Package ‘timeperiodsR’

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Title Simple Definition Of Time Intervals
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Description Simple definition of time intervals for the current, previous, and next week, month, quarter and year.

BugReports https://github.com/selesnow/timeperiodsR/issues

Imports lubridate
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Simple Definition Of Time Intervals

Description

Simple definition of time intervals for the current, previous, and next week, month, quarter and year.

Details

The DESCRIPTION file:

Package: timeperiodsR
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Title: Simple Definition Of Time Intervals
Version: 0.6.2
Date: 2020-04-03
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- as_timeperiod Convert date or string vector to timeperiod.
- check_dayoffs Check if the day is an official day off.
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- last_n_days Start and end of last n days.
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- last_n_quarters Start and end of last n quarters.
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- this_month Start and end of month.
- this_quarter Start and end of quarter.
- this_week Start and end of week.
- this_year Start and end of year.
- timeperiodsR-package Simple Definition Of Time Intervals.
- weekends Get vector with weekends.
as_timeperiod

Convert date or string vector to timeperiod.

Description

Convert any date or string vector to tpr class.

Usage

as_timeperiod(x)

Arguments

x Date or string vector

Value

Object of tpr class

Author(s)

Alexey Seleznev

See Also

See custom_period()

Examples

dates <- as.Date(c("2019-09-11",
                   "2019-09-02",
                   "2019-10-11",
                   "2019-08-30"))

dates_tpr <- as_timeperiod(dates)
check_dayoffs

check_dayoffs
Check if the day is an official day off

Description
Check any date or date vector for an official day off or not.

Usage

\[
\text{check\_dayoffs}(\text{date} = \text{NULL}, \\
\text{year} = \text{NULL}, \\
\text{month} = \text{NULL}, \\
\text{day} = \text{NULL}, \\
\text{cc} = \text{getOption("timeperiodsR.official\_day\_offs\_country")}, \\
\text{pre} = \text{getOption("timeperiodsR.official\_day\_offs\_pre")}, \\
\text{include\_custom\_day\_offs} = \text{TRUE})
\]

Arguments

- \text{year} Year for check
- \text{month} Month for check
- \text{day} Month for check
- \text{date} Date, or date vector for checking
- \text{cc} Country, one of ru, ua, kz, by
- \text{pre} Including shorter working days, 0 or 1
- \text{include\_custom\_day\_offs} Including custom dayoffs from options or global variables

Details
Function use 'isDayOff() API'.
For get official day offs for your country you must install httr package and switch options timeperiodsR.official_day_offs_country to TRUE or set system variable TPR\_DAY\_OFFS=TRUE.
Now allow next country:

- **ru** Russia
- **ua** Ukraine
- **kz** Kazakhstan
- **by** Belarus

Also you can set default country by options or system variable:

- **option** timeperiodsR.official_day_offs_country
- **system variable** TPR\_COUNTRY
And you can include or exclude shorter working days. Using option `timeperiodsR.official_day_offs_pre`:

- 0 Exclude shorter work days
- 1 Include shorter work days

Day marks:

- 0 Workday
- 1 Day off
- 2 Shorten day off
- 3 Custom day off

You can set your custom day offs, for example it can be your vacation. Using option `timeperiodsR.custom_day_offs` or system variable `TPR_CUSTOM_DAY_OFFS`. In `TPR_CUSTOM_DAY_OFFS` you can set custom day offs like comma or semicolon list of dates in format `YYYY-MM-DD`.

**Value**

Named vector with date and marks

**Author(s)**

Alexey Seleznev

**References**

Official documentation for isDayOff API

**Examples**

```r
custom_period( start, end, part = getOption("timeperiodsR.parts"))
```
**custom_period**

**Arguments**

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<th>Argument</th>
<th>Description</th>
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<tbody>
<tr>
<td>start</td>
<td>Start date in YYYY-MM-DD format</td>
</tr>
<tr>
<td>end</td>
<td>End date in YYYY-MM-DD format</td>
</tr>
<tr>
<td>part</td>
<td>Part of period you need to receive, one of &quot;all&quot;, &quot;start&quot;, &quot;end&quot;, &quot;sequence&quot;, &quot;length&quot;, &quot;workdays&quot;, &quot;weekends&quot;, &quot;first_workday&quot;, &quot;last_workday&quot;, &quot;first_weekend&quot;, &quot;last_weekend&quot;, &quot;length&quot;. See details.</td>
</tr>
</tbody>
</table>

