


Introduction



Welcome to Electronic Arts Group Product Support Help Guide. This guide is designed to assist you with any difficulty you may be having getting your game to run. Extensive Trouble Shooting and support information have been provided. Please take the time to go through the Trouble Shooting Guides if you are having difficulty, as we have provided solutions to the most common problems. In addition, other valuable support information is available on our web sites at www.ea.com , www.origin.ea.com or www.westwood.com which is updated weekly.

Please note: For extra information on products produced by one of our Affiliated labels (such as Fox Interactive, Dream Works, etc) then please [click here](#) to go to a page with direct connections to their web sites.

Thank you for purchasing our software, we are pleased to have you as a customer.

 **Please note** : This guide is best in a screen resolution of 1024 x 768 by High Color (16 bit) or higher. It can be displayed in a lower resolution but some of the graphics may not be displayed correctly.

Contents

[Click here](#) to find out more on how to use this help file .

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Ok, so where do you go from here? If you are relatively new to computers or you are receiving a particular error message when trying to run a game then we suggest that you try the "**So, what is the problem?**" section. This section lists common problems that can occur with all Windows 95/98 games and then points you in the right direction to fixing it quickly. If there are words (jargon) that you do not understand, and the words are in green, then just simply click on the word and an explanation will "pop-up" on the screen, or check out the Glossary for further details. We have not listed specific error messages that relate to specific game titles, as the majority of error messages you receive will apply to **all** Windows 95/98 games.

If the above page does not help you resolve your problem then try reading our **Trouble Shooting Guides**, as they hold the information you need to get that game working on your machine. Please take time to read these guides as they will also help you to understand Windows 95/98 and the workings of your machine.

EAUK Help file - Contents

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Help File feed back

Your chance to give us your feed back about this guide.

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A link to the readme file for last minute changes to the game.

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A series of guides to walk you through specific configuration problems and general maintenance.

Section 3

Hardware Manufacturer/Supplier Links

Contact details for most UK suppliers.



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 machine supplier/manufacturers attention. Some of the procedures in these documents are risky for novice users **but** most are very easy and straight forward, **so please***

read the warnings carefully. *If you are uncertain about any of the procedures then please consult your machine supplier/manufacturer.*

Credits

Original trouble shooting guides written by

James Abney and Chris Beron.

UK Help file compiled by

Ian Hawkins.

Additional information

Ian Hawkins, Jason Berisford, John Hanley and
Chris Chaplin.

Special thanks to

Fiona Hawkins.



So, what is the problem?



Here you will find listed the most common problems that can occur when trying to run a game for Windows 95/98. First select the heading you require, then just click on the error message that you are receiving or the one that describes the problem most accurately to find out how to resolve it.



Important: We have found that **60% of all the enquiries** we receive are from customers with **DirectX** related problems, normally related to either Sound or Video card **drivers**.

Please make sure that you are using the most up to date DirectX drivers for your Sound and Video card (See "[Checking the status of DirectX](#)" for details). Please consult your [Machine Manufacturer/Supplier](#) and/or your [Sound/Video](#) card manufacturer for specific details for your machine and installed hardware. Electronic Arts only supply the DirectX drivers on the game CD that Microsoft have supplied to us. We can not supply drivers for specific Sound cards and/or Video cards, these have to be acquired from the manufacturer of the hardware.

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 For further help also see our [Trouble Shooting Guides](#).

Installation Problems

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DirectX and Video problems

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1. Windows starts normally, but reports an error stating that your display adapter is not installed properly.
2. Windows starts, but your display is scrambled or otherwise unreadable.
3. Windows tries to start, but hangs with a blank screen.

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For further details of DirectX or DirectX related problems have a look at the link to [What is DirectX](#) or go to Microsoft's site for frequently ask questions on DirectX at <http://support.microsoft.com/support>
For up to the minute trouble shooting for DirectX try http://support.microsoft.com/support/directx/directx_6.0/tshooter

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 For further help also see our [Trouble Shooting Guides](#).

If you have an Internet connection then click on the "Click Here" link below (or the blue writing) for details of up-to-date problems that have been resolved or frequently asked questions.

[Click here](#) for [Technical support - new issues](#). On this page choose "Top 3 Issues" which can be found to the top left of the main page.

Still having problems! Then go to here "[HELP!!](#)"

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Trouble Shooting Guides

Welcome to the Electronic Arts Trouble Shooting Guides. These guides are to help you through most common problems that you may experience while playing games in Windows 95/98 and how to correct them. Please choose the required guide.

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[Trouble Shooting Joysticks/Controllers](#)

[Trouble Shooting Modems](#)

[Trouble Shooting Networks](#)

[Regular Maintenance](#)

[Windows 95/98 Performance and Trouble Shooting](#)

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Hardware Manufacturers/Suppliers Links

On the following pages we have added links and contact details to most manufacturers. We will keep these as up to date as possible.

Please select the link you require;

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[Machine Manufacturers/Suppliers](#)

[Chip Manufacturer \(Processor\)](#)

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[Other Useful Sites](#)

[Hard Drives](#)

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For the most up to date links go to [{button EA Links,EF\('start','http://www.ea.com/techsupp/',6,''\)}](#) or [{button Origin Links,EF\('start','http://www.origin.ea.com/tech/pshware.html',6,''\)}](#) (To use these links you must have an Internet connection)

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Support Information

Electronic Arts Ltd
UK Customer Service Department
"Here to help you"

Electronic Arts has a Customer Service Department dedicated to help you with any problems you may encounter with this game. Customer Service in the UK are available Monday to Thursday from 9.00 a.m. to 6.00 p.m. and 9.00 a.m. to 4.30 p.m. on Friday. We also have a 24 hour automated system where you can hear recorded messages of common game related problems and how to resolve them. Hard copies of the Trouble Shooting Guides, game FAQ's (Frequently Asked Questions) and other useful documents are also available from this number on Faxback, these cover most common problems at present and this service is updated regularly. Alternatively fax us on **01753 546 817** or write to us at the following address, including a daytime telephone number with full details of your machine and the problem you are experiencing.

How to reach us

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



0870 243 435 (standard national call rate number)
(01753) 546817



INTERNET E-MAIL: uk-support@ea.com

INTERNET: Access our Web Site at <http://www.ea.com>
or to our technical support area <http://www.ea.com/techsupp>

Please note: We do not give out hints or cheats on the line above. For hints, tips and cheats please call the Electronic Arts Games Hintline Number on

09067 53 22 53 (open to UK residents only).

Calls are charged at 75p per minute. Please ask the permission of whom ever pays the bill **before** you call. Average call length is 2 minutes.
Details correct at time of writing.



If you do need to contact Technical Support, use the button below before attempting other methods. This method allows us to receive information about your machine and system settings to help us effectively trouble shoot your problem . To use this facility you must make sure that your **Regional Setting** in **Control Panel** have been set up correctly.

{button Contact Tech Support,EF('Finished version/lp.exe','1,')}

Warranty Information

Other Electronic Arts Customer Service departments.
For support in Europe.

[France \(EA France\)](#)

[Germany \(EA Germany\)](#)

[Spain \(EA Spain\)](#)

[Sweden \(EA Nordic\)](#)

[Holland \(EA Holland\)](#)

[Italy \(EA Italy\)](#)

For support in the United

States.

[EA USA](#)

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[Westwood USA](#)

For support in Australia and New Zealand

Australia

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16 bit This term usually refers to any DOS or Windows 3.1 driver or program. These operating systems could only handle transferring 16 bits of data at any given time. 16 bit programs are usually fully compatible with 32 bit operating systems (you can use them in Windows 95/98).

32 bit This term usually refers to any Windows 95/98 or NT driver or program. A 32 bit program will take full advantage of the new operating system, but won't be downward compatible (you can't run 32 bit applications on DOS or Windows 3.1)

-A-

Actuator The component of a hard disk that is responsible for position the read/write head over the desired position.

Adapter RAM 384K above conventional memory that is used for adapter drivers and information.

Address bus Transfers addresses to the CPU telling where in memory information should be routed to.

AGP **Is short for** **Advanced Graphics Port**. As the name implies this slot is for graphics cards. This slot differs from a PCI slot (or BUS) as it can run at a much higher frequency than the PCI BUS. The PCI BUS will work at 33 MHz where a AGP BUS runs at 66 MHz or higher. This will allow machines to display vastly more complicated graphics than a machine running a graphics card in a PCI slot. Advanced Graphics Port is a new bus specification found on Pentium II motherboards that allows for graphics to use main memory for texture mapping and storage.

ALU Arithmetic and Logic Unit is the portion of the CPU responsible for math intensive operations.

API Application Program Interface. This is a group of programs developed by Microsoft for developers so that they can produce games that "talk" to the hardware via Windows 95/98 in a standard way. These API's make it easier to produce fast, colourful games through Windows rather than having to run the machine in DOS. Microsoft's DirectX and 3Dfx's Glide are both examples of an API.

ASCII Acronym for American Standard Code for Information Interchange is binary code used to represent 128 Characters for the English character set.

AT An AT command is short for ATtention. AT commands were originally devised by the Hayes company. These commands are used to send instructions to a modem.

AT Computer Advanced Technology Computer generically defines any computer from the 286 forward.

AUTOEXEC.BAT Is a file used by dos systems to automatically execute commands that would normally be entered in from a dos prompt. It can be considered a file that configures a system to a users liking. CD-ROM, Mouse and Sound card settings can also be found here.

Average Seek Time A measure of the average time it takes a read/write head on a hard disk or CD-ROM to read different tracks (or areas) of the disk media.

-B -

B000-B7FF An address in upper memory that was once used for monochrome video cards. Because this space is no longer in use by these cards this 32K can be used to free up conventional memory. This area must be specified on the EMM386 device driver line in CONFIG.SYS using an inclusion statement.

Baud Rate The name Baud is taken from that of the Frenchman Emille Baudot, the term has been adapted to refer to the high-low shifts of a signal of a telephone line. This is also the description of the speed at which two machines will communicate via a modem or a serial connection. The speeds go from slow, e.g. 2400, to 115,200 which at the present is the fastest that can be achieved. However most games only really use a 9,600 or 14,400 baud rate.

BEDO DRAM Burst Extended Data Out Dynamic Ram is a faster version of EDO RAM with no wait state while reading or writing.

Binary language A language in which numbers are represented by two digits, a zero or a 1. This on and off state is the basic language of computers.

BIOS Basic Input Output System is a ROM chip that stores all the low level hardware information on your computer. Its contents are essential for allowing an operating system to recognize your system.

Bit A bit is the smallest piece of information that can be represented.

Bitmap An image composed of bits displayed on a monitor that form a picture.

Boot Disk A disk that has the operating system files necessary to start the computer up. Due to the fact that it is a removable floppy disk, it allows for the change of crucial system files without permanently altering the system.

Browser A piece of software that allows for viewing web pages over the Internet.

Buffer Memory that can be used to temporarily hold information as it is being transferred between hardware or gathered from a source.

Bus Is the basically a collection of wires in a form of a slot in your machine which a hardware card would plug in to. In a Pentium machine it has a combination of upto three different type of BUS slot, PCI, ISA or AGP BUS slot. This slot allows information to be transferred between components on the mother board.

Bus Mastering The ability of a bus to manage its own resources without intervention from the CPU.

Byte A collection of 8 bits

-C -

Cache Memory that is external to main memory that is used to hold the most previous data processed, also called static RAM. This memory is used as a "scratch pad" for most recently used addresses and data. Cache memory can be found in CPUs, CD-ROM drives, Hard disk, etc.

Calibration The process by which a device's capabilities are relayed to the computer. The term usually applies to gaming devices such as joysticks and steering wheels, were their extreme axis's are recognized and relayed to a game that will use the device.

CAS Column Address Selector is used internally by RAM chips to locate information stored in the chip.

CD Short for Compact Disk, a 5 ¼ inch platter (disk) that stores information that can be read by a laser.

CD-ROM Compact Disk Read Only Memory is a type of optical disk, read by a laser, that can store up to 650 MB of data.

Certified A driver that has been tested and approved by Microsoft to be 100% compliant with the DirectX API.

Character A string of bits, usually 8 that form a single character of a certain character set.

Chipset The chips that comprise the basic low level function of the computer. Examples are Triton II "HX" for Pentium computers composed of Intel's 82439HX and 82371 AB

CISC Complex Instruction Set Computer describes a processor that hold hundreds of instructions internally to the chip. (*See also RISC*)

Cluster Is the smallest segment of a disk that DOS can write to. Clusters are made up of a varying number of 512 byte sectors. Cluster sizes are bigger on larger disk partitions. This makes disk access more efficient, but is more wasteful of space.

COMMAND.COM The dos file which translates keyboard commands from a user into binary language which dos understands.

Command Line A prompt from which commands can be entered to the computer. Dos is an example of a Command line operating system. (*See also GUI*)

COM Port The logical name given to a serial port

CONFIG.SYS The dos system file which contains proprietary hardware driver information. It is a system level configuration text file that can easily be edited with a text editor.

Contiguous Referred to in the context of disk space or disk clusters. Contiguous clusters are free or used areas of the disk that are adjacent to other free or used areas on the disk. If there are enough free contiguous clusters on a disk, a file can be written so that all the clusters are next to each other. This creates less work for the hard drive when it reads the file, so overall disk performance is improved

Control Panel A location in Windows 95/98 that allows for access to programs that can change or view a systems configuration.

Conventional Memory The first 640K of memory used by dos to run applications.

CPU Central Processing Unit, is the main "brains" of the computer that manages most of the processing logic.

Cylinder The extension of all the tracks over a number of platters on a hard disk. Example Track 1 on platter 1, platter 2, and platter 3 would represent cylinder 1.

-D-

DACK One of the two signals on a DMA channel that enables the correct response to a DMA request. (*See also DRQ*)

Data Bus The portion of the bus that carries data along its wires. (*See also Address Bus*)

Dblspace Utility included with DOS 6.0 that allowed for data on a disk to be compressed.

Defragment The act of arranging files on a disk in a linear fashion pertaining to the program they belong to.

Desktop The visible workspace within Windows 95/98. It composes the GUI with no open applications.

Device A **Device** is a piece of hardware such as a Sound card, CD ROM, Video card, etc which is connected to your machine. With Windows 95/98 these devices use specific Windows 95/98 drivers. This means that if you then quit to DOS you need to load DOS specific drives. Otherwise these devices will not work.

Device Manager The area of Windows that contains information pertaining to installed hardware.

Dialog Box A prompt containing information pertaining to an action or event.

DIMM Dual in-Line Memory Module is a type of memory package that allows for 64 bit interface between the motherboard and memory.

Dial-up-Networking Windows 95/98 applet used to establish modem connections with other computers. Usually used for ISP connections.

DirectX An Application Program Interface (API) for games written by Microsoft. DirectX allows game programmers to access the accelerated functions of your computer's hardware, such as video cards and sound cards, without having to write special code for every model on the market. An API makes it easier for programmers to concentrate on the features of their programs without having to resolve as many issues with hardware.

Direct3D The portion of the DirectX API that allows for 3d hardware to be taken advantage of.

DirectDraw The portion of the DirectX API that allows for video images to be drawn onto the computer screen

DirectInput The portion of the DirectX API that allows for Input devices to be used in applications. These devices include mice, keyboards, gaming devices, and infrared devices.

DirectPlay The portion of the DirectX API that allows for network applications to be used. This subset supports TCP/IP, IPX, modem, and general network connections to take place.

DirectSound The portion of the DirectX API that allows for direct access to sound capabilities in compatible computers.

Directory Method of grouping files under one common heading.

Disk Compression Remove redundant data strings and substitute with other characters to allow more data to fit onto a disk.

Disk pack All the platters collectively grouped that make up a hard disk.

.DLL Dynamic Link Library is a generic piece of code that can be used by many different applications.

DMA Direct Memory Access allows devices to access memory directly without CPU intervention. There are 8 possible DMA channels for use, with the most common clients being sound cards and floppy disk drives. This allows a piece of hardware (sound card, video card, etc.) to talk directly to the **RAM** in your machine without having to go via the **CPU**.

DNS Address Acronym for Domain Name Service it is the TCP/IP service that resolves text based Internet addresses into numerical addresses.

DOS Usually known as MS-DOS (Microsoft Disk Operating System). Developed for the first personal computers. MS-DOS allowed users of the first PCs to manage their disks and file systems. MS-DOS has been through many versions and is currently at version 7.10 (the Windows 98 version of DOS)

DOS Loop A loop in which a Windows95 system will always return to the last played dos application upon booting the computer. It occurs when the original system files(Config.sys and Autoexec.bat) are replaced by Windows modified versions.

DOSSTART.BAT A file created by Windows 95/98 setup, which contains device drivers that are normally found in the Autoexec.bat. It "replaces" the Autoexec.bat and is loaded when Windows 95/98 is shut down to Dos mode.

Download The act of receiving a file via a network.

Driver A **Driver** is a small program which allows Windows 95/98 or DOS (the **Operating System**) to "talk" to the hardware you have in your machine. Each piece of hardware has its own specific driver. Some are standard drivers supplied by Microsoft and some are supplied by the manufacturer of the hardware (e.g. Sound cards, Video cards, CD ROM drives, etc).

DRAM Dynamic Random Access Memory is memory which can add and remove information as needed by the computer for DATA.

DriveSpace e Generation two of DBLSPACE included with DOS 6.22 and Windows 95.

DRQ One of the two Signals on a DMA channel that signals that a DMA channel requires attention.

DVD Digital Versatile Disk is a type of optical disk that can store up to 17 GB of data. DVD drives can read CD-ROM disks.

DWCFGMG.SYS A plug and play device manager which allows for resources to be allocated to PnP devices in Dos.

DXSETUP The program which displays the version number and status of DirectX components.

-E-

EDO DRAM Extended Data Out memory is a type of DRAM that is capable of copying an entire block of data to its internal cache.

EEPROM Electronically Erasable Programmable ROM contains firmware that can be updated through software. (See also FLASH BIOS)

EIDE Enhanced Integrated Drive Electronics. The standard used to connect hard drives and CD-ROMs to your computer. It is an improvement over the older IDE standard which did not allow CD-ROMs to be connected. EIDE is faster, and allows you to connect up to 4 devices as opposed to 2 with IDE

EISA Extended ISA was formed in response to update the ISA bus and to counter IBM's MCA bus. It was a 32 bit bus that supported such advanced features as Plug and Play and Bus Mastering. Wasn't very popular due to added cost for components.

EMAIL Electronic medium for sending messages over a network.

EMM386.EXE Expanded Memory Emulator which can use extended memory to simulate expanded memory. It can also be used to free upper memory blocks that can be used to free conventional memory. (See also Upper Memory)

EMS See Expanded Memory

EPROM Erasable Programmable ROM is used to store Firmware information. There is usually a chip hidden behind a sticker of the top of the chip that, when removed and exposed to Ultraviolet light, will erase the chip.

Exception Interrupt Is a software interrupt that is triggered when the CPU encounters code it does not understand.

Expanded Memory Also called EMS, it is the area above the first megabyte of RAM which can be used with the assistance of an EMS memory manager. On 286 computers it was the only way to recognize the memory above the first Meg.

Extended Memory The area above the first meg of RAM which can be directly used and accessed by program. Extended memory can be accessed via an XMS memory manager called HIMEM.SYS. (See also HIMEM.SYS)

Extensions (See also File Extensions)

External Bus The wires that form the bus external to the CPU.

-F-

Fast Page Mode Memory FPM DRAM A type of DRAM that allows faster access to data in the same row or page. This type of memory does not need a row address supplied to it again if the next memory access occurs in the same row.

FAT No, this has nothing to do with the size of the computer. It stands for **File Allocation Table**. This is the part of the disk that contains data on the free and used space on the disk. The FAT is very important because in order for your operating system to find the file it is looking for, it must use the FAT. If the FAT becomes damaged or corrupted, data loss will occur.

File Attribute Special characteristic that a file may contain. Most common are: hidden, system, archive, and read-only.

File Extension The letters of the file name that tell what program it is to be associated or used with. Usually follows a period and is 3 characters long.

Firmware Software code that has been written to ROM memory. Dictates how the device physically works.

Flat Memory Module The memory addressing technique used by Windows NT and 95 that can address memory as one continuous chunk. (See also Segmented memory module)

Format The process by which a disk is erased and prepared for use by an operating system.

FPU Floating point unit included in CPU to perform math intensive operations and ease the burden on the CPU. (See also Math Co-Processor)

FAT File Allocation Table is maintained by Operating System and acts like an index to the information stored on the hard disk.

FAT 16 A FAT format that uses a 16 bit key capable of addressing up to 65, 535 entries into the FAT table.

FAT 32 A FAT format that uses a 28 bit key capable of address up to 268 million entries into the FAT table. FAT 32 can only be found on Windows 95 OSR2 and Windows 98.

Flash BIOS Software upgradeable BIOS chip. (See also EEPROM)

Floppy disk A removable storage medium consisting of a magnetic material. These disks are useful for making boot disk.

FPU Floating Point Unit. The part of the CPU that does advanced math calculations on decimal numbers. Without an FPU, the CPU would have to work much harder on advanced math calculations, slowing down performance. Pentium CPUs all have FPUs, but not all 486s do. A 486DX processor has an FPU, a 486SX does not.

-G-

Gigabit (Gb) One billion Kilobytes or 1,073,741,824 bytes.

Global Descriptor Table A table that holds data that can be used by numerous programs. Data stored in a GDT is in 64 KB chunks.

GUI Graphical User Interface which describes any environment in which text commands are replaced by clickable graphics or icons.

Glide An Application Program Interface (API) for games written by 3Dfx for use only with their hardware. Glide allows game programmers to access the accelerated functions of your 3Dfx chip and leads to better performance. An API makes it easier for programmers to concentrate on the features of their programs without having to resolve as many issues with hardware.

-H-

HIMEM.SYS Memory manager that allows for access to Extended Memory.

Hardware Acceleration Operating enhancements which are offered on some video cards to help speed along video applications.

Hard drive A fixed disk drive on your computer used to permanently store data. Hard drives use platters covered in magnetic particles to store data. The drive's read/write head writes data to the platters by using a tiny magnetic field to polarize the magnetic particles. When the drive needs to read data, the polarized particles are translated into electrical impulses by the drive's read/write head.

Hexadecimal A base 16 numbering system that is used for memory addressing and other computer functions.

-I-

Icon A graphical representation of an item.

IDE Acronym for **I**ntegrated **D**rive **E**lectronics, which is the interface used to connect LS Floppy drives (120 Mb storage), hard disks and CD-ROM drives to the rest of the computer. (See also [SCSI](#))

.INF Information file that contains settings for hardware devices.

Internal Bus The path of data that is Internal to the CPU.

I/O Input/Output functions of a computer. A **I/O card** (Input/Output) is a separate card in your machine that contains extra hardware than normal. In this example it is a game controller. These cards normally have two joystick connectors on them. If you use one of these cards then the joystick connector on your sound cards **must** be disabled. Please check your documentation or contact your [Sound card](#) manufacturer for details.

IO.SYS On Dos systems, the interface between Dos and the system BIOS. On Windows 95/98 systems it also contains the Dos kernel, as well as basic Config.sys entries.

IRQ **Short for** Interrupt **Re**Quest Channel. Each piece of hardware is allotted a IRQ address, this then makes it easier for your system to know where to send information to, as that piece of hardware has it's own "person address", so that instructions do not get "lost". If you have more than one piece of hardware using the same IRQ address then this can result in a conflict, as your machine does not know what instructions it should send to which piece of hardware at that one address. Interrupt Request Channel also brings attention to the CPU that another device is in need of processing time. There are 16 IRQs on a system and some are reserved for certain devices.

IP Address Internet protocol address is a computer identification used when corresponding over the Internet.

IPX Inter-network Packet Exchange is a protocol used for Novel NetWare networks.

ISA Bus Industry Standard Association standard for a 16 bit bus slot. This type of interface has been around for a very long time. It is used to plug in extra hardware, such as Video cards, Network cards, sound cards, etc. This interface is only a 16 Bit slot and therefore is slower than the [PCI](#) slot. This slot has a Max speed of 10 MHz and is standard on all computers since 1980.

ISDN Integrated Services Digital Network is an international communications standard for sending voice, video, and data over digital telephone lines.

ISP Internet Service Provider is the company that one uses to gain access to the Internet.

-J-

Jumper A device which allows for a physical electrical connection to be made on a piece of hardware.

-K-

Kernel The portion of the operating system which must stay resident in memory to provide memory, task and disk management functions.

Key When referring to the Windows 95/98 registry denotes a branch of the hierarchical data structure which can contain information or another branch.

Kilobyte 1000 bytes, which in computer terms translates into 1024 bytes. The reason for this being that 2 to the 10th in binary is 1024.

-L-

LAN Local Area Network describe a network of computer that does not span a large distance.

Local Descriptor Table A table used in segmented memory addressing which holds data that is local to a specific program.

-M-

Math Co-Processor Mathematical processing unit included in CPU to perform math intensive operations and ease the burden on the CPU. (See also *FPU*)

MCA Micro Channel Architecture is a bus standard proposed by IBM which was supposed to be the 32 bit successor to the ISA bus. It incorporated plug and play and bus mastering. However because it was proprietary to IBM the bus never caught on as a standard and is limited to a small number of IBM 486 computers.

Media GX Processor produced by Cyrix in which the Video, Sound, and controller chip is built into it.

Megabyte (Mb) 1000 kilobytes or in computer terms 1024KB*1024 which is 1,048,576 bytes.

MHZ A measurement of time in which one million clock cycles on the motherboard is performed.

Microsoft Software producer founded by Bill Gates, which is responsible for producing Dos and Windows 95/98 among other widely used applications.

MIDI An acronym for musical instrument digital interface, a standard adopted by the electronic music industry for controlling devices, such as synthesizers and sound cards, that emit music.

Modem Short for Modulate/Demodulate it is a device that converts digital binary information from the computer for transmission over analog phone lines.

Motherboard Is the main board of the computer that houses all the connections for the various components.

MMX Multimedia Extensions are 57 extra instructions added to Pentium class processors that allow for faster processing of sound and video applications. To take full advantage of MMX a software application must be coded to take advantage of it.

MS-DOS Microsoft Disk Operating System. Developed for the first personal computers. MS-DOS allowed users of the first PCs to manage their disks and file systems. MS-DOS has been through many versions and is currently at version 7.10 (the Windows 98 version of DOS).

MS-DOS Compatibility Mode This mode is caused by a driver in Config.sys that Windows doesn't recognize, and is related to the problem "Compatibility mode paging reduces overall system performance." If you only see this message on one drive, that drive is using an MS-DOS compatibility (real-mode) driver, which may slow down access to that drive. Contact your [hardware manufacturer](#) to see if an updated driver is available for your drive.

MSCDEX.EXE Found in the Autoexec.bat file, it is Microsoft's generic CD-ROM driver that acts as an interface to the user. It translates users commands to a language the drive understands. It is one of two drivers needed for a CD-ROM driver to function in Dos.

MSDOS.SYS On Dos based systems is the Kernel of the Operating System. On Windows 95/98 based systems, it has been converted to a text file which is used to alter startup preferences.

Multimedia Defines programs and applications that combine video and sound in an application.

Multitasking The ability of an operating system to perform more than one task at a time.

-N-

Nibble Half a byte, or 4 bits.

NETWORK A group of two or more computers connected together.

-O-

Octal A binary numbering system which uses a series of three bits to represent a number. Its main advantage is it makes translating binary numbers to base ten a little easier.

OEM **O**riginal **E**quipment **M**anufacturer is equipment that is shipped with a new bundled computer.

OLE Object Linking and Embedding allow for information created by one application to be shared or imbedded in a second application.

Offset Used in memory addressing in conjunction with the segment to locate and store data in memory.

OSR2 A version of Windows 95 that can only be obtained from a bundled computer system. It contains Service release 1 update, FAT 32 among other patch fixes.

-P-

Parallel Port A thick cable containing 8 separate wires used to send and receive data eight bits at a time.

PATH A variable that designates the search path for executables.

PCB (Printed Circuit Board) Another term for the motherboard that hosts all the computer components and parts. It also contains all the wires that make the connections between the components.

PCI Short for **P**eripheral **C**omponent **I**nterconnect. This is a type of expansion slot on your mother board that allows you to plug in extra hardware, such as Video cards, Network cards, etc. Peripheral Component Interconnect is a 32 bit bus developed by Intel found on most Pentium class computers. It operates at both 33 and 66 Mhz and at 33 Mhz has a throughput of 133 MBps.

Pentium Intel's successor to the 486 CPU. The Pentium has two 8k caches, an improved FPU, 64 bit access to memory, and many other features that separate it from the previous 486 line of CPUs. Pentiums currently come in speeds of 60, 75, 90, 100, 133, 166, 200, & 233MHz.

Pentium Overdrive A CPU upgrade that allows a 486 based computer to decipher Pentium instructions. Also used for performance gains with Pentium based systems as well.

Peripherals Devices used to expand the capability of your computer. Your video card, sound card, SCSI adapter, and network card are peripherals.

Photolithography The process by which silicon chips are manufactured. A mask is made of the transistor connections to be made and ultraviolet light is shined through the mask onto the silicon eroding layers exposed away. Once cleaned and doped a physical transistor connection will remain.

Pipelining The process by which Pentium Class processors can break instructions down into smaller parts and execute them simultaneously.

Platter A single disk contained within a disk pack of a hard drive. (*See also Disk Pack, Hard drive*)

Plug and Play Operating systems that support plug and play will allow for self configuration of hardware with minimal intervention from the user.

P Rating Is a rating that gives non-Intel processors that run at slower MHz their relative performance to that of a Pentium.

Processor The brain of your computer. The processor receives instructions from your programs, processes them, and sends the results back out to your computer's components. You may have a 486 or a Pentium processor inside your computer. Some common manufacturers of processor CPUs are Intel, AMD, and Cyrix. (See also CPU)

PROM Programmable ROM which can be recorded by a special encoder machine.

Proprietary A term meaning that an item is specific to something else. For example, a proprietary driver is one that comes with that piece of hardware and will not work on another brand.

-Q-

Queue Tasks that are waiting to be completed or operated upon.

-R-

RAM Random Access Memory. Your computer uses RAM to store data and instructions that are needed by the CPU. In order for a program to run, it has to be loaded into RAM. Once in memory, the program can interact with the CPU, giving instructions and receiving results. RAM is known as "volatile", it loses it's contents when the power is shut off. RAM has to be constantly refreshed to keep it's memory. If you lose power while you're working on a document, you will lose what you're working on.

RAS Remote Access Service is a service that allows network connections to be established over phone lines.

Rasterize The process of converting an image which may be described by a series of straight-line segments (often called vectors) or curves (described with an equation) to a raster image (which is a series of horizontal lines of varying intensity and possibly colour).

Registry The database of system settings that Windows 95/98 uses to store configuration information.

Regedit The program that comes native with Windows 95/98 which allows one to edit the registry.

Resolution Determines at what size and color depth an image will be displayed.

RISC Reduced Instruction Set Computer is a CPU that has a small number of instructions encoded and stored internally to the chip. When using these instructions processing time can be reduced.

ROM Read Only Memory is a type of memory, which can be stored and cannot be changed.

Rotational Delay The measure of time it takes for the designated information to spin under a disks read/write head.

Run Term used to refer to the starting or execution of a computer program.

-S-

Safe Mode A mode of windows 95 used for troubleshooting purposes in which default device drivers are loaded.

Scandisk A program that will check a hard or floppy disk for errors. Used to maintain data integrity.

SCSI Small Computer Systems Interface. SCSI is used to connect a wide variety of components to your system, especially hard drives and CD-ROMs. Not all systems have SCSI, most use EIDE (Enhanced Integrated Drive Electronics) to connect CD-ROMs and hard drives. SCSI allows higher data transfer rates, but is more expensive. It can be used to connect up to 7 devices, such as scanners, CD-ROMs, and hard drives.

SDRAM Synchronized DRAM is a type of RAM that synchronizes itself with the system clock to operate at the same frequency.

Sector Segments of a disk that break the track into a smaller area.

Seek Time The measure time it takes to move the disk actuator arm to different areas of a disk.

Segment Is a term used to represent base memory address. Used in conjunction with an offset it can be used to locate items in memory. (*See also Offset*)

Segmented Memory Module 16 bit memory model used by Dos/Windows 3.X/Windows 95/98 to access memory. SMM uses a segment and an offset to store and locate data in memory.

Serial link A method of connecting two computers together via serial ports which allows data to be sent and received one bit at a time. Normally this connection is by using a special serial cable, called a "Null Modem" cable, connected by their serial ports.

Server A computer that is designated to store and distribute programs and files to other computers.

SET Command used in dos to set, lists, and delete environment variables.

Shortcut A link to a application that can be activated for immediate execution.

SIMM Single In-Line Memory Module is a packaging method for memory chips. The most common variations are 30 pin and 72 pin.

