



Troubleshooting Guide

This troubleshooting guide will provide you with information about ***Grim Fandango***™. You will find solutions to common problems that were encountered while running the game and DirectX in the Windows 95/98 Operating Systems.

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-1- General Information

Supported Operating Systems

To be able to run ***Grim Fandango***, you must have Windows 95 or 98 as your operating system and your computer hardware must be 100% DirectX 6.0 compatible. MS-DOS, Windows 3.1x, Windows NT 3.x, Windows NT 4.0 and OS/2 are not supported. For more information on DirectX, see Section 5 of this Troubleshooting Guide.

Minimum Requirements

Computer: 100% Windows 95/98 DirectX compatible computer required.

CPU: Pentium 133 or faster required.

Memory: 32 MB or higher RAM required.

Graphics Card: 2 MB PCI Graphics card required.

3D Acceleration: Optional 3D graphics support requires a 4MB PCI or AGP 3D accelerator.

CD-ROM: Quad speed IDE or SCSI CD-ROM drive required.

Sound Card: 100% Windows 95/98 DirectX compatible 16-bit sound card required.

Input Device: 100% Windows 95/98 compatible keyboard required. Optional support for joysticks and gamepads.

DirectX: Microsoft DirectX 6.0 is included on this CD and must be installed to play ***Grim Fandango***. Please refer to **Installation** and **DirectX Setup** in this Troubleshooting Guide for more information about DirectX.

Note: Your system may require the "latest" Windows 95/98 drivers for your particular hardware.

Installation: Installation requires 30 MB free hard drive space. It is recommended that you have an additional 100 MB of free space available for the Windows swap file and saved games.

3D Acceleration

3D Acceleration is available in ***Grim Fandango*** through Direct3D. Please refer to **Video Issues** (Section 6) to ensure that your 3D card is supported and for information about enabling 3D Acceleration in the game.

-2- General Troubleshooting

Grim Fandango was designed to run under Windows 95/98 with DirectX 6.0. If the game unexpectedly freezes up, returns you to your desktop, or if you experience any other severe problems, you should try to properly shut down Windows and reboot your computer. (As a rule, you should never turn off your computer while the hard drive is active.) This will help to prevent possible problems related to the error that you have experienced. It is especially important to

reboot your computer before trying any of the troubleshooting tips or before attempting to restart the game. Note: If your computer reboots into Safe Mode, go to Shut Down Windows and choose Restart the Computer. This will put you back into Windows' normal operation mode.

Why Can't I Get the Game's Launcher to Respond?

- Your CD-ROM drive may have stopped responding.
- There may be a hardware conflict in your system.
- This may be due to a scratched or dirty CD.

Please consult **CD-ROM Drive Issues** (Section 8) in this Troubleshooting Guide for more information.

I Can't Launch the Game. What Do I Do Now?

- Please check **DirectX Setup** (Section 5) in this Troubleshooting Guide to see if your computer hardware is compatible with DirectX 6.0.
- Check to see if your Windows desktop resolution is set to 16-bit color. On some video cards, other desktop resolutions cause problems in **Grim Fandango**. Please consult **Video Issues** (Section 6) for more information.
- Make sure that you have enough free space on your hard drive for **Grim Fandango** to play. It is recommended that you have at least an additional 100 MB of free space available after installation for the Windows swap file.
- Please check to see if you have any other applications running, such as memory managers, screen savers, or virus protection programs. Any of these may interfere with **Grim Fandango**. Please refer to **Running Other Programs in the Background** in this section for more information.
- The **Grim Fandango** CD may be dirty or scratched, or the CD-ROM drive may be having trouble reading the **Grim Fandango** CD. Please check **CD-ROM Drive Issues** (Section 8).
- If the letter of your CD-ROM drive changes after installing **Grim Fandango**, you will need to uninstall the game and reinstall it with the new drive letter.

What Should I Do if my Computer Goes to a Black Screen or Locks Up?

If you end up at a black screen, please press **ESC**, **SPACE BAR**, and **ENTER** before trying anything else. If this fails, press **CTRL-ALT-DEL** and choose **END TASK** on **Grim Fandango**, which will take you back to the desktop. If you do not see the dialog box after pressing **CTRL-ALT-DEL**, press **ENTER** twice and this should take you back to the desktop. Then restart your computer and try running the game again. While playing **Grim Fandango**, we suggest that you do not use **CTRL-ALT-DEL**, as this may cause the game to stop responding or freeze up with a looping sound playing.

Running Other Programs in the Background

Generally, we have found that it is not a good idea to run any other programs while running **Grim Fandango**. Please turn off any active screen savers while running **Grim Fandango**, as they may interrupt the game and cause problems. Various video, sound, or memory problems may occur if other programs are running, including virus-detection utilities. This includes items which start from your StartUp folder which were added to load programs automatically when Windows is started, such as the Microsoft Office Toolbar. Some of these programs display icons on your taskbar. If you have icons on your taskbar, right-click on each of them and select the option to disable, unload, or close them before running **Grim Fandango**. The next time you start your computer, these items will load once more and the icons will return. If you cannot disable them from the taskbar and you experience problems running **Grim Fandango**, you may want to remove the program shortcuts from the StartUp folder. For information about how to do this, please consult Windows Help.

MS-DOS Memory Managers

If you are running any memory managers, such as EMM386 or QEMM, you may experience problems when running ***Grim Fandango***. Windows 95, Windows 98 and ***Grim Fandango*** are protected mode programs and may have problems running with memory managers loaded. We do not recommend making any changes to your system without first contacting your computer manufacturer about the configuration of your computer.

Power Management

If your computer is equipped with a Power Management Feature you may want to disable it. Please consult your computer's documentation or the manufacturer for assistance in doing this. When Power Management is enabled, the following problems may occur:

- The game may crash or go to a blue screen when sleep mode activates.
- The Windows mouse cursor may appear when you come out of sleep mode.
- The monitor may go to a black screen while you are playing.

Desktop Color Palette

We recommend that you set your desktop to **High (16 bit) Color**. When playing ***Grim Fandango*** with your desktop set to a color palette other than 16 bit, some video cards may experience problems launching the game, difficulty when task switching, or other graphics problems. In most cases switching to High Color solves these problems.

