Package 'RClimacell'

October 12, 2022

Title R Wrapper for the 'Climacell' API

Version 0.1.4

Description 'Climacell' is a weather platform that provides hyper-local forecasts and weather
data. This package enables the user to query the core layers of the
time line interface of the 'Climacell' v4 API <https://www.climacell.co/weather-api/>.
This package requires a valid API key. See vignettes for instructions on use.

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URL https://nikdata.github.io/RClimacell/

BugReports https://github.com/nikdata/RClimacell/issues

Encoding UTF-8

LazyData true

RoxygenNote 7.1.1

Imports dplyr (>= 1.0.0), magrittr (>= 2.0.1), stringr (>= 1.4.0),
tibble (>= 3.0.6), httr (>= 1.4.2), lubridate (>= 1.7.9.2),
rlang (>= 0.4.10), tidyr (>= 1.1.2), assertthat (>= 0.2.1),
tidyselect

Suggests knitr, rmarkdown

VignetteBuilder knitr

Depends R (>= 2.10)

NeedsCompilation no

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R topics documented:

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climacell_celestial   *Sunrise, Sunset, and Moon Phase Readings from Climacell*

Description

This function will make a call to the Climacell API and retrieve sunrise, sunset times and moon
phase variables.

Usage

```
climacell_celestial(
  api_key,
  lat,
  long,
  timestep = "1d",
  start_time = NULL,
  end_time = NULL
)
```

Arguments

api_key   character string representing the private API key. Provided by user or loaded
                automatically from environment variable (environment variable must be called
                "CLIMACELL_API").

lat   a numeric value (or a string that can be coerced to numeric) representing the
                latitude of the location.

long   a numeric value (or a string that can be coerced to numeric) representing the
                longitude of the location.

timestep   a 'step' value for the time. For the `climacell_celestial` function, the only
                acceptable value (per the limitations of the Climacell API) is '1d'.

start_time   the start time of the query. This input must be a character string that can be
                parsed into a data/time or a date/time value. If the input does not contain a
                timezone, the value will be assumed to be in UTC. It is recommended that the
                `lubridate::now()` function or `Sys.time()` be used to define the start_time.
                For this function, the start_time cannot be less than 6 hours from the current
                time.

end_time   the end time of the query. This input must be a character string that can be parsed
                      into a data/time or a date/time value. If the input does not contain a timezone,
                      the value will be assumed to be in UTC. For this function, the end_time cannot
                      be greater than 15 days from the current date/time.

Details

`climacell_celestial` returns a tibble that consists of sunrise/sunset times along with the moon
phase (code & description).

Value

a tibble

Examples

```
## Not run:
climacell_celestial(
  api_key = Sys.getenv('CLIMACELL_API'),
  lat = 0,
  long = 0,
  timestep = '1d',
  start_time = lubridate::now(),
  end_time = lubridate::now() + lubridate::days(5))

## End(Not run)
```

---

climacell_core   *Climacell Core Layer Data*

Description

`climacell_core` returns a tibble that contains all of the Core Layer data from the Climacell version
4 API using the Timelines interface. The intent of this function is to retrieve all of the Core Layer
data in a single API call. This is especially handy when using the free API as it limits the usage of
the API based on hourly rate and daily usage.

Usage

```
climacell_core(
  api_key,
  lat,
  long,
  timestep,
  start_time = NULL,
  end_time = NULL
)
```

Arguments

`api_key`	character string representing the private API key. Provided by user or loaded automatically from environment variable (environment variable must be called "CLIMACELL_API").
`lat`	a numeric value (or a string that can be coerced to numeric) representing the latitude of the location.
`long`	a numeric value (or a string that can be coerced to numeric) representing the longitude of the location.
`timestep`	a 'step' value for the time. Choose one of the following valid values: c('1d', '1h', '30m','15m','5m','1m','current').
`start_time`	the start time of the query. This input must be a character string that can be parsed into a data/time or a date/time value. If the input does not contain a timezone, the value will be assumed to be in UTC. It is recommended that the `lubridate::now()` function or `Sys.time()` be used to define the start_time. For this function, the start_time cannot be less than 6 hours from the current time.
`end_time`	the end time of the query. This input must be a character string that can be parsed into a data/time or a date/time value. If the input does not contain a timezone, the value will be assumed to be in UTC. OPTIONAL if timestep is 'current' or if the user desires to get the maximum results possible (depends on the timestep chosen).

Value

a tibble

Examples

```
## Not run:
climacell_core(
  api_key = Sys.getenv('CLIMACELL_API'),
  lat = 0,
  long = 0,
  timestep = '1d',
  start_time = lubridate::now(),
  end_time = lubridate::now + lubridate::days(5))

## End(Not run)
```

---

climacell_precip   *Precipitation Readings from Climacell*

Description

This function will make a call to the Climacell API and retrieve precipitation related (including cloud cover & pressure) values.

