

## SOFTWARE REVIEW

# Redshift



PRICE \$500 | COMPANY Redshift Rendering Technologies, Inc. | WEBSITE [www.redshift3d.com](http://www.redshift3d.com)

### MAIN FEATURES

GPU accelerated render engine

Full biased engine, which allows for greater flexibility

Vastly increased render speed compared to CPU based render engines

One license comes with free plug-ins for Maya, and Softimage applications

**G**PU rendering has revolutionised the CGI industry over the past couple of years. Redshift has become one of the most talked about GPU render solutions as it offers the flexibility of existing CPU based render solutions, with the speed of GPU acceleration.

The key to Redshift is that it's a biased render engine, meaning it uses techniques to 'cheat' how the image works – exactly the same methodology traditional CPU based render engines such as V-Ray use. Unbiased engines mimic the physics of light much more closely, meaning comparably much longer render times and potentially less creative options. Until now, most popular GPU render engines have been unbiased, giving an exponential render time increase. The Redshift team have brought the grunt of the GPU to biased rendering, and it makes Redshift potentially one of the fastest and full-feature render engines on the market.

Speed means nothing if the usability doesn't match up. Luckily, this isn't the case; we tested Redshift with Autodesk Maya 2016 (it is also

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available for 3ds Max, and Softimage with C4D and Houdini coming) and found it integrated well with the host application. Dedicated Redshift shader options, camera and render settings were all in logical places. Redshift supports Render proxies well and a full set of AOVs (render pass outputs) are available.

With IPR, Redshift allows either bucket or progressive rendering, which constantly updates allowing really quick iteration during look dev.

With great tutorials on Redshift's site, if you're used to working with other biased engines, Redshift is simple to get your head around and easier than most to use. Basic controls are well organised within Maya's render settings, or logically placed within an object's settings.

Redshift uses out-of-core architecture, which uses all the resources of the computer to render scenes – unlike many GPU render solutions which can only use the memory available on the GPU, meaning that no compromises for scenes are required. Redshift also uses all the memory on all the GPUs within a PC, even if they have different RAM amounts.

Animation and camera effects, such as depth of field, are available and work beautifully, which when the samples are increased, create a lovely rolling falloff, especially when used with the Redshift shaders.

Redshift scales well for freelancers or studios, as one comparatively cheap license covers one PC, and if that PC happens to have 12 GPUs in it the license cost is the same as if it had one, making it potentially more attractive from a speed and cost point of view than a CPU based render solution. This is good as Redshift is addictive, and has the potential to become a dominant render platform for the rest of the decade.

VERDICT ●●●●●



### AUTHOR PROFILE

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Glassworks used the power of Redshift to render the Singing Babies commercial for Cadbury. Image courtesy of Glassworks



### A NEW TAKE ON TRADITIONAL RENDERING

Launched in 2014, Redshift is the first render engine to mix the flexibility of biased render engines with the power of GPU rendering. It has been used extensively in production since its launch, and in 2016 will be releasing more plug-ins for Cinema 4D and Houdini.