NAME
rxpiece - render tiles in a RADIANCE picture/depth buffer

SYNOPSIS
rxpiece [**−n nproc**][**−x xres**][**−y yres**][**−X xdiv**][**−Y ydiv**][**−f{flc}**][**−d ref_depth/unit**] [**$EVAR**]
[**@file**] [rpict options] **−o picture octree**

DESCRIPTION
Rxpiece renders a RADIANCE picture a tile at a time. This is useful for running multiple cooperating processes to create a single picture. Output is written to a memory-mapped file specified with the −o argument. The format will be determined by the −p and −f options. The first is detailed in the *rpict(1)* man page, and the second may be −*fc* for uncompressed common-exponent format or −*ff* for float picture (matrix) output. An output depth map may be given as well with the −z option, which will be stored as raw float by default, but can be written as a 16-bit/depth encoding if the −*d* option is used to specify a reference depth/unit. (See *rcode_depth(1).)*

The overall picture dimensions will be *xres* by *yres* or smaller, depending on the −*pa* option and other view options, and the picture will be rendered in *xdiv* by *ydiv* tiles.

If the output picture file already exists, new tiles will be rendered into it. In this way, multiple invocations of *rxpiece* may be used with or without the −*n* multiprocessing option.

Options may be given on the command line and/or read from the environment and/or read from a file. A command argument beginning with a dollar sign ('$') is immediately replaced by the contents of the given environment variable. A command argument beginning with an at sign ('@') is immediately replaced by the contents of the given file.

EXAMPLE
Run 8 *rxpiece* processes and create an encoded depth map with a 10-meter reference:

    rxpiece -n 8 -d 10/meter -z scene.dpt -o scene.hdr scene.oct

NOTES
Unfortunately, memory-mapped files are not supported across a network, so *rxpiece* only works on a single machine. If network rendering is desired, use *rpiece(1),* instead.

The main advantage of *rxpiece* over *rpiece* is the −*n* multiprocessing option, which requires only a single invocation to render a tiled picture efficiently. *Rxpiece* also supports more output types and options, such as float and depth map results. Because it avoids the need for a sync file, preferring a shared memory map, tile assignment and recovery is faster and more robust on a single machine.

The output picture is not run-length encoded, and can be quite large. Once the picture is finished, the *ra_rgbe(1)* program with the −r option may be used to convert to a run−length encoded picture for more efficient storage, although *pfilt(1)* or any of the other Radiance picture filters will do the same thing.

The ALRM signal may be used to gracefully terminate an *rxpiece* process after it finishes the tile it is working on. This permits other currently running or subsequently started *rxpiece* process(es) to continue rendering tiles with no lost effort.

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SEE ALSO
getinfo(1), pfilt(1), ra_rgbe(1), rcode_depth(1), rcomb(1), rmtxop(1), rpict(1), rpiece(1), rtpict(1), ximage(1)