**Details**

You can get object of tpr class with all components or specify which component you need, use `part` for manage this option:

- all - get all components
- start - get only first date of period
- end - get only last date of period
- start - get vector of all dates in period
- length - get number of dates in period

**Value**

Object of tpr class

**Author(s)**

Alexey Seleznev

**Examples**

```r
## To create tpr object between two dates
customper <- custom_period(start = "2019-09-01",
                           end = "2019-09-05")

## To get vector of date sequences
seq(customper)

## Get number of days of previous months
length(customper)

## To get start of end dates
start(customper)
end(customper)
```
first_weekend

*Get first weekend day in period.*

**Description**

Method for get first weekend in timeperiod.

**Usage**

```
first_weekend(x)
```

**Arguments**

- `x`: tpr object or date vector

**Value**

Vector of dates

**Author(s)**

Alexey Seleznev

**Examples**

```
pm <- previous_month()
# get first weekend
pm_first_weekend <- first_weekend(pm)
```

---

first_workday

*Get first workday day in period.*

**Description**

Method for get first workday in timeperiod.

**Usage**

```
first_workday(x)
```

**Arguments**

- `x`: tpr object or date vector

**Value**

Vector of dates
last_n_days

Author(s)
Alexey Seleznev

Examples
```r
pm <- previous_month()
# get first workday
pm_first_workday <- first_workday(pm)
```

Description
Defines first and last date in previous period

Usage
```r
last_n_days(x = Sys.Date(),
  n = 1,
  part = getOption("timeperiodsR.parts"),
  include_current = F)
```

Arguments
- `x` Date object
- `n` Number of periods for offset
- `part` Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.
- `include_current` If TRUE including current period in sequence

Details
You can get object of tpr class with all components or specify which component you need, use `part` for manage this option:
- `all` - get all components
- `start` - get only first date of period
- `end` - get only last date of period
- `start` - get vector of all dates in period
- `length` - get number of dates in period

Value
Object of tpr class
Author(s)

Alexey Seleznev

See Also

For get next other periods see `last_n_quarters()`, `last_n_months()`, `last_n_years()`, `last_n_weeks()`

Examples

```r
## To get start, end and sequence of last 10 days,
## exclude today
last10days <- last_n_days(n = 10)

## include today
last10days_2 <- last_n_days(n = 10, include_current = TRUE)

## To get vector of date sequences
last_n_days(n = 10, part = "sequence")
last_n_days(n = 10)$sequence
seq(last10days)
```

---

`last_n_months`  
Start and end of last n months

Description

Defines first and last date in previous period

Usage

```
last_n_months(x = Sys.Date(),
  n = 1,
  part = getOption("timeperiodsR.parts"),
  include_current = F)
```

Arguments

- `x`  
  Date object
- `n`  
  Number of periods for offset
- `part`  
  Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.
- `include_current`  
  If TRUE including current period in sequence
Details

You can get object of tpr class with all components or specify which component you need, use `part` for manage this option:

- all - get all components
- start - get only first date of period
- end - get only last date of period
- start - get vector of all dates in period
- length - get number of dates in period

Value

Object of tpr class

Author(s)

Alexey Seleznev

See Also

For get next other periods see `last_n_quarters()`, `last_n_days()`, `last_n_years()`, `last_n_weeks()`

Examples

```r
## To get start, end and sequence of last 2 months,
## exclude current month
last2month <- last_n_months(n = 2)

## include current month
last2month_2 <- last_n_months(n = 2, include_current = TRUE)

## To get vector of date sequences
last_n_months(n = 2, part = "sequence")
last_n_months(n = 2)$sequence
seq(last2month)

## Get number of days of last 2 months
day_nums <- last_n_months(n = 2, part = "length")
last_n_months()$length
length(last2month)
```
last_n_quarters

Start and end of last n quarters

Description
Defines first and last date in previous period

Usage
last_n_quarters(x = Sys.Date(),
n = 1,
part = getOption("timeperiodsR.parts"),
include_current = F)

