

Package ‘cder’

February 22, 2023

Title Interface to the California Data Exchange Center (CDEC)

Version 0.3-1

Description Connect to the California Data Exchange Center (CDEC)

Web Service <<http://cdec.water.ca.gov/>>. 'CDEC' provides a centralized database to store, process, and exchange real-time hydrologic information gathered by various cooperators throughout California. The 'CDEC' Web Service <<http://cdec.water.ca.gov/dynamicapp/wsSensorData>> provides a data download service for accessing historical records.

License GPL (>= 3)

URL <https://github.com/mkoohafkan/cder>

BugReports <https://github.com/mkoohafkan/cder/issues>

Depends R (>= 3.4)

Imports utils, curl (>= 4.3), glue (>= 1.3), stringr (>= 1.4), dplyr (>= 1.1), readr (>= 1.3), lubridate (>= 1.7)

Encoding UTF-8

Suggests knitr (>= 1.26), rmarkdown (>= 2.0), testthat (>= 2.3)

VignetteBuilder knitr

RoxygenNote 7.2.3

Config/testthat/edition 3

NeedsCompilation no

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cdec-search	<i>CDEC Search Pages Open the CDEC station/group search page or map interface.</i>
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Description

CDEC Search Pages Open the CDEC station/group search page or map interface.

Usage

cdec_search_groups(...)

cdec_search_stations(...)

cdec_map(...)

Arguments

... Additional arguments to pass to browseURL.

Functions

- cdec_search_groups(): CDEC Group search page.
- cdec_search_stations(): CDEC Station search page.
- cdec_map(): CDEC Map locator page.

cdec_data_flags	<i>CDEC Data Flag Information</i>
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Description

Open the data flag listing page.

Usage

cdec_data_flags(...)

Arguments

... Additional arguments to pass to browseURL.

cdec_meta	<i>CDEC Station Metadata</i>
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Description

Open the Metadata page for a station.

Usage

```
cdec_meta(station, ...)
```

Arguments

station	The three-letter station code.
...	Additional arguments to pass to browseURL.

cdec_query	<i>Query CDEC</i>
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Description

Query data from the CDEC web services.

Usage

```
cdec_query(stations, sensors, durations, start.date, end.date, ...)
```

Arguments

stations	A vector of station codes.
sensors	A vector of sensor numbers.
durations	A vector of durations. Possible duration codes are "E" (event), "H" (hourly), "D" (daily), and "M" (monthly).
start.date	The start date of the query.
end.date	The end date of the query.
...	Not used.

Details

Note that CDEC timestamps are in Pacific Time and Daylight Savings adjustments are reflected. In R, this is equivalent to the timezone "US/Pacific".

Value

A tibble.

Examples

```
if(interactive()){  
  cdec_query("NSL", 100, "E", Sys.Date() - 5, Sys.Date())  
}
```

cdec_query_group

Query CDEC Group

Description

Query group data from the CDEC web services.

Usage

```
cdec_query_group(groups, start.date, end.date, ...)
```

Arguments

groups	A vector of group codes.
start.date	The start date of the query.
end.date	The end date of the query.
...	Not used.

Details

Note that CDEC timestamps are in Pacific Time and Daylight Savings adjustments are reflected. In R, this is equivalent to the timezone "US/Pacific".

Value

A tibble.

Examples

```
if(interactive()){  
  cdec_query_group("SR1", Sys.Date() - 5, Sys.Date())  
}
```

cdec_sensors	<i>CDEC Sensor Information</i>
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Description

Open the Sensor listing page.

Usage

```
cdec_sensors(...)
```

Arguments

... Additional arguments to pass to browseURL.

cder	<i>Interface to the California Data Exchange Center</i>
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Description

Access the CDEC Web Service from R.

Package options

cder uses the following `options()` to configure behavior:

- `cder.timeout`: The maximum time to wait for a response from the CDEC Web API.

Author(s)

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See Also

Useful links:

- <https://github.com/mkoohafkan/cder>
- Report bugs at <https://github.com/mkoohafkan/cder/issues>

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