

# General Information

## What are the minimum requirements for the Live 3D applet?

Strata Live 3D's viewing platform, called Meson, allows the viewing of 2D and 3D visual content within an ordinary web browser. The applet has been designed to be compatible across the widest range of platforms:

- Java 1.1 or later (including ancient Java versions from Microsoft, Netscape, and Sun)
- Internet Explorer 4+, Netscape 4.7+, Safari, Opera, Mozilla/Firefox
- Windows 98+, Mac OS 9+, Linux, Solaris

If you or your client don't have Java installed (which is rare), you can go to [Java.com](http://Java.com) to get it.

Other requirements depend on the 3D model. For models created by Strata Live 3D, we generally design assuming at least this configuration:

- 64MB available RAM memory
- 400x400 applet size
- 16-bit high-color display

Higher bandwidth, and a 24-bit true color display will, of course, result in a better user experience. Users with faster internet access will get higher levels of texture detail more quickly, but the "streaming" nature of wavelet compressed textures allows all users to start interacting with the 3D model shortly after the applet loads.

The applet automatically adjusts rendering quality, based on achieved update rate. This is controlled by a *minimum frames-per-second* parameter, which defaults to 5. If the update rate drops to less than 5 frames/second for several frames, several rendering techniques are automatically disabled (linear filtering, mip-mapping, edge-antialiasing, etc.). For a given application, this minimum update rate can be changed to any number, or even to 0, meaning that the best appearance should be achieved no matter what. Also, textures which are set to use blur mipmapping are filtered regardless of update rate, to avoid moiré patterns.

Achieved update rate for interactive 3D depends largely on four factors: processor speed, video card speed, applet display area, and polygon count. Although the applet does not use hardware acceleration of 3D, better video cards can transfer data from memory to the screen much faster, resulting in a better update rate. We have seen some on-the-motherboard graphics chips underperform a decent ATI or NVidia card by a factor of up to 3. Polygon count starts to become important if the 3D model uses specular lighting effects, particularly if there are several lights.

Rich media applications which use a combination of Flash and 3D will obviously require better processors, to maintain good update rates.

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