Changing Your Desktop Resolution

Grim Fandango is designed to run optimally in High Color (16-bit) color mode. To change your desktop resolution and color mode:

- **Right-click** on the desktop.
- Choose **Properties** from the pop-down menu.
- Click on the **Settings** tab.
- Choose **High Color (16-bit)** under **Color Palette**
- Move the slide-bar under **Desktop area** to **640x480** or **800x600**.
- Click **OK** to close this window.
- If your computer prompts you to restart, click on **Yes**.

-3- Installation

Installing ***Grim Fandango***

Please check your available hard drive space before installation. Installation of the game requires 30 MB of free hard drive space on your computer. We recommend that you have an additional 100 MB of free space available for the saved games and the Windows swap file. If you have too little free space on your hard drive after installation, you may be unable to start the game. Too little space on a hard drive could also affect other applications, such as word processors that need room to spool print jobs.

Installing DirectX 6.0

During the installation of ***Grim Fandango***, you will be prompted to install DirectX 6.0 if it is not already installed on your system. Microsoft DirectX is an application that allows ***Grim Fandango*** to have instant access to your system hardware in the Windows environment. This will help ***Grim Fandango*** take advantage of advances in Direct3D, DirectSound, and DirectInput capabilities that will be used during gameplay. For more information, please consult **DirectX Setup** (Section 5) of this Troubleshooting Guide.

Adding the Sound Recorder, Volume Control and Audio Compression

The Sound Recorder, Volume Control and Audio Compression are necessary components of Windows when using DirectX 6.0. If they were not installed when Windows was set up, you will want to add them before installing ***Grim Fandango***. DirectX will ask for your Windows CD during installation if it does not find these components, which may cause the DirectX installation to be incomplete and you may see the error **DXSetup Error -7** or **DXSetup Error -8** after changing to the Windows CD. If this happens, reboot your computer and follow these steps.

To add these Windows components:

- Go to the **Start** button on your taskbar.
- Choose **Settings**.
- Choose **Control Panel**.
- Double-click on **Add/Remove Programs**.
- Click on the **Windows Setup** tab.
- Scroll down to **Multimedia** and select **Details**.
- Check the boxes next to **Audio Compression**, **Sound Recorder** and **Volume Control**.
- Click OK, then OK again to close both of these windows. You will be prompted for your Windows CD.

When these steps are complete, you may continue with the installation of DirectX 6.0.

Uninstall Warning

When you uninstall ***Grim Fandango***, you may receive a warning stating that the uninstaller may not have removed everything. Here are a few reasons why you may see this message:

- The UnInstallShield may have left the ***Grim Fandango*** program group in the start menu. Rebooting your computer will remove them after uninstalling.
- You have other LucasArts games on your computer. The "LucasArts" directory will not be removed from your computer because the other LucasArts games are stored here.
- You may have chosen to keep your saved games.
- You may have downloaded and/or installed an update for ***Grim Fandango***.

Can I Move the *Grim Fandango* Folder after I Install?

If you wish to move ***Grim Fandango*** to a new directory, uninstall first, then reinstall to the new desired location. Simply moving ***Grim Fandango*** folder may cause ***Grim Fandango*** to stop working.

If you wish to keep your saved games, simply uninstall the game using the button in the ***Grim Fandango*** launcher and make sure that the **Keep Savegames** box is checked. Install ***Grim Fandango*** to the new location and then copy the old Grim folder (containing your saved games and dialog transcripts) to the LucasArts directory in the new location.

NOTE: ***Grim Fandango*** saved game files use the *.GSV extension, and saved Dialog Transcripts use the *.HTM extension, which can be viewed in any web browser.

-4- Performance

Slow Frame Rates in *Grim Fandango*

You may experience frame rate drops or graphics problems while playing ***Grim Fandango***, especially on a low-end system. Some of the problems you may see are:

- It may be difficult to open doors or there may be a long pause before doors open.
- You may experience intermittent pauses in the game, especially during cutscenes.
- Room transitions may take a long time.

- You may have problems maneuvering.
- The lip sync during cutscenes may be off.

Increasing Performance in *Grim Fandango*

The following are a few things that may increase performance in *Grim Fandango*.

Make sure no other programs are running. This includes virus scanning programs and e-mail programs. Simply disabling your virus program still use resources that are needed while playing the game. Please consult the documentation for your virus program for information on closing the program. *Grim Fandango* is a graphically intensive game and needs to use most of your available resources.

Changing some of the in game features will enhance the performance of *Grim Fandango*. Once in the game, press **F1**, then select **Options [O]** and make a few adjustments:

- Set the **Music Volume** slide bar to the **OFF** position. Turning off music in the game will allow more resources to be available to increase the framerate in the game.
- Turn off **Voice Effects**.
- Disable the **Joystick/Gamepad** option if you are using the keyboard to play *Grim Fandango*.
- Enable **3D Hardware Acceleration** if you have a good 3D card.

If you are still experiencing performance problems, you can try the following steps. Make sure you change the Text Mode to **Text Only** if you turn off Voice Volume.

- Set the **Sound Effects Volume** slide bar to the **OFF** position.
- Set the **Voice Volume** slide bar to the **OFF** position.

Having more memory will improve overall performance in the game. Additional memory will greatly increase performance as it allows *Grim Fandango* to use less virtual memory during gameplay.

-5- DirectX Setup

DirectX 6.0 must be installed prior to running *Grim Fandango*. During the installation of *Grim Fandango*, you will be prompted to install DirectX 6.0 if it is not already correctly installed on your system. Microsoft's DirectX is an API (Application programming interface) that allows seamless access to your system's hardware features in the Windows environment. WARNING: Once you have installed DirectX, it is not easily removed from your system.

DirectX 6.0 Installation

During the installation of DirectX 6.0, you may be asked to insert the Windows installation disc. This will happen if the Sound Recorder, Volume Control, and Audio Compression, which are needed by DirectX, were not installed during your initial installation of Windows. We recommend that you install these components before the installation of DirectX. Please refer to **Installation** (Section 3) for information about how to add these components.

NOTE: Some programs that were made with earlier versions of DirectX may not work with this version.

