



RenderMan for Everyone!

RenderMan™ Tools

RenderMan™ Compliant Renderers

The last two to three years have been very exciting in the rendering community. The whole “concept” behind the creation of the RenderMan™ scene description language is finally taking off. Where there once was only one implementation of RenderMan™, Pixar’s own PRMan, now there are many renderers to choose from. Time couldn’t be better for those looking to embark on the long, but exciting road of high end rendering. Here is a list of RenderMan™ renderers available. There might be more out there. If you know of one that’s not listed, please drop me a line at [rmantuts@RenderMan™academy.com](mailto:rmantuts@RenderManAcademy.com)

Photo Realistic RenderMan™ – Pixar – Win, Linux, Irix, Mac OSX - \$3500

The granddaddy of RenderMan™ renderers. Production proven, fast, reliable, extensible and very controllable. This is one strong workhorse, capable of rendering scenes with very large amounts of detail (see the door vault in Monsters Inc). Version 11.5 does raytracing and Global Illumination.

RenderDotC – DotC Software – Win, Linux, Irix, HP-UX - \$ 595 to \$2995

RenderDotC has been shipping since 1996. It has several films credits under its belt and it has a Broadcast edition that is only 595, but only renders up to 768 x 576. Version 3.4 will include raytracing.

Air – Sitex Graphics www.sitexgraphics.com Win –Linux - \$450.

This is a newer renderer, but its author Scott Iverson has been writing renderers for a while. Fairly priced and includes a lot of extra little utilities that allow you to work faster (only Win version though).

3Delight – Linux – Mac OsX - Free

A FREE RenderMan™ renderer that runs pretty fast and supports most of the RI Specification. It doesn’t include many of the features supported by PRMan 11 (it does raytrace though), but hey.... IT’S FREE!!.

Aqsis Open Source -Win – Linux - Mac OSX - Free

Another free RenderMan™ renderer, but this one is open source. So if you ever wanted to get your hands on code to learn how a REYES renderers is put together, this is your renderer to get. Still in development.

Pixie by Okan Arikan -Free

Yet another free RenderMan™ renderer. Its also open source and its slowly becoming boys and girls favorite because of the high end features it supports (almost the same as PRman 11). Still in development.

JRMan - Open Source - Free

Another open source implementation of RenderMan™, but written in java. Still has ways to go, but for those that are into java it should be quite interesting to give it a look.

Shader Writing Tools

Ok. So here you are, anxious to start learning to use the one of the most powerful 3D rendering tools. You get your cold coke, pop in your favorite CD or mp3’s, lay your hands upon the keyboard and you discover one of the ugliest parts of RenderMan™ Shading

Language: “Writing shaders can take a long time”.

For us who used to be accustomed to having a nice and shiny GUI's to generate shaders or materials this is a big shock. Many rendering development companies are trying to make this a thing of the past. Pixar created the RenderMan™ Artist Tools to help speed up the development process and to make the process more artist friendly. Here I have put together a list of tools that might be of use for you. Some of these tools require a little time to setup, but once they are up and running you will be writing shaders a lot faster.

Text Editors

Any text editor will do the job, but there are some of them out there that make the job a lot easier. Take a peek and choose one that fits you.

SIEditor by Alexei Puzikov - Win Free

A very simple and user friendly Shader Language Editor. Designed to work with the always remembered BMRT, this editor offers string searching, color coding and line numbering. Very easy to install.

SlcEd by Alexei Pusikov – Win Free

This is SLEditor big brother. It allows you to change material properties and render small previews. It also has a color coded text editor and it can compile you shaders with on click. However it only works with BMRT

Xemacs Win – Linux – Unix Free

Xemacs is a different version of the very popular Unix text editor emacs. It is deceptively simple but it is extremely powerful. This is a very serious tool that gives you a lot of power to extend the original functionality. To make this editor really worth it for shader writing I have re-written Steve May's rsl-mode. This will allow you to edit RSL files with auto indentation, color coding, file comparison and also quick compiles and test renders, truly an awesome tool. Its also good for Perl, Python, C/C++, Java and most mayor programming languages.

Emacs / Xemacs rsl-mode Original by Steve May - Updated by Rudy Cortes - Free

This is a modified version of Steve May's rsl-mode. Its updated to support new syntax highlighting packages and to support 3delight, Aqsis, BMRT and Prman for windows and Unix.

I will eventually update it to support Air and Pixie. Click [here](#) for installation instructions

Cutter - by Malcom Kesson - Runs on any platform supported by Java - Free

This is a very nice text editor designed specifically for RenderMan™ Shading Language. It also supports programming languages such as Tcl, Mel, Python, Vfl, Ifd, Html, Shake, C, CPP and Java. Very nice!

Shader Authoring Tools

These tools are designed to develop shaders by visual means. It's a lot more artist friendly but make no mistake. To use these programs efficiently you NEED to learn RSL. Many TD's still prefer to write their shaders in a text editor. Call them purists, call them crazy, but hand coded RSL shaders are still very popular. For your convenience here is a list of available utilities.

Slim/RenderMan™ Artist Tools Pixar Win – Linux \$2000

Part of the RenderMan™ Artist tools. This is a shader building program that feels like the 3DS Max material editor, underneath works like Maya's Hypershade, but at the end you get good ol' RSL shaders. It is tightly integrated with Maya but is also a stand alone. It's very extensible through the use of Tcl/Tk.

ShadeTree Cinema Graphics Win – Irix \$4995

I believe this was one of the first shader authoring tools in the market, I've never used it but it seems really powerful.

Vshade - Sitex Graphics Win

This tool ships with the Windows version of Air.

ShaderMan – by Alexei Puzikov Win Free

Another great tool by Alexei. Its not quite finished but its very usable and very promising. Extensible through XM, this is a tool that I would keep my eyes on.

Shrimp - Open Source - Linux - Free

Open source shader authoring tool. Development is going very slow, but its open source, so if you are a clever programmer, maybe you can finish this baby and release it for all to use.

Utilities

Perl

A very powerful yet fairly simple scripting/programming language. Very strong for parsing and modifying text files. Ideal for RIB processing or manipulation.

Python

Perl not your thing? Try Python, very powerful and easy to use.

CGkit

The Python Computer Graphics Kit is a collection of Python modules that contain the basic types and functions to be able to create 3D computer graphics images. The kit mainly focuses on Pixar's RenderMan™ interface, but some modules can also be used for OpenGL programs or non-RenderMan™ compliant renderers like POV-Ray, for example.



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