

# KARTE Export Integration

[Learn more about KARTE Import Integration.](#)

You can use the Karte connector to write job results from queries run in Treasure Data to your Google Cloud Storage.

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## Prerequisites

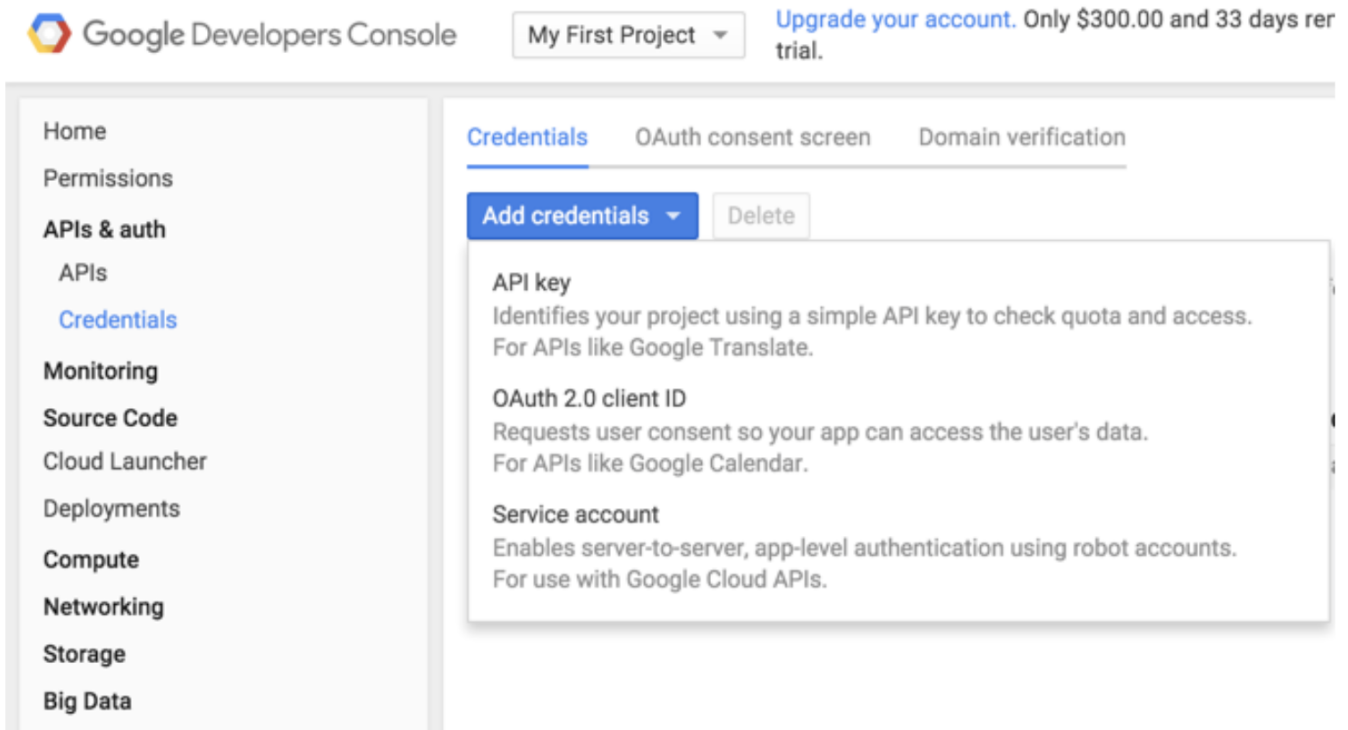
- Basic knowledge of Treasure Data, including the [Toolbelt](#).
- A Google Cloud Platform account

## Getting Google Cloud Platform Credentials

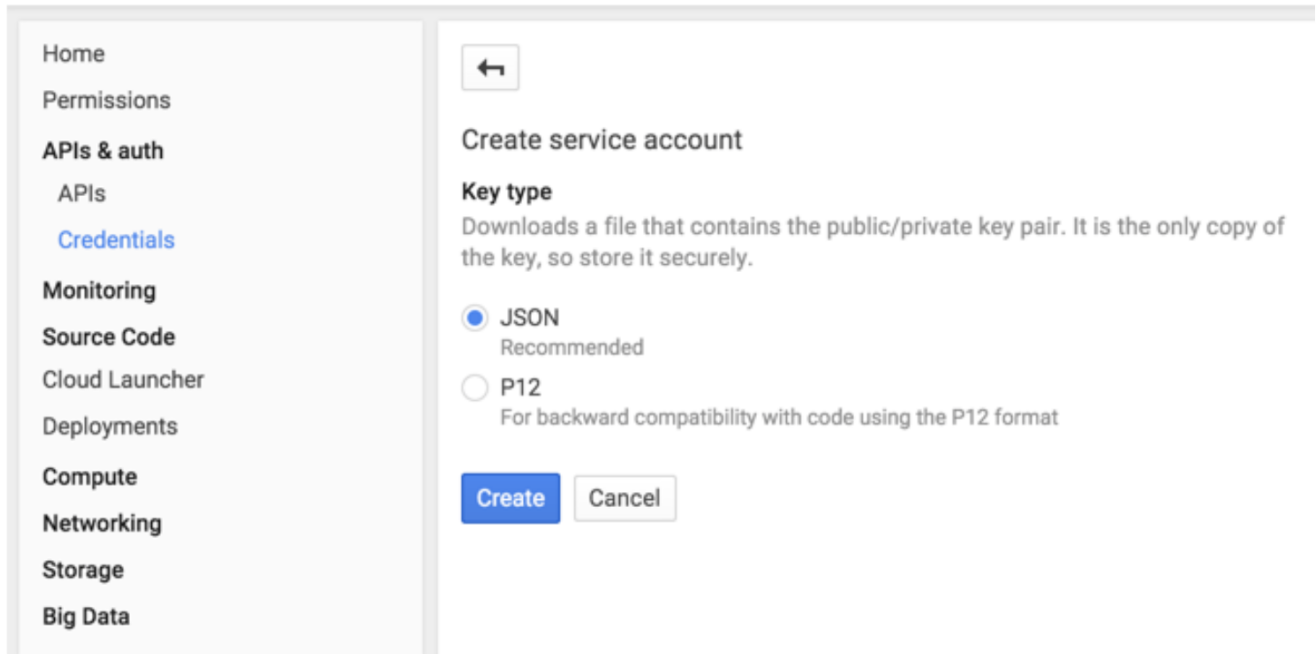
Before creating the connector, you need to gather the following information: your *Project ID*, and *JSON Credential*.

