

# Package ‘bigrquerstorage’

July 22, 2025

**Type** Package

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

**Version** 1.2.2

**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/bigrquerstorage>

**BugReports** <https://github.com/meztez/bigrquerstorage/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

**Author** Bruno Tremblay [aut, cre],  
Google LLC [cph, fnd]

**Repository** CRAN

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**bigrquerrystorage-package***bigrquerrystorage: 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](mailto:openr@neoxone.com)>

Other contributors:

- Google LLC [copyright holder, funder]

**See Also**

Useful links:

- <https://github.com/meztez/bigrquerrystorage>
- Report bugs at <https://github.com/meztez/bigrquerrystorage/issues>

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**bqs\_auth***Initialize bigrquerrystorage client*

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**Description**

Initialize bigrquerrystorage client

Close bigrquerrystorage client

**Usage**

`bqs_auth()`

`bqs_deauth()`

## Details

Will attempt to reuse bigquery 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 | <i>Download table data</i> |
|--------------------|----------------------------|

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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**

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