Usage

```
climacell_precip(
  api_key,
  lat,
  long,
  timestep,
  start_time = NULL,
  end_time = NULL
)
```

Arguments

`api_key`	character string representing the private API key. Provided by user or loaded automatically from environment variable (environment variable must be called "CLIMACELL_API").
`lat`	a numeric value (or a string that can be coerced to numeric) representing the latitude of the location.
`long`	a numeric value (or a string that can be coerced to numeric) representing the longitude of the location.
`timestep`	a 'step' value for the time. Choose one of the following valid values: c('1d', '1h', '30m','15m','5m','1m','current').
`start_time`	the start time of the query. This input must be a character string that can be parsed into a data/time or a date/time value. If the input does not contain a timezone, the value will be assumed to be in UTC. It is recommended that the `lubridate::now()` function or `Sys.time()` be used to define the start_time. For this function, the start_time cannot be less than 6 hours from the current time.
`end_time`	the end time of the query. This input must be a character string that can be parsed into a data/time or a date/time value. If the input does not contain a timezone, the value will be assumed to be in UTC. OPTIONAL if timestep is 'current' or if the user desires to get the maximum results possible (depends on the timestep chosen).

Details

`climacell_precip` returns a tibble that consists of precipitation related variables (returned values are in metric units) using the Climacell API. These variables consist of precipitation intensity, precipitation probability, precipitation description, visibility, surface & sea level pressure, cloud cover & ceiling, and a weather description.

Value

a tibble

Examples

```
## Not run:
```

```
climacell_precip(
  api_key = Sys.getenv('CLIMACELL_API'),
  lat = 0,
  long = 0,
  timestep = 'current')

## End(Not run)
```

---

climacell_temperature   *Temperature Readings from Climacell*

Description

This function will make a call to the Climacell API and retrieve temperature related variables.

Usage

```
climacell_temperature(
  api_key,
  lat,
  long,
  timestep,
  start_time = NULL,
  end_time = NULL
)
```

Arguments

api_key   character string representing the private API key. Provided by user or loaded
                 automatically from environment variable (environment variable must be called
                 "CLIMACELL_API").

lat   a numeric value (or a string that can be coerced to numeric) representing the
                 latitude of the location.

long   a numeric value (or a string that can be coerced to numeric) representing the
                 longitude of the location.

timestep   a 'step' value for the time. Choose one of the following valid values: c('1d',
                 '1h', '30m','15m','5m','1m','current').

start_time   the start time of the query. This input must be a character string that can be
                 parsed into a data/time or a date/time value. If the input does not contain a
                 timezone, the value will be assumed to be in UTC. It is recommended that the
                 lubridate::now() function or Sys.time() be used to define the start_time.
                 For this function, the start_time cannot be less than 6 hours from the current
                 time.
```

end_time
the end time of the query. This input must be a character string that can be parsed into a data/time or a date/time value. If the input does not contain a timezone, the value will be assumed to be in UTC. OPTIONAL if timestep is 'current' or if the user desires to get the maximum results possible (depends on the timestep chosen).

### Details

`climacell_temperature` returns a tibble that consists of temperature related variables (returned values are in metric units) using the Climacell API. These variables consist of temperature, a "feels like" temperature, dewpoint, and humidity.

### Value

a tibble

### Examples

```
## Not run:
climacell_temperature(
  api_key = Sys.getenv('CLIMACELL_API'),
  lat = 0,
  long = 0,
  timestep = 'current')

## End(Not run)
```

---

climacell_wind   *Wind Readings from Climacell*

Description

This function will make a call to the Climacell API and retrieve wind related variables.

Usage

```
climacell_wind(
  api_key,
  lat,
  long,
  timestep,
  start_time = NULL,
  end_time = NULL
)
```

Arguments

`api_key`	character string representing the private API key. Provided by user or loaded automatically from environment variable (environment variable must be called "CLIMACELL_API").
`lat`	a numeric value (or a string that can be coerced to numeric) representing the latitude of the location.
`long`	a numeric value (or a string that can be coerced to numeric) representing the longitude of the location.
`timestep`	a 'step' value for the time. Choose one of the following valid values: c('1d', '1h', '30m','15m','5m','1m','current').
`start_time`	the start time of the query. This input must be a character string that can be parsed into a data/time or a date/time value. If the input does not contain a timezone, the value will be assumed to be in UTC. It is recommended that the `lubridate::now()` function or `Sys.time()` be used to define the start_time. For this function, the start_time cannot be less than 6 hours from the current time.
`end_time`	the end time of the query. This input must be a character string that can be parsed into a data/time or a date/time value. If the input does not contain a timezone, the value will be assumed to be in UTC. OPTIONAL if timestep is 'current' or if the user desires to get the maximum results possible (depends on the timestep chosen).

Details

`climacell_wind` returns a tibble that consists of wind related variables (returned values are in metric units) using the Climacell API. These variables consist of wind speed, wind gust, and wind direction.

Value

a tibble

Examples

```
## Not run:
climacell_wind(
  api_key = Sys.getenv('CLIMACELL_API'),
  lat = 0,
  long = 0,
  timestep = 'current')

## End(Not run)
```

---

dict_moonphase *Moonphase Dictionary*

Description

this is a helper function that returns the moon phase tibble containing the moon phase codes (which are returned by Climacell API) and their appropriate description.

Usage

```
dict_moonphase()
```

Value

a tibble

---

dict_preciptype *Precipitation Type Dictionary*

Description

this is a helper function that returns the precipitation type tibble containing the precipitation type codes (which are returned by Climacell API) and their appropriate description.

Usage

```
dict_preciptype()
```

Value

a tibble

---

dict_weathercode *Weather Dictionary*

Description

this is a helper function that returns the weather code tibble containing the weather codes (which are returned by Climacell API) and their appropriate description.

Usage

```
dict_weathercode()
```

Value

a tibble

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