Package: zipangu (via r-universe)

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Title Japanese Utility Functions and Data

Version 0.3.3.9000

Description Some data treated by the Japanese R user require unique operations and processing. These are caused by address, Kanji, and traditional year representations. 'zipangu' transforms specific to Japan into something more general one.

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URL https://uribo.github.io/zipangu/, https://github.com/uribo/zipangu

BugReports https://github.com/uribo/zipangu/issues

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Contents

convert_jdate . . . 2
convert_jyear . . . 3
convert_prefecture . . . 4
convert_prefecture_from_kana . . . 4
dl_zipcode_file . . . 5
find_date_by_wday . . . 5
harmonize_prefecture_name . . . 6
is_jholiday . . . 7
is_prefecture . . . 7
is_zipcode . . . 8
jholiday_spec . . . 9
jpnprefs . . . 10
kana . . . 11
kansuji2arabic . . . 12
label_kansuji . . . 13
read_zipcode . . . 15
separate_address . . . 16
str_jconv . . . 16
str_jnormalize . . . 17
zipcode_spacer . . . 18

Index **19**

`convert_jdate` *Convert Japanese date format to date object*

Description

[Maturing]

Usage

```
convert_jdate(date, legacy = getOption("zipangu.convert_jdate.legacy", TRUE))
```

Arguments

`date`	A character object.
`legacy`	A logical to switch converter. If `TRUE` (the default), use the legacy converter based on `lubridate`. If `FALSE`, use the 'ICU' implementation via `stringi::stri_datetime_parse()` with the `ja-JP-u-ca-japanese` locale. The default can also be controlled globally by `options(zipangu.convert_jdate.legacy = FALSE)`.

Examples

```
convert_jdate("R3/2/27")
#> [1] "2021-02-27"
convert_jdate("\u4ee4\u548c2\u5e747\u67086\u65e5")
#> [1] "2020-07-06"
```

ICU implementation note

The non-legacy implementation depends on the system 'ICU' library through `stringi`. On some platforms (notably macOS with system 'ICU'), parsing with the `ja-JP-u-ca-japanese` locale can abort the R process. The legacy path is therefore used by default. See https://github.com/uribo/zipangu/issues/60.

---

convert_jyear *Convert Japanese imperial year to Anno Domini*

Description

[Maturing]

Usage

```
convert_jyear(jyear, legacy = getOption("zipangu.convert_jyear.legacy", TRUE))
```

Arguments

`jyear`	Japanese imperial year (jyear). Kanji or Roman character
`legacy`	A logical to switch converter. If `TRUE` (the default), use the legacy converter based on `lubridate`. If `FALSE`, use the 'ICU' implementation via `stringi::stri_datetime_parse()` with the `ja-JP-u-ca-japanese` locale. The default can also be controlled globally by `options(zipangu.convert_jyear.legacy = FALSE)`.

ICU implementation note

The non-legacy implementation depends on the system 'ICU' library through `stringi`. On some platforms (notably macOS with system 'ICU'), parsing with the `ja-JP-u-ca-japanese` locale can abort the R process. The legacy path is therefore used by default. See https://github.com/uribo/zipangu/issues/60.

Examples

```
convert_jyear("R1")
#> [1] 2019
convert_jyear("Heisei2")
#> [1] 1990
convert_jyear("\u5e73\u6210\u5143\u5e74")
#> [1] 1989
```

```
convert_jyear(c("\u662d\u548c10\u5e74", "\u5e73\u621014\u5e74"))
#> [1] 1935 2002
convert_jyear(kansuji2arabic_all("\u5e73\u6210\u4e09\u5e74"))
#> [1] 1991
```

`convert_prefecture` *Convert prefecture names to roman or kanji*

Description

Convert prefecture names to roman or kanji

Usage

```
convert_prefecture(x, to)
```

Arguments

`x`	prefecture name in kanji
`to`	conversion destination

Examples

```
convert_prefecture(c("tokyo-to", "osaka", "ALL"), to="kanji")
convert_prefecture(
  c("\u6771\u4eac", "\u5927\u962a\u5e9c",
  "\u5317\u6d77\u9053", "\u5168\u56fd"),
  to = "roman")
```

