Package ‘timeperiodsR’

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Author Alexey Seleznev [aut, cre]
Maintainer Alexey Seleznev <selesnow@gmail.com>
Description Simple definition of time intervals for the current, previous, and next week, month, quarter and year.

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

URL https://selesnow.github.io/timeperiodsR, https://t.me/R4marketing,
https://www.youtube.com/playlist?list=PLD2LDq8edf4qed2KVFKxh00Qcdj9gw

Imports lubridate
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Description

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

Details

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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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- **first_weekend**: Get first weekend day in period.
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- **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)
Description
Check any date or date vector for an official day off or not.

Usage
check_dayoffs(date = NULL,
year = NULL,
month = NULL,
day = NULL,
cc = getOption("timeperiodsR.official_day_offs_country"),
pre = getOption("timeperiodsR.official_day_offs_pre"),
include_custom_day_offs = TRUE)

Arguments
year Year for check
month Month for check
day Month for check.
date Date, or date vector for checking
country Country, one of ru, ua, kz, by
pre Including shorter working days, 0 or 1
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 htr package and switch options timeperiodsR.official_day_offs 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
ld <- next_n_weeks(n = 2)
check_dayoffs(date = ld)
```

<table>
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Description

Create tpr object between start and end dates

Usage

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

Arguments

start Start date in YYYY-MM-DD format
end End date in YYYY-MM-DD format
part Part of period you need to receive, one of "all", "start", "end", "sequence", "length", "workdays", "weekends", "first_workday", "last_workday", "first_weekend", "last_weekend", "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

Examples

## 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**

```r
first_weekend(x)
```

**Arguments**

- `x`: tpr object or date vector

**Value**

Vector of dates

**Author(s)**
Alexey Seleznev

**Examples**

```r
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**

```r
first_workday(x)
```

**Arguments**

- `x`: tpr object or date vector

**Value**

Vector of dates
last_n_days

Author(s)
Alexey Seleznev

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

Description
Defines first and last date in previous period

Usage
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.
iclclude_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
last_n_months

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)
```

Description

Defines first and last date in previous period

Usage

```r
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 incliding current period in sequence
last_n_months

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
call_n_months(n = 2, part = "sequence")
call_n_months(n = 2)$sequence
seq(last2month)

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

Start and end of last n quarters

Description

Defines first and last date in previous period

Usage

```r
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")
last_n_quarters(n = 2)$sequence
seq(last2quarters)

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

last_n_weeks  
Start and end of last n weeks

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 incliding 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

```r
last_weekend(x)
```

Arguments

- `x` tpr object or date vector

Value

Vector of dates

Author(s)

Alexey Seleznov

Examples

```r
pm <- previous_month()
# get previous month
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**

```r
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**

```
ext_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 \texttt{next\_week()}, \texttt{next\_quarter()}, \texttt{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)
```

\begin{tabular}{ll}
\texttt{next\_n\_days} & \textit{Start and end of next n days} \\
\hline
\end{tabular}

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

```
## 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(n = 10, part = "sequence")
next\_n\_days(n = 10)$sequence
seq(next10days)

---

**next\_n\_months**  
*Start and end of next n months*

**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

See Also

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

Examples

## To get start, end and sequence of next 2 months, ## exclude current month
text2month <- next_n_months(n = 2)

## include current month
text2month_2 <- next_n_months(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(text2month)

## Get number of days of next 2 months
day_nums <- next_n_months(part = "length")
next_n_months()$length
length(text2month)

---

next_n_quarters Start and end of next n quarters

Description

Defines first and last date in next period

Usage

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
**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)
```

```
next_n_years(n = 1)

## Start and end of next n weeks
```

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
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()`
Examples

```r
## 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)
```

---

### Description

Defines first and next date in n next week

### Usage

```r
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

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)
```

---

### 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
previousmonth <- previous_month()

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

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

*Start and end of 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**

```r
## 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

**Description**

Defines first and last date in n previous year

**Usage**

```r
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)
```

<table>
<thead>
<tr>
<th>this_month</th>
<th>Start and end of month</th>
</tr>
</thead>
</table>

Description

Defines first and last date in month

Usage

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

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 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 month
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 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 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
Value

Object of tpr class

Author(s)

Alexey Seleznov

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)
```

### this_year

#### Start and end of year

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.
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)
```

---

**tpr_operators**

Operators of tpr objects.

Description

Filtrig timeperiods operators.
weekends

Usage

\[ x \%\text{in}\% y \]
\[ x \%\text{left}_\text{in}\% y \]
\[ x \%\text{left}_\text{out}\% y \]
\[ x \%\text{right}_\text{in}\% y \]
\[ x \%\text{right}_\text{out}\% y \]

Arguments

\[ x \quad \text{left Date or tpr object} \]
\[ y \quad \text{Right tpr object.} \]

Value

Date sequence or logical vector

Author(s)

Alexey Seleznev

See Also

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

Examples

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

period1
period1
period1
period1
```

<table>
<thead>
<tr>
<th>weekends</th>
<th>Get vector with weekends.</th>
</tr>
</thead>
</table>

Description

Method for get vector of weekends from timeperiod.

Usage

```r
weekends(x)
```

Arguments

\[ x \quad \text{tpr object or date vector} \]
Value

   Vector of dates

Author(s)

   Alexey Seleznev

Examples

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

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

Description

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

Usage

   weekends_length(x)

Arguments

   x       tpr object or date vector

Value

   Integer

Author(s)

   Alexey Seleznev

Examples

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

   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
workdays(x)

Arguments
x  tpr object or date vector

Value
Vector of dates

Author(s)
Alexey Seleznev

Examples
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
workdays_length(x)

Arguments
x  tpr object or date vector

Value
Integer
Author(s)

Alexey Seleznev

Examples

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