SIPP Single inline Pin Package is a memory packaging method in which the memory chips themselves have a single row of interface pins

Socket An interface which allows for items to be connected together.

Software Interrupt A request by a program to interrupt CPU usage to access another hardware device.

SPX Sequenced Packet Exchange The SPX layer sits on top of the IPX layer and provides connection-oriented services.

SRAM Static RAM is memory that cannot manipulate data internal to the chip. It is often used as cache memory.

Start menu Initiated by clicking on the START button in Windows 95/98, it allows access to programs and other various operating system functions.

SVGA Super VGA. While Windows 95/98 comes with built in SVGA support, for DOS many video cards require that you have a VESA driver loaded for this high resolution.

SYSTRAY The area of the Windows 95/98 desktop by the clock that can display icons of items running in the

background.

-T-

Task Any Application that is currently being executed by the computer.

TCP/IP Transport Control Protocol/Internet Protocol are used for internet networking.

Terabyte 1000 megabytes or in computer terms 1024MB*1024 which is 1,073,741,824 bytes.

Thunking The process by which 16 bit instructions are converted to 32 bit and vice versa.

Track The concentric circles on a disk which can be used to reference where information is stored.

-U-

UART Universal Asynchronous Receiver Transmitter manages information being transferred via a serial port.

Upper Memory The 384K portion of memory above conventional memory that can be used to load device drivers.

USB This is a new peripheral device technology that allows you to chain several devices onto one USB port without having to manually configure each. Intel makes USB and more information is available at their web pages.

-V-

VESA This stands for the Video Electronics Standards Association. It's most often used to refer to a driver that will allow a video card to display high-resolution graphics in DOS. VESA drivers are available from the video card manufacturer

Virtual Memory Hard disk space that is used to simulate memory. Windows uses virtual memory to allow you to open and run more programs than you actually have RAM for. Windows creates a virtual memory "swap file" on the disk to store programs that are running but not currently in use.

Virtual Memory Hard disk space that is used to simulate RAM memory. Windows uses virtual memory to allow you to open and run more programs than you actually have RAM for. Windows creates a virtual memory "swap file" on the disk to store programs or files that are running but not currently in use.

VLB Vesa Local Bus is a popular bus used for video purposes mainly during the reign of the 486 computer. It ran at the speed of the local bus up to a speed of 40 MHz.

VxD Virtual Device Driver also called virtual anything driver that provides low level hardware support for various peripherals by allowing them to interact directly with the kernel.

-W-

WAN Wide Area Network is a network which is spread over a large distance. The Internet is the most popular example of a WAN.

Windows NT The pure 32 bit version of windows which is aimed at network operations. It includes peer networking services, server networking services, Internet client and server services.

Word Computers can also store and process multiple bytes, which can be referred to as a word

-X-

XT Computer Extended computer introduced by IBM in 1983 which sported an Intel 8086 processor.

XMS (*See also Extended Memory*)

-Y-

Yahoo Internet search engine

-Z-

Zone Bit Recording A method by which the tracks on the pouter surface of the disk have more sectors than tracks closer to the center of the disk.

Help file feed back

Please help US to help you!

This is our first attempt writing a help guide of this nature. We have tried to get the balance of the information so that it is easy for a newcomer to computers to follow but without avoiding the main issues. **But have we got it right?** That is where you come in.

We want to hear constructive comments on what you would like to see in this guide. We would like your thoughts, ideas and suggestions concerning this help file. What would **you** like to see included?

And while you are helping us you also have the chance to win three titles of **your choice**. Simply take the time to fill in the form provided and send it to;

**Electronic Arts Customer Service,
Help File Feed Back,
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Slough,
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The small print

No employees of Electronic Arts, its subsidiaries or associated companies, or any member of their families, may enter this competion. Only one form per household. There will be no cash offered as an alternative to the software. No responsibility is taken for lost, damaged or illegible entries. No correspondance will be entered into.

Click here to print the **[Feed Back Form](#)**



Trouble Shooting DirectX

If you're having any difficulty running Windows 95/98 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 solve your problem more quickly:

Who is your computer manufacturer?
What is your **CPU** model, speed, and manufacturer?
How much **RAM** 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** or go to "**I still can not get the game to work**" because this page gives you clear instructions on how to obtain the information require above.

Alternatively you could use a program we supply to examining your hardware. Simply click on the button below, fill in the required boxes and the save to your desktop by clicking on the button "**Save to Desktop**" or you can send the information to your printer by selecting the "**Print**" button.

{button Your machine info,EF('Finished version/lp.exe','1,')}

Now that you have the above information, you are ready to begin trouble shooting. 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 section: **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.**

[Checking the status of DirectX](#)
[Manually switch video modes](#)
[Re-starting your computer](#)
[Shut down all applications](#)
[Shut down apps in the system tray](#)
[Check for conflicts](#)
[Check your virtual memory settings](#)
[Re-installing DirectX](#)
[Restoring Video Drivers or Audio Drivers](#)
[Disable hardware acceleration](#)
[Update your drivers](#)
[Get the latest version of DirectX](#)

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[Trouble Shooting Guides](#)
[Support Information](#)



Trouble Shooting Joysticks

Welcome to the joystick trouble shooting 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/controller?

What is your joystick/controller plugged into? (Sound card, game card, or I/O card.)

[Adding a custom device driver for you controller](#)

[Make sure your joystick is connected properly](#)

[Calibrate in Windows Control Panel](#)

[Check to see that you have the correct driver loading](#)

[Be sure only one joystick port is active on your system](#)

[Disable any profilers or tray utilities](#)

[Enable joystick control in your game](#)

[Adjust the trim wheels on your joystick](#)

[Joystick Specifics](#)

[Other Possibilities](#)

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Trouble Shooting Modems

Welcome to the Modem Trouble Shooting 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 documents 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](#)

[Make sure no other devices are using your COM port or IRQ](#)

[Disabling serial ports if using COM 1 or 2](#)

[Perform a test connection with HyperTerminal](#)

[Enter in your modem's correct INIT string](#)

[Disable compression and error correction.](#)

[Other Possibilities](#)

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[Support Information](#)



Trouble Shooting Networks

If you're trying to get networked, then this page may help you. Whether you are curious about setting up your own Windows 95/98 network or need help solving difficulties with your existing network, you have come to the right place. Need a brief explanation of what a network is? See the section: [What is a Network?](#)

This guide mainly focuses on peer to peer networks. If you are looking for information on other types of networks, we recommend logging onto the Internet and looking for documents related to "client server networks". You can also visit your local book shop, as there is a good deal of information published about computers and networks, from beginners to advanced users.

 **IMPORTANT:** This document assumes that **you** are willing to take responsibility for your own upgrades.

If you do not already have a network set up, we recommend consulting a specialist or contacting your system vendor before proceeding. **At no time will Electronic Arts provide assistance for network installation, nor take responsibility if you mess it up.** This document is intended to be strictly informative and make you aware of the possibilities of computing. If you are a novice user, and are uncomfortable poking around inside your computer, then do not proceed with the set up section.



This guide is presented in two parts: Network Setup and Network Trouble Shooting. If you have an existing network, then you should skip to the section on network Trouble Shooting.

[Part One: Network Setup](#)

[Part Two: Network Trouble Shooting](#)

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Regular Maintenance

Regular maintenance is an important part of owning a computer. Like the family car, computers need to be checked and maintained regularly. If you've owned your computer for a while and have never done any maintenance or updates, you might run into difficulties. Use the tips in the following sections to help you perform some of the tasks that will help your computer run smoother, and help you prevent errors and data loss.



IMPORTANT: The tips below are intended to make you aware of some of the maintenance procedures that should be performed regularly. As always, we suggest getting your **Machine Manufacturer/Suppliers** recommendation on maintenance and updates.

[Running Scandisk](#)

[Running Defrag](#)

[Freeing Hard drive space](#)

[Updating Drivers](#)

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Windows 95/98 Performance and Trouble Shooting


"I've just bought a new Pentium computer with tons of RAM, Windows 95/98, and the latest and greatest components advertised. It has everything needed to get screaming performance out of games and business applications. If that's the case, why is the latest and greatest game running so badly (or not at all) ?"

There are a few reasons why Windows 95/98 typically doesn't work as well as it should. Most computers that come with Windows 95/98 on them are set up the way that the computer company believes that they should be. Since Windows 95/98 is a lot different from DOS (or even previous versions of Windows), it's easy to get a system to work without making it perform.

The best way to improve performance is to get to know your system. Don't rely solely on sales information sheets that may list a "16 bit sound card" or a "SVGA video card" as your components. These are generic terms that do not tell you which company actually manufactured the components and support them with updates. The time you spend now learning about your system will be invaluable when troubles arise.

Windows 95/98 is a great departure from previous versions of Windows and DOS. It's set up to manage a lot of your computer's stuff automatically in an effort to make computing easy to use and trouble free. These settings will work most of the time, but occasionally you may need to fine-tune your computer.

Windows 95/98 is sort of like Windows 3.1 - most stuff is handled through the **Control Panel**. Everything is neatly organised and pretty intuitive to get around in, but it's hard to know what everything in there does. I've taken the relevant windows from off my own computer and I've pasted them in this set of documents to give you a better idea of what I'm talking about.

 **Important:** We recommend that you talk to your Hardware Manufacturer/Supplier for information concerning your particular machine, just in case there is something that you should not change.

For gaming, there are three main things in Windows 95/98 that we'll be interested in:

[The System Properties window and all of it's tabs](#)

[Your Desktop resolution](#)

[Your Hard Drive properties](#)

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CD ROM

| | | |
|-------------------------|-----|--|
| Acer | | http://www.acer.com/index.htm 01628 533 422 |
| Aztech | | http://www.aztechca.com |
| Creative Labs | | http://www.creaf.com |
| Creative Labs - UK | | http://www.creative-labs.co.uk 01189 344 322 |
| Diamond | | http://www.diamondmm.com |
| Diamond FTP Site | UK | http://sunsite.doc.ic.ac.uk/ computing/vendor/diamondmm/ |
| Diamond FTP Site | USA | ftp://ftp.diamondmm.com 01753 501 410 |
| Guillemot International | | http://www.guillemot.com Tel 0181 944 1940 Fax 0181 944 9400 |
| Hitachi | | http://www.hitachi.com |
| Hitachi - Europe | | http://www.hitachi-eu.com 0181 849 2087 |
| Mitsumi | | http://www.mitsumi.com |
| NEC | | http://www.nec.com 0181 575 8080 |
| Panasonic | | http://www.panasonic.com |
| Panasonic - UK | | http://www.panasonic.co.uk 01344 862 444 |
| Philips | | http://www.philips.com |
| Pioneer - Japan | | http://www.pioneer.co.jp 01753 789 884 |
| Plasmon (USA) | | http://www.plasmon.com |
| Plextor | | http://www.plextor.com |
| Reveal | | http://www.reveal.com |
| Samsung | | http://www.samsung.com |
| Sanyo | | http://www.sanyo.co.uk 01923 212 046 |
| Sony | | http://www.sel.sony.com |
| Sony - Europe | | http://www.sony-europe.com 01932 816 000 |

Teac

<http://www.teac.com>

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Chip Manufacturers

| | |
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| AMD | http://www.amd.com |
| Cyrix | http://www.cyrix.com |
| Intel | http://www.intel.com |
| Intel FTP site - USA | ftp://ftp.intel.com |

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Controllers/Joysticks

| | |
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| Advanced Gravis Europe | http://www.gravis.com 01703 653 377 |
| Logic 3 | http://www.logic3.com 0181 900 0024 |
| Logitech | http://www.logitech.com |
| LMP | http://www.leda.co.uk 01992 503 133 |
| Microsoft (USA) Microsoft UK | http://www.microsoft.com 01189 271 000 |
| Thrustmaster | http://www.thrustmaster.com 01189 787 087 |
| Quick Shot | http://www.quickshot.com 0181 365 1993 |

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Hard Drives

| | |
|------------------|---|
| Conner | http://www.conner.com |
| Fujitsu | http://www.fujitsu.com |
| Fujitsu - Europe | http://www.fujitsu-europe.com |
| Fujitsu (Japan) | http://www.fujitsu.co.jp |
| Maxtor | http://www.maxtor.com |
| Quantum | http://www.quantum.com |
| Seagate | http://www.seagate.com |

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Hardware Controllers

| | |
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| Adaptec | http://www.adaptec.com |
| Adaptec - UK source | http://sunsite.doc.ic.ac.uk/ computing/vendor/adaptec/ pub/BBS/adaptec |
| Adaptec FTP site - USA | ftp://ftp.adaptec.com |
| Promise | http://www.promise.com |
| Promise - FTP site | ftp://ftp.promise.com |

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Machine Manufacturers/Suppliers

| | |
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| Acer - UK | http://www.aceruk.co.uk 01628 533 422 |
| Akhter - UK | http://www.akhter.co.uk |
| AST | http://www.ast.com 0990 611 611 |
| Compaq Compaq (UK) | http://www.compaq.com http://www.compaq.co.uk 0990 232 425 |
| Dan - UK | http://www.dan.co.uk 0181 830 1100 |
| Dell Dell - USA | http://www.dell.com http://www.us.dell.com 01344 720 000 |
| Gateway - UK Gateway - USA | http://www.uk.gw2k.com http://www.gateway2000.com 0800 142 000 |
| Hewlett-Packard Hewlett Packard | http://www.hp.com http://hpcc998.external.hp.com 01344 773 100 |
| IBM Europe IBM USA | http://www.europe.ibm.com http://www.pc.ibm.com 01256 840 818 |
| ICL | http://www.icl.com |
| Mesh - UK | http://www.meshplc.co.uk 0181 452 1111 |
| NEC | http://www.nec.com |
| Packard-Bell | http://www.packardbell.com |
| Simply Computers | http://www.simply.co.uk 0181 523 4020 |
| Tandem Computers | http://www.tandem.com |
| Tekram | http://www.tekram.com |
| Texas Instruments | http://www.ti.com |
| Time | 01282 777 111 |
| Tiny | http://support.tiny.com/support/support.html |

01293 821333
01293 821222 Technical Support

Toshiba

<http://www.toshiba.com/tais/csd/products/>

Viglen

<http://www.viglen.co.uk>
0181 758 7000

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Modems

| | | |
|------------------------------|-----|--|
| Creative Labs | | http://www.creaf.com |
| Creative Labs - UK | | http://www.creative-labs.co.uk |
| Creative Labs FTP Site - USA | | ftp://ftp.creaf.com 01889 344 322 |
| Diamond | | http://www.diamondmm.com |
| Diamond FTP Site | UK | http://sunsite.doc.ic.ac.uk/ computing/vendor/diamondmm/ |
| Diamond FTP Site | USA | ftp://ftp.diamondmm.com 01753 501 410 |
| Hayes - UK | | http://www.hayes.co.uk |
| Hayes - USA | | http://www.hayes.com 01252 775533 |
| Miro Computer Products | | http://www.miro.com 01895 441906 |
| Pace | | http://www.pacecom.co.uk 01274 537031 |
| Psion Dacom | | http://www.psiondacom.com 01908 261686 |
| U.S.Robotics | | http://www.usr.com |
| U.S. Robotics | UK | http://www.usr.co.uk 01189 441 000 |
| Zoom | | http://www.zoomtel.com 01493 748818 |

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Others Useful Sites

Windows 95/98 Drivers <http://www.http://www.drivershq.com>

Frank Condrón's Windows page <http://www.conitech.com/windows>

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Software

Microsoft (USA)
Microsoft USA
Microsoft UK

<http://www.microsoft.com>
<ftp://ftp.microsoft.com>
0118 927 1000

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Sound Card

| | |
|------------------------------|---|
| Acer | http://www.acer.com/index.htm 01628 533 422 |
| Aureal | http://www.a3d.com/flash/download/drivers/index.htm |
| Avance Logic | http://www.avance.com |
| Aztech | http://www.aztechca.com |
| Creative Labs | http://www.creaf.com |
| Creative Labs - UK | http://www.creative-labs.co.uk |
| Creative Labs FTP Site - USA | ftp://ftp.creaf.com 01189 344 322 |
| Crystal Semiconductors | http://www.crystal.com |
| Diamond | http://www.diamondmm.com |
| Diamond FTP Site UK | http://sunsite.doc.ic.ac.uk/computing/vendor/diamondmm/ |
| Diamond FTP Site USA | ftp://ftp.diamondmm.com |
| Ensoniq | http://www.ensoniq.com |
| ESS Technology | http://www.esstech.com |
| Gravis | http://www.gravis.com 01703 653 377 |
| Guillemot International | http://www.guillemot.com Tel 0181 944 1940 Fax 0181 944 9400 |
| IBM (Mwave cards) | http://www4.pc.ibm.com/aptips/3b7e_51a.html 01256 840 818 |
| Media Vision | http://www.svtus.com |
| Miro Computer Products | http://www.miro.com 01895 441906 |
| Opti support | http://www.opti.com |
| Orchid Technology | http://www.orchid.com 01256 479 898 |
| Reveal | None listed |
| Trust | http://www.trust.box.nl/GB/index.htm |
| VideoLogic | http://www.videologic.com 01923 271 318 |

Yamaha

<http://www.yamaha.com>

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|------------------------------|-----|--|
| Acer | | http://www.acer.com/index.htm 01628 533 422 |
| Avance Logic | | http://www.avance.com |
| ATI | | http://www.atitech.ca 00 353 1 807 7826 |
| Aztech | | http://www.aztechca.com |
| Cirrus Logic | | http://www.cirrus.com 01628 472211 |
| Creative Labs | | http://www.creaf.com |
| Creative Labs - UK | | http://www.creative-labs.co.uk |
| Creative Labs FTP Site - USA | | ftp://ftp.creaf.com 01189 344 322 |
| Diamond | | http://www.diamondmm.com |
| Diamond FTP Site | UK | http://sunsite.doc.ic.ac.uk/computing/ vendor/diamondmm/ |
| Diamond FTP Site | USA | ftp://ftp.diamondmm.com 01189 444400 |
| Genoa Systems | | http://www.genoasys.com 01252 313 155 |
| Guillemot International | | http://www.guillemot.com Tel 0181 944 1940 Fax 0181 944 9400 |
| Hercules | | http://www.hercules.com 01635 861 122 |
| Matrox | | http://www.matrox.com |
| Matrox FTP site | | ftp://ftp.matrox.com 01753 665 500 |
| Miro Computer Products | | http://www.miro.com 01895 441906 |
| Number Nine | | http://www.nine.com |
| Number Nine FTP site | | ftp://ftp.nine.com |
| Nvidia | | http://www.nvidia.com |
| Orchid Technology | | http://www.orchid.com 01189 4444008 |
| S3 | | http://www.s3.com |
| SIS | | http://www.sis.com.tw |

STB <http://www.stb.com>
01344 874 744

Taxan <http://www.taxan.co.uk>
Tel: 01344 867646
Fax: 01344 483003

Trident <http://www.tridentmicro.com>

Tseng Labs <http://www.Tseng.com>

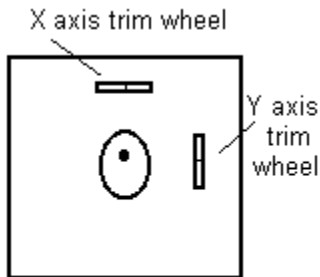
VideoLogic <http://www.videologic.com>
01923 271 318

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Adjust the trim wheels on your joystick

Your joystick may have trim wheels. Trim wheels are dials, or sliders, that control minute adjustments to the X and Y axis of the joystick. Check to make sure that they are centred and then recalibrate your joystick through the [Windows Control Panel](#).



Top Down View

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](#)

[Check to see that you have the correct driver loading](#)

[Be sure only one joystick port is active on your system](#)

[Disable any profilers or tray utilities](#)

[Enable joystick control in your game](#)

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Affiliated Labels



THE BEST AFFILIATES IN THE BUSINESS.

Welcome to the Affiliated Labels page. Here you will find a number of links via the Internet straight to the home page of the relative company.



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After installing the game and the DirectX drivers supplied on the CD I find that:

1. Windows starts normally, but reports an error stating that your display adapter is not installed properly.
2. Windows starts, but your display is scrambled or otherwise unreadable.
3. Windows tries to start, but hangs with a blank screen.

All of these errors are received when there are problems with the Video card driver that Windows 95/98 has been told to use, either when your Video drivers have been updated or if you have installed standard DirectX drivers for a card that needs **manufacturer specific drivers**.

All these problems are relatively easy to correct and are dealt with on another page. Please go to **Problems with Display drivers** for an explanation as to how to resolve them.

Be sure that only one joystick port is active on your system

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

You have recently purchased a dedicated game card.

You have recently upgraded your sound card.

Your Joystick is plugged into a dedicated I/O controller.

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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 **Machine Manufacturer/Supplier** and/or your **Sound card/ Video card** manufacturer for any updated drivers that may be available.

The performance and stability of this type of certification is basically unknown. It is most likely, drivers that certify this way, will not work properly at all. It is recommended to check with your **Machine Manufacturer/Supplier** and/or your **Sound card/ Video card** manufacturer for any updated drivers that may be available.

CPU is short for **C**entral **P**rocessor **U**nit. This is the main chip in your computer, the heart if you like and the speed of this chip is one of the main factors in how quickly programs run on your machine. CPU's are made by many different manufacturers but the main three are Intel, Cyrix and AMD. At the present time these manufacturers produce;

| Manufacturer | Chip | Speed |
|--------------|--------------------|---|
| Intel | Pentium | 120 - 200Mhz |
| | Pentium MMX | 166 - 266Mhz |
| | Pentium Pro | 150 - 200Mhz |
| | Pentium II | 233 - 550Mhz |
| | Pentium II Celeron | 233 - 466Mhz |
| | Pentium III | 450 - 550Mhz |
| Cyrix | 686 (M1) | 120 - 150Mhz (described as P166+ and the P200+) |
| | 786 (M2) | 150Mhz and above (MMX compatible) |
| AMD | K6 MMX | 166 - 266Mhz |
| | K6-2 3D Now! | 266 - 400Mhz |
| | K6-3 3D Now! | 400Mhz |

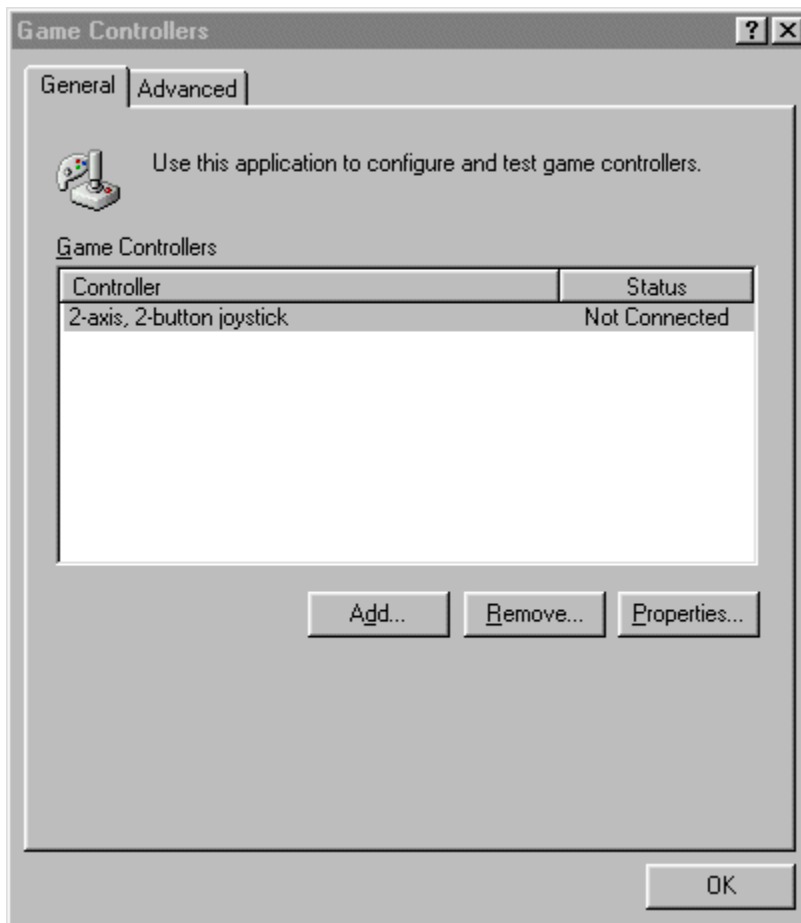
Other Pentium speeds have been produced but they are no longer manufactured. In fact the Pentium chips below Pentium II's have now been discontinued.

Calibrate in Windows Control Panel

You may have done this before. However, we recommend doing this again in case any of the joystick properties have changed.

To re-calibrate your joystick in the Windows Control Panel:

To run *Joystick Properties* [click here](#) .



1. 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.

2. 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 re-calibrate.
3. Test your calibration by clicking on the **Test** button (or the Test tab if you have Windows 95 version b). You should see the calibration cursor appear exactly in the centre 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 **Machine Manufacturer/Supplier** for information on how to correct the problem, or continue with the steps below.

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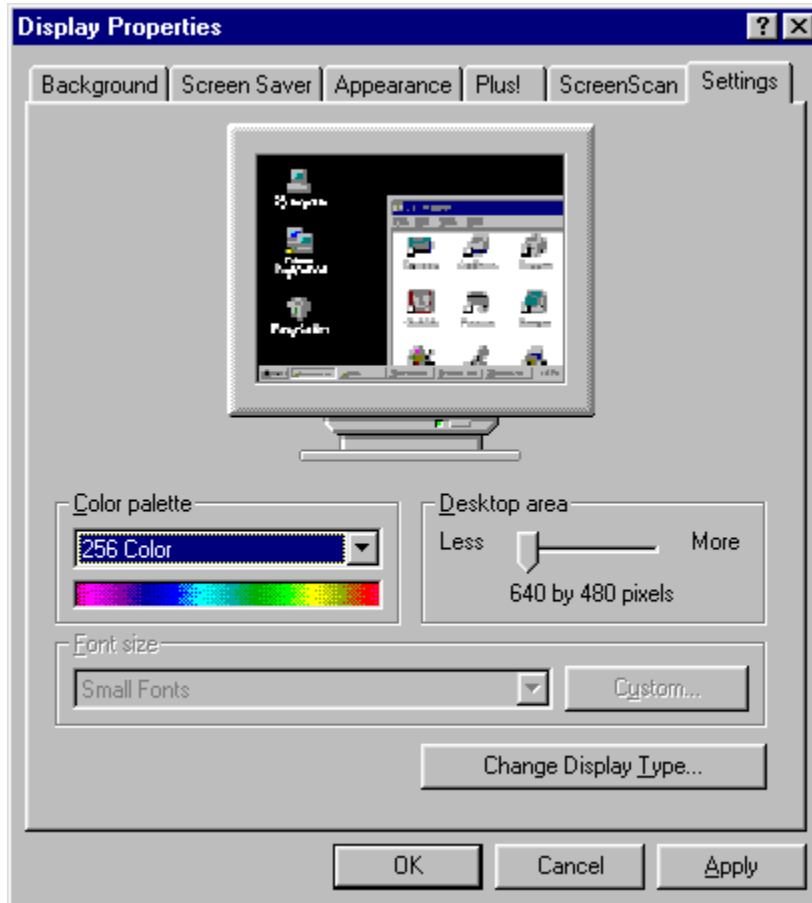
A **Certified** driver that has been tested and approved by Microsoft to be 100% compliant with the DirectX. Any difficulties you may be having with software are probably not related to this driver, however many hardware companies will still update these drivers in order to fix problems. It is recommended to check with your **Machine Manufacturer/Supplier** and/or your **Sound card/ Video card** manufacturer for any updated drivers that may be available.

Changing your Display Driver to Standard VGA

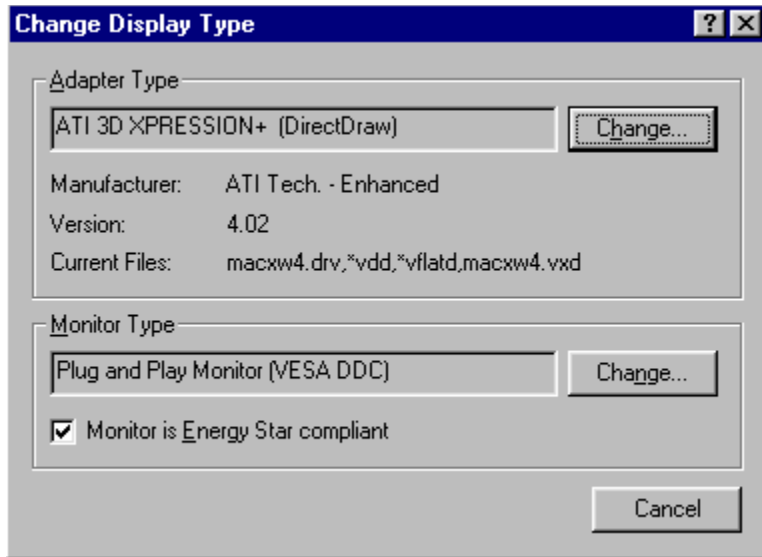
 **IMPORTANT** WE DO NOT RECOMMEND THAT YOU DO THIS FOLLOWING PROCESS UNLESS YOU ARE HAVING PROBLEMS STARTING WINDOWS 95/98.
WE ADVISE YOU TO SPEAK TO YOUR HARDWARE MANUFACTURE/SUPPLIER TO FIND OUT THE CORRECT VIDEO DRIVER FOR YOUR MACHINE.

To run *Display Properties* [click here](#) .

1. You will now see the **Display Properties** Window. Click on the **Settings** tab.

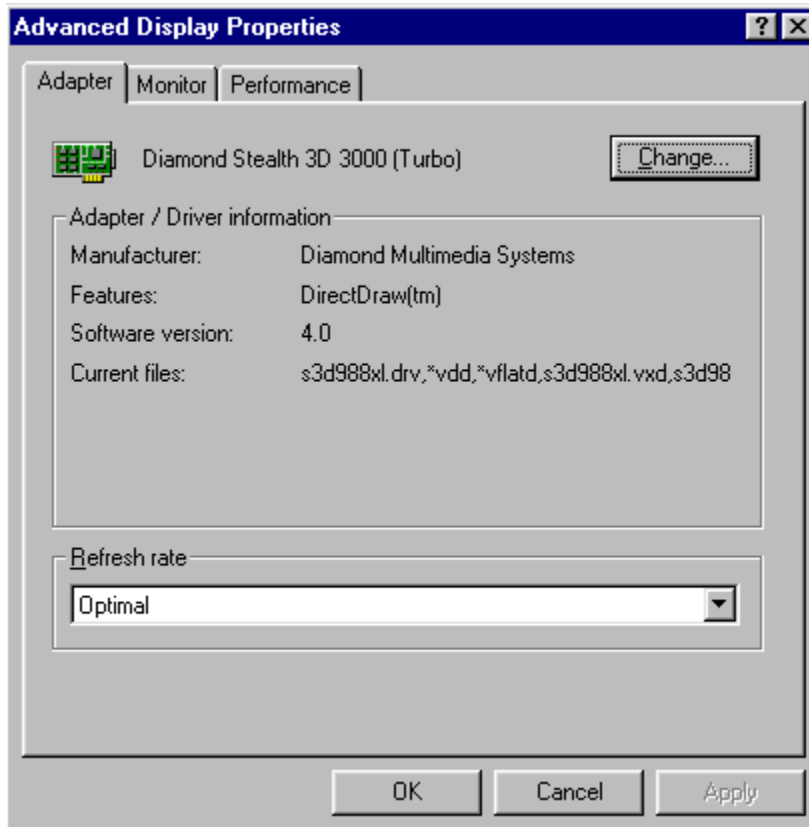


2. You should now see a window similar to above. Now click on **Change Display Type**. For Windows 98 users your Display Properties will be slightly different. You need to click on the **Advanced** button and then select the **Adapter** tab
3. Now this next screen will differ depending on which version of Windows 95 you have. If you have version **A** then go to **number 4**, if you have version **B** then go to **Number 5**. Windows 98 users go to **Number 6**
4. If you have version **A** then you will see this screen;



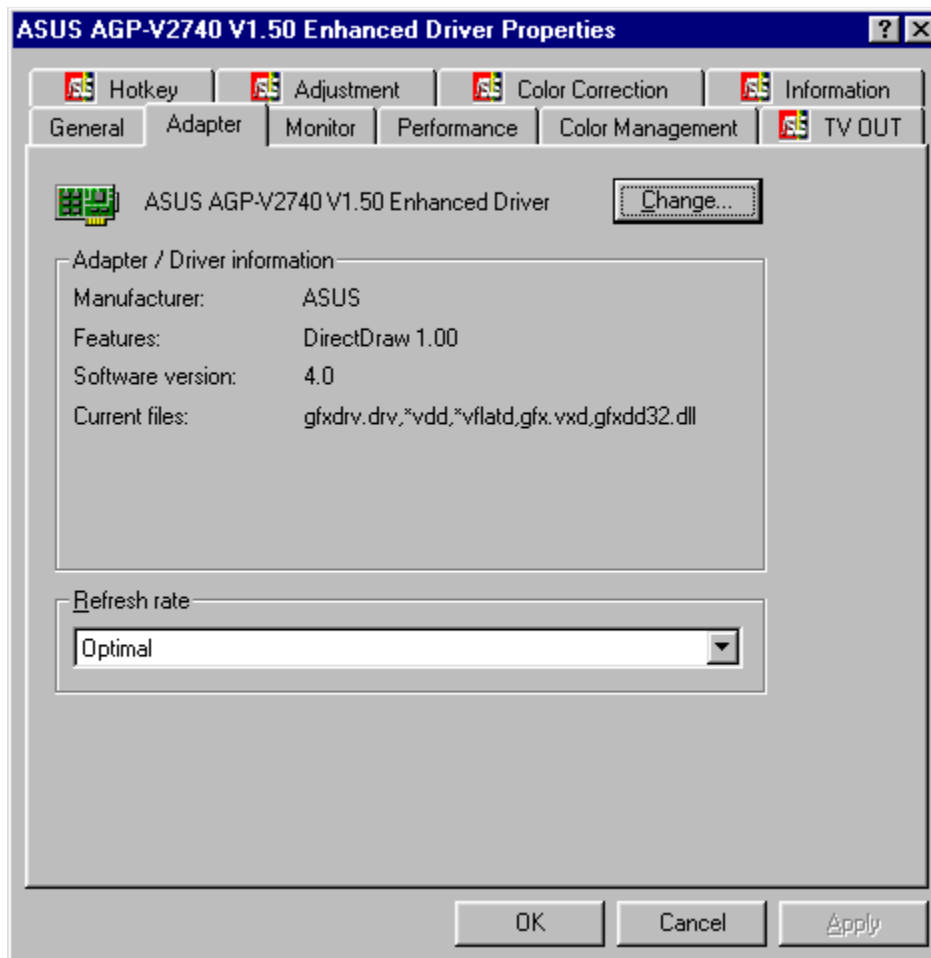
Now click the **Change** button in the **Adapter** section. Go to **number 7**.

