

NAME

raygen – generate rays

SYNOPSIS

raygen *options*

PARAMETERS

raygen uses an IRAF compatible parameter file.

It takes the following parameters

source

The **Lua** script which specifies the sources.

source_override

Lua statements to be passed to the source script. These are placed in a function called ‘override’, which may be called by the source script.

ea A **Lua** script which defines the entrance aperture to illuminate.

ea_override

Lua statements to be passed to the entrance_aperture script. These are placed in a function called override, which may be called by the script.

output

The output file. If it is the string `stdout`, the rays are written to the UNIX standard output stream.

logfile

A file to which logging output should be written. If it is the string `stderr` the rays are written to the UNIX standard error stream.

limit_type

This determines how **raygen** knows when to stop outputting rays. It determines what the `limit` parameter specifies. It can one of the following values:

rays

the number of rays

k rays

the number of rays, in units of one thousand rays

M rays

the number of rays, in units of one million rays

sec

the time to run, in seconds

ksec

the time to run, in units of one thousand seconds

r/cm²

rays per square centimeter at the entrance aperture

r/mm²

rays per square millimeter at the entrance aperture

limit

The quantity of whatever `limit_type` specifies that **raygen** must generate.

node

The node Z position (mm) from which to measure the off-axis source angle (*theta*).

seed1

The first seed for the random number generator. It must be in the range [1,2147483562].

seed2

The second seed for the random number generator. It must be in the range [1,214748339]

block

The random number block to start at. It must be in the range [0,1048575].

ray_dist

How the rays should be distributed at the entrance aperture. Currently, only random is supported.

debug

A list of debug flags; none are presently available.

version

Output the version to the UNIX standard error stream and exit.

help

Output a help message and exit.

DESCRIPTION

For more information, see the full manual.

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VERSION

This documents version 2.6.2 of **raygen**.

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