Arguments
- **x**: Date object
- **n**: Number of periods for offset
- **part**: Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.
- **include_current**: If TRUE including current period in sequence

Details
You can get object of tpr class with all components or specify which component you need, use **part** for manage this option:

- all - get all components
- start - get only first date of period
- end - get only last date of period
- start - get vector of all dates in period
- length - get number of dates in period

Value
Object of tpr class

Author(s)
Alexey Seleznev

See Also
For get next other periods see last_n_months(), last_n_days(), last_n_years(), last_n_weeks()
Examples

```r
## To get start, end and sequence of last 2 quarters,
## exclude current quarter
last2quarters <- last_n_quarters(n = 2)

## include current quarter
last2quarters_2 <- last_n_quarters(n = 2, include_current = TRUE)

## To get vector of date sequences
last_n_quarters(n = 2, part = "sequence")
seq(last2quarters)

## Get number of days of last 2 quarters
day_nums <- last_n_quarters(n = 2, part = "length")
length(last2quarters)
```

Description

Defines first and last date in previous period

Usage

```r
last_n_weeks(x = Sys.Date(),
             n = 1,
             part = getOption("timeperiodsR.parts"),
             week_start = 1,
             include_current = F)
```

Arguments

- **x**: Date object
- **n**: Number of periods for offset
- **part**: Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.
- **week_start**: Start of week, default = 1 is Monday, 7 is Sunday
- **include_current**: If TRUE including current period in sequence
Details

You can get object of tpr class with all components or specify which component you need, use `part` for manage this option:

- `all` - get all components
- `start` - get only first date of period
- `end` - get only last date of period
- `start` - get vector of all dates in period
- `length` - get number of dates in period

Value

Object of tpr class

Author(s)

Alexey Seleznev

See Also

For get next other periods see `last_n_months()`, `last_n_days()`, `last_n_years()`, `last_n_quarters()`

Examples

```r
## To get start, end and sequence of last 2 weeks,
## exclude current week
last2weeks <- last_n_weeks(n = 2)

## include current week
last2weeks_2 <- last_n_weeks(n = 2, include_current = TRUE)

## Get last 2 week with start on Sunday
lastWeek <- last_n_weeks(n = 2, week_start = 7)

## To get vector of date sequences
last_n_weeks(n = 2, part = "sequence")
last_n_weeks(n = 2)$sequence
seq(last2weeks)

## Get number of days of last 2 weeks
day_nums <- last_n_weeks(n = 2, part = "length")
last_n_weeks()$length
length(last2weeks)
```
last_n_years

Start and end of last n years

Description

Defines first and last date in previous period

Usage

last_n_years(x = Sys.Date(),
   n = 1,
   part = getOption("timeperiodsR.parts"),
   include_current = F)

Arguments

x Date object
n Number of periods for offset
part Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.
include_current If TRUE including current period in sequence

Details

You can get object of tpr class with all components or specify which component you need, use part for manage this option:

- all - get all components
- start - get only first date of period
- end - get only last date of period
- start - get vector of all dates in period
- length - get number of dates in period

Value

Object of tpr class

Author(s)

Alexey Seleznev

See Also

For get next other periods see last_n_months(), last_n_days(), last_n_weeks(), last_n_quarters()
Examples

```r
## To get start, end and sequence of last 2 years,
## exclude current year
last2years <- last_n_years(n = 2)

## include current year
last2years_2 <- last_n_years(n = 2, include_current = TRUE)

## To get vector of date sequences
last_n_years(n = 2, part = "sequence")
last_n_years(n = 2)$sequence
seq(last2years)

## Get number of days of last 2 years
day_nums <- last_n_years(n = 2, part = "length")
last_n_years()$length
length(last2years)
```

---

### last_weekend

*Get last weekend day in period.*

**Description**

Method for get last weekend in timeperiod.

**Usage**

`last_weekend(x)`

**Arguments**

- `x` tpr object or date vector

**Value**

Vector of dates

**Author(s)**

Alexey Seleznov

**Examples**

```r
pm <- previous_month()
# get last weekend
pm_last_weekend <- last_weekend(pm)
```
last_workday

Get last workday day in period.

Description
Method for get last workday in timeperiod.

