Package ‘RcppFastFloat’

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Type Package
Title 'Rcpp' Bindings for the 'fast_float' Header-Only Library for Number Parsing
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Description Converting ascii text into (floating-point) numeric values is a very common problem. The 'fast_float' header-only C++ library by Daniel Lemire does it very well and very fast at up to or over to 1 gigabyte per second as described in more detail in <arXiv:2101.11408>. 'fast_float' is licensed under the Apache 2.0 license and provided here for use by other R packages via a simple 'LinkingTo:' statement.
License GPL (>= 2)
Imports Rcpp
LinkingTo Rcpp
Suggests tinytest
URL https://github.com/eddelbuettel/rcppfastfloat/
https://dirk.eddelbuettel.com/code/rcpp.fastfloat.html
BugReports https://github.com/eddelbuettel/rcppfastfloat/issues
RoxygenNote 6.0.1
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R topics documented:

as.double2 ................................................................. 2
parseExample ............................................................. 3
as.double2

Ultra efficient string-to-double Conversion

Description

For character vectors, as.double2() is a drop-in replacement for base::as.double().

Usage

as.double2(x)

Arguments

x
   A vector of type character.

See Also

as.double()

Examples

set.seed(8675309)
input <- sample(c(
   paste0(" \n\t\f\v", c(0.0, sqrt(seq(1, 10))), " \n\t\f\v"),
   c("NaN", "-NaN", "nan", "-nan",
    "Inf", "-Inf", "inf", "-inf", "infinity", "-infinity",
    NA_character_,
    " 1970-01-01", "1970-01-02 ")
))
input

suppressWarnings(as.double2(input)) # NAs introduced by coercion

comparison <- suppressWarnings(
   matrix(c(as.double(input), as.double2(input)),
      ncol = 2L,
      dimnames = list(NULL, c("as.double()", "as.double2()")))
)
comparison

all.equal(comparison[, "as.double()"], comparison[, "as.double2()"], compare.all = TRUE)
parseExample

Floating Point Parsing Example

Description
This example is adapted from the example of the upstream README.md file, and generalized to be called from R with variable input.

Usage
parseExample(input = "3.1416 xyz ", verbose = TRUE)

Arguments
- **input**: A character variable with text to parse including a simple default
- **verbose**: A boolean variable to show or suppress progress, defaults to true

Value
A floating point scalar is returned on success; in case of parsing failure the function exists via stop().

Examples
parseExample()
Index

as.double2, 2

parseExample, 3