Package 'cptec'

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Type Package

Title An Interface to the 'CPTEC/INPE' API

Version 0.1.0

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Description Allows to retrieve data from the
'CPTEC/INPE' weather forecast API. 'CPTEC' stands for 'Centro de Previsão
de Tempo e Estudos Climáticos' and 'INPE' for 'Instituto Nacional de
Pesquisas Espaciais'. 'CPTEC' is the most advanced numerical weather and
climate forecasting center in Latin America, with high-precision short
and medium-term weather forecasting since the beginning of 1995. See
<http://www.cptec.inpe.br/> for more information.

Depends R (>= 3.2.0)

LazyData true

License GPL-3

Encoding UTF-8

URL http://github.com/rpradosiqueira/cptec

BugReports http://github.com/rpradosiqueira/cptec/issues

Imports magrittr, rvest, xml2,

RoxygenNote 6.0.1

Suggests knitr

NeedsCompilation no

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Repository CRAN

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R topics documented:

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capitais   *Current weather conditions of capitals*

Description

This function allows the user to retrieve data from CPTEC/INPE current weather conditions of capitals. The data frame returned contain actual temperature, atmospheric pressure, humidity, direction and wind intensity

Usage

```
capitais()
```

Value

The function returns a data frame

Author(s)

Renato Prado Siqueira <<rpradosiqueira@gmail.com>>

See Also

prev4dias

Examples

```
## Not run:
capitais()

## End(Not run)
```

condicoes_tempo	*Data frame containing "tempo" descriptions*

Description

Data frame containing "tempo" descriptions

Usage

```
condicoes_tempo()
```

Value

The function returns a sigle data frame.

Author(s)

Renato Prado Siqueira <<rpradosiqueira@gmail.com>>

See Also

[estacoes_metar](#)

Examples

```
condicoes_tempo()
```

estacoes_metar	*Data frame containing "Metar" initials and descriptions*

Description

Data frame containing "Metar" initials and descriptions

Usage

```
estacoes_metar()
```

Value

The function returns a sigle data frame.

Author(s)

Renato Prado Siqueira <<rpradosiqueira@gmail.com>>

See Also

condicoes_tempo

Examples

```
## Not run:
estacoes_metar()

## End(Not run)
```

---

estendidaLatLon   *Retrieve 14 days weather forecast data from CPTEC/INPE*

Description

This function allows the user to retrieve data from CPTEC/INPE weather forecast API for the next 14 days informing latitude and longitude of the local. The data frame returned contain maximum and minimum temperature, ultra violet index and weather condition.

Usage

```
estendidaLatLon(lat, lon)
```

Arguments

lat	The latitude numeric/character vector
lon	The longitude numeric/character vector

Value

The function returns a data frame printed by the parameters input

Author(s)

Renato Prado Siqueira <<rpradosiqueira@gmail.com>>

See Also

prevEstendida

Examples

```
## Not run:
## Requesting weather forecast with a latitude/longitude information
prevLatLon("-20.432257", "-54.569751")

## End(Not run)
```

---

iuv   *Get current ultra violet index*

Description

This function allows the user to retrieve the last updated data from CPTEC/INPE ultra violet index for a determined city

Usage

```
iuv(id)
```

Arguments

id   The city's ID

Value

The function returns a data frame printed by city id

Author(s)

Renato Prado Siqueira <<rpradosiqueira@gmail.com>>

See Also

[prevEstendida](#)

Examples

```
## Not run:
## Requesting the last updated of the ultra violet index drom Campo Grande/MS
iuv(225)

## End(Not run)
```

---

listaCidades   *Search for cities ID*

Description

This function allows the user to discover which are the city's ID of interest.

Usage

```
listaCidades(x)
```

Arguments

x   A single character to search.

Value

The function returns a data frame with the results of the search.

