Welcome to Electronic Arts **Product Support help guide**. This guide is designed to assist you with any difficulty you may be having getting your game to run. Troubleshooting information, along with last minute readme and support information, have been provided below. Please take the time to go through the troubleshooting guide if you are having difficulty, as we have provided the most common solutions there. In addition, you will want to check the readme document in case last minute information was added about your hardware. More extensive versions of these guides, along with other valuable support information is available on our web site at http://www.ea.com/techsupp. Thank you for purchasing Electronic Arts software, we are glad to have you as a customer.

To contact Technical Support, click on the button below. You will be prompted to fill out your name, email address or fax number, and a description of your difficulty. With this method, our support staff will receive a report about your installed devices, to help us troubleshoot your difficulty more effectively. You may also print or save this report for your own use.

{button Contact Tech Support,EF("ip.exe",`',1,`')}

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General DirectX Troubleshooting
If you're having any difficulty running Windows 95 games that are DirectX compatible, then you have come to the right place. Below are a set of links designed to help you solve some of the difficulties you may be having with our game. You may want to get the following information about your computer to help you better solve your problem:

· Who is your computer manufacturer?
· What is your CPU model, speed, and manufacturer?
· How much RAM memory do you have?
· What type of video card do you have?
· What type of sound card do you have?
· What is your CD-ROM speed and manufacturer?
· What other peripherals are installed in your computer?

NOTE: Much of this information can be obtained by looking at the Device Manager.

IMPORTANT: Every time you see this symbol, it means you are being presented with important information. Make sure you take the time to read these sections as they will warn you if a procedure requires advanced knowledge or your vendor's attention. Some of the procedures in these documents are risky for novice users, so please read the warnings carefully.

Now that you have the above information, you are ready to begin troubleshooting. Use the steps below in the order that they appear, as the first steps listed are most likely to solve your difficulty. If you don't know what DirectX is, check out the document: What is DirectX?

If you are having trouble with a scrambled display, or if your computer won't start properly after installing DirectX, please see the document: Problems with display drivers.

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We apologize if you are having any difficulty with this product. Electronic Arts Product Support can be reached through several methods, however the difficulty you are having may be addressed in the Troubleshooting Guide. Please check this guide first, as it will be the fastest way to get help with your game.

If you have access to the World Wide Web, you can check our Technical Support web page at http://www.ea.com/techsupp. We are committed to keeping this page up-to-date so you will most likely find a solution here. If you are unable to find an answer to your question on our web page, please feel free to contact us through one of the following methods:

If you need to contact Technical Support, use the button below before attempting other methods. This method allows us to receive information about your installed devices and system settings to help us effectively troubleshoot your difficulty.
{button Contact Tech Support,EF("ip.exe",`',1,`')}

In the U.S.:
Via phone: (650) 572-2787 (live phone reps are available from 8:30-11:45 a.m. and 1:00-4:30 p.m., M-F, PST.) 24 hour automated support is also available from this number.

Via fax: (650) 286-5080 (24 hours)

Through Email: Support@ea.com

Please make sure and have the following information about your computer when you contact us:
Processor model and speed, Amount of RAM, Computer Brand, Operating System, CD ROM Speed, Joystick, and Sound card.

In the U.K.:
Electronic Arts UK Customer Service Department is ready to help you with any problems that you may experience with this game.

Customer Service is available during business hours Monday - Friday at 01753 546465. Hard copies of our Trouble Shooting Guides and "Help" documents are available 24 hours a day from this number on Faxback. You may also write to us at the following address, including a daytime telephone phone number and FULL details of your machine set up and the problem you are experiencing:

> Electronic Arts Customer Service
> PO BOX 835
> Slough, Berkshire, England SL3 8XU

HOW TO REACH US ON-LINE :

> UK : UK-CS@EA.COM

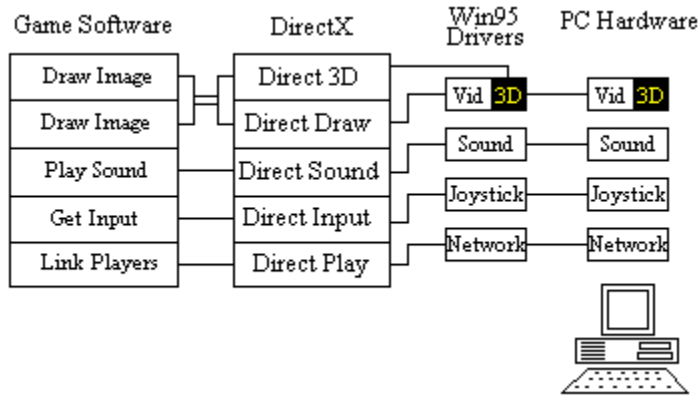Thank you for purchasing Electronic Arts software, we are glad to have you as a customer.

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Device Manager is built-in to Windows 95 and allows you to see installed devices and their resource settings.

To view the Device Manager: Right-click on the My Computer icon and then left-click on Properties. Next, click on the Device Manager tab. If you click on the "plus" next to each device you will see what hardware is installed on your system.

What is DirectX?

DirectX is a games API (Application Program Interface) that allows games designed for Windows 95 to have access to your hardware through a standard interface. Without a standard interface, stable compatibility between games and your computer's hardware would be virtually impossible. With DirectX, game developers can write for this interface, and let your Windows 95 DirectX compatible drivers deal with how to "talk" to your computer's hardware.

Game Software | DirectX | Win95 Drivers | PC Hardware

Draw Image	Direct 3D	Vid 3D	Vid 3D
Draw Image	Direct Draw	Sound	Sound
Play Sound	Direct Sound	Joystick	Joystick
Get Input	Direct Input	Network	Network
Link Players	Direct Play		

In the above diagram, any function that the game wants your hardware to perform is passed via the DirectX API to your hardware drivers. These drivers are responsible for making sure that the game's request is properly implemented in the hardware. Sometimes these drivers are updated to fix problems encountered with DirectX games, so it is very important to make sure you have the latest DirectX driver from your video and sound card manufacturer. Check with your system vendor or hardware manufacturer to see if you are using the latest driver.

Occasionally, some applications or video modes may cause problems with certain DirectX drivers. Please go through the steps listed on the DirectX Troubleshooting Guide if you are having difficulty. When you install a game that uses DirectX, it will run the DirectX installer automatically. This installer copies some files to your C:\WINDOWS\SYSTEM directory. These files are not loaded by your system at boot up, and are not used unless a DirectX game is running.

Next, DirectX installs the video and sound card drivers. Occasionally the installation of the video driver will lock up the machine the next time you try to restart, or will produce a scrambled display. This is not as bad as it seems, as the video driver can be restored in Windows 95 Safe Mode. For information on display problems, please see our document: Problems with display drivers.

