

3/18/97

**The Unofficial Quake(tm) Screen Saver for Windows 95**  
**\*Quake is a Registered Trademark of Id Software (Duh!)**

Screen Saver Code Copyright 1996 by Robert Osorio - The Flying Penguin  
Total Entertainment Network Nickname: FlyPenguin

(No rights reserved, give it away, I don't care)

Direct all inquiries, concerns, complaints and death threats to: [flypeng@concentric.net](mailto:flypeng@concentric.net)

PLEASE NOTE: This software is FREEWARE! There are no annoying nag screens or registration notices while the screen saver is running. Please feel free to distribute this software freely. I request that no one make a profit distributing this software.

You can find the latest information and the latest version of this screen saver in the Compuserve Windows AV Forum (GO WINAV) or at the Flying Penguin Web Site of Love:  
<http://home.sprynet.com/sprynet/osorio/tfphome.htm>

**INSTALLATION, REQUIREMENTS, IMPORTANT TECHNICAL & TROUBLESHOOTING CRAP, AS WELL AS A BALD FACED APPEAL FOR RECOGNITION**

**"WHAT THE HECK DID I DOWNLOAD NOW?"**

One of the best Quake-theme screen savers in existence (I've downloaded all the others and they suck, but then again, I'm biased). When the screen saver is running you see an oblique view from one of the corners of the room that's the entrance to Quake. Everything is animated just as it is in the game. Torches flicker, damned souls squirm on the walls, lightning flashes (actually, that never happens in the game, but I thought it'd look too cool to resist) and, occasionally, a Quake gamer teleports in and runs off through one of the start portals to begin a game of mayhem elsewhere in the labyrinth. You have the option of having the awesome sound effects left on and at any volume, or turned off (some bosses just don't understand...), and you have, of course, the usual password protection that only prevents those non-Dilbertian dweebs from looking at your important stuff (like a coffee-break Quake game in progress, perhaps?).

**REQUIREMENTS:**

Windows 95/NT, 486/66 CPU and up, Pentium recommended. SVGA graphics card and display (all resolutions are supported) PCI or VL bus graphics card recommended, Windows compatible sound card. Microsoft DirectX 2 or DirectX 3 must be installed in your computer.

**NOTE:**

- This version of the screen saver will work in any screen resolution, but some animations (the lava ball and lightning effects) are not supported at a screen resolution of 640 x 480.

- This screen saver will only run on Windows 95 and Windows NT 4.0 (maybe NT 3.51, but no guarantees). It will *not* work under Windows 3.1, so don't bother trying. You will need to make sure that the Microsoft DirectX 2.0 API is also installed on your computer (see **"IMPORTANT THINGS TO KNOW"** below for info on where to get it if you don't have it. Windows NT 4.0 already comes with DirectX installed, but it won't come with Win95 until the next major upgrade).
- To hear the sound effects a Windows compatible sound card needs to be installed in your system. The screen saver can be used in systems without a sound card by disabling the sounds in the screen saver's settings window.

### **UPDATES:**

Since this screen saver is in Beta, there will be periodic updates available on my web site, as well as any important technical information. I plan to add new animations and features at some future date. Check in often at my web site for the latest news at:

[http://ourworld.compuserve.com/homepages/Flying\\_Penguin/qsaver.htm](http://ourworld.compuserve.com/homepages/Flying_Penguin/qsaver.htm)

### **INSTALLATION:**

If you're reading this file, that means you've already extracted all the installation files from whatever archive they were stored in (or you're the amazing Kreskin!). You need to run the SETUP.EXE file buried amidst all those other files that were in the archive (use either the Win95 "START" button on the taskbar and select "RUN" then type in the directory path the files are located in followed by SETUP.EXE or view the directory the archive files are in using Explorer and double-click on SETUP.EXE - either way will work. Once the installer finishes doing its thing, right click on the desktop, select "Properties" from the menu that pops up, and then select the "Screen Saver" tab on the Display Properties window. Scroll down through the list of screen savers until you find "Unofficial Quake Screen Saver" and select it, then click on the "Settings" button to set your sound and password preferences (don't use the password button on the Display Properties window - the password setup is in the screen saver's settings window). That's it! This screen saver works fine with Win95's monitor Power Saver feature (took me a while to figure out how), and basically the screen saver goes into idle when Power Saver mode kicks in.

