

WebFX Plugin

for Netscape Navigator 2.0

Bleeding Edge Beta

Paper Software, Inc.
October 24th, 1995

Thank You For Choosing WebFX!

Welcome VRMLers. This is the "Bleeding Edge" Beta release of WebFX, the world's only embedded VRML viewer for Netscape Navigator. By embedding our VRML viewing technology into Netscape Navigator, WebFX is able to leverage Netscape's built in multitasking, caching, security, document source views, and bookmark management capabilities, all for your VRML browsing convenience.

In addition to being embedded, WebFX is extremely fast and capable. It provides full VRML 1.0 compliance, physics based navigation, collision detection, viewpoints, gzip support, multiply nested inlines, and support for common Open Inventor nodes so you can view as many 3D files on the internet as possible.

Check Our Website For The Latest Release of WebFX!

Chances are that by the time you read this there is a much improved version of WebFX at our website (<http://www.paperinc.com>). It may be best to check there for the latest WebFX release before proceeding with this version.

IMPORTANT! Netscape Navigator 2.0 Caveats

This version of WebFX is configured for Netscape 2.0 Beta 1. Because WebFX is tightly integrated with Navigator, **you may have difficulty using this release of WebFX with more recent versions of Netscape Navigator 2.0. It is STRONGLY RECOMMENDED that you download the latest Netscape Navigator 2.0 release along with the latest WebFX release at <http://www.paperinc.com>.**

At the time this beta release was put together, Netscape 2.0 was unable to retrieve textures and VRML inlines over the internet. A soon to be released version of WebFX and Netscape Navigator 2.0 will correct this problem. Check our home page for the latest information regarding these.

Notes About This Beta Release

You should understand that this is an early beta release. There is nothing simple or predictable about making Netscape display virtual reality on the internet. That's why we're conducting this beta. If you have reservations about experiencing the pioneering side of the internet, complete with all it's problems and growing pains, you might want to wait for our production release, or at least our next beta.

Known bugs and unimplemented features in this bleeding edge beta:

- Cannot retrieve textures or VRML inlines over the internet due to a bug in Netscape Navigator 2.0 beta 1. Check our website at <http://www.paperinc.com> for the latest version of WebFX.
- The WebFX window will cause that beautiful Netscape animation to look a little strange due to the war of the color palettes
- Netscape currently displays a harmless error message when retrieving GZIPed files, although WebFX should still come up and be able to uncompress the file properly
- WebFX does not yet display the status for downloading inlines

- You cannot yet save or print VRML files
- There are still some VRML 1.0 nodes not yet implemented
 - Orthographic cameras
 - RGB texture support (GIF, JPEG, RAS and BMP are currently supported)

If you have an earlier version of WebFX...

You should either delete your current WebFX directory or install WebFX within a brand new directory.

Installing WebFX

After you have unzipped the WebFX self-extracting zip file, run the resulting setup program to install WebFX into the directory of your choice. You'll be happy to know that no changes will be made to your autoexec.bat, config.sys, or system.ini files and no files will be copied to your Windows system directory.

The setup program may ask you to identify the location of Netscape 2.0 if it cannot find the program during installation. One file (npwfn132.dll) will be placed in the plugins subdirectory of Netscape.

Registry Modifications: The WebFX Setup install program modifies some Netscape Windows 95 (or Windows NT) Registry entries.

- HKEY_LOCAL_MACHINE:

We add WebFX's Program directory to Netscape's REGDB_APPPATH.

NOTE: This may cause some problems if WebFX is installed multiple times to different directories, since on an un-install Netscape's REGDB_APPPATH is not updated. To 'correct' this you can remove the WebFX path from Netscape's REGDB_APPPATH:

- HKEY_USERS:

.Default\Software\Netscape\Netscape Navigator
 Viewersx-world/x-vrml browser-handle-promptuser
 Suffixesx-world/x-vrml wrl,wrx,flr

Running WebFX

Once installed, WebFX is completely transparent, that is until you load a VRML file. To try this, start Netscape, select "Open File..." from the File menu, look in the VRML directory included with WebFX, and double click on a wrl file. After a short delay (we're working on this), you should see the WebFX window appear within the browser window. **To popup the WebFX main menu, right click anywhere within the 3D viewing window.**

Configuring WebFX for Optimum Performance

There are a number of options you can select which will radically effect WebFX performance. All of them are found on the WebFX main menu:

Optimize Window Size: The larger the WebFX window, the slower the performance. Turning this option on keeps the VRML viewing area within a reasonable width and height for optimum performance.