Return to the Troubleshooting Guide

Problems with Display Drivers

If you are using a computer that is running Windows 95, you will eventually have to update your video/sound drivers and install DirectX in order to maintain compatibility with current software. Occasionally these updates can cause Windows 95 to not start properly. This is not a serious issue and can usually be resolved through Windows 95 Safe Mode. If you are having problems starting Windows after installing DirectX or updating your video driver, you are probably experiencing one of these symptoms:

SYMPTOM 1: Windows starts normally, but reports an error that your display adapter is not installed properly: This usually indicates that the wrong driver is installed for the video card, or that the driver didn't install properly. This is the least serious of the symptoms because your computer will start and run properly, but you won't have access to the higher resolutions and color depths that make your desktop attractive.

If you have this symptom, please check your computer or hardware documentation to see if there is a documented solution, or contact your manufacturer to obtain information on installing the correct driver, as these problems will have most likely been diagnosed and solved already. If you feel you have adequate knowledge about changing your own driver, you can follow the steps below. WE RECOMMEND CHECKING WITH YOUR SYSTEM VENDOR BEFORE ATTEMPTING THIS PROCEDURE:

1. Right-click on the desktop and choose Properties.

2. When the Display Properties window appears, click on the Settings tab.

3. Click on the Change Display Type button. You should now see the current installed driver

SYMPTOM 2: Windows starts, but your display is scrambled or otherwise unreadable: This usually occurs when updating drivers. Later releases of drivers support higher and higher refresh rates. Sometimes these refresh rates will be higher than the monitor allows, so you will end up with a scrambled display. You may benefit from one of these solutions:

IMPORTANT: PLEASE CONSULT WITH YOUR VENDOR BEFORE ATTEMPTING ANY OF THE FOLLOWING PROCEDURES.

Solution 1:   Boot into Windows Safe Mode by pressing the F8 key when you see the "Starting Windows 95" message. You will see a menu, choose "Safe Mode".   Once you are in Windows Safe Mode, check your Display Properties and make sure that you have the correct monitor specified. (Right-click on the desktop and choose Properties, then click on the Settings tab. Having an "unknown" monitor specified may cause a scrambled display.

Solution 2: Boot into Windows Safe Mode as described above and change your display driver to Standard VGA. You will need to consult Windows Help from the Start menu for instructions on how to do this. This procedure will not correct the problem with the driver, but will allow you to start Windows normally until the driver can be restored. Please check with your video card manufacturer for the best procedure to restore your video driver.

SYMPTOM 3: Windows tries to start, but hangs with a blank screen. This is probably the same scenario as listed above:

Boot into Windows Safe Mode as described above and change your display driver to Standard VGA. You will need to consult Windows Help from the start menu for instructions on how to do this. This procedure will not correct the problem with the driver, but will allow you to start Windows normally until the driver can be restored. Please check with your video card manufacturer for the best procedure to restore your video driver.

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Display Properties are built-in to Windows 95, allowing you to see the settings for your desktop.

To view the Display Properties: Right-click on the Desktop and then left-click on Properties. If you want to see your screen resolution and color depth, click on the Settings tab. From the Settings window, clicking on the "Change display type" button will allow you to view or change your display and monitor drivers.

Safe Mode allows Windows 95 to boot using a minimal set   drivers. This permits Windwos to start in the event that there are problems with device drivers or advanced system features.

To boot into Windows Safe Mode: Restart your computer and wait for the "Starting Windows 95" message to appear on the screen. When it does, press the F8 key. You should now see a menu. Choose the 3rd choice, which is "Safe Mode".

Checking the status of DirectX

In order for DirectX games to run on your system, the DirectX drivers need to be properly installed and certified. The program DXSETUP.EXE is a utility that will check driver certification and let you know if all DirectX components are properly certified. Running DXSETUP is easy, just follow these steps:

1. Put the game CD in your CD-ROM drive.

2. From your Windows 95 desktop, left-click the START button, highlight Find, then left-click on Files or Folders.

3. In the Find window, set the "Look In:" field to your CD-ROM drive (it will probably display the name of the game and a drive letter such as "D:" or "E:").

4. In the "Named:" field, type in DXSETUP and press enter. This will search the game CD for the DXSETUP.EXE file.

5. When the file appears in the results box, simply double-click on it.

You should now see the DirectX Setup window displaying its results. You will see a list of the DirectX components along with their version numbers and whether or not they have been certified. The items you need to pay attention to are the Display driver and the Audio driver. Here is a brief summary of what may appear in the third column:

No Hardware Support - The driver does not support DirectX, so Hardware Emulation will be performed. This may work fine, but processor power must be used to perform this emulation and game performance may suffer. In some cases, it will not work at all. It is recommended to check with your hardware manufacturer for any updated drivers that may be available.

Blank with no driver version listed - The performance and stability of this type of certification is basically unknown. It is recommended to check with your hardware manufacturer for any updated drivers that may be available. Most likely, drivers that certify this way will not work properly at all.

Blank with driver version listed - The driver has DirectX support, but was not included with the version of DirectX which is currently on your system. These drivers will usually function properly, however, there may be some difficulties. It is recommended to check with your hardware manufacturer for any updated drivers that may be available.

Certified - Your driver was tested and approved by Microsoft. Any difficulties you may be having with software are probably not related to this driver, however many hardware companies will still update these drivers in order to fix problems.

Please make a note of how your Display driver and Audio driver are certified, as it may help you determine if you need to update your drivers.

It is difficult to tell whether or not your display and audio drivers are causing you difficulty, so please continue with the troubleshooting steps below before updating your drivers.

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Manually switch video modes

One of the most common problems with DirectX games is mode switching. When a DirectX game starts, DirectX tells the video driver to switch modes to match the resolution and color depth supported by the game. Some Drivers will have a problem with this mode switching and yield a crash error or blank screen lockup. If you are having any difficulty starting your game, you should try manually switching video modes.

To manually adjust your video mode:

1.Right-click on the desktop and choose Properties.

2.Click on the Settings tab at the upper right of the window; you should now see the window similar to how it is shown above.

3.Now adjust the Color palette option to 256 colors and the Desktop area to 640 by 480 pixels. If your driver lets you alter the viewport size separately, sometimes referred to as "virtual desktop", make sure it is also set to 640x480 or you may encounter problems.

NOTE: Some games may support higher resolutions and color depths, such as 800x600 with thousands of colors. Make sure that if your game supports other video modes, that you manually set your desktop to the modes supported by the game.

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Cold boot your computer

Believe it or not, some unknown problems such as lockups, crashes, sound difficulties, etc. can be resolved by a cold boot. If your computer has been on for a while and you are having problems starting a game, try a cold boot:

1.Shut down your computer from the Start menu, then shut off the power to your computer for 10 seconds or more.

2.Now turn the computer back on, let it boot up, and then try to start the game again

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Shut Down all applications

Windows wouldn't be Windows if you couldn't run all sorts of cool applications, however some of them may cause problems with your games. Anything that may be running on your computer should be shut down before you run your game. Even if your applications are not causing conflicts, they are using valuable resources like memory and CPU power. In order to make sure that your game runs as smooth and as reliable as possible, make sure you shut down applications like Netscape, MS Exchange, MS Word, Excel, and anything else on your taskbar.