5. If you have version **B** then you will see this screen;

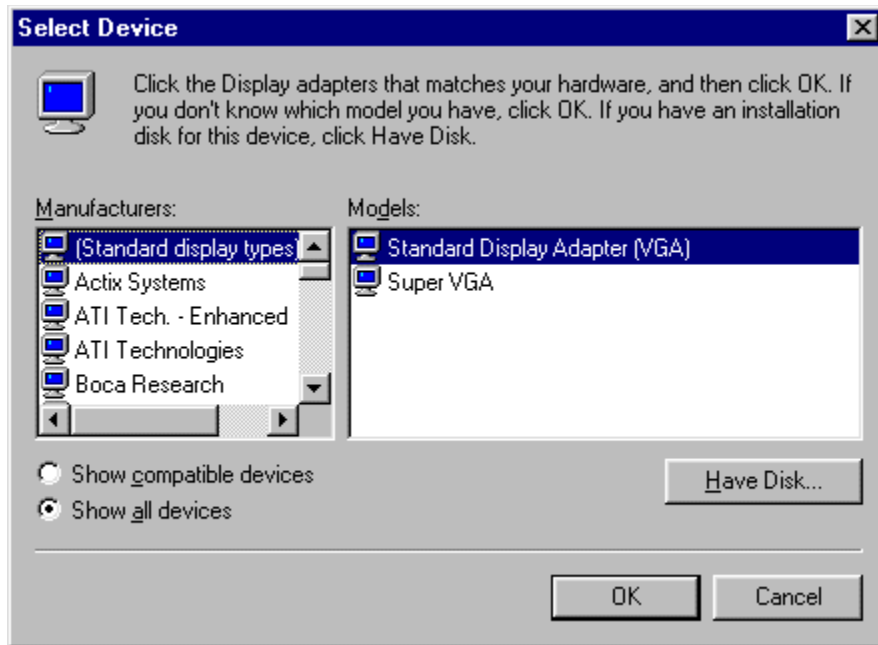


Now click the **Change** button in the **Adapter** section. Go to **number 7**.

6. If you have Windows 98 then you will see this screen or similar, depending on the video card you have installed;



7. First check the box **Show all devices** at the bottom of this window. Then scroll up the left hand side of the window until you can see (Standard display types). Now on the right hand side of the window select **Standard Display Adapter (VGA)**.



8. Once you have selected this driver click on the **OK** button and follow the on-screen prompts.
9. To finish you should be asked to reset your machine, click on the **Yes** button. Windows 95/98 will now restart.

Now please consult with your **Hardware Manufacturer/Supplier** or your **Video card manufacturer** for details on how your Video card should be set up.


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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, 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 work group. If you happen to be in a different work group than the other computers on your network, go into the **Entire Network** icon and open the appropriate work group. 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:

1. Click on the  **Start** button, then select **Find**, then select **Computer**.
2. 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.
3. If you do not see the computer, then you will probably be unable to connect. Make sure you continue with the trouble shooting.

Part One: Network Setup

Part Two: Network Trouble Shooting

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Check for conflicts

Many difficulties result from hardware conflicts. A **Device Conflict** is where there is more than one device 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.


The **Device Manager**, located in the System Properties, can report such conflicts.

To run **System Properties** [click here](#).



1. In the **Device Manager** window you will be able to see if you have any conflicts. A yellow "!" or a red "x" indicates a conflict with another **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 [Machine Manufacturer/Supplier](#) for information about those devices.

Problem with a modem connection?

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

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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:

To run *Joystick Properties* [click here](#).

1. Double click on the **Joystick icon** (this will be called *Gaming Devices* if you have installed a Microsoft joystick or *Game Controllers* if you have DirectX 5 or above installed). 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.
2. Calibrate your joystick by pressing on the calibrate button. **MAKE SURE YOU FOLLOW THE STEPS GIVEN IN 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 re-calibrate.
3. 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 centre when your joystick is centred.

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Check your virtual memory settings

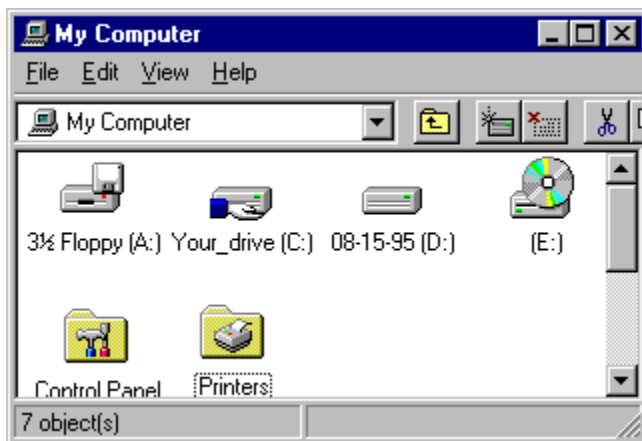
Virtual memory is disk space allocated by Windows that allows your system to "pretend" it has more **RAM** memory than it really does. Even if you have 32 Mb or more of RAM, Windows will be using a virtual memory swap file.


Not having enough disk space will affect your virtual memory; this situation will cause programs to crash or not run correctly. See "[Regular Maintenance](#)"


To check your disk space and virtual memory settings:

First Disk space:

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 50 Mb or so of disk space you will probably experience problems with games or other programs. Try to have **at least 50 Mb** of free disk space (preferably 100Mb) and run the **Scandisk** and **Defrag** utilities located in your  **Start, Programs, Accessories, System Tools** menu. This will help assure you have no disk errors and that your drive is optimised. Also see the section "[Regular Maintenance](#)"

 **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 Customer Support will be unable to help you delete files on your hard drive.**

Now virtual memory settings:

To run **System Properties** [click here](#).

1. Once the System Properties window has opened, select **Properties**, then click on the **Performance tab**.
2. 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 trouble shooting session we recommend the first option. Make sure to click "**OK**" to finish changing the settings.

If you have made any changes Windows will ask you to restart your computer.

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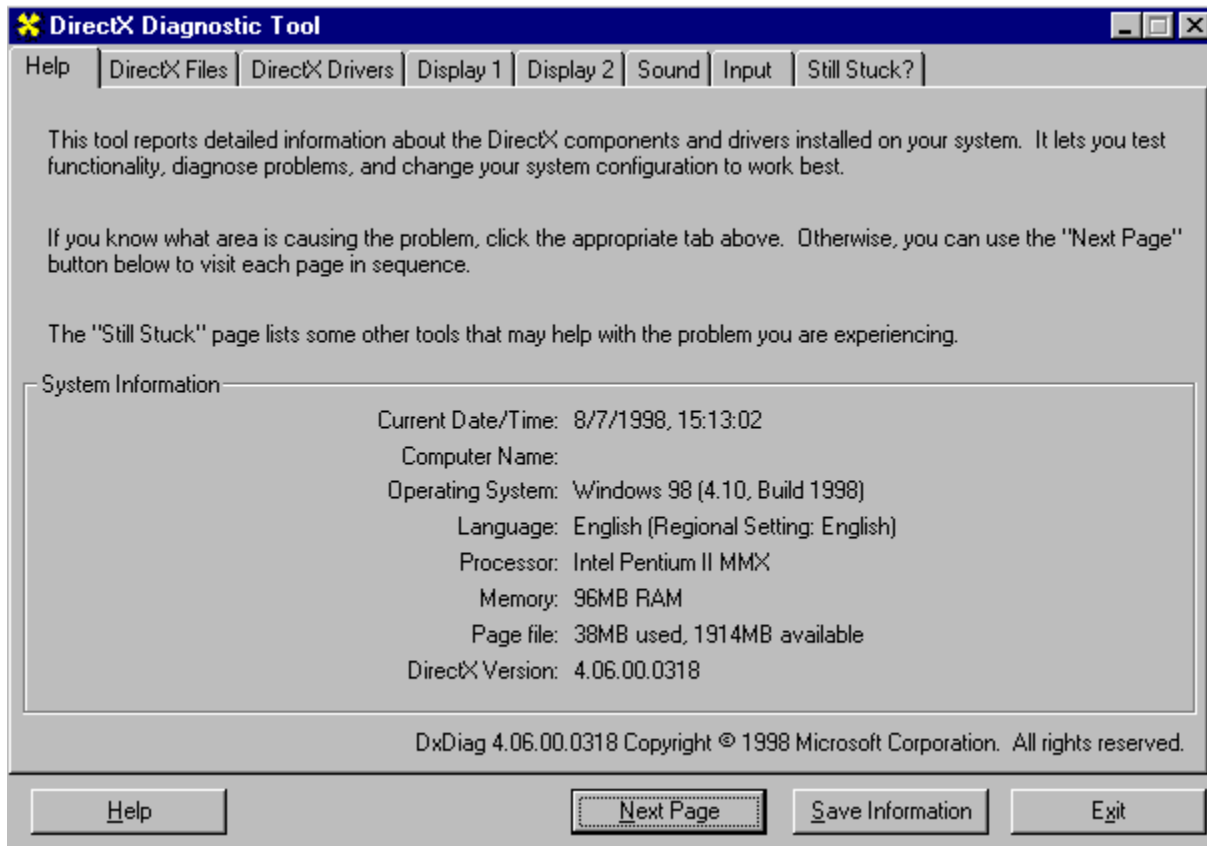
Checking the status of DirectX

In order for **DirectX** games (games specifically designed to run with Windows 95/98) to run on your system, the DirectX drivers need to be properly installed and **certified**. For DirectX 6 and above a program called **DXDIAG.EXE** is used, this is the utility that will check driver certification and let you know if all DirectX components are properly certified. For DirectX 5.2 and lower the program **DXSETUP.EXE** is used. [Click here](#) for details as to how to run this DXSETUP.EXE.

DirectX 6 and above.

[Click here](#) to run  DXDiag.exe.

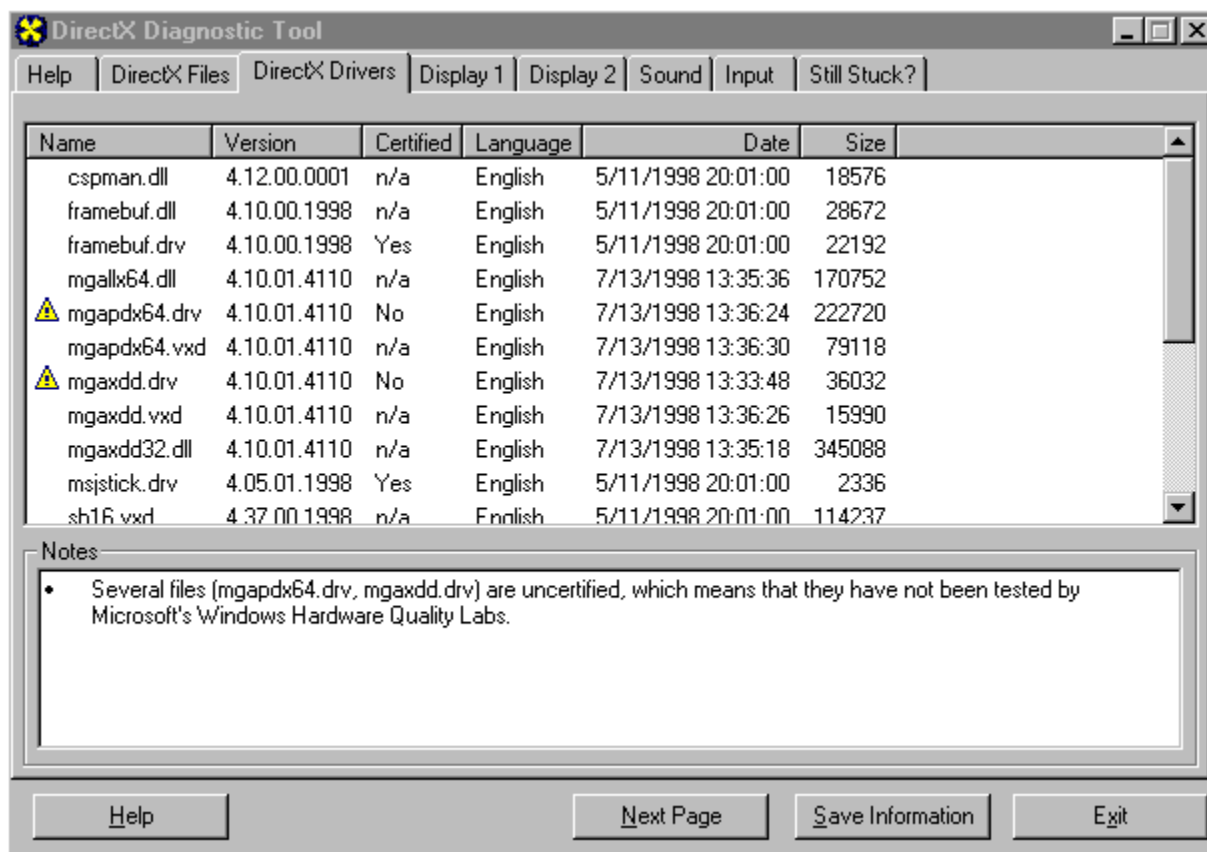
1. Once you have clicked on the link you should see a window similar to the one below.



This is the DirectX Diagnostic window, it will display its results for your machine details similar to the picture above. As you can see there are several tabs.

| | |
|------------------------|---|
| DirectX Files | This lists all DirectX files found and their details. |
| DirectX Drivers | Lists all DirectX drivers that are used by your system and reports any problems found. |
| Display 1 | Details of your primary display card. |
| Display 2 | Details of your secondary display card. For such cards as 3DFX, Power VR or similar card. |
| Sound | Details of your sound card. |
| Input | Details of all input devices used. |
| Still Stuck? | Built in trouble shooting. |

The section that is most use to us is the **DirectX Drivers** tab.




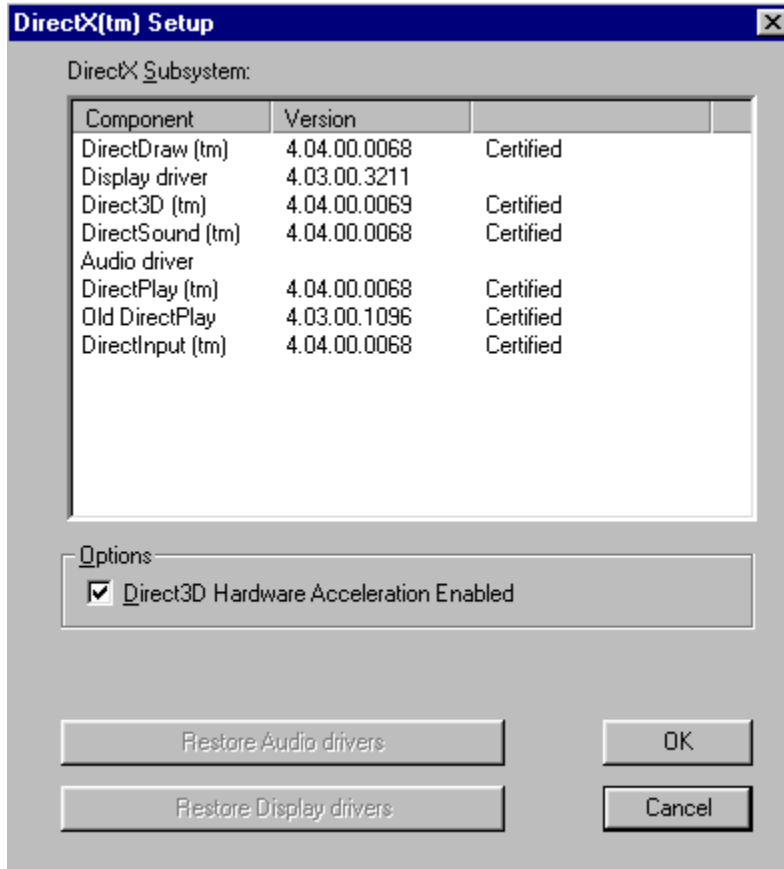
As you can see here that DXDIAG is reporting a problem with the video cards drivers.

It is difficult to tell whether or not your display and audio drivers are causing your difficulty, so please continue with the trouble shooting steps below before updating your drivers. However, if the listings are "NO" for the certified section then it is recommended to check with your **Machine Manufacturer/Supplier** and/or your **Sound card/ Video card** manufacturer for any updated drivers that may be available.

DirectX 5.2 and below.

Running DXSETUP is easy, just follow these steps:

1. Put the game CD in your CD-ROM drive.
2. From your Windows 95/98 desktop, left-click the  **Start** button, highlight **Find**, then left-click on **Files or Folders**.
3. In the **Find** window, set the "**Look In:**" box 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.EXE** 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 similar to the picture above (depending which version is supplied on the game CD). 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 listed **Blank with no driver version listed** **Blank with driver version listed** **Certified**

Please make a note of how your Display driver and Audio driver are certified and with what version number, 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 your difficulty, so please continue with the trouble shooting steps below before updating your drivers. However, if the listings are "No Hardware Support" then it is recommended to check with your Machine Manufacturer/Supplier and/or your Sound card/ Video card manufacturer for any updated drivers that may be available.

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[Get the latest version of DirectX](#)

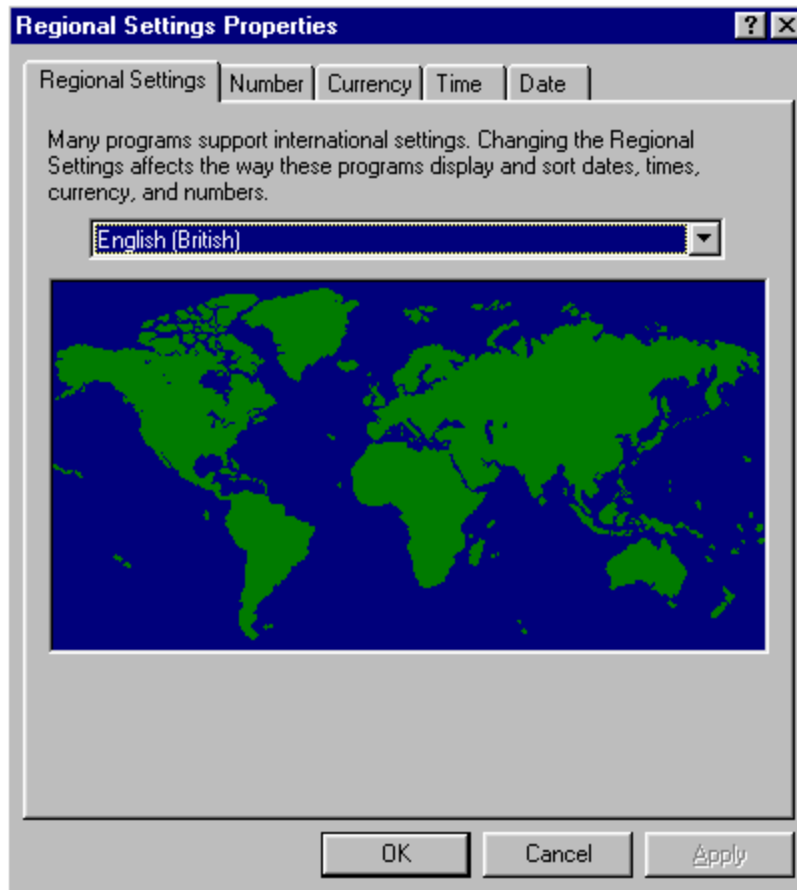
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Checking your Regional Setting

To run **Regional Settings** [click here](#) .

To check that your Regional Settings have been correctly set;



You will now see a window as above. Please make sure that box just above the map displays the correct setting for your country. If for example it says "**English (United States)**" and you live in the UK then click on the arrow to the right of the box and select the correct setting which would be "**English (British)**".

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Deciding which type of cable to use

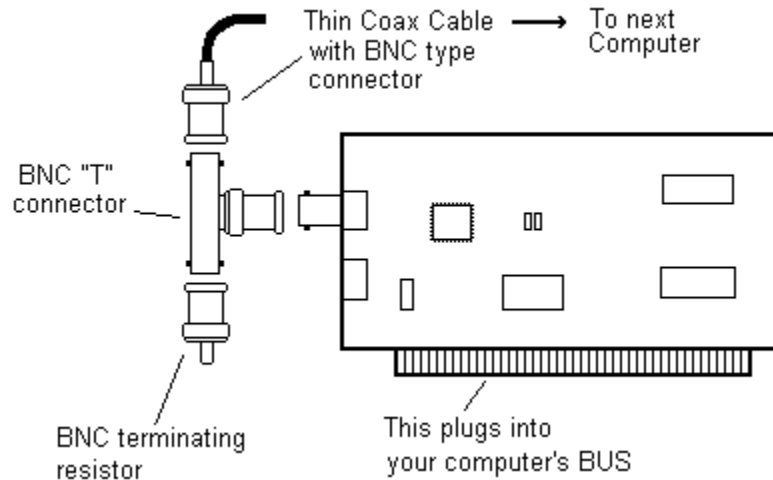
There are a few different types of cable that you could use to connect your computers to a network; we will be dealing with 2 types in this guide: Thin Coax and 10base-T.

Thin Coax

Thin coax is a great way to connect PC's quickly and inexpensively. If you do not have a need to transmit huge amounts of data across the network, such as from a server, then coax is the way to go.

It is cheaper and easier than 10base-T. Here is how you would see the coax connected to the net card.

Note that the connector type you need to use is a BNC type connector.

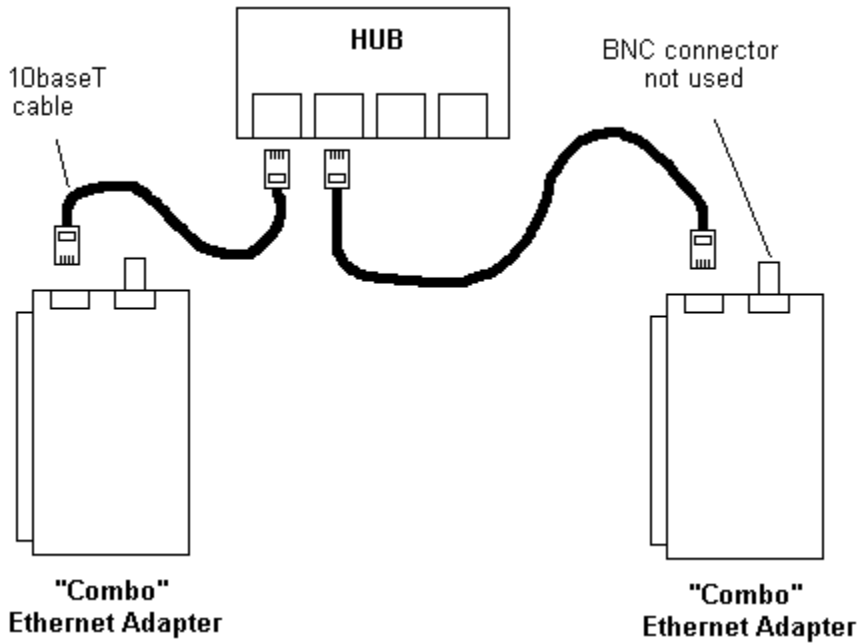


The **terminating resistor**, seen above, is absolutely necessary in order for computers to see each other on the network.

10base-T

This type of cable looks similar to a phone line. The advantage to 10base-T is that it can carry more data. It is also easier to add and remove computers on a large network. You may want to go with this type of cabling if you are setting up a big network, but for a games network, this is probably overkill.

NOTE: This type of cabling requires the use of a "hub". A hub is a device that allows networks using 10base-T to communicate on the network. Expect to pay lots for a networking hub.



Part One: Network Setup

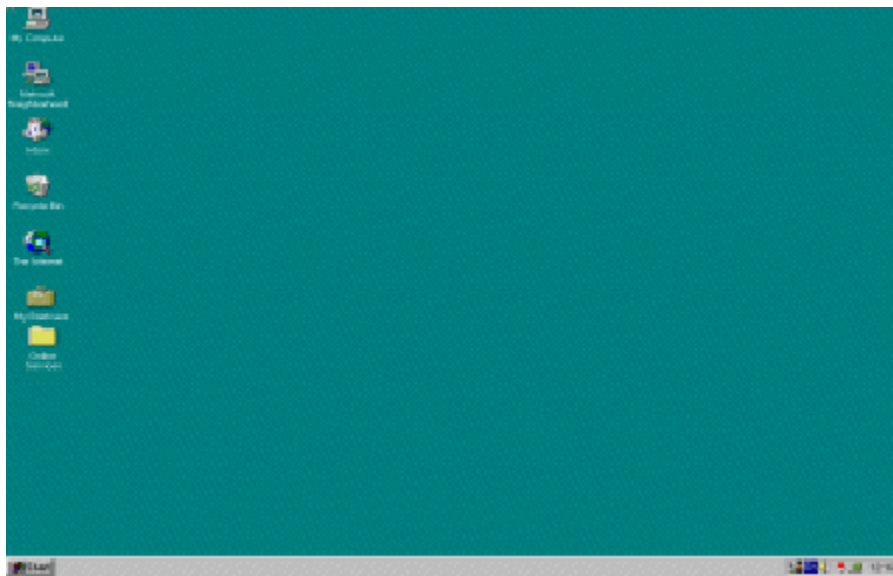
Part Two: Network Trouble Shooting

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The **Desktop** is the main screen for Windows 95/98, the one where you will see the standard icons, such as "My Computer" and "Recycle Bin", amongst others.



Detecting the Network adapter in Windows

As far as the network adapter goes, we recommend following the card manufacturer's recommendations and instructions on how to install your Network adapter in Windows 95/98. Every manufacturer has a procedure that will allow you to install the drivers in Windows 95/98 as easy as possible. The manufacturer will also provide instructions on how to properly seat the card into your computer's BUS.

How the driver installs will depend on the manufacturer and whether or not the card is Plug 'n Play compatible.

If you are unable to obtain instructions on driver installation:

Plug 'n Play card

After the adapter has been seated on the BUS, power up the computer and let Windows start. When Windows detects the device, it will ask you for a driver. Insert the manufacturer provided driver disk into your floppy drive and point Windows to the driver disk.

Non Plug 'n Play card

After you start Windows with the card properly seated in the BUS, open **Control Panel** (located in **My Computer**) and double-click on "**Add new hardware**". Windows will ask you if you want to search for new hardware, say "**Yes**" and proceed. You will be asked to provide the driver disk at the end of the installation.

If Windows is unable to detect your card, double-click on "**Add new hardware**" again and this time say "**No**" when Windows asks you if you want to search for new hardware. You will be presented with a list of devices to choose from; choose "**Network Adapters**" and click the "**Next**" button. Now click on the "**Have Disk**" button and make sure your driver disk is in the floppy drive. Windows should now be able to install the driver for the card. You may however, if you do not have your network card documentation, have trouble configuring the resource settings of the card. It is very important that you obtain instructions for how to configure your network adapter.

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Direct Draw error

This often happens on Compaq PC's. In order to overcome this problem you must have [DirectX](#) installed and update your video drivers. Try manually changing your desktop settings in the control panel so that the number of colours and resolution is 16 bit and 640X480 respectively. See "[Manually switching Video Mode](#)" for further instructions.



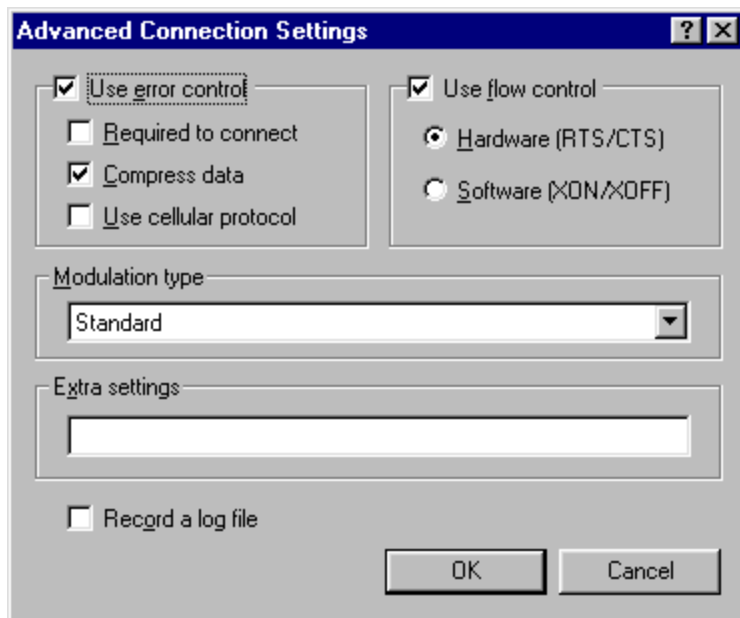
Disable Compression and Error correction

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 difficulties 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 connections being dropped when trying to connect.

To run **Modem Properties** [click here](#).

1. Select your modem and click on the **Properties** button.
2. When the modem properties window opens, click on the **Connection** tab, then click the **Advanced** button at the bottom.



Now un-check the boxes for "**Use error control**" and "**Use flow control**".

3. Now click **OK** and restart your computer. Once your computer has restarted try to connect again.

What is a COM port?

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

See which COM port your modem is using

Make sure no other devices are using your COM port or IRQ

Disabling serial ports if using COM 1 or 2

Perform a test connection with HyperTerminal

Enter in your modem's correct INIT string

[Disable compression and error correction](#)

Other Possibilities

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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. For the latest Microsoft Driver, please check their web site at <http://www.microsoft.com/products/hardware>.

[Adding a custom device driver for you controller](#)

[Make sure your joystick is connected properly](#)

[Calibrate in Windows Control Panel](#)

[Check to see that you have the correct driver loading](#)

[Be sure only one joystick port is active on your system](#)

[Disable any profilers or tray utilities](#)

[Enable joystick control in your game](#)

[Adjust the trim wheels on your joystick](#)

[Joystick Specifics](#)

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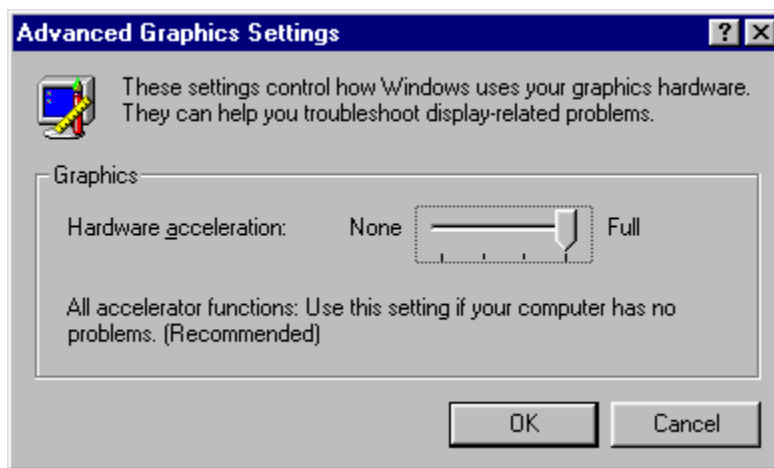
Disable hardware acceleration

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 your **Machine Manufacturer/Supplier** for an updated, DirectX compatible display driver.

