Package 'RcppInt64'

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Type Package

Title 'Rcpp'-Based Helper Functions to Pass 'Int64' and 'nanotime' Values Between 'R' and 'C++'

Version 0.0.5

Date 2024-04-30

Description 'Int64' values can be created and accessed via the 'bit64' package and its 'integer64' class which package the 'int64' representation cleverly into a 'double'. The 'nanotime' packages builds on this to support nanosecond-resolution timestamps. This packages helps conversions between 'R' and 'C++' via several helper functions provided via a single header file. A complete example client package is included as an illustration.

URL https://github.com/eddelbuettel/rcppint64

BugReports https://github.com/eddelbuettel/rcppint64/issues

License GPL (>= 2)

Imports Rcpp (>= 1.0.8)

LinkingTo Rcpp

Suggests tinytest, bit64, nanotime

RoxygenNote 6.0.1

Encoding UTF-8

NeedsCompilation yes

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`RcppInt64-package` *'Rcpp'-Based Helper Functions to Pass 'Int64' and 'nanotime' Values Between 'R' and 'C++'*

Description

'Int64' values can be created and accessed via the 'bit64' package and its 'integer64' class which package the 'int64' representation cleverly into a 'double'. The 'nanotime' packages builds on this to support nanosecond-resolution timestamps. This packages helps conversions between 'R' and 'C++' via several helper functions provided via a single header file. A complete example client package is included as an illustration.

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                        and 'nanotime' Values Between 'R' and 'C++'
```

Maintainer

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`Int64toInt64` *Integer64 to Integer64 round-trip demo*

Description

This function takes an integer64-valued input vector, converts it to the equivalent `int64_t` vector in C++, displays each element after first adding one, and returns the modified vector.

Usage

```
Int64toInt64(vec)
```

Arguments

`vec`	An `integer64`-classed vector from R

Value

A modified `integer64` vector where each element increased by one

Examples

```
# generate all powers of 10 fro 0 .. 18
if (requireNamespace("bit64", quietly=TRUE)) {
    v <- bit64::as.integer64(10^seq(0,18))
    # pass them to function which will add one to each, print  and return
    Int64toInt64(v)
}
```

`NanotimeToNanotime` *nanotime to nanotime round-trip demo*

Description

This function takes an nanotime-valued input vector, converts it to the equivalent `int64_t` vector in C++, displays each element after first adding one, and returns the modified vector.

Usage

```
NanotimeToNanotime(vec)
```

Arguments

`vec`	A `nanotime`-classed vector from R

Value

A modified `nanotime` vector where each element increased by one

Examples

```
# generate all powers of 10 fro 0 .. 18
if (requireNamespace("nanotime", quietly=TRUE)) {
    v <- nanotime::as.nanotime(10^seq(0,18))
    # pass them to function which will add one to each, print  and return
    NanotimeToNanotime(v)
}
```

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