Package 'libopenexr'

June 6, 2025

Type Package

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

Version 3.4.0

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

Author Tyler Morgan-Wall [aut, cre] (ORCID:
<https://orcid.org/0000-0002-3131-3814>),
Aaron Demolder [ctb, cph],
Abe Fettig [ctb, cph],
Aloys Baillet [ctb, cph],
Andre Mazzone [ctb, cph],
Andrew Kunz [ctb, cph],
Anton Dukhovnikov [ctb, cph],
Antonio Rojas [ctb, cph],
Aras Pranckevičius [ctb, cph],
Arkady Shapkin [ctb, cph],
Arkell Rasiah [ctb, cph],
Axel Waggershauser [ctb, cph],
Balázs Oroszi [ctb, cph],

Barnaby Robson [ctb, cph],
Ben Grimes [ctb, cph],
Brendan Bolles [ctb, cph],
Cary Phillips [ctb, cph],
Chris Leu [ctb, cph],
Christina Tempelaar-Lietz [ctb, cph],
Christopher Horvath [ctb, cph],
Christopher Kulla [ctb, cph],
Christoph Gohlke [ctb, cph],
Cristian Martínez [ctb, cph],
Dan Horák [ctb, cph],
Daniel Kaneider [ctb, cph],
Darby Johnston [ctb, cph],
Dave Sawyer [ctb, cph],
David Korczynski [ctb, cph],
Diogo Teles Sant'Anna [ctb, cph],
Dirk Lemstra [ctb, cph],
Drew Hess [ctb, cph],
Ed Hanway [ctb, cph],
Edward Kmett [ctb, cph],
Eric Sommerlade [ctb, cph],
E Sommerlade [ctb, cph],
Florian Kainz [ctb, cph],
Grant Kim [ctb, cph],
Gregorio Litenstein [ctb, cph],
Gyula Gubacsi [ctb, cph],
Halfdan Ingvarsson [ctb, cph],
Harry Mallon [ctb, cph],
Huibean Luo [ctb, cph],
Ibraheem Alhashim [ctb, cph],
Jack Kingsman [ctb, cph],
Jamie Kenyon [ctb, cph],
Jan Tojnar [ctb, cph],
Jean-Francois Panisset [ctb, cph],
Jens Lindgren [ctb, cph],
Ji Hun Yu [ctb, cph],
Johannes Vollmer [ctb, cph],
John Loy [ctb, cph],
John Mertic [ctb, cph],
Jonathan Stone [ctb, cph],
Jose Luis Cercos-Pita [ctb, cph],
Joseph Goldstone [ctb, cph],
Juha Reunanen [ctb, cph],
Julian Amann [ctb, cph],
Juri Abramov [ctb, cph],
Karl Hendrikse [ctb, cph],
Karl Rasche [ctb, cph],
Kevin Wheatley [ctb, cph],

Kimball Thurston [ctb, cph],
Larry Gritz [ctb, cph],
Laurens Voerman [ctb, cph],
L. E. Segovia [ctb, cph],
Liam Fernandez [ctb, cph],
Lucy Wilkes [ctb, cph],
Mark Reid [ctb, cph],
Mark Sisson [ctb, cph],
Martin Aumüller [ctb, cph],
Martin Husemann [ctb, cph],
Matthäus G. Chajdas [ctb, cph],
Matthias C. M. Troffaes [ctb, cph],
Matt Pharr [ctb, cph],
Md Sadman Chowdhury [ctb, cph],
Michael Thomas [ctb, cph],
Nicholas Yue [ctb, cph],
Nick Porcino [ctb, cph],
Nick Rasmussen [ctb, cph],
Nicolas Chauvet [ctb, cph],
Niklas Hambüchen [ctb, cph],
Owen Thompson [ctb, cph],
Paul Schneider [ctb, cph],
Peter Hillman [ctb, cph],
Peter Steneteg [ctb, cph],
Peter Urbanec [ctb, cph],
Phil Barrett [ctb, cph],
Piotr Stanczyk [ctb, cph],
Ralph Potter [ctb, cph],
Rémi Achard [ctb, cph],
Reto Kromer [ctb, cph],
Richard Goedeken [ctb, cph],
Sergey Fedorov [ctb, cph],
Shawn Walker-Salas [ctb, cph],
Simon Boorer [ctb, cph],
Simon Otter [ctb, cph],
Srinath Ravichandran [ctb, cph],
Thanh Ha [ctb, cph],
Thomas Debesse [ctb, cph],
Thorsten Kaufmann [ctb, cph],
Timothy Lyanguzov [ctb, cph],
Wenzel Jakob [ctb, cph],
Wojciech Jarosz [ctb, cph],
Xo Wang [ctb, cph],
Yaakov Selkowitz [ctb, cph],
Yining Karl Li [ctb, cph],
Yujie Shu [ctb, cph],
Kevin Ushey [cph]

Maintainer Tyler Morgan-Wall <tylermw@gmail.com>

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Contents

`read_exr` *Read an OpenEXR image*

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` *Wide Color Gamut EXR Data*

Description

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

Usage

```
widecolorgamut
```

Format

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

Source

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

`write_exr` *Write an OpenEXR image*

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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