

NAME

replmarks - replace triangular markers in a RADIANCE scene description

SYNOPSIS

replmarks [*-e*] [*-m newmod*] [*-s scale*] { *-x objfile* | *-i octree* | *-I mesh* } **modname** .. [**file** ..]

DESCRIPTION

Replmarks replaces triangular markers identified by the modifier *modname* in each scene description *file* and writes the result to the standard output. The *-x* option indicates that each marker should be replaced by an appropriate *xform(1)* command on *objfile*. The *-i* option indicates that each marker should be replaced by an instance of *octree*. The *-I* option indicates that each marker should be replaced by an instance of the Radiance mesh *mesh*. One of these three options must appear on the command line, along with *modname*, the modifier used by markers in the file.

Multiple modifiers may be given, as long as each one is preceded by its own *-x* or *-i* option.

The transformation for each marker is determined by its location and orientation. A marker should be a right triangle pointing like a half-arrow in the direction of the transformed x-axis, x' . The longest side is the hypotenuse, the second longest side is the x' -axis, and the third longest side indicates the direction of the y' -axis. Any additional sides will be ignored (ie. a quadrilateral may be used instead of a triangle if the extra side is small). The z' -axis is determined by the cross product of the x' and y' axes, and the origin is the common vertex between x' and y' .

The size of the marker is ignored unless the *-s* option is used, where *scale* is a multiplier for the x' -axis length to indicate the total scale factor. For example, a *scale* value of 5 with a marker length of .5 would result in a total scale factor of 2.5 to be used in the transformation.

The *-e* option causes commands in the file to be expanded, and is required to replace markers from commands in the input file. Even with this option, *replmarks* will not examine objects for markers. Specifically, an object included by *replmarks* as a result of a *-x* expansion will be transferred verbatim, without regard to any surfaces therein that might have been considered as marks if they were on the main input.

The *-m* option causes all replaced objects to be given the modifier *newmod*. Otherwise, the new object surfaces will use their originally defined modifiers. A different replacement modifier may be given for each marker type. The marker modifier name itself is only used to identify markers, and will not appear in the output in any form.

If no input *file* is given, the standard input is read.

EXAMPLE

To replace all polygons with the modifier “knobs” in the file input with a transformed “knob.rad” and write the result to output:

```
replmarks -x knob.rad knobs input > output
```

To use instances of “tree.oct” with scaling set to three times the tree marker length:

```
replmarks -s 3 -i tree.oct tree input > output
```

AUTHOR

Greg Ward

SEE ALSO

arch2rad(1), ies2rad(1), xform(1)