### **UNINSTALLING:**

This screen saver fully subscribes to Microsoft Win95 standards for uninstalling apps. To uninstall, first restart the computer (otherwise if you've been using the screen saver during that session, the uninstaller won't be able to delete some files because they'll be reported as "in use by another application". Then run the Win95 control panel, select "Add/Remove Programs", then highlight the screen saver in the list of programs installed in your computer (Unofficial Quake Screen Saver) and click on the "Install/Remove" button. All files will be removed from your hard drive.

### **TROUBLESHOOTING ("Why the &#%% doesn't this &\$\*@\*%\$ thing work?"):**

## **INSTALLATION FAILS WHILE TRYING TO COPY A FILE OR YOU GET THE FOLLOWING ERROR:**

**"ERROR 367 - Can't load (or register) custom control: 'MHDDRAW.OCX' in InitSurfaces sub":**

This is a rare problem caused by an outdated version of OLEAUT32.DLL in your \WINDOWS\SYSTEM folder. The screen saver's installer should update this file automatically, but sometimes it fails. An extra copy of this file is placed into the the screen saver's support files directory during installation.

Here's the manual fix for this problem.:

Copy the the file OLEAUT32.DLL from the screen saver's support directory (c:\program files\qsave if you chose the default directory during the installation) to a new tempory directory called C:\TEMPFILE.

You will then need to reboot your computer to DOS (not a DOS window, but real DOS). You can do this by clicking on the Start button on the task bar, selecting "Shut Down..." then selecting "Restart the Computer in MS-Dos Mode". You have to do this from DOS because otherwise Win95 may balk at replacing the file because it may be in use by another application at the time.

Once you're at the ugly DOS command line you can copy the new version of OLEAUT32.DLL to your \WINDOWS\SYSTEM directory by typing:

```
copy c:\tempfile\oleaut32.dll c:\windows\system
```

Dos will then ask you if you want to overwrite the existing file and you can answer yes. Then reboot the computer by either turning the power off and back on or by pressing CTRL-ALT-DEL. Once back in Win95, the screen saver should work fine.

You can now delete the temporary directory you made, along with the copy of OLEAUT32.DLL located in it.

## **YOU GET A "DIRECTSOUND" ERROR:**

Run your DirectX installer and check the DirectSound version in the certification screen. It should be at least version 4.03.00.1096. If it's not, download a more recent version of DirectX from any of the sources listed below under "Important Things You Need to Know". Assuming you have the latest version of DirectSound installed, this may be caused by an outdated sound card driver. Here's the bad news: most of those cheap sound cards that come bundled with cheap CD drives or come installed on budget computers may not be DirectSound compatible (which means you're going to have problems playing most of the new Win95 games and multimedia titles coming down the road). Check with your card's manufacturer or check out the drivers section at:

**<http://windows95.com>**

Also make sure you do not have a sound effect selected to play when Win95 opens a program. Click on the Sound icon in the Win95 Control Panel and make sure there is no wav file selected next to "Open Program". Otherwise a sound will play when you run the screen saver and tie up the sound device. When the saver tries to use the sound device as well, it finds it's busy and gives the error. Most

people don't have their system setup to play a sound effect when a program runs (it's incredibly annoying), but it has been a problem on a few systems, though.

### **YOU GET A "DIRECTDRAW" ERROR:**

Run your DirectX installer and check the DirectDraw version in the certification screen. It should be at least version 4.03.00.1096. If it's not, download a more recent version of DirectX from any of the sources listed below under "Important Things You Need to Know". Assuming you have the latest version of DirectDraw installed, this is almost certainly caused by an outdated graphics card driver. Check with your card's manufacturer or check out the drivers section at:

**<http://windows95.com>**

### **FRAME RATE ISSUES:**

If you're getting a very poor frame rate (everything looks slow and jerky) and you're display is set for 1024 x 768 resolution or higher, try checking the box in the screen saver's settings window called "Force 800x600 Bitmap". This forces the screen saver to display the screen saver's bitmaps scaled for a 800 x 600 desktop (which is bitmap's native size). This will improve the frame rate slightly on computers with slower graphics subsystems or systems with very large screen resolutions. The only bummer is that the screensaver's image will not be full-screen (it'll have a black border around it).

Frame rate is very dependent on the speed and bandwidth of your graphics subsystem, and to a lesser extent on CPU power. Also, the fastest frame rate will be at 800x600 as the stretching operation for higher modes takes longer to process. Here's some frame rate comparisons: on an AST Premmia 486/DX4 100, 16mB with ATI Graphics Xpression PCI I get a good frame rate at 800 x 600 16-bit, but at 1024x768 16-bit it's very sluggish. I get a good a frame rate at 1024 x 768 16-bit on a P-120, 16mB with a Diamond Stealth 2000 3D PCI, and slightly better on a P-133, 32 mB with a Matrox Millenium PCI (I think the extra RAM is helping here more than anything else).

