

GDrive for LabVIEW

This toolkit allows users to directly upload/download files to/from their Google drive. Authentication was completed by the OAuth method documented [here](#). This toolkit was created as a wrapper for the Google Drive .NET API [that can be found online](#). Developers must obtain their own Client Secret JSON, found [here](#). The Initialize VI requires this file to function, so a user must give a path to their Client Secret JSON for proper toolkit functionality. For more information on how to fill out this form, look to the bottom of this document under “How to create a client_secret.json file for API Authentication.”

Initialize VI

- Summary:
 - o This VI will use OAuth to authenticate a user for their Google Drive Account the first time that this VI is called in LabVIEW. After that, this VI does not execute, but it is required for all functionalities of the drive, as it contains the authentication within the Drive Service Reference.
- Input: path to secret client
- Output: Google Drive Service Reference

DownloadFile VI

- Summary:
 - o Given a specific file reference, this VI will download the file to the specified local path.
- Input: Desired file path, Google Drive Service Reference, and file reference
- Output: File download locally.

ListFiles VI

- Summary: Outputs an array that contains references to the files on a user's Google Drive. These references can be used in other VIs to access file properties and metadata.
- Input: Google Drive Service Reference
- Output: Array of Google File references

UploadFile VI

- Summary: Uploads a file to Google Drive.
- Input: File path, Google Drive Service Reference, Desired File Name on Drive
- Output: file specified by the path is uploaded to the google drive authenticated by the Google Drive Service Reference

NamedFilesOnDrive VI

- Summary: Lists the files on the Google Drive.
- Input: Google Drive Service Reference,
- Output: Array of file names, corresponding to the files on the user's Google Drive.

FindFile VI

- Summary: finds a reference to a specific file on a user's Google Drive.
- Input: Array of file references, file name

- Output: file reference (corresponding to the file name)

Examples:

Upload example: Demonstrates the steps required to take a file from your local machine and upload it to the user's google drive.

Download example: Demonstrates the steps required to take a file from the user's google drive and download it to your local machine.

General Notes:

File names on Google Drive are case sensitive.

Error codes are often caused by a failure to connect the Google Drive Service Reference. Correct initialization is crucial to functionality.

How to create a client_secret.json file for API Authentication

[Developers must obtain their own Client Secret JSON, found [here](#).]

1. Open the wizard and press continue (make sure that the drop down selector says "create a project")
2. On the next page, click "go to credentials"
3. You should now see a page titled "Add Credentials to your project"
 - a. Which API are you using? : Google Drive API
 - b. Where will you be calling the API from?: Other UI
 - c. What data will you be using?: User Data
 - d. Then, click "What credentials do I need?"
4. Create an OAuth 2.0 client ID
5. Register your email address
6. Product Name: GDrive for LabVIEW
7. Download the client ID.
8. Put this file in a place that you can easily access and rename this file: client_secret.json
9. Use this file path in the initialize VI to authenticate your access.
10. Note that the first time you run this VI, you will be prompted in a web browser to give permission for the GDrive to access your Google Drive account. Click allow and move forward in your development process.