Package: weatherStats (via r-universe)

May 18, 2026

Title Airport Weather Station Statistics

Version 0.1

Description Download daily weather data recorded at airport weather stations using the National Centers for Environmental Information (NCEI) API <https://www.ncei.noaa.gov/support/access-search-service-api-user-documentation>.

Depends R (>= 3.5.0)

License GPL (>=3)

RoxygenNote 7.3.3

LazyData true

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

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RemoteUrl https://github.com/pdhoff/weatherstats

RemoteRef HEAD

RemoteSha 52e3630570416af6bac5da3105e50b08d2a46da6

Contents

c2f *C to F temperature conversion*

Description

Celsius to Fahrenheit temperature coversion

Usage

```
c2f(x)
```

Arguments

x	temperature in Celsius

Value

temperature in Fahrenheit

Author(s)

Peter Hoff

f2c *F to C temperature conversion*

Description

Fahrenheit to Celsius temperature coversion

Usage

```
f2c(y)
```

Arguments

y	temperature in Fahrenheit

Value

temperature in Celsius

Author(s)

Peter Hoff

isMonth *Month-specific date extraction*

Description

Extract indices of a particular month from ISO 8601 format

Usage

```
isMonth(dates, month)
```

Arguments

dates	a vector of character dates in IS(8601 format
month	an integer from 1 to 12

Value

a vector of matching indices

Author(s)

Peter Hoff

RDU *RDU weather dataset*

Description

Two years of weather data at RDU.

Usage

```
RDU
```

Format

A data frame with dates along the rows, variables along the columns.

Source

Derived from original data at https://example.org

SEA *SEA weather dataset*

Description

One year of weather data at SEA.

Usage

```
SEA
```

Format

A data frame with dates along the rows, variables along the columns.

Source

Downloaded via the NCEI API <https://www.ncei.noaa.gov/support/access-search-service-api-user-documentation>.

tpdata *Temperature and precipitation data*

Description

Extract and combine temperature and precipitation data

Usage

```
tpdata(...)
```

Arguments

...	either a list or sequence of data matrices obtained from ‘weatherStats‘

Value

a data frame

Author(s)

Peter Hoff

Examples

```
W<-tpdata(RDU,SEA)

colnames(W)
dim(W)

tpplot(W)
```

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tpplot *Temperature and precipitation plot*

Description

Plot temperature and precipitation data

Usage

```
tpplot(TPDATA, units = "F", rc = "col")
```

Arguments

TPDATA	A data frame with temperature and precipitation data
units	"F" or "C"
rc	make multiple plots along columns ("col") or rows ("row")

Value

Invisibly returns NULL.

Author(s)

Peter Hoff

Examples

```
W<-tpdata(RDU,SEA)

colnames(W)
dim(W)

tpplot(W)
```

`weatherStats` *Weather Station Statistics*

Description

Download weather data from the National Centers for Environmental Information (NCEI) using their API.

Usage

```
weatherStats(
  FAAID,
  year = NULL,
  startDate = NULL,
  endDate = NULL,
  trimNA = TRUE,
  maxTries = 5,
  tpause = 3,
  verbose = TRUE
)
```

Arguments

`FAAID`	Federal Aviation Administration (FAA) station ID
`year`	year for which data are to be downloaded
`startDate`	start date in YY-MM-DD format
`endDate`	end date in YY-MM-DD format
`trimNA`	remove days with no data
`maxTries`	maximum number of query attempts to the NCEI server
`tpause`	time in seconds to pause between API requests
`verbose`	a logical value indicating whether to report download progress

Value

a data frame with daily weather data

Author(s)

Peter Hoff

Examples

```
RDU<-weatherStats("RDU",startDate="2024-01-01",endDate="2025-12-31")
SEA<-weatherStats("SEA",year=2025)


dim(RDU)
dim(SEA)
colnames(SEA)
```

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