DriveMaster Permissions Tool - User Guide

This guide provides instructions for using the DriveMaster Permissions Tool to manage Google Drive folder permissions in bulk using a simple Excel interface.

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1. First-Time Setup & Authentication

The very first time you run the tool, you will need to authorize it to access your Google Drive account. This is a one-time process.

1. **Run the Application:** Double-click the `DriveMasterTool.exe` file. The control panel will appear.
2. **Trigger Authentication:** Click the "Run Fetch" buttons.
3. **Browser Window:** A new tab will open in your web browser, prompting you to log in to your Google Account. **You must use your official bioaccess® organizational Google account.**
4. **"Unverified App" Screen:** Google will likely show a "Google hasn't verified this app" warning. This is expected because this tool is for internal use.
   - Click "**Advanced**".
   - Click "**Go to DriveMasterTool (unsafe)**".
5. **Grant Permission:** On the next screen, review the permissions and click "**Allow**". This gives the tool the necessary access to manage your Drive files.
6. **Confirmation:** You will see a message saying "The authentication flow has completed." You can now close the browser tab.

The tool will automatically create a `credentials/token.json` file. As long as this file exists, you will not have to log in again.

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2. The Standard Workflow: Fetch, Edit, Apply

The most common way to use the tool is a three-step process.

Step 2.1: Fetch Current Permissions

This step reads all the permissions from a Google Drive folder and creates an Excel file for you to edit.

1. **Get the Folder ID:** In Google Drive, navigate to the folder you want to manage. The Folder ID is the long string of letters and numbers in the URL.
   - `https://drive.google.com/drive/folders/` **`1Q_GFk5fC7huNF-F1eTLmNKvPPMA68nLw`**
2. **Enter the ID:** Copy this ID and paste it into the "**Google Drive Folder ID**" box in the GUI.
3. **Run Fetch:** Click the "**Run Fetch**" button. The Output Log will show the progress.
4. **Open the Report:** When complete, a new `permissions_editor_...xlsx` file will be created in the `reports` folder. Open this file.

> #### What Happens if the Report is Already Open?
>
> The tool is smart enough to know if you have a report file open in Excel. If you try to run `Fetch` for a folder you've already fetched, the tool needs to overwrite the existing Excel file.
>
> If the file is open, a "**File In Use**" pop-up will appear, warning you that the file is locked. To proceed:
>
> 1. Simply close the Excel file completely.
> 2. Return to the pop-up window and click "**Yes**" to retry.
> 3. The fetch process will then proceed as normal.
>
> If you wish to cancel the operation, just click "**No**".

Step 2.2: Edit the Excel File

The generated Excel file is your main interface for defining changes.

How to Modify or Remove an Existing Permission

To change or revoke a permission that is already listed in the report:

1. **Find the specific row** for the user and file you want to change.
2. Go to the **`Action_Type`** column for that row.
3. **To Modify:** Select **`MODIFY`** from the dropdown. Then, go to the **`New_Role`** column and select the new role you want the user to have.
4. **To Remove:** Select **`REMOVE`** from the dropdown. You don't need to fill out any other columns.

How to Add a New Permission

To grant a new user, group, or domain access to a specific file, follow these steps:

1. **Find the file** in the spreadsheet that you want to add a permission to.
2. **Copy the `Item ID`** from one of that file's existing rows (e.g., from the owner's row).
3. Scroll down to the first **empty row** at the bottom of the sheet and **paste the `Item ID`** into the `Item ID` column. This is the most important step, as it tells the tool which file to act on.
4. In that same empty row, fill out the following **four** action columns:
   - **`Action_Type`** : Select **`ADD`** from the dropdown.
   - **`New_Role`** : Select the permission level you want to grant (e.g., `Editor`).

- `Type of account (for ADD)` : Select the type of account (`user`, `group`, or `domain`).
- `Email/Domain (for ADD)` : Type the full email address or domain name you want to add.

All other informational columns for this new row can be left blank.

Understanding the Report Columns

The Excel report contains two types of columns: **Informational Columns** that describe the current state, and **Action Columns** where you define the changes you want to make.

Informational Columns (For Your Reference - Do Not Edit on Existing Rows)

- **Full Path**: The complete folder path to the item from the root folder you scanned.
- **Item Name**: The name of the specific file or folder.
- **Item ID**: The unique, permanent ID for the item in Google Drive. The script uses this to identify items.
- **Role**: The current permission level for the principal (e.g., `Editor`, `Viewer`).
- **Principal Type**: The type of account with permission (`User`, `Group`, or `Domain`).
- **Email Address**: The email of the user/group or the name of the domain that has permission.
- **Owner**: The email of the user who owns the file.
- **Google Drive URL**: A direct link to the item.
- **Root Folder ID**: The unique ID of the main folder you scanned.

Action Columns (Where You Define Changes)

- **Restrict Download**: This is a file-level setting. Use the dropdown to select:
  - `TRUE` : Prevents users with `Viewer` or `Commenter` roles from downloading, printing, or copying the file.
  - `FALSE` : Allows users with `Viewer` or `Commenter` roles to download, print, or copy.

  > **Note:** Because this is a property of the file itself, changing this setting on **any single row** for a file will apply the change affecting **all** of its Viewers and Commenters.

- **Action_Type**: This is the main column to change a specific permission on a specific file. Use the dropdown to select `MODIFY`, `REMOVE`, or `ADD`.
- **New_Role**: Use this column **only** when your `Action_Type` is `MODIFY` or `ADD`. Select the new permission level from the dropdown.
- **Type of account (for ADD)**: Use this column **only** when your `Action_Type` is `ADD`. Select the type of account you are adding (`user`, `group`, or `domain`).
- **Email/Domain (for ADD)**: Use this column **only** when your `Action_Type` is `ADD`. Enter the full email address or domain name for the new permission.

Step 2.3: Apply the Changes

After making all your desired changes in the Excel file, **save and close it.**

1. **Select the File:** In the GUI's "**Apply Changes**" section, click "**Browse**" and select the `.xlsx` file you just edited.
2. **Perform a Dry Run (Highly Recommended):** Leave the "Make LIVE changes" box **unchecked** and click "**Run Apply-Changes**". The Output Log will show you exactly what actions it *would* perform without actually touching your live data.
3. **Perform a Live Run:** Once confident, check the "**Make LIVE changes**" box, click "**Run Apply-Changes**", and confirm "Yes" in the warning pop-up.

An audit log of the operation will be saved in the `logs` folder.

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3. Undoing Changes with Rollback

If you need to revert changes from a specific "Apply Changes" run, you can use the `rollback` feature.

1. **Select the Audit Log**: In the GUI's "**Rollback Changes**" section, click "**Browse**" and select the `..._apply_..._audit.csv` file from the `logs` folder that you want to undo.
2. **Run Rollback:** Check the "**Perform LIVE rollback**" box, click "**Run Rollback**", and confirm "Yes".

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4. Understanding the Folders

The application creates several folders in the same directory where you run the `.exe` :

- `reports/` : Contains the user-facing `permissions_editor_...xlsx` files.
- `archives/` : Contains raw CSV backups of the permission states.
- `logs/` : Contains detailed CSV audit logs of every action performed.
- `credentials/` : Stores your `token.json` file after you log in.