# Package 'bigrquerystorage'

October 17, 2024

**Type** Package

**Title** An Interface to Google's 'BigQuery Storage' API

**Version** 1.2.1

**Maintainer** Bruno Tremblay <openr@neoxone.com>

**Description** Easily talk to Google's 'BigQuery Storage' API from R (<https://cloud.google.com/bigquery/docs/reference/storage/rpc>).

**License** Apache License (>= 2)

**Imports** nanoarrow (>= 0.6.0), rlang, assertthat, Rcpp, lifecycle, bit64, tibble

**Suggests** blob, bigrquery, testthat, hms, wk (>= 0.3.2), tzdb, base64enc

**LinkingTo** Rcpp

**Encoding** UTF-8

**URL** https://github.com/meztez/bigrquerystorage

**BugReports** https://github.com/meztez/bigrquerystorage/issues

**SystemRequirements** grpc/protobuf headers and compilers. For example libprotobuf-dev libgrpc++-dev protobuf-compiler-grpc (Debian) or protobuf-devel grpc-devel grpc-plugins (Fedora/RHEL)

**RoxygenNote** 7.3.2

**Biarch** TRUE

**NeedsCompilation** yes

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**Repository** CRAN

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`bigrquerystorage-package` *bigrquerystorage: An Interface to Google's 'BigQuery Storage' API*

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## Description

Easily talk to Google's 'BigQuery Storage' API from R (https://cloud.google.com/bigquery/docs/reference/storage/rpc).

## Author(s)

**Maintainer**: Bruno Tremblay <openr@neoxone.com>

Other contributors:

- Google LLC [copyright holder, funder]

## See Also

Useful links:

- https://github.com/meztez/bigrquerystorage
- Report bugs at https://github.com/meztez/bigrquerystorage/issues

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`bqs_auth` *Initialize bigrquerystorage client*

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## Description

Initialize bigrquerystorage client

Close bigrquerystorage client

## Usage

```
bqs_auth()

bqs_deauth()
```

## Details

Will attempt to reuse `bigrquery` credentials.

About Credentials

If your application runs inside a Google Cloud environment that has a default service account, your application can retrieve the service account credentials to call Google Cloud APIs. Such environments include Compute Engine, Google Kubernetes Engine, App Engine, Cloud Run, and Cloud Functions. We recommend using this strategy because it is more convenient and secure than manually passing credentials.

Additionally, we recommend you use Google Cloud Client Libraries for your application. Google Cloud Client Libraries use a library called Application Default Credentials (ADC) to automatically find your service account credentials. ADC looks for service account credentials in the following order:

1. If the environment variable GOOGLE_APPLICATION_CREDENTIALS is set, ADC uses the service account file that the variable points to.
2. If the environment variable GOOGLE_APPLICATION_CREDENTIALS isn't set, ADC uses the default service account that Compute Engine, Google Kubernetes Engine, App Engine, Cloud Run, and Cloud Functions provide.
3. If ADC can't use either of the above credentials, an error occurs.

## Value

No return value, called for side effects.

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`bqs_table_download` *Download table data*

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## Description

This retrieves rows block in a stream using a grpc protocol. It is most suitable for results of larger queries (>100 MB, say).

## Usage

```
bqs_table_download(
  x,
  parent = getOption("bigquerystorage.project", ""),
  snapshot_time = NA,
  selected_fields = character(),
  row_restriction = "",
  sample_percentage,
  n_max = Inf,
  quiet = NA,
  as_tibble = lifecycle::deprecated(),
  bigint = c("integer", "integer64", "numeric", "character"),
  max_results = lifecycle::deprecated()
)
```

## Arguments

| | |
|---|---|
| x | Table reference {project}.{dataset}.{table_name} |
| parent | Used as parent for CreateReadSession. grpc method. Default is to use option bigquerystorage.project value. |
| snapshot_time | Table modifier snapshot time as POSIXct. |
| selected_fields | Table read option selected_fields. A character vector of field to select from table. |
| row_restriction | Table read option row_restriction. A character. SQL text filtering statement. |
| sample_percentage | Table read option sample_percentage. A numeric 0 <= sample_percentage <= 100. Not compatible with row_restriction. |
| n_max | Maximum number of results to retrieve. Use Inf or -1L retrieve all rows. |
| quiet | Should information be printed to console. |
| as_tibble | Should data be returned as tibble. Default (FALSE) is to return as arrow Table from raw IPC stream. |
| bigint | The R type that BigQuery's 64-bit integer types should be mapped to. The default is "integer" which returns R's integer type but results in NA for values above/below +/- 2147483647. "integer64" returns a bit64::integer64, which allows the full range of 64 bit integers. |
| max_results | Deprecated |

## Details

More details about table modifiers and table options are available from the API Reference documentation. (See TableModifiers and TableReadOptions)

## Value

This method returns a data.frame or optionally a tibble. If you need a data.frame, leave parameter as_tibble to FALSE and coerce the results with as.data.frame().

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