`convert_prefecture_from_kana`
Convert prefecture names from kana

Description

Convert prefecture names from kana

Usage

```
convert_prefecture_from_kana(x)
```

Arguments

`x`	prefecture name in kana

Examples

```
convert_prefecture_from_kana(c("\u3068\u3046\u304d\u3087\u3046\u3068"))
convert_prefecture_from_kana(c("\u30c8\u30a6\u30ad\u30e7\u30a6\u30c8", "\u30ad\u30e7\u30a6\u30c8"))
convert_prefecture_from_kana(c("\u30c8\u30a6\u30ad\u30e7\u30a6", "\u304a\u304a\u3055\u304b"))
```

---

dl_zipcode_file *Download a zip-code file*

Description

[Maturing]

Usage

```
dl_zipcode_file(path, exdir = NULL)
```

Arguments

path	local file path or zip file URL
exdir	The directory to extract zip file. If NULL, use temporary folder.

Examples

```
## Not run:
dl_zipcode_file(path = "https://www.post.japanpost.jp/zipcode/dl/oogaki/zip/02aomori.zip")
dl_zipcode_file("https://www.post.japanpost.jp/zipcode/dl/oogaki/zip/02aomori.zip",
                exdir = getwd())

## End(Not run)
```

---

find_date_by_wday *Find out the date of the specific month and weekday*

Description

[Experimental] Get the date of the Xth the specific weekday

Usage

```
find_date_by_wday(year, month, wday, ordinal)
```

Arguments

year	numeric year
month	numeric month
wday	numeric weekday
ordinal	number of week

Value

a vector of class POSIXct

Examples

```
find_date_by_wday(2021, 1, 2, 2)
```

---

harmonize_prefecture_name

Harmonize the notation of Japanese prefecture names.

Description

[Experimental]

Usage

```
harmonize_prefecture_name(x, to)
```

Arguments

x	Input vector.
to	Option. Whether to use longer ("long") or shorter ("short") prefectures.

Details

Convert with and without terminal notation, respectively.

- long option, long formal name
- Use the short option to omit the trailing characters

Examples

```
x <- c("\u6771\u4eac\u90fd", "\u5317\u6d77\u9053", "\u6c96\u7e04\u770c")
harmonize_prefecture_name(x, to = "short")
x <- c("\u6771\u4eac", "\u5317\u6d77\u9053", "\u6c96\u7e04")
harmonize_prefecture_name(x, to = "long")
```

is_jholiday *Is x a public holidays in Japan?*

Description

[Experimental] Whether it is a holiday defined by Japanese law (enacted in 1948)

Usage

```
is_jholiday(date)
```

Arguments

date	a vector of POSIXt, numeric or character objects

Details

Holiday information refers to data published as of December 21, 2020. Future holidays are subject to change.

Value

TRUE if x is a public holidays in Japan, FALSE otherwise.

Examples

```
is_jholiday("2021-01-01")
#> [1] TRUE
is_jholiday("2018-12-23")
#> [1] TRUE
is_jholiday("2019-12-23")
#> [1] FALSE
```

is_prefecture *Check correctly prefecture names*

Description

[Stable]

Usage

```
is_prefecture(x)
```

Arguments

x	Input vector.

Details

Check if the string is a prefectural string. If it contains the name of the prefecture and other strings (e.g. city name), it returns FALSE.

Value

logical

Examples

```
is_prefecture("\u6771\u4eac\u90fd")
is_prefecture(c("\u6771\u4eac", "\u4eac\u90fd", "\u3064\u304f\u3070"))
```

---

is_zipcode *Test zip-code*

Description

[Experimental]

Usage

```
is_zipcode(x)
```

Arguments

x	Zip-code. Number or character. Hyphens may be included, but the input must contain a 7-character number.