### JSON Credential

The integration with Google Cloud Storage is based on server-to-server API authentication. Go to your *Google Developer Console* and select **Credentials** under *APIs & auth* at the left menu. Then, select **Service account**.



Select the *JSON* based key type, which is Google's recommended configuration. The key is automatically downloaded by the browser.



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### Create service account

**Key type**

Downloads a file that contains the public/private key pair. It is the only copy of the key, so store it securely.

JSON  
Recommended

P12  
For backward compatibility with code using the P12 format

Create Cancel

The Service Account owner, who generated JSON Credentials, must have Write permission for destination bucket.

## Specifying Output in Your KARTE Connector

### Using the TD Console

#### Create the destination Bucket in Google Cloud Storage

Create your *bucket* from your Google Cloud Storage console.

#### Write the query

Go to the [Treasure Data Console query editor page](#) and compile your query.

#### Specify the Result Export target

In the same window, select the **Create New Connection** in the *Result Export*.

In the dialog opens, search for and select your connection type: *KARTE*. Provide a name for your *KARTE* connection. Complete the information, including your JSON Credential, Bucket name, and Path:

#### Execute the query

Finally, either save the query with a name or just run the query. After the successful completion of the query, the results are automatically sent to the specified Google Cloud Storage destination.

## Choose Saved Connection ×

Search...

Name	Size	Type
output.csv	263 B	application/octet-stream

or **CREATE NEW CONNECTION**

Browser [↑ UPLOAD FILES](#) [CREATE FOLDER](#) [REFRESH](#)

Buckets / result-export-gcs / td

<input type="checkbox"/>	Name	Size	Type
<input type="checkbox"/>	output.csv	263 B	application/octet-stream

### Use the CLI

You can set a scheduled query to send job results to Google Cloud Storage using KARTE.

## Create Connection



Type

Karte 

Name

karte\_integration

Share with others

JSON key file

```
{"type": "service_account", "private_key_id": ...
```

Paste the credentials of a service account created on Google Developer Console

BACK

SAVE AND CONTINUE

## Export Results



### Integration: karte\_integration

Bucket

Path prefix

Includes filename: e.g. /path/to/filename.csv

Sequence format

Format

Compression

BACK

DONE

Designate your json\_key and escape the newline with backslash.

#### Example

```
$ td sched:create scheduled_karte "10 6 * * *" \  
-d dataconnector_db "SELECT id,account,purchase,comment,time FROM data_connectors" \  
-r '{"type":"karte","bucket":"samplebucket","path_prefix":"/output/test.csv","format":"csv","compression":"","  
header_line":false,"delimiter":",","null_string":"","newline":"CRLF", "json_keyfile":{"private_key_id\":" \  
ABCDEFGHIJ\", \"private_key\": \"-----BEGIN PRIVATE KEY-----\\nABCDEFGHIJ\\ABCDEFGHIJ\\n-----END PRIVATE  
KEY-----\\n\", \"client_email\": \"ABCDEFGHIJ@developer.gserviceaccount.com\", \"client_id\": \"ABCDEFGHIJ.apps.  
googleusercontent.com\", \"type\": \"service_account\"}]'
```

### (Optional) Configure Export Results in Workflow

Within Treasure Workflow, you can specify the use of this data connector to output data.

```
timezone: UTC  
  
_export:  
  td:  
    database: sample_datasets  
  
+td-result-into-target:  
  td>: queries/sample.sql  
  result_connection: karte_integration  
  result_settings:  
    format: csv  
    newline: CR  
    ....
```

For more information on using data connectors in Treasure Data Workflow to export data, review [About Using Workflows to Export Data with TD Toolbelt](#).

## KARTE Connector Parameters

You can use the following parameters when configuring the KARTE connector.

<b>format</b>	"csv" or "tsv"
<b>compression</b>	"" or "gz"
<b>header_line</b>	true or false
<b>delimiter</b>	"," or "\t" or " "
<b>null_string</b>	"" or "\N"
<b>newline</b>	"CRLF" or "CR" or "LF"
<b>json_keyfile</b>	Use backslash to escape newline "\n"