Package 'unstruwwel'

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Title Detect and Parse Historic Dates

Version 0.2.1

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Description
Automatically converts language-specific verbal information, e.g., ``1st half of the 19th century,'' to its standardized numerical counterparts, e.g., ``1801-01-01/1850-12-31.'' It follows the recommendations of the 'MIDAS' ('Marburger Informations-, Dokumentations- und Administrations-System'), see <doi:10.11588/artdok.00003770>.

License GPL-3

Encoding UTF-8

LazyData true

RoxygenNote 7.3.2

URL https://github.com/stefanieschneider/unstruwwel

BugReports https://github.com/stefanieschneider/unstruwwel/issues

Suggests testthat, roxygen2

Imports R6, assertthat, lubridate, magrittr, stringr, tibble, tidyr, purrr, dplyr, rlang

Depends R (>= 2.10)

NeedsCompilation no

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Repository CRAN

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`Century` *Set a Century and Get its Time Interval*

Description

Set a Century and Get its Time Interval

Set a Century and Get its Time Interval

Details

An Object of `R6Class` with methods to set common time periods and specifications for centuries.

Super class

`unstruwwel::Periods` -> `Century`

Methods

Public methods:

- `Century$new()`
- `Century$clone()`

Method `new()`**:** Helper function to specify the beginning of a century.

Helper function to specify the middle of a century.

Helper function to specify the end of a century.

Create a century.

Usage:

```
Century$new(value)
```

Arguments:

`value` A numerical scalar.

Returns: Object of `R6Class` with methods to set common time periods and specifications for centuries.

Method `clone()`**:** The objects of this class are cloneable with this method.

Usage:

```
Century$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

Examples

```
if (interactive()) {
x <- Century$new(15)
x$take(2, type = "third")
}
```

Decade *Set a Decade and Get its Time Interval*

Description

Set a Decade and Get its Time Interval

Set a Decade and Get its Time Interval

Details

An Object of `R6Class` with methods to set common time periods and specifications for decades.

Super class

`unstruwwel::Periods` -> `Decade`

Methods

Public methods:

- `Decade$new()`
- `Decade$clone()`

Method `new()`**:** Helper function to specify the beginning of a decade.
Helper function to specify the middle of a decade.
Helper function to specify the end of a decade.
Create a decade.

Usage:

```
Decade$new(value, official_def = FALSE)
```

Arguments:

`value` A numerical scalar.

`official_def` If 'TRUE', the official definition that begins with the year 1 is used.

Returns: Object of `R6Class` with methods to set common time periods and specifications for decades.

Method `clone()`**:** The objects of this class are cloneable with this method.

Usage:

```
Decade$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

Examples

```
if (interactive()) {
x <- Decade$new(1520)
x$take(1, type = "half")
}
```

`languages` *Language Information*

Description

A dataset containing the names, date orders, stop words, simplifications, and replacements of 4 languages.

Usage

```
data(languages)
```

Format

A tibble with 4 rows and 5 variables.

`midas` *MIDAS Standardization Examples*

Description

A dataset containing eight thousand standardization examples of the MIDAS (Marburger Informations-, Dokumentations- und Administrations-System).

Usage

```
data(midas)
```

Format

A vector of length 8115.

Periods *Set a Period and Get its Time Interval*

Description

Set a Period and Get its Time Interval

Set a Period and Get its Time Interval

Details

An Object of `R6Class` with methods to set common time periods and specifications for time periods.

Public fields

`.interval` Stores a time interval.

`fuzzy` Either '-1' (approximate) or '1' (uncertain).

`express` Either '-1' (before) or '1' (after).

Active bindings

`.interval` Stores a time interval.

`interval` Convert and return a POSIXt time interval.

`time_span` Convert and return a time span in years.

`iso_format` Convert and return a date in ISO 8601.

Methods

Public methods:

- `Periods$new()`
- `Periods$set_additions()`
- `Periods$take()`
- `Periods$clone()`

Method `new()`**:** Helper function to specify a time period.

Create a time period.