DXSetup Error -7 or -8

You may see the error **DXSetup Error -7** or **DXSetup Error -8** during the installation of DirectX if you do not have Audio Compression, Sound Recorder or Volume Control installed on your

computer prior to installing DirectX 6.0. Please refer to **Installation** (Section 3) for instructions on adding these components to Windows.

Write Down your Original System Configuration

NOTE: It is always a good idea to check and write down what sound and video hardware you have in your computer before installing DirectX. To do this in Windows 95 and 98:

- Click on **Start**.
- Select **Settings**.
- Choose **Control Panel**.
- Double click on **System**.
- Click on the **Device Manager** tab.
- Click on the plus sign to the left of **Display Adapters** and **Sound, Video, and Game Controllers**. Write down your hardware devices in case you have to manually restore your video or sound card drivers.

Checking Your System for DirectX Compatibility

After you have installed **Grim Fandango** and DirectX, you may want to determine whether your computer hardware is supported by DirectX. To do this:

- Open the **Grim Fandango** Launcher menu.
- Select **Readme & Troubleshooting**.
- Select **Analyze your Computer**. This takes you to DirectX Diagnostics.

Click on the **Display 1**, **Display 2**, and **Sound** tabs to check the DirectX Certification status.

NOTE: You will only see **Display 2** if you have a 3D Accelerator pass-through card.

- Look next to '**Certified**' in the drivers section on each of these pages.
 - If it says '**Yes**', the game should run fine.
 - If it says '**No**', the drivers are not certified by the Microsoft Labs. If you experience problems, please check with the manufacturer of the card for the latest DirectX compatible drivers.
- If it says '**No Hardware Support**', you will need to update the driver so that your system is fully DirectX certified. The manufacturer should be able to provide you with instructions for updating your drivers, and provide you with more information regarding DirectX certification.

Changing your Computer's Hardware

If you change the video or sound card in your computer, you will want to reinstall DirectX so that it can install the necessary drivers for your new hardware if needed. To do this:

- Click on **Readme & Troubleshooting** from the game's Launcher menu.
- Click on **Reinstall DirectX 6.0**.
- Click on **Reinstall DirectX**. This will reinstall DirectX on your computer.
- Click on **OK** when the installer asks you to reboot your computer.

Technical Overview of DirectX

The DirectX platform provides an environment that allows developers to use a standardized format when programming an application. This makes it easier to support a wide variety of different hardware features. Prior to DirectX, developers were forced to write hardware-specific code (with a specific driver for each different piece of hardware). DirectX is a library provided by Microsoft to run inside the operating system and provide programmers with seamless access to all of the hardware features available today.

NOTE: Since DirectX is relatively new in the computer world, we have found that some older systems may contain hardware that may not be fully DirectX compatible. For optimum performance in **Grim Fandango**, your system must fully support DirectX. Fortunately, many manufacturers are releasing updated drivers. If you are unsure whether or not your system will support DirectX, please contact the manufacturer of your system for more information.

DirectDraw

DirectDraw allows programmers to directly access video hardware and memory. This allows for the full range of resolutions and color depths provided by current video hardware to be used. Developers now can program environments that have a realism that was not possible before. DirectDraw improves performance while still maintaining compatibility with Windows.

Direct3D

Direct3D provides direct access to 3D hardware, thus giving world class graphics with high-speed acceleration. Direct3D is designed to work with the full range of 3D cards on the market, giving programmers a smooth interface to your 3D hardware. Using Direct3D with your 3D accelerator can provide tremendous speed improvements as well as better image quality.

DirectSound

DirectSound is the wave-audio part of DirectX, which provides full functionality and hardware acceleration to the sound device. This allows for all the features of audio hardware to be used, including support for 3D positional and interactive sound.

DirectInput

DirectInput provides support for input devices including mice, keyboards, joysticks and other game controllers. This also allows for force-feedback joysticks and steering wheels to be used. Programmers can now make more intuitive utilities for input device configuration. DirectInput gives faster access to input data by communicating directly to the hardware driver rather than relying on Windows to do so.

DirectPlay

This is the multiplayer gaming module in DirectX, which provides high-speed access to networking functionality for gaming. DirectPlay supports direct serial connections, modem play, LAN play and Internet Play. DirectPlay also supports third-party on-line gaming services by allowing them to develop their own DirectPlay drivers for use with games that support DirectPlay. Of course, since there is no multiplayer gameplay in ***Grim Fandango***, this feature won't do anything in this game.

DirectX Driver Issues

We suggest using the DirectX 6.0 drivers that are recommended during the installation of DirectX unless you experience problems after installing DirectX. The only time that this does not apply is when a section in this troubleshooting guide that pertains to your hardware specifically tells you to use a different driver. This is particularly true for video card drivers.

Effects of Video Card Driver Installation by DirectX

When DirectX is being installed, some video card utilities may be disabled, such as Diamond Multimedia's InControl Tools, STB Vision95, or Creative Labs Graphics Control utilities. You may no longer be able to access them through their taskbar icon and the options for changing your video properties may change back to stock Windows options. DirectX may not recommend changing the driver for your card at all because you may be using these utilities to customize your desktop display and removing them may have adverse effects on your computer.

Restoring Original Drivers through DirectX Setup

If you need to restore your original video or sound card driver through DirectX Setup:

- Click on **Readme & Troubleshooting** from the game's Launcher menu.
- Click on **Reinstall DirectX 6.0**.
- Click on **Restore Video Drivers** or **Restore Audio Drivers**. This will restore the previously installed drivers on your computer.

Note: This will only work if you have only installed DirectX once.

- Click on **OK** when the installer asks you to reboot your computer.

Restoring Original Video Drivers through Windows

If you need to restore your original video card driver through Windows, follow the instructions below.

- **Right-click** on the desktop.
- Choose **Properties** from the pop-down menu.
- Click on the **Settings** tab.
 - **Windows 95a:** Click on **Change Display Type...**
 - **Windows 95b:** Click on **Advanced Properties...**
 - **Windows 98:** Click on **Advanced...**
- Click on **Change...** in the Adapter section.
 - **Windows 98:** Click on **Next>**
 - Choose **Display a list of all drivers...** and click on **Next>**
- Choose your original video card or the name of the chipset from the list.
- If the correct video card or chipset is not an option in **Show Compatible Devices/Hardware**, click on **Show All Devices/Hardware**, scroll through the list of Manufacturers, click on the correct one, then click on the name of your card or chipset.
- When your computer prompts you to restart, click on **Yes**.

