

Package ‘libopenexr’

October 17, 2025

Type Package

Title Static Library and Headers for 'OpenEXR' Image I/O

Version 3.4.0-5

Description Provides the 'OpenEXR' static library and 'C++' headers for high-dynamic-range image I/O (see <<https://openexr.com/>>) needed to link R packages against the 'OpenEXR' library, along with a basic R interface to load 'EXR' images.

Depends R (>= 4.3.0)

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LinkingTo libimath, libdeflate

Encoding UTF-8

LazyData true

SystemRequirements CMake, GNU make

RoxygenNote 7.3.2

Biarch TRUE

BugReports <https://github.com/tylermorganwall/libopenexr/issues>

NeedsCompilation yes

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read_exr	<i>Read an OpenEXR image</i>
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Description

Load an RGBA OpenEXR image into R numeric matrices.

Usage

```
read_exr(path, array = FALSE)
```

Arguments

- path Character scalar. Path to an ‘.exr’ file.
- array Default ‘FALSE’. Return a 4-layer RGBA array instead of a list.

Value

A list with elements ‘r’, ‘g’, ‘b’, ‘a’ (numeric matrices), and the integer dimensions ‘width’, ‘height’.

Examples

```
#Write the included data to an EXR file
tmpfile = tempfile(fileext = ".exr")
write_exr(tmpfile,
           widecolorgamut[,1],
           widecolorgamut[,2],
           widecolorgamut[,3],
           widecolorgamut[,4])
exr_file = read_exr(tmpfile)
str(exr_file)
```

widecolorgamut	<i>Wide Color Gamut EXR Data</i>
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Description

Wide Color Gamut numeric data in RGBA list format from the OpenEXR project.

Usage

```
widecolorgamut
```

Format

An array of four channels (RGBA) and a width/height

Source

<https://openexr.com/en/latest/test_images/TestImages/WideColorGamut.html>

write_exr	<i>Write an OpenEXR image</i>
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Description

Save RGBA numeric matrices to an OpenEXR file (32-bit float, ZIP compression).

Usage

```
write_exr(path, r, g, b, a = matrix(1, nrow = nrow(r), ncol = ncol(r)))
```

Arguments

path	Character scalar output file.
r	Numeric matrix, red channel.
g	Numeric matrix, green channel.
b	Numeric matrix, blue channel.
a	Numeric matrix, alpha channel.

Value

None.

Examples

```
#Write the included data to an EXR file
tmpfile = tempfile(fileext = ".exr")
write_exr(tmpfile,
          widecolorgamut[:,1],
          widecolorgamut[:,2],
          widecolorgamut[:,3],
          widecolorgamut[:,4])
```

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