

Package ‘RcppCGAL’

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Type Package

Title 'Rcpp' Integration for 'CGAL'

Version 6.1

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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, K-D Tree nearest neighbors, and convex hull algorithms. For more information about how to use the header files, see the 'CGAL' documentation at <https://www.cgal.org>. Currently downloads version 6.1 of the 'CGAL' header files.

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Imports Rcpp, utils

Suggests knitr, rmarkdown, spelling, testthat (>= 3.0.0)

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

NeedsCompilation no

RoxygenNote 7.3.3

Encoding UTF-8

VignetteBuilder knitr

Biarch TRUE

Language en-US

URL <https://github.com/ericdunipace/RcppCGAL>

Config/testthat/edition 3

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RcppCGAL-package	<i>RcppCGAL: 'Rcpp' Integration for 'CGAL'</i>
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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, K-D Tree nearest neighbors, and convex hull algorithms. For more information about how to use the header files, see the 'CGAL' documentation at <https://www.cgal.org>. Currently downloads version 6.1 of the 'CGAL' header files.

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- The CGAL Project [copyright holder]

References

The CGAL Project. (2023). CGAL User and Reference Manual. Retrieved from <https://doc.cgal.org/latest/Manual/index.html>

See Also

Useful links:

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

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()
```

Details

This function will perform a very simple check to see if the CGAL folder exists in the include directory and that it is non-empty. If the folder exists and is non-empty, the function returns TRUE; otherwise the function returns FALSE.

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

Examples

```
cgal_version()
```

set_cgal	<i>Set the CGAL header file directory</i>
----------	---

Description

This package will set the CGAL_DIR environmental variable if you don't know how. Then you can re-install the RcppCGAL package and the installation should use your preferred source of the CGAL library. Note the cleaner functions will run automatically and replace the calls to std::err and exit in the C code. They have been tested on CGAL 5.6 so are not guaranteed to work with other versions of the CGAL headers.

Usage

```
set_cgal(path)
```

Arguments

path character vector. either a URL or system path

Value

Invisibly returns TRUE if the CGAL_DIR variable was successfully set or or FALSE if it was not.

See Also

[unset_cgal\(\)](#)

Examples

```
## Not run:  
set_cgal("path/to/include/CGAL")  
  
## End(Not run)
```

unset_cgal	<i>Unset the CGAL header file directory</i>
------------	---

Description

This package will remove the CGAL_DIR environmental variable.

Usage

```
unset_cgal(...)
```

Arguments

... Not used at this time

Value

Invisibly returns TRUE if the CGAL_DIR variable was successfully removed or or FALSE if it was not.

See Also

[unset_cgal\(\)](#)

Examples

```
## Not run:  
unset_cgal()  
  
## End(Not run)
```

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