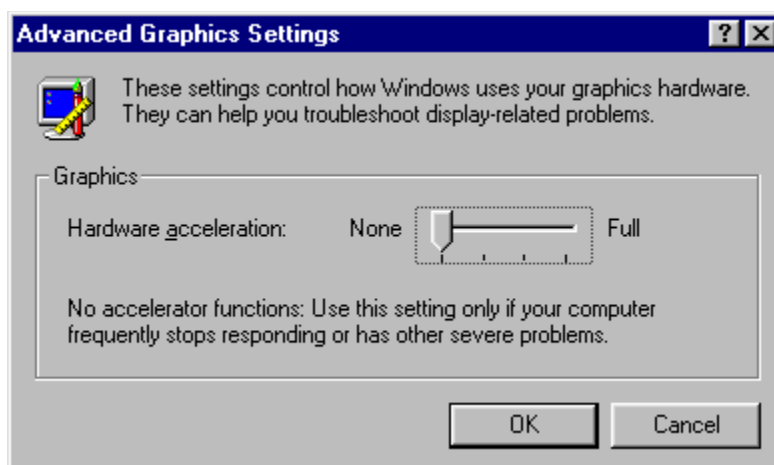
Hardware acceleration is controlled by Windows 95/98 through the **System Properties**.

To run **System Properties** [click here](#).

1. Click on the **Performance** tab at the top.
2. 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"**.



3. Restart your computer by clicking on the **Start** button, and then **"Restart the computer?"**. Wait until Windows 95/98 loads up again and then run the game again.

Checking the status of DirectX

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[Re-starting your computer](#)
[Shut down all applications](#)
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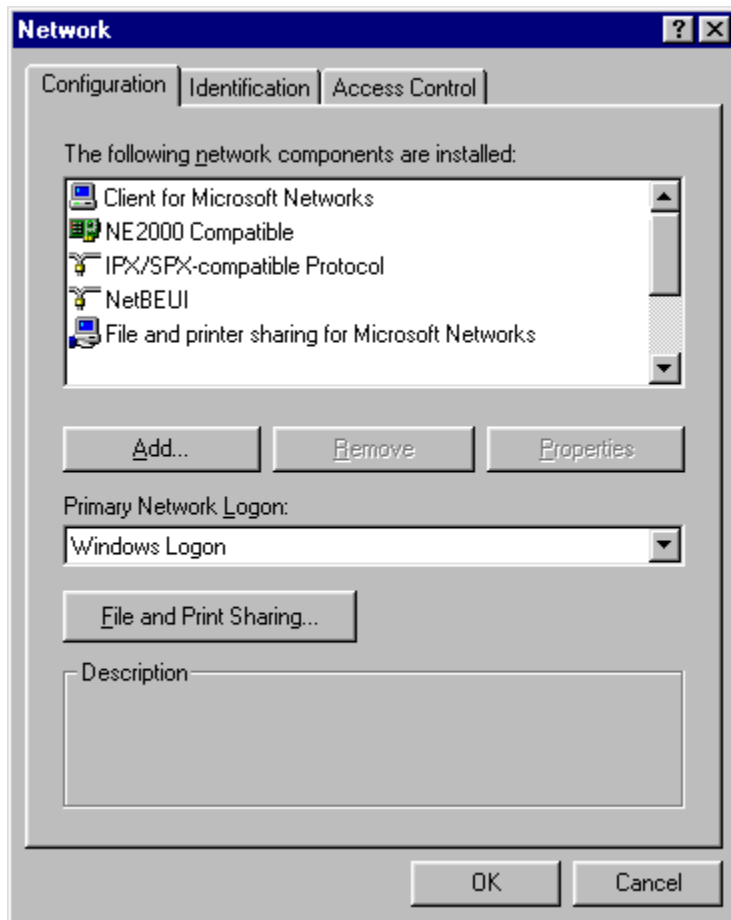
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Disabling File and Print sharing

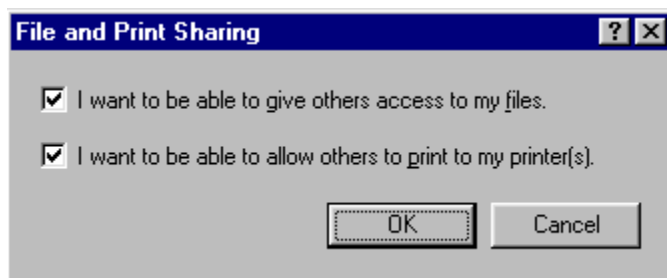
On some occasions it is best to turn off "File and Print sharing" in Network Neighborhood.

To run **Network Properties** [click here](#).

1. You should now see a requester similar to below



2. Next click on the button "File and Print sharing".



When you see the requester as above then if there is a tick in the either of the two boxes then un-tick them.

3. Once you have done that click **OK** on all the requesters, including the one to **re-start your machine**.

If you are still having problems the please consult the Network trouble shooting guides.

Part One: Network Setup

Part Two: Network Trouble Shooting

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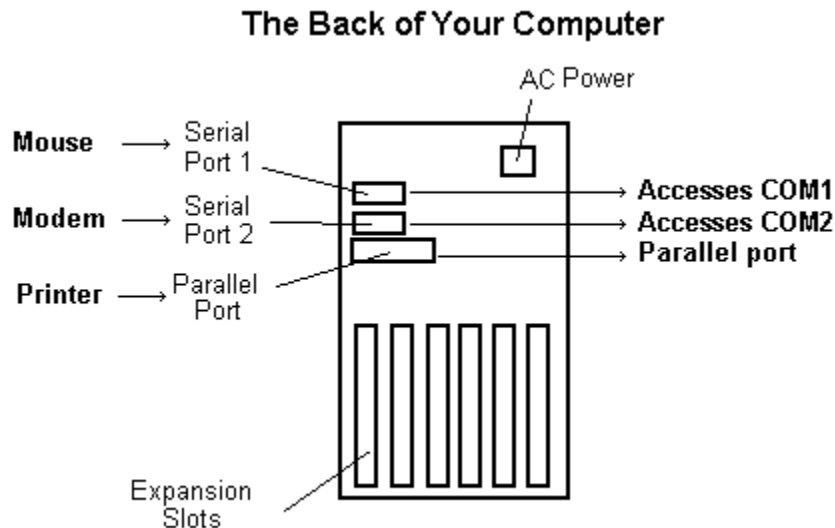
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Disabling Serial ports

The external serial ports on your computer use COM 1 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 COM 1. 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 COM 1 and Serial Port 2 will be assigned to COM 2.

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



For this configuration to work properly, you need to have both external serial ports enabled in your CMOS set-up utility.

 **Important 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 Hardware Manufacturer/Supplier for information on your CMOS set-up 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 COM 1 or 2 when your modem is using COM 1 or 2.

If your modem is on COM 1 or 2, make sure that any external serial ports which use the same COM port are disabled through the CMOS set-up 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 Hardware Manufacturer/Supplier** before attempting to make any changes.

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Make sure no other devices are using your COM port or IRQ

[Disabling serial ports if using COM 1 or 2](#)
[Perform a test connection with HyperTerminal](#)
[Enter in your modem's correct INIT string](#)
[Disable compression and error correction](#)
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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.

[Adding a custom device driver for you controller](#)

[Make sure your joystick is connected properly](#)

[Calibrate in Windows Control Panel](#)

[Check to see that you have the correct driver loading](#)

[Be sure only one joystick port is active on your system](#)

[Disable any profilers or tray utilities](#)

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Entering in your Modem's correct INIT string

An "INIT" or **initialisation** string is a command line that tells your modem which settings to use when it dials. Some modem difficulties may be caused by having the wrong init string entered in the modem properties.

Just to give you an idea of what an init string does, look at the example **AT** Command options listed below: (some of these may not apply to your modem)

| | |
|-------------------|---|
| AT S0=n | Sets the modem to answer in "n" number of rings |
| AT &Cn | Enables/disables data compression n=0 or 1 (may differ from modem to modem) |
| AT &F | Resets the modem to factory defaults |
| AT DTn | Dials a phone number, n |
| AT Mn | Turns speaker on/off n=0 or 1 |

So if you put these together into an AT command line, it may look something like this:

AT S0=0 &F &C0 &M0 DT5551234

The above command string does the following: Turns auto answer off, resets the factory defaults, disables data compression, turns the modem speaker off, and dials the number 555-1234.

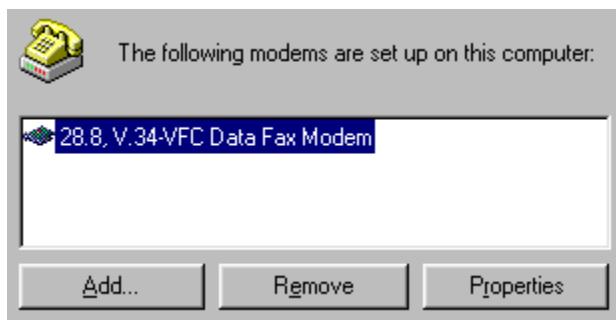
Your modem's init string shouldn't be quite so complex, especially since you won't include a dial string (DT5551234) with your init string.

Before you change the init string, check your modem documentation and make a note of which init string they recommend.

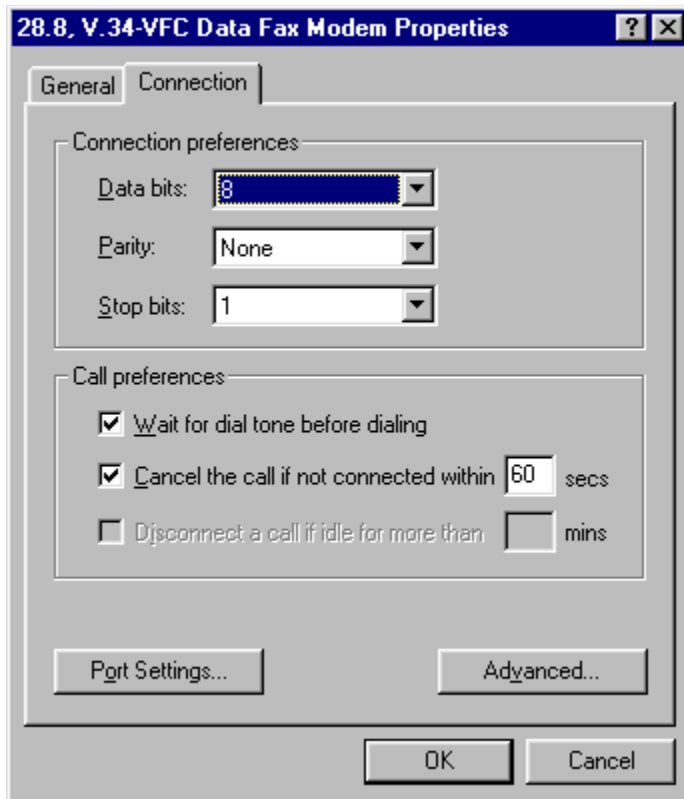
To change your init string:

*To open **Modem Properties** [click here](#).*

1. Make sure your modem is selected and click on the Properties button.



2. Click on the **Connection** tab at the top of the window.



Now click on the **Advanced** button.

3. You should see the following window:



IMPORTANT: Make a note of everything that appears in this window so you can restore to your original settings if need be.

You can enter in the manufacturer's recommended init string under the **Extra settings** field, but make sure not to include AT in front of the command. So if your manufacturer recommends AT &C1&D2, just enter in the &C1&D2 part.

You can also try just the restore command as the init string. This will work in many cases: AT&F is the AT string to restore factory default settings, so in the extra settings box, just enter &F.

Usually the "**Extra settings**" box is left blank. If none of these solutions work for you, make sure you restore the Advanced connection options to their original settings.

Here are some examples of Init strings

| Modem | Init. String |
|--|--------------|
| US ROBOTICS SPORTSTER 9600/14400/28800 | AT&M0&K0 |
| DIGICOM SCOUT 288VFCi | AT\N1 |
| BEST DATA SMART ONE 14400 | AT\N1 |
| HAYES ACCURA 28800 | AT&Q0 |
| SUPRA 14400 | AT\N1 |

PRACTICAL 14400
ZOOM 28800

AT&Q0
AT&Q0

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Error message saying "tDDraw:tPrimarySurface"

This message indicates that you will need to update to the latest drivers available for your video card or re-install the latest drivers. It is recommended to check with your [Machine Manufacturer/Supplier](#) and/or your [Sound card/ Video card](#) manufacturer for any updated drivers that are available.

Feed Back Form

Electronic Arts Helpfile Feed Back Form

Please give your name and address.

1. Mr. Mrs. Ms. Miss. Other title (e.g. REV. Major)

First name

Surname

Address

Post Code

Telephone Number (including STD Code)

Games Title

2. Was this guide easy to use? Yes..... No.....

If No, what problems did you have?

.....
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.....

3. Were there any sections in the guide that you did not understand?

.....
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4. Did this guide help to solve your problem? Yes..... No.....

If No, what problem did you have?

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5. Have you any suggestions on how we can improve this guide to make it more customer friendly/understandable?

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6. Other

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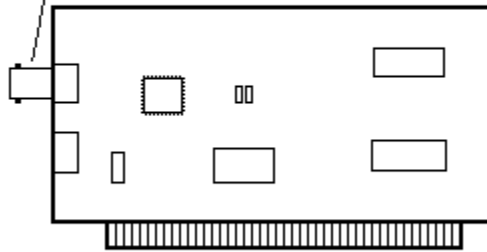
Now simply send this form to the address on the previous page. Thank you for taking the time to complete this form.

Finding the right Ethernet adapter

An Ethernet adapter, usually referred to as a network card, is a **peripheral** device that plugs into your PC and allows for the networking of two or more computers. This device plugs into your computer's BUS just like a video card or sound card and allows the network to communicate with your computer.

Ethernet Adapter

Coaxial network cable
connects here



This plugs into
your computer's BUS

Finding a network card is as easy as getting an "Ethernet adapter" for your IBM compatible PC from your local computer store. Most computer stores will carry the cards and other items to set up a network. In fact it is now possible to buy complete kits.

There are different manufacturers of Ethernet adapters. Some adapters are very inexpensive and fairly reliable, such as generic "NE2000" compatible adapters. Others are more expensive but provide a higher degree of reliability. Sometimes "Sync" problems can occur with the generic cards, resulting in the occasional "dropped signal".

Deciding which adapter to choose depends on how serious you are about your network. If you are using your network for business and will rely on it heavily, you probably want to spend the extra money for reliability. If you intend to use your network for fun, the inexpensive solution should work fine and give you little trouble.

In addition, we recommend making sure your Ethernet adapter is a "Combo" type card. A combo card will allow you to connect to a network using thin coax, or 10base-T type cable (Cabling is described in the section; "**Deciding which type of cable to use**"). Make sure you either get a combo card, or a card that accepts the type of cabling you intend to use.

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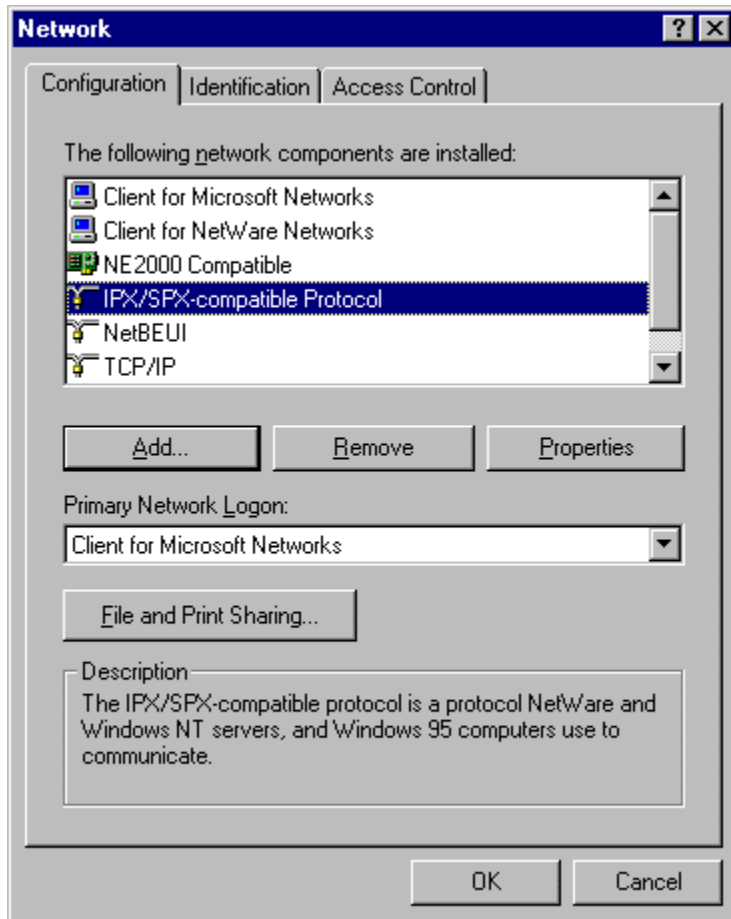
Force a Frame type

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.

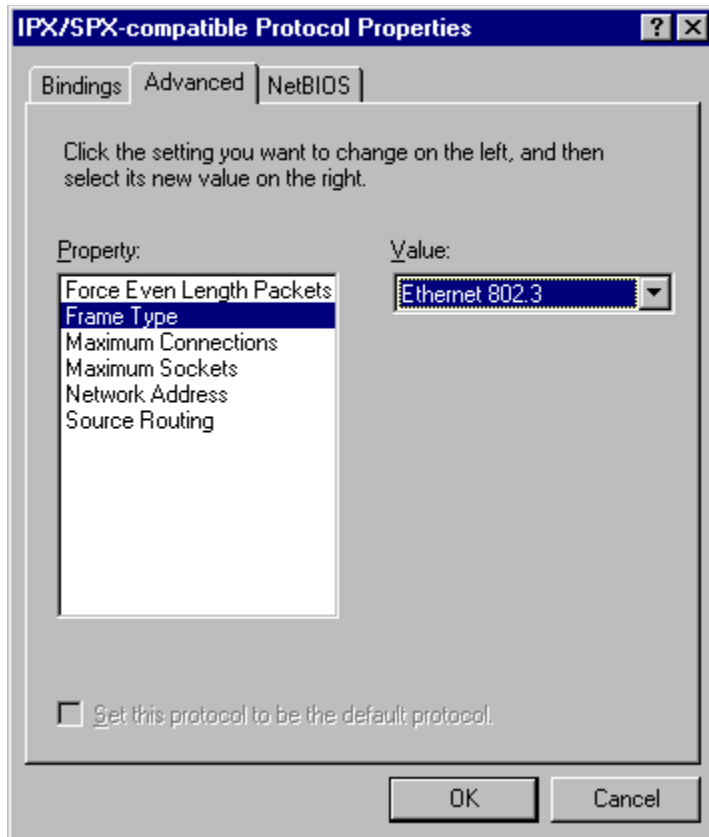
 **IMPORTANT: Do not make these changes if you are on an administrated network.** If you did not set up your own network, you may cause **damage** if you proceed. Please check with your network administrator before changing your Frame Type.

To check your frame type [click here](#).

1. You should now see a windows similar to the picture below.



2. 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 Properties 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.

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**Centre d'Affaires Telebase
3 rue Claude Chappe
69771 Saint Didier au Mont d'Or Cedex
Lyon**

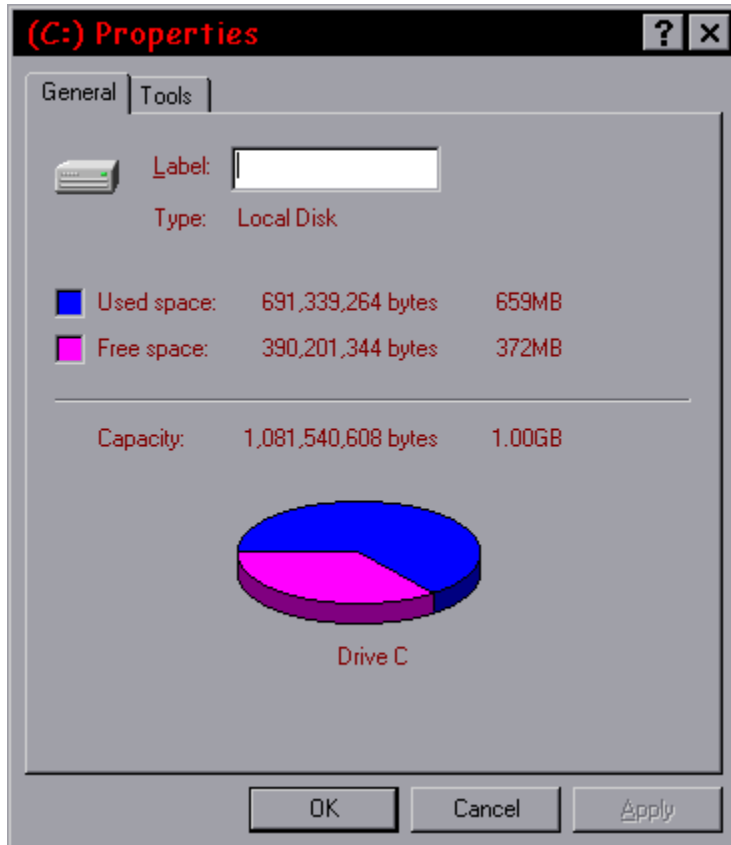
 **04 72 53 25 00**

Freeing Hard Disk space

No matter how big your hard drive is, you will eventually have to free up space by removing programs and folders that you are no longer using. Whether it be a game that you're no longer playing, or some graphics and videos that you just not using anymore, there will come a time to get rid of some old data.

You can check your hard drive space by opening the hard drive properties:

1. Double click on the **My Computer** icon.
2. Right click on the **[C:]** drive (or the drive you want to check) and select "**Properties.**"



The drive properties will give you total capacity, used space, and free space. The used space is indicated by the blue area of the pie and the free space is the pink section. The drive above still has over 200 megabytes of free space left, which is plenty for now.

If you have less than 100 megabytes, or 100 Mb of free disk space, you may want to think about freeing some up. If you have less than 50 Mb, you will definitely want to free space so that your computer can function properly; Windows 95/98 uses disk space to create **virtual memory**, which is used for loading programs. If you don't have enough virtual memory, you may experience program errors and crashes.


The first place you want to look in order to free hard drive space is in the Control Panel. The "**Add/Remove programs**" applet will let you see many of the Windows 95/98 programs you have installed on your computer.

To open the **Add/Remove Programs** applet [click here](#).

You should now see a window similar to the one below.



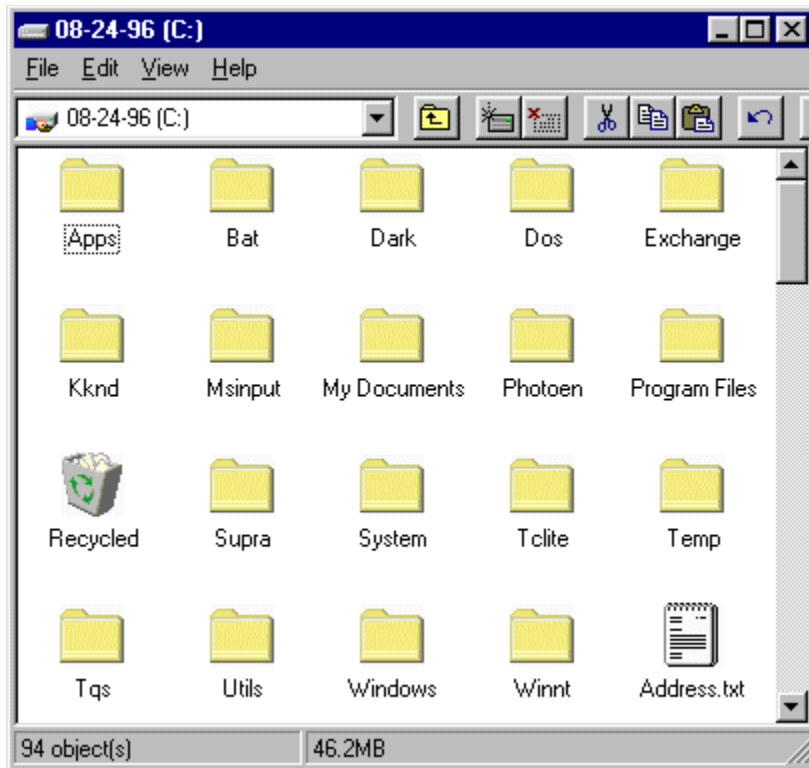
Most of the Windows 95/98 programs that you install will allow you to un-install them from this window. If you see anything in this window that you are sure you don't need anymore, you can click on that program then click the **Add/Remove** button.

 **IMPORTANT: Be very sure of what you are removing. Once you remove a program from your system using this method, it's gone, and you will have to reinstall the software to get it back.**

Some of the programs on your hard drive will not show up in the Add/Remove programs applet. DOS programs specifically will usually have to be deleted manually.

To see the folders on your hard drive:

1. Double click on the **My Computer** icon.
2. Now double click on the **[C:]** drive (or the drive you want to browse.)



You may run across some folders that contain programs or files that you don't need anymore. If this is the case, you can delete the folder; but before you do, let's look at how to delete a folder and what happens when you do.

To check the size of a folder:


Right click on the folder you want to check and select **Properties**.

To rename a folder:

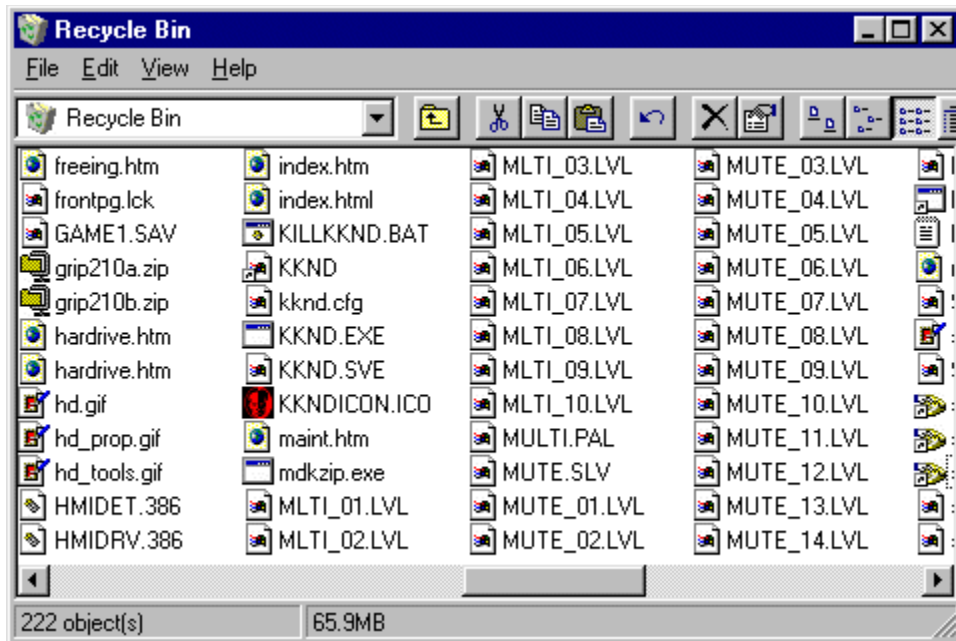
Right click on the folder you want to rename and select **Rename**.

To delete a folder:

Right click on the folder you want to delete and select **Delete**.

 **IMPORTANT: Be careful of what you are deleting. Do not delete an item unless you are sure you don't need it.**

When you delete files by this method in Windows, they are moved to the **Recycle Bin**. This gives you a chance to change your mind in case you make a mistake. You can look at the files in the Recycle Bin by double clicking on it. (The Recycle Bin is located on the desktop.)



Items that you see here can be restored by dragging them back to their appropriate folder. If you deleted something by accident, you may be able to restore it by choosing **Undo** from the **Edit** menu.

Once you are sure you don't need the items in the Recycle Bin, you can permanently delete them by choosing **Empty Recycle Bin** from the **File** menu. Doing this will free up some disk space.

WARNING: Once you empty the Recycle Bin, the files contained within are permanently deleted!

After you have removed programs from your hard drive it is recommended that you run **Defrag** to optimise the free space on your hard drive. For more information see the section **Running Defrag**

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General Protection Fault

A **General Protection Fault** generally occurs when there is a memory conflict between two applications. If you receive a General Protection Fault, either when you try to run or exit a game, then following the simple trouble shooting tips below should help you correct this problem:

- 1) **DISABLE WINDOW ENHANCEMENT UTILITIES** - If you are running Window Enhancement Utilities such as Screen Savers, Virus Detection Utilities, Shell Program (i.e. Norton Desktop, PC Tools, Dashboard, Kid's Desk), Sound Utilities and/or undelete utilities, try disabling them before you run the game. Re-run the game and see if the General Protection Fault occurs again. Also see [Shut down all applications](#) and [Shut down applications in the system tray](#)
- 2) **CLOSE ACTIVE APPLICATIONS** - If you have any active programs, close them before attempting to run your game (i.e. Microsoft Office tool bar, game profilers). Active application programs might try to occupy the same space in memory that the game is trying to use. Also see [Shut down all applications](#) and [Shut down applications in the system tray](#)
- 3) **DISABLE AGGRESSIVE MEMORY MANAGEMENT** - If you are using QEMM's Stealth option, try disabling this feature. Please consult your QEMM documentation for additional information. In fact Windows 95/98 is much better at managing it's memory than it's predecessors and you may find that you do not need to use anyother memory management system.
- 4) **TRY RE-BOOTING YOUR MACHINE** - You might want to try re-starting you PC. This will makes sure that all programs have shut down correctly and as much **RAM** is free as possible. Also see [Re-starting your computer](#)
- 5) **DOES THE PROBLEM KEEP RECURRING** - See if you can duplicate the problem. Often times General Protection Faults are unpredictable and might have occurred as an isolated instance.

Internet Mail: desupport@ea.com

**Pascalstrasse 6
52076 Aachen**

| | |
|------------------------------|------------------------|
| Tech-Support: | 0190 - 572333 |
| Hintline (old games): | 0190 - 90 00 30 |
| Hintline (new games): | 0190 - 78 79 06 |

For Austrian Customers:
 **0049/2408-94 07 77**

For Swiss Customers:
 **0900/55 40 20**

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 a standard version of DirectX at Microsoft's web site at <http://www.microsoft.com/DirectX> or contact your **Hardware Manufacturer/Supplier** or [Sound card/Video cards](#) manufacturer for drivers specific for your machine.

Note: As DirectX is free to distribute you will often find the latest version on magazine cover disks.

[Checking the status of DirectX](#)

[Manually switching video modes](#)

[Re-starting your computer](#)

[Shut down all applications](#)

[Shut down applications in the system tray](#)

[Check for conflicts](#)

[Check your virtual memory settings](#)

[Re-installing DirectX](#)

[Restoring Video Drivers or Audio Drivers](#)

[Disable hardware acceleration](#)

[Update your drivers](#)

[Get the latest version of DirectX](#)

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[Trouble Shooting Guides](#)

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Internet Mail: nl-support@ea.com

**Electronic Arts BV
Postbus 156
6400 AD Heerlen
Netherlands**

 **00 800 940 5555**

I don't seem to be able to use my joystick within the game. What may be wrong ?

There are several things that may be causing this problem. Please read the following sections:

[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](#)

I have just installed a game, the intro starts, the screen then goes black and nothing happens.

This can be attributed to either not having [DirectX](#) or one of it's components loaded or not having the correct version of DirectX installed. Try running [DXsetup](#) or [DXdiag](#) for DirectX 6 from the games CD to give you the details of what DirectX drivers are loaded and which version is installed on your PC. Before you install the DirectX drivers that are supplied on the CD we do **strongly** recommend that you contact either your [Machine Manufacturer/Supplier](#) or the manufacturer of your [Sound card/ Video card](#) as some Video cards (such as Diamond, Matrox and Creative Labs) need specific drivers and can not use the standard drivers supplied to us by Microsoft.

It could also be that your Video card Drivers are having some problems switching to a specific screen resolution. Most DirectX applications use a resolution of 640x 480 as a default and if the desktop isn't set to this resolution, then the DirectX drivers will need to run a palette translation routine; this will generally slow down graphics speed and may even lead to black screen lockups with cards that have problems switching resolutions. As before, we recommend that you contact your [Machine Manufacturer/Supplier](#) or the manufacturer of your [Video card](#) for updated drivers.

This can also occur if you have another program running such as the Office Shortcut Bar or a game controller profiler. If you have any of these things running then close them down and try running the game again. See the sections "[Shut down all applications](#)" and "[Shut down all applications in the systems tray](#)" for more details.

I receive an error message "Application error ..."