Memory can be an issue concerning performance as well. Win95 really sucks with anything less than 16 Mb in it, and more is better. I've been using Norton's System Information app to check my system's memory use and believe it or not, the operating system itself takes up about 12 Mb all by itself! That means on an 8 Mb computer, just running Win95 and nothing else, you're already using Virtual memory (disk drive memory swapping). Add a couple of 2 Mb apps in there, and the usual slew of wallpapers and utilities we all like running in the background, and you can see memory gets tight in a hurry. The screen saver uses a lot of memory for storing bitmaps so if you hear the disk drive running all the time the screen saver is up and the frame rate is really jerky, you likely have less than 16 Mb in the computer, or else you're running a big application in the background. When the screen saver is not running, though, it's not using any memory or resources.

### **BUGS, LIMITATIONS, ETC:**

The version .9x series of this screen saver is currently in beta (for those of you who don't know what that is, it means it works, but it still has problems on some systems). Rest assured that there is nothing that this screen saver to damage your system. At worst, the screen saver won't work and you can always uninstall it.

The screen saver has been thoroughly tested on the three computers at my disposal by being setup as the screen saver on those machines for several months. The problem is that all computers and graphics cards are not created equal, and so it's possible that one of you may have a problem (it's also

possible I'm a lax S.O.B. and missed something). Any bug reports should be addressed to me at my E-Mail address: [flypeng@concentric.net](mailto:flypeng@concentric.net), and I'll do my best to fix the problem (or ignore you if you're a pest).

### **IMPORTANT THINGS YOU NEED TO KNOW:**

- The Earth is round, trust me on this...
- This screen saver only works under **Windows 95 and NT 4.0** as it's a true 32 bit application (don't even try to run it under Windows 3.1 even if you have the Win32S API - it won't work).
- You **must** have the Microsoft DirectX 2 API (which includes DirectDraw and DirectSound) installed in your computer and your graphics and sound card drivers must be DirectX 2 compliant (the DirectX 2 installer lets you know if they are or not, and will install replacement drivers for most popular hardware - that's why the friggin DirectX Installer is so big, by the way). Avoid versions of the DirectX installer that are smaller than 5.2 Mb as these don't seem to include updated device drivers. DirectX is the new Windows gaming API that allows very fast screen access under Windows. DirectX 3 works fine as well. If you've installed any recent Windows 95 games, or you've installed any of the newer 3D video cards, you probably already have DirectX 2 in there (you'd know, trust me), otherwise it can be downloaded for free from any of the following sources (they're all the same file, I'm just giving you different sources in case some of the sites are busy). It's about a 5 Mb file:

#### **INTERNET:**

**<ftp://ftp.matrox.com/pub/mga/millennm/utills/directx2.zip>**

**<ftp://ftp.diamondmm.com/pub/display/stealth/stealth3d.2xx0/s3d954-a.exe>**

#### **COMPUSERVE:**

**Windows AV Forum (GO WINAV) - Filename: directx2.zip Contributor: 70254,2145**

There are older versions of DirectX 2 lying around the the screen saver seems to have a problem with. When you run the DirectX installation program, a certification screen comes up showing the versions of all the DirectX components. The DirectDraw and DirectSound Drivers should be at least version 4.03.00.1096 (for those of you who have a problem with these version numbers, just read it without the decimal points. The higher the number, the later the version).

- This screen saver has been tested on a variety of computers including an aging 486/DX4-100 with a PCI graphics card. It runs just fine on all of them. CPU speed is not a major concern, as the screen saver does very little number crunching. Of far more importance is the speed of your graphics subsystem, since a bottleneck at the graphics card will definately affect the screen saver's frame rate. Consequently, this screen saver will run best on systems that have a PCI or VL-Bus graphics card installed (just about anything built after Jan. 1995).
- Due to popular demand, this screen saver now supports 640 x 480 screen resolutions, but you'll sacrifice some of the neat animations.

- While this screen saver supports 256 color mode, the colors won't look all that good at that setting and there may be unpredictable palette shifts if another application tries to come up on the screen while it's running, so I make no promises. I really recommend you setup your video for at least 16-bit color (also known as High Color). If you're using a web browser, you'll really appreciate how much better color images look in 16 bit color. I don't understand, for the life of me, why some computers still come from the factory setup for 640x480 at 8 bit color. It's like buying a Corvette and running it on half the cylinders! 24-bit color (True Color) is pretty much a waste of processor power, though, unless you do photographic work (I do, and I still use 16-bit anyway - looks fine), and some cards don't support it at higher resolutions (it depends on the amount of graphic card memory available).