-6- Video Issues

This section of the Troubleshooting Guide will provide you with information on problems encountered with video cards while playing *Grim Fandango*.

General Information and Troubleshooting Tips

DirectX Compatibility

To play *Grim Fandango*, your video card must be 100% DirectX compatible. If you do not know if your video card is DirectX compatible, please consult **DirectX Setup** (Section 5) of this Troubleshooting Guide for information about how to check for DirectDraw and Direct3D compatibility or if you encounter problems with your graphics card after installing DirectX.

Non-DirectX Supported Video Card Problems

If your video card is not 100% DirectX compatible, you may encounter any of the following problems:

- DirectX may identify your card incorrectly and install the incorrect driver for your card.
- Black Screen: Your screen may go black but the sound and music will continue to play.
- Corrupted Graphics: You might see horizontal or diagonal lines over the screen.
- Flashing Graphics: You may see flashing corrupted graphics on the screen.
- Strange Colors: Your video card may display the colors incorrectly.
- Slow Graphics: The gameplay may be slow.
- Double Vision: Have you ever worn 3D glasses that didn't work quite right?
- Your game may crash to the desktop when trying to start *Grim Fandango*.

If you have encountered any of these problems, check with your video card manufacturer for updated drivers or part three of this section for information on specific video cards.

Setting Up Your Monitor

If you experience any video problems or you are not able to get all of the resolutions that your video card supports, you should make sure that your monitor is set up correctly in the display control panel. To do this:

- **Right-click** on the desktop.
- Choose **Properties** from the pop-down menu.
- Click on the **Settings** tab.
 - **Windows 95a:** Click on **Change Display Type...**
 - **Windows 95b:** Click on **Advanced Properties...**
 - **Windows 98:** Click on **Advanced...**
- Click on **Change...** in the Monitor section.
 - **Windows 98:** Click on **Next>**
 - Choose **Display a list of all drivers...** and click on **Next>**
- Choose your monitor from the list.
- If the correct monitor is not an option in **Show Compatible Devices**, click on **Show All Devices**, scroll through the list of manufacturers, click on the correct one, then click on the name of your monitor.

Enabling 3D Acceleration

To enable your 3D Accelerator card in *Grim Fandango*:

- Press **F1** while in the game.
- Select **Options [O]**.
- Select **3D Hardware Acceleration [3]**. This toggle automatically selects your secondary display adapter if it finds one. If it does not find one, it will choose your primary display card if it has 3D capabilities.
- If this feature does not appear to work or you cannot change the setting to ON, you most likely do not have a Direct3D accelerator or you do not have your drivers installed correctly. Another cause for this would be if you have disabled 3D Hardware Acceleration in DirectX or through the graphics card's software.

If your primary graphics card is a 2D/3D card and you have a secondary display adapter, you may wish to use the 3D features on your primary graphics card. To do this:

- Select **3D Hardware Setup...** from the **Options** Menu.
- Select **Primary Display Driver** and press **ENTER**.
- Select **Microsoft Direct3D Hardware acceleration through Direct3D HAL**.

Currently Supported 3D Cards and Chipsets in 3D Acceleration Mode

Below is a list of the 3D video cards and chipsets that are supported in 3D acceleration mode with *Grim Fandango*. If you do not see your card listed, but you do see a chipset that matches the one used on your card, you should be able to play *Grim Fandango* in 3D acceleration mode.

NOTE: Some of the following 3D cards will work with *Grim Fandango* in 3D acceleration mode, but contain certain problems listed below under **Specific Video Issues**. When using any of these cards and chipsets, you should be using the latest drivers for your card or DirectX 6.0 driver unless noted below. We have included a list of web addresses for downloading drivers for your specific card at the end of this document.

Card Name	Chipset	Version	Version VxD #
ATI Technologies 3D Pro Turbo	3D Rage II+DVD	2278	4.10.01.2278
ATI Technologies 3DPro Turbo PC2TV	3D Rage II+DVD	2278	4.10.01.2278
ATI Technologies XPert@play	3D Rage Pro	5.00	4.10.01.2312
ATI Technologies XPert@work	3D Rage Pro	5.00	4.10.01.2312
Canopus Pure3D II	3Dfx Voodoo 2	1.30.02	4.10.01.0158
Creative Labs 3D Blaster Voodoo 2	3Dfx Voodoo 2	1.00	4.10.01.0052
Diamond Multimedia Monster 3D II	3Dfx Voodoo 2	1.00	4.10.01.0200
Guillemot International Maxi Gamer 3D 2	3Dfx Voodoo 2	1.0	4.10.01.0094