Usage
last_workday(x)

Arguments
x
tpr object or date vector

Value
Vector of dates

Author(s)
Alexey Seleznev

Examples
pm <- previous_month()
# get last workday
pm_last_workday <- last_workday(pm)

next_month

Start and end of next month

Description
Defines first and last date in next month and all dates in month

Usage
next_month(x = Sys.Date(),
n = 1,
part = getOption("timeperiodsR.parts"))

Arguments
x
Date object
n
Number of periods for offset
part
Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.
**Details**

You can get object of tpr class with all components or specify which component you need, use part for manage this option:

- all - get all components
- start - get only first date of period
- end - get only last date of period
- start - get vector of all dates in period
- length - get number of dates in period

**Value**

Object of tpr class

**Author(s)**

Alexey Seleznev

**See Also**

For get next other periods see `next_week()`, `next_quarter()`, `next_year()`

**Examples**

```r
## To get start, end and sequence of next month
nextmonth <- next_month()

## To get vector of date sequences
next_month(part = "sequence")
next_month()$sequence
seq(nextmonth)

## Get number of days of next months
day_nums <- next_month(part = "length")
next_month()$length
length(nextmonth)
```

---

**next_n_days**

Start and end of next n days

**Description**

Defines first and last date in next period
Usage

```r
next_n_days(x = Sys.Date(),
    n = 1,
    part = getOption("timeperiodsR.parts"),
    include_current = F)
```

Arguments

- **x**: Date object
- **n**: Number of periods for offset
- **part**: Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.
- **include_current**: If TRUE including current period in sequence

Details

You can get object of tpr class with all components or specify which component you need, use `part` for manage this option:

- **all**: get all components
- **start**: get only first date of period
- **end**: get only last date of period
- **start**: get vector of all dates in period
- **length**: get number of dates in period

Value

Object of tpr class

Author(s)

Alexey Seleznev

See Also

For get next other periods see `next_n_quarters()`, `next_n_months()`, `next_n_years()`, `next_n_weeks()`

Examples

```r
## To get start, end and sequence of next 10 days,
## exclude today
next10days <- next_n_days(n = 10)

## include today
next10days_2 <- next_n_days(n = 10, include_current = TRUE)

## To get vector of date sequences
```
### next_n_months

Start and end of next n months

<table>
<thead>
<tr>
<th>next_n_months</th>
<th>Start and end of next n months</th>
</tr>
</thead>
</table>

**Description**

Defines first and last date in next period

**Usage**

```r
next_n_months(x = Sys.Date(),
             n = 1,
             part = getOption("timeperiodsR.parts"),
             include_current = F)
```

**Arguments**

- **x** Date object
- **n** Number of periods for offset
- **part** Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.
- **include_current** If TRUE including current period in sequence

**Details**

You can get object of tpr class with all components or specify which component you need, use `part` for manage this option:

- **all** - get all components
- **start** - get only first date of period
- **end** - get only last date of period
- **start** - get vector of all dates in period
- **length** - get number of dates in period

**Value**

Object of tpr class

**Author(s)**

Alexey Seleznev
### next_n_quarters

**Start and end of next n quarters**

**Description**

Defines first and last date in next period

**Usage**

```r
next_n_quarters(x = Sys.Date(), 
    n = 1, 
    part = getOption("timeperiodsR.parts"), 
    include_current = F)
```

**Arguments**

- `x` Date object
- `n` Number of periods for offset
- `part` Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.
- `include_current` If TRUE including current period in sequence

**Examples**

```r
## To get start, end and sequence of next 2 months, 
## exclude current month
next2month <- next_n_quarters(n = 2)

## include current month
next2month_2 <- next_n_quarters(n = 2, include_current = TRUE)

## To get vector of date sequences
next_n_months(n = 2, part = "sequence")
next_n_months(n = 2)$sequence
seq(next2month)

## Get number of days of next 2 months
day_nums <- next_n_months(part = "length")
next_n_months()$length
length(next2month)
```

**See Also**

For get next other periods see `next_n_quarters()`, `next_n_days()`, `next_n_years()`, `next_n_weeks()`
Details
You can get object of tpr class with all components or specify which component you need, use `part` for manage this option:

- all - get all components
- start - get only first date of period
- end - get only last date of period
- start - get vector of all dates in period
- length - get number of dates in period