This error message is an indication that your computer either does not have [DirectX](#) installed or that you need to update your DirectX driver for your video card to run the game. We recommend contacting your [Sound card/ Video card](#) manufacturer and or your [Machine Manufacturer/Supplier](#) to obtain the latest DirectX compatible driver.

I receive an error message "BAD WINDOW FIELD"

This error message is an indication that your computer may need an updated DirectX driver for your video card to run the game. We recommend contacting your [Sound card/ Video card](#) manufacturer and or your [Machine Manufacturer/Supplier](#) to obtain the latest DirectX compatible driver.

This error message is an indication that your computer may need an updated DirectX driver for your video card to run the game. We recommended that you check with your [Machine Manufacturer/Supplier](#) and/or your [Sound card/ Video card](#) manufacturer for any updated drivers that are available.

COMPAQ users: We have found that a work around for a sound issue with Compaq PC's that may also resolve this problem. If it does not work, we recommend updating your video or sound card driver as mentioned above. See another section on this page called "[Not getting any sound effects in the game, Compaq users](#)"

Pentium MMX users: We have found that this error may occur when the machine the game is being installed/run on does not have DirectX 3.0a or higher installed (this is the version with MMX enhancements). A possible solution is to install DirectX 3.0a or higher, which can be found on the game CD (see "[Re-installing DirectX](#)"). We also recommended that you check with your [Machine Manufacturer/Supplier](#) and/or your [Sound card/ Video card](#) manufacturer for any updated DirectX drivers that are available.

I still can not get the game to work

Well if you are on this page it means you are still having problems. If so, then read on.

Today's PC's run with a multitude of different hardware and software combinations. Because of this there will be times when, even with these guides, you will not be able to get your game to work. So, what then? Well then it is time to call our Customer Service number. **But** before you reach for that phone please obtain the following information so as this will help us resolve your problem as quickly as possible.

If you have access to E-mail or you have a fax/modem connected to your machine then you can go to the section "**Support Information**". From there use the button "**Contact Tech Support**", a program will then run where you can enter your details and the details of the problem you are experiencing.

Alternatively if you do not own a Fax/Modem or you do not have E-mail support, you could use the same program we supply to examining your hardware but in a different way. Simply click on the button below, fill in the required boxes and then save the information file to your desktop by clicking on the button "**Save to Desktop**", or you can send the information to your printer by selecting the "**Print**" button.

{button Your machine info,EF('Finished version/lp.exe','1','')}

Otherwise the following information **must** be obtained from either the manufacturer of your PC or from within your enclosed documentation **BEFORE** calling our technical support line. Alternatively you could do a little detective work yourself, with the aid of the section below, and find the information required.

1. The error message displayed when the problem occurred (if any).
2. A listing of your machine details, including:-

Processor make and speed
Sound card make and model
Amount of RAM available

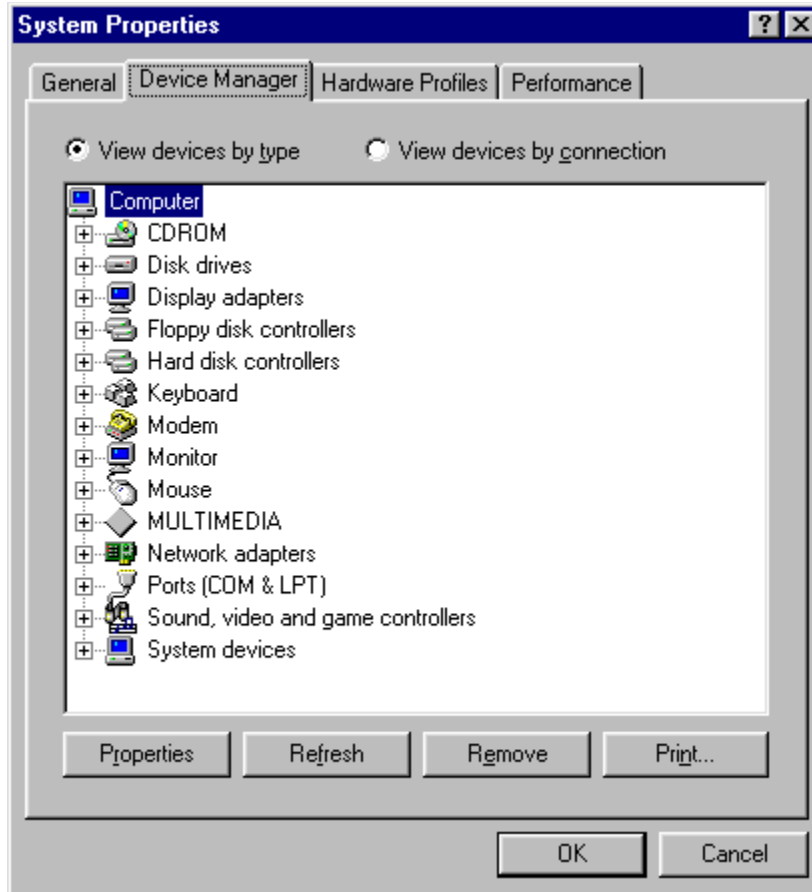
CD-ROM make and speed
Video card make and model
Hard disk size and amount of free space

How to obtain the required Information.

1. [Click here](#) to see your System Properties.
2. The "**General information**" screen will detail how much **RAM** you have free for the system use and also what processor you have installed (with Windows 95 version 4.00.950a, a Cyrix processor will be detected as a 486, with version 4.00.950b or with Windows 98 a Cyrix will be described as "CyrixInstead" and AMD K6 chips will be "Authentic AMD").



3. Click on **Device Manager**.



4. Click on the "+" symbol next to the relevant category(s)

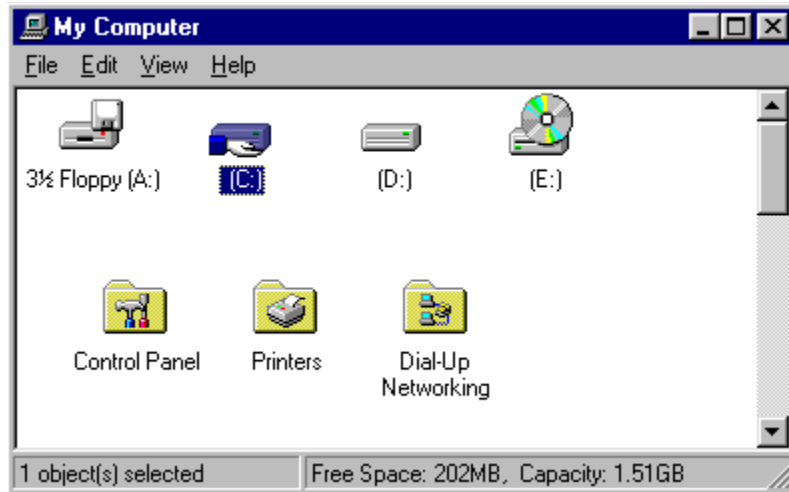
CD-ROM driver

Display adapters

Sound video & game controllers.

You will then be able to see the manufacturer of these devices . Once you have this information click on the "Cancel" button to close the window down.

5. Double left click on "My Computer" then click square symbol to maximise screen.



6. Left click on your hard drive (**C:**) and this will list how much Free disk space you have and the Total amount of disk space you have on the system.
7. Now close all the windows down. The next piece of information you need is the **processor speed**. The processor speed can be seen if you reset your PC, so if you close down your PC and when it re-starts look towards the top left or top right corner of the screen. You should see a processor clock speed e.g. 300 MHz. This is the processor speed that you need.

If you have any problems acquiring the above information then please contact your **Machines Manufacturer/Supplier** for further details.

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[Machine/Hardware manufacturers](#)

IPX over two servers

For players to see a created IPX session we use a method devised by Novell known as SAP (**S**ervice **A**dvertising **P**rotocol). Players query the SAP socket (e.g. 0452hex) to see if there are any created sessions available. If, when you have created a session, you receive a message telling you that the SAP socket cannot be opened, then another socket is already opened and therefore the players on the other servers cannot see the session.

Players using the same server should be able to see each other whether or not the SAP socket is open.

IPX setup

Make sure you are connected to the network or the network loop, that you have a [Ethernet card](#) plugged in and the correct drivers installed. Make sure you have the [IPX/SPX drivers](#) installed. Also make sure the IPX packet properties are the same [frame type](#) e.g. Ethernet 802.3. For more information see "[Trouble Shooting Networks](#)" section.

This means that your machine is not setup for multiplayer games using [IPX networks](#), [serial link](#) or Internet connection, or [DirectX](#) does not support your existing systems setup. Have a look at the section "[Trouble Shooting Networks](#)" to see if you have missed something when you installed [IPX drivers](#) onto your machine.

Another possibility could be if you installed DirectX 3 as the first DirectX installation on your PC (DirectX 2 was not previously installed), you will be unable to run many DirectX2 games that use DirectPlay. The reason is that DirectX 3 or higher uses different DirectX components.

DPLAYX.DLL
DPMODEMX.DLL
DPWSOCKX.DLL

whereas DirectX2 uses:

DPLAY.DLL
DPSERIAL.DLL
DPWSOCK.DLL

"No problem, just install DirectX 2, right?". Sorry, that doesn't work, since the DirectX 2 installer notices the more recent version of DirectPlay it refuses to install the older version of DirectPlay, even though they are separate files. The result of this is that the DirectX 2 game will try to start, the game will try to run DirectX2's version of DirectPlay's [API](#) but because it cannot find it the game will fail to load. The only way to correct this is to manually copy the DirectX 2 DLL's into your C:\WINDOWS\SYSTEM directory (change this path to where ever Windows is installed). This can very easily be done using Windows Explorer.

Installing IPX drivers and configuring protocols

After the drivers for the network card have been set up, you need to make sure that the proper IPX drivers and protocols are configured.

To see your *Network Properties* [click here](#).

You should now see a windows as below.



You should see at least the drivers shown below:

Client for Microsoft networks
your network card driver (yours may not be NE2000),
IPX protocol
NetBEUI
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 work group. Computers that are in the same work group 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 network card's documentation for installation instructions.

Part One: Network Setup

Part Two: Network Trouble Shooting

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Joystick Problems, Other Possibilities

Make sure the proper game port driver for your sound card or game card is installed

Check your sound card and game card 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 game port driver under "Sound, video and game controllers" in the **Device Manager**. (To check this [click here](#). to open **System Properties** and then select **Device Manager**)

Some customers have had luck installing the Microsoft Game port 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 behaviour 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 game cards.

If you have an older game card, 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 **strongly recommend** consulting a specialist or your **Machine Manufacturer/Supplier** before attempting to alter your setup.

ALTERING YOUR CMOS MAY RESULT IN YOUR SYSTEM NOT FUNCTIONING PROPERLY.

[Adding a custom device driver for you controller](#)

[Make sure your joystick is connected properly](#)

[Calibrate in Windows Control Panel](#)

[Check to see that you have the correct driver loading](#)

[Be sure only one joystick port is active on your system](#)

[Disable any profilers or tray utilities](#)

[Enable joystick control in your game](#)

[Adjust the trim wheels on your joystick](#)

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Joystick/Controller Specifics

Gravis Gamepad Pro

You must have the Gravis Grip driver installed for this joystick to work properly. Obtain the latest driver from <http://www.gravis.com>. This update is known to solve many calibration and detection issues.

Make sure that the switch on the bottom of the joystick is set to "Grip" if the gamepad is configured and calibrated as a Gravis Grip in the windows Control Panel. If it is set to the "One Player" position, make sure that the gamepad is configured and calibrated as a **Gravis Gamepad** in the windows Control Panel.

Make sure that with any Windows 95/98 game, you are "testing" the gamepad in the windows Control Panel every time before playing a game.

Make sure that the "**Keyboard Emulation**" option is turned **off** in the Grip Utility. The Grip Utility is located on the taskbar at the bottom right hand side of your Windows 95/98 desktop (left-click on "**GRIP**").



Frequently reset the calibration in the Advanced Options of the Grip Utility.

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 utilise the Trigger or button S2. If these buttons are mapped to the keyboard, you may not be able to calibrate properly.

Thrustmaster T1/T2 calibration.

Microsoft Sidewinder 3D Pro

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 make sure you calibrate the joystick in Windows **Control Panel**.

[Adding a custom device driver for you controller](#)

[Make sure your joystick is connected properly](#)

[Calibrate in Windows Control Panel](#)

[Check to see that you have the correct driver loading](#)

[Be sure only one joystick port is active on your system](#)

[Disable any profilers or tray utilities](#)

[Enable joystick control in your game](#)

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Joystick still not working after it has been calibrated in Windows

If you have [calibrated your joystick/controller](#) in Windows 95/98 and are still having problems then the first thing you need to look at is [DXSETUP](#). This is because if you have not installed DirectX in some form then you will not have the required software installed for the game to work correctly with a joystick/controller. Try running [DXSETUP](#) to confirm that you do have all the required software installed.

Otherwise check that the [joystick/controller is enabled in the game](#) and whether or not you need a [specific driver](#) for your joystick/controller to work correctly in Windows 95/98. Another page to look at is "[Joystick problems, other possibilities](#)".

Make sure that you have no other devices using your COM port or IRQ

Some resource problems may not show up in Device Manager as conflicts. This is because the devices seem to be sharing **IRQ's** reliably. Some devices can share IRQ's in certain situations, however this has been known to cause problems with modems. If you were able to get the COM port information from the previous step, you can use that information to check if any other devices are using the IRQ channel.

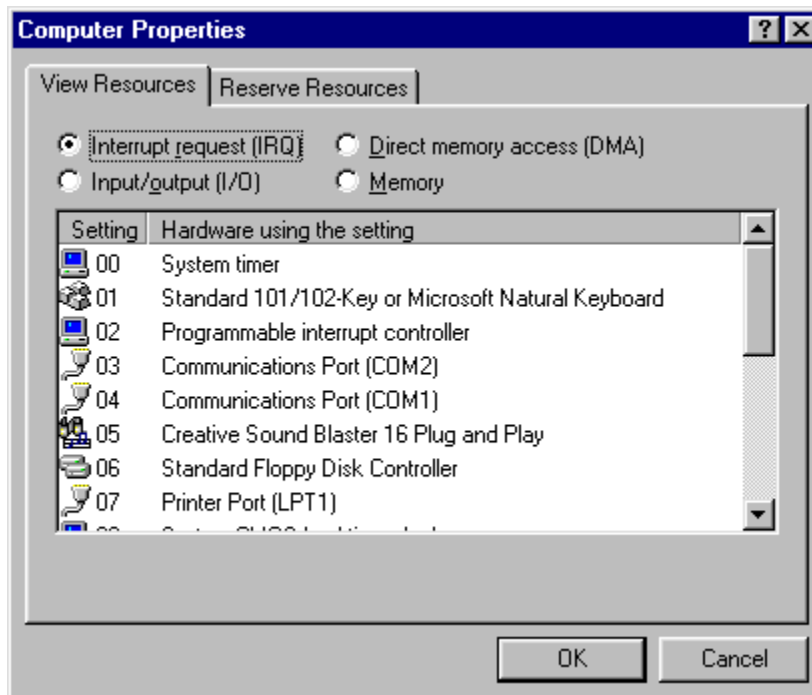
To check IRQ information:

To open your System Properties [click here](#).

1. Click on the **Device Manager** tab at the top of the window.
2. Double-click on the "**Computer**" icon at the top.



You should now see a screen similar to this:



Make sure that none of your COM ports are sharing an IRQ with any other device.



Note: Only advanced users should attempt to change the resource settings of their devices.

If you do find that you do have a COM port sharing an IRQ then contact your [Hardware Manufacturer/Supplier](#) for details on how and what you can change.

[What is a COM port?](#)

[Check and make sure you don't have a device conflict](#)

[See which COM port your modem is using](#)

[Make sure no other devices are using your COM port or IRQ](#)

[Disabling serial ports if using COM 1 or 2](#)

[Perform a test connection with HyperTerminal](#)

[Enter in your modem's correct INIT string](#)

[Disable compression and error correction](#)

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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 become 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. **FIRST** shut down your computer in the normal way.
2. Make sure the joystick connector is firmly seated on the correct socket.
3. When you have finished checking the connector re-start your machine.

 **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 game card instead of your sound card.

[Adding a custom device driver for you controller](#)

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Manually switching Video modes (Screen resolution)


One of the most common problems that occur with **DirectX** games is **Mode Switching**. When a DirectX game starts, DirectX tells the video **driver** to switch modes to match the resolution and colour depth supported by the game. Some video card drivers will have a problem with this Mode Switching and the effect will be either a crash error or blank screen lockup. If you are having any difficulty starting your game, you should try manually switching video modes to check to see if it is your video driver that is causing the problem. The process is straight forward, just follow the instructions below.

To run **Display Properties** [click here](#).

1. Click on the **Settings** tab at the upper right of the window. (see example below)



2. Now adjust the "**Color palette**" option to what ever the game needs to run. For example: 256 colours 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 colour depths, such as 800x600 with thousands of colours (16-Bit colour). Make sure that if your game supports other video modes, that you manually set your desktop to the mode supported by the game.

If this corrects the problem then we suggest that you contact your **Video card** manufacturer for updated drivers which should correct the problem without going through this process each time you wish to play the game.

[Checking the status of DirectX](#)

[Manually switching video modes](#)

[Re-starting your computer](#)

[Shut down all applications](#)

[Shut down applications in the system tray](#)

[Check for conflicts](#)

[Check your virtual memory settings](#)

[Re-installing DirectX](#)

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Modems Problems, Other Possibilities

Put your modem on COM 1 or COM 2

Although modems should work fine on **any** assigned COM port, we have seen modems function best on COM 1 or 2. If your modem is on a COM port other than 1 or 2, and you are having modem difficulty, consider moving it to COM 1 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 higher transfer rates than 9,600 or 14,400 anyway. So if you are having problems connecting, try forcing a lower baud rate in your modem properties.

What is a COM port?

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

See which COM port your modem is using

Make sure no other devices are using your COM port or IRQ

Disabling serial ports if using COM 1 or 2

Perform a test connection with HyperTerminal

Enter in your modem's correct INIT string

Disable compression and error correction

[Other Possibilities](#)

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When you install **DirectX** you may find that certain makes of Video cards do not work at their best if you use the standard DirectX or Windows 95/98 Video drivers. These cards, such as Diamond, Matrox, Creative Labs and a few others, need the drivers **specifically** written for them by the manufacturer.

If you have installed DirectX and have found that your card has lost some of its normal functions, then re-install the driver specific for your Video card (this can be done by running **DXsetup** or **DXdiag** for DirectX 6 again and choosing **Restore Video Drivers**). If you are uncertain which driver you should be using, or you just want to check that you are using the most up to date driver there is for your card, then contact either your **Video card** manufacturer or your **Machine Manufacturers/Suppliers**.

It is best to do this regularly as new drivers are frequently released. These new drivers are revised to fix problems in older drivers or to add newer features, such as to include the latest version of DirectX, so they **are** worth acquiring.

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 [Machine Manufacturer/Supplier](#) and/or your [Sound card/ Video card](#) manufacturer for any updated drivers that may be available.

Not enough free memory

There are a number of things that maybe causing this error message. The first thing we would suggest is that you close down any other program that you may have running in the background. Try holding down the **Alt** key and pressing the **Tab** key. You will then see if there are any other programs running. If they are then close them down and try rerunning the game.

Another possibility is that we have found that although some machines are **fitted** with 16Mb of **RAM** some of this RAM is used by the machine for other pieces of hardware, such as Video cards, and so is not free to run programs with.

To check this [click here](#).


You should now see the **System.Properties** Window.

To the bottom right of this new window you will see a section called **Computer**. Here it will list the type of CPU and the maximum available RAM to the system. If it only shows 15Mb (or less) then you will not be able to run games that need 16Mb of RAM.


The only thing you can do is to upgrade your machine, either by adding more RAM or adding a separate Video card, or you take the game back to where you purchased it for a refund. However you will find that more and more games will need 16Mb of RAM or more to run, so in the long run it would be worth looking at upgrading in some way.

Another possibility is that you have a game controller, such as a Microsoft 3D game pad, that is using a profiler that is running in the **system tray**. If this is the case try unloading the profiler from the systems tray by right clicking on the profiler icon and then selecting "**Unload**". This is because the profiler can take as much as 512K of RAM memory, which can be enough to stop a game from running.

Compaq has released a new driver that will certify under Microsoft's DirectX. You will need to obtain this driver in order for DirectX to work properly. Compaq's web site has two files (SP3184.EXE & SP3183.EXE) which contain updated DirectX drivers for the ESS 1888. These files can be downloaded from <http://www.compaq.com/support/files/allfiles.html>. Be sure to check the Presario production date to ensure downloading of the proper files. After installing this new driver it will be necessary to uninstall the game, then reinstall the game so it will be able to pick up the hardware driver change. In addition, if you are still having problems getting sound try using the following steps.

1. Click on the  **Start** button, highlight **Settings**, then **Control Panel**.
2. In the Control Panel, double-click the **Multimedia** icon.
3. In the window that appears, make sure that the **AUDIO** tab is selected.
4. In the **PLAYBACK** section, under "**Preferred Device:**", change the selection to "Game compatible device". If you do not see this option, please see below!
5. At the bottom left of this window, also make sure that the box labelled "Use preferred devices only" is CHECKED.
6. Click on the APPLY button and the speaker icon should disappear from the right corner of the taskbar.

Most DirectX games should now install, load & run correctly, with sound, and without error messages.

The draw back for this setup is that you will no longer be able to change the volume from the speaker icon, since it will no longer appear on the taskbar. You will still be able to control the sound manually with the monitor knob, through the  **START\ENTERTAINMENT\COMPAQ MULTIMEDIA\COMPAQ AUDIO MIXER** setting, or through the **START\PROGRAMS\ACCESSORIES\MULTIMEDIA\VOLUME CONTROL** (both are through the Start menu). This setting will also cause the DirectX install program to show the Audio Driver as "No Hardware Support" - this is expected with the "Game Compatible" setting and does not cause any problems.

Not getting any sound effects in the game.

The first thing you need to do is to run [DXsetup](#) or [DXdiag](#) for DirectX 6 and make sure that you have a **Certified** Audio Driver installed. If not, then you will need to obtain DirectX certified drivers from your [Sound card](#) manufacturer or your [Machine Manufacturer/Suppliers](#)

Otherwise other things to check are:

Make sure that your speakers are turned on.

The volume is turned up.

That the speakers are plugged in to your sound card at the back of your machine.

These solutions sound simple but they can be missed.

Compaq users

Finding the right Ethernet Adapter
Deciding which type of cable to use
Which BUS type to choose
Terminating the first and last computer
Detecting the Adapter in Windows
Installing IPX drivers and configuring protocols



IMPORTANT: These trouble shooting steps are written for people who are on a "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.

Force a frame type

Check Network Neighborhood for other computers


Specify a network address

Verify that the network is terminated on both ends

Perform a test Connection with HyperTerminal


HyperTerminal is a Windows 95/98 utility that lets you connect to a BBS (**B**ulletin **B**oard **S**ervices) and other computers. In order to run a connection test, you will need to make sure HyperTerminal is installed on your machine and that you have another willing party to connect with.

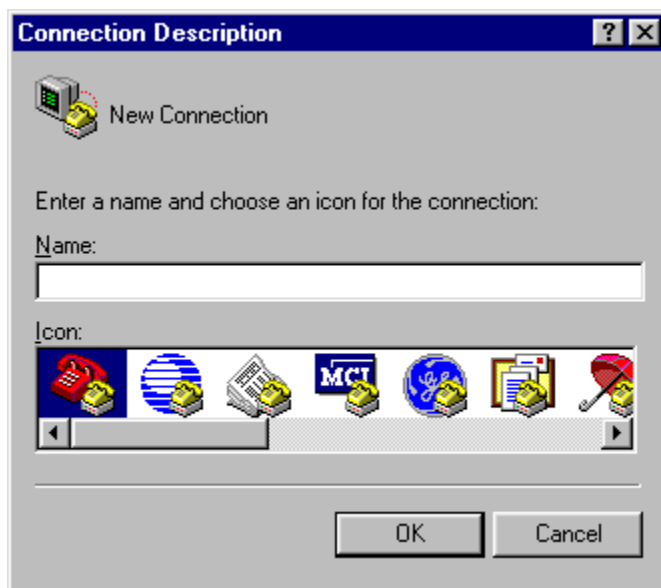
To see if HyperTerminal is installed [click here](#) or follow the instructions below:

1. Click on the  **Start** button
2. Highlight **Programs**, then **Accessories**. You should see **HyperTerminal** in the accessories menu. If you do not, you will need to install it through the "**Add/Remove programs**" applet in **Control Panel**.

If you have HyperTerminal Installed [click here](#) or follow the instructions below:

For the dialling computer:

1. Click on the  **Start** button.
2. Highlight **Programs**, then **Accessories**, then click on **HyperTerminal**. You should now see the Hyper Terminal window.
3. Double-click on the **HYPERTRM** icon. This may or may not appear with an EXE at the end. You will be greeted with this window asking you to name your connection:



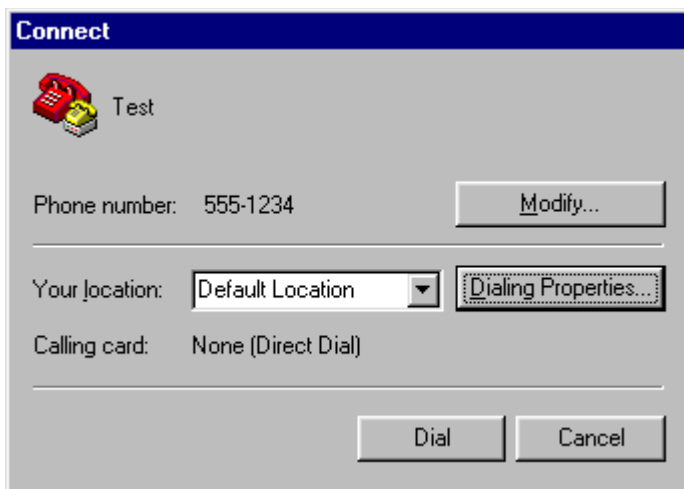
Enter in any name you like, such as TEST and then click **OK**.

4. Now enter the phone number of the computer you are dialing:




Once the number is entered, click **OK**.

5. Now get ready to dial. You should see a window similar to this:



Before you click dial, make sure that the party at the other end is ready to answer and has followed the instructions below:

For the answering computer click here or follow the instructions below:

1. Click on the  **Start** button.
2. Highlight **Programs**, then **Accessories**, then click on **HyperTerminal**. You should now see the Hyper Terminal window.
3. Double click on the **HYPERTRM** icon. This may or may not appear with an EXE at the end. You will be greeted with this window asking you to name your connection:



Just hit the **Cancel** button and you will end up in front of the Hyper Terminal program window. You should

see a blinking cursor in the top left corner.

4. You will need to enter in an **AT** command string so that your modem will know to answer the phone. Type the following command exactly as you see it and press the **Enter key**:

```
AT S0=1
```

Note: That's a zero, so make sure you don't enter the letter "o" in it's place.

Once you press enter, you should see the word "OK" telling you that the command has been accepted.

To turn answering off, enter AT S0=0. Make sure to do this after you are done, or your modem will try to answer every incoming call. To check the status of answering, enter AT S0=?. You will see 001 or 000 indicating On or Off.

5. Now wait for the other computer to call.

Both computers should see the word **CONNECT** on their terminal window. Once this happens, both users should be able to see what the other is typing. You may not be able to see your own typing, but should see the typing of the other user.

If you are not able to connect or see the typing of the other user, one of the computers may have a conflict with the modem. HyperTerminal is one of the easiest ways to connect via modem and should work if the modem is functional. Check with your **Machine Manufacturer/Supplier** or the **Modem** manufacturer for a assistance if you are not able to connect.

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

Problems opening a COM port

For some reason Windows 95/98 can not open the COM port that you have told the game to use. Make sure that you have specified the correct COM port (COM 1 is normally used by the serial mouse). Try closing all applications, such as messaging systems (do you have fax software installed that runs at start-up) or try installing/reinstalling the COM port. [Check which COM port your modem is using](#) by selecting  **Start, Settings, Control Panel** and then **Modems**. Now highlight your modem and select **Properties**, on this screen it will tell you what COM port your modem is using. See the section [See which COM port your modem is using](#) for more details.

Problems relating to specific Video cards

The following manufacturers suggest running our software with the latest version of DirectX with their products using the configurations listed below. If you need further assistance, please contact your [Video card manufacturer](#) directly.

Diamond Multimedia

Stealth SE

Stealth 64 Graphics 2000

Stealth 64 Video 2000

Stealth 64 Video 3000

Stealth Video 2001

Stealth Video 2001\TV

Stealth Video 2500

Stealth 3D 2000

S3 Trio 64V+ (Images will appear very dark on some monitors when using this card)


If you encountered any problems with any of the above Diamond Multimedia video cards, we recommend that you restore your manufacturers specific video card drivers after you have installed the correct version of DirectX. For instructions on how to restore your manufacturer specific drivers go to [Restoring Video Drivers and Audio Drivers](#).

Matrox

Matrox Millennium

Matrox Mystique

The Matrox Millennium card may not support the current version of Direct3D acceleration (which is enabled by DirectX by default). Even if the game does not use Direct3D, this card may have problems due to Direct3D being enabled. You can disable this feature from within the DirectX setup menu. Please follow these instructions to do so:

1. Put the game CD in your CD-ROM drive.
2. From your Windows 95/98 desktop, left-click the  **Start** button, highlight **Find**, then left-click on **Files or Folders**.
3. In the **Find** window, set the "**Look In:**" box 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.EXE** and press **enter**. This will search the game CD for the DXSETUP.EXE file.
5. Click on the box labeled **Direct3D Hardware Acceleration Enabled** to make this box empty. This will **disable** Direct3D.
6. Click on the **OK** button.

At the time of creating this file, Matrox Mystique drivers version 3.81 are 100% DirectX 5 certified. We recommend you contact Matrox for the most current DirectX compatible drivers for this card. You may also try using driver version 3.63 with this card.


STB Systems

Powergraph 64 using Vision 95

We have experienced problems with STB video cards running the STB Vision 95 set of display tools. If you experience any problems playing the game, please uninstall your STB Vision 95 display tools by reinstalling the STB drivers without the STB Vision 95 display tools .

ATI Technologies

Mach 64

If you experience problems running with an ATI Mach 64, click the  **Start** Button and select **Run**, then type **SYSTEM.INI**. Click **OK**. Locate the section within the file labeled [Display] and add the line STRETCHENGINE=0

Example:

[Display]

STRETCHENGINE=0

Click **File**, then choose **Save**. Click **File** then choose **Exit** to leave your System Configuration editor. Reboot the system and try playing the game again.

If you are still experiencing problems then we suggest that you contact your **Video card manufacturer** directly for further support or driver updates.

Fury 128

We have noted a number of problems with this card which are related to early releases of the drivers. Please make sure that the drivers are version 4.11.01.6076, as this driver version resolves the majority of problems.

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Problems with Display drivers

If you are using a computer that is running Windows 95/98, 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 95/98 not to start properly. **This is not a serious issue** and can usually be resolved through Windows 95/98 **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:

[Windows starts normally, but reports an error that your display adapter is not installed properly.](#)

[Windows starts, but your display is scrambled or is otherwise unreadable.](#)

[Windows tries to start, but hangs with a blank screen.](#)

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Re-installing DirectX

DirectX is a Microsoft games [API](#) and is considered a part of Windows 95/98. 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 several versions of DirectX-- 1, 2, 3, 3a, 5.0, 5.2, 6.0 and 6.1. Most likely, if you are running one of our games, you will have version 2, 3, 3a, 5.0, 5.2, 6.0 or 6.1 on the game CD (we always supply the newest available).

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 re-install Windows, which will only restore any corrupted files it will not change anything else. It is recommended that you check with your **Machine Manufacturer/Supplier** 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 the section **Problems with Display drivers**.

To re-install DirectX:

1. Put the game CD in your CD-ROM drive.
2. From your Windows 95/98 **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. If does not work then type DXDIAG, as the game may have DirectX 6 or above.
5. When the file appears in the results box, simply double-click on it.
6. You should now see the DXSETUP (or DXDIAG) window. You can re-install 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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Re-starting your computer

Believe it or not, some unknown problems such as lockups, crashes, sound difficulties, etc. can be resolved by a simply restarting your machine (known as 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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Removing Windows 95/98 Programs

There are two ways to remove the game fully from your computer.


The first method is to use the un-install program that comes with most, if not all of our games. This can normally be found in the  **Start** menu in the same place as where you would normally start the game.

