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, 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 5.6.1 of the 'CGAL' header files.
License GPL-3
Imports Rcpp, utils
Suggests knitr, rmarkdown, spelling, testthat (>= 3.0.0)
BugReports https://github.com/ericdunipace/RcppCGAL/issues
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RoxygenNote 7.3.1
Encoding UTF-8
VignetteBuilder knitr
Biarch TRUE
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Config/testthat/edition 3
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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 5.6.1 of the 'CGAL' header files.

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• The CGAL Project [copyright holder]

References


See Also

Useful links:

• https://github.com/ericdunipace/RcppCGAL
• Report bugs at https://github.com/ericdunipace/RcppCGAL/issues
\texttt{cgal\_is\_installed} \hspace{1cm} \textit{Check if CGAL header files exist in RcppCGAL package}

\section*{Description}
Check if CGAL header files exist in RcppCGAL package

\section*{Usage}
\texttt{cgal\_is\_installed()}

\section*{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 \texttt{TRUE}; otherwise the function returns \texttt{FALSE}.

\section*{Value}
logical value

\section*{Examples}
\texttt{cgal\_is\_installed()}

\section*{cgal\_version} \hspace{1cm} \textit{Return CGAL version}

\section*{Description}
Return CGAL version

\section*{Usage}
\texttt{cgal\_version()}

\section*{Value}
prints the CGAL version of the package

\section*{Examples}
\texttt{cgal\_version()}

set_cgal

Set the CGAL header file directory

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 FALSE if it was not.

See Also

unset_cgal()

Examples

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

## End(Not run)

unset_cgal

Unset the CGAL header file directory

Description

This package will remove the CGAL_DIR environmental variable.

Usage

unset_cgal(...)
\textit{unset_cgal}

**Arguments**

\ldots Not used at this time

**Value**

Invisibley returns TRUE if the \texttt{CGAL_DIR} variable was successfully removed or or FALSE if it was not.

**See Also**

\texttt{unset_cgal()}

**Examples**

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

```r
# End(Not run)
```
Index

cgal_is_installed, 3
cgal_version, 3

RcppCGAL (RcppCGAL-package), 2
RcppCGAL-package, 2

set_cgal, 4

unset_cgal, 4
unset_cgal(), 4, 5