

NAME

exrenvmap - convert exr image environment maps

SYNOPSIS

exrenvmap [*options*] *infile outfile*

DESCRIPTION

Convert an OpenEXR latitude-longitude environment map into a cube-face environment map or vice versa. Reads an environment map image from *infile*, converts it, and stores the result in *outfile*.

If the input file name contains a '%' character, then an input cube-face environment map is assembled from six square sub-images that represent the six faces of the cube. The names of the six image files are generated by replacing the % with +X, -X, +Y, -Y, +Z and -Z respectively.

If the output file name contains a '%' character and the program has been instructed to produce a cube-face environment map, then the output image is split into six square sub-images that are saved in six separate output files. The names of the files are generated by replacing the % with +X, -X, +Y, -Y, +Z and -Z respectively.

OPTIONS

- o** produces a ONE_LEVEL output file (default)
- m** produces a MIPMAP_LEVELS output file (**-m** has no effect if the output image is split into multiple files)
- c** the output file will be a cube-face environment map (default)
- l** the output file will be a latitude-longitude environment map
- ci** the input file is interpreted as a cube-face environment map, regardless of its envmap attribute
- li** the input file is interpreted as a latitudelongitude environment map, regardless of its envmap attribute (**-li** has no effect if the input image is assembled from multiple files)
- w x**
sets the width of the output image to x pixels (default is 256). The height of the output image will be x*6 pixels for a cube-face map, or x/2 pixels for a latitude-longitude map.
- f r n**
sets the antialiasing filter radius to r (default is 1.0) and the sampling rate to n by n (default is 5 by

- 5). Increasing *r* makes the output image blurrier; decreasing *r* makes the image sharper but may cause aliasing. Increasing *n* improves antialiasing, but generating the output image takes longer.
- b** blurs the environment map image by applying a 180-degree-wide filter kernel such that pointsampling the blurred image at a location that corresponds to 3D direction *N* returns the color that a white diffuse reflector with surface normal *N* would have if it was illuminated using the original non-blurred image. Generating the blurred image can be fairly slow.
 - t x y**
sets the output file's tile size to *x* by *y* pixels (default is 64 by 64)
 - p t b**
if the input image is a latitude-longitude map, pad the image at the top and bottom with *t***h* and *b***h* extra scan lines, where *h* is the height of the input image. This is useful for images from 360-degree panoramic scans that cover less than 180 degrees vertically.
 - d** sets level size rounding to `ROUND_DOWN` (default)
 - u** sets level size rounding to `ROUND_UP`
 - z x**
sets the data compression method to *x* (`none/rle/zip/piz/prx24/b44/b44a/dwaa/dwab`, default is `zip`)
 - v** verbose mode
 - h, --help**
print this message
 - version** print version information

REPORTING BUGS

Report bugs via <https://github.com/AcademySoftwareFoundation/openexr/issues> or email security@openexr.com

COPYRIGHT

Copyright (C) Contributors to the OpenEXR Project License BSD-3-Clause