The Unofficial Hexen II™ Screen Saver for Windows 95/NT
Version 2.01
*Hexen is a Registered Trademark of Raven Software (Duh! Like you didn't know...)

Screen Saver Code Copyright 1996 & 1997 by Robert Osorio - The Flying Penguin
QuakeWorld Nickname: Flying Penguin (Mercenary)

Hexen II name, logo & graphics Copyright 1997 Raven Software

(No rights reserved, give it away, I don't give a rat's behind!)

Direct all inquiries, concerns, complaints and death threats to: 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 only request that no one make a profit distributing this software...

You can find the latest information and the latest version of this screen saver at the Flying Penguin Web Site of Love at:

http://www.brutality.com/flypenguin/hsaver.htm

INSTALLATION, REQUIREMENTS, IMPORTANT TECHNICAL & TROUBLESHOOTING CRAP, THE OTHER SHOE DROPS,

AND A BALD FACED APPEAL FOR RECOGNITION

"WHAT THE HECK DID I DOWNLOAD NOW?"

One of the best Hexen-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 a variety of views from the game, all fully animated just as they would appear if you were playing Hexen. Torches flicker, damned souls squirm on the walls, fire balls get tossed out of lava lakes, lightning flashes (actually, that never happens in the game, but I thought it'd look too cool to resist) and, occasionally, a Hexen gamer runs by on his way to wreak some mayhem elsewhere in the labyrinth (he might even take a shot at you). You have the option of having the authentic 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 Hexen game in progress, perhaps?).

REQUIREMENTS:

Windows 95/NT 4.0, 486/66 CPU and up (Pentium recommended). Minimum memory: 16 Mb for Win95, 32 Mb for NT 4.0. SVGA graphics card and display set at a color depth of at least 16-bits (also known as HighColor) - sorry, but 256 color mode is not supported. A PCI or VL bus graphics card is highly recommended, and DirectX compliance is a must. A Windows compatible sound card is not required, but improves the experience. Microsoft DirectX 2 or better must be installed in your computer, and you should have an insatiable love of Hexen and anything to do with it.

NOTES:

- This screen saver will only run on Windows 95 and Windows NT 4.0. It will *not* work under Windows 3.1, so don't even bother trying. You will need to make sure that the Microsoft DirectX 2.0 (or higher) 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 in '98).

- 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:

Periodic updates, as well as any important technical information, will be available on my web site. Check in often at my web site for the latest news at:
http://www.brutality.com/flypenguin/hsaver.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!).

NOTE: If you currently have an older version of this screen saver installed in your computer, <u>you should uninstall it first prior to installing this version.</u> See UNINSTALLING below.

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 it's 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 Hexen 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 Hexen Screen Saver***) and click on the "Install/Remove" button. All files installed by the screen saver will be removed from your hard drive, and we'll vacuum under the carpet for you before we go.

USE:

Not much to it, it's a screen saver, not an arcade game Dummy! There *are* a few keys you can use while the screen saver is running, though. ***The keypad plus (+) and minus (-) keys, on the right side of the keyboard, control the volume while the screen saver is running.*** There is also a volume control in the screen saver's settings window accessed via the Win95 display properties window, but I thought you'd find this handy too (like when the boss walks into your office and your computer's screaming and making all kinds of weird noises - some bosses just don't understand...)

While the scenes normally change based on the scene timer setting in the screen saver's settings window, ***you can also force the scene to change at any time while it's running by pressing the keypad's asterisk key (*)***, just in case you need a change of scenery (like when the boss walks in and there's zombie guts flying around the screen - again, some bosses just don't understand...).

The Unofficial Hexen Screen Saver works just like any Win95 screen saver. To make it your default screen saver, right click on the desktop, select "Properties", then select the "Screen

Saver" tab. In the combo list box on the left, select the "Unofficial Hexen Screen Saver" from the drop down list.

Settings:

Now click on the "Settings" button to access the screen saver's setup window. From here you can determine whether you want to enable password protection and what the password will be. You can disable or enable the sounds and adjust the volume.

At the bottom of the settings window is a scroll bar control labelled **"Minutes Between Scene Changes:"** that allows you to select how many minutes will go by before the scene changes. If you set this to zero, the scene will never change (although you can still manually force a scene change using the asterisk "*" key). Use this feature if you want to keep your favorite scene up all the time for your friends to admire.

Below that is another scroll bar control labelled **"Begin With Scene Number:"**. You can select which scene the screen saver starts with, or select **"R"** to let the screen saver pick a random scene. After the initial scene, all scenes are shown in ascending numerical order (even if started randomly).

