NAME

bsdfview - view a BSDF representation

SYNOPSIS

bsdfview [**−q {Hi|Med|Lo}**][**−t** | rad options][**−r min max**] input ..

DESCRIPTION

Bsdfview renders a BSDF description interactively. This is a script that creates a *rad(1)* input file (RIF), which builds an octree via *bsdf2rad(1),* then renders the scene interactively or calls the *trad(1)* graphical user interface if the *−t* option is given.

The input is either a single XML file, such as might be produced by *genBSDF(1), bsdf2klems(1),* or *bsdf2ttree(1),* or up to four scattering interpolation representation (SIR) files, as might be produced by pabopto2bsdf(1).

A *rad* input file will be produced, whose name matches the root of the first input file but with any leading path removed (i.e., in the current directory). This RIF may be reused for subsequent viewing and rendering via *rad* without incurring the cost of another call to *bsdf2rad*.

The quality preference may be set via the *−q* option. The number of processors to use may be specified with the *−n* option.

The program creates a number of views accessible via the *rvu(1)* "L" command:

def The default view, showing the back and front BRDFs.

fr A view of the front reflection hemisphere.

br A view of the back reflection hemisphere.

ft A fisheye view of the front transmission hemisphere (from underneath).

bt A fisheye view of the back transmission hemisphere.

pr A parallel view of both reflection hemispheres from directly overhead.

pt A parallel view of both transmission hemispheres from directly underneath.

Additionally, all the standard views that *rvu* defines will be available (e.g., "xZ", "zl", etc.).

Since a *rad* input file is created by the script, it may be used in subsequent runs as long as the temporary files remain. These are typically kept until the next reboot of the operating system, so re-running *bsdfview* with the same arguments will not require re-running *bsdf2rad* or *oconv*. Thus, start-up will be much quicker, unless the temporary files have been removed. In this case, the script may exit with an error indicating that the *rad* input file needs to be removed.

This input file may also be re-used directly from the command line using *rad* or *trad(1)*. This may be useful for generating RADIANCE pictures corresponding to the above standard views. If no interactive run is desired, start *bsdfview* with the *-v 0* option.

If an optional plotting range is given with the *−r* option, this will override automatic settings from the BSDF input. This may be useful for comparing different BSDF sources.

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SEE ALSO

bsdf2klems(1), bsdf2rad(1), bsdf2ttree(1), genBSDF(1), objview(1), oconv(1), pabopto2bsdf(1), rad(1), rvu(1), trad(1)