NAME

genblinds - generate a RADIANCE description of venetian blinds

SYNOPSIS

genblinds mat name depth width height nslats angle [−r|+r rcurv]

DESCRIPTION

Genblinds produces a RADIANCE scene description of a set of venetian blinds. The *depth* of the blinds (X dimension) is given first, followed by the *width* (Y dimension), followed by the *height* (Z dimension). The number of slats to place evenly within this height is given as *nslats*. The *angle* of the blind, where zero is perfectly horizontal and a positive angle tilts the positive X edge upwards, is given in degrees. The blinds are initially situated so that the corner of the bottom blind is *height/nslats/2* above the XY plane, and all coordinates are positive. Each new slat is placed *height/nslats* above the previous one, until the top slat is at *height - height/nslats/2* . The blinds may of course be moved from this starting point with the *xform(1)* command.

If curved blinds are desired, a radius of curvature may be given with the *+/-r* option. If given as *-r,* The curvature is downward (which is the usual configuration). If the option is given as *+r,* then the curvature is upward. The radius indicates how far from each slat its effective cylindrical center resides. Each slat will be broken into as many polygons as is necessary to keep the delta changes in angle less than 10 degrees. (Note that this may result in a rather large number of polygons.)

EXAMPLE

To produce a curved set of blinds with 15 slats:

genblinds white blind 1 46 88 118 15 -r 1 > blinds.rad

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SEE ALSO

genbox(1), genrev(1), gensurf(1), genworm(1), rpict(1), rview(1), xform(1)