In particular, make sure you shut down the MS Office shortcut bar. Having this application running while trying to run a game may cause a crash to the desktop, or may cause the graphics to not function properly. Please shut down this program before running your game.

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<u>Shut down apps in the system tray</u>

Although not extremely likely, programs running in the system tray can sometimes cause conflicts with DirectX games. The system tray runs on the right side of the taskbar and will look something like this:

These icons are programs that may be running on your system; they all do different things. Some of these icons can be shut down by right-clicking on them, and choosing exit or close. Others can only be shut down by pressing CTRL+ALT+DEL (we do not recommend doing this).

Starting from the left:

Volume control. This lets you control Windows volume and other settings, such as treble and bass. This should be left running.

McAfee Vshield, virus protection. This should be left enabled.

System Agent. This automates necessary system tasks such as Scandisk and Defrag (see your Windows 95 documentation.) Sometimes these tasks will start while you're running other programs. You can disable this by right-clicking on it. Just remember to enable it when you're finished.

Flexicd. This is a small program for playing audio CDs. Sometimes this will conflict with programs that use red book audio; you can shut it down by right-clicking on it.

Microsoft's game device profiler. This allows you to customize the 3D gamepad for any game. If you are having difficulty with your joystick, try double-clicking on it and disabling the profiles, or right-click on it and choose unload.

Quickres. This lets you change color depths and resolutions on the fly. This cannot be disabled by right-clicking.

Gravis Gamepad Pro utility (gcc.exe). This lets you turn on and off keyboard emulation. Click on it and disable the emulation if you are having problems with your joystick. If you have this and your joystick is plugged into a Soundblaster 16, SB32, or AWE32/64, you may experience difficulties. Please obtain the latest drivers at http://www.gravis.com.

Time. Double-click on this to get the time and date.

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Check for conflicts

Many difficulties can be caused by hardware conflicts. The <u>Device Manager</u>, located in the <u>System Properties</u>, can report such conflicts.

To open System Properties, right-click on the My Computer icon and select Properties. The tabs on top will show you different options and settings for your computer.

Click on the Device Manager tab to see if you have any conflicts. A yellow "!" or a red "x" indicates a conflict with a device, or a device that is not functioning properly. Devices in this state may cause system instability, so you may want to check your computer documentation or contact your system vendor for information about those devices.

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Check your virtual memory settings

Virtual memory is disk space allocated by Windows that allows your system to "pretend" it has more memory than it really does. Even if you have 32mb or more of RAM, Windows may be using a virtual memory swap file.

Not having enough disk space will affect your virtual memory; this situation will cause programs to crash or not run correctly.

To check your disk space and virtual memory settings:

1.Double-click on the My Computer icon.

2.Click once on the "C:" drive. There is a status bar at the bottom of the My Computer window that will tell you the free space on your hard drive:
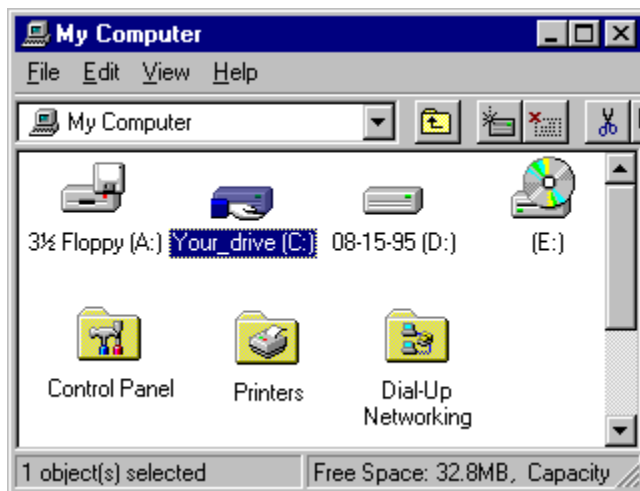
If you have less than 50mb or so of disk space you will probably experience problems with games or other programs. Try to free at least 50mb or more of disk space and run the Scandisk and Defrag utilities located in your Start menu. This will help assure you have no disk errors and that your drive is optimized.

WARNING: If you are not sure what to delete on your drive, do not delete anything. Check your computer documentation or contact someone who can help you choose the right files. EA Technical Support will be unable to help you delete files on your hard drive.

1.Close the My Computer Window.

2.Right-click on the My Computer icon and select Properties, then click on the Performance tab.

3.Click on the Virtual Memory button.

Make sure that the first option "Let Windows manage my virtual memory settings" is selected. If you think you know what you are doing, you can specify your own settings, but for this troubleshooting session we recommend the first option. Make sure to click "OK" to finish changing the settings.

Windows will ask you to restart your computer.

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Reinstall DirectX

DirectX is a Microsoft games API and is considered a part of Windows 95. It must be installed in order for games and other applications that use DirectX to function properly. At the time this document is being created there are 4 versions of DirectX-- 1, 2, and 3. Most likely, if you are running one of our games, you have version 2 or 3 on the game CD.

Newer versions of this API have been released by Microsoft to fix problems and improve performance over earlier versions. If you are using an earlier version of DirectX and are experiencing problems, you will probably want to upgrade to a later version. You can find DirectX at Microsoft's web site at http://www.microsoft.com.

IMPORTANT: In very rare cases the installation of DirectX will overwrite your display driver and cause Windows to not start properly. Although this is usually not a serious or common occurrence, it may require that you restore your video drivers or reinstall Windows. It is recommended that you check with your system vendor to see if your system is DirectX compatible. If you experience similar difficulties, please consult your video card manufacturer or system vendor for information on how to ensure that your system will work properly with DirectX. You can also check out our document Problems with display drivers.

To reinstall DirectX:

1.Put the game CD in your CD-ROM drive.

2.From your Windows 95 desktop, left-click the START button, highlight Find, then left-click on Files or Folders.

3.In the Find window, set the "Look In:" field to your CD-ROM drive (it will probably display the name of the game and a drive letter such as "D:" or "E:").

4.In the "Named:" field, type in dxsetup and press enter. This will search the game CD for the DXSETUP.EXE file.

5.When the file appears in the results box, simply double-click on it.

6.You should now see the DXSETUP window. You can reinstall DirectX by clicking on the Reinstall DirectX button and restarting your computer.

You can also try unchecking the "Use 3D hardware acceleration" box and clicking "OK".

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## *<u>Disable hardware acceleration</u>*

Disabling hardware acceleration may help you get your game running. This has worked for some of our customers and usually yields little or no difference in game performance. If disabling hardware acceleration works to get the game running, there is most likely a problem with your display driver. Please contact your video card manufacturer or system vendor for an updated, DirectX compatible display driver.

