

Package ‘influxdbr’

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Type Package

Title R Interface to InfluxDB

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Description An R interface to the InfluxDB time series database <<https://www.influxdata.com>>. This package allows you to fetch and write time series data from/to an InfluxDB server. Additionally, handy wrappers for the Influx Query Language (IQL) to manage and explore a remote database are provided.

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ByteCompile TRUE

URL <https://github.com/dleutnant/influxdbr>

BugReports <http://github.com/dleutnant/influxdbr/issues>

Imports dplyr, jsonlite, httr, magrittr, purrr, tibble, tidyr, xts,
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<code>influxdbr</code>	<i>influxdbr package</i>
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Description

R library to influxdb

<code>influx_authentication_and_authorization_helpers</code> <i>Influx authentication and authorization</i>
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Description

The following functions are convenient wrappers around `influx_post` and `influx_query` (`show_users` and `show_grants`).

- `create_user()`: creates a new user
- `drop_user()`: drops an existing user
- `grant_privileges()`: grant privileges to an existing users
- `revoke_privileges()`: revoke privileges to an existing users
- `show_users()`: show all users
- `show_grants()`: show grants of an user

Usage

```
create_user(con, username, password)
```

```
drop_user(con, username)
```

```
grant_privileges(con, privilege = c("READ", "WRITE", "ALL"), db, username)
```

```
revoke_privileges(con, privilege = c("READ", "WRITE", "ALL"), db, username)
```

```
show_users(con)
```

```
show_grants(con, username)
```

Arguments

con	An influx_connection object (s. influx_connection).
username	The username to be used.
password	The password to be used.
privilege	Specifies the user privilege.
db	Sets the target database.

Value

A tibble containing post results in case of an error (or message). Otherwise NULL (invisibly). show_users() and show_grants() return a tibble.

References

<https://docs.influxdata.com/influxdb/>

See Also

[influx_connection](#)

influx_connection	<i>Create an influxdb_connection object</i>
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Description

Create an influxdb_connection object by specifying server connection details. Credentials can also be saved and accessed through a config file.

Usage

```
influx_connection(scheme = c("http", "https"), host = "localhost",
  port = 8086, user = "user", pass = "pass", path = "/", group = NULL,
  verbose = FALSE, config_file = "~/influxdb.cnf")
```

Arguments

scheme	The scheme to use, either http or https. Defaults to http.
host	Hostname of the InfluxDB server. Defaults to localhost
port	numerical. Port number of the InfluxDB server. Defaults to 8086.
user	username The username to use. Defaults to "user"
pass	password The password to use. Defaults to "pass".
path	The prefix path on which the InfluxDB is running. Can be useful in proxy situations.
group	The group to use within the config file.
verbose	logical. Provide additional details?
config_file	The configuration file to be used if group is specified.

structure of configuration file

A configuration file may contain several connection settings. Each setting has the following structure:

```
[group]
scheme=http
host=localhost
port=8086
user=username
pass=password
path=/
```

References

<https://influxdb.com/>

influx_database_management_helpers
Influx database management

Description

The following functions are convenient wrappers around `influx_post` and `influx_query`.

- `create_database()`: creates a new database
- `drop_database()`: drops an existing database
- `drop_series()`: drops specific series
- `drop_measurement()`: drops an entire measurement
- `create_retention_policy()`: create a new retention policy
- `alter_retention_policy()`: alter a retention policy
- `drop_retention_policy()`: drop a retention policy

Usage

```
create_database(con, db)
```

```
drop_database(con, db)
```

```
drop_series(con, db, id = NULL, measurement = NULL, where = NULL)
```

```
drop_measurement(con, db, measurement)
```

```
create_retention_policy(con, rp_name, db, duration, replication,
  default = FALSE)
```

```
alter_retention_policy(con, rp_name, db, duration, replication,  
  default = FALSE)
```

```
drop_retention_policy(con, rp_name, db)
```

Arguments

con	An <code>influx_connection</code> object (s. influx_connection).
db	Sets the target database for the query.
id	Sets the series ID.
measurement	Sets a specific measurement.
where	Apply filter on tag key values.
rp_name	The name of the retention policy.
duration	Determines how long InfluxDB keeps the data.
replication	The number of data nodes.
default	logical. If TRUE, the new retention policy is the default retention policy for the database.

Value

A tibble containing post results in case of an error (or message). Otherwise NULL (invisibly).

References

<https://docs.influxdata.com/influxdb/>

See Also

[influx_connection](#)

influx_ping	<i>Ping an influxdb server</i>
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Description

This function pings an influxdb server (e.g. for connection testing)

Usage

```
influx_ping(con)
```

Arguments

con	An <code>influx_connection</code> object (s. influx_connection).
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Value

A tibble with server information.

References

<https://docs.influxdata.com/influxdb/>

See Also

[xts](#), [influx_connection](#)

influx_query	<i>Query an InfluxDB server</i>
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Description

This functions queries an InfluxDB server.

Usage

```
influx_query(con, db = NULL, query = "SELECT * FROM measurement",
  timestamp_format = c("n", "u", "ms", "s", "m", "h"), return_xts = TRUE,
  chunked = FALSE, simplifyList = FALSE)
```

Arguments

con	An <code>influx_connection</code> object (s. influx_connection).
db	Sets the target database for the query.
query	The InfluxDB query to be sent.
timestamp_format	Sets the timestamp format ("n", "u", "ms", "s", "m", "h").
return_xts	logical. Sets the return type. If set to TRUE, xts objects are returned, FALSE gives tibbles.
chunked	Either FALSE or an integer. If FALSE, series are not requested in streamed batches. If an integer is provided, responses will be chunked by series or by every chunked points. Chunks are merged internally.
simplifyList	logical. If only one series is returned, the result can be flatten to directly get either a tibble or an xts object (instead of a list) (default is FALSE).