Orchid Technologies Righteous 3D II	3Dfx Voodoo 2	1.1	4.10.01.0052
STB Systems BlackMagic 3D	3Dfx Voodoo 2	1.00	4.10.01.0094
3Dfx Interactive Voodoo Banshee	3Dfx Voodoo Banshee	1.00	4.10.01.0062
Canopus Pure3D	3Dfx Voodoo Graphics	1.62	4.10.01.0015
Deltron Technologies RealVision Flash 3D	3Dfx Voodoo Graphics	2.15 3Dfx	4.10.01.0015
Diamond Multimedia Monster 3D	3Dfx Voodoo Graphics	2.15 3Dfx	4.10.01.0015
Orchid Technologies Righteous 3D	3Dfx Voodoo Graphics	3.01	4.10.01.0014
Number Nine Revolution 3D AGP	#9 Ticket to Ride		4.10.01.9362
Hercules Stingray 128/3D	Alliance Promotion aT25/3Dfx	s128w133	4.10.01.2072
Intergraph Intense 3D Voodoo	Alliance Promotion aT25/3Dfx	2073	4.10.01.2073
Hercules Stingray 128/3D	Alliance Promotion aT3D/3Dfx	1.26	4.10.01.2072
Jazz Multimedia Adrenaline Rush 3D	Alliance Promotion aT3D/3Dfx	2073	4.10.01.2073
Diamond Multimedia Stealth II G460	Intel i740		4.10.01.1346
Intel Express 3D	Intel i740	2.6	4.10.26.1939
Real3D Starfighter AGP	Intel i740	0295	4.10.01.0295
Matrox Graphics Mystique	MGA-1064	3.80	4.10.01.3800
Matrox Graphics Millennium II	MGA-2164	3.80	4.10.01.3800
Matrox Graphics Millennium II AGP	MGA-2164	4.10	4.10.01.4100
Matrox Graphics Productiva G100 AGP	MGA-G100	4.11	4.10.01.4110
Matrox Graphics Millennium G200 AGP	MGA-G200	4.10	4.10.01.4100
STB Systems Nitro DVD	Mpact 2		4.10.01.3073
ASUSTek 3DexPlorer	nVIDIA RIVA 128	1.04	
ASUSTek 3DexPlorer 3000 AGP	nVIDIA RIVA 128		4.10.01.0200
Canopus Total 3D 128v	nVIDIA RIVA 128	1.30	4.10.01.0250
Diamond Multimedia Viper 330	nVIDIA RIVA 128		4.10.01.0128
STB Systems Velocity 128	nVIDIA RIVA 128	1.00	4.10.01.0107
STB Systems Velocity 128	nVIDIA RIVA 128	1.8	4.10.01.0180
Diamond Multimedia Viper 550	nVIDIA RIVA TNT		4.10.01.0210
STB Systems Velocity 128	nVIDIA RIVA 128 ZX		4.10.01.2175
Creative Labs Graphics Blaster Exxtreme	Permedia 2	2110	4.10.01.2110
Diamond Multimedia FireGL 1000 Pro	Permedia 2	v798	4.10.01.2357
Viewtop 3D Mars 2	Permedia 2	231	4.10.01.2103
Creative Labs 3D Blaster PCI	Rendition V1000-E	Rev 4	4.10.00.3418
Intergraph Intense 3D 100	Rendition V1000-E		4.03.00.3133
Sierra On-Line Screamin' 3D	Rendition V1000-E	2.20.07	4.05.00.9001
Canopus Total3D Verite	Rendition V1000L-P	2.30.02	4.05.00.9001
Diamond Multimedia Stealth S220	Rendition V2100	1.08	4.10.01.0108
Hercules Thriller 3D	Rendition V2200		4.10.01.3596
Diamond Multimedia Stealth 3D 2000 Pro	S3 ViRGE/DX	3217	4.10.00.3217
STB Systems Nitro 3D	S3 ViRGE/GX	1.52a	4.03.00.2121
Jaton Corporation Video-97 AGP	Trident 3D Image 985		4.10.01.2139

Currently Unsupported Cards and Chipsets in 3D Acceleration Mode

These 3D cards were found to have significant problems when playing **Grim Fandango** in 3D acceleration mode. If you are using any of the following cards or chipsets, you should run **Grim Fandango** with 3D Acceleration turned off. For an updated list of supported cards please check the LucasArts Web page at <http://www.lucasarts.com>.

Card Name	Chipset
Creative Labs Graphics Blaster 3D	Cirrus Logic CL-GD5464
Matrox Graphics Matrox m3D	NEC PowerVR PCX-2
NEC Technologies Power VR PCX	NEC PowerVR PCX
NEC Technologies Power VR PCX-2	NEC PowerVR PCX-2
VideoLogic Apocalypse 3D	NEC PowerVR PCX
VideoLogic Apocalypse 3Dx	NEC PowerVR PCX-2
SiS 3D Pro AGP	SiS 6326

Specific Video Issues

Important Note

Unless otherwise noted for your video card, we recommend that you follow DirectX 6.0's recommendations for replacing or not replacing the drivers for the card.

Chipsets

3Dfx Voodoo Graphics or Voodoo 2 Accelerator Cards

If you experience any problems while using a 3D accelerator card with the 3Dfx Voodoo Graphics or Voodoo 2 chipsets, we recommend that you use the latest 3Dfx reference drivers for your specific chipset. They are available at the 3Dfx website. Currently the Voodoo Graphics driver version is 2.16 and the Voodoo 2 is 2.17.

When using a card with these chipsets, you may need to adjust the brightness control through the in game options menu.

When using a card with the 3Dfx Voodoo Graphics chipset, you may experience transparent text within the game when using the released drivers for these cards. Please check the **Supported 3D Card** list for the driver version that corrects this problem for your individual card or use the 3Dfx driver.

ATI Rage II+ DVD

When using a card with this chipset, Glottis' teeth will be corrupt and may look like they are not connected to his mouth. There is no fix for this problem at this time. Please check the ATI website to see if there are updated drivers available.

ATI 3D Rage Pro

When using driver version 5.20, you will see extreme graphical corruption in the game. With some drivers for this chipset, you may see flickering shadows and objects in the game. This is corrected by using driver version 5.0. ATI is aware of the problem. We recommend that you contact ATI to see if there are newer drivers available.

Cirrus Logic CL-GD 5430 or CL-GD5446

When using a card with either of these chipsets, you may experience graphics that are the incorrect colors throughout the game. We have no fix for this problem. Please contact your card manufacturer for updated drivers that may correct this problem.

Intel i740

When using a card with of this chipset in 3D Acceleration mode, you may see some graphics problems, such as some 3D objects or characters will sometimes be partially transparent.

Oak Warp 5

We recommend that you do not task switch when using a card with this chipset.

Permedia 2

When using a card with the Permedia 2 chipset, you may experience the following problems:

- All 3D objects on screen show through as gray on the F1 screen.
- Glottis' teeth will be corrupt and may look like they are not connected to his mouth. Please check the driver version that corrects this for your card on the list of supported 3D cards or look under your specific card name in this section.

Rendition V-1000, V-2100 and V-2200

When using a graphics card with the Rendition V-1000, V-2100 or V-2200 chipset, you may experience transparent or flickering 3D graphics within the game when using the released drivers for these cards. Please check the Supported 3D Card list for the driver version that corrects this problem for your individual card.

Video Cards

Canopus Total3D 128v

When using this card, you may experience graphics that are the incorrect colors throughout the game. Driver version 1.10.01 corrects this problem. We recommend that you download the latest driver from the Canopus website.

