

**NAME**

genworm - generate a RADIANCE description of a functional worm

**SYNOPSIS**

**genworm mat name 'x(t)' 'y(t)' 'z(t)' 'r(t)' nseg [ -e expr ][ -f file ]**

**DESCRIPTION**

*Genworm* produces a RADIANCE scene description of a worm defined by the parametric equations  $x(t)$ ,  $y(t)$ ,  $z(t)$ , and  $r(t)$  (the radius).  $T$  will vary from 0 to 1 in steps of  $1/nseg$ . The surface will be composed of  $nseg$  cones or cylinders and  $nseg+1$  spheres. The expressions are of the same type used in RADIANCE function files. Auxiliary expressions and/or files may be specified in any number of  $-e$  and  $-f$  options.

**EXAMPLE**

To generate a banana:

```
genworm yellow banana '0' '5*sin(t)' '5*cos(t)' '.4-(.5-t)*(.5-t)' 20
```

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**BUGS**

Since the worm is constructed of intersecting surfaces, only opaque materials should be used with this object. Also, a worm cannot double back inside itself without making a mess.

**SEE ALSO**

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