

Package ‘RApiDatetime’

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Type Package

Title R API for 'Date' and 'Datetime'

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Description Access to the C-level R date and 'datetime' code is provided for C-level API use by other packages via registration of native functions. Client packages simply include a single header 'RApiDatetime.h' provided by this package, and also 'import' it. The R Core group is the original author of the code made available with slight modifications by this package.

URL <https://github.com/eddelbuettel/rapidatetime>,
<https://dirk.eddelbuettel.com/code/rapidatetime.html>

BugReports <https://github.com/eddelbuettel/rapidatetime/issues>

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OS_type unix

NeedsCompilation yes

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RApiDatetime-package *R API for 'Date' and 'Datetime'*

Description

Access to the C-level R date and 'datetime' code is provided for C-level API use by other packages via registration of native functions. Client packages simply include a single header 'RApiDatetime.h' provided by this package, and also 'import' it. The R Core group is the original author of the code made available with slight modifications by this package.

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Author(s)

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asDatePOSIXct *Conversion from POSIXct to Date*

Description

Conversion from POSIXct to Date

Usage

```
asDatePOSIXct(x, tz = "")
```

Arguments

| | |
|----|-----------------------------|
| x | A POSIXct vector |
| tz | An optional timezone string |

Details

This function provides a direct conversion from POSIXct to Date. As of R-3.5.1, conversion from POSIXct to Date creates an intermediate POSIXlt object. This intermediate POSIXlt object uses a non-trivial amount of memory. The direct conversion is more memory efficient, and therefore approximately twice as fast as the current solution in base R.

Value

A vector of Date objects

Author(s)

Joshua Ulrich

Examples

```
p <- .POSIXct(1540181413, "America/Chicago")
as.Date(p)                # Using UTC timezone
as.Date(p, "America/Chicago") # Using local timezone
asDatePOSIXct(p)         # Direct, using local timezone
```

rapistrptime

R Wrappers for strptime, asPOSIXlt etc

Description

Wrappers for C-level strptime etc functions

Usage

```
rapistrptime(x, fmt, tz = "")
rapiAsPOSIXlt(x, tz = "")
rapiAsPOSIXct(x, tz = "")
rapiFormatPOSIXlt(x, fmt, usetz = FALSE)
rapiPOSIXlt2D(x)
rapiD2POSIXlt(x)
```

Arguments

| | |
|-------|---|
| x | Vector with one or character elements to be parsed |
| fmt | The format string, see help("strptime") for details. |
| tz | An optional timezone string |
| usetz | An optional logical variable selecting use of the timezone. |

Details

These functions provide (additional) entry points from R to the C-level function of the R API. They are provided here mainly for testing (the C level access) as R itself exposes the function

Value

A vector with POSIXlt datetime objects

Author(s)

Dirk Eddelbuettel

Examples

```
op <- options(digits.secs=6)
x <- rapistrptime("2017-01-02 03:04:05.678", "%Y-%m-%d %H:%M:%OS")
format(x)
rapiAsPOSIXlt(as.POSIXct(x))
rapiAsPOSIXct(x)
rapiFormatPOSIXlt(x, "%Y-%b-%d %H:%M:%OS")
options(op)
rapiPOSIXlt2D(x)
rapiD2POSIXlt(as.Date("2017-01-02"))
```

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