Usage:

```
Periods$new(...)
```

Arguments:

`...` Intervals, numerical scalars, or objects of class `Period`.

`x` A numerical scalar. The range of valid values depends on `type`. If `type` is `"early"`, `"mid"`, or `"late"`, `x` is ignored.

`type` A character scalar. The following values are supported: `"early"`, `"mid"`, `"late"`, `"quarter"`, `"third"`, and `"half"`. If `type` is 'NULL', `x` defines a year or decade.

Method `set_additions()`**:** Set additions for a time period.

Usage:

```
Periods$set_additions(x)
```

Arguments:

`x` A character vector.

Method `take()`**:** Specify a period.

Usage:

```
Periods$take(x = NA, type = NA, ignore_errors = FALSE)
```

Arguments:

`x` A numerical scalar. The range of valid values depends on `type`. If `type` is `"early"`, `"mid"`, or `"late"`, `x` is ignored.

`type` A character scalar. The following values are supported: `"early"`, `"mid"`, `"late"`, `"quarter"`, `"third"`, and `"half"`. If `type` is 'NULL', `x` defines a year or decade.

`ignore_errors` If 'TRUE', error messages are ignored.

Returns: Object of `R6Class` with methods to set common time periods and specifications for time periods.

Method `clone()`**:** The objects of this class are cloneable with this method.

Usage:

```
Periods$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

`schemes` *Language-Specific Scheme Variants*

Description

A dataset containing the values, schemes, and languages for over three thousand language-specific scheme variants.

Usage

```
data(schemes)
```

Format

A tibble with 3583 rows and 3 variables.

unstruwwel *Detect and Parse Historic Dates*

Description

Detect and Parse Historic Dates, e.g., to ISO 8601:2-2019.

Usage

```
unstruwwel(
  x,
  language = NULL,
  verbose = TRUE,
  scheme = "time-span",
  fuzzify = c(0, 0)
)
```

Arguments

x	Input vector. Either a character vector, or something coercible to one.
language	Language code of the input vector as defined in ISO 639-1. If NULL, language is detected automatically.
verbose	If TRUE, additional diagnostics are printed.
scheme	Scheme code of the output list. Either time-span, iso-format, or object.
fuzzify	A numerical vector of length 2 to extend the interval of approximate or uncertain time periods. This is only applied if scheme == "time-span".

Value

A named list of vectors or objects of R6Class.

Note

Although multiple languages can be detected, only dominant ones are ultimately set.

Examples

```
if (interactive()) {
unstruwwel("1. Hälfte 19. Jahrhundert", language = "de")
unstruwwel("circa between 1901 and 1905", language = "en")
}
```

Year *Set a Year and Get its Time Interval*

Description

Set a Year and Get its Time Interval

Set a Year and Get its Time Interval

Details

An Object of `R6Class` with methods to set common time periods and specifications for years.

Super class

`unstruwwel::Periods` -> `Year`

Methods

Public methods:

- `Year$new()`
- `Year$take()`
- `Year$clone()`

Method `new()`**:** Helper function to specify a time period.

Helper function to specify a season.

Helper function to specify a month.

Create a year.

Usage:

```
Year$new(value)
```

Arguments:

`value` A numerical scalar.

Returns: Object of `R6Class` with methods to set common time periods and specifications for years.

Method `take()`**:** Specify a year.

Usage:

```
Year$take(x = NA, type = NA, ignore_errors = FALSE)
```

Arguments:

`x` A numerical scalar. The range of valid values depends on `type`. If `type` is `"spring"`, `"summer"`, `"autumn"`, or `"winter"`, `x` is ignored.

`type` A character scalar. The following values are supported: `"spring"`, `"summer"`, `"autumn"`, `"winter"`, and all English-language months.

`ignore_errors` If 'TRUE', error messages are ignored.

Returns: Object of `R6Class` with methods to set common time periods and specifications for years.

Method `clone()`**:** The objects of this class are cloneable with this method.

Usage:

```
Year$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

Examples

```
if (interactive()) {
x <- Year$new(1520)
x$take(15, type = "june")
}
```

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