Package 'glmheaders'

November 4, 2026

Type Package

Title 'OpenGL Mathematics' 'C++' Headers

Version 1.0.1-2

Description Provides the header-only 'OpenGL Mathematics' (GLM) 'C++' library for numerical computations in graphics and geometry <https://github.com/g-truc/glm>. Includes vector and matrix types, coordinate transformations, quaternions, and geometric functions following the conventions of the 'OpenGL Shading Language'.

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URL https://github.com/tylermorganwall/glmheaders

Suggests Rcpp

Encoding UTF-8

NeedsCompilation no

BugReports https://github.com/tylermorganwall/glmheaders/issues

Config/roxygen2/version 8.0.0

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Repository CRAN

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Contents

glmheaders-package 2
glmheaders_test 2

Index **4**

glmheaders-package *OpenGL Mathematics C++ Headers*

Description

Provides GLM 1.0.1 headers for C++ vector, matrix, quaternion, and geometric computations. No compiled library is installed.

Details

Add `glmheaders` to the `LinkingTo` field of a consuming package's DESCRIPTION file and include `<glm/glm.hpp>` in its C++ source. The include directory can also be located with `system.file("include", package = "glmheaders")`. An OpenGL installation is not required. The MIT license option is used. The `glmheaders_test` function compiles and runs a small check of the installed headers using the suggested Rcpp package and a C++ compiler.

Author(s)

G-Truc Creation (GLM); Tyler Morgan-Wall (R packaging).

References

https://github.com/g-truc/glm

glmheaders_test *Test the Installed GLM Headers*

Description

Compile and run a small check of GLM vector, matrix, and quaternion operations to verify that the installed headers can be used from C++.

Usage

```
glmheaders_test()
```

Details

Requires the suggested package **Rcpp** and a working C++ compiler. The test program is compiled in a temporary directory when this function is called. The package itself remains header only and does not compile a shared library during installation.

Value

A single logical value: `TRUE` if all numerical checks pass and `FALSE` otherwise. Compilation failures raise an error.

Examples

```
# Verify that the installed headers produce the expected geometric results.
stopifnot(glmheaders_test())
```

Index

∗ **package**
glmheaders-package, 2

glmheaders *(*glmheaders-package*)*, 2
glmheaders-package, 2
glmheaders_test, 2, 2