Hardware acceleration is controlled by Windows 95 through the <u>System Properties</u>. To open System Properties and view graphics settings:

1. Right-click on the My Computer icon and select Properties.

2. Click on the Performance tab at the top.

3. Now click on the Graphics button at the bottom.
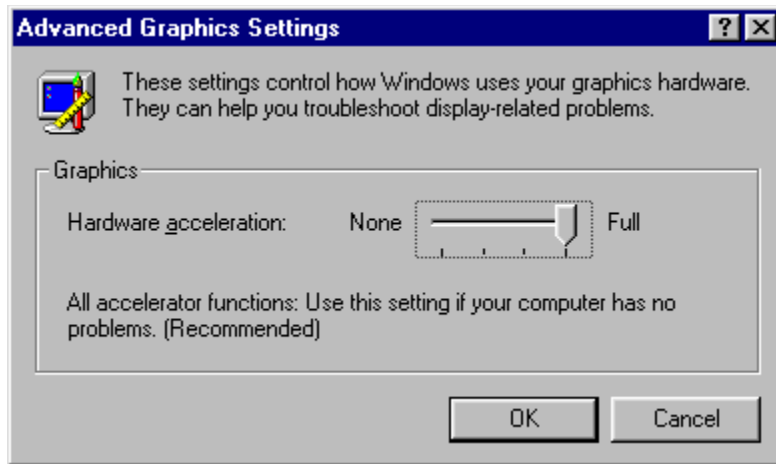
You probably will see your hardware acceleration set to Full. No matter what this is set to, try sliding the pointer to "None" and clicking "OK".
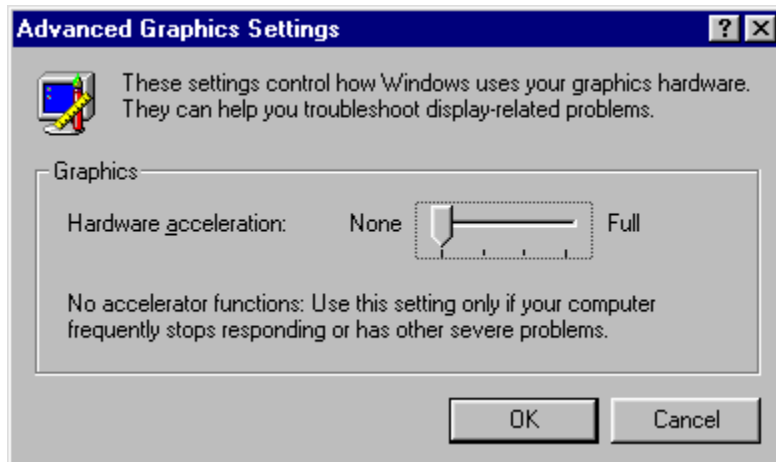
4. Restart your computer and run the game again.

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Update your drivers

Video and sound card drivers are an integral part of Windows 95 and DirectX. They tie the operating system and the DirectX API to the hardware itself, providing a compatibility layer for Windows applications and games to access. Hardware manufacturers post new drivers on their web sites regularly that have enhanced performance and stability. Please check with your hardware manufacturer for an update as some difficulties may be related to the driver.

IMPORTANT: If you have never updated your drivers before, you may want to consult your system vendor and get their recommendation. If you choose to update the drivers yourself, follow the installation instructions provided with the driver very carefully.

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Get the latest version of DirectX

It is usually best to have the latest version of DirectX on your system. The later releases give better performance and stability. There are also more recent drivers for your video and sound card provided by the manufacturers. You can find DirectX at Microsoft's web site at http://www.microsoft.com

Troubleshooting Guide

Welcome to the Electronic Arts Product Support Troubleshooting guide. Please select the subject that matches the difficulty that you are having:

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Joysticks
Modems
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Joystick Troubleshooting

Welcome to the joystick troubleshooting guide. This guide is designed to help you work out difficulties you may be having with your joystick. Follow the steps below to help you solve your problem. First, you will want to find the following information:

What is the make and model of your joystick?
What is your joystick plugged into? (Soundcard, gamecard, or I/O card.)

Make sure your joystick is connected properly.
Enable joystick control in your game
Be sure only one joystick port is active on your system.
Check to see that you have the correct driver loading.
Adjust the trim wheels on your joystick
Calibrate in Windows Control Panel
Disable any profilers or tray utilities
Joystick Specifics
Other Possibilities

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Troubleshooting Modems in Windows 95

Welcome to the modem Troubleshooting Page. Having difficulty connecting? Use the links provided to help you solve your modem trouble, and learn a little bit about your modem and computer in the process. Before you start, make sure to get the following information:

What is the make and model of your modem?
Is your modem internal or external?
Are any other devices on your system using a COM port?

We recommend that you take the time to print the pages that you intend to use; this will make it easier to follow along and will provide you a copy of these docs to keep for future reference.

Now that you have the above information, follow the steps in the order that they appear to help you solve your difficulty as quick as possible:

What is a COM port?
Check and make sure you don't have a device conflict
See which COM port your modem is using
Disable compression and error correction.
Disabling serial ports if using COM 1 or 2
Other Possibilities

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Network Troubleshooting

If you're trying to get your network game working, then this page may help you. Follow the links below to help you troubleshoot your peer to peer network.

IMPORTANT: These troubleshooting steps are written for people who are on "Home-type" IPX networks and are not intended for computers on administrated networks. Please check with your network administrator before attempting any changes described in the following documents.

Make sure the appropriate drivers are installed
Force a frame type
Check Network Neighborhood for other computers
Specify a network address
Verify that the network is terminated on both ends

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System Properties are built-in to Windows 95 and allows you to access information about your computer, and change preferences for your computer.

To view the System Properties: Right-click on the My Computer icon and then left-click on Properties. Clicking on the tabs at the top of this window will allow you to access different system options.

Make sure your joystick is connected properly

This may seem really basic, but believe it or not many joystick difficulties are caused by the joystick connector not being firmly seated on the joystick plug. Some joystick connectors fit loosely on the plug and will come dislodged if the cable is pulled just a little. Check the connection first to make sure your problems are not being caused by a dislodged connector:

1. Shut down your computer FIRST.

2. Make sure the joystick connector is firmly seated on the plug

IMPORTANT: The joystick plugs into a 15 pin connector. Sometimes there is more than one 15 pin connector on the back of your computer, such as the connector on a network card. Make sure your joystick isn't plugged into the wrong connector.

You also may have a connector from an older, disabled joystick port. If you are using a dedicated game card, make sure the joystick is plugged into the gamecard instead of your sound card.

Make sure your joystick is connected properly.
Enable joystick control in your game
Be sure only one joystick port is active on your system.
Check to see that you have the correct driver loading.
Adjust the trim wheels on your joystick
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Enable joystick control in your game

Games will often not assume that you want to use a joystick. If you want joystick control in your games, make sure it is enabled. Many games will give you an option to select Joystick, Keyboard, or Mouse. Check your game's documentation to see how to enable joystick control.

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Be sure only one joystick port is active on your system

No more than one joystick port can be active on your system at one time. If you happen to have more than one port active, your joystick will not work properly. You may have this situation if you have encountered one of the following scenarios:

You have recently purchased a dedicated gamecard.
You may have purchased a game card to get better performance and reliability out of your joystick; however if you did not disable the other joystick port on your computer, such as the one on your sound card, you will have lots of problems getting your joystick to function properly if at all. You will need to check your sound card documentation for instructions on how to disable the joystick port.