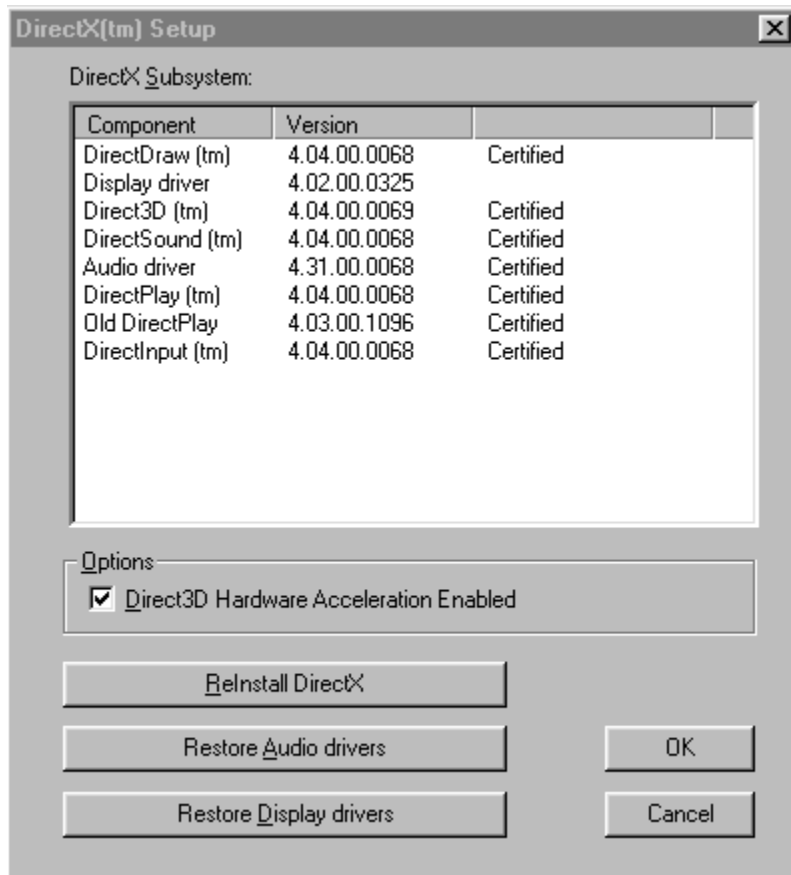
The second method is to use [Add/Remove Programs](#), **Control Panel**. First, click on the  **Start button** on your taskbar, then **Settings**, **Control Panel**. Now click on **Add/Remove Programs**. Select the program you wish to remove from the menu and then click in the **Add/Remove box**. Please read the section "[Freeing Hard Disk space](#)" for full details.

Restoring Video Drivers or Audio Drivers

If you are having problems after installing a standard version of DirectX from a game CD then you can restore your old Audio or Video Drivers by running **DXSETUP**.

To Do this follow the procedure below.

1. Put the game CD in your CD-ROM drive.
2. From your Windows 95/98 **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.EXE** 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 will now see a window similar to above.

6. To restore either your Audio or Video Drivers simply click on the required button at the bottom of the window, either "**Restore Audio drivers**" or "**Restore Display drivers**". DXSETUP will now restore your original drivers.

7. When it has finished it will prompt you to restart your computer, just click on the "**Yes**" button to complete the process.

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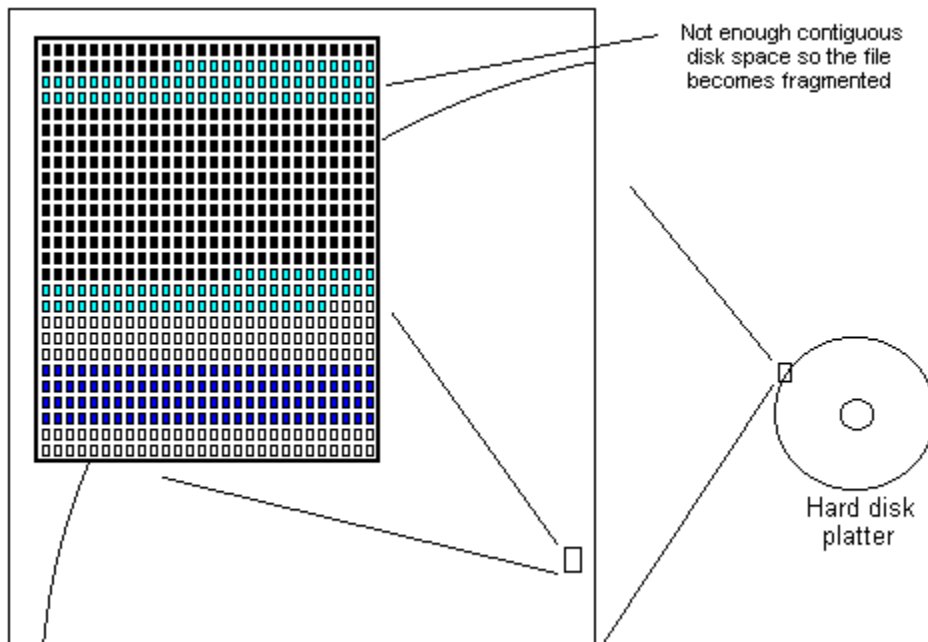
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Running Defrag

Having a regularly defragmented hard drive can help prevent disk errors. Since disk errors lead to data loss, this is a good thing. The fragmentation of data occurs over time as files are added and deleted from the hard drive. Having too much fragmentation can increase the chance of disk errors and data loss.


A file becomes fragmented if it is copied to an area of the disk that is not big enough to hold it. In order for the file to fit, the remaining part is copied to another area on the disk. Although this data is readable, the hard drive has to perform multiple seeks to find the whole file. This creates more work for the hard drive, and increases the time it takes to read files. When writing data to the drive, fragmentation increases the chance of errors.

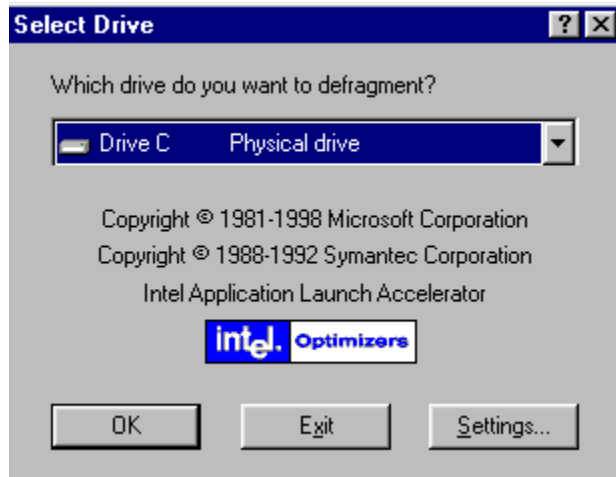


Notice the data representation above. Files will always be copied to the next available set of **clusters** on the disk. If you defragment your hard drive, the files will be organised so that they occupy contiguous clusters, as shown by the dark blue rectangles.

Windows 95/98 has a built in utility for defragmenting your hard drive. There are also third party utilities available for defragmenting.

To run Defrag [click here](#).

Defrag can be run through your  **Start** menu by highlighting **Programs, Accessories, System Tools**, and clicking on **Disk Defragmenter**.



Choose which drive you want to defragment and click **OK**. Defrag will report the status of fragmentation and give you the option to defragment. We recommend defragmenting your hard drive(s) every week.

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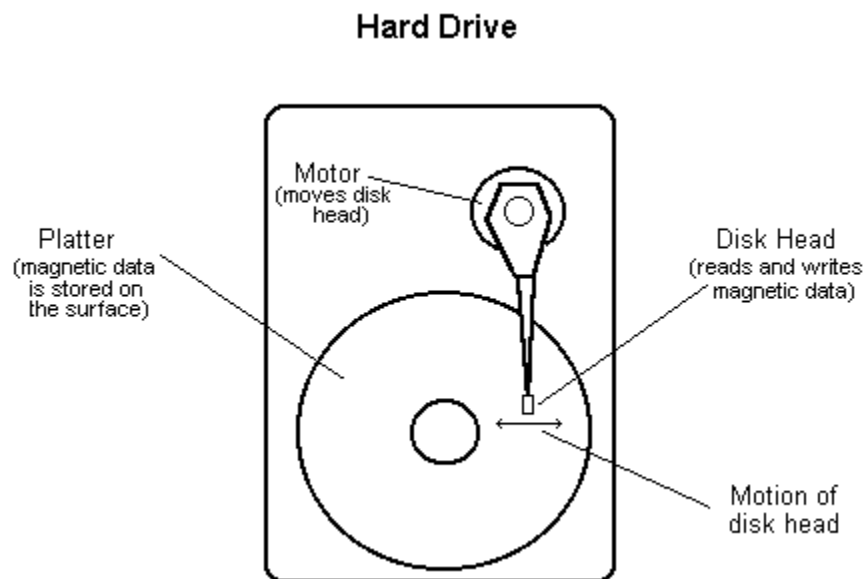
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Running Scandisk

There are many components on your computer that are accessed many times each second, but not like your hard drive. The hard drive on your computer is accessed every time you load a program, and every time your programs needs to process data, store or retrieve it. The hard drive also has moving parts: a motor that moves the read/write head across the disk's platters. The calibration on this read/write head has to be extremely precise. Although hard drives are very reliable, occasionally errors occur when data is being written to the disk.




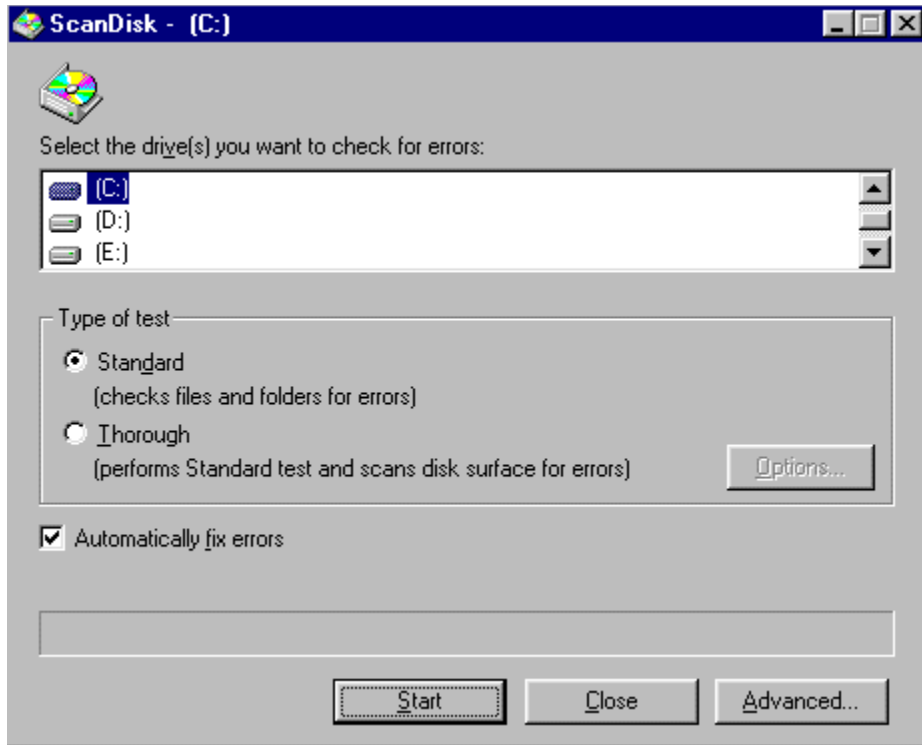
These errors will be referred to as lost **clusters**, cross-linked files and directories, incorrect file sizes, and the most serious: errors in the **FAT** table (file allocation table). Errors in the FAT table are particularly dangerous because this table is where all information is stored about the clusters that your files occupy. If the FAT table loses track of where your data is, it's as good as gone. Although some errors are not as serious as others, all errors should be detected and corrected as soon as possible.

 **IMPORTANT:** Disk maintenance is good, but nothing is as good as **BACKING UP YOUR DATA!** If the data on your computer is important to you, back it up! Nothing can guarantee that you won't lose data unless you have it backed up to a safe place. If you own a computer, there is a chance you will experience data loss at sometime or other. Don't let this be an "I told you so" situation.

Windows 95/98 has a built-in utility for detecting and repairing these errors. You can also obtain third party utilities for disk maintenance and repair, but for this document, we will be dealing with Scandisk.

To run **Scandisk** [click here](#).

Scandisk can be run from your  **Start** menu by highlighting **Programs, Accessories, System Tools**, then clicking on **Scandisk**. You can select the drive you wish to check and click on the **Start** button on the Scandisk window. Scandisk will report if it finds any errors and will give you the option to repair them.



We recommend running Scandisk once a week or more depending on how much you use your computer.

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Windows 95/98 **Safe Mode** is where your machine will boot up but will only load the minimum amount of drivers required for Windows 95/98 to work. For example, it will just load a standard VGA driver for your video card rather than your manufacturer specific driver. This allows you to boot up and correct problems with video card drivers, for example, when they become corrupted or if the wrong driver has been loaded by mistake. The only problem with booting into Safe Mode is that your CD ROM drive will not be recognised unless you are loading a DOS driver for the CD ROM in your start-up files (the Config.sys and the Autoexec.bat).

See which COM port your Modem is using

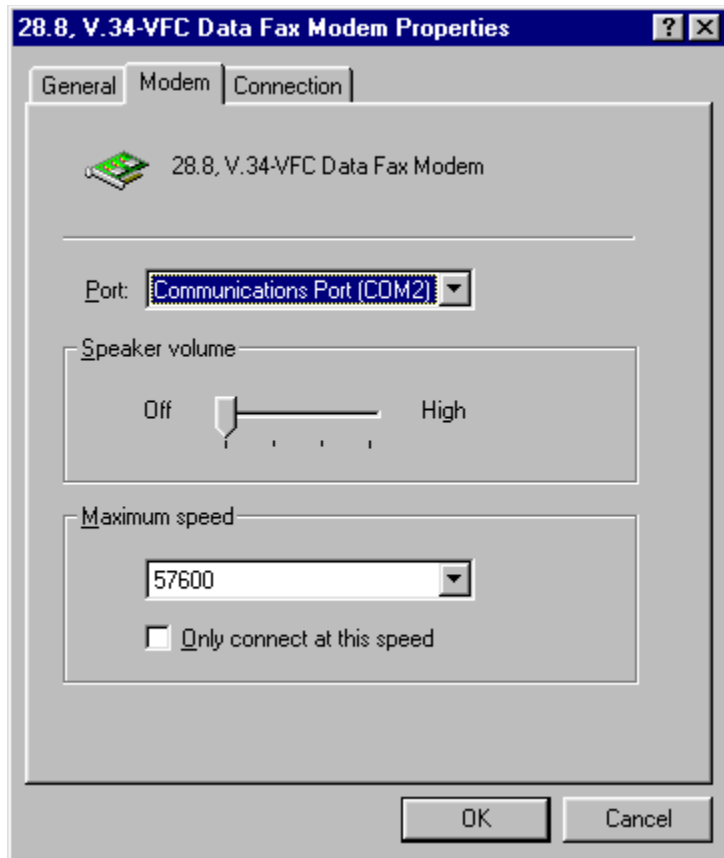
In order to establish that no other conflicts exist, we need to check to see which COM port your modem is using.

To check your modem's COM port [click here](#).

1. Click on the **Device Manager** tab at the top of the window.
2. Expand the "**Modem**" branch by clicking on the "+" next to the modem.




Now left click once on your installed modem so as to highlight it, and then click on the **Properties** button. Once the window comes up, click on the **Modem** tab at the top of the window. Some modem properties may appear differently than shown below. 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 (not seen below.)



The modem in the example shown above is using COM 2. Please use the following table to determine which IRQ your modem is using:

COM 1 uses IRQ 4
COM 2 uses IRQ 3
COM 3 uses IRQ 4
COM 4 uses IRQ 3

 **IMPORTANT:** If you have a device on COM 1, like a mouse, then you may have conflicts with devices using COM 3 because they share the same IRQ. Likewise, devices on COM 2 may conflict with devices on COM 4. Interrupt sharing does not usually work well; we recommend that you use the COM 1 or COM 2 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 attempt to change the resource settings of their devices.

If you do find that you do have a conflict then contact your [Hardware Manufacturer/Supplier](#) for details on how and what you can change.

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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 smoothly and as reliably 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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Shut down applications in the system tray

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 95/98 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 CD's. 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 customise 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 colour depths and resolutions "on the fly" (without resetting your machine). 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 Sound Blaster 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. This should be left running.

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Slow Modem/Serial play

Within the game try turning the sound effects off, and/or reduce the baud rate to its lowest setting to increase reliability e.g. 9,600 baud.

For Modems, try turning off error correction and data compression on both machines. See the section "Disable Compression and Error Correction"

For best performance make sure your PC is equipped with a UART 16550 COM Port. You will find that most Pentium machines will have this type of COM port but normally 486 machines will be fitted with the slower 8250 chips. Also look at Modem Problems, Other Possibilities.

**Rufino Gonzalez 23 bis.
Planta 1a.
Local 2
28037 Madrid**

 **91 - 754 5540**

Specify a network address

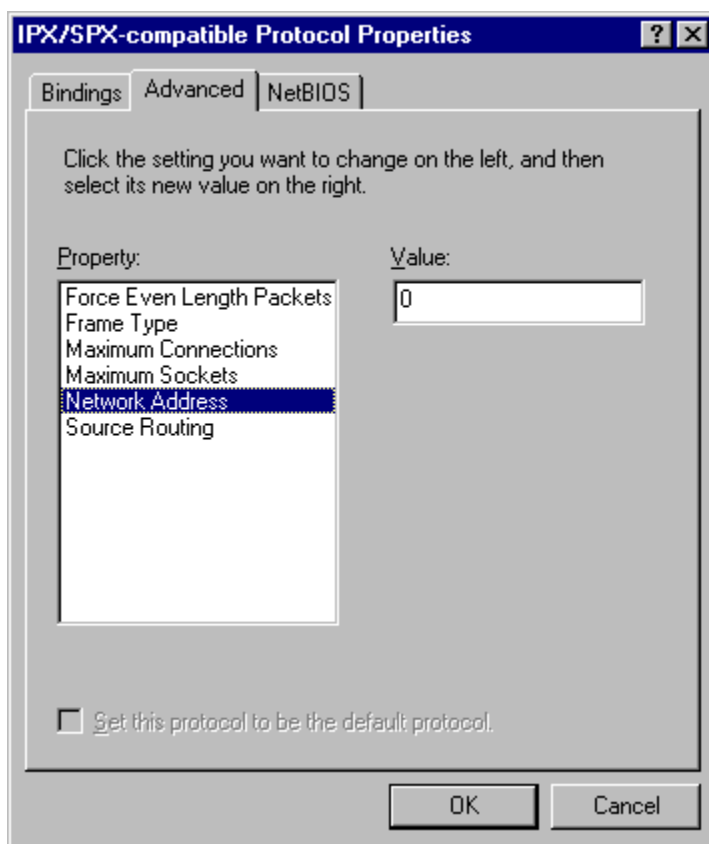
Although unlikely, some connection problems are caused by computers having different network addresses specified, make sure that the computers that you want to connect with have the same network address.

To specify a network address [click here](#).

1. You will now see a window similar to that below.



2. 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).

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Johanneslundsvägen 2
194 81 Upplands Väsby**

 **08- 590 301 51**

Terminating the first and last computer

If you are using a thin coax type network, you will need to make sure the first and last computer are "Terminated" properly. This means purchasing a BNC style network terminating resistor and a BNC style "T" adapter. These inexpensive little items can be found in any computer store that carries networking supplies. If the coax is run directly into the network card, your network will not function properly.



Here is how the termination should be installed on the first and last computer:

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The System Properties window

To get to the correct screen, right click on the **My Computer** icon and choose **Properties**. If you've named your computer something else, then click on that icon. It's usually a picture of a computer in the upper left hand corner of the desktop.

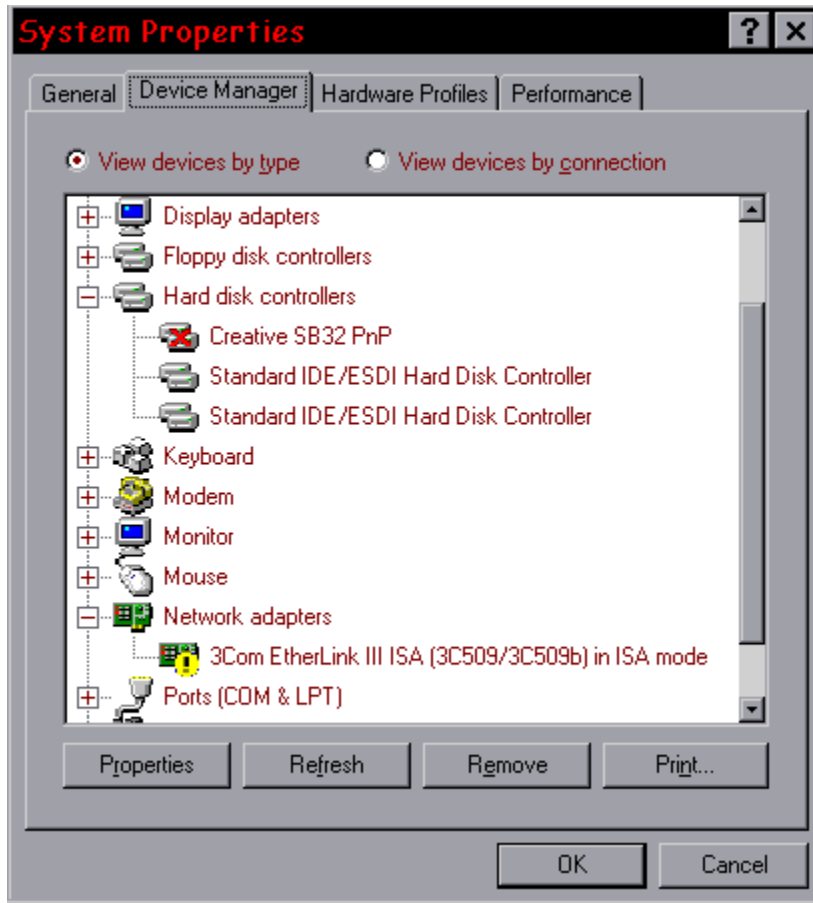
Tabs are the little headings at the top of the window. They let you see different screens that are organised together without opening lots of different windows. To pick a certain tab, just left-click on it.

DEVICE MANAGER TAB

While Windows 95/98 does manage your computer's parts for you, they still do require I/O, **IRQ**, **DMA**, and **COM** ports to work. If you don't know what these are, that's okay - they're just different ways that the **CPU** talks to the other stuff on your system. Each of these different ways also has different channels, like a T.V. or radio. You can get communication problems if different devices are set up to use the same channel to communicate with; it's sort of like having two people talk to you at the same time - it's easy to get confused. This is called a **Device** conflict and can lead to stuff not working correctly, or not working at all.

Device conflicts in Windows 95/98 will most often show up here as a yellow exclamation marks or as red X's to the left of the device that is having a resource conflict. A red X generally means that the device has been disabled or Windows 95/98 can't detect it. A yellow exclamation mark means that there is a driver or resource conflict with the device. Both of these mean trouble. Sometimes a device can have a problem that will not show up with a symbol, requiring you to check the properties of that device for information on its resources and drivers. To get the properties, double-click on the device. Windows comes with a hardware trouble shooter that will walk you through solving a device conflict. This help file is called "Windows Help" and is normally found in your Windows\Help directory, but the easiest way to run the help guide is to click on the  **Start** button on the task bar and then select **Help**.

If you're not sure about something on your system, you can usually get a good idea as to what it is by looking around in here - the sound card will be under "**Sound, video and game controllers**" and the video card will be under "**Display adapters**".



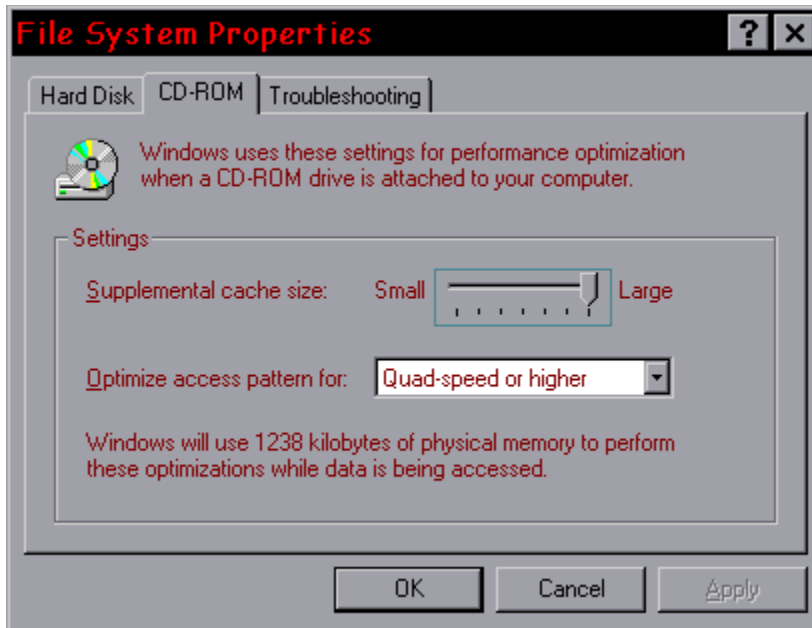
PERFORMANCE TAB

When you pick this tab you should get the screen below. If you don't know for sure, the amount of **RAM** that the computer has will be listed at this screen, as well as any forms of disk compression, and the amount of free system resources. The main thing to be interested in is if it lists "**Your system is configured for optimal performance.**" If not, then this means you need to do some tinkering. Usually this is because you're not using the right Windows driver or that you're having a **device conflict**. The system resources will give you a general idea of how much of your computer is available to run applications with - the higher the better.



Down at the bottom there's a section called "**Advanced settings**" that contains three boxes that you can click on. Clicking on each of these three boxes will bring up some additional windows that will give you more information about certain stuff. Let's pick the **FILE SYSTEM** box and then the **CD-ROM** tab.

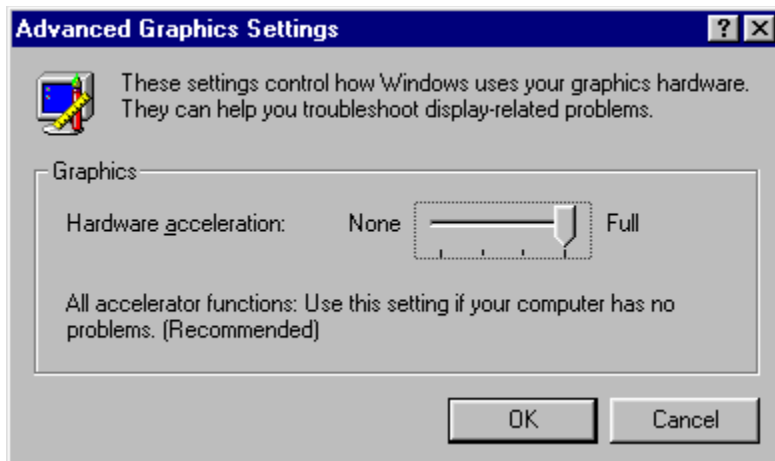
To get the best performance out of your system, the CD-ROM device should be set here to the actual type of CD-ROM that you have (double speed, quad speed or higher, etc.) and the Supplemental cache size should be set as large as possible (this does take up memory and system resources so on a computer with 4 or 8 Mb of RAM you should keep it low- otherwise crank it up). Here at the bottom it shows how much memory is being used for the CD-ROM cache (in this case 1238 kilobytes or about 1.2 Mb of RAM).



Let's click on **Cancel** or **OK** if you've made changes that you want to keep and then click on the **Graphics box**.

GRAPHICS

This screen will let you tell Windows how much of the built-in hardware acceleration of your video card you want to use. It's just a case of allotting how many graphics the video card will handle and leaving the rest for Windows. The hardware acceleration should generally be set to maximum for the best graphics performance, but with some brands of video cards you'll need to reduce or even disable this in order to get it to work with **DirectX** (but if the hardware acceleration is turned off here then **DXSETUP** will show the display driver listing as "No Hardware Support").

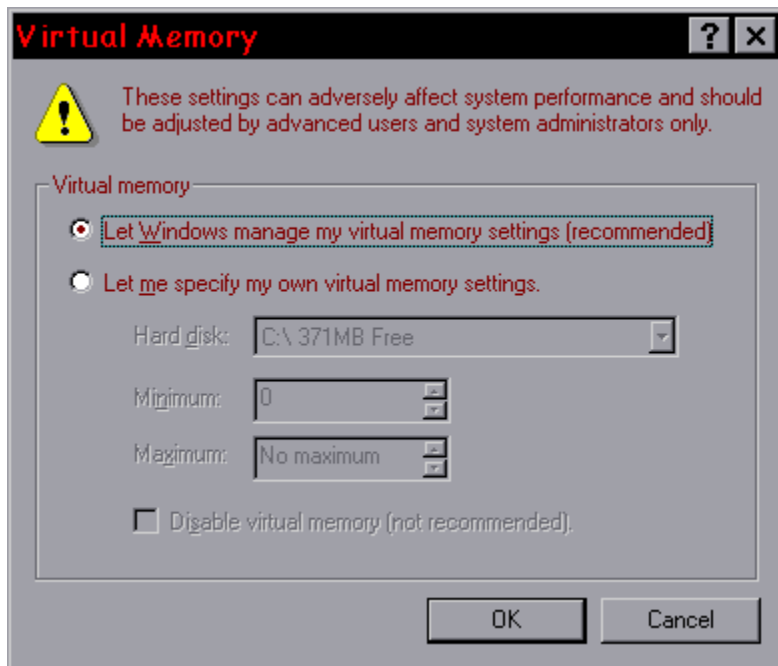


Let's go back and then take a look at the Virtual Memory box.

VIRTUAL MEMORY

Windows 95/98 uses something called **virtual memory** to try and get around the physical amount of RAM that you have on your system. It uses free hard drive space to make something called a swap file, which it uses to keep track of the extra information that can't fit into RAM from a program.

By far the best option is to "**Let Windows manage my virtual memory**" (This is even recommended here by Microsoft). The other option is "**Let me specify my own settings**" or as I like to call it "**Let me mess up my computer**". If you pick this one you can customise how Windows handles virtual memory but if you do not know exactly what you're doing, it's easy to make a mistake. If you specify the wrong settings, or even if the virtual memory is disabled, it will cause problems leading to slow or erratic game play and random memory crash errors. Believe me - it's a pain to track down a problem that's caused by Virtual Memory errors. One of the only times that you'll need to specify these settings is if you've got more than one hard drive and the one that Windows is installed on is compressed or full. All of our games expect Virtual Memory to be managed by Windows.



For more information have a look at the section "[Regular Maintenance](#)".

[The System Properties window and all of it's tabs](#)

[Your Desktop resolution](#)

[Your Hard Drive properties](#)

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The game will not allow me to install it to my hard disk

There are several things that may cause this problem. First though, try running [Scandisk](#) and [Disk Defragmenter](#) which can be found in by clicking  **Start, Programs, Accessories, System Tools**.

Strangely enough updating your Windows 95/98 drivers, or try an alternative driver to the one you have, can also resolve this problem. Obtain these from the [CD-ROM manufacturer](#) or [Machine Supplier/Manufacturer](#).

If you are running Norton Utilities then this may be causing the problem. When you delete a file Norton keeps a record of the file just in case you want to un-delete it (if you have deleted the file by mistake). Norton then "hides" this information from Windows and so it will report a figure for the free disk space. The install programs for games can still "see" the files that Norton is "hiding" and so reports the true figure for the free disk space, which is normally a lot less than Windows reports. To clear the files from Norton's Protected Recycle Bin, right click on the Recycle Bin and select "**Empty Norton Protected Files**".

Trouble Shooting Guides Link

[DirectX](#)

[Joysticks/Controllers](#)

[Modems](#)

[Networks](#)

[Regular Maintenance](#)

[Window 95 Performance and Trouble Shooting](#)

For Electronic Arts titles;

Email:Support@ea.com

Fax: (650) 628-5999 (24 hours)




(650) 628 4319

(phones are manned 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.

Update your drivers

Video and sound card drivers are an integral part of Windows 95/98. They tie Windows 95/98 and the DirectX [API](#) to the hardware itself, providing a particular compatibility layer for Windows native applications including games. **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 **Machine Manufacturer/Supplier** and get their recommendation. If you choose to update the drivers yourself, follow the installation instructions provided with the driver very carefully.

[Checking the status of DirectX](#)

[Manually switching video modes](#)

[Re-starting your computer](#)

[Shut down all applications](#)

[Shut down applications in the system tray](#)

[Check for conflicts](#)

[Check your virtual memory settings](#)

[Re-installing DirectX](#)

[Restoring Video Drivers or Audio Drivers](#)

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[Get the latest version of DirectX](#)

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Updating Drivers

Updating your drivers is an important part of maintaining your computer. Although you do not need to update every day, it's a good idea to update drivers every couple of months, or at least check to see if there is a newer driver for your hardware.