Value
Object of tpr class

Author(s)
Alexey Seleznev

See Also
For get next other periods see `next_n_months()`, `next_n_days()`, `next_n_years()`, `next_n_weeks()`

Examples
```r
## To get start, end and sequence of next 2 quarters,
## exclude current quarter
next2quarters <- next_n_quarters(n = 2)

## include current quarter
next2quarters_2 <- next_n_quarters(n = 2, include_current = TRUE)

## To get vector of date sequences
next_n_quarters(n = 2, part = "sequence")
next_n_quarters(n = 2)$sequence
seq(next2quarters)

## Get number of days of next 2 quarters
day_nums <- next_n_quarters(part = "length")
next_n_quarters()$length
length(next2quarters)
```
**next_n_weeks**

Start and end of next n weeks

**Description**

Defines first and last date in next period

**Usage**

```r
next_n_weeks(x = Sys.Date(),
             n = 1,
             part = getOption("timeperiodsR.parts"),
             week_start = 1,
             include_current = F)
```

**Arguments**

- `x`: Date object
- `n`: Number of periods for offset
- `part`: Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.
- `week_start`: Start of week, default = 1 is Monday, 7 is Sunday
- `include_current`: If TRUE including current period in sequence

**Details**

You can get object of tpr class with all components or specify which component you need, use `part` for manage this option:

- all - get all components
- start - get only first date of period
- end - get only last date of period
- start - get vector of all dates in period
- length - get number of dates in period

**Value**

Object of tpr class

**Author(s)**

Alexey Seleznev
See Also

For get next other periods see `last_n_months()`, `last_n_days()`, `last_n_years()`, `last_n_quarters()`.

Examples

```r
## To get start, end and sequence of next 2 weeks,
## exclude current week
next2weeks <- next_n_weeks(n = 2)

## include current week
next2weeks_2 <- next_n_weeks(n = 2, include_current = TRUE)

## Get next 2 week with start on Sunday
nextWeek <- next_n_weeks(n = 2, week_start = 7)

## To get vector of date sequences
next_n_weeks(n = 2, part = "sequence")
next_n_weeks(n = 2)$sequence
seq(next2weeks)

## Get number of days of next 2 weeks
day_nums <- next_n_weeks(part = "length")
next_n_weeks()$length
length(next2weeks)
```

Description

Defines first and last date in next period.

Usage

```r
next_n_years(x = Sys.Date(),
             n = 1,
             part = getOption("timeperiodsR.parts"),
             include_current = F)
```

Arguments

- **x**: Date object
- **n**: Number of periods for offset
- **part**: Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.
- **include_current**: If TRUE including current period in sequence
### next_n_years

**Details**

You can get object of tpr class with all components or specify which component you need, use `part` for manage this option:

- all - get all components
- start - get only first date of period
- end - get only last date of period
- start - get vector of all dates in period
- length - get number of dates in period

**Value**

Object of tpr class

**Author(s)**

Alexey Seleznev

**See Also**

For get next other periods see `next_n_months()`, `next_n_days()`, `next_n_quarters()`, `next_n_weeks()`

**Examples**

```r
# To get start, end and sequence of next 2 years,
# exclude current year
next2years <- next_n_years(n = 2)

# include current year
next2years_2 <- next_n_years(n = 2, include_current = TRUE)

# To get vector of date sequences
next_n_years(n = 2, part = "sequence")
next_n_years(n = 2)$sequence
seq(next2years)

# Get number of days of next 2 years
day_nums <- next_n_years(part = "length")
next_n_years()$length
length(next2years)
```
next_quarter

Start and end of next quarter

Description

Defines first and last date in n next quarter

Usage

```r
next_quarter(x = Sys.Date(),
             n = 1,
             part = getOption("timeperiodsR.parts"))
```

Arguments

- `x` Date object
- `n` Number of periods for offset
- `part` Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.