Value

A logical vector.

Examples

```
is_zipcode(7000027)
is_zipcode("700-0027")
```

jholiday_spec *Public holidays in Japan*

Description

[Experimental]

Usage

```
jholiday_spec(year, name, lang = "en")

jholiday(year, lang = "en")
```

Arguments

year	numeric years after 1949. If NA supplied, jholiday_spec returns NA respectively. On the other hand, jholiday always omits any NA values.
name	holiday names. If this argument is not the same length of year, the first element will be recycled.
lang	switch for turning values to "en" or "jp".

Details

Holiday information refers to data published as of December 21, 2020. Future holidays are subject to change.

Examples

```
jholiday_spec(2019, "Sports Day")
#> [1] "2019-10-14"
jholiday_spec(2021, "Sports Day")
#> [1] "2021-07-23"
```

List of a specific year holidays

```
jholiday(2021, "en")
#> $`New Year's Day`
#> [1] "2021-01-01"
#>
#> $`Coming of Age Day`
#> [1] "2021-01-11"
#>
#> $`Foundation Day`
#> [1] "2021-02-11"
#>
#> $`The Emperor's Birthday`
#> [1] "2021-02-23"
```

```
#>
#> $`Vernal Equinox Day`
#> [1] "2021-03-20"
#>
#> $`Showa Day`
#> [1] "2021-04-29"
#>
#> $`Constitution Memorial Day`
#> [1] "2021-05-03"
#>
#> $`Greenery Day`
#> [1] "2021-05-04"
#>
#> $`Children's Day`
#> [1] "2021-05-05"
#>
#> $`Marine Day`
#> [1] "2021-07-22"
#>
#> $`Sports Day`
#> [1] "2021-07-23"
#>
#> $`Mountain Day`
#> [1] "2021-08-08"
#>
#> $`Respect for the Aged Day`
#> [1] "2021-09-20"
#>
#> $`Autumnal Equinox Day`
#> [1] "2021-09-23"
#>
#> $`Culture Day`
#> [1] "2021-11-03"
#>
#> $`Labour Thanksgiving Day`
#> [1] "2021-11-23"
```

References

Public Holiday Law https://www8.cao.go.jp/chosei/shukujitsu/gaiyou.html, https://laws.e-gov.go.jp/document?lawid=323AC1000000178

`jpnprefs` *Prefectural informations in Japan*

Description

Prefectures dataset.

Usage

```
jpnprefs
```

Format

A tibble with 47 rows 5 variables:

- jis_code: jis code
- prefecture_kanji: prefecture names
- prefecture: prefecture names
- region: region
- major_island:

Examples

```
jpnprefs
```

---

kana *Create kana vector*

Description

[Experimental] Generates a vector consisting of the elements of kana. Options exist for the inclusion of several elements.

Usage

```
kana(type, ...)

hiragana(
  core = TRUE,
  dakuon = FALSE,
  handakuon = FALSE,
  kogaki = FALSE,
  historical = FALSE
)

katakana(
  core = TRUE,
  dakuon = FALSE,
  handakuon = FALSE,
  kogaki = FALSE,
  historical = FALSE
)
```

Arguments

type	"hiragana" ("hira") or "katakana" ("kata")
...	Arguments passed on to hiragana
core	is include core kana characters.
dakuon	e.g. ga, gi, gu, ge, go
handakuon	e.g. pa, pi, pu, pe, po
kogaki	small character
historical	old style

Examples

```
kana(type = "hira", core = TRUE)
kana(type = "hira", core = TRUE, handakuon = TRUE)
```

---

kansuji2arabic *Convert kansuji character to arabic*

Description

[Experimental] Converts a given Kansuji element such as Ichi (1) and Nana (7) to an Arabic. kansuji2arabic_all() converts only Kansuji in the string. kansuji2arabic_num() convert kansuji that contain the positions (e.g. Hyaku, Sen, etc) with the numbers represented by kansuji. kansuji2arabic_str() converts kansuji in a string to numbers represented by kansuji while retaining the non-kansuji characters.

