

A Better View of RenderMan – bvrman



bvrman (pronounced Beaver-Man) is a Windows program that allows a better view into RenderMan and some of its other associated programs. RenderMan, as it comes “out of the box”, is a command-line driven program. While that works OK on UNIX-based systems, it is horribly awkward on Windows. Thus was born *bvrman*, a Better View of RenderMan.

bvrman is started with:

Start → **All Programs** → **Shaders** → **bvrman.exe**

The resulting user interface window looks like this.

At the same time, a console window pops up. There are, at times, useful messages that are displayed there. Most of the time you can ignore it. Iconify it if you want.

Editing and Rendering RIB Files

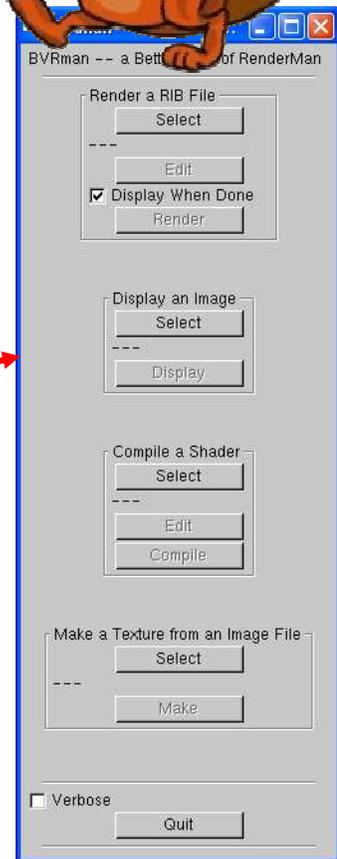
RIB stands for *RenderMan Interface Bytestream*. It is an ASCII-encoded input to the Photorealistic RenderMan rendering program. The RIB portion of the *bvrman* menu looks like this.

Select This brings up a dialog box that allows you to select a RIB file. Its name gets displayed underneath the Select button, where you see “---” here. *bvrman* quickly parses your RIB file looking for the name of the image file that you will be creating. If it finds it, it places its name in the Display region below, just as if you had selected that image file yourself.

Edit This brings up a WordPad window so that you can edit your RIB file. *bvrman* does not block on this, so you can come back to the *bvrman* interface, even with the WordPad window open.

Display When Done Clicking this checkbox causes *bvrman* to display the resulting image the moment the render is complete. Otherwise *bvrman* just sits there.

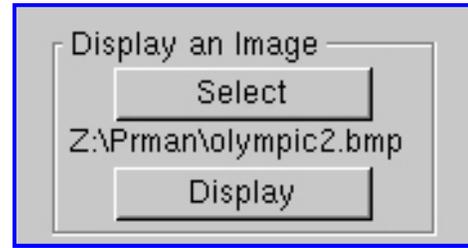
Render This sends your RIB file to the *prman* program. The other buttons in this portion of the interface gray out to show that it is busy. A percentage-done counter goes on in the console window. *bvrman* blocks until the render is done. When the render is complete, the other buttons become ungrayed, and the resulting image displays if the checkbox is checked.



Displaying Images

This allows you to select and display images, presumably the one that you just rendered with RenderMan, but not necessarily so.

Select This brings up a dialog box that allows you to select an image file. If the Select item in the RIB menu can figure out what your RIB's output image file is, that filename will already be selected. The name of the selected image file appears below the Select button.



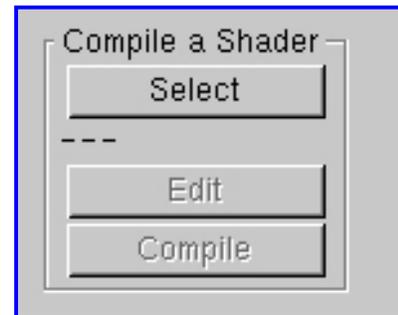
Display This button displays the selected image file using the Windows Photo Viewer program. This was chosen because it is quick to launch, easy to use, lets you zoom and pan, and has a very flexible print capability. Unfortunately, this program will not accept RenderMan-produced TIFF files. So, this button causes two other programs to be launched to convert your TIFF file into something that can be displayed. You don't really need to know this.

Editing and Compiling Shaders

This allows you to edit and compile RenderMan runtime shaders.

