Package: jcalendaR (via r-universe)

August 24, 2024

Type Package

Title Interconversion Between the Japanese Calendar System and the
Western Calendar

Version 0.1.0.9000

Description This is a set of simple utility functions to perform
mutual conversion between the current Japanese calendar system
that Wareki, the old Japanese calendar system that the Kyureki
calendar and the Julian and Gregorian calendar. To calculate
each calendar method, it converts to the Julian Day Number.

License MIT + file LICENSE

URL https://github.com/indenkun/jcalendaR

BugReports https://github.com/indenkun/jcalendaR/issues

Encoding UTF-8

LazyData true

Depends R (>= 2.10)

RoxygenNote 7.3.1

Repository https://indenkun.r-universe.dev

RemoteUrl https://github.com/indenkun/jcalendar

RemoteRef HEAD

RemoteSha 4bc50e4660bbcf5a991c7a56faed0fe86d99fb8b

Contents

---

calendar2jdn   *jdn*

Description

Functions for calculating Julian Date from Gregorian or Julian Date Number and functions for calculating Gregorian or Julian Date from Julian Date Number.

Usage

```
calendar2jdn(date, jdn = c("jdn", "mjd"), calendar = c("gregorian", "julian"))

jdn2calendar(
  n,
  jdn = c("jdn", "mjd"),
  calendar = c("gregorian", "julian"),
  sep = "/"
)
```

Arguments

date	Date to be converted. It should always include the year, month, and day.
jdn	Select Julius Date Number or Modified Julius Date Number.
calendar	Select whether the calendar is Gregorian or Julian.
n	Julian Date Number or Modified Julian Date Number value.
sep	The way the date is separated when the last date is written.

Value

* 'jdn2calendar' returns a string type date.

* 'calendar2jdn' returns a a numeric vector.

References

Julian Day Number - Wikipedia [ja] (JD, https://ja.wikipedia.org/wiki/%E3%83%A6%E3%83%AA%E3%82%A6%E3%82%B9%E9%80%9A%E6%97%A5)

Fliegel, H. F., Van Flandern, T. C. (1968), doi:10.1145/364096.364097, "A Machine Algorithm for Processing Calendar Dates", Communications of the ACM 11, p. 657.

Hatcher, D. A. (1984, BibCode:1984QJRAS..25...53H) "Simple formulae for Julian day numbers and calendar dates, Quarterly Journal of the Royal Astronomical Society", v. 25, p. 53-55, https://adsabs.harvard.edu/full/1984QJRAS..25...53H.

Meeus, J. (1998, ISBN:0943396638) "Astronomical Algorithms. Willmann-Bell", Second English Edition.

Examples

```
jdn2calendar(2459216)
calendar2jdn("2021/1/1")
```

---

number_kyureki.month   *jcalendaR-utils*

Description

This is a set of utility functions related to the Kyureki calendar. 'number_kyureki.month()' checks how many days there were in a month by specifying the number of years and months in the Kyureki calendar. 'existence_leap.month()' checks if there was a leap month in a year by entering the number of years in the Kyureki calendar. 'era.name()' will output the era names of the corresponding year in this package.

Usage

```
number_kyureki.month(
  kyureki.year,
  kyureki.month,
  era = c("south", "north", "east", "heishi", "kyoto", "non")
)

existence_leap.month(
  kyureki.year,
  existence = c("logical", "number"),
  era = c("south", "north", "east", "heishi", "kyoto", "non")
)

era.name(era = c("south", "north", "east", "heishi", "kyoto"))
```

Arguments

kyureki.year	The number of years in the Kyureki calendar to check.
kyureki.month	The number of strings of months in the Kyureki calendar to check.
era	Whether the Gengo of the Japanese calendar is the Southern or Northern dynasty system, the system used in the Kanto region, the Heike, and Kyoto respectively, or no era names.
existence	Whether to return the existence of a leap month as a theoretical type or as a leap month number.

Value

* 'number_kyureki.month()' returns a numeric vector.

* 'existence_leap.month()' returns a numeric vector or logical vector.

* 'era.name()' returns a string vector that the era names of the corresponding year in this package.

References

The data for the Kyureki calendar and era names refer to the following data.

manakai/data-locale <https://github.com/manakai/data-locale>

Examples

```
existence_leap.month("\u660e\u6cbb2")
number_kyureki.month("\u660e\u6cbb2", 1)
```

---

seireki2kyureki   *kyureki*

Description

This is a set of functions for mutual conversion between Kyureki that the lunar calendar and the calendar, the former calendar system of Japan. Kyureki the lunar calendar here is a calendar system that was never actually used, assuming that the Tenpo calendar was extended after the 6th year of Meiji.