Usage

```
kansuji2arabic(str, convert = TRUE, .under = Inf)

kansuji2arabic_all(str, ...)

kansuji2arabic_num(str, consecutive = c("convert", "non"), ...)

kansuji2arabic_str(
  str,
  consecutive = c("convert", "non"),
  widths = c("all", "halfwidth"),
  ...
)
```

Arguments

str	Input vector.
convert	If FALSE, will return as numeric. The default value is TRUE, and numeric values are treated as strings.
.under	Number scale to be converted. The default value is infinity.
...	Other arguments to carry over to kansuji2arabic()
consecutive	If you select "convert", any sequence of 1 to 9 kansuji will be replaced with Arabic numerals. If you select "non", any sequence of 1-9 kansuji will not be replaced by Arabic numerals.
widths	If you select "all", both full-width and half-width Arabic numerals are taken into account when calculating kansuji, but if you select "halfwidth", only half-width Arabic numerals are taken into account when calculating kansuji.

Value

a character or numeric.

Examples

```
kansuji2arabic("\u4e00")
kansuji2arabic(c("\u4e00", "\u767e"))
kansuji2arabic(c("\u4e00", "\u767e"), convert = FALSE)
# Keep Kansuji over 1000.
kansuji2arabic(c("\u4e00", "\u767e", "\u5343"), .under = 1000)
# Convert all character
kansuji2arabic_all("\u3007\u4e00\u4e8c\u4e09\u56db\u4e94\u516d\u4e03\u516b\u4e5d\u5341")
kansuji2arabic_all("\u516b\u4e01\u76ee")
# Convert kansuji that contain the positions with the numbers represented by kansuji.
kansuji2arabic_num("\u4e00\u5104\u4e8c\u5343\u4e09\u767e\u56db\u5341\u4e94\u4e07")
kansuji2arabic_num("\u4e00\u5104\u4e8c\u4e09\u56db\u4e94\u4e07\u516d\u4e03\u516b\u4e5d")
# Converts kansuji in a string to numbers represented by kansuji.
kansuji2arabic_str("\u91d1\u4e00\u5104\u4e8c\u5343\u4e09\u767e\u56db\u5341\u4e94\u4e07\u5186")
kansuji2arabic_str("\u91d1\u4e00\u5104\u4e8c\u4e09\u56db\u4e94\u4e07\u516d\u4e03\u516b\u4e5d\u5186")
kansuji2arabic_str("\u91d11\u51042345\u4e076789\u5186")
```

---

label_kansuji *Label numbers in Kansuji format*

Description

Automatically scales and labels with the Kansuji Myriad Scale (e.g. "Man", "Oku", etc). Use label_kansuji() converts the label value to either Kansuji value or a mixture of Arabic numerals and the Kansuji Scales for ten thousands, billions, and ten quadrillions. Use label_kansuji_suffix() converts the label value to an Arabic numeral followed by the Kansuji Scale with the suffix.

Usage

```
label_kansuji(
  unit = NULL,
  sep = "",
  prefix = "",
  big.mark = "",
  number = c("arabic", "kansuji"),
  ...
)

label_kansuji_suffix(
  accuracy = 1,
  unit = NULL,
  sep = NULL,
  prefix = "",
  big.mark = "",
  significant.digits = FALSE,
  ...
)
```

Arguments

`unit`	Optional units specifier.
`sep`	Separator between number and Kansuji unit.
`prefix`	Symbols to display before value.
`big.mark`	Character used between every 3 digits to separate thousands.
`number`	If Number is arabic, it will return a mixture of Arabic and the Kansuji Myriad Scale; if Kansuji, it will return only Kansuji numerals.
`...`	Other arguments passed on to `base::prettyNum()`, `scales::label_number()` or `arabic2kansuji::arabic2kansuji_all()`.
`accuracy`	A number to round to. Use (e.g.) 0.01 to show 2 decimal places of precision.
`significant.digits`	Determines whether or not the value of accurary is valid as a significant figure with a decimal point. The default is FALSE, in which case if accurary is 2 and the value is 1.10, 1.1 will be displayed, but if TRUE and installed `{scales}` package, 1.10 will be displayed.