At the bottom is a checkbox labeled **"Disable Bitmap Stretching"**. This will prevent the screen saver from being stretched to fill the screen - this will force the screen saver to show all scenes in their native 512 x 384 resolution. You should only need to do this if you have a slow computer and the screen saver runs slowly at your present resolution (this might also happen if you have a very large screen resolution - in excess of 1024 x 768 - and/or use 24 or 32 bit color modes). The more the bitmaps have to be stretched, the more demand that is placed on your CPU and graphics sub-system. This switch has also known to fix weird display problems on some systems.

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

THE PICTURE'S TOO FRIGGIN' DARK! (OR IT'S TOO FRIGGIN BRIGHT)
I did my best to choose a brightness that looked good on a variety of monitors, but I know that everyone uses the screen saver in different environments. Under office-type flourescents it'll get washed out pretty badly. I wish I could've come up with a simple gamma (or brightness) adjustment for the screen saver like there is in the game itself, but I found that wasn't too easy. The only solution I found involved a *very* expensive custom control, and I wasn't going to go for that for a freeware screen saver I'm not making any money on (I'm already in the hole for $200 for the DirectX controls!).

My solution was to make all the bitmaps available to you as BMP files. They're all located in the screen saver's directory (the default directory is C:\PROGRAM FILES\HSAVER\ if you didn't select a custom directory). Download the shareware version of a photo-paint retouching application, if you don't already own one, and use it to adjust the gamma in all the bitmaps to the same value. One I can recommend is JASC Image Robot, available at:

http://www.jasc.com/

Image Robot lets you apply a filter to a group of files automatically, which is perfect for this job. Do yourself a favor and make backup copies of all the original bitmaps first, just in case you goof. If you need to make it only a bit brighter, start with a gamma adjustment of 120% (or 1.2, depending on how it's measured in your photo-retouching app). For a lot brighter image, try 150%. Remember to apply the same gamma adjustment to all the BMP files in the screen saver's directory!

I know this is kind of a half-assed solution, but it's all I can think of. If there's anyone out there who knows of a method to adjust the gamma of surfaces in DirectDraw, please contact me!

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 in some rare instances it may fail. Please contact me if you have this problem at: **flypeng@concentric.net** and I'll send Guido and the boys over to rough up your computer until it starts playing ball (a little intimidation always sets them straight).

YOU GET A "DIRECTSOUND" ERROR:

Assuming that you have DirectX installed (and that you have a sound card installed - Duh!), this may be caused by an outdated sound card driver. Here's the bad news: some of those really 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, if 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:

Assuming that you have DirectX installed, this is almost certainly caused by an outdated video 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, kinda like a Francis-Ford Copola movie) and your video display is set for 800 x 600 resolution or higher, try checking the box in the screen saver's settings window called **"Disable Bitmap Stretching"**. This

forces the screen saver to display all bitmaps in their native 512 x 384 resolution, irregardless of your desktop's actual resolution. 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). From my experience, a average Pentium P-100 system with a PCI bus graphics card and 16 Mb should have no problems with frame rates up to 1024x768 resolution at color depths of up to 16-bit - your mileage may vary.

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 640x480 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 video card I get a good frame rate at 800 x 600 16-bit color, 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, although the Matrox is also a real screamer compared to the Diamond Stealth).

Memory can be an issue affecting performance as well. Win95 really sucks with anything less that 16 Mb in it (NEVER, EVER believe Microsoft's minimum memory requirements - yeah Win95 will *run* on 4 Mb, but who has all week to load a word processor?), and NT waddles like a pig with anything less than 32 Mb. More is always better. I've been using Norton's System Information app to check my system's memory use and believe it or not, the Win95 operating system alone takes up about 12 Mb all by itself! That means that 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 that memory gets tight in a hurry (I can't imagine why they're still selling Win95 notebooks with 8 Mb in them - it's a joke). 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.

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 just won't work).

- You **must** have the Microsoft DirectX 2 (or better) 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 try to install replacement drivers for most popular hardware - that's why the friggin' DirectX installer is so big, by the way - although most current drivers are DirectX compliant now-a-days). DirectX is a Windows gaming API that allows very fast screen access under Windows 95 or NT. DirectX 3 and later versions should work fine as well. Both NT 4.0 and Windows 95B (OSR2) come with DirectX installed. If you have Win95 Release 1, chances are you already have DirectX installed if you play any Win95 action games, or it may have come with your video card. Otherwise, you can download it for free from any of the following sources. It's about a 3.5 Mb file:

ftp://ftp.filefactory.com/FILEFACT/MISC/PLUGINS/dirx3a.exe

http://www.microsoft.com/DIRECTX/RESOURCES/downloads/Dx3busa.exe

- This screen saver has been tested on a variety of computers including an aging 486/DX4-100 with 16 Mb of RAM and an ATI Graphics Xpression PCI video card (not exactly a screaming performance machine). 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 definitely 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).

