Package 'ISOweek'

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Type Package

Title Week of the year and weekday according to ISO 8601

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Imports stringr

Suggests testthat

Description This is an substitute for the %V and %u formats which are not implemented on Windows. In addition, the package offers functions to convert from standard calender format yyyy-mm-dd to and from ISO 8601 week format yyyy-Www-d.

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LazyLoad yes

Collate 'ISOweek.R' 'ISOweekday.R' 'date2ISOweek.R' 'ISOweek2date.R' 'ISOweek-internal.R'

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Contents

`date2ISOweek` *Converts date from standard notation to week notation according to ISO 8601*

Description

This function returns the year, the week of the year, and the day of week of a given date according to ISO 8601. It is an substitute for the `%Y-W%V-%u` format which is not implemented on Windows.

Usage

```
date2ISOweek(date)
```

Arguments

`date`	Vector which can be coerced to class `Date`

Details

According to ISO 8601, the year of the week can differ from the calendar year (see the examples).

Value

A character vector of year, week, and weekday in format `"%Y-W%V-%u"`

Author(s)

Uwe Block <u.block.mz@googlemail.com>

See Also

`strptime` for a description of the date formats and references on ISO 8601.

Examples

```
x <- paste(1999:2011, "-12-31", sep = "")
y <- as.Date(x)
data.frame(date = format(y), weekdate = date2ISOweek(y))
data.frame(date = x, weekdate = date2ISOweek(x))
```

ISOweek *Week of the year according to ISO 8601*

Description

This function returns the year and the week of the year of a given date according to ISO 8601. It is an substitute for the %Y-W%V format which is not implemented on Windows.

Usage

```
ISOweek(date)
```

Arguments

date	Vector which can be coerced to class Date

Details

According to ISO 8601, the year of the week can differ from the calendar year (see the examples).

Value

A character vector of year and week in format "%Y-W%V"

Author(s)

Hatto von Hatzfeld <hatto@salesianer.de>, adopted to R by Uwe Block <u.block.mz@googlemail.com>

References

http://www.salesianer.de/util/kalwoch.html

See Also

strptime for a description of the date formats and references on ISO 8601. isoWeekYear for an alternative implementation.

Examples

```
x <- paste(1999:2011, "-12-31", sep = "")
y <- as.Date(x)
data.frame(date = format(y), week = ISOweek(y))
data.frame(date = x, week = ISOweek(x))
```

ISOweek2date *Converts date from week notation according to ISO 8601 to standard notation*

Description

This function returns the date of a given weekdate (year, week of the year, day of week according to ISO 8601). It is the inverse function to `date2ISOweek`.

Usage

```
ISOweek2date(weekdate)
```

Arguments

`weekdate`	A character vector of year, week, and weekday in format `"%Y-W%V-%u"`

Details

According to ISO 8601, the year of the week can differ from the calendar year (see the examples).

Value

A vector of class `Date`

Author(s)

Uwe Block <u.block.mz@googlemail.com>

See Also

`strptime` for a description of the date formats and references on ISO 8601.

Examples

```
w <- paste("2009-W53", 1:7, sep = "-")
data.frame(weekdate = w, date = ISOweek2date(w))
# convert from calendar date to week date and back to calendar date
x <- paste(1999:2011, "-12-31", sep = "")
w <- date2ISOweek(x)
d <- ISOweek2date(w)
data.frame(date = x, weekdate = w, date2 = d)
```

`ISOweekday` *Day of week according to ISO 8601*

Description

This function returns the weekday of a given date according to ISO 8601. It is an substitute for the "%u" format which is not implemented on Windows.

Usage

```
ISOweekday(date)
```

Arguments

`date`	Vector which can be coerced to class `Date`

Value

An integer vector of weekdays (1-7, Monday is 1)

Author(s)

Uwe Block <u.block.mz@googlemail.com>

See Also

`strptime`

Examples

```
x <- paste(1999:2011, "-12-31", sep = "")
y <- as.Date(x)
data.frame(date = format(y), weekday = ISOweekday(y))
data.frame(date = x, weekday = ISOweekday(x))
```

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