Details

You can get object of tpr class with all components or specify which component you need, use `part` for manage this option:

- all - get all components
- start - get only first date of period
- end - get only last date of period
- start - get vector of all dates in period
- length - get number of dates in period

Value

Object of tpr class

Author(s)

Alexey Seleznev

See Also

For get next other periods see `next_week()`, `next_month()`, `next_year()`
## To get start, end and sequence of next quarter
nextquarter <- next_quarter()

## To get vector of date sequences
next_quarter(part = "sequence")
next_quarter()$sequence
seq(nextquarter)

## Get number of days of next quarter
day_nums <- next_quarter(part = "length")
next_quarter()$length
length(nextquarter)

### next_week

<table>
<thead>
<tr>
<th>next_week</th>
<th>Start and end of next week</th>
</tr>
</thead>
</table>

### Description
Defines first and next date in n next week

### Usage
next_week(x = Sys.Date(),
          n = 1,
          part = getOption("timeperiodsR.parts"),
          week_start = 1)

### Arguments
- **x**: Date object
- **n**: Number of periods for offset
- **part**: Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.
- **week_start**: Start of week, default = 1 is Monday, 7 is Sunday

### Details
You can get object of tpr class with all components or specify which component you need, use part for manage this option:
- all - get all components
- start - get only first date of period
- end - get only next date of period
- start - get vector of all dates in period
- length - get number of dates in period
next_year

Description

Defines first and last date in n next year

Usage

`next_year(x = Sys.Date(),
  n = 1,
  part = getOption("timeperiodsR.parts"))`

Arguments

- `x` Date object
- `n` Number of periods for offset
- `part` Part of period you need to receive, one of "all", "start", "end","sequence", "length". See details.

Examples

```r
## To get start, end and sequence of next weeks
nextweek <- next_week()

## Get next week with start on Sunday
nextweeksun <- next_week(week_start = 7)

## To get vector of date sequences
next_week(part = "sequence")
next_week()$sequence
seq(nextweek)

## Get number of days of next 2 weeks
day_nums <- next_week(part = "length")
next_week()$length
length(nextweek)
```
Details
You can get object of tpr class with all components or specify which component you need, use part for manage this option:

- all - get all components
- start - get only first date of period
- end - get only last date of period
- start - get vector of all dates in period
- length - get number of dates in period

Value
Object of tpr class

Author(s)
Alexey Seleznev

See Also
For get next other periods see next_month(), next_quarter(), next_week()

Examples
```r
## To get start, end and sequence of next year
nextyear <- next_year()

## To get vector of date sequences
next_year(part = "sequence")
next_year()$sequence
seq(nextyear)

## Get number of days of next year
day_nums <- next_year(part = "length")
next_year()$length
length(nextyear)
```

```r
table
previous_month Start and end of previous month
```

Description
Defines first and last date in n previous month

Usage
```r
previous_month(x = Sys.Date(),
       n = 1,
       part = getOption("timeperiodsR.parts"))
```
Arguments

- x: Date object
- n: Number of periods for offset
- part: Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.

Details

You can get object of tpr class with all components or specify which component you need, use part for manage this option:

- all - get all components
- start - get only first date of period
- end - get only last date of period
- start - get vector of all dates in period
- length - get number of dates in period

Value

Object of tpr class

Author(s)

Alexey Seleznev

See Also

For get next other periods see previous_week(), previous_quarter(), previous_year()

Examples

```r
## To get start, end and sequence of previous month
previous_month <- previous_month()

## To get vector of date sequences
previous_month(part = "sequence")
previous_month()$sequence
seq(previous_month)

## Get number of days of previous months
day_nums <- previous_month(part = "length")
previous_month()$length
length(previous_month)
```
previous_quarter

Start and end of previous quarter

Description

Defines first and last date in n previous quarter

Usage

```r
previous_quarter(x = Sys.Date(),
                 n = 1,
                 part = getOption("timeperiodsR.parts"))
```

Arguments

- **x** Date object
- **n** Number of periods for offset
- **part** Part of period you need to receive, one of "all", "start", "end","sequence", "length". See details.