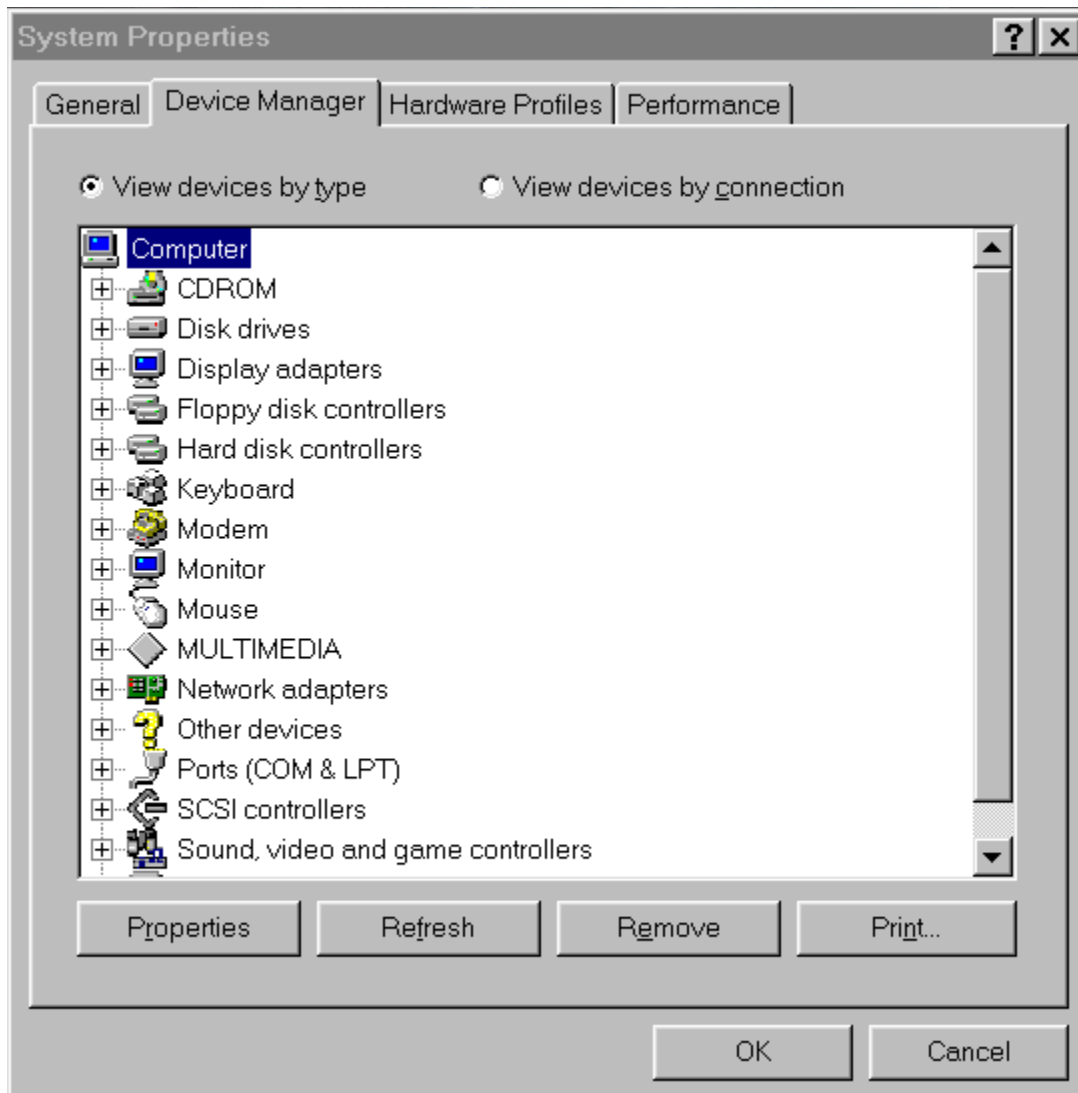
You will want to periodically check for driver updates for the following hardware devices:

Video card
Sound card
CD-ROM
SCSI Adapter
Modem
System BIOS *

There may be other devices with drivers, but these are the most common.

****The system BIOS update will come from your system vendor or motherboard manufacturer. You should only have to update your system BIOS every year or so.***

You can view your windows 95/98 drivers from the **Device Manager**. To run **System Properties** [click here](#). and select "**Device Manager**".



Most drivers can be changed through the driver properties, but we recommend following the manufacturer's instructions for updating your drivers.

You can usually find driver updates through the World Wide Web. Make sure you check your **manufacturer's** web site as there are probably updated drivers posted.

[Running Scandisk](#)

[Running Defrag](#)

[Freeing Hard drive space](#)

[Updating Drivers](#)

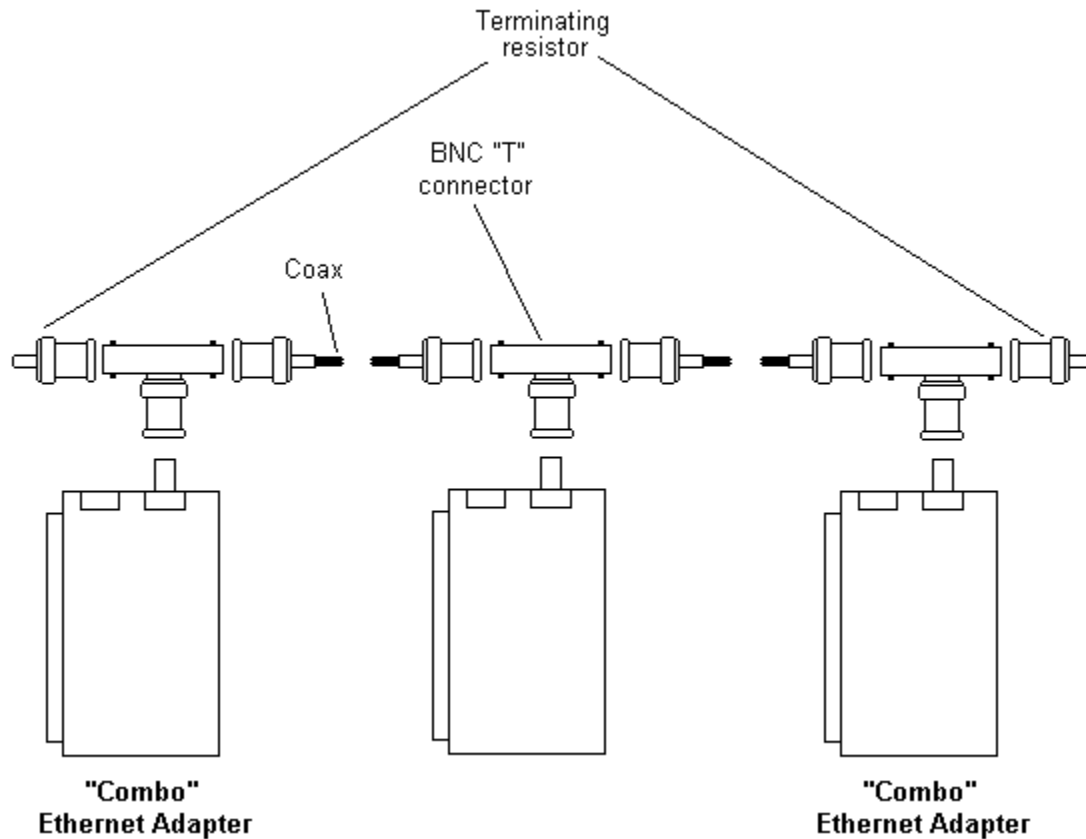
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Verify that your network is terminated at both ends

Termination is required on a **coax type network** on the first and last computer. Make sure that you have the proper termination installed:



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 specialist computer shops or large stores, that carry computer supplies.

Part One: Network Setup

Part Two: Network Trouble Shooting

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WSOCK32.dll error

The WSOCK32.DLL file is the network/modem program file used in Windows 95/98. In some cases, this file may be modified by software supplied by Online Service Providers (i.e. America Online, CompuServe, NetCom). Modified versions of this file may be incompatible with standard Windows 95/98 network and modem functionality. If these errors persist, we recommend contacting your Internet or Online Service provider for updated software which does not use a proprietary WSOCK32.DLL file. If you are no longer using the service which modified the file, an updated version can be downloaded from Microsoft's web site at <http://www.microsoft.com>.

Warranty Information

Limited Warranty

Electronic Arts warrants to the original purchaser of this computer software product that the recording media on which the software programs are recorded will be free from defects in materials and workmanship for **12 months** from the date of purchase. During such period defective media will be replaced if the original product is returned to Electronic Arts at the address below, together with;

- Dated **proof of purchase**.
- A statement describing the defects.
- The faulty media and your return address.
- A daytime telephone number where we can contact you.
- **Any neccasary fee if outside the warranty period.**

(we do not want the entire package)

This warranty is in addition to, and does not affect your statutory rights in any way. This warranty does not apply to the software program themselves, which are provided "**as is**", nor does it apply to media which has been subject to misuse, damage or excessive wear.

Returns After Warranty.

Electronic Arts will replace user-damaged media, **current stocks allowing**, if the original media is returned with a Eurocheque or postal order for £7.50 per PC CD, payable to **Electronic Arts Ltd**.

Please remember to include;

- The Faulty CD.
- Full details of the defect.
- Your name and address.
- A daytime telephone number where we can contact you.

All returns should be addressed to;

**Electronic Arts Customer Warranty,
P.O. Box 835,
Slough,
SL3 8XU,
England.**

For the replacement of other items the costs are as follows (as of the 1/9/98);

| | |
|----------------------------|---|
| Manuals, instruction books | £3.00 per item. |
| Manuals for Janes products | £7.50 |
| Floppy Disks | £2.50 each. |
| Set of Floppy Disks | £7.50 |
| A single CD | £7.50 each. |
| A set of CD's | £20.00 (Unless it is part of the classic range, then it would be full price at £11.99). |



Please note: Proof of purchase is required when requesting any replacements items.

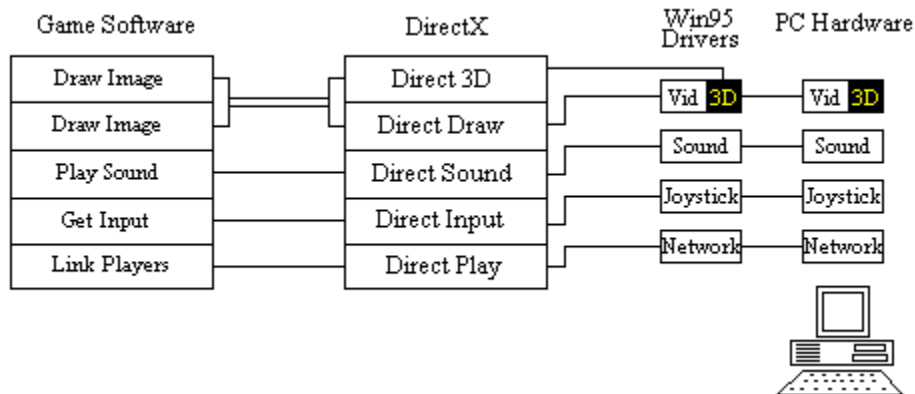
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What is Direct3D and what difference does it make to my games ?

It is a special 3D graphics system designed solely for use with Windows 95/98 to speed up games and to make your PC more like a true arcade machine. For more information see [What is DirectX](#).

What is DirectX?

DirectX is a games [API](#) that allows games designed for Windows 95/98 to have access to your hardware through a standard interface. They are, if you like, the "go faster stripes" for game players for Windows 95/98. 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 95/98 DirectX compatible drivers deal with how to "talk" to your computer's hardware.



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. You may find your manufacturer on our [Hardware Company Links](#) Page.

Occasionally, some applications or video modes may cause problems with certain DirectX drivers. Please go through the steps listed on the [DirectX Trouble Shooting Guide](#) if you are having difficulty (also see "[So, what is the problem ?](#)" for details on common DirectX problems and how to fix them). Most DirectX applications use a resolution of 640x 480 and if the desktop isn't in it, then the DirectX drivers will need to run a palette translation routine; this will generally slow down graphics speed and may even lead to black screen lockups in cards that have problems switching resolutions. See the section "[Manually switching Video Modes](#)"

When you install a game that uses DirectX, it will ask if you wish to run the DirectX installer. This installer checks to see which version of DirectX is on your machine, and if necessary, copies or updates 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 produced 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 the section "[Problems with display drivers](#)".

The reason this sometimes happens is because some hardware does not use **standard** DirectX drivers but **manufacturer specific drivers**. Please check with the manufacturer of your **Video / Sound** card if you have any such problems as to the best way to restore the correct drivers.

[Checking the status of DirectX](#)

[Manually switch video modes](#)

[Re-starting your computer](#)

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[Shut down apps in the system tray](#)
[Check for conflicts](#)
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What is a?

AGP

[Baud rate](#)

BUS

COM Port

CPU

Device

Desktop

DMA

IRQ

ISA

Network

RAM

PCI

Serial Link




What is a COM port?

A **COM port** (short for **COM**munications **port**) is a device in 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 exchanging 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 a location 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 COM 3 use the same IRQ as COM 1 and COM 4 use the same IRQ as COM 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. If you feel that you are not capable of doing this task on your own then please consult you Machine Manufacturer/Supplier for assistance.

| Port | Address | IRQ |
|-------|---------|-----|
| COM 1 | 3F8 | 4 |
| COM 2 | 2F8 | 3 |
| COM 3 | 3E8 | 4 |
| COM 4 | 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 reality 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.

[What is a COM port?](#)

[Check and make sure you don't have a device conflict](#)

[See which COM port your modem is using](#)

[Make sure no other devices are using your COM port or IRQ](#)

[Disabling serial ports if using COM 1 or 2](#)

[Perform a test connection with HyperTerminal](#)

[Enter in your modem's correct INIT string](#)

[Disable compression and error correction](#)

[Other Possibilities](#)

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What is a Network?

Networking is a term you may have heard, but you may not know what it means. Put simply, a network is a series of two or more computers connected through a common interface for the purposes of sharing data and information. You may think that a network is just for really big businesses or computer companies, but that's not entirely true. With Windows 95, it is easy enough to network two or more computers.

Whether you need a small network for a business or simply have a few computers that you want to connect for gaming, you don't have to be a network technician to set one up anymore. If you have a basic to intermediate understanding of your computer's hardware and the Windows 95/98 operating system, you can probably set up a peer to peer network without any trouble.

A peer to peer network is where two or more computers connect together through a single cable and share data. This type of network, as opposed to a client-server type network, doesn't require that one computer be set up as a "server". Peer to peer networks are equal in hierarchy on the network, and are set up generally the same.

There are other types of networks, the Internet is a giant network of computers. If you are logged on to the Internet, then you are part of the Internet network. Anyone can also set up a server on the Internet. With the right machine, software, and connection, you can have people from all over the world logging on to your server and receiving the information that you have provided.

This document focuses mostly on peer to peer networks.

Part One: Network Setup

Part Two: Network Trouble Shooting

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Which BUS type to choose

When you purchase a network card, chances are you'll have two BUS types to choose from: **PCI BUS** and **ISA BUS**. Most Pentium computers will have both types. If you have a 486 you will probably not have PCI slots, so you will want to purchase an ISA Ethernet card. If you have a Pentium system, most likely with a PCI and ISA BUS, you can choose which one will work best for you.

PCI Ethernet cards are typically more expensive, but can deliver higher data transfer rates across the network. This is not necessary for a gaming networks, so you could opt for an ISA or PCI depending on your needs: price vs. performance. Most peer to peer gaming networks will work fine with ISA BUS network cards.

Part One: Network Setup

Part Two: Network Trouble Shooting

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Why can't the SAP socket be opened ?

In Windows 95/98 shared files and printers use the SAP socket. Disable "**File and Printer sharing**" in the properties of "[Network Neighborhood](#)" if you have problems using SAP.

Why do I need to install DirectX as my machine. Isn't it already setup for me ?

DirectX is a set of drivers that enhance the performance of Windows 95/98 designed games. They are designed by Microsoft and distributed with each game specifically written for Windows 95/98 with the version of DirectX needed to run the game. However some manufacturers make their own specific DirectX drivers and if you install the standard drivers supplied to us by Microsoft you may experience problems. Please consult your Machine Manufacturer/Supplier and/or your Sound/Video card manufacturer for details on the most up-to-date drivers that they have, as they do change on a regular basis.

Please Note: You will need to install DirectX from the CD at some point, as this will make sure you have all of the components of DirectX installed to your machine so that the game will work. Windows 98 comes with DirectX version 5.2 preinstalled, but you will need to add updated versions as they are released. If your Manufacturer/Supplier does have specific version of DirectX for your Video/Sound card then all you need to do is to install these drivers **over the top** of the standard DirectX drivers from the CD. You can find the latest version and more details on DirectX at Microsoft's web site at <http://www.microsoft.com>.

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 colour 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 [Machine Manufacturer/Supplier](#) and/or [Video card](#) 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 STRONGLY RECOMMEND CHECKING WITH YOUR SYSTEM MANUFACTURER/SUPPLIER BEFORE ATTEMPTING THIS PROCEDURE:

1. [Click here](#) to view **Display Properties**.
2. When the Display Properties window appears, click on the **Settings** tab.
3. Click on the **Advanced** button and then select the **Adapter** tab. You should now see the currently installed driver.
4. Now change the driver **AS PER YOUR MANUFACTURERS RECOMMENDATION**.
5. Once finish you should be prompted to re-start your computer.

See the section "[Changing your Display Driver to Standard VGA](#)" for more details.

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 MACHINE MANUFACTURER/SUPPLIER BEFORE ATTEMPTING ANY OF THE FOLLOWING PROCEDURES.

Boot into Windows **Safe Mode** by pressing the **F8** key when you see the "**Starting Windows 95**" or "**Starting Windows 98**". 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. Try selecting the monitor as a "Standard VGA 800x600" which is in the "Standard Monitor types".

If the problem persists, boot into Windows Safe Mode as described above and **change your Display Driver to Standard VGA.**

This procedure will not correct the problem with the driver, but will allow you to start Windows normally until the **CORRECT** driver can be restored. Please check with your **Machine Manufacturer/Supplier** and/or **Video card** manufacturer for the best procedure to restore your video driver.

This is probably the same scenario as listed above:



IMPORTANT: PLEASE CONSULT WITH YOUR MACHINE MANUFACTURER/SUPPLIER BEFORE ATTEMPTING ANY OF THE FOLLOWING PROCEDURES.

Boot into Windows Safe Mode by pressing the **F8** key when you see the "**Starting Windows 95**" or "**Starting Windows 98**". 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. Try selecting the monitor as a "Standard VGA 800x600" which is in the "Standard Monitor types".

If this does not correct the problem then again boot into Windows Safe Mode as described above and **change your Display Driver to Standard VGA.** . This procedure will not correct the problem with the driver, but will allow you to start Windows normally until the **CORRECT** driver can be restored. Please check with your **Machine Manufacturer/Supplier** and/or **Video card** manufacturer for the best procedure to restore your video driver.

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/[manufacturer](#) for instructions on how to disable the joystick port.

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 causing a conflict. Make sure you have only one port active or your joystick will not work properly. Check your sound card documentation/manufacturer for instructions on disabling your joystick port if you think this is the case.

You receive a Fatal Exception Error

This is often due to a DirectX problem. Make sure that you have installed the correct version of DirectX drivers for the game, run [DXsetup](#) or [DXdiag](#) for DirectX (version 6.0 and above) to check (you will find this on the game CD). Contact your [Machine Manufacturer/Supplier](#) or the manufacturer of your [Sound card/ Video card](#) for updated drivers as necessary. See the section "[Re-installing DirectX](#)" for more details.

Your Desktop resolution

To check Desktop resolution [click here](#). From the **Display Properties** screen pick the **Settings** tab (screens may vary depending on what Video card and drivers you are running).

There are so many graphics options available in Windows 95/98, that this section wasn't included in the System Properties. Here's where you can specify a screen saver, how big your desktop resolution is, and how many colours your computer is set up to use. It's best that the desktop area and colour be set at 640 X 480 and 256 colour resolution mode. Most DirectX applications use this resolution and if the desktop isn't in it, then the DirectX drivers will need to run a palette translation routine; this will generally slow down graphics speed and may even lead to black screen lockups with cards that have problems switching resolutions.

You can also check at this screen to see if the video card is capable of high colour or true colour resolution under the "**Color palette**" section. If it's not then don't panic - check and make sure that you're using the most recent video card drivers. Mine was only capable of 256 colours until I got the driver updates. There are some cards that will require a video BIOS upgrade in order to use high colour or true colour - this is like getting a new driver, but it's a little bit more complicated. The people who manufacture your video card will be able to tell you if you'll need to do either of these (see "[Video Cards](#)"). If you're not sure what type of video card you have, you can get a general idea from under the display adapters part in the System Properties (see "[The System Properties window](#)"). If you would like to change you resolution see the section "[Manually Switching Video Mode](#)".



For more information have a look at the section "[Regular Maintenance](#)".

Other sections you need to look at are [What is DirectX](#) and [Checking the Status of DirectX](#).

[The System Properties window and all of it's tabs](#)

[Your Desktop resolution](#)

[Your Hard Drive properties](#)

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Your Hard Drive properties

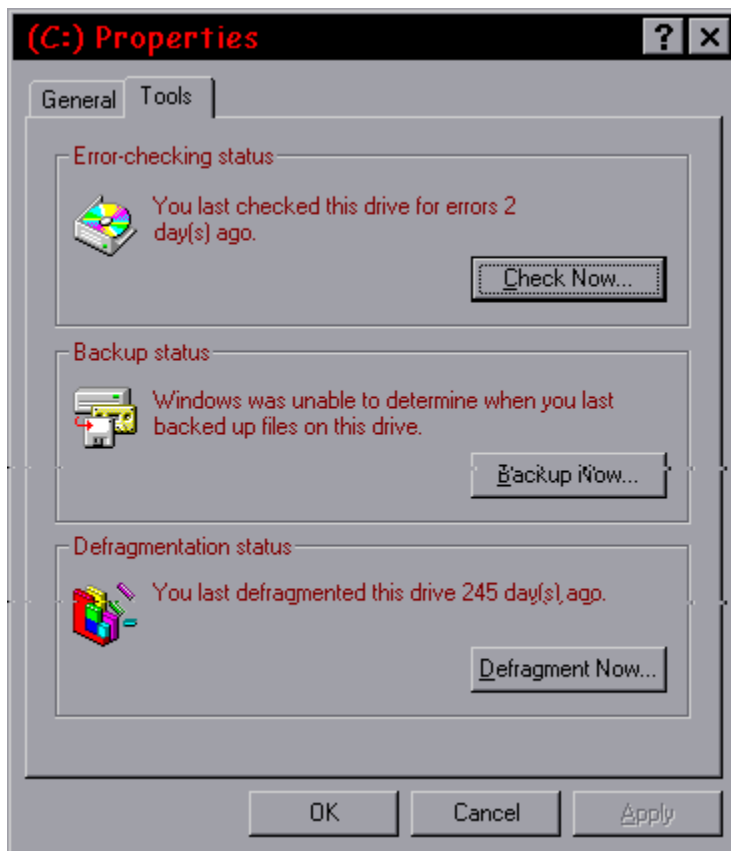
To check out the hard drive properties open up the **My Computer** icon and right-click on the hard drive icon, for example (C:) and select **Properties**.

This screen shows the amount of used and free space available on your hard drive and should also show if it's compressed (to double check on compression you can check the Performance tab in the **System Properties**). The amount of free space on the C: drive is important because Windows uses this to create a **virtual memory** swapfile. If there is little or no free space available for this, there can and will be delays in game performance and seemingly random error messages. Likewise if the hard drive is using it's 16 bit DOS driver or if it's compressed, you can get these errors too.

 **NOTE: Windows will choose the same drive that it is installed on for the swapfile unless you've told it otherwise in the virtual memory settings. In most circumstances this is best left as default.**



Under the Tools tab, you can see how long ago the hard drive utilities Scandisk and Defrag were run on the system. You can also run these utilities here by clicking on "**Check Now**" and "**Defragment Now**".



It's best that on a computer that uses Windows 95/98 to run these utilities once a week (or more often if you do a lot of deleting and installing stuff).


For more information have a look at the section "**Regular Maintenance**".

[The System Properties window and all of it's tabs](#)
[Your Desktop resolution](#)
[Your Hard Drive properties](#)

[Main Contents Page](#)
[Trouble Shooting Guides](#)
[Support Information](#)

You will usually not find many dedicated I/O controllers on newer computers, however many older 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 Machine Manufacturer/Supplier or computers documentation to find out how to do this.

Multiple sound cards

You must select the sound card you wish to use for digital and midi playback, this is known as the "**Primary Device**". To do this click  **Start** in the task bar, then **Settings, Control Panel** and then double click on the **Multimedia** icon. Now click on the **Audio** tab and select the card you wish to use in preferred devices.

Click on the **Midi** tab and select the appropriate device you wish to use under the **Instrument** section.

Peripherals are pieces of hardware that are installed or connected to your machine.

For example :

Scanners

Printer

External CD ROM drive

Game Hints, Cheats and Walk Throughs

Sorry, we do not give out hints or cheats on the standard Customer Service number. For hints and cheats please call the Electronic Arts Games Hint line on

09067 53 22 53.

Please note: Calls are charged at 75p per minute. Please ask the permission of whom ever pays the bill **before** you call. The average call length is 2 minutes.

So if you are stuck for a solution in Bioforge, or want to see that special car in Need For Speed 2, then give it a call.

Games supported on the hint line (correct at time of publishing):-

Cheats = **C** Strategy = **S**
Hints = **H** Walk through = **W**
Level Codes = **L**

PC

N 64

| | | | |
|-------------------------------|-------|---------------------------|---|
| Beasts and Bumpkins | H | FIFA 98 Road to World Cup | C |
| Bioforge | H | FIFA 99 | H |
| Blade Runner | W | World Cup 98 | S |
| Cricket 97 | C | | |
| Command & Conquer | H & S | | |
| Croc | S | | |
| Dark Omen | W | | |
| Dune 2000 | H & S | | |
| Dungeon Keeper | H | | |
| Fade to Black | H | | |
| Fifa 98 Road to World Cup | C | | |
| FIFA 99 | H | | |
| Galapago | W | | |
| Hand of Fate | W | | |
| KKND | S | | |
| Little Big Adventure 1 & 2 | W | | |
| Need For Speed 2 | C | | |
| NHL 98 | C | | |
| OverBlood | W | | |
| Populous 3 | W | | |
| Red Alert (Command & Conquer) | C | | |
| Redline | W & C | | |
| Sherlock: The Lost files | W | | |
| Theme Park | S & C | | |
| Theme Hospital | S | | |
| World Cup 98 | S & C | | |
| War Games | C | | |
| X-Files: The Game | W | | |

Sony Playstation








| | |
|--------------------------------|-------|
| Big Air | C |
| Command & Conquer | H & S |
| Croc | S |
| Dark Omen | W |
| Fade to Black | H |
| FIFA 99 | H |
| Independence Day | W |
| Jurrasic Park - The Lost World | S & C |
| Moto Racer 2 | C |
| Need For Speed 2, 3 &4 | S & C |
| NHL 98 | C |
| Nuclear Strike | C |
| Populous 3 | W |
| Reboot | C |
| Red Alert (Command & Conquer) | C |
| Skull Monkeys | C |
| Small Sodiers | C |
| Soviet Strike | W & L |
| Test Drive 5 | C |
| Theme Hospital | S & C |
| Theme Park | S & C |
| Warcraft 2 | L |
| War Games | C |
| World Cup 98 | S |

How to use this help file

The Electronic Arts Help window file works just like the Help windows you find in other applications. If you are not familiar with how Help operates, here are a few tips to get you started.


Using the Help Buttons at the top of the Help window.


There are seven buttons near the top of the Help window, as described below. You can "press" a button by placing the pointer on the button and clicking it with your mouse.

| | |
|---|---|
|  | Will give you a listing of all the topics in the help file. |
|  | Searches for information about a particular topic. |
|  | Returns you to the previous screen. |
|  | Will print out the page that is being displayed. |
|  | Proceeds to the next topic in the browse sequence. |
|  | Returns you to the previous topic in the browse sequence. |
|  | Displays a list of glossary terms. |

Terms and Functions

Hypertext and hypergraphics are links to more information about on-screen terms, icons, and functions. They also provide you with links to other related topics.

 **Important !** When you move the pointer over hypertext or hypergraphics, the pointer changes from an arrow to a pointing finger

 . This means you can click the text or graphics to get more information.

Hypertext

Your screen displays hypertext in green.

If you click hypertext with a dotted underline, Help displays a **pop-up** box that contains more information about that term. To close the pop-up box, click anywhere on the screen or press any key on the keyboard. If you click hypertext with a solid underline, Help jumps directly to that topic. An example is below for a link to the "Affiliated Lables" page.

Hypergraphics

Hypergraphics are on-screen icons or graphics that you click to view more information. If you see a graphic on screen try moving the pointer over the graphic, if the pointer changes to a pointing finger then this means it is a Hypergraphic. An example of this can be seen on the "**Affiliated Labels**" page and the use of the companies logo's .

Contents

This is an example of a pop-up box.

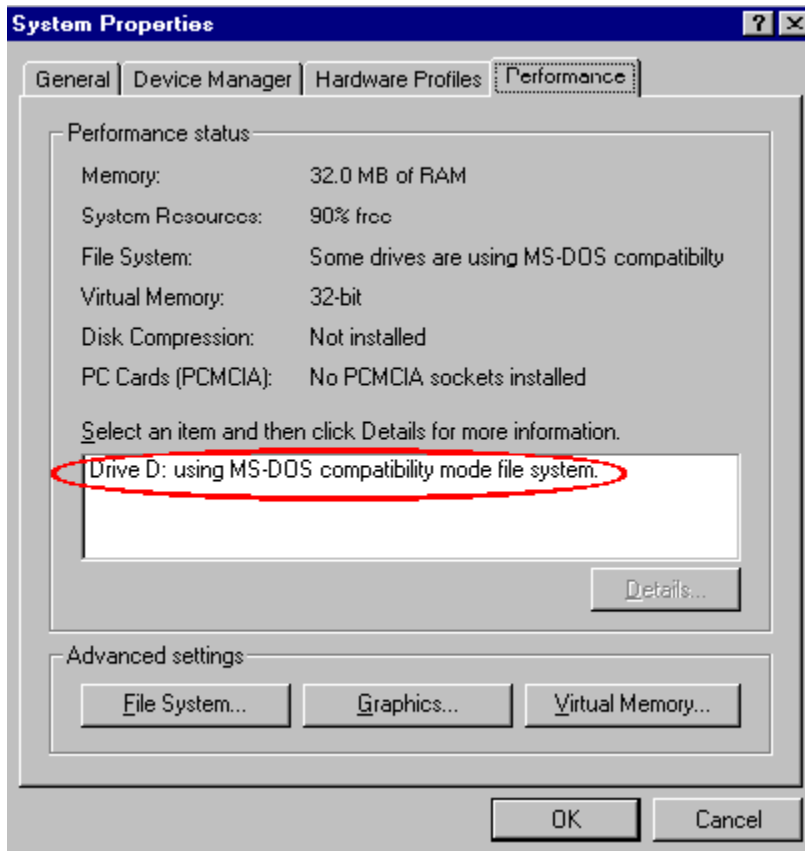
Error message during installation

"An Error occurred during the move data process"

We have found that this difficulty may occur with some machines using 16 bit CD-ROM drivers. To determine if you are using a 16 bit driver:

To open **System Properties** [click here](#)..

1. Click on the **Performance** tab at the top.
2. Next check to see if your CD-ROM drive appears to be using MS-DOS compatibility mode.



Note: Your CD-ROM drive may appear as a letter other than "Drive D".

To resolve this problem:

In some cases you can select a minimum install when using MS-DOS Compatibility mode and game will install and run fine. Otherwise contact your **Hardware manufacturer/Supplier** to see if an updated **32 bit** driver is available for your CD-Rom drive.

[Main Contents Page](#)

Blue Screen Crash

****VITAL INFORMATION****

'Blue Screen Fatal Exception or Vxd error'

It has come to our attention there is a malicious virus called Win32/CIH in the public domain. This malicious virus can come from many unprofessional sources and will attach itself to any executable program (*.exe). This virus can be extremely harmful and should **not** be ignored.

Any program can crash if your computer is infected. Should you encounter **any** crash where the screen turns completely blue, involving either a '**Fatal Exception**' or '**VXD error**', your system *may* be infected with the CIH virus.

What Should I do if my PC is infected 'Fatal Exception' or 'VXD error'?

1. ***Don't panic.***
2. We recommend that you test and disinfect all of your floppy disks and check your hard disks and CD's to ensure that they are all clear from this virus. If you find a virus on a CD then you will not be able to use the CD again, as CD's can not be disinfected.
3. Understand all Electronic Arts CD's are fully virus checked before manufacture. If you find a virus on your PC it will not be on, or from, the Electronic Arts CD (because a CD cannot be infected after it is manufactured).
4. Please be sure to follow these steps and disinfect your system before reporting this Virus problem to us.

