Back-up (copy) or Sync (Bidiretional) Files to/with a Folder in Your Dropbox Account on the Micro Journal Rev 2

Revision 2, March 17th 2025

The Micro Journal Rev 2 comes with a pretty nice way of getting files onto your computer, by using your computer's browser as a file manager that can see the files in your documents folder. It is simple and already set up. However, I would really like my files to be sent directly to Dropbox. If my drafts land in Dropbox, they are instantly available to any of my other devices I might edit on. That's really useful to me.

A program called **rclone** can do this. A friend of mine who uses the handle Hollerpots on the Alphasmart - Writing Tools forum helped me with this and most of the credit for what's right in what follows should be credited to him. I'm just the beta tester. However, I wrote this up, so any errors should be credited to me. Hollerpot's instructions, which I am adapting here, can be found at this link: https://hoolis.net/posts/rev2.html

I have chosen to stick with just backing up (copying) drafting files to Dropbox because it fits my workflow. Hollerpot's instructions also include bidirectional sync, but it is riskier, in part because even the rclone dev considers it experimental and warns against using it for anything important. But even with just backing up, my instructions differ a bit from Hollerpot's, as I'll explain below. You should really look at his instructions before settling on mine, although my in-

structions work and are reliable.

Before we begin, some caveats...

There is one key problem on the Rev 2 that gives rclone trouble and that has to be solved before you can get reliability, as I found out in my beta tests. The Raspberry Pi Zero on the Rev 2 does not have a battery backup (like the CMOS in your computer) to maintain the time and date when the Rev 2 is turned off. If you are just using the Rev 2 to go into Word Grinder and type a draft, it doesn't have any real consequences beyond possibly having the wrong dates on your files. The method of starting a server and using your browser to pull the files over to your computer is quite elegant and also doesn't care about file dates. This is why this problem with time and date hasn't been raised much.

The program rclone on the other hand, being a backup and sync solution, cares a lot about time and date. A syncing system has to maintain a lot of safety checks to make sure it isn't overwriting a newer version with an older version. If you turn the network on, by the way, it will, in short order, reach out to a time server and update the time and date. It will then do so at intervals, but this, as I found in my beta testing, is not as accurate as turning on time syncing and keeping it on. And, THIS is what I'm going to propose if you want to make use of rclone and want to be able to really count on it to be reliable. I should say, I don't know why the internal clock alone doesn't keep accurate time after being updated without the syncing service but that's what I observed.

And, in fact, Linux programs and services, like most full OS's these days, assume the network is always on. So. to the degree that you want to use the Linux on the Rev 2 rather than just the default drafting aspects Un Kyu set up, you will want to have the network up and running all

the time.

The only important note of caution to make: Keeping the network on all the time will eat up battery. **You should NOT do this if you are trying to rely on just the small internal battery you installed. You absolutely require an external battery to be plugged in at all times.** I use a 20000 mAh external battery and can draft worry free, but 10000 mAh is probably plenty. I don't mind having a little brick to haul around, Just remember, you can't use a battery that fast charges only—if it has a USB-A output port, you should be safe. I have a battery that both charges and fast charges so I can even charge my phone while maintaining power to the Rev 2.

A final note before plunging in, The instructions for installing rclone I link to below assume ***you have a Linux computer to work with***. This can probably be done with Windows or even a Mac, but it's easier on Linux, even for me, someone who mostly uses Windows. Neither Hollerpots nor I have any experience doing this in any OS but Linux, so those are the instructions I will use.

Here is what I set up that now provides reliable back-ups of my files to Dropbox:

1. Install rclone

Go to Hollerpot's web instructions for installing. Those directions are good and accurate: They are what I used as the beta tester.

https://hoolis.net/posts/rev2.html

Go to the first section called "*Dropbox via Rclone*," Follow the instructions through the end of step 4. When finished you will have rclone set up on your Rev 2, set up to communicate

with Dropbox.

My step 2 is a replacement for Hollerpot's step 5. His step 5 works fine and there's no reason not to go with his instructions. My adaptation in step 2 was created because of the following choices I made.

1. I want to have the net up and time sync operating as soon as I boot up so that my files always have an accurate time stamp. Again, doing this absolutely requires having an external battery. I am still keeping it a manual process, a script I fire up when I boot up. I might decide to put it in the bootup script to make it automatic, but I haven't yet.

2. I have decided that I don't really need bidirectional sync, given my workflow. I'm just backing up drafting files so I can copy and paste them into my editor. I am not making changes in them on my computer and then passing them back to the Rev 2. So, for me, not worth bothering with given even the dev says it's risky. I discoverd the same thing with my Neo 2. I no longer even have Neo Manager installed. For me, I only need one-way backup.

3. Because my files should have proper time stamps, I am not bothering with the checksum flag that Hollerpots recommended.

So here is what I ended up doing instead of Hollerpots' step 5. Just understand, Hollerpots is much more of an expert than I am. Your move. ;-)

2. Create the scripts to manage the back-up to Dropbox

Now that you have rclone installed and tested, we will first create a script to turn on the network and start time syncing. This just adds a line to the *netup.sh* file, which is what I did rather than creating a new script. So drop out of ranger and type **nano netup.sh** and if you already created netup.sh it will appear in nano. If you haven't, nano will open with a blank file. When you are done editing, you should end up with the following 3 lines:

```
#!/usr/bin/bash
sudo systemctl start NetworkManager.service
sudo systemctl restart systemd-timesyncd.service
```

The first line is the header you need for all scripts. The second line turns on the network. The third line starts up and leaves on the timesync service to retrieve the correct time and date and keep it in sync with the time server. Note, it can take 3-5 seconds for the time and date to be properly updated after firing this script. Save that script and exit nano. Then, as you have to do with all new scripts to make them executable, type the following command in the command line:

chmod +x timedate.sh

Now, the last thing you need is the script to make the back-up. We'll call it *backup.sh*. It is different from the one Hollerpots has you create because I am turning on the network and just leaving it on so that file time date stamps will be accurate. Therefore, my version of the script has only one action because it won't need to turn on the network or start the time service, nor will it turn the network off. Type **nano backup.sh** and Type the following 2 lines into that file:

```
#!/usr/bin/bash
 rclone copy $1 documents/ Drop:00-drafts
```

The script is just one line (other than the required header), the command to get rclone to copy all files in your Documents folder to a folder in Dropbox called "*oo-drafts*" (obviously this

would be whatever you named that folder in DropBox when you set up rclone). “Drop” is the name I gave to the remote connection rclone made to Dropbox when I set up rclone on Linux. Again, save backup.sh, quit nano and type **chmod +x backup.sh** in the command line and hit enter.

3. Testing and Final Procedure

Now you should be set, but let’s test it first. Shut down the Rev 2. Now boot it up again. When you land in ranger, select *netup.sh* and hit enter. Now drop out of ranger (type “q”). Type the following command on the command line:

./backup.sh --dry-run and hit enter.

The period-slash is how you execute a file from the command line. The “--dry-run” part tells rclone to run but not actually copy files. Just check to see if it could or if there would be errors. You should see output on the screen indicating that it determined that all your files in documents would have been transferred but it didn't do it because it was a dry run. You should only have to do this once unless you start getting errors.

Now you should have a reliable back-up of files in your documents folder copied to Dropbox. When you first boot up the Rev 2, select *netup.sh* in ranger and hit Enter. Then open your editor and start drafting, When you have finished your writing session, saved your work and are back in ranger, select *backup.sh* and hit enter. In a short while, the files in your Documents folder should appear in your designated Dropbox folder on your computer or phone.

If you forget to turn on the network and start time syncing, there’s a good chance you will get errors. This is why I emphasize doing this habitually when you first boot, whether you are

planning to use rclone or not. If it is a habit, you won't forget it when you need it.

If you use Dropbox, this is such an easy and reliable method of getting your drafts to your computer or any device you have that uses Dropbox. A lot of steps in setting it up, but after that, for a Dropbox user, it is very simple. Not as good as a real Dropbox client like Dropsync that can do everything in the background without you even having to think about it, but still quite useful.

Any questions, feel free to stop by the Alphasmart - Smart Tools forum where I hang out. It's linked on the page where you found this.

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