Details

You can get object of tpr class with all components or specify which component you need, use part for manage this option:

- all - get all components
- start - get only first date of period
- end - get only last date of period
- start - get vector of all dates in period
- length - get number of dates in period

Value

Object of tpr class

Author(s)

Alexey Seleznev

See Also

For get next other periods see `previous_week()`, `previous_month()`, `previous_year()`
Examples

```r
## To get start, end and sequence of previous quarter
previousquarter <- previous_quarter()

## To get vector of date sequences
previous_quarter(part = "sequence")
previous_quarter()$sequence
seq(previousquarter)

## Get number of days of previous quarter
day_nums <- previous_quarter(part = "length")
previous_quarter()$length
length(previousquarter)
```

---

**previous_week**  
*Start and end of previous week*

### Description

Defines first and last date in n previous week

### Usage

```r
previous_week(x = Sys.Date(),
              n = 1,
              part = getOption("timeperiodsR.parts"),
              week_start = 1)
```

### Arguments

- `x` Date object
- `n` Number of periods for offset
- `part` Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.
- `week_start` Start of week, default = 1 is Monday, 7 is Sunday

### Details

You can get object of tpr class with all components or specify which component you need, use `part` for manage this option:

- all - get all components
- start - get only first date of period
- end - get only last date of period
- start - get vector of all dates in period
- length - get number of dates in period
previous_year

Value

Object of tpr class

Author(s)

Alexey Seleznev

See Also

For get next other periods see previous_quarter(), previous_month(), previous_year()

Examples

## To get start, end and sequence of previous weeks
previousweek <- previous_week()

## Get previous week with start on Sunday
previousweeksun <- previous_week(week_start = 7)

## To get vector of date sequences
previous_week(part = "sequence")
previous_week()$sequence
seq(previousweek)

## Get number of days of previous 2 weeks
day_nums <- previous_week(part = "length")
previous_week()$length
length(previousweek)

previous_year

Start and end of previous year

Description

Defines first and last date in n previous year

Usage

previous_year(x = Sys.Date(),
              n = 1,
              part = getOption("timeperiodsR.parts"))

Arguments

x  Date object
n  Number of periods for offset
part  Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.
Details

You can get object of tpr class with all components or specify which component you need, use `part` for manage this option:

- all - get all components
- start - get only first date of period
- end - get only last date of period
- start - get vector of all dates in period
- length - get number of dates in period

Value

Object of tpr class

Author(s)

Alexey Seleznev

See Also

For get next other periods see `previous_week()`, `previous_month()`, `previous_quarter()`

Examples

```r
## To get start, end and sequence of previous year
previousyear <- previous_year()

## To get vector of date sequences
previous_year(part = "sequence")
previous_year()$sequence
seq(previousyear)

## Get number of days of previous year
day_nums <- previous_year(part = "length")
previous_year()$length
length(previousyear)
```

```r
## this_month (Start and end of month)
```

Description

Defines first and last date in month

Usage

```r
this_month(x = Sys.Date(),
    part = getOption("timeperiodsR.parts"))
```
Arguments

- **x**: Date object
- **part**: Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.

Details

You can get object of tpr class with all components or specify which component you need, use `part` for manage this option:

- **all**: get all components
- **start**: get only first date of period
- **end**: get only last date of period
- **sequence**: get vector of all dates in period
- **length**: get number of dates in period

Value

Object of tpr class

Author(s)

Alexey Seleznev

See Also

For get next other periods see `this_week()`, `this_quarter()`, `this_year()`

Examples

```r
## To get start, end and sequence of this month
thismonth <- this_month()

## To get vector of date sequences
this_month(part = "sequence")
this_month()$sequence
seq(thismonth)

## Get number of days of this months
day_nums <- this_month(part = "length")
this_month()$length
length(thismonth)
```
this_quarter  

**Description**

Defines first and last date in quarter

**Usage**

```r
this_quarter(x = Sys.Date(),
             part = getOption("timeperiodsR.parts"))
```

**Arguments**

- `x` Date object
- `part` Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.

**Details**

You can get object of tpr class with all components or specify which component you need, use `part` for manage this option:

- all - get all components
- start - get only first date of period
- end - get only last date of period
- start - get vector of all dates in period
- length - get number of dates in period

**Value**

Object of tpr class

**Author(s)**

Alexey Selznev

**See Also**

For get next other periods see `this_week()`, `this_month()`, `this_year()`
Examples

```r
## To get start, end and sequence of this quarter
thisquarter <- this_quarter()

## To get vector of date sequences
this_quarter(part = "sequence")
this_quarter()$sequence
seq(thisquarter)

## Get number of days of this quarter
day_nums <- this_quarter(part = "length")
this_quarter()$length
length(thisquarter)
```