You have recently upgraded your sound card.
If your joystick was already plugged into a dedicated game card, or a built in I/O controller, and you upgraded your sound card, the joystick port on your sound card may be in conflict. Make sure you have only one port active or your joystick will not work properly. Check your soundcard documentation for instructions on disabling your joystick port if you think this is the case.

Your joystick is plugged into a dedicated I/O controller.
You will usually not find many dedicated I/O controllers on newer computers, however many computers still have these controllers. If your computer has a dedicated I/O controller with a joystick port, and you have a game card or sound card with a joystick port, you will need to make sure that all but one are disabled. Please check with your system vendor or computer documentation to find out how to do this.

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Check to see that you have the correct driver loading

Sometimes difficulties can arise if the wrong joystick driver is loaded. Check the driver in the Windows Control Panel to make sure the correct one is installed:

1.Double click on My Computer.

2.Double click on the Control Panel icon.

3.Double click on the Joysticks icon (this will be called gaming devices if you have installed a Microsoft joystick). The standard "2 axis, 2 button joystick" will work fine for most controllers. If you are having difficulty with joystick response, you can try to load this driver and see if it helps; however the driver intended for your joystick is most likely to give the best performance and reliability. Make sure you choose the driver that your joystick manufacturer recommends. Please check your joystick documentation for your manufacturer's recommendation.

4.Calibrate your joystick by pressing on the calibrate button. MAKE SURE YOU FOLLOW THE STEPS GIVEN BY THE CONTROL PANEL VERY CAREFULLY. It is very easy to miss a step by pressing enter instead of clicking one of your joystick's buttons. If this happens, your joystick will not work properly and you will have to recalibrate.

5.Test your joystick by clicking on the test button. The buttons should light up when you press them, and the calibration cursor should be exactly in the center when your joystick is centered.

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Check to see that you have the correct driver loading.
Adjust the trim wheels on your joystick
Calibrate in Windows Control Panel
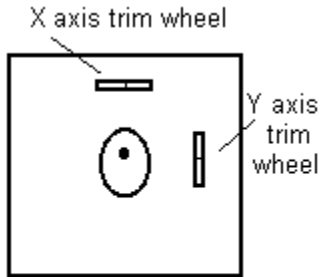Disable any profilers or tray utilities
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Adjust the trim wheels on your joystick

Your joystick may have trim wheels. Trim wheels are dials that control minute adjustments to the X and Y axis of the joystick. Check to make sure that they are centered and then recalibrate your joystick through Windows Control Panel.

This will probably not apply to you if you are using a device like a game pad, which does not have trim wheels. If your joystick does have trim wheels, MAKE SURE THEY ARE CENTERED. Your joystick may not calibrate or work properly otherwise.

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Calibrate in Windows Control Panel

You may have already done this in an earlier step. If this is the case, you can skip to the next step, however we recommend doing this again in case any of the joystick properties have changed.

To recalibrate your joystick in the Windows Control Panel:

1.Double click on the My Computer icon.

2.Double click on the Control Panel icon.

3.Double click on the Joysticks icon (this will be called "Gaming Devices" if you have installed a Microsoft joystick, and the procedure will be slightly different.)

4.Make sure that the proper joystick driver is selected.

If you are using a Thrustmaster, CH, or Microsoft joystick, you may have to select the driver specific to that joystick instead of the one shown above. The "2 axis, 2 button joystick" driver will not work properly for all joysticks.

5.Click on the calibrate button and follow the steps given by the control panel VERY CAREFULLY. If you miss a step, or press enter instead of pressing a joystick button, your joystick will not work properly and you will have to recalibrate.

6.Test your calibration by clicking on the test button. You should see the calibration cursor appear exactly in the center when you let go of your joystick, and the button indicators should light up when you press a joystick button.

If your joystick will not calibrate properly, please check with your joystick manufacturer or system vendor for information on how to correct the problem, or continue with the steps below.

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Disable any profilers or tray utilities

Some joysticks, when installed, will add a joystick utility to the system tray:

These can sometimes cause problems when trying to get a joystick to work properly. Try disabling these utilities if you are having problems. If you are using the Gravis utility, please check their web site at http://www.gravis.com to obtain an update. Your difficulty may be related to an outdated Gravis utility.

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Gravis Gamepad Pro
You must have the Gravis Grip driver installed for this joystick to work properly. Make sure that keyboard emulation is disabled if you are having problems. You can access this through the Grip icon in the system tray (located on the right side of the taskbar).   Obtain the latest driver from http://www.gravis.com to fix joystick port problems.

Thrustmaster FLCS F-16
You can use the "2 axis, 2 button joystick" driver, the "2 button flight yoke" driver, or the "Custom" driver. You may have to use the TM utility to download a FLCS program that does not utilize the Trigger or button S2. If these buttons are mapped to the keyboard, you may not be able to calibrate properly.

Microsoft Sidewinder 3D Pro
You must have the Microsoft Sidewinder 3D Pro driver installed through the Windows Control Panel. Unload the Microsoft Device Profiler if you are having difficulty.

Microsoft Sidewinder Gamepad
Make sure that the Microsoft Sidewinder Gamepad driver is installed through the Windows Control Panel. Unload the Microsoft Device Profiler if you are having difficulty. Make sure the green light above the Mode button is on. This can be toggled with the Mode button on the game pad.

Logitech Wingman Extreme
Make sure this is configured as a Thrustmaster FCS in the Windows Control Panel. This joystick can also be configured as a 2 axis 2 button controller. You can find help on how to change joystick drivers in the documents: Check to see that you have the correct driver loading. and Calibrate in Windows Control Panel.

Make sure your joystick is connected properly.
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Make sure the proper gameport driver for your soundcard or gamecard is installed
Check your sound card and gamecard documentation to make sure you have the correct driver installed. Having the wrong driver will result in your joystick not working properly. You can usually find the gameport driver under   sound video and game controllers" in the Device Manager. (Right-click on the My Computer icon and select Properties.)

Some customers have had luck installing the Microsoft Gameport joystick through the "add new hardware" applet in Control Panel. This may or may not work for you.

Power Management
Joystick calibration relies on timing. If the CPU speed of a system changes, so does the joystick calibration. Sometimes power management will activate and change the CPU speed to conserve power. This will cause erratic behavior from the joystick. You may want to try disabling power management temporarily to see if it is causing you difficulties.

Older sound cards, I/O cards, speed-fixed gamecards.
If you have an older gamecard, sound card or I/O card, you may want to upgrade to a dedicated, speed-adjustable game controller. The joystick ports on older game controllers can't handle the speed and timing requirements of newer games. These joystick ports were designed for a slower system and may cause problems on faster 486s or Pentiums.

Recently upgraded to a faster CPU
If you upgraded your CPU to an overdrive, you may have some ISA timing issues. You may want to check your motherboard manual and make sure the system settings in CMOS are the motherboard manufacturer's recommendation for your CPU. We recommend consulting a specialist or your computer vendor before attempting to alter your setup.   ALTERING YOUR CMOS MAY RESULT IN YOUR SYSTEM NOT FUNCTIONING PROPERLY.

