 8) This will open up your System Configuration Utility. Here you need to click on "Extract File" on the General tab and then type wupdinfo.dll in the blank. Then click Start.
- 9) Now click the down arrow to the right of the Restore from box and this should display the path to your install files, if not browse to their location (or the CD containing them).
- 10) Next, click the Browse button to the right of the "Save files in" box and browse to C:\Windows\system
- 11) Click OK to accept the location to extract the file.
- 12) Click OK to accept the Backup folder to store the old file.
- 13) When the file has been extracted successfully, then, again, click on Start, click Run and this time, type in "regsvr32 wupdinfo.dll" and click OK. (This will register that file).
- 14) This should resolve the error on your next visit to the Windows Update site.
- 15) Microsoft has acknowledged the existence of this problem and you can read more about it at this url: <http://support.microsoft.com/support/kb/articles/q283/2/88.asp>

TIP #17: My firewall software is telling me that Explorer.exe is trying to connect to 239.255.255.250 port 1900.

- 1) Uninstall Universal Plug and Play.
- 2) Take a look at these Microsoft Knowledgebase articles, they may help:
<http://support.microsoft.com/support/kb/articles/Q262/4/58.asp> and
<http://support.microsoft.com/support/kb/articles/Q276/5/07.asp>

TIP #18: Internet Explorer will not find any web pages.

- 1) Go to Control Panel | Internet Options | Connections | LAN Settings and clear all of the boxes.
- 2) Re-create the Winsock2 registry entries:
 - a. Un-install ICS (if installed).
 - b. Un-install Dial-Up Networking. Do NOT reboot.
 - c. Delete registry key HLM\System\CurrentControlSet\Services\Winsock2
 - d. Re-install Dial-Up Networking. Reboot.
 - e. Re-install ICS (if desired).

TIP #19: When attempting to install Internet Connection Sharing, I get the following error message: "Netconn has caused an error in Netconn.exe".

- 1) Try finding Netconn.exe in your C:\Windows directory and double-clicking it.
- 2) If the error still occurs, delete Netconn.exe
- 3) Next, click Start, click Run, type MSCONFIG (hit enter)
- 4) Click the Extract File button
- 5) Type in NETCONN.EXE as the file you would like to extract, click the button labeled 'Start'
- 6) Then type the path to your WinME installation files where it says 'Restore From' (example: D:\Win9x)
- 7) Type in 'C:\Windows' where it says 'Save File In' and click OK.

- 8) Naturally, back up your registry and move a copy of the deleted keys to your desktop before removing them.
- 9) Delete HKEY_LOCAL_MACHINE\System, CurrentControlSet, Services, ICSSharing (the whole thing).
- 10) Delete HKLM\System\CurrentControlSet\Services\ICSSharing (entire folder)
- 11) Delete HKLM\System\CCS\Services\RemoteAccess\LocalNameResolution (all keys)
- 12) Extract ics.inf, icshare.inf and icsharep.inf to a temp folder (like C:\ICS) using steps 3-7 above.

TIP #20: Netconn.exe is still causing a crash.

- 1) Click Start/Settings/Control Panel/Add-Remove Programs/Windows Setup – remove ICS. Do not reboot.
- 2) Click Start, click Run, type Regedit (hit enter)
- 3) HKEY_LOCAL_MACHINE\System,CurrentControlSet,Services -- Remove ICSSharing key
- 4) Under Class, note the number of folders under the NETTRANS key. Don't close, just go to the next step.
- 5) Under Network properties, add the protocol called NETBEUI and remove all instances of TCP/IP
- 6) Click OK. DO NOT reboot.
- 7) Back to Regedit, press F5 to refresh the screen.
- 8) Remove all folders under the NETTRANS key that WERE there before. Do not remove the new keys. They might be at the end, or in the middle. Don't remove the new NETBEUI folders.
- 9) Back in Network properties, add the TCP/IP protocol.
- 10) Be sure that File and Printer Sharing is not present (this is a must), and delete the NETBEUI protocols.
- 11) Click Start/Settings/Control Panel/Add-Remove Programs/Windows Setup – Communications – select ICS. Click OK, Click OK.
- 12) ICS should run perfectly.
- 13) At this point, at your discretion, you may open network properties and add File and Printer sharing.

TIP #21: How do I install and configure Internet Connection Sharing?

For an excellent walk-through of how to setup Internet Connection Sharing on Windows 98se, Windows ME or Windows 2000 Pro, visit:

<http://www.practicallynetworked.com/sharing/ics/ics.htm> (see the bottom of the page).

For Windows XP ICS setup and configuration, Steve Winograd has written an excellent step-by-step process that can be found at:

http://www.practicallynetworked.com/sharing/xp_ics/

TIP #22: When trying to access Windows 2000 through Windows ME, it asks for the password for the resource IPC\$. I never assigned a password and as a result, I can't access the resources on my Windows 2000 PC from my Windows ME PC.