Author(s)

Renato Prado Siqueira <<rpradosiqueira@gmail.com>>

See Also

prev4dias

Examples

```
## Looking for the city of Campo Grande
listaCidades("campo grande")
```

---

metar   *Retrieve weather condition data from Metars*

Description

This function allows the user to retrieve data from airport surface stations (Metar), coded and made
available by the meteorological network of the Aeronautics Command - REDEMET

Usage

```
metar(x)
```

Arguments

x   A character vector with the desired weather station(s) code(s)

Value

The function returns a data frame

Author(s)

Renato Prado Siqueira <<rpradosiqueira@gmail.com>>

See Also

estacoes_metar

Examples

```
## Not run:
## Requesting weather condition from SBGR and SBTK stations
metar(c("SBGR", "SBTK"))

## End(Not run)
```

---

ondas   *Forecast of sea waves for coastal locations*

Description

This function allows the user to retrieve data from CPTEC/INPE weather forecast API for sea waves. The data frame returned contain last updat, day, hour of the day, sea turmoil, wave's height and wind's direction and intensity

Usage

```
ondas(id, dia = "todos")
```

Arguments

id	The city's ID
dia	"todos" (default) or a numeric/character value with "0", "1" or "2"

Details

The dia argument can be set to:

- 0: Return only the actual's day data
- 1: Return only the tomorrow's data
- 2: Return only the after tomorrow's data
- todos: Return all data available

Value

The function returns a data frame printed by parameters input

Author(s)

Renato Prado Siqueira <<rpradosiqueira@gmail.com>>

See Also

[iuv](#)

Examples

```
## Not run:
## Requesting sea waves' forecast from the city of Rio de Janeiro/RJ
ondas(241)

## End(Not run)
```

---

prev4dias   *Retrieve 4 days weather forecast data from CPTEC/INPE*

Description

This function allows the user to retrieve data from CPTEC/INPE weather forecast API for the next 4 days. The data frame returned contain maximum and minimum temperature, ultra violet index and weather condition (tempo).

Usage

```
prev4dias(id)
```

Arguments

id   The city's ID

Value

The function returns a data frame printed by city id

Author(s)

Renato Prado Siqueira <<rpradosiqueira@gmail.com>>

See Also

prev7dias

Examples

```
## Not run:
## Requesting weather forecast from the city of Campo Grande/MS
prev4dias(225)

## End(Not run)
```

---

prev7dias   *Retrieve 7 days weather forecast data from CPTEC/INPE*

Description

This function allows the user to retrieve data from CPTEC/INPE weather forecast API for the next 7 days. The data frame returned contain maximum and minimum temperature, ultra violet index and weather condition.

Usage

```
prev7dias(id)
```

Arguments

id   The city's ID

Value

The function returns a data frame printed by city id

Author(s)

Renato Prado Siqueira <<rpradosiqueira@gmail.com>>

See Also

prev7dias

Examples

```
## Requesting weather forecast from the city of Campo Grande/MS
prev7dias(225)
```

---

prevEstendida   *Retrieve 14 days weather forecast data from CPTEC/INPE*

Description

This function allows the user to retrieve data from CPTEC/INPE weather forecast API for the next 14 days. The data frame returned contain maximum and minimum temperature and weather condition (tempo).

Usage

```
prevEstendida(id)
```

Arguments

id   The city's ID

Value

The function returns a data frame printed by city id

Author(s)

Renato Prado Siqueira <<rpradosiqueira@gmail.com>>

See Also

prev7dias

Examples

```
## Not run:
## Requesting weather forecast from the city of Campo Grande/MS
prevEstendida(225)

## End(Not run)
```

---

prevLatLon   *Retrieve 7 days weather forecast data from CPTEC/INPE*

Description

This function allows the user to retrieve data from CPTEC/INPE weather forecast API for the next
7 days informing latitude and longitude of the local. The data frame returned contain maximum and
minimum temperature, ultra violet index and weather condition.

Usage

```
prevLatLon(lat, lon)
```

Arguments

lat   The latitude numeric/character vector
lon   The longitude numeric/character vector

Value

The function returns a data frame printed by the parameters input

Author(s)

Renato Prado Siqueira <<rpradosiqueira@gmail.com>>

See Also

prev7dias

Examples

```
## Not run:
## Requesting weather forecast with a latitude/longitude information
prevLatLon("-20.432257", "-54.569751")

## End(Not run)
```

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