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<u>Be sure only one joystick port is active on your system</u>.
<u>Check to see that you have the correct driver loading.</u>
<u>Adjust the trim wheels on your joystick </u>
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What is a com port?

A COM port, or communications port, is a device on your computer that provides for the input and output of serial data. Serial data, as opposed to parallel data, transmits and receives on very few "wires"or lines, where parallel data is exchanged many bits at a time across a higher number of wires. Your mouse is an example of a serial device; your printer is an example of a parallel device.

COM ports use a dedicated set of resources: one "port address" and one "IRQ channel". A port address is an address at which the CPU can find a certain device. Every device on your computer probably has a port address, so that when the CPU needs to communicate with that device, it knows where to find it. An Interrupt Request Channel, or IRQ channel, is used by the device to request time from the CPU. If the device needs processor time, it gets the CPU's attention by sending a signal on the Interrupt line assigned to it.

As you can see in the table below, each COM port uses its own port address and IRQ; however notice that COM3 and 4 use the same IRQs as COM1 and 2. If you have more than 2 COM devices on your computer, you will want them all to have their own IRQ channel. Note: Do not attempt to alter resource settings on your computer unless you are an advanced user. An advanced user should be capable of recovering their own system from any situation.

	Port Address	IRQ
COM1	3F8	4
COM2	2F8	3
COM3	3E8	4
COM4	2E8	3

The port address and IRQ channel on the COM port work to give devices that use them access to serial data. If you have more than one device using the same IRQ or port address, chances are you'll have problems. All devices are intended to have their own address, and IRQ channel (in many cases a DMA channel also, but not with COM ports).

The devices that usually use a COM port are modems and a mouse. Sometimes game devices like virtual helmets or digital cameras will use COM ports also, so you have to be sure you have no conflicts if you have more than two COM port devices on your system.

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Check and make sure you don't have a device conflict

Device conflicts are a cause of modem difficulty. A device conflict is where more than one device is trying to use the same IRQ channel (Interrupt Request Channel) to talk to the CPU. There can also be conflicts with your Port Address or DMA channel. You can check for conflicts through the device manager:

1.Right-click on the My Computer icon and select Properties.
2.Now click on the Device Manager tab at the top of the window.

Items with a red "X" or a yellow "!" indicate that a device is not working properly. If you have this situation in your Device Manager, even if it's not the modem, you may want to contact your system vendor for how to resolve the conflicts. Device conflicts contribute to general system instability.

If the conflict is with a COM port or your modem, you will need to resolve this as this is most likely why you are having difficulty connecting.

Advanced users only may try deleting the conflicting devices and letting Windows redetect them. If Windows doesn't redetect the com ports, use the "Add new hardware" applet in Control Panel and let Windows search for everything.

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See which COM port your modem is using

In order to establish that no other conflicts exist, we need to check to see which COM port your modem is using.

To check your modem's COM port:

1.Right-click on the My Computer icon and select Properties.

2.Click on the Device Manager tab at the top of the window.

3.Expand the "Modem" branch by clicking on the "+" next to the modem.

Now click one time on your installed modem, and then click on the Properties button. Once the window comes up, click on the Modem tab at the top of the window. If your modem is using a COM port other than 1 or 2, make sure you get the IRQ channel information by clicking on the Resources tab. Please use the following table to determine which IRQ your modem is using:

> COM1 uses IRQ 4
> COM2 uses IRQ 3
> COM3 uses IRQ 4
> COM4 uses IRQ 3

IMPORTANT: If you have a device on COM1, like a mouse, then you may have conflicts with devices using COM3 because they share the same IRQ. Likewise, devices on COM2 may conflict with devices on COM4. Interrupt sharing does not usually work well; we recommend that you use the COM1 or COM2 port for your modem. If you have other devices that use a COM port, make sure the port is using an interrupt other than 3 or 4. Note: Only advanced users should try to change the resource settings of their devices.

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<u>Disable compression and error correction</u>

Data compression and error correction are often the culprit when it comes to connection problems. Although these modem features often allow faster and more reliable data transfer, they can cause difficulty when trying to connect. Sometimes this is due to the fact that the protocols need to be the same on both ends, so if one user's modem is using a certain type of compression, the modem on the other end will have to use the same compression.

There are other types of problems that compression and correction cause, specifically with the data that games use. The data transferred by modem games is often difficult to compress, so using compression can actually make a connection slower instead of faster, resulting in dropped connections or difficulty when trying to connect.

To disable error correction and data compression:

1.Open Control Panel, located in My Computer.

2.Double-click on the Modems icon.

3.Select your modem and click on the Properties button.

4.When the modem properties window opens, click on the Connection tab, then click the Advanced button at the bottom. Now uncheck the boxes for "Use error control" and "Use flow control".

5. Now click OK and restart your computer. Try to connect again.

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<u>Disable compression and error correction</u>
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Disabling serial ports if using COM 1 or 2

The external serial ports on your computer use COM1 and 2; these serial ports allow you to plug in devices like serial mice and external modems. If the mouse on your computer is a serial mouse then it is using a COM port, probably COM1. The serial mouse plugs into your computer via a serial port which is assigned to a COM port. Usually Serial Port 1 will be assigned to COM1 and Serial Port 2 will be assigned to COM2.

If you have an external modem, then you probably have your modem plugged into Serial Port 2 which is using COM2 and your mouse plugged into Serial Port 1 using COM1 as shown below:

The Back of Your Computer
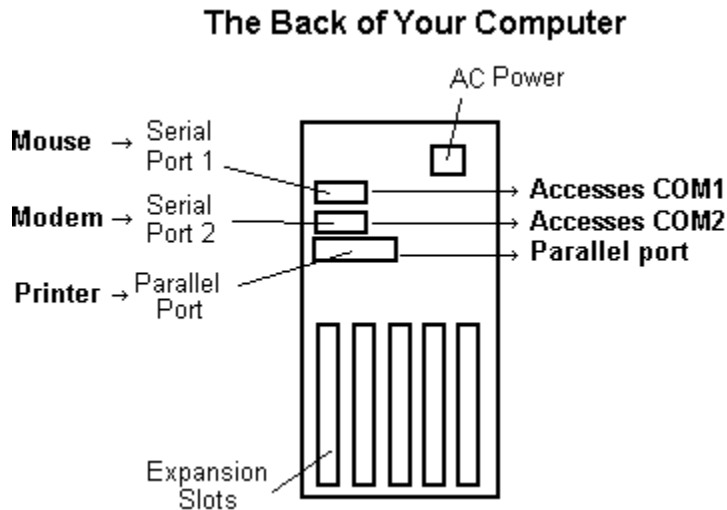
For this configuration to work properly, you need to have both external serial ports enabled in your CMOS setup utility. Note: Only advanced users capable of completely restoring their system should attempt to change settings in CMOS. Please refer to your system documentation or contact your system vendor for information on your CMOS setup utility.