### **TO ADJUST YOUR VIDEO MODE IN WINDOWS 95:**

Right click on the desktop and select "Properties" from the list. This puts you in the Display Properties window. Now click on the "Settings" tab. Click on the "Change Display Type" button and verify that your make and model of monitor is selected properly in the "Monitor Type" section. If it's not, click on the "Change" button next to it and find your monitor on the list. If it's not on the list then contact your monitor's manufacturer for a driver or a compatible monitor you can select.

Go back to the Display Properties window and adjust the screen size using the slider (if there's two sliders, set them both for the same size). Then change the color palette to True Color (16-bit). Click on the "Apply" button and Windows 95 will attempt to use the graphics mode you've selected. If the screen goes crazy, don't worry, Windows 95 will revert to the original settings after 15 seconds if you don't do anything. If your monitor did go crazy, you don't have the right monitor type setup or there are manual timing settings for your card that are overriding the Windows defaults. You may have to contact your monitor and graphics card manufacturers (in that order) to straighten things out. Give 'em hell.

- The password used by this screen saver is NOT the same password used by other Win 95 screen savers (haven't figured out how to do that yet). The password, along with other user preferences, is stored in the Win95 Registry under "Unofficial Quake Screen Saver". Don't mess around in the registry if you don't know what you're doing! If you forget the password, re-install the screen saver and this will change the password protected preference to NONE with a null string for the password.

### **A PLEA FOR RECOGNITION**

I have no delusions that I'm going to make money off of this, besides I really wrote this screen saver for the fun of it. If you enjoyed this screen saver, drop me an E-Mail message and let me know what you think. I'm considering whether or not to write a Duke Nukem and Descent II screen saver as well, if the response is encouraging, so please do send me your comments and any suggestions. If you want to be a real pal, stick five bucks in the mail and show you're appreciation - I could use it to support my other vices. Either way, enjoy! Please make checks payable to Robert Osorio.

## **TECHNICAL STUFF**

This screen saver was created using Microsoft Visual Basic 4.0, Corel Photo-Paint, and a great deal of patient cropping and retouching of some fifty or so screen-shots of the game I took the bitmaps from. I set out on this project as a way of learning to use MicroHelp's new Game X-Ponents controls for Visual Basic 4.0 which use wrapper OCX controls to make accessing the DirectX API easier than using standard API calls. If you're a VB 4.0 programmer who wants to code a game or application that needs to do very fast screen graphic writes, I highly recommend this package. Only problem is the documentation sucks (I grant you, though, it is a new product and they're working on it - technical support has been very patient and helpful).

## **CREDITS**

ENURESIS - A Quake player on TEN, for posing for the screen shots of the quake player for me

MY WIFE - For allowing me get lost in the computer most evenings for the past month (and probably for many more to come)

ID SOFTWARE - For writing an awesome game that's (almost) as entertaining as Duke Nukem, and certainly far more visually appealing (except for that funky Brown on Brown color palette)

MICROHELP - For creating a great (if expensive) OCX control for handling the DirectX API

COREL CORPORATION - For writing one of the best 32-bit photo retouching apps available (finally replaced my trusty old version of Picture Publisher)

MICROSOFT - For writing an excellent successor to Visual Basic 3.0, despite the fact that they're all retarded over there

Robert Osorio - The Flying Penguin  
1903 Sans Souci Blvd.  
N. Miami, FL 33181  
flypeng@concentric.net

TEN Nickname: FlyPenguin (I'm in the Valhalla Arena most days between 11am and 5 pm)

## **Version history (all my screwups):**

0.09.0002

- Preliminary Beta. Added volume control, workable API code to force window to be top most, About box version code

0.09.0014

- Fixed problem with saver ignoring /P win95 preview command line arg and spawning multiple copies of the saver.
- Reworked INI code

0.09.0035

- Failed attempt at making use of Win95 Display Properties Preview window - will come back to this later.

0.09.0045

- Fixed shifting palette problems in 8 bit color - remade all monster bitmaps so they use same palette.
- Corrected problem where About & Order box would close upon running - made them modal.