Creative Labs Graphics Blaster MA202

When using this card (Cirrus Logic CL-GD 5446) with the desktop set to any setting other than 16-bit, 640x480, you may experience graphics that are the incorrect colors throughout the game.

Creative Labs Graphics Blaster MA302

When using this card with your Windows desktop set to 800X600, you will encounter a greenish tint or other graphic anomalies. Updating to driver version 4.03.00.0103 corrects this problem.

Creative Labs Graphics Blaster Exxtreme

When using the stock drivers for the Creative Labs Graphics Blaster Exxtreme, Glottis' teeth will be corrupt and may look like they are not connected to his mouth. This problem is fixed with updated drivers for this card or the 3D Labs Permedia 2 drivers.

Diamond Multimedia Stealth 3D 2000

When using driver version 1.02, you may experience problems when playing ***Grim Fandango***. We recommend that you download the latest driver from the Diamond Multimedia website.

Diamond Multimedia Stealth 3D 2000 Pro

When using this card with the Diamond drivers, characters will intermittently disappear. You will need to go reinstall DirectX and go against the recommendation of DirectX and install the DirectX 6.0 drivers for this card. To do this, go to the Readme & Troubleshooting menu from the game's launcher and select Reinstall DirectX 6.0.

Diamond Multimedia Stealth II S220

When using this card, Glottis' teeth will be corrupt and may look like they are not connected to his mouth. There is no fix for this problem at this time. Please check the Diamond Multimedia website to see if there are updated drivers available.

Diamond Multimedia Stealth 64 VRAM

When using this card, we recommend that you use the Diamond GT drivers version 3.25. If you use the DirectX 6.0 drivers, the characters in the game may be invisible. However, we have found that using the GT driver may cause another LucasArts title, ***Mysteries of the Sith*** to crash to the desktop or the loading screen may be black with just the load progress bar showing between levels. You will need to use the DirectX drivers to be able to play ***Mysteries of the Sith***. Just reinstall DirectX from the game's launcher menu before playing ***Mysteries of the Sith*** and overwrite the GT drivers with the DirectX driver.

Hercules Graphite Terminator Pro

When using the Hercules Graphite Terminator Pro, you may experience a graphic wave of corruption behind characters as they walk when using the Hercules driver. When you install DirectX, the driver installation will recommend that you do not update this driver. You may need to reinstall DirectX and update this driver even though it recommends not to. This will fix the problem you are having, but change the card to its' chipset.

Hercules Thriller 3D

When using the Hercules Thriller 3D with the Rendition V2200 chipset with the latest Windows 98 drivers, you may experience the following minor graphical problems:

- Whenever Manny talks to Glottis, Glottis' teeth will be corrupt and may look like they are not connected to his mouth.
- When Meche is in Manny's Office, you may intermittently see a black shadow on her left side between the shoulder and chest.
- When looking at a book in inventory, the seams of the book may display a dotted line of corruption going from the top to middle of the book.
- When Manny burps after drinking the gold flake liquor, his shoulder may disappear.
- After Manny pours coffee on the Thunder Boys, the coffee and the background tile will be together in the foreground.

Jaton Video97 AGP

When using this card with the Trident 3Dimage 985 chipset, Glottis' teeth will be corrupt and may look like they are not connected to his mouth.

Matrox Millennium II PCI

When using the Matrox Millennium II with the 4.11 drivers, you may see a black screen lockup when attempting to run the game. We recommend that you use driver version 3.80 or 3.81.

Matrox Mystique

When using the Matrox Mystique with the 3.70 drivers, the following problems may occur:

- Buzzing sound during cutscene
- Artifacts of movement on screen during cutscene
- Crash to desktop after cutscene.

Using driver version 3.80 fixes these problems.

Number Nine Imagine 128

When using this card with driver version 2.13, you will see palette corruption in the game. This is corrected by the DirectX 6.0 drivers.

Number Nine Revolution 3D

When using driver version 1.27 with this card, you may experience a crash to the desktop while playing the game. Updating to driver version 1.42 corrects this problem.

Orchid Kelvin EZ

When using this card (Cirrus Logic CL-GD 5430) with the desktop set to any setting other than 16-bit, 640x480, you may experience graphics that are the incorrect colors throughout the game.

STB Nitro 3D

When using this card, Glottis' teeth will be corrupt and may look like they are not connected to his mouth. There is no fix for this problem at this time. Please check the Diamond Multimedia website to see if there are updated drivers available.

STB Nitro DVD

When using this card, textures may appear blurry from a distance. Please contact the STB website to see if there are newer drivers available that correct this problem.

STB Powergraph 64

When using this card, you may see horizontal lines of corruption flash across the screen at random. This is a problem with the card and DirectX 6.0. Please contact STB for assistance with this problem.

ViewTop 3D Mars 2

When using the stock drivers for the ViewTop 3D Mars 2, Glottis' teeth will be corrupt and may look like they are not connected to his mouth. This problem is fixed with latest 3D Labs Permedia 2 drivers. There are no updated ViewTop drivers available at the time of the writing of document.

-7- Sound Issues

DirectX Compatibility

Consult **DirectX Setup** (Section 5) of this Troubleshooting Guide for information about how to check to see if your sound card is DirectX compatible. If it is not, check with your hardware manufacturer for updated drivers.

No Sound in *Grim Fandango* Launcher

The game's Launcher occasionally may have no sound. When this happens, it usually affects the rest of the game. Windows may still be using your sound card from the last application you were running. Rebooting the computer should correct this. If rebooting does not correct this, your sound card may not be set up correctly in Windows. Please check the rest of this section to see how to check and see if your sound card is working correctly.

Note: If the Media Player is not installed, some of the following instructions will not work. If you want to add it, please consult Windows Help for assistance. Just type Media Player in the index section and follow the directions provided by Microsoft.

Volume Control

You can change the volume within the game by going to the Options Menu. To do this:

- Press **F1** while in the game.
- Select **Options [O]** and choose the volume control that you wish to adjust.

With some sound cards you may need to use the Windows control panel to adjust the volume in the game. If you do not have the Volume Control icon on your taskbar:

- Click on the **Start** button on your taskbar.
- Choose **Programs**.
- Choose **Accessories**.
 - **Windows 95:** Choose **Multimedia**.
 - **Windows 98:** Choose **Entertainment**.
- Choose **Volume Control**.
- Turn the wave setting **ON** by de-selecting the MUTE box or turning up the volume in the wave setting.

