Package: openpbr (via r-universe)

November 16, 2026

Type Package

Title 'OpenPBR' Surface Shading Headers

Version 1.1.1-0

Description Provides the header-only 'C++' implementation of the 'OpenPBR' surface shading model for physically based rendering <https://academysoftwarefoundation.github.io/OpenPBR/>. Combines diffuse reflection, metals, transparent dielectrics, coatings, fuzz, and subsurface scattering in a layered material model. Includes scattering evaluation and importance sampling.

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

Depends R (>= 4.3.0)

LinkingTo glmheaders (>= 1.0.1-1)

Suggests glmheaders (>= 1.0.1-1)

Encoding UTF-8

NeedsCompilation yes

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

Config/roxygen2/version 8.0.0

Repository https://tylermorganwall.r-universe.dev

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RemoteUrl https://github.com/tylermorganwall/openpbr

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openpbr-package *OpenPBR Surface Shading Headers*

Description

Provides Adobe's header-only implementation of the OpenPBR 1.1.1 material model for use in C++ code. A small native interface verifies a diffuse BSDF evaluation and reports the model version through `openpbr_version`.

Details

Add both `openpbr` and `glmheaders` to a consuming package's `LinkingTo` field. Include `<glm/glm.hpp>` before `<openpbr/openpbr.h>` in C++ source. The upstream API evaluates and samples a layered bidirectional scattering distribution. Geometry, light sampling, and volume integration are supplied by the consuming renderer.

Headers and embedded lookup tables are installed under `system.file("include", package = "openpbr")`. See the installed 'COPYRIGHTS' for the pinned upstream revision and the upstream repository below for API details.

Author(s)

Adobe (BSDF implementation); Tyler Morgan-Wall (R packaging).

References

https://github.com/adobe/openpbr-bsdf https://academysoftwarefoundation.github.io/OpenPBR/

openpbr_version *OpenPBR Material Model Version*

Description

Return the material model version supported by the bundled OpenPBR headers and verify the native interface with a diffuse scattering evaluation.

Usage

```
openpbr_version()
```

Value

A character scalar containing the OpenPBR material model version. This is distinct from the R package version reported by `utils::packageVersion("openpbr")`.

Examples

```
# Verify the bundled model version and its diffuse scattering evaluation.
stopifnot(identical(openpbr_version(), "1.1.1"))
```

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