

Package ‘datefixR’

February 10, 2023

Title Standardize Dates in Different Formats or with Missing Data

Version 1.4.1

Description There are many different formats dates are commonly represented with: the order of day, month, or year can differ, different separators (“-”, “/”, or whitespace) can be used, months can be numerical, names, or abbreviations and year given as two digits or four. ‘datefixR’ takes dates in all these different formats and converts them to R’s built-in date class. If ‘datefixR’ cannot standardize a date, such as because it is too malformed, then the user is told which date cannot be standardized and the corresponding ID for the row. ‘datefixR’ also allows the imputation of missing days and months with user-controlled behavior.

License GPL (>= 3)

URL <https://docs.ropensci.org/datefixR/>,
<https://github.com/ropensci/datefixR>

BugReports <https://github.com/ropensci/datefixR/issues>

Depends R (>= 4.1.0)

Imports lifecycle, Rcpp, rlang, stringr

Suggests DT, htmltools, knitr, readxl, rmarkdown, shiny, shinytest2, spelling, testthat (>= 3.0.0), withr, parsedate, readr, png, pkgbuild

VignetteBuilder knitr

Config/testthat/edition 3

Config/testthat/parallel true

Encoding UTF-8

Language en-US

LazyData true

RoxygenNote 7.2.3

LinkingTo Rcpp

NeedsCompilation yes

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| datefixR | <i>datefixR: Standardize Dates in Different Formats or with Missing Data</i> |
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Description

There are many different formats dates are commonly represented with: the order of day, month, or year can differ, different separators ("-", "/", or whitespace) can be used, months can be numerical, names, or abbreviations and year given as two digits or four. datefixR takes dates in all these different formats and converts them to R's built-in date class. If datefixR cannot standardize a date, such as because it is too malformed, then the user is told which date cannot be standardized and the corresponding ID for the row. datefixR also allows the imputation of missing days and months with user-controlled behavior.

Get started by reading `vignette("datefixR")`

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See Also

Useful links:

- <https://docs.ropensci.org/datefixR/>
- <https://github.com/ropensci/datefixR/>
- Report bugs at <https://github.com/ropensci/datefixR/issues>

exampledates

Example dataset of dates in different formats

Description

A toy dataset to use with datefixR functions.

Usage

exampledates

Format

A data frame with 5 rows and 3 variables:

id Row ID (numeric).

some.dates Dates in different formats (character).

some.more.dates Additional dates in different formats (character).

fix_date_app

Shiny application standardizing date data in csv of excel files

Description

A shiny application which allows users to standardize dates using a graphical user interface (GUI). Most features of datefixR are supported including imputing missing date data. Data can be provided as CSV (comma-separated value) or XLSX (Excel) files. Processed datasets can be downloaded as CSV files. Please note, the dependencies for this app (DT, htmltools, readxl, and shiny) are not installed alongside datefixR. This allows datefixR to be installed on secure systems where these packages may not be allowed. If one of these dependencies is not installed on the system when this function is called, then the user will have the option of installing them.

Usage

```
fix_date_app(theme = "datefixR")
```

Arguments

theme Color theme for shiny app. Either "datefixR" (datefixR colors) or "none"(default shiny app styling).

Value

A shiny app.

See Also

The [shiny](#) package.

Examples

```
## Not run:
fix_date_app()

## End(Not run)
```

fix_date_char

Convert improperly formatted date to R's Date class

Description

Converts a character vector (or single character object) from improperly formatted dates to R's Date class. Supports numerous separators including /, -, or white space. Supports all-numeric, abbreviation or long-hand month notation. Where day of the month has not been supplied, the first day of the month is imputed by default. Either DMY or YMD is assumed by default. However, the US system of MDY is supported via the format argument.

Usage

```
fix_date_char(
  dates,
  day.impute = 1,
  month.impute = 7,
  format = "dmy",
  excel = FALSE
)
```

Arguments

dates Character vector to be converted to R's date class.

day.impute Integer. Day of the month to be imputed if not available. defaults to 1. If day.impute = NA then NA will be imputed for the date instead and a warning will be raised. If day.impute = NULL then instead of imputing the day of the month, the function will fail

| | |
|--------------|--|
| month.impute | Integer. Month to be imputed if not available. Defaults to 7 (July). If month.impute = NA then NA will be imputed for the date instead and a warning will be raised. If month.impute = NULL then instead of imputing the month, the function will fail. |
| format | Character. The format which a date is mostly likely to be given in. Either "dmy" (default) or "mdy". If year appears to have been given first, then YMD is assumed for the subject (format argument is not used for these observations) |
| excel | Logical. If a date is given as only numbers (no separators), and is more than four digits, should the date be assumed to be from Excel which counts the number of days from 1900-01-01? In most programming languages (including R), days are instead calculated from 1970-01-01 and this is the default for this function (excel = FALSE) |

Value

A vector of elements belonging to R's built in Date class with the following format yyyy-mm-dd.

See Also

[fix_date_df](#) which is similar to `fix_date_char()` except is applicable to columns of a data frame.

Examples

```
bad.date <- "02 03 2021"
fixed.date <- fix_date_char(bad.date)
fixed.date
```

fix_date_df

Clean up messy date columns

Description

Tidies a dataframe object which has date columns entered via a free-text box (possibly by different users) and are therefore in a non-standardized format. Supports numerous separators including /, -, or space. Supports all-numeric, abbreviation, or long-hand month notation. Where day of the month has not been supplied, the first day of the month is imputed. Either DMY or YMD is assumed by default. However, the US system of MDY is supported via the format argument.

Usage

```
fix_date_df(
  df,
  col.names,
  day.impute = 1,
  month.impute = 7,
  id = NULL,
  format = "dmy",
  excel = FALSE
)
```

Arguments

| | |
|---------------------------|---|
| <code>df</code> | A dataframe or tibble object with messy date column(s) |
| <code>col.names</code> | Character vector of names of columns of messy date data |
| <code>day.impute</code> | Integer. Day of the month to be imputed if not available. defaults to 1. If <code>day.impute = NA</code> then NA will be imputed for the date instead and a warning will be raised. If <code>day.impute = NULL</code> then instead of imputing the day of the month, the function will fail |
| <code>month.impute</code> | Integer. Month to be imputed if not available. Defaults to 7 (July). If <code>month.impute = NA</code> then NA will be imputed for the date instead and a warning will be raised. If <code>month.impute = NULL</code> then instead of imputing the month, the function will fail. |
| <code>id</code> | Name of column containing row IDs. By default, the first column is assumed. |
| <code>format</code> | Character. The format which a date is mostly likely to be given in. Either "dmy" (default) or "mdy". If year appears to have been given first, then YMD is assumed for the subject (format argument is not used for these observations) |
| <code>excel</code> | Logical. If a date is given as only numbers (no separators), and is more than four digits, should the date be assumed to be from Excel which counts the number of days from 1900-01-01? In most programming languages (including R), days are instead calculated from 1970-01-01 and this is the default for this function (<code>excel = FALSE</code>) |

Value

A dataframe or tibble object. Dependent on the type of `df`. Selected columns are of type Date with the following format `yyyy-mm-dd`

See Also

[fix_date_char](#) which is similar to `fix_date_df()` except can only be applied to character vectors.

Examples

```
data(exampledates)
fixed.df <- fix_date_df(exampledates, c("some.dates", "some.more.dates"))
fixed.df
```

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