Volume Control Programs

Some sound card and/or PC manufacturers may have proprietary software that must be set separately from the Windows 95/98 Volume Control program. Please see your hardware manuals for more information.

Powered or Amplified Speakers

If you have powered speakers and have both line-out and speaker-out jacks on your sound card, try plugging your speakers into the line-out jack. Most sound card's speaker-out jack have an amplified signal and may cause static or popping on your amplified speakers. Switching to your line-out jack may greatly improve the sound quality.

General Sound Card Troubleshooting

If your sound card is not set up correctly in Windows, not 100% DirectX or Windows 95/98 compatible, or you have a resource conflict, these sound problems may occur:

- You may hear static.
- You may hear stuttering, especially as someone starts speaking.
- You may hear repeating sounds.

- There may be no sound.
- The sound may drop out.
- You may experience a clicking or crackling sound.
- The game may not run.

Test your Sound Card in Windows

Make sure that your sound card is set up correctly in Windows. You can use the Windows Media Player to test a sound. To do this:

- Click on the **Start** button on your taskbar.
- Choose **Programs**.
- Choose **Accessories**.
 - **Windows 95:** Choose **Multimedia**.
 - **Windows 98:** Choose **Entertainment**.
- Choose **Media Player**.
- Go to the File menu.
- Choose **Open...** and choose a sound to test. Please be sure to choose **Files of type: Sound (*.wav)**.

Test your Sound Card in DirectX Diagnostics

After installing *Grim Fandango*, you can run the **DirectX Diagnostics** program from the **Readme & Troubleshooting** button in the launcher to test your sound card. Click the tab that says **Sound** and then click on **Test**. If your card fails any of the tests here, you may have problems running *Grim Fandango* or any other game that requires DirectX.

Inspect and Clean the CD

A dirty or scratched CD can cause many sound problems. Check your CD for any dirt, smudges, fingerprints, or scratches. To clean your CD, wipe it gently with a soft cloth, moving in smooth strokes from the center hub to the outer edge of the CD.

Error Message when Starting *Grim Fandango* with Voice Modem Installed

When you have a voice modem installed, you may receive the error "**This program has performed an illegal operation**" when you click on **Play *Grim Fandango*** from the launcher menu. Also, the sound may drop out or stutter in the cutscenes if the wave device on your modem is enabled. To correct either of these problems:

- Click on **Start**
- Select **Settings**
- Select **Control Panel**
- Double-click on **Multimedia**
 - **Windows 95:** Click on the **Advanced** tab
 - **Windows 98:** Click on the **Devices** tab
- Click the **+** next to **Audio Devices**
- Double-click on **Audio for Voice Wave Device**
- Select **Do not use audio features on this device** and click **OK**.

Note: This will disable all voice features on your modem.

Specific Sound Cards

Creative Labs AWE64

When using this card, if you launch the game and the opening cutscene seems to be pausing or skipping, with the sound cutting in and out, you may have Full Duplex disabled for the card.

Enabling Full Sound Duplex operation will correct this problem. To do this:

- Right-click on the **My Computer** icon.
- Select **Properties** from the pop-down menu.
- Click on the **Device Manager** tab.

- Click on **Sound, Video, and Game Controllers**.
- Click on **AWE64 16-bit Audio**.
- Click on **Settings**.
- Click on **Restore Defaults**.

Media Vision ProAudio Studio

When using this card, you may experience background music switching between the left and right stereo channels. There may also be an occasional popping sound or static in the music. At this time we have no fix for this problem. Please check our website to see if we have found a fix to this problem.

MaxiSound Game Theatre

When using this card in Windows 98, you may hear an unusual popping sound on top of the regular sounds during cutscenes. Updating to the newest driver for this card corrects this.

S3 Sonic Vibes

When using the card with driver version 1.00.08, you will get no sound in the launcher or in the game. Updating your drivers to version 1.01.08 fixes this problem.

If you are unable to resolve sound problems through this Troubleshooting Guide, please contact your hardware manufacturer for updated DirectX drivers. We have included a list of web addresses for downloading drivers for your specific card at the end of this document.

-8- CD-ROM Drive Issues

Your CD-ROM drive is not affected by DirectX, but if you are having problems like slow game play, stuttering voices, slow graphics, or the game just stops altogether, your CD-ROM may not meet the minimum requirements to run **Grim Fandango**.

Long Delays while CD Loads Game or Cutscenes

If you are getting long delays while the CD loads **Grim Fandango** or its cutscenes:

- Your CD-ROM is having problems loading all of the data needed to run.
- Your CD-ROM may not meet the minimum requirements to run **Grim Fandango**.
- You may have a fast CD-ROM drive that spins down when the game is not directly accessing the CD.

CD-ROM Access Error

A blue screen CD-ROM access error might be a symptom of one of these problems:

- You may have a dirty or scratched CD.
- You may have removed the CD from the computer while **Grim Fandango** was running or paused.
- Your CD-ROM drive may be having trouble reading the disc. This is common on some 8X CD-ROM drives.
- Your CD-ROM drive may be getting old or worn.
- Your CD-ROM may not be properly installed in Windows.

First, check your CD for any dirt, fingerprints, smudges or scratches. To clean your CD, wipe it gently with a soft cloth, moving in smooth strokes from the center hub to the outer edge of the CD. If your CD looks fine, replace it in the drive and see if you have this problem again. If the problem persists, try testing the drive with a different CD.

Trouble Accessing Files

If you are having trouble accessing or using files on the CD-ROM or Hard Drive, your drives may be running in MS-DOS Compatibility Mode. To check this:

- Right click on the **My Computer** icon on your desktop.
- Choose **Properties** from the pop-down menu.
- Click on **Performance**.
- Look at **File System**:

It should say 32-bit. If this field states that any of your drives are using MS-DOS Compatibility Mode, your drives are not configured properly to run under Windows 95/98. This mode will greatly decrease the performance of your computer, and may not allow you to access programs that are written for 32-bit file access only.