Select This brings up a dialog box that allows you to select a RenderMan shader, which typically end in the **.sl** file extension. The name of the selected shader file appears below the Select button.

Edit This brings up a WordPad window so that you can easily edit your shader file. *bvrman* does not block on this, so you can come back to the *bvrman* interface, even with the Wordpad window open.

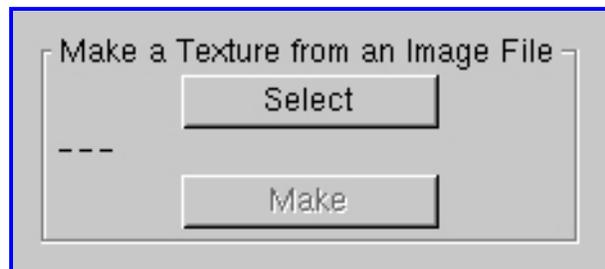


Compile This invokes the RenderMan shader compiler. Compiler error messages will appear in the console window. A successful compilation will result in the creation of a shader object file, which has the same name as the shader source file, but ends in a **.slo** extension. During compilation, the Select and Edit buttons are grayed out. You know when the compiler is finished by the buttons becoming ungrayed, and by an information dialog box appearing.

Making Textures

RenderMan wants to preprocess your texture images before you can use them in a render. This portion of the menu allows you to perform that preprocessing.

Select This brings up a dialog box that allows you to select an image file to use as a texture. The RenderMan texture preprocessor only accepts



TIFF files, but you can specify any image type to *bvrman*, and it will do the conversion for you. The name of the selected image file appears below the Select button.

Make This invokes the RenderMan texture preprocessor. Error messages will appear in the console window. A successful make will result in the creation of RenderMan texture file, which has the same name as the texture source image, but ends in a .tex extension. During texture making, the Select button is grayed out. You know when the texture maker is finished by the button becoming ungrayed, and by an information dialog box appearing.

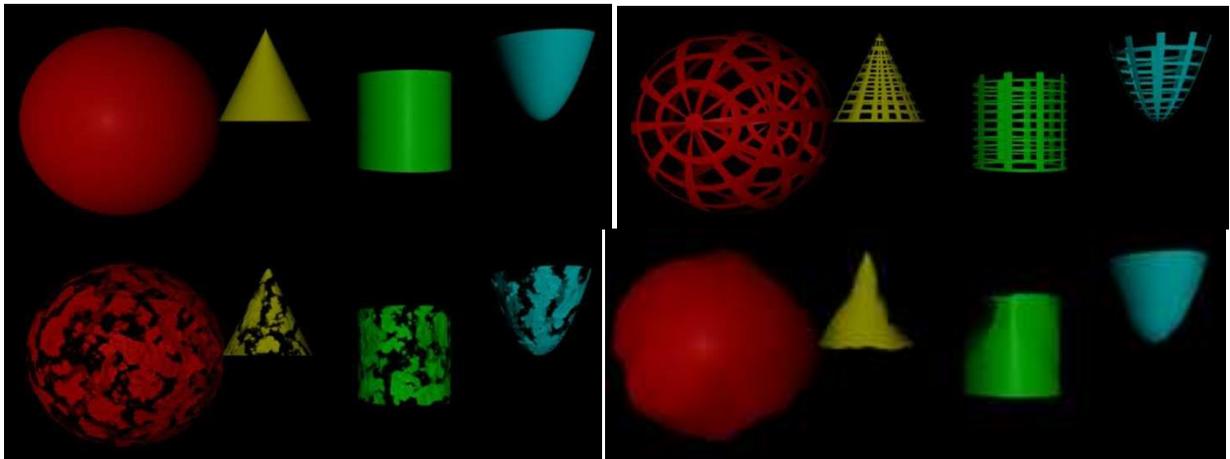
Miscellaneous

Last, but not least...

Verbose If you would like to see more of what is really going on behind the scenes, click this checkbox on. It can be, at times, voluminous. Don't say we didn't warn you.



Quit Obvious.



Left-to-right, Top-to-Bottom: Plastic, Screen, Eroded, Plastic+Dented

Questions? Comments?

Direct *bvrman* questions and comments to:

Prof. Mike Bailey
Computer Science
Oregon State University
2117 Kelley Engineering Center
Corvallis, OR 97331-5501
541-737-2542
mjb@cs.oregonstate.edu