

# Package ‘rzentra’

December 21, 2020

**Title** Client for the 'ZENTRA Cloud' API

**Version** 0.1.0

**Description** Provides functionality to read settings, statuses and readings of weather stations from the 'ZENTRA Cloud' API  
<<https://zentracloud.com/api/v1/guide#APIGuidelines>>.

**License** GPL-3

**Encoding** UTF-8

**LazyData** true

**RoxygenNote** 7.1.1

**Suggests** testthat, spelling

**Imports** httr, jsonlite, magrittr, dplyr, lubridate, purrr, methods, data.table

**Language** en-US

**NeedsCompilation** no

**Author** Eduard Szöcs [aut, cre],  
BASF SE [cph]

**Maintainer** Eduard Szöcs <[eduard.szoecs@basf.com](mailto:eduard.szoecs@basf.com)>

**Repository** CRAN

**Date/Publication** 2020-12-21 10:20:02 UTC

## R topics documented:

parse_port . . . . .	2
parse_timepoint . . . . .	2
parse_timeseries . . . . .	2
zc_settings . . . . .	3
zc_timeseries . . . . .	4
zc_token . . . . .	4

<b>Index</b>	<b>6</b>
--------------	----------

---

parse_port	<i>parse a port</i>
------------	---------------------

---

**Description**

parse a port

**Usage**

```
parse_port(port)
```

**Arguments**

port	port object as in <code>zc_readings</code> object
------	---

---

parse_timepoint	<i>parse a timepoint</i>
-----------------	--------------------------

---

**Description**

parse a timepoint

**Usage**

```
parse_timepoint(timepoint)
```

**Arguments**

timepoint	timepoint object as in <code>zc_readings</code> object
-----------	--

---

parse_timeseries	<i>parse a time series</i>
------------------	----------------------------

---

**Description**

parse a time series

**Usage**

```
parse_timeseries(timeseries)
```

**Arguments**

timeseries	time series object
------------	--------------------

---

zc_settings	<i>retrieve settings of a device</i>
-------------	--------------------------------------

---

### Description

retrieve settings of a device  
 retrieve statuses of a device  
 retrieve readings of a device

### Usage

```
zc_settings(token = NULL, sn = NULL, start_time = NULL, end_time = NULL)

zc_statuses(token = NULL, sn = NULL, start_time = NULL, end_time = NULL)

zc_readings(token = NULL, sn = NULL, start_time = NULL, start_mrid = NULL)
```

### Arguments

token	(required) authorization token as returned by <a href="#">zc_token</a>
sn	(required) the serial number for the device
start_time	Return data with timestamps greater or equal start_time. Specify start_time in UTC seconds, e.g. 1579474800)
end_time	Return data with timestamps smaller or equal end_time. Specify end_time in UTC seconds, , e.g. 1579474800))
start_mrid	Return data with mrids greater or equal start_mrid. This can be user to query data that has not been received yet, see <a href="#">guidelines</a> .

### Examples

```
## Not run:
zc_settings(token = "yourtoken",
  sn = "z6-00033",
  start_time = as.numeric(as.POSIXct(Sys.Date(), origin = "1970-01-01")))

## End(Not run)
## Not run:
zc_statuses("yourtoken", sn = "z6-00033",
  start_time = as.numeric(as.POSIXct(Sys.Date(), origin = "1970-01-01")))

## End(Not run)
## Not run:
zc_readings("yourtoken", sn = "z6-00033",
  start_time = as.numeric(as.POSIXct(Sys.Date(), origin = "1970-01-01")))

## End(Not run)
```

---

zc_timeseries	<i>parse readings into a long data.frame</i>
---------------	--

---

**Description**

parse readings into a long data.frame

**Usage**

```
zc_timeseries(readings)
```

**Arguments**

readings            object of class zc\_readings as returned by [zc\\_readings\(\)](#)

**Examples**

```
## Not run:
readings <- zc_readings("yourtoken",
  sn = "z6-00033",
  start_time = as.numeric(as.POSIXct(Sys.Date(),origin = "1970-01-01")))
zc_timeseries(readings)

## End(Not run)
```

---

zc_token	<i>retrieve authentication token from zentracloud</i>
----------	---

---

**Description**

retrieve authentication token from zentracloud

**Usage**

```
zc_token(
  username = Sys.getenv("ZC_USERNAME"),
  password = Sys.getenv("ZC_PASSWORD")
)
```

**Arguments**

username            username. Read by default from environment variable ZC\_USERNAME  
password            password. Read by default from environment variable ZC\_PASSWORD

**Value**

api token

**Examples**

```
## Not run:  
token <- zc_token("xxxx", "yyyyy")  
  
## End(Not run)
```

# Index

`parse_port`, [2](#)  
`parse_timepoint`, [2](#)  
`parse_timeseries`, [2](#)  
  
`zc_readings (zc_settings)`, [3](#)  
`zc_readings()`, [4](#)  
`zc_settings`, [3](#)  
`zc_statuses (zc_settings)`, [3](#)  
`zc_timeseries`, [4](#)  
`zc_token`, [3, 4](#)