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## The driver descriptor says the physical block size is 2048 bytes, but Linux says it is 512 bytes

Asked 5 years, 8 months ago   Modified 2 years, 4 months ago   Viewed 42k times



Gparted shows mu such a message after scanning the disk contents with title "Libprated warning".

31



### The background:



6



This happened after I tried shrinking down one of the partitions to make room for another partition. I was doing this with The KDE Partition Manager. It's a brand new machine, but somehow things has gone wrong and I was unable to mount the down-sized partition.

I recovered the partition table with TestDisk, but the system seemed to hand in the Plymouth after showing an error message about the swap partition (which was under sda1).

Now've booted a LiveCD and I can mount and browse both the system and data partition. I created a new swap.

What can I do to fix this issue? And what problems might this cause?

linux

hard-drive

partitioning

gparted

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asked Oct 3, 2016 at 12:52




unfa

559   1   5   16

I've shrunken the partition and added a new one as I wanted, rebooted the machine, and all seems to work fine now. I've run Gparted and it didn't rise it's warning about block size again. – [unfa](#) Oct 3, 2016 at 13:05

I've got this issue again - it turned out it was in relation to a pendrive - the message that Gparted displays doesn't tell what device this issue is about. – [unfa](#) Dec 17, 2016 at 22:07

It **does** tell you which device the issue is about. When the error requester pops up, look in the lower left corner of the main GParted window. There it reads "Searching /dev/sdX partitions", with "sdX" referring to the faulty device. (Took me a couple of attempts to realize that, for me as well, the issue wasn't any of my HD's, but the USB stick I booted the LiveISO from...) – [DevSolar](#) Jan 27, 2017 at 12:51 

Would I need to resolve this issue before resizing the partitioning in question? – [Merchako](#) Jun 13, 2017 at 17:04

I've realized that the problem is only happening for USB Flash memory, but Gparted doesn't say which drive is affected by the bad reported sector size. – [unfa](#) Feb 13, 2018 at 13:59

### 3 Answers

Sorted by: Highest score (default) 



29



The issue is very similar to the one below, most likely there was a dd command ran over the device that caused the mismatch descriptor.

[Ask Ubuntu: Unable to delete USB Drive partitions \(Block size error\)](#)

The problem you are describing was caused by a low-level device tool (like dd) writing blocks at the wrong size directly onto the device.

To fix this, you need to re-write the device blocks to the appropriate size. This can be done with `dd`. Double check your output device before running the commands:

```
sudo dd if=/dev/zero of=/dev/sdd bs=2048 count=32 && sync
```

Once the `dd` command is done, you should be able to access your device through `gparted`.

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edited Apr 13, 2017 at 12:22



Community Bot

1

answered Dec 5, 2016 at 18:06



LitmusD

463 4 3

You should quote and cite the relevant information from the linked question. – [Ramhound](#) Dec 5, 2016 at 18:32

Doesn't seem to help. – [ulidtko](#) Jun 9, 2017 at 13:16

7 downvoted -1 ; @ulidtko, of course it does not help. I really don't understand why this was upvoted, (maybe lemmings ?...). The answer is wrong. 'bs=2048' in 'dd' cmd does NOT make the block size 2048 B. In other words "bs" does not mean "block size" but "buffer size". What this cmd does very well though, is buffering at most 2048 B at a time when writing to the 'of' block volume. The blocks in the volume are not changed in any way though. – [Cbhihe](#) Oct 7, 2017 at 10:38

1 the responder doesn't seem to know what he's talking about, this doesn't solve the issue. After this I ran into other error messages when trying to delete partitions on the device. Getting deeper into trouble, don't use this command! – [user3182532](#) Jul 28, 2018 at 13:19

1 despite hateful anti lemmings: this indeed worked for me – [krysopath](#) Nov 10, 2018 at 12:17



I don't want to steal someone else's work; the original contributor is Damiön la Bagh here: <https://bugs.launchpad.net/ubuntu/+source/usb-creator/+bug/1708881>

Be warned that by performing this procedure you will lose the data you have on your drive. When successful, you will end up with a