

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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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 'RApiDate-time.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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Maintainer

Dirk Eddelbuettel <edd@debian.org>

Author(s)

Dirk Eddelbuettel

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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