Create a user account on the Windows 2000 machine with the same user name and password that you now use to log onto Windows Me. Or log on to Windows Me with the same user name and password that you now use to log on to Windows 2000. On most home LANs, where security is not an issue, I find it easiest to log in as Administrator on all PC's. Also, check if your guest account on the Windows 2000 computer is disabled. If so, then enable it and check the access rights on the shared folder.

TIP #23: My modem dials, logs on and then seems to stop any sending/receiving of data. When attempting to browse any web pages, I receive the error: 'Page cannot be displayed'. When trying to send/receive email, 'Server not found' and when pinging web name addresses and IP addresses, the error 'unknown host'.

- 1) Go to Control Panel | Internet Options | Connections.
- 2) If there's a LAN Settings button, click it, then clear all of the boxes on that screen.
- 3) Un-install Dial-Up Networking. Don't reboot.
- 4) Delete registry key HLM\System\CurrentControlSet\Services\Winsock2
- 5) Re-install Dial-Up Networking.
- 6) Reboot.

TIP #24: Trouble networking Windows XP?

Visit here: <http://www.practicallynetworked.com/sharing/xp/addxp.htm>

TIP #25: Windows slows to a crawl when browsing the network (resources dropping to 0%, etc...).

This tip works on ALL Windows 95/98/ME and NT4/2000/XP systems with MS Internet Explorer 4/5/6 installed. This Registry fix speeds up internet/remote (using Windows Explorer and/or Internet Explorer) browsing process considerably on most MS Windows 32-bit machines connected to a network and/or remote computer(s).

This actually fixes a BUG in MS Windows OSeS that scan shared (remote) folders/files across the network for Scheduled Tasks, and can add a delay as long as 30 seconds (!), because it uses extra time to search the remote computer(s).

Click **Start**, click **Run**, type **REGEDIT** and hit enter. Go to this location:

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Explorer\RemoteComputer\NameSpace

In the right hand pane highlight the {D6277990-4C6A-11CF-8D87-00AA0060F5BF}
Right-click on it -> select Delete -> click OK.

Also, if you're not using DFS with Microsoft servers, disable DFS checking by creating an entry at

HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\Mup\
Create "DisableDFS" as a DWORD and set the value to 1. Reboot.

You might want to check out the docs on improving client performance at <http://www.ithowto.com/> -- it contains the above and more.

Other reasons why your network may not function correctly:

- 1) Make sure you have loaded the latest drivers for your network card.
- 2) Try changing the slot the network card is plugged into on the motherboard and be sure it is seated firmly into the socket. Many motherboards have PCI slots designated as 'masters' or 'slaves', and some motherboards even have 'combo' slots which can be either. Your network card should be in a 'bus master' slot. You'll need to contact your PC manufacturer or refer to your motherboard manual to determine which slots are 'bus mastering.' If your computer only has 1 PCI slot, it may not necessarily be a 'bus master.' Some models of PC's will not support PCI network cards.
- 3) Ensure your cables are good.
- 4) Make sure your hub, switch or router is working.
- 5) Replace your network card as a last resort.
- 6) Beware of interference. Ensure your network cables are not routed next to or along side power lines such as power outlets, light fixtures, fans or other sources of strong electromagnetic interference.
- 7) Ensure you are using Category 5 cabling and that no wires are exposed or crimped.
- 8) Some network interface card manufacturers claim that their products are incompatible with 586 Cyrix processors on 486 motherboards. Cyrix doesn't employ "plug-and-play" BIOS, so there is no way for Cyrix users to configure the card's I/O and interrupt settings. Cyrix 686 CPUs may need their bus speed decreased from 75Mhz to 66Mhz (or even lower).
- 9) Because the many network interface cards sold are "plug-and-play," it is dependant on your PC's BIOS for its IRQ and memory I/O allocation.. Please ensure that your BIOS is set up to automatically configure "plug-and-play" devices.
- 10) Make sure your network card is NOT sharing an IRQ or I/O address with another device. If your BIOS allows you to select a particular IRQ or memory I/O address for a card, be sure to pick values that are not already in use by other devices in your computer.
- 11) Motherboards with some VIA chipsets (most AMD CPU's and some Intel CPU's) require the latest version of the '4-in-1' drivers to be downloaded and installed. Visit <http://www.via.com.tw> to find those drivers.
- 12) Even if your network card worked in Windows 95 or 98 without any problems that does not automatically mean that the card is compatible with Windows ME. I have been told Windows ME prefers cards that support NDIS 4 or NDIS 5. (NDIS = Network Driver Interface Specification). You can check what version of NDIS your card is utilizing by running Regedit and examining the contents of this key:
LOCAL MACHINE>System>Current Control
Set>Services>Class>Net>0000>Ndi>Interfaces
- 13) Check to see if your network card is on the Hardware Compatibility List that Microsoft certifies for each operating system, at:
<http://www.microsoft.com/hcl/default.asp>