### this_week

**Start and end of week**

Description

Defines first and last date in week

Usage

```r
this_week(x = Sys.Date(),
part = getOption("timeperiodsR.parts"),
week_start = 1)
```

Arguments

- `x`: Date object
- `part`: Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.
- `week_start`: Start of week, default = 1 is Monday, 7 is Sunday

Details

You can get object of tpr class with all components or specify which component you need, use `part` for manage this option:

- all - get all components
- start - get only first date of period
- end - get only last date of period
- start - get vector of all dates in period
- length - get number of dates in period
### this_year

**Value**

Object of tpr class

**Author(s)**

Alexey Seleznegov

**See Also**

For get next other periods see `this_quarter()`, `this_month()`, `this_year()`

**Examples**

```r
## To get start, end and sequence of this weeks
thisweek <- this_week()

## Get this week with start on Sunday
thisweeksun <- this_week(week_start = 7)

## To get vector of date sequences
this_week(part = "sequence")
this_week()$sequence
seq(thisweek)

## Get number of days of this 2 weeks
day_nums <- this_week(part = "length")
this_week()$length
length(thisweek)
```

---

#### Description

Defines first and last date in year

#### Usage

```r
this_year(x = Sys.Date(),
          part = getOption("timeperiodsR.parts"))
```

#### Arguments

- **x**: Date object
- **part**: Part of period you need to receive, one of "all", "start", "end", "sequence", "length". See details.
**tpr_operators**

**Details**

You can get object of `tpr` class with all components or specify which component you need, use `part` for manage this option:

- **all** - get all components
- **start** - get only first date of period
- **end** - get only last date of period
- **start** - get vector of all dates in period
- **length** - get number of dates in period

**Value**

Object of `tpr` class

**Author(s)**

Alexey Seleznev

**See Also**

For get next other periods see `this_week()`, `this_month()`, `this_year()`

**Examples**

```r
## To get start, end and sequence of this year
thisyear <- this_year()

## To get vector of date sequences
this_year(part = "sequence")
this_year()$sequence
seq(thisyear)

## Get number of days of this year
day_nums <- this_year(part = "length")
this_year()$length
length(thisyear)
```

---

**Description**

Filtering timeperiods operators.
Usage

x %in% y
x %left_in% y
x %left_out% y
x %right_in% y
x %right_out% y

Arguments

x left Date or tpr object
y Right tpr object.

Value

date sequence or logical vector

Author(s)

Alexey Seleznev

See Also

For get more examples see vignette: vignette("tpr_intro", package = "timeperiodsR")

Examples

period1 <- this_month("2019-11-07")
period2 <- previous_week("2019-11-07")

period1
period1
period1
period1

Description

Method for get vector of weekends from timeperiod.

Usage

weekends(x)

Arguments

x tpr object or date vector
weekends_length

Value
Vector of dates

Author(s)
Alexey Seleznev

Examples

```r
pm <- previous_month()
# get weekends
pm_weekends <- weekends(pm)
```

weekends_length

*Number of weekends days in the period.*

Description
Method for get number of weekdays days in period. Weekends is saturday and sunday.

Usage

```r
weekends_length(x)
```

Arguments

- `x` tpr object or date vector

Value
Integer

Author(s)
Alexey Seleznev

Examples

```r
pm <- previous_month()
# weekends day number
pm_wd_len <- weekends_length(pm)
```
### workdays

*Get vector with workdays.*

**Description**

Method for get vector of workdays from timeperiod.

**Usage**

```r
workdays(x)
```

**Arguments**

- `x`: tpr object or date vector

**Value**

Vector of dates

**Author(s)**

Alexey Seleznev

**Examples**

```r
pm <- previous_month()
# get workdays
pm_workdays <- workdays(pm)
```

### workdays_length

*Number of workdays in the period.*

**Description**

Method for get number of workdays in period. workdays is monday - friday.

**Usage**

```r
workdays_length(x)
```

**Arguments**

- `x`: tpr object or date vector

**Value**

Integer
**workdays_length**

**Author(s)**

Alexey Seleznev

**Examples**

```r
pm <- previous_month()
# workdays number
pm_wd_len <- workdays_length(pm)
```
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