Usage

```
seireki2kyureki(
  date,
  calendar = c("gregorian", "julian"),
  era = c("south", "north", "east", "heishi", "kyoto", "non"),
  one = c("kanji", "number"),
  leap.month = c("kanji", "hiragana"),
  sep = c("kanji", "/", "-")
)

kyureki2seireki(
  date,
  calendar = c("gregorian", "julian"),
  era = c("south", "north", "east", "heishi", "kyoto", "non"),
  sep = "/"
)
```

Arguments

date	Date to be converted. It should always include the year, month, and day.
calendar	Select whether the calendar is Gregorian or Julian.
era	Whether the Gengo of the Japanese calendar is the Southern or Northern dynasty system, the system used in the Kanto region, the Heike, and Kyoto respectively, or no era names.
one	Whether to write the year in kanji as the first year or leave it as a number.

| leap.month | Whether to write leap months in Kanji or Hiragana. |
| sep | The way the date is separated when the last date is written. |

Value

String type date.

References

The data for the Kyureki calendar and era names refer to the following data.

manakai/data-locale <https://github.com/manakai/data-locale>

Examples

```
seireki2kyureki("2021/1/1")
kyureki2seireki("\u4ee4\u548c\u5e741\u67081\u65e5")
```

---

seireki2wareki *wareki*

Description

This is a set of functions for mutual conversion from Wareki that Japanese calendar dates to the Julian or Gregorian calendar dates. Before 1872, the Japanese calendar was used as the lunar calendar.

Usage

```
seireki2wareki(
  date,
  calendar = c("gregorian", "julian"),
  era = c("south", "north", "east", "heishi", "kyoto", "non"),
  one = c("kanji", "number"),
  leap.month = c("kanji", "hiragana"),
  sep = c("kanji", "/", "-")
)

wareki2seireki(
  date,
  calendar = c("gregorian", "julian"),
  era = c("south", "north", "east", "heishi", "kyoto", "non"),
  sep = "/"
)
```

Arguments

`date`	Date to be converted. It should always include the year, month, and day.
`calendar`	Select whether the calendar is Gregorian or Julian.
`era`	Whether the Gengo of the Japanese calendar is the Southern or Northern dynasty system, the system used in the Kanto region, the Heike, and Kyoto respectively, or no era names.
`one`	Whether to write the year in kanji as the first year or leave it as a number.
`leap.month`	Whether to write leap months in Kanji or Hiragana.
`sep`	The way the date is separated when the last date is written.

Value

String type date.

References

The data for the Kyureki calendar and era names refer to the following data.

manakai/data-locale <https://github.com/manakai/data-locale>

Examples

```
wareki2seireki("\u4ee4\u548c3\u5e741\u67081\u65e5")
seireki2wareki("2021/1/1")
wareki2seireki("\u5929\u6b636\u5e743\u670813\u65e5", calendar = "julian")
seireki2wareki("1578/4/18")
```

---

wareki2kyureki	*wareki2kyureki*

Description

A set of functions for mutual conversion between Kyureki that the old Japanese calendar and Wareki that the current Japanese calendar. For years before 1872, Kyureki and Wareki are identical. After 1873, the Gregorian calendar was adopted in Japan, and there is a difference from there.

Usage

```
wareki2kyureki(
  date,
  era = c("south", "north", "east", "heishi", "kyoto", "non"),
  one = c("kanji", "number"),
  leap.month = c("kanji", "hiragana"),
  sep = c("kanji", "/", "-")
)
```

```
kyureki2wareki(
  date,
  era = c("south", "north", "east", "heishi", "kyoto", "non"),
  one = c("kanji", "number"),
  leap.month = c("kanji", "hiragana"),
  sep = c("kanji", "/", "-")
)
```

Arguments

date	Date to be converted. It should always include the year, month, and day.
era	Whether the Gengo of the Japanese calendar is the Southern or Northern dynasty system, the system used in the Kanto region, the Heike, and Kyoto respectively, or no era names.
one	Whether to write the year in kanji as the first year or leave it as a number.
leap.month	Whether to write leap months in Kanji or Hiragana.
sep	The way the date is separated when the last date is written.

Value

String type date.

References

The data for the Kyureki calendar and era names refer to the following data.

manakai/data-locale <https://github.com/manakai/data-locale>

Examples

```
wareki2kyureki("\u4ee4\u548c3\u5e741\u67081\u65e5")
kyureki2wareki("\u4ee4\u548c2\u5e7411\u670818\u65e5")
```

Index