

# Package ‘wktmo’

August 31, 2017

**Type** Package

**Title** Converting Weekly Data to Monthly Data

**Version** 1.0.5

**Date** 2017-08-31

**Description** Converts weekly data to monthly data.

Users can use three types of week formats: ISO week, epidemiology week (epi week) and calendar date.

**Depends** R (>= 3.4.0)

**License** GPL-2

**Encoding** UTF-8

**LazyData** true

**RoxygenNote** 6.0.1

**NeedsCompilation** no

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dateFromWeek	<i>Return the dates of a particular week</i>
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### **Description**

Returns the dates of a particular week. The week can be defined by ISO week or epi week.

### **Usage**

```
dateFromWeek(year, wkIndex, wkMethod = "ISO")
```

### **Arguments**

year	a value for the year.
wkIndex	a value for the week index of the year.
wkMethod	a character string for the week-counting method. Default is "ISO" for ISO-week; other options are "epiSat", "epiSun" and "epiMon" for epi-week method defining Saturday, Sunday and Monday as the firstday in a week, respectively.

### **Value**

a vector of length 7, containing all the dates in the week, with the format of yyyy-mm-dd.

### **Author(s)**

You Li

### **See Also**

weekToMonth

### **Examples**

```
dateFromWeek(year = 2000, wkIndex = 20)
dateFromWeek(year = 2009, wkIndex = 53)
dateFromWeek(year = 2015, wkIndex = 1, wkMethod = "epiSun")
```

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`weeklyFlu`*Weekly influenza cases in 18 countries, 2010-2015*

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**Description**

A dataset containing weekly influenza cases, including influenza A, influenza B and influenza A+B, in 18 countries during 2010-2015. Data are from FluNet, a global web-based tool for influenza virological surveillance.

**Usage**`weeklyFlu`**Format**

a data frame containing 5616 rows and 10 variables.

**country** country: Argentina, Australia, Brazil, Chile, China, Egypt, Germany, Ghana, Indonesia, Iran, Japan, Mongolia, Niger, Peru, Singapore, Thailand, Tanzania, Zambia

**whoRegion** WHO region

**fluRegion** influenza region

**year** year of data

**isoWeek** index of ISO week

**startDat** start date of the week

**endDat** end date of the week

**fluA** number of influenza A cases

**fluB** number of influenza B cases

**fluAll** number of influenza A+B cases

**Source**

[http://www.who.int/influenza/gisrs\\_laboratory/flunet/en/](http://www.who.int/influenza/gisrs_laboratory/flunet/en/)

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`weekToMonth`*Convert weekly data to monthly data*

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**Description**

Converts weekly data to monthly data. The start week or date is needed along with the data. The start week can be defined by ISO week or epi week.

**Usage**

```
weekToMonth(wkdata, year = NULL, wkIndex = NULL, wkMethod = "ISO",  
            datStart = NULL, format = "%d-%m-%Y")
```

**Arguments**

wkdata	a numeric vector for weekly data to be converted.
year	a value for the year of the start of the data.
wkIndex	a value for the week index of the start of the data if a week-counting method is used.
wkMethod	a character string for the week-counting methods. Default is "ISO" for ISO-week; other options are "epiSat", "epiSun" and "epiMon" for epi-week method defining Saturday, Sunday and Monday as the firstday in a week, respectively. In addition, users also have the option of specifying the start date of the data by "startDat" method.
datStart	a character string for the start date of the data. If left blank, the date generated from the week-counting method will be applied.
format	a character string specifying the input formate for datStart.

**Value**

a dataframe containing two column vectors: yearMonth and value.

**Author(s)**

You Li

**See Also**

dateFromWeek

**Examples**

```
# extract data  
data(weeklyFlu)  
# subset data of interest, e.g. to convert weekly influenza A cases in China  
weeklyData <- weeklyFlu$fluA[weeklyFlu$country == "China"]  
# convert weekly data to monthly data;  
# these two input methods below will return the same results.  
monthlyData <- weekToMonth(weeklyData, year = 2010, wkIndex = 1, wkMethod = "ISO")  
monthlyData <- weekToMonth(weeklyData, datStart = "04-01-2010", wkMethod = "startDat")
```

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