IF YOU ARE USING AN INTERNAL MODEM ON COM 1 or 2:

You will need to make sure that no external serial ports on your system use the same COM port as your internal modem. In many cases, modem difficulty may be caused by having external serial ports enabled to COM1 or 2 when your modem is using COM1 or 2.

If your modem is on COM1 or 2, make sure that any external serial ports which use the same COM port are disabled through the CMOS setup utility. Note: Only advanced users capable of completely restoring their system should attempt to change settings in CMOS. Please refer to your system documentation or contact your system vendor for information on your CMOS setup utility.

If your computer's motherboard does not support integrated I/O devices such as COM ports, you will need to enable and disable external serial ports with jumpers on your I/O card. Please contact your vendor before attempting to make any changes.

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Put your modem on COM1 or COM2
Although modems should work fine on any assigned COM port, we have seen modems function best on COM1 and 2 countless times. If your modem is on a COM port other than 1 or 2, and you are having modem difficulty, consider moving it to COM1 or 2. NOTE: Only advanced users should attempt to modify the resource settings of their devices.

Force a lower baud rate on your modem
Sometimes noisy phone lines can give you difficulty connecting at higher speeds. Generally, games don't use a higher transfer rate than 9600 or 14,400 anyway. So if you are having problems connecting, try forcing a lower baud rate in your modem properties.

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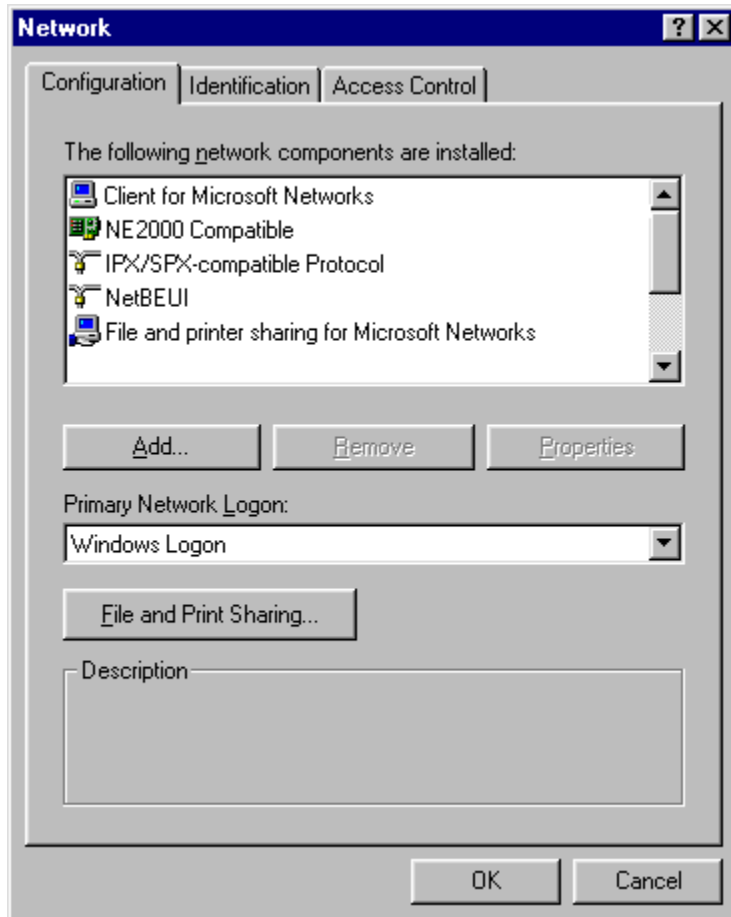Other Possibilities

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__Make sure the appropriate drivers are installed__

To see your network properties:

1.Double-click on the My Computer icon.

2.Double-click on Control Panel

3.Now double-click on the Network icon.

You should see at least the drivers shown above: Client for Microsoft networks, your netcard driver (yours may not be NE2000), IPX protocol, NetBEUI, and File and printer sharing for Microsoft networks. This configuration will allow you to share files, printers, and play network games with your family and friends.

Also, make sure you click on the Identification tab to give your computer a name and specify a workgroup. Computers that are in the same workgroup will all show up in network neighborhood, which is located on your desktop.

If you do not see all of the drivers and protocols listed above, use the "Add" button to install them. After the installation is complete, you will need to reboot your computer.

If you don't see any drivers or protocols at all, then your network adapter is not installed properly. Please read your netcard's documentation for installation instructions.

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Check Network Neighborhood for other computers
Specify a network address

Verify that the network is terminated on both ends

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Force a frame type

Often a peer to peer network is set up and installed properly, but the computers still can't see each other. This is sometimes due to computers using different frame types. A frame type is basically the way the computers will communicate to each other. If two computers are using different frame types, they will be unable to communicate with each other.

IMPORTANT: Do not make these changes if you are on an administrated network. If you did not set up your own network, you may cause damage if you proceed. Please check with your network administrator before changing your Frame Type.

To check your frame type:

1.Double-click on the My Computer icon.

2.Double-click on Control Panel.

3.Now double-click on the Network icon.

4.Highlight the "IPX/SPX-compatible Protocol" and click on the Properties button. Then click on the Advanced tab at the top of the window. You should see a screen similar to this:
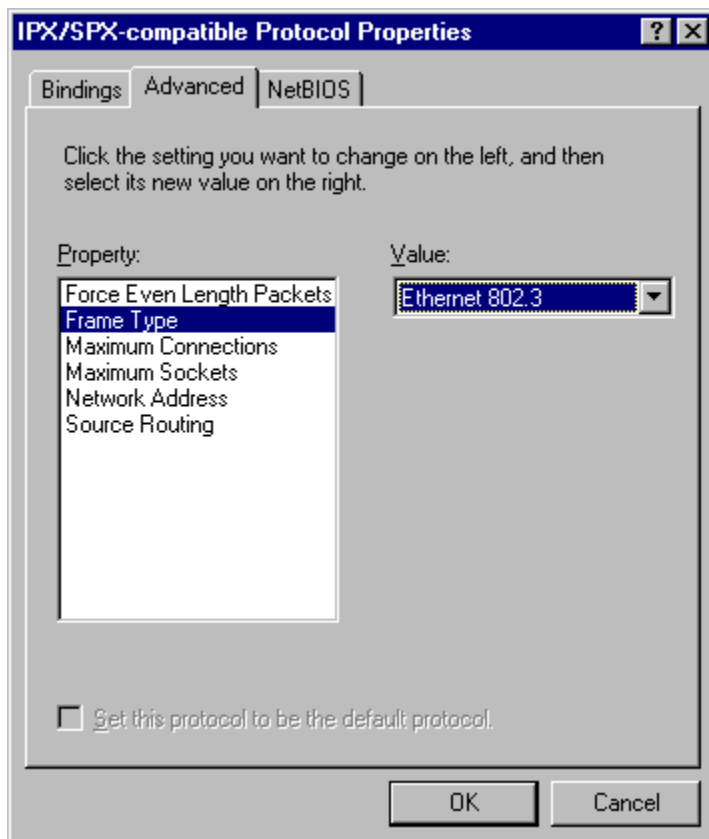
There are several choices under the Property window: highlight "Frame Type" then look at the Value. We recommend using "Ethernet 802.3" on all computers. If the computers on the network have different frame types, you will not be able to connect.