Value

A list of tibble or xts objects.

References

<https://docs.influxdata.com/influxdb/>

See Also

[xts](#), [influx_connection](#)

influx_schema_exploration_helpers
Influx schema exploration

Description

The following functions are convenient wrappers around `influx_query`.

- `show_databases()`: returns database names
- `show_measurements()`: returns measurement names
- `show_series()`: returns unambiguous series
- `show_tag_keys()`: returns tag keys
- `show_tag_values()`: returns tag values
- `show_field_keys()`: returns field keys
- `show_retentions_policies()`: returns retention policies

Usage

```
show_databases(con)
```

```
show_measurements(con, db, where = NULL)
```

```
show_series(con, db, measurement = NULL, where = NULL)
```

```
show_tag_keys(con, db, measurement = NULL)
```

```
show_tag_values(con, db, measurement = NULL, key)
```

```
show_field_keys(con, db, measurement = NULL)
```

```
show_retention_policies(con, db)
```

Arguments

<code>con</code>	An <code>influx_connection</code> object (s. influx_connection).
<code>db</code>	Sets the target database for the query.
<code>where</code>	Apply filter on tag key values.
<code>measurement</code>	Query a specific measurement.
<code>key</code>	The key to be queried.

Value

A tibble containing query results.

References

<https://docs.influxdata.com/influxdb/>

See Also

[influx_connection](#)

influx_select	<i>influx select helper</i>
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Description

This function is a convenient wrapper for selecting data from a measurement by calling `influx_query` with the corresponding query.

Usage

```
influx_select(con, db, field_keys, rp = NULL, measurement, where = NULL,
              group_by = NULL, limit = NULL, slimit = FALSE, offset = NULL,
              order_desc = FALSE, return_xts = TRUE, simplifyList = FALSE)
```

Arguments

<code>con</code>	An <code>influx_connection</code> object (s. influx_connection).
<code>db</code>	Sets the target database for the query.
<code>field_keys</code>	Specifies the fields to be selected.
<code>rp</code>	The name of the retention policy.
<code>measurement</code>	Sets the name of the measurement.
<code>where</code>	Apply filter on tag key values.
<code>group_by</code>	The <code>group_by</code> clause in InfluxDB is used not only for grouping by given values, but also for grouping by given time buckets.
<code>limit</code>	Limits the number of the <code>n</code> oldest points to be returned.
<code>slimit</code>	logical. Sets limiting procedure (<code>slimit</code> vs. <code>limit</code>).
<code>offset</code>	Offsets the returned points by the value provided.
<code>order_desc</code>	logical. Change sort order to descending.
<code>return_xts</code>	logical. Sets the return type. If set to <code>TRUE</code> , a list of xts objects is returned, <code>FALSE</code> gives list of tibbles.
<code>simplifyList</code>	logical. If only one series is returned, the result can be flattened to directly get either a tibble or an xts object (instead of a list) (default is <code>FALSE</code>).

Value

A list of xts or tibbles.

References

<https://docs.influxdata.com/influxdb/>

influx_write	<i>Write an xts object to an InfluxDB server</i>
--------------	--

Description

This function writes an xts object to an InfluxDB server. Columnnames of the xts object are used as InfluxDB's field keys, xts's coredata represent field values. Attributes are preserved and written as tag keys and values, respectively.

Usage

```
influx_write(con, db, xts, measurement = NULL, rp = NULL,
  precision = c("s", "ns", "u", "ms", "m", "h"), consistency = c(NULL,
  "one", "quorum", "all", "any"), max_points = 5000, use_integers = FALSE)
```

Arguments

con	An influx_connection object (s. influx_connection).
db	Sets the target database for the query.
xts	The xts object to write to an InfluxDB server.
measurement	Sets the name of the measurement.
rp	Sets the target retention policy for the write. If not present the default retention policy is used.
precision	Sets the precision of the supplied Unix time values ("s", "ns", "u", "ms", "m", "h"). If not present timestamps are assumed to be in seconds.
consistency	Set the number of nodes that must confirm the write. If the requirement is not met the return value will be partial write if some points in the batch fail, or write failure if all points in the batch fail.
max_points	Defines the maximum points per batch (defaults to 5000).
use_integers	Should integers (instead of doubles) be written if present?

Value

A list of server responses.

References

<https://docs.influxdata.com/influxdb/>

See Also

[xts](#), [influx_connection](#)

show_diagnostics	<i>Show diagnostics</i>
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Description

This function is calls `influx_query` to receive some diagnostics.

Usage

```
show_diagnostics(con)
```

Arguments

`con` An `influx_connection` object (s. [influx_connection](#)).

Value

A tibble with diagnostics.

See Also

[influx_connection](#)

show_stats	<i>Show stats</i>
------------	-------------------

Description

This function is calls `influx_query` to receive some stats.

Usage

```
show_stats(con)
```

Arguments

`con` An `influx_connection` object (s. [influx_connection](#)).

Value

A tibble.

Warning

InfluxDB response might take some time.

See Also

[influx_connection](#)

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