## NAME

raygen − generate rays

## SYNOPSIS

**raygen** *options*

## PARAMETERS

**raygen** uses an IRAF compatible parameter file.

It takes the following parameters

cfgfile
: A **Lua** script (if `cfgpars` ends in `.lua`) or **Lua** statements to initialize the source creation environment.

cfgpars
: A **Lua** script (if `cfgpars` ends in `.lua`) or **Lua** statements to create sources.

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.

tstart
: The start time of the observation in seconds. If less than zero and jitter is turned on, the start of the valid jitter time range is used.

limit
: The quantity of whatever `limit_type` specifies that **raygen** must generate. If `limit_type` is a unit of time, this is added to the start time (see `tstart`) to determine the stop time of the simulation. If jitter is on and this is set to `0`, then the stop time is set equal to the end of the valid jitter time range.

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

  `krays`
  : the number of rays, in units of one thousand rays

  `Mrays`
  : 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

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].

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 2.6.4 of **raygen**.

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