

# Package ‘RApiDatetime’

August 14, 2021

**Type** Package

**Title** R API Datetime

**Version** 0.0.6

**Date** 2021-08-13

**Author** Dirk Eddelbuettel

**Maintainer** Dirk Eddelbuettel <edd@debian.org>

**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>

**License** GPL (>= 2)

**RoxygenNote** 6.0.1

**NeedsCompilation** yes

**Repository** CRAN

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## R topics documented:

RApiDatetime-package . . . . .	2
asDatePOSIXct . . . . .	2
rapistrptime . . . . .	3
<b>Index</b>	<b>5</b>

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RApiDatetime-package    *A short title line describing what the package does*

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### **Description**

A more detailed description of what the package does. A length of about one to five lines is recommended.

### **Details**

This section should provide a more detailed overview of how to use the package, including the most important functions.

### **Author(s)**

Your Name, email optional.

Maintainer: Your Name <your@email.com>

### **References**

This optional section can contain literature or other references for background information.

### **See Also**

Optional links to other man pages

### **Examples**

# Optional simple examples of the most important functions

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asDatePOSIXct                    *Conversion from POSIXct to Date*

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### **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
```

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rapistrptime

*R Wrappers for strptime, asPOSIXlt etc*


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**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"))
```

# Index

## \* **package**

RApiDatetime-package, [2](#)

asDatePOSIXct, [2](#)

rapiAsPOSIXct (rapistrptime), [3](#)

rapiAsPOSIXlt (rapistrptime), [3](#)

rapiD2POSIXlt (rapistrptime), [3](#)

RApiDatetime (RApiDatetime-package), [2](#)

RApiDatetime-package, [2](#)

rapiFormatPOSIXlt (rapistrptime), [3](#)

rapiPOSIXlt2D (rapistrptime), [3](#)

rapistrptime, [3](#)