How do I disinfect?

Virus Killers are available from a number of sources. Your retailer may be able to advise. If you have Internet access, we suggest you might consult:

Mcafee Viruscan (Viruscan)

<http://www.mcafee.com>

Proland Software (CleanCIH)

<http://pspl.com>

Download.com (Contains several virus killers). Select the "Utilities" option from the main menu.

<http://www.download.com>

Magazine cover discs routinely contain time-limited or free versions of virus killers.

(Please be aware that Electronic Arts does not warrant the performance of these Virus checkers/repair systems and is in no way recommending them over other manufacturers. Furthermore, Electronic Arts can not be held liable for any loss as a result of their use.)

What then?

Once you have cleaned your system, re-install your Electronic Arts game, and try to launch it in the normal manner. Should you still have a problem with your software, you are then welcome to contact your local Electronic Arts **Customer Services** Department. Trouble shooting details can be found in your manual or reference card.



PLEASE NOTE THAT THIS VIRUS CANNOT INFECT ANY ELECTRONIC ARTS CD. **YOUR ELECTRONIC ARTS CD IS NOT THE SOURCE OF THE VIRUS.**

For Westwood titles;

Westwood Technical Support

 **949-833-1999**

U.S. Hint Line

 **900-288-4744**

(.95 cents per minute. You must be 18 years of age or have your parent's permission to call.)

Canada Hint Line

 **900-451-4422**

\$1.70 per minute (Canadian). Callers under 18 must get a parent or guardian's permission to call.)


US and Canada order line

 **888-212-1702**

For Origin titles;

Email:Support@origin.ea.com

Fax:(512) 795-8014

** (512) 434-HELP (4357)
M-F 9:00am-5:00pm Central**

**Origin Systems Inc.
c/o Product Support
5918 West Courtyard Drive
Austin TX 78730-5036**

What to do before installing your game.

This section deals with running a few programs to make sure that your machine is running at its best, to reduce the chance of any new game not running as well as it was designed to.

First things first.

There are a couple of programs that you should run on a regular basis. These are Scandisk and Disk Defragmenter (Defrag). For more details on what these programs do see the page "[Regular Maintenance](#)".


- [Click here to run Scandisk.](#)

Please make sure that you select **Thorough** in the test type and that there is a tick in the **Automatically Fix Errors** box.

- [Click here to run Disk Defragmenter.](#)

Depending on how much information you have on your hard drive and how often you run both of these programs depends on how long it will take for them to finish but your machine will work more efficiently afterwards.

Next is to run a program called DXDiag. This program checks the **DirectX** drivers on your machine and reports if it finds any problems.

 **Please note:** You must have installed DirectX 5.2 or higher to have DXDiag on your machine. If the link below does not work please install DirectX from the game CD.

 [Click here to run DXDiag.](#)


The page that you will be most interested in is the DirectX Drivers section (see example below).



As you can see here DXDiag is reporting a *possible* problem with the Matrox display drivers. If your drivers are reported as being uncertified then we suggest that you check with your **Machine Manufacturer/Supplier** and/or your **Sound card/ Video card** manufacturer for any updated drivers that may be available.

If your driver is reported as '**Certified: Yes**' your device has DirectX 6 support and should work properly in DirectX 6 applications.

If your driver is reported as '**Certified: No**' your device does not have DirectX 6 support and may experience problems running DirectX 6 applications. If this is the case please consult the notes section at the bottom of the DirectX Diagnostic Tool application. Windows 98 users may also consult the **[Troubleshoot]** button, accessed from the **[Still Stuck ?]** tab.

 **Important Note:** During the installation of DirectX 6, the setup program detects whether or not your drivers can be updated successfully. If the driver being replaced has not been tested or replacing the driver is known to cause problems, the setup program warns you accordingly. We recommend you abide by these warnings.

Another important point is to make sure that you have enough free space on your hard drive for **virtual memory**. For more information on freeing up hard disk space for Virtual Memory go to the page "[Freeing Hard Disk space](#)".

Once you have done all the above you can be confident that your machine is at it's best.

Back to [Contents](#) page.

Online Gaming

Follow the links below if you think that you are having a problem using the game Online over the Internet. (This covers Janes Combat.Net, EA SPORTS Net, EASPORTS Edge, Etc.) If you are unsure if the Network is the problem try the page "[So, what is the problem?](#)" and follow the trouble shooting steps that best describe your problem or check the section "[Trouble Shooting Networks](#)".

[Check the version of Web Browser that you are using.](#)

[Clear cache settings](#)

[Check Java settings](#)

[Make sure "Cookies" are enabled](#)

[Run WINIPCFG.EXE](#)

Other starting points

[Start Online Trouble Shooting](#)

Check the version of Web Browser that you are using

An important first step to troubleshooting any online issue is to make sure that you are using the latest version of internet browser. Our games work best with Netscape 4.0 or above or internet Explorer 4.0 or above. You should however verify with the games documentation which version of browser is needed and any other special requirements.

To check which version of browser you are using:

Click on the appropriate link below to open your browser.

[Click here for Internet Explorer](#)

[Click here for Netscape](#)

Netscape Users should click **Help, About Communicator**. The version number will be displayed at the top of the page.


Internet Explorer 4.0 users should click **Help, About...**. The version number will be displayed in the windows that appears.

[My browser meets the requirements of the game, what next?](#)

Clear cache settings

Try to clear out your internet cache settings. The cache setting may contain data that your browser is not updating to help speed your internet connection up. In order to clear your cache settings:

If you are Using Microsoft's Internet Explorer, [click here](#) to run your Internet preferences or

1. Open up the **Control Panel**. Click on  **Start>Settings>Control Panel**.
2. Click on the **Internet** Icon and the Internet Properties Box will appear.
3. On the screen that appears you should see an option for **Temporary Internet Files**. Click on the button that says **Delete Files**.

If you are Using Netscape Communicator, [click here](#) to run Netscape Communicator or

4. Open Netscape Communicator.
5. Click on the **Edit** option from the top menu bar and select **Preferences**.
6. In the options that appear, Click on the **+Advanced**, and then click on **Cache**.
7. The windows should now expose Cache options, including **Clear Memory** and **Clear Disk Cache**. Click these options to clear cache setting.

My cache settings are cleared, but the game is still not working over the Internet.

Check Java settings

Check Java Settings

Many of our online gaming web sites utilise code that is written in the Java programming language. It is vital that you make sure you have your browser is set to display Java based web pages. To check this:

If you are Using Microsoft's Internet Explorer, [click here](#) to run your Internet preferences


1. The Internet Properties Box will appear.
2. Click on the tab along the top labeled **Advanced**, then look for the Heading labeled **JAVA VM**.
3. Make sure the option for **JAVA JIT** is **enabled**.

I am using Netscape Communicator or my Java is Enabled

Make sure "Cookies" are enabled

Some of our online services use cookies by which to retain information about your account and who you are. You must be sure that the ability to enable cookies is not turned off. To do this:

If you are Using Microsoft's Internet Explorer, [click here](#) to run your Internet preferences or

1. Open up the control panel. Click on  **Start>Settings>Control Panel**.
2. Click on the **Internet** Icon and the Internet Properties Box will appear.
3. Click on the **Advanced** tab and find the entry that says "**Security**". Be sure that the option for Cookies is set to **Always Accept Cookies**, or **Prompt Before accepting Cookies**.


If you are Using Netscape Communicator

Netscape will verify before accepting a cookie.

Run WINIPCFG.EXE

Some games support the ability to play head to head using an internet connection. There are a few standard trouble shooting steps you can try if you are experiencing a problem while attempting this type of connection.

[Click here](#) to run WINIPCFG

1. Make sure that you are logged onto your Internet Service Provider (ISP)
2. Next determine who is going to be the host of the game. (The host is the person in charge of creating and setting up the game.)
3. If you are the Host, you must retrieve your Internet IP address. This is the address that identifies you over the internet. To retrieve this number, click on the  **Start>Run...** and type the word **WINIPCFG** into the dialog box that appears.
4. In the box labeled IP address, is your IP address. You must now take this number and send it to your friend either by email, or some other Internet chat program.

NOTE: Be sure to close this program down before the game starts.

5. Your friend can now click on the **Join** in the Internet game options within the game.

For more information concerning game specifics and internet connections see the documentation that came with the game.

I am having problems playing my Online game

The following trouble shooting steps will help you in connecting your game over the internet. There are two types of internet connections you can establish with our games, a direct connection, or a connection using one of the many online services available from Electronic Arts (EA). Examples of EA online services are EA Sports.Net, Janes Comabt.Net, etc.


I am trying to establish a Direct Connection with my friend over the Internet.

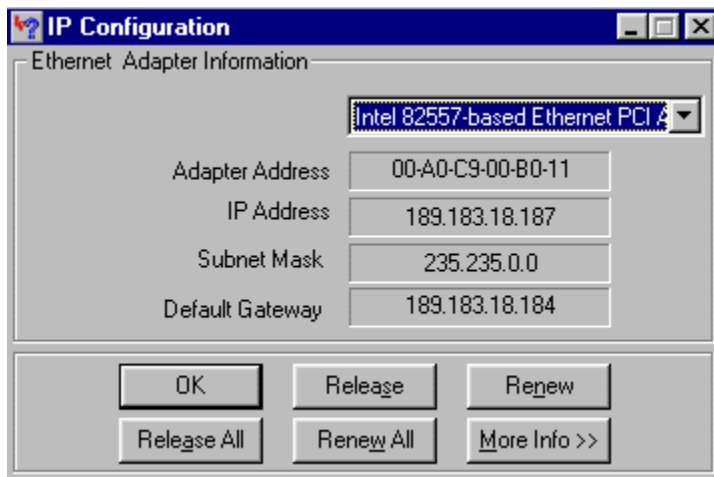
I am trying to utilise one of Electronic Arts Online services.

I am trying to establish a Direct Connection with my friend over the Internet

Some games support the ability to play head to head using an internet connection. There are a few standard trouble shooting steps you can try if you are experiencing a problem while attempting this type of connection.

To run WINIPCFG [click here](#)

1. Make sure that you are logged onto your Internet Service Provider (ISP)
2. Next determine who is going to be the host of the game. (The host is the person in charge of creating and setting up the game.)
3. If you are the Host, you must retrieve your Internet IP address. This is the address that identifies you over the internet. To retrieve this number, click on the  **Start>Run...** and type the word **WINIPCFG** into the dialog box that appears.
4. In the box labeled IP address, is your IP address. You must now take this number and send it to your friend either by email, or some other Internet chat program. If the IP address is just a line o zero's then you need to make sure that information shown is for your Ethernet Adapter as shown below.



 **NOTE:** Be sure to close this program down before the game starts.

5. Your friend can now click on the **Join** in the Internet game options within the game.

For more information concerning game specifics and internet connections see the documentation that came with the game.

Checking CD-ROM disk

It may be that your game CDROM media has become damaged or soiled. A good indication of this is if the game issues an error that it cannot read or find a file. (This is not always indicative of a bad CD, there are other reasons this may happen). Usually under this circumstance windows will issue a blue warning screen. If this occurs there are a few steps to try.

1. **Carefully** clean the disc. **Remember:** Always wipe from centre outward with a soft, lint free cloth.
2. Inspect the disk for scratches. Due to the high density of data stored on a **CD-ROM** a scratch can be fatal to a CD. To check for scratches, hold the disc up to the light and view the disk from an angle.
3. Try the CD on another machine. It may be the case that the error message may have to do with the configuration of the computer. It is a good idea to try the CD on another system before sending it back to our warranty department. This will not only save the cost of replacing a non-damaged disc, but will also save time.

If you find the CD is faulty and it is a manufacturing fault then you should either take the full product back to the store it was purchased from or return the CD to our **Warranty department**. If the CD is scratched due to user damage again return the CD to our Warranty department but please be aware there will be a charge for replacement of damaged CD's. Details of these charges can be found on the **Warranty Information** page.

The colours in the game look odd

Strange colours during gameplay are often a sign that the **DirectX** video driver is having difficulties with the games colour palette. Such symptoms of this include, inverted colors, fuzzy, or just plain psychedelic looking. Check your video drivers to determine if they are in proper working order.

See **[Checking the status of DirectX](#)**

Glide Trouble Shooting


Below are some steps you can take when trying to trouble shoot your 3D application running the [Glide API](#). For the latest information available on this subject consult 3Dfx's web site at <http://www.3dfx.com>

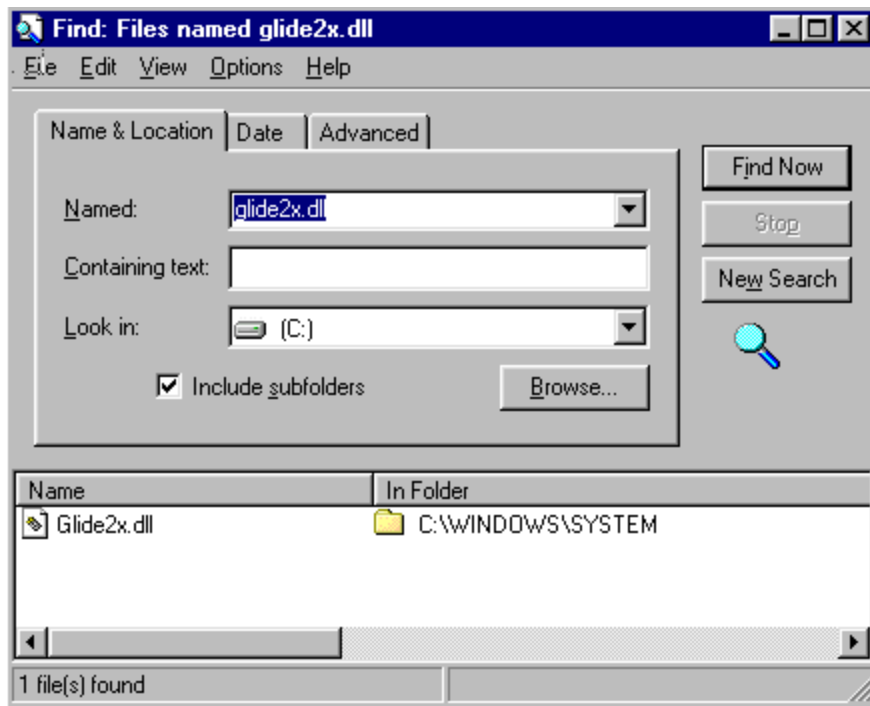
Make Sure Acceleration Card Supports Glide

Not all 3D capable video cards will support the Glide API, only those cards using the Voodoo, Voodoo 2, Voodoo Rush, or Banshee chipsets will support this API. If you doubt your card supports Glide, consult the manual for your video card or contact your manufacturer.

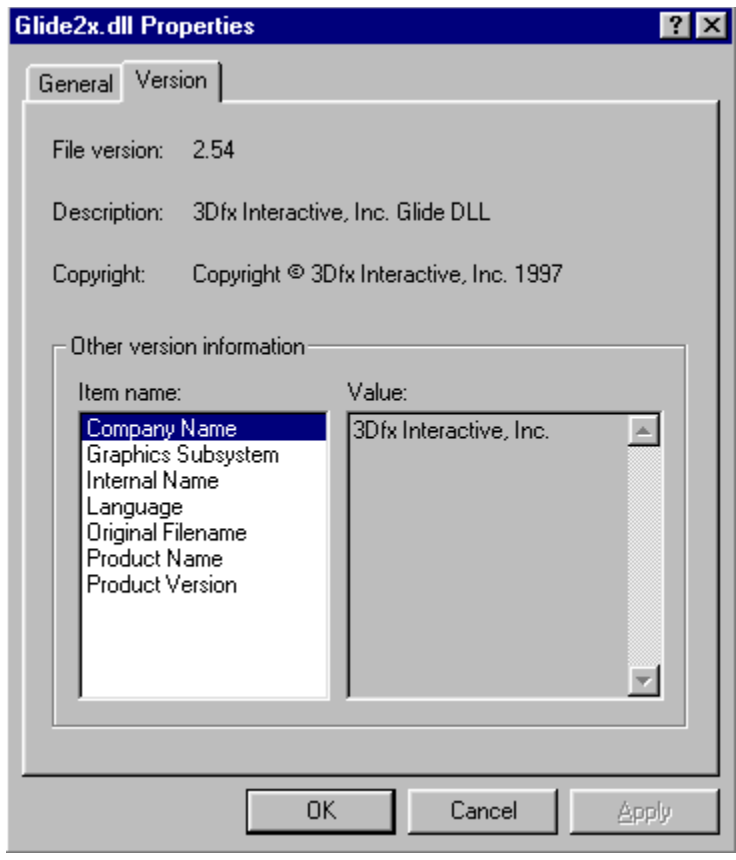
Check the version of Glide.

Make sure that you are using the latest version of Glide and that it is the appropriate version for your particular chipset. To determine the version of Glide that you are using, follow the steps below.

1. First, click on the  **Start** button on the task bar, select **FIND** and then select **FILES OR FOLDERS**.



2. Next, in the **NAMED** area, type "**glide2x.dll**" and click on the **FIND NOW** button. Make sure the **LOOK IN** area has the drive letter where your Windows directory is located and that the **INCLUDE SUBFOLDERS** box is checked.
3. If the Glide drivers are installed on your system, glide2x.dll will be found in the c:\windows\system directory (or on the drive where you have installed Windows.) This file may be found in other directories, possibly where the drivers were first extracted or downloaded, but ignore these other files.
4. Next, **right click** on the glide2x.dll file that was found in the **c:\windows\system directory**. This will cause a file menu to open. Left click on the **PROPERTIES** section on this menu to bring up the file properties menu.
5. Finally, click on the **VERSION** tab at the top of the file properties menu to see the version information screen.
6. Now check in the games documentation to see if you have the required version of Glide installed.



The game crashes when I enable the 3D-Acceleration option

Make sure your card supports the correct [API](#), such as [Glide](#) or Direct3D. If in doubt of your card supporting a 3D API, consult the manual for your video card or contact your manufacturer. It is also important to check the game's manual to verify that you have set up the game correctly to run in 3D mode.

If the game is setup, check to make sure your software for your video card is installed and set up properly. Select the link below pertaining to the API you are having trouble with.

See [Glide Trouble Shooting](#)

See [Direct3D Trouble Shooting](#)




Direct3D Trouble Shooting

When trouble shooting Direct3D, first make sure that your card supports Direct 3D and that it is supported by the game you are trying to play. Next make sure that Direct3D is enabled and working properly on your system.

Check That Direct3D is Enabled

To verify that Direct3D is enabled, you must first run DXSETUP.EXE. To do this [click here](#) to run DXSetup or

1. First, click on the **Start** button on the task bar, select **FIND** and then select **FILES OR FOLDERS**.
2. Next, in the **NAMED** area type **DXSETUP.EXE**. Make sure your C: drive is highlighted in the **Look In** box.
3. Click on **FIND NOW** to start the search. When the search is finished click on the icon that has the words  Dxsetup.exe .

Next: [Check That your Video Card is working properly with DirectX](#)

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.

Game Device Profiler

When this game joystick is installed on the computer it will install a program called the **Game Device Profiler**, which will show up in the System TRAY. In order to keep this device running most efficiently, obtain the latest version of the device profiler from <http://www.microsoft.com/sidewinder>. The game device profiler is a utility that allows keyboard buttons to be mapped to the game pad. This profiler is important because it alters the way game pad input is gathered and will conflict with the game. It is highly recommended to shut this profiler down before starting the game. To close this icon down:

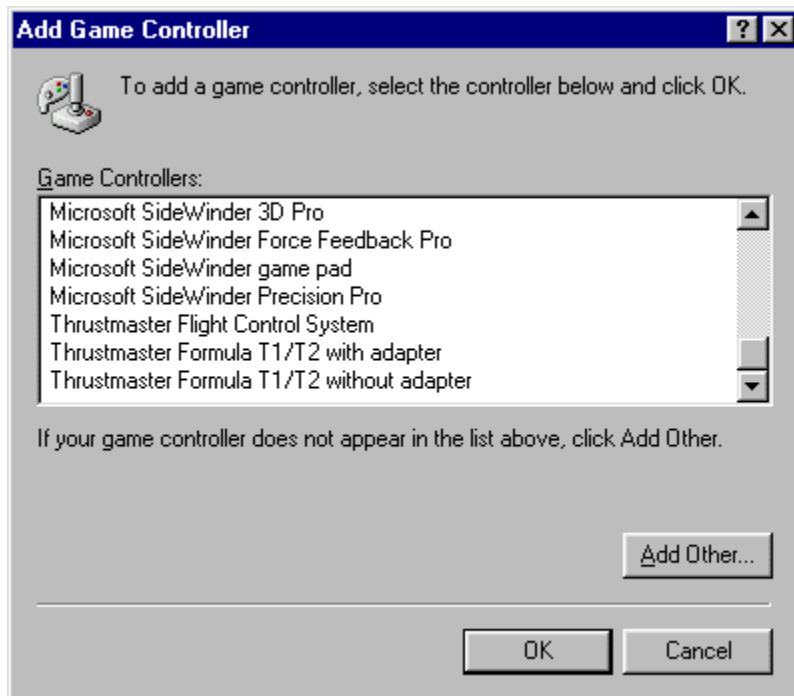
1. Right click on the game device profiler icon.
2. Select the option to **Unload Game Device Profiler**.

The game device profiler will be reloaded once the computer is restarted.

For more information and the latest drivers for this device check Microsoft's web page at <http://www.microsoft.com/sidewinder>.

Thrustmaster T1/T2 calibration

This steering wheel can be calibrated using the standard two axis, four button joystick or use the custom calibration setting. For Windows 98 users you can choose either "**Thrustmaster Formula T1/T2 with adapter**" or "**Thrustmaster Formula T1/T2 without adapter**".



To calibrate [click here](#) to open Games Controller or

1. Open up the Control panel. Double click on Open Game Controllers Control Panel
2. Be sure that under "Controller", it reads **2-axis, 4-button joystick**. If it is not selected click the **Add button** and find **2-axis, 4-button joystick**.

 *Note: You can also try a Custom Calibration: 2-axis, 4-button, "Is a race car controller"*


3. Click on the "**Properties**" button then the button labelled "**Calibrate**" to bring up the calibration sequence. In this frame, you want to manually centre the cross hairs, which by default, will go to the lower right hand corner of the frame. After the cross hairs are centred hit the stick shift very carefully one time in the up direction.
4. Now you are at the screen that says "**move joystick in all directions.**" Go ahead and move the joystick in all directions at least twice, then manually centre the cross hairs using the steering wheel and the pedals. Once centred, hit the shifter up once. This will bring up a screen which says "**to confirm your joysticks center position....**" At this point, you want to make sure that you are still manually centering the wheel, holding the cross hairs firmly centred in the centre of the calibration box. Hit the stick shift up again.
5. Click the **FINISH** button.
6. At this point, you can click **APPLY** in the joystick properties box. **(This is a very important step.)**

For more information and the latest drivers for this device check Thustmasters web page at

<http://www.Thrustmaster.com>

Adding a custom device driver for you controller

If you are having trouble getting your controller working with a standard device driver, or you have it and it still does not work with the game, you can try calibrating the device using a custom driver. These custom drivers work best with steering wheels and generic flight sticks, but can be used for almost all controllers.

 **NOTE:** Custom drivers with not work with digital devices like the Microsoft Game Pad.

To set up a custom driver [click here](#) to open **Game Controllers in Control Panel**

1. Select the option for **Custom**. Pick the amount of Axis's you have. Most Devices are Two Axis pertaining to up/Down and Left Right/Movements. A three axis Device adds a Throttle and a four axis device would indicate a flight stick with a rudder setup.
2. Select the number of buttons you have on your device. Up to four are available.
3. If your device has any special characteristics, such as being a steering wheel, or a flight stick, select them in the Special Characteristic Window.
4. Next, if your device has a **Point of View Hat (POV)**, check the box Labeled **Point Of View Control**.
5. You must now name the device so that it can be selected from the list of drivers. Give it a name that is easy to remember, such as **MY CONTROLLER**, and select **OK** to accept your new controller settings.
6. Finally, to make the device function properly you must calibrate it.

Let's Calibrate my controller

[Adding a custom device driver for you controller](#)

[Make sure your joystick is connected properly](#)

[Calibrate in Windows Control Panel](#)

[Check to see that you have the correct driver loading](#)

[Be sure only one joystick port is active on your system](#)

[Disable any profilers or tray utilities](#)

[Enable joystick control in your game](#)

[Adjust the trim wheels on your joystick](#)

[Joystick Specifics](#)

[Other Possibilities](#)

[Main Contents Page](#)

[Trouble Shooting Guides](#)

[Support Information](#)

While playing, the game will drop back to the desktop.

This can be caused by a couple of things.

The drivers you are using for you video card are out of date and need updating.

You can usually find driver updates through the World Wide Web. Make sure you check your **Video card manufacturer's** web site as there are probably updated drivers posted.

You only have a 1Mb video card which can not support the video mode that the game needs to run on some screens.

If this is the case there is not much else to to but to either take the software back to the place of purchase for an exchange or refund. You will find that most games that use DirectX 5.2 or higher will need a video card that needs at least 2 Mb of **RAM**.

I am getting a message that says "Insert CD" during install.

Check and make sure the correct disk is in the drive

The first step to trouble shooting any problem is to start with the obvious. First, make sure that the game CD is indeed in the required CD-ROM drive, especially if you have more than one drive. Even if the game is installed onto the hard drive many files containing sound and full motion video, vital to the game, are left on the CD to save space. Next, be sure that if the game contains multiple disks, the correct disk is inserted into the drive.

Check CD-ROM Drivers

In order for Windows 95/98 to run efficiently it needs to use the correct 32 bit CDROM drivers. Many times these drivers are supplied with Windows 95/98 or they can be obtained from the manufacturer of the drive or the computer itself. It is important to make sure that there are no 16 bit DOS or Windows 3.X drivers resident in Windows 95/98. Symptoms of this occurrence include sluggish game performance, install and/or general game play errors, or the appearance of two CDROM drives in the windows explorer (even though there is physically only one present). To check if your computer is using the correct 32 bit windows drivers try the following:

To run **System Properties** [click here](#) .

1. From this new window, select **Properties**.
2. Click on the **Performance tab** at the top of the window.
3. In the open area below PC Cards (PCMCIA), you should see the words, "Your system is configured for optimal performance." If you see a message pertaining to your CDROM using a 16 bit dos driver, you should check with your **Machine manufacturer** or the **manufacturer of the CDROM drive** to obtain the appropriate driver.

I receive an error "Insert CD" but the CD is already in the drive.

Removable Drive Issues

Removable hard drives will often force windows to view your systems drives differently. Most often affected is the letter of the CD-ROM drive. Such errors, that are generated due to the CD-ROM drive letter being changed by adding a removable drive after the game has been installed, are messages that state the game CD is not in the drive (even though it is) or that a game file is missing. To alleviate a problem of this nature, first un-install the game using "**Add/Remove Programs**" in the Control Panel or the games own un-install utility. Then re-install the game under the CD-ROM's new drive letter association.

Multiple CD-ROM Drives

This error can also be caused if you have more than one CD-ROM drive. Try putting the games CD into the other drive and try again to run the game.

For more details see the section "**Removing Windows 95/98 Programs**"

During the game the video playback appears choppy or slow.

Supplemental Cache Size on the CDROM drive is used to adjust the amount of System RAM that is set aside for caching information that is read from the CD disc

When to increase the cache.

There may be a case where video playback appears choppy or slow. This problem can be alleviated by adjusting the CD-ROM drives supplemental cache size. This sets aside a portion of memory called a buffer in your system **RAM** that the CD drive can use to store information.

When to decrease the cache.

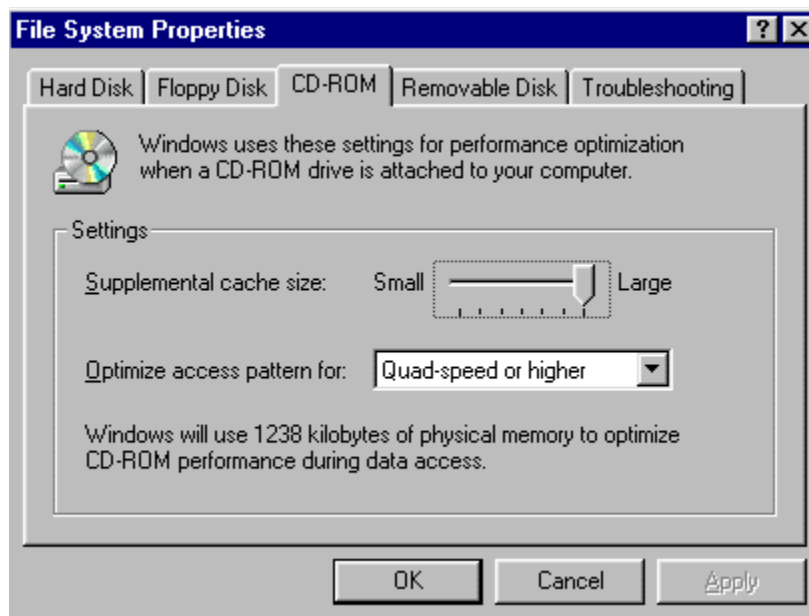
By increasing the supplemental cache size of your CDROM, you are, in affect, taking available system RAM away from the pool of RAM that other programs can use. It is possible to take over 1 megabyte of RAM away from this pool. In some instances this can cause the game to crash, or to have inadequate memory to decompress files, such as what would happen during the installation of an application. Or even enough to stop a game running if you only have the minimum amount of RAM installed in your machine that the game needs to run (the game needs 16Mb of RAM and you only have 16 Mb of RAM install on you machine This may be a case where more memory allocated to you CD-ROM is not always the best and decreasing supplemental cache may be advantageous to your game or application.

To open **System Properties** [click here](#).

1. When the Stem Properties window is open select **Properties**.



2. Now click on the **Performance** tab
3. Next click on the **File System...** button.
4. Click on the tab that is marked **CD-ROM**.



5. Move the supplemental cache slider bar accordingly.

The install is not letting me select my hard disk as an option to install to.

It is important to make sure that you have enough hard disk space available on the hard disk that you want to install the game to. Another factor that may hinder the ability of a game to install to a designated drive is the size of the swap file that is needed by Windows 95/98 **virtual memory**. Set aside an absolute minimal 50 megabytes of free space on your designated swap drive regardless of what partition you are installing the game to. By design, our games will not install reliably to removable drives such as Zip drives.

To find out the best way to free more hard disk space please go to the page "**Freeing Hard Disk space**"

Running games on Laptop computers

I'm afraid most of our game do not officially supported laptop computers, as the video, sound and support chipsets are often 'trimmed down' to save on power, weight and cost. This can often cause problems with games software, which makes significantly higher demands on your hardware than traditional Windows applications.

As such, although we will always try to assist users in getting our games to run on laptops, we cannot guarantee success. This is unfortunately 'par for the course' with laptops, and is a stance that the vast majority of software publishers take.

So what can I do?

The first thing you can try is updating the drivers for your sound and video cards (chips) of which are compatible with DirectX 6 or the version that you are using on your machine (refer to machine vendor if not 100% sure!). These updated drivers are available from your card manufacturers' web sites, the web addresses should be provided with documentation that came with the product.

Also, I would recommend setting your desktop resolution to 640x480 using 16 bit colour depth before starting the game. This can be changed by right clicking on the Windows desktop and selecting "**Properties**", then going into the "**Settings**" tab.

When the drivers have been updated to the latest versions and the game will still not work then it will probably not be able to run with your configuration.

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39-02-72546400

Games does not launch, stuck on the the Hour Glass cursor

We have recently identified a problem when playing some of our games using a SB AudioPci 64 soundcard. This is most likely a conflict between the game and the soundcard software.

I would suggest downloading and then correctly installing the 1373upd.exe driver software for the SoundBlaster PCI 64.

If your PC manufacturer is Gateway you will need to go to the Gateway website at:

<ftp://ftp.gw2k.co.uk/ftp/patches/G6SeriesCLabs64SoundChip/1373upd.exe>

If your PC manufacturer is Tiny you will need to go to the Tiny website at:

<http://support.tiny.com/support/FileLibrary/Files&drivers/drivers.html#Soundcards>

Instructions for installing the Updated Creative Labs 1373 Digital Sound Card drivers.

1. After downloading the "1373upd.exe" file, simply double-click on it.
2. The files should unzip into the "C:\1373upd" folder.
3. From this folder, simply double-click on the "sbsetup" or "sbsetup.exe" file.
4. Follow all on-screen instructions and restart the system when prompted.

For Technical Support and Game Hints and Tips:

 EA HOTLINE: 1 902 261 600 (95 cents per min.) CTS 7 days a week 10 AM - 8 PM.

If you are under 18 years of age parental consent required.

 **(09) 479 7459.**

For hints and tips, phone our Games Hotline

 **0900 58885.**

If you are under 18 years of age parental consent required.

