



Key-Value Online Storage

By Hippo Games

Welcome! Hope you will enjoy working with my asset!

About:

Key-Value Online Storage (KVOS) is the simplest way to share small data between your users. It is based on Google App Scripts and each developer can create his own storage for free.

You can use **KVOS** to share user content. Here are some use cases:

- Sending gifts, credits, resources
- Sharing user content: characters, maps and other as tiny data (usually JSON)

You cannot use **KVOS** for:

- Saving game progress
- Long-term data storing as data lifetime is not guaranteed (old data is erased when the storage becomes full)
- Large data storing like screenshots

If you need long-term data storage without size limitations, I would recommend you to use **Google Firebase**.

Features:

- Sharing user content
- User and developer friendly
- Dedicated storage instance with **Google App Script**
- Clean and simple C# code
- Unity 5, 2017, 2018 support
- Any platform (Standalone, Android, iOS, WebGL, UWP)

Limitations:

- All limitations are made by Google
- Total storage size limit is 500kB
- Single key-value pair size is limited to 9kB

Storage maintenance:

- Automated storage cleanup when no free space (deleting old data)

Usage:

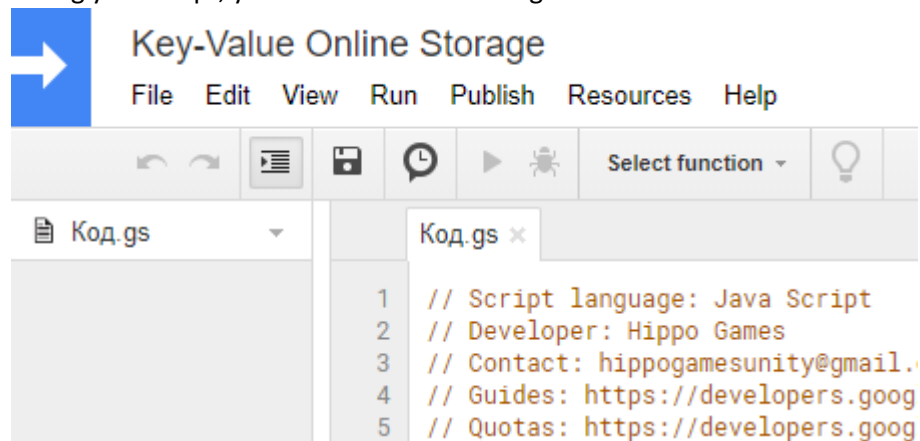
- Open **Example.scene** in Editor and run it
- Press **SET** and **GET** to test how it works

Service response:

- Service returns **ServiceResponse** as JSON for Get and Set requests
- **ServiceResponse** contain *int* **ErrorCode** and *string* **Response**

Storage setup:

- You need Google account
- Visit <https://script.google.com/home> and create a new project
- Start editing your script, you should see something like this:



- Name it as **Key-Value Online Storage** for example
- Find **Storage.gs** file from the asset folder
- Copy script source code to your Google App
- Press **Publish/Deploy as web app**
- Select **Execute the app as: Me**
- Select **anonymous** access

Deploy as web app

Current web app URL: [Disable web app](#)

[https://script.google.com/macros/s/AKfycbyS_OIZA6MU4](#)

[Test web app for your latest code.](#)

Project version:

New ▼

Describe what has changed...

Execute the app as:

[Me \(hippogamesunity@gmail.com\)](#) ▼

You need to authorize the script before distributing the URL.

Who has access to the app:

[Anyone, even anonymous](#) ▼

[Update](#) [Cancel](#) [Help](#)

- Copy web app **URL** to clipboard
- Press **Publish/Update** button
- Go to Unity, open **KeyValueService.cs** and replace **ServiceUrl**
- Test it with **Example.scene**

Storage maintenance:

- Open web app script and check its' global settings (variables)
- Change `adminPassword`
- Navigate to [URL]?set=[VALUE] to set a value and output a key
- Navigate to [URL]?get=[KEY] to get and output a value
- Navigate to [URL]?output&password=[PASSWORD] to output all storage
- Navigate to [URL]?count&password=[PASSWORD] to output records count
- Navigate to [URL]?size&password=[PASSWORD] to output total storage size in bytes
- Navigate to [URL]?clear&password=[PASSWORD] to clear your storage
- Navigate to [URL]?testfill&password=[PASSWORD] to fill your storage with random data

References:

- Help: <https://developers.google.com/apps-script/>
- Guides: <https://developers.google.com/apps-script/guides/properties>
- Quotas: <https://developers.google.com/apps-script/guides/services/quotas>

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