Generate Back Facing Polygons: Many models on the internet today assume that the software they are viewed with will display both sides of a polygon. While this is the case on high end graphics workstations, PC based 3D rendering engines do not draw the back face of a polygon in order

to optimize performance. As a result, it is currently necessary for WebFX to assume that every polygon should have a back face, even though that face may not be visible. This effectively doubles the number of polygons, slowing performance by roughly 50%. Gradually, as VRML content creators begin to create models which explicitly create a back face only when needed, you can turn this option on to make WebFX run nearly twice as fast.

Turn off the HUD: While the heads up display is cool, it does slow rendering performance down a bit. Take your pick.

Optimize for Performance: Currently this feature doesn't do much except use a faster lighting algorithm for rendering. Later, this option will automatically set all WebFX options for maximum performance.

WebFX Navigation

There are three navigation modes in WebFX: walk, fly, and author. To switch between modes, use the toolbar or right click to popup the WebFX main menu. You can use either the keyboard or mouse to navigate in each mode. If you're like us and you've racked up a lot of mileage playing Doom or Descent, you'll be familiar with WebFX navigation. The Doom model is used when walking or authoring while the Descent model is used when flying.

Walking

<i>Up/Down Arrows</i>	Move forward/backward
<i>Left/Right Arrows</i>	Turn left/right
<i>A/Z</i>	Tilt head up/down
<i>J</i>	Jump
<i>Mouse Left Drag</i>	Move forward/backward or turn left/right
<i>Mouse Right Drag</i>	Orbit about the entire scene
<i>Mouse Right Click</i>	Popup the WebFX View menu

<i>Shift (w/ mouse or keys)</i>	Move faster
<i>Alt (w/ mouse or keys)</i>	Pan left/right or up/down
<i>Space</i>	Open doors, manipulate objects
<i>Enter</i>	Fires (only kidding...)

Flying

<i>Up/Down Arrows</i>	Tilt up/down
<i>Left/Right Arrows</i>	Turn left/right
<i>A/Z</i>	Thrust forward/backward
<i>Q/E</i>	Revolve counter-clockwise/clockwise
<i>Mouse Left Drag</i>	Tilt up/down or turn left/right
<i>Mouse Right Drag</i>	Orbit about the entire scene
<i>Mouse Right Click</i>	Popup the WebFX View menu

<i>Shift (w/ mouse or keys)</i>	Move faster
<i>Alt (w/ mouse or keys)</i>	Pan left/right or up/down
<i>Space</i>	Open doors, manipulate objects

Pointing

<i>Keyboard</i>	Same as walking
<i>Mouse Left Click</i>	Animates you closer to the point you clicked on
<i>Mouse Left Drag</i>	Move forward/backward or turn left/right
<i>Mouse Right Drag</i>	Orbit about the point currently at the center of the screen
<i>Mouse Right Click</i>	Popup the WebFX View menu

Sample Worlds

We've included some sample VRML worlds for you to try out. Castle.wrl is particularly interesting because of the way it makes use of multiply nested inlines to keep the file size small. Castle.wrl is also cool because it uses our collision detection VRML extension. Try it in walk mode with keyboard navigation and you'll swear that you're playing Doom. To learn how to fly with WebFX, give Crayola.wrl a whirl. Collision detection is enabled for this file as well, although you might find it easier to fly if you turn it off using the WebFX main menu.

Technical Support

Please check our home page at www.paperinc.com for a running list of known bugs. If you find anything we don't know about (especially crashes), it would be great if you could drop us a note at support@paperinc.com. Thanks in advance.

Please **DO NOT POST PROBLEM REPORTS ON THE VRML MAILING LIST.**

Not only will this embarrass us, it will also create unnecessary noise on an otherwise productive mailing list. If you must get an answer to a technical support question immediately, you can call our labs at 914-679-2440. We're there most of the time but we're busy working on your next beta drop so please, keep your questions concise.