Make sure the appropriate drivers are installed
Force a frame type
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Specify a network address
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Check Network Neighborhood for other computers

Network Neighborhood is a great way to find out if you can see other computers on the network. If you have installed the drivers and protocols recommended in the document <u>Make sure the appropriate drivers are installed</u>, then you should be able to see the other computers on the network through the Network Neighborhood.

To check Network Neighborhood, double-click on the Network Neighborhood icon on your desktop. You should now see a window displaying the computers currently in your workgroup. If you happen to be in a different workgroup than the other computers on your network, go into the Entire Network icon and open the appropriate workgroup. If you can see the other computers that you intend to connect with, then you are probably OK.

If you cannot see the other computers, try this: click on the Start button, then select Find, then select Computer. In the "Named:" box, type the name of the computer you are trying to connect with. The computer should show up in the "Found" box within about 20-30 seconds. If you do not see the computer, then you will probably be unable to connect. Make sure you continue with the troubleshooting.

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Specify a network address

Although unlikely, some connection problems are caused by computers having different network addresses specified. Make sure that the computers that you want to connect with have the same network address.

To specify a network address:

1.Double-click on the My Computer icon.

2.Double-click on Control Panel.

3.Now double-click on the Network icon.

4.Highlight the "IPX/SPX-compatible Protocol" and click on the Properties button. Then click on the Advanced tab at the top of the window. You should see a screen similar to this:
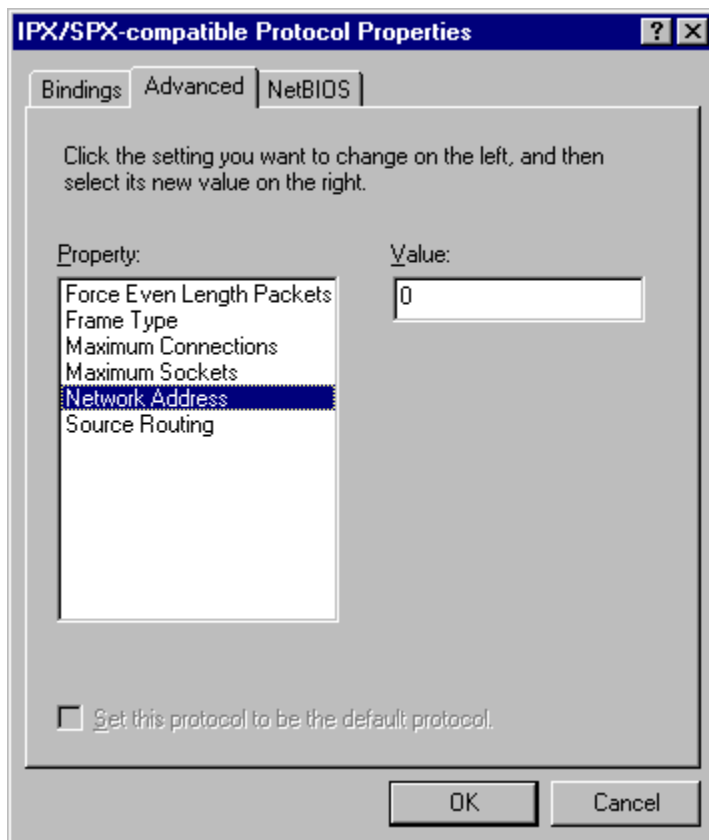
Make sure that the network address is the same for all computers trying to connect. If "0" does not work, try another value (like 12345 or any set of numbers). Just make sure the value is the same for all computers or you will not be able to connect. The default value for Network Address is "0" (zero).

Make sure the appropriate drivers are installed
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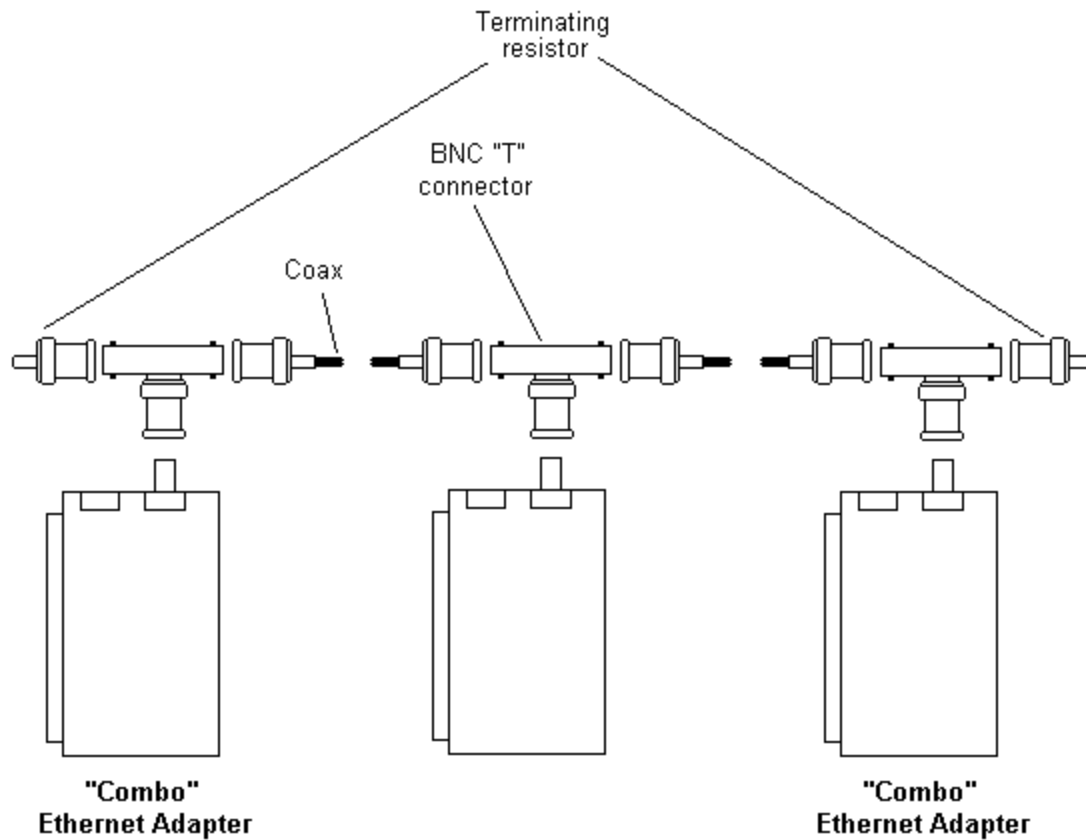

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Verify that the network is terminated on both ends

Termination is required on a coax type network on the first and last computer. Make sure that you have the proper termination installed: (You may need to resize the help window to see the entire diagram.)

Thin coax cable runs between network cards. At the ends of the chain, terminating resistors must be installed. These resistors can be purchased at most stores that carry computer supplies.

Make sure the appropriate drivers are installed
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Verify that the network is terminated on both ends

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