0.09.0051

- Preliminary Beta Release version.
- setup to install using VB Setup Installer (note, at present must be installed in default directory: c:\program files\qsaver or will not find support files - will correct this later)
- fixed error msgboxes that hid behind windows (made them modal)

0.09.0052

- Changed so that uses Win95 system registry instead of WIN.INI to store preferences. Eliminated INICON32.OCX control.
- customized setup app to set registry sound preferences to defaults.
- customized setup app to save application path so screen saver can be installed in any directory now
- Eliminated Intro Chord sound - it was slowing down initial draw of screen saver because of load time.

0.09.0053

- FINALLY fixed multiple spawning problem (used API call to detect multiple occurrences of the main form's caption)
- added API call to prevent Win95 from accepting CTRL-ALT-DEL during screen saver operation

0.09.0055

- Added error checking for not installed or old version of DirectDraw and DirectSound
- Cleaned up keyboard hysteresis problem
- Changed file name of screen saver to 8+3 dos filename format to avoid hassles caused by long filenames (setup utility renames it to long filename after installation so name appears properly in screen saver list)

0.09.0057

- Corrected problem with monitor power saver function which would generate a DirectDraw surface busy error. Screen saver now detects error and waits in idle during power saver.
- Added top most window disable for debugging

0.09.0059

- Initial public Beta release

0.09.0060

- Fixed typo in readme file for web page URL (Doh!)



- Added lava ball animation
- minor corrections to debugger to detect missing bitmap & audio files

0.09.0061

- Changed readme file to Word Pad document for easier reading
- Added development-time warning to remind me to enable error checking prior to compiling exe file

0.09.0064

- Added forced 800x600 mode to settings window for improved frame rate on slower systems
- Added development-time frame rate display
- Added dynamically adjusted delay timer to main loop to maintain 11-12 fps frame rate
- Fixed Lavaball animation bitmap so was not larger than 800 x 600 (prevented screen saver from working in 800 x 600 resolution)

0.09.0067

- Added support for 640 x 480 resolution
- Fixed Right Souls animation bitmap so was not larger than 640 x 480 (prevented screen saver from working in 640 x 480 resolution)

0.09.0069

- Public release patch that updates version 0.09.0059 to 0.09.0069.

0.09.0070

- Changed OpenSound so that no duplicate sound buffers are created (hope and pray this fixes sound problem some people are having!)
- Added a line number reference to OpenSound error message to help me track down the sound problem since I can't duplicate it.
- Fixed "Reward the Author" button in settings window (was placed off screen when I resized the form for 640x480 screens - DOH!)

0.09.0073

- added a wait loop to Play sub in Sound class to prevent DirectX 3 from cutting off shotgun and scream sounds.
- eliminated form on top (set flag to false) as this would also allow DirectX 3 to cutoff shotgun and scream sounds - doesn't seem to be necessary anyway
- added error handling to OpenSound

0.09.0074

- Corrected a serious bug in last version that prevented saver from working at all if you have the Sound Blaster bug, even with the sound disabled (restored basic error handler in InitSound) - DOH!

0.09.0076

This version not distributed. Source code was given to Brett Foster for debugging of Sound Bug on 2/14/97

- Added three additional runner colors
- Screen saver is now unusable in 8 bit color (it looked terrible in this mode anyway)
- Added OLEAUT32.DLL to distributables and added dependency to installer application. This corrects the Error 367 control registration bug in earlier versions. Suggested by Brett Foster.

0.09.0077

Not a distributable version. This version was compiled as QTest.exe and sent to several people with the Sound Bug. At Brett Foster's suggestion I enabled error trapping in InitSound to see what error was being generated in this procedure when the DirectSound is first initialized.

0.09.0078

Not a distributable version.

- Added auto-detection of Sound Device. Saver will now disable sound support automatically if sound device does not respond, instead of giving an error and exiting screen saver. Also added one check box to settings form for disabling/enabling of sound. When sound disabled, all other sound controls are grayed out.

0.09.0079

Not a distributable version.

- Added more helpful error message to Main procedure when DirectX video device cannot be detected.

0.09.0080

Distributable version.

- Cured the sound bug (I hope!). Included a new version of MHDsound.ocx with the distributables to fix this problem.

0.09.0081

- Added extra surfacebusy error detection in UpdateSurface module to help prevent this error in power saver mode
- Added detection for error 367 in InitSurface with custom message box to recommend downloading fix from web site.
- Added \$(DLLSelfRegister) to installer setup.lst entries for MHDSOUND.OCX and MHDDRAW.OCX as per Brett Foster to avoid error 429 sound bug due to MHDSOUND.OCX not being registered.

0.09.0082

- Added AXDIST.EXE to installation files. Executed by installer at end of installation. This updates OLEAUT32.DLL and some other associated files if needed. Corrects the error 367 problem.