

Package ‘RcppCGAL’

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Type Package

Title Rcpp Integration for CGAL

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Description Creates a header only package to link to the CGAL (Computational Geometry Algorithms Library) header files in Rcpp. There are a variety of potential uses for the software such as Hilbert sorting, KDtree nearest neighbors, and convex hull algorithms. There is only one R function in this package, which returns the current version of the CGAL library included. For more information about how to use the header files, see the CGAL documentation at <<https://www.cgal.org>>. Currently includes the CGAL 5.5.2 stable release.

License GPL (>= 3)

Imports utils, Rcpp, gh, curl

Suggests knitr

BugReports <https://github.com/ericdunipace/RcppCGAL/issues>

NeedsCompilation no

RoxygenNote 7.2.3

Encoding UTF-8

VignetteBuilder knitr

Repository CRAN

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RcppCGAL-package

RcppCGAL: Rcpp Integration for CGAL

Description

Creates a header only package to link to the CGAL (Computational Geometry Algorithms Library) header files in Rcpp. There are a variety of potential uses for the software such as Hilbert sorting, KDtree nearest neighbors, and convex hull algorithms. There is only one R function in this package, which returns the current version of the CGAL library included. For more information about how to use the header files, see the CGAL documentation at <https://www.cgal.org>. Currently includes the CGAL 5.5.2 stable release.

Author(s)

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References

The CGAL Project. (2023). CGAL User and Reference Manual (5.5.2). Retrieved from <<https://doc.cgal.org/5.4/Manual/pac>>

See Also

Useful links:

- Report bugs at <https://github.com/ericdunipace/RcppCGAL/issues>

Examples

```
## Not run:  
# To use this in a C++ file make sure you add an appropriate  
# dependency in your header C++ code. Make sure to use CGAL/basic.h  
  
#include <Rcpp.h>  
// [[Rcpp::depends(RcppCGAL)]]  
#include <CGAL/basic.h>  
  
// function code  
  
## End(Not run)
```

cgal_install	<i>CGAL header file installer</i>
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Description

CGAL header file installer

Usage

```
cgal_install(  
  cgal_path = NULL,  
  version = NULL,  
  clean_files = TRUE,  
  force = FALSE  
)
```

Arguments

cgal_path	Path to CGAL files on your machine, a URL. If NULL will download latest version from GitHub. Default is NULL.
version	Desired version to search for from the GitHub. If NULL, will download latest.
clean_files	Whether to remove calls to C std::err from header files to avoid errors in R. Default is TRUE
force	Whether to force downloading and install the header files if they're already found in the package. Default is FALSE

cgal_is_installed	<i>Check if CGAL header files exist in RcppCGAL package</i>
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Description

Check if CGAL header files exist in RcppCGAL package

Usage

```
cgal_is_installed()
```

Value

logical value

Examples

```
cgal_is_installed()
```

cgal_version	<i>Return CGAL version</i>
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Description

Return CGAL version

Usage

```
cgal_version()
```

Value

prints the CGAL version of the package

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