How To Mount GDrive in Linux

## Install rclone

1. Check if you already have rclone installed by checking it’s version:

rclone -V

1. If needed install latest stable release of rclone (see: [Rclone](https://rclone.org/downloads/#release) /home/lars/.config/rclone/rclone.conf)

curl https://rclone.org/install.sh | sudo bash

Note: Apparently, in older versions of rclone there has been an issue with gdrive links and google OAuth. Downloading latest stable version v1.58.1 with command above and set up clone from scratch as user (not sudo) works fine.

## Set up Rclone once

1. run rclone setup:  
    rclone config
2. Type “n” for New Remote
3. Type “gd\_greenventory”
4. Type “drive” for Google DriveDrive
5. Now it is time to make your own google client\_id
   1. Go to<https://console.developers.google.com/>
   2. Create a New Project
   3. Under “ENABLE APIS AND SERVICES” search for “Drive”, and enable the “Google Drive API”
   4. Click “Credentials” in the left-side panel (NOT “Create credentials”, which opens the wizard), then “Create credentials”, then “OAuth client ID”.

It will prompt you to set the OAuth consent screen product name, if you haven’t set one already. Just follow along:

* + 1. Choose “internal”
    2. App name: “
    3. <your credentials>”
    4. Email\_adress: “<you>@greenventory.de”
    5. Go back to “Credentials”.
    6. click “create Credentials”, then “OAuth client ID”
  1. Choose an application type of “Desktop app”, and click “Create” (I simply named mine “1”)
  2. This will then show you a client ID and client secret. - LEAVE WINDOW OPEN, SAVE CLIENT ID & CLIENT SECRET TO TEXT FILE OR USE EXPORT SETTINGS TO JSON FILE

1. Copy the Client ID & Go back to terminal and paste the Client ID
2. Switch to the Google developers console
3. Copy the Client Secret & Go back to terminal and paste the Client Secret
4. You will now be prompted to choose a number from below for the scope – type 1 for “drive” and then enter
5. You will now be prompted to either enter a string value for the root folder or leave it blank (“Leave Blank Normally”)
6. You will now be prompted to either enter a string value for the service\_account\_file - Leave this blank and press enter
7. Next you will be asked if you’d like to edit the advanced config (y/n) - Type n and then enter
8. Now you’ll be asked if you’d like to use auto config - Type “n” and then enter
9. Copy the link, open it in your browser. Enter a string value. Press Enter, copy the token that you get there, paste in terminal
10. Go back to terminal and when asked if you would like to configure this as a team drive in terminal, type “n” and then enter
11. Your finalized version of the config file will now be output in terminal and all you have to do is enter “y” to accept it
12. The rclone config file has now been built and will be located in   
    ~/.config/rclone/rclone.conf
13. COMPLETE

If you saved your google client\_id & client\_secret in the json file as mentioned above, you can run config again in case of errors.q

Also make sure that all users have reading permissions to the config file since you do not want to mount as sudo. Furthermore, there exists a [mount script](https://drive.google.com/file/d/1lTyvJTaEXCaLGLa9Y1uB8qI4NuvpehGN/view) that can be run to mount your data as required automatically. Ask Ray, Jakob or Lars about the bash script (.sh).

Sources:

* <https://rclone.org/install/>
* <https://ostechnix.com/mount-google-drive-using-rclone-in-linux/>
* <https://www.reddit.com/r/DataHoarder/comments/bmmhlj/windows_rclone_rclone_browser_rclone_mount_plex/>
* <https://blog.galt.me/how-to-mount-gdrive-in-nextcloud/>

## Mounting a greenventory gdrive directory [deprecated if mount script used]

This example creates a mount for a GDrive folder that was shared with you.

(option --drive-shared-with-me (german translation: “Für mich freigegeben”) can simply be copied. However, it requires the file to be mounted in order to appear in “shared with me” on Gdrive)

For this example, we use the folder **wissensmanagement**, but it could also be a project folder.

1. *create empty mount point (directory ‘gd’ for greenventory google drive)*

mkdir ~/gd

mkdir ~/gd/wissensmanagement

1. *mount shared directory to mount point with the following command:*

*note: the “wissensmanagement” behind gd\_greenventory is the name of the folder from gdrive which shall be mounted, in this example we use the same name for the local folder it shall be mounted into.*

*rclone mount --drive-shared-with-me gd\_greenventory:****wissensmanagement*** *~/gd/****wissensmanagement*** *--allow-other --config ~/.config/rclone/rclone.conf &*

*If this doesn’t work, stop all processes (*sudo killall rclone) *first and then repeat the previous command.*

1. *test mounted directory*

ls -alh ~/gd/**wissensmanagement**/

the files and subfolders in the mounted directory should be listed

1. *to be sure, stop all rclone processes*

sudo killall rclone

1. *unmount the directory after use & for the next step (create systemd service)*

fusermount -u ~/gd/**wissensmanagement**/

## create systemd service

1. *create systemd service that will ease the mounting process*

sudo gedit /etc/systemd/system/rclone\_gd\_**wissensmanagement**.service

1. *Enter the following configuration into the file, save & exit text editor*

Modify description, mount command & log file name to fit your purpose

The first line after ‘ExecStart’ should contain the mount command you just tested before.

All the other parameters can stay as is.

[Unit]

Description=RClone Service gdrive **wissensmanagement**

[Service]

Type=notify

Environment=RCLONE\_CONFIG=/root/.config/rclone/rclone.conf

ExecStart=rclone mount --drive-shared-with-me gd\_greenventory:**wissensmanagement** ~/gd/**wissensmanagement** \

--allow-other \

--buffer-size 256M \

--dir-cache-time 72h \

--drive-chunk-size 32M \

--log-level INFO \

n --log-file ~/gd/**wissensmanagement**.log \

--umask 002 \

--vfs-read-chunk-size 128M \

--vfs-read-chunk-size-limit off

ExecStop=/bin/fusermount -uz /GD

Restart=on-failure

[Install]

WantedBy=multi-user.target

1. *Test the systemd service you just created*
   1. *First, unmount directory if still mounted from testing command before*

fusermount -u $HOME/gd/**wissensmanagement**/

* 1. *M*ount the directory using the newly created systemd service

systemctl daemon-reload

systemctl start rclone\_gd\_wissensmanagement.service

1. *Check if successful*

the files and subfolders in the chosen folder should be listed again

ls -alh ~/gd/**wissensmanagement/**

1. *DONE*

* *Optional: let the systemd service always start at system boot*

systemctl enable rclone\_gd\_**wissensmanagement**.service

* *Optional: Undo automatic service start at boot:*

systemctl disable rclone\_gd\_**wissensmanagement**.service

## copy from/to remote (important for backups!)

* *Use* rclone copy *like so:*  
  rclone copy /path/to/local/data gd\_greenventory:path/to/remote *and reverse*

rclone copy gd\_greenventory:path/to/remote /path/to/local/data

* *Don’t forget the* --drive-shared-with-me *flag, if* path/to/remote *is in a corresponding gdrive-directory*
* *Use* --create-empty-src-dirs *if you want to recreate the directory structure of what you are copying*
* *Use* -P *if you want have progress info displayed in the terminal*
* *So what you need to backup some project data to the shared project directory might be:*

rclone copy /path/to/local/data gd\_greenventory:path/to/remote --drive-shared-with-me--create-empty-src-dirs -P

* *Also consider this bit on* rclone sync*:* <https://docs.google.com/document/d/1SSsKmz0zFQMXL_xs57JRI-wPZBAgcqKF1zBgL202F1U/edit?usp=sharing>

Source:

* <https://forum.rclone.org/t/setting-up-rclone-mount-on-ubuntu-a-little-steer-greatly-appreciated/8007/2>