

**NAME**

*ra\_rgbe* - convert between different RADIANCE picture types

**SYNOPSIS**

***ra\_rgbe* [ -r ] [ -e +/-stops ] [ -f ] [ -n frameno ] [ input [ outspec ] ]**

**DESCRIPTION**

*Ra\_rgbe* converts between RADIANCE run-length encoded and flat formats, and separates concatenated animation frames produced by *rpict*(1). The *-e* option specifies an exposure compensation in f-stops (powers of two). Only integer stops are allowed, for efficiency. By default, *ra\_rgbe* produces a flat RADIANCE picture file from any type of RADIANCE input picture. The *-r* option causes *ra\_rgbe* to produce a run-length encoded file instead.

If the input file consists of multiple animation frames as produced by *rpict* with the *-S* option, *ra\_rgbe* will read each frame and write it to the output file created by calling *printf*(3) with the output specification and frame number as arguments. If the output specification begins with an exclamation mark (!), then this is interpreted as a command spec., which is also run through *printf* with the frame number to get the final command. This command must accept a Radiance picture on its standard input, and may write results either to a file or to the standard output. The *-n* option may be used to select a specific frame for output, and other frames in the input will be skipped. Normally, all frames will be read and written.

*Ra\_rgbe* will report an error and exit if the target output file already exists, unless the *-f* option is given. If the output file is missing, the standard output is used. If the input file is missing or set to '-', the standard input is used.

**NOTES**

The file format for RADIANCE pictures was changed between release 1.4 and release 2.0. The older format can still be read by all the programs, but only the newer format is produced. This newer format cannot be read by RADIANCE software prior to release 2.0.

*Ra\_rgbe* provides some downward compatibility by producing files that can be read by older RADIANCE software. The resultant files are also easier to manipulate with programs designed to read raw raster data.

The other use for *ra\_rgbe* is as a quicker way to adjust the exposure of a RADIANCE picture than *pfilt*(1), since *ra\_rgbe* only allows integer f-stop changes. In this mode, *ra\_rgbe* should be used with the *-r* option.

**NOTES**

Hyperspectral Radiance pictures (.hsr files) are converted to approximate RGBE pixels. However, the colors may not be very accurate. Pass the HSR picture through *rcomb*(1) or *ra\_xyze*(1) first if greater color fidelity is required.

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**ACKNOWLEDGEMENT**

Work on this program was initiated and sponsored by the LESO group at EPFL in Switzerland.

**SEE ALSO**

*dctimestep*(1), *pfilt*(1), *printf*(1), *pvsum*(1), *ra\_xyze*(1), *rcomb*(1), *rpict*(1)