

NAME

genbox - generate a RADIANCE or Wavefront description of a box

SYNOPSIS

genbox *mat name xsiz ysiz zsiz* [**-i**] [**-b** *bev*] [**-r** *rad*] [**-n** *nseg*] [**-s**] [**-o**]

DESCRIPTION

Genbox produces a RADIANCE scene description of a parallelepiped with one corner at the origin and the opposite corner at (*xsiz*, *ysiz*, *zsiz*). The sides of the box will be parallel to the three coordinate planes. The surfaces that make up the box will be modified by *mat* and their identifiers will begin with *name*.

The **-i** option can be used to produce a box with inward directed surface normals.

The **-b** option can be used to specify the indentation for beveled edges.

The **-r** option can be used to specify the radius for rounded edges, which are normally modeled as cylinders and spheres for non-inverted RADIANCE output. However, this type of model only makes sense for external views of an opaque object. If a rounded box is inverted using **-i**, then the corners and edges are modeled with polygons, instead. This option can also be forced by specifying a minimum number of segments with the **-n** option. The **-s** option controls whether surface normal smoothing is applied as well.

The **-o** option specifies Wavefront .OBJ output, and also forces polygons to be used with the **-r** option. If the **-s** option is present, vertex normals are also produced for smooth rendering.

EXAMPLE

To produce a rectangular box made of wood with rounded edges:

```
genbox wood box1 5 8 3 -r .5 > box1.rad
```

To produce a box made of crystal with beveled edges:

```
genbox crystal box2 3 7 1 -b .1 > box2.rad
```

To produce a transparent box with smoothed, rounded edges:

```
genbox glassy box3 2 4 3 -r .25 -n 16 -s > box3.rad
```

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SEE ALSO

genrev(1), gensurf(1), genworm(1), obj2mesh(1), obj2rad(1), robjutil(1), rpict(1), rvu(1), xform(1)