

# Package ‘influxdbclient’

July 14, 2021

**Title** R Package for InfluxDB 2.x client

**Version** 0.1.0

**Description** R Package for InfluxDB 2.x client.

**URL** <https://github.com/bonitoo-io/influxdb-client-r>

**BugReports** <https://github.com/bonitoo-io/influxdb-client-r/issues>

**Depends** R (>= 3.3)

**Encoding** UTF-8

**License** MIT License + file LICENSE

**LazyData** true

**Imports** R6, httr, jsonlite, bit64, nanotime (>= 0.3.0), plyr

**RoxygenNote** 7.1.1

**Suggests** testthat, httpptest

## R topics documented:

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InfluxDBClient	<i>InfluxDBClient</i>
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## Description

Client for querying from and writing to InfluxDB 2.x.

## Format

An R6Class object

**Public fields**

url Database URL  
token Authentication token  
org Organization name  
dialect Flux dialect  
retryOptions Retry options

**Methods****Public methods:**

- [InfluxDBClient\\$new\(\)](#)
- [InfluxDBClient\\$health\(\)](#)
- [InfluxDBClient\\$query\(\)](#)
- [InfluxDBClient\\$ready\(\)](#)
- [InfluxDBClient\\$write\(\)](#)
- [InfluxDBClient\\$clone\(\)](#)

**Method new():** Creates instance of InfluxDBClient.

*Usage:*

```
InfluxDBClient$new(url, token, org, retryOptions = NULL)
```

*Arguments:*

url InfluxDB instance URL  
token Authentication token  
org Organization name  
org Retry options. See RetryOptions for details. Set to TRUE for default retry options. Default is NULL which disables retries.

**Method health():** Gets health info of the InfluxDB instance.

*Usage:*

```
InfluxDBClient$health()
```

*Returns:* Named list with name, message, status, version, commit elements or error

**Method query():** Queries data in the InfluxDB instance.

*Usage:*

```
InfluxDBClient$query(  
  text,  
  POSIXctCol = c(`_time` = "time"),  
  flatSingleResult = TRUE  
)
```

*Arguments:*

text Flux query  
POSIXctCol Flux time to (new) POSIXct column mapping (named list). Default is c("\_time"="time").  
Use NULL to skip it.

`flatSingleResult` Whether to return simple list when response contains only one result. Default is TRUE.

*Returns:* List of data frames. Data frame represents Flux table. It can be a named list of nested lists of data frames when query response contains multiple results (see <https://docs.influxdata.com/influxdb/cloud/reference/flux/stdlib/built-in/outputs/yield/>), or a simple list of data frames for single result response.

**Method** `ready()`: Gets readiness status of the InfluxDB instance.

*Usage:*

```
InfluxDBClient$ready()
```

*Returns:* Named list with status, started and up elements or error

**Method** `write()`: Writes data to the InfluxDB instance.

*Usage:*

```
InfluxDBClient$write(
  x,
  bucket,
  batchSize = 5000,
  precision = c("ns", "us", "ms", "s"),
  measurementCol = "_measurement",
  tagCols = NULL,
  fieldCols = c(`_field` = "_value"),
  timeCol = "_time",
  object = NULL,
  ...
)
```

*Arguments:*

`x` Data as (list of) `data.frame`

`bucket` Target bucket name

`batchSize` Batch size. Positive number or FALSE to disable. Default is 5000.

`precision` Time precision

`measurementCol` Name of measurement column. Default is "\_measurement".

`tagCols` Names of tag (index) columns

`fieldCols` Names of field columns. In case of unpivoted data previously retrieved from InfluxDB, use default value ie. named list `c("_field" = "_value")`. For all other cases, just use simple vector of column names (see Examples).

`timeCol` Name of time column. The column values should be either of nanotime or POSIXct type. Default is "\_time".

`object` Output object name. For dry-run operation, specify the name of the object to receive the output. Default is NULL. For debugging purposes.

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
InfluxDBClient$clone(deep = FALSE)
```

*Arguments:*

`deep` Whether to make a deep clone.

**Examples**

```
## Not run:
# Instantiation
client <- InfluxDBClient$new(url = "http://localhost:8086",
                             token = "my-token",
                             org = "my-org")

# Query
data <- client$query('from(bucket: "my-bucket") |> range(start: -1h) |> drop(columns:["_start", "_stop"])')

# Write
data <- data.frame(...)
client$write(data, bucket = "my-bucket", precision = "us",
             measurementCol = "name",
             tagCols = c("location", "id"),
             fieldCols = c("altitude", "temperature"),
             timeCol = "time")

# Ready status
ready <- client$ready()

# Health info
ready <- client$health()

## End(Not run)
```

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 RetryOptions

*RetryOptions*


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**Description**

Retry options may be specified as optional argument to write.

**Format**

An R6Class object

**Public fields**

`retryJitter` Maximum number of random milliseconds included in delay. Default is 0.

`retryInterval` First retry delay in seconds. Default is 5.

`maxDelay` Maximum delay between retries in seconds. Default is 125.

`maxRetryTime` Maximum time to spend retrying in seconds. Default is 180.

`maxAttempts` Number of retry attempts. Default is 5.

`exponentialBase` Base for exponential backoff strategy. Default is 2.

**Methods****Public methods:**

- [RetryOptions\\$new\(\)](#)
- [RetryOptions\\$clone\(\)](#)

**Method** `new()`: Creates instance of `RetryOptions`.

*Usage:*

```
RetryOptions$new(  
  retryJitter = 0,  
  retryInterval = 5,  
  maxDelay = 125,  
  maxRetryTime = 180,  
  maxAttempts = 5,  
  exponentialBase = 2,  
  ...  
)
```

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
RetryOptions$clone(deep = FALSE)
```

*Arguments:*

`deep` Whether to make a deep clone.

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