This may be caused by:

- IDE or SCSI interfaces that are not properly set up under Windows.
- Inappropriate drivers for IDE or SCSI hardware.
- Proprietary CD-ROM drives.
- Computers that do not support LBA (Logical Block Addressing) modes except through software, such as Dynamic Drive Overlay, which allows the computer to see the whole capacity of large hard drives.
- Software Viruses, such as the MYB or CMOS A virus.

-9- Controller Device Issues

Configuring Controllers

The only way to configure controllers in **Grim Fandango** is through proprietary software for your game controller, such as the Microsoft Sidewinder Profiler.

NOTE: If you are not using a joystick or gamepad, please make sure to disable this option within the game. This can improve performance and can prevent various control problems within the game. To do this, press **F1**, choose **Options**, select **Joystick/Gamepad** and select **Disable**.

Analog Joysticks

If your analog joystick is not recognized in the game or has poor performance, you may have previously installed the software that ships with Microsoft digital joysticks and gamepads. Uninstalling this software and reinstalling the analog joystick in your Windows 95/98 Game Controller Control Panel should correct this problem.

Unplugging Your Game Controller

If you are using a game controller and it becomes unplugged from your computer while you are playing **Grim Fandango**, you may encounter slow downs in the game and Manny may move erratically, such as walking in circles.

Pausing the Game

You may be unable to pause the game if your joystick is enabled and out of calibration. If you are not using a game controller, we recommend that you disable the feature in the options menu. If you are using your joystick, you will want to exit out of the game and recalibrate your stick.

Compact Keyboards

Users of compact keyboards, such as those found on laptop systems or those used for ergonomic reasons, may experience some problems using the default set of keyboard commands.

Keyboard Limitations

Some keyboards may have limitations in the game. You may be unable to use multiple keys simultaneously. If you are pressing two keys at the same time, only one key will register the action that you chose.

-10- How to Contact LucasArts LLC

LucasArts has set up a variety of services to provide you with information regarding our programs, hint & gameplay assistance, and technical support.

Hint Line

U. S.

If you need a hint, you may call our automated Hint Line. This service costs 95 cents per minute, requires a touch tone phone, and you must be at least 18 years old or have your parents' permission to call. The number is **1-900-740-JEDI (1-900-740-5334)**. The option to speak with a live Hint Operator is also available from this number. (Average call length is three minutes.)

Canada

Our Hint Line is also available to our Canadian customers. This service costs \$1.25 (U.S.) per minute, requires a touch tone phone, and you must be at least 18 years old or have your parents' permission to call. The number is **1-900-677-JEDI (1-900-677-5334)**. (Average call length is three minutes.)

Where To Find Us Online

Visit the LucasArts Web site at <http://www.lucasarts.com>. From there, you will have the option to receive online technical support through Yoda's Help Desk, browse technical documents, or leave a message for an online representative.

Yoda's Help Desk

We are proud to feature Yoda's Help Desk, which is available in the Technical Support section of the LucasArts Web site at <http://www.lucasarts.com/support/>. Yoda's Help Desk offers interactive solutions to technical issues based on information you provide. Visitors to Yoda's Help Desk will be able to receive technical support 24 hours a day, seven days a week.

Technical Support Phone Number

This number is for technical assistance only. Hints will not be given out over the Technical Support line.

If you need technical assistance, please don't hesitate to contact us after reading the Troubleshooting Guide and the Readme file. For your convenience, if you cannot get through to a representative by phone and you have access to a fax machine or any of our online areas, please consider contacting us through one of these alternate means.

When contacting us, please be sure to provide us with as much information as possible. Make sure to note the exact type of hardware that you are using in your system, including: your sound card, CD-ROM drive, amount of RAM present, speed and manufacturer of your processor, and the specific type of modem that you are using (for questions involving multiplayer gaming). Also, make sure to include the title and version of the program, and a detailed description of the problem.

You can reach our Technical Support department by calling 1-415-507-4545. We are available to help you Monday-Thursday from 8:30 a.m.-5:30 p.m. and on Friday from 8:30 a.m.-4:30 p.m. (Pacific Standard Time).

Technical Support Fax

For your convenience, we also offer the option of faxing us with your technical questions at: 1-415-507-0300.

When sending us a fax, please include your name, return fax number with the area code, and a voice phone number so we can contact you if we experience any problems when trying to fax you back.

Technical Support Mailing Address

LucasArts Entertainment Company LLC
P.O. Box 10307
San Rafael, CA 94912
Attn: Product Support

LucasArts Company Store

Visit the LucasArts Company Store at <http://www.lucasarts.com>. The Company Store offers the complete line of LucasArts games, hint books and logo gear.

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-11- Web Addresses

3Dfx Interactive	www.3dfx.com
Acer	www.acer.com
Alliance Semiconductor	www.alsc.com
Asus	www.asus.com
ATI Technologies	www.atitech.com
Aural Semiconductor	www.a3d.com
Aztech Labs	www.aztechca.com or www.aztech.com.sg
Canopus	www.canopuscorp.com
Cirrus Logic	www.cirrus.com
Compaq	www.compaq.com
Creative Labs	www.creativelabs.com
Crystal Semiconductor	www.crystal.com
DELL Computer	www.dell.com
Diamond Multimedia	www.diamondmm.com
Elsa	www.elsa.com
Ensoniq	www.ensoniq.com
ESS Technologies	www.esstech.com
Gateway 2000	www.gateway2000.com
Guillemot	www.guillemot.com
Hercules	www.hercules.com
Hewlett Packard	www.hp.com
IBM	www.ibm.com
Intel	www.intel.com
Intergraph	www.intergraph.com
Jaton	www.jaton.com
LucasArts Entertainment Co. LLC	www.lucasarts.com
Matrox	www.matrox.com
Media Vision	www.svtus.com
MediaSonic	www.mediasonic.com
Number Nine	www.nine.com
Oak Technology	www.oaktech.com
OPTi	www.opti.com
Orchid	www.orchid.com
Packard Bell	www.packardbell.com
Real 3D	www.real3d.com
Rendition	www.rendition.com
STB Systems	www.stb.com
Trident	www.tridentmicro.com
Turtle Beach	www.tbeach.com
Yamaha	www.yamaha.com