- The color depth of your video display must be set, at a minimum, to 16-bit (also known as HighColor) mode. The screen saver will also work in 24-bit and 32-bit color depths. The screen saver does *not* support 256 color mode. Quite frankly, if you're using anything less than 16-bit color, you're being cheated anyway. Your apps (most especially your Internet Browser) will look a whole lot better, and the smoother color is a lot easier on the eyes.

  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 Hexen 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.

WHO AM I AND WHY AM I DOING THIS?

Who am I? My name is Robert Osorio. I almost exclusively play ThreeWave Capture the Flag on HexenWorld servers using the nickname "Flying Penguin (Mercenary)". Being a man, I've never experienced the pain of childbirth, so instead I tried publishing this screen saver. You know what? Childbirth has to be less painful...
I have learned a lot from this experience. One thing I've learned is to never get upset at customer support people - now that I've been on the other side of the fence. Another is that Microsoft's top brass must've been sweating bullets when Win95 was released. I know the feeling -

I get cold sweats right before I upload a new version of my screen saver. Did I miss any bugs? Did I do something stupid? Did I leave a file out? This is all aggravated by the fact that testing an app on the computer you used to write it on really tells you nothing about whether the installation files are correct, because all the critical files are already installed on it. I've taken to temporarily installing a 400 mb hard drive on my computer every time I get ready to release a new version. I reformat it and install a virgin copy of Win95 on it each time, and then try installing the screen saver to see what happens. Tedious to say the least, and I still missed some bugs occasionally. And don't forget, this is just some piss-ant, puny little thousand lines of code screen saver! How the hell you push a major app, with a million lines of code, out the door and not bleed to death from an ulcer, I haven't a clue.

Why am I doing this? BECAUSE I NEED MY HEAD EXAMINED, THAT'S WHY! I'm not a professional programmer, I'm just doing this in my spare time for the fun of it. I don't represent a company and there's no big-time publishing outfit behind me (otherwise you'd be paying thirty bucks for this screen saver at a computer store, instead of downloading it for free!). I do all the programming and answer all customer support questions myself, and I have a normal (well, sorta normal...) job I have to pretend to do fairly well during the day to keep the real money coming in, so your patience and understanding is appreciated. If you really, REALLY like the screen saver, send me a couple of dollars, or a Hexen shareware CD (I use 'em for coasters), or an AOL Installation disk (I can always use a blank floppy - that's all they're good for anyway). My address is listed below in the credits section.

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.

THE TECHNICAL STUFF

This screen saver was created using Microsoft Visual Basic 4.0, VideoSoft's VSDirect DirectX OCX control, Micrografx Picture-Publisher 7.0, and a great deal of patient cropping and retouching of several hundred screen-shots of the game I took the bitmaps from. I set out on this project as a way of learning to use the VSDirect OCX from VideoSoft which uses a wrapper OCX control to make accessing the DirectX API easier than using standard API calls. If you're a VB programmer who wants to code a game or any application that needs to do very fast screen writes, I highly recommend this package.

Please note: VSDirect was written by Brett Foster and originally marketed through MicroHelp as Game X-ponents. MicroHelp has since gone through a buy-out and restructuring which forced Brett and many other programmers to pull their licenses and find another publisher. VSDirect is now available through VideoSoft and you can get information on it at their web site at:

http://www.videosoft.com

The author of VSDirect, Brett Foster, can be contacted at: Brett_Foster@SquirrelSoftware.com

CREDITS

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

ID SOFTWARE - For creating an awesome game engine.

RAVEN - For writing a damn good game using the Quake engine.

BRETT FOSTER - For creating a great OCX control for handling the DirectX API from Visual Basic, and for all his great technical support.

VIDEOSOFT - For marketing Brett's great DirectX OCX (VSDirect).

MICROGRAFX - For writing one of the best 32-bit photo retouching apps available (blows Corel Photo-Paint away!).

MICROSOFT - For writing an excellent successor to Visual Basic 4.0, despite the fact that they're all retarded over there in Redmond...

<div align="center">

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Version history (all my screwups):