Value

All `label_()` functions return a "labelling" function, i.e. a function that takes a vector x and returns a character vector of length(x) giving a label for each input value.

Examples

```
library("scales")
demo_continuous(c(1, 1e9), label = label_kansuji())
demo_continuous(c(1, 1e9), label = label_kansuji_suffix())
```

read_zipcode *Read Japan post's zip-code file*

Description

[Experimental]

Usage

```
read_zipcode(path, type = c("oogaki", "kogaki", "roman", "jigyosyo"))
```

Arguments

path	local file path or zip file URL
type	Input file type, one of "oogaki", "kogaki", "roman", "jigyosyo"

Details

Reads zip-code data in csv format provided by japan post group and parse it as a data.frame. Corresponds to the available "oogaki", "kogaki", "roman" and "jigyosyo" types. These file types must be specified by the argument.

Value

tibble

See Also

https://www.post.japanpost.jp/zipcode/dl/readme.html, https://www.post.japanpost.jp/zipcode/dl/jigyosyo/readme.html

Examples

```
# Input sources
read_zipcode(path = system.file("zipcode_dummy/13TOKYO_oogaki.CSV", package = "zipangu"),
             type = "oogaki")
read_zipcode(system.file("zipcode_dummy/13TOKYO_kogaki.CSV", package = "zipangu"),
             "oogaki")
read_zipcode(system.file("zipcode_dummy/KEN_ALL_ROME.CSV", package = "zipangu"),
             "roman")
read_zipcode(system.file("zipcode_dummy/JIGYOSYO.CSV", package = "zipangu"),
             "jigyosyo")
## Not run:
# Or directly from a URL
read_zipcode("https://www.post.japanpost.jp/zipcode/dl/jigyosyo/zip/jigyosyo.zip")

## End(Not run)
```

separate_address *Separate address elements*

Description

[Experimental] Parses and decomposes address string into elements of prefecture, city, and lower address.

Usage

```
separate_address(str)
```

Arguments

str	Input vector. address strings.

Value

A list of elements that make up an address.

Examples

```
separate_address("\u5317\u6d77\u9053\u672d\u5e4c\u5e02\u4e2d\u592e\u533a")
```

str_jconv *Converts the kind of string used as Japanese*

Description

[Stable]

Usage

```
str_jconv(str, fun, to)

str_conv_hirakana(str, to = c("hiragana", "katakana"))

str_conv_zenhan(str, to = c("zenkaku", "hankaku"))

str_conv_romanhira(str, to = c("roman", "hiragana"))

str_conv_normalize(str, to = c("nfkc"))
```

Arguments

str	Input vector.
fun	convert function
to	Select the type of character to convert.

Details

Converts the types of string treat by Japanese people to each other. The following types are supported.

- Hiraganra to Katakana
- Zenkaku to Hankaku
- Latin (Roman) to Hiragana

See Also

These functions are powered by the stringi package's stri_trans_general().

Examples

```
str_jconv("\u30a2\u30a4\u30a6\u30a8\u30aa", str_conv_hirakana, to = "hiragana")
str_jconv("\u3042\u3044\u3046\u3048\u304a", str_conv_hirakana, to = "katakana")
str_jconv("\uff41\uff10", str_conv_zenhan, "hankaku")
str_jconv("\uff76\uff9e\uff6f", str_conv_zenhan, "zenkaku")
str_jconv("\u30a2\u30a4\u30a6\u30a8\u30aa", str_conv_romanhira, "roman")
str_jconv("\u2460", str_conv_normalize, "nfkc")
str_conv_hirakana("\u30a2\u30a4\u30a6\u30a8\u30aa", to = "hiragana")
str_conv_hirakana("\u3042\u3044\u3046\u3048\u304a", to = "katakana")
str_conv_zenhan("\uff41\uff10", "hankaku")
str_conv_zenhan("\uff76\uff9e\uff6f", "zenkaku")
str_conv_romanhira("aiueo", "hiragana")
str_conv_romanhira("\u3042\u3044\u3046\u3048\u304a", "roman")
str_conv_normalize("\u2460", "nfkc")
```

---

str_jnormalize *Converts characters following the rules of 'neologd'*

Description

Converts characters following the rules of 'neologd'

Usage

```
str_jnormalize(str)
```

Arguments

str	Input vector.

Details

Converts the characters into normalized style basing on rules that is recommended by the Neologism dictionary for MeCab.

Value

a character

See Also

https://github.com/neologd/mecab-ipadic-neologd/wiki/Regexp.ja

Examples

```
str_jnormalize(
  paste0(
    "    \uff30",
    "\uff32\uff2d\uff2c\u300    \u526f    \u8aad    \u672c      "
  )
)
str_jnormalize(
  paste0(
    "\u5357\u30a2\u30eb\u30d7\u30b9\u306e\u3000\u5929\u7136\u6c34",
    "-\u3000\uff33\uff50\uff41\uff52\uff4b\uff49\uff4e\uff47\u3000",
    "\uff2c\uff45\uff4d\uff4f\uff4e\u3000\u30ec\u30e2\u30f3\u4e00\u7d5e\u308a"
 )
)
```

`zipcode_spacer` *Insert and remove zip-code connect character*

Description

[Maturing] Inserts a hyphen as a delimiter in the given zip-code string. Or exclude the hyphen.

Usage

```
zipcode_spacer(x, remove = FALSE)
```

Arguments

`x`	Zip-code. Number or character. Hyphens may be included, but the input must contain a 7-character number.
`remove`	Default is `FALSE`. If `TRUE`, remove the hyphen.

Examples

```
zipcode_spacer(7000027)
zipcode_spacer("305-0053")
zipcode_spacer("305-0053", remove = TRUE)
```

Index

∗ **datasets**
    jpnprefs, 10

arabic2kansuji::arabic2kansuji_all(), *14*

base::prettyNum(), *14*

convert_jdate, 2
convert_jyear, 3
convert_prefecture, 4
convert_prefecture_from_kana, 4

dl_zipcode_file, 5

find_date_by_wday, 5

harmonize_prefecture_name, 6
hiragana, *12*
hiragana *(*kana*)*, 11

is_jholiday, 7
is_prefecture, 7
is_zipcode, 8

jholiday *(*jholiday_spec*)*, 9
jholiday_spec, 9
jpnprefs, 10

kana, 11
kansuji2arabic, 12
kansuji2arabic(), *13*
kansuji2arabic_all *(*kansuji2arabic*)*, 12
kansuji2arabic_all(), *12*
kansuji2arabic_num *(*kansuji2arabic*)*, 12
kansuji2arabic_num(), *12*
kansuji2arabic_str *(*kansuji2arabic*)*, 12
kansuji2arabic_str(), *12*
katakana *(*kana*)*, 11

label_kansuji, 13
label_kansuji(), *13*
label_kansuji_suffix *(*label_kansuji*)*, 13
label_kansuji_suffix(), *13*

POSIXt, *7*

read_zipcode, 15

scales::label_number(), *14*
separate_address, 16
str_conv_hirakana *(*str_jconv*)*, 16
str_conv_normalize *(*str_jconv*)*, 16
str_conv_romanhira *(*str_jconv*)*, 16
str_conv_zenhan *(*str_jconv*)*, 16
str_jconv, 16
str_jnormalize, 17
stri_trans_general(), *17*

tibble, *15*

zipcode_spacer, 18