How to compress a Raspberry PI SD for backup.

(Or How to create a compress Raspberry PI image)

June 5, 2018

This appears to work - but I’ve not tried it going the opposite direction.

1st run fstrim on the partition you want to shrink.

(sudo fstrim /media/lfmiller/rootfs) root partition of the PIs SD card

2nd create a compressed image using dd or pv and gzip

(sudo pv /dev/mmcblk1 | gzip --fast > imagename.img.gz)

SD card used 7.99gb (8gb) - Image after fstrim about 3.7gb, and after gzip about 2.1gb

This means the image should be able to be written back to a 4gb SD card without problem.

More testing will be needed.

Using a 4gb (3.97gb) SD card failed.

(Uncompressed image is still 8gb - Looks like fstrim doesn’t do anything)

Using a 8gb (7.99gb) SD card

There is a script that uses a very different method, that may work.

The script is called shrink.

<https://github.com/qrti/shrink>

This doesn’t seem to work either.

This (below) almost worked, I did get a very small image, and it was able to write to a smaller SD card, but in the end it was too small, and failed when it was time to boot the PI.

<http://www.aoakley.com/articles/2015-10-09-resizing-sd-images.php>

Oct 5, 2018

This worked when going from a 16gb Sandisk to a 16gb Kingston - I’ll test more with going from a 16gb to a 8gb and 4gb The image was shrunk to 3.3gb

<http://www.matteomattei.com/how-to-shrink-raspberry-pi-backup-images/>

This took a little while to do, but didn’t require a lot of complicated steps.

Update: The 16gb Sandisk to 8gb Agfaphoto worked no problems to report

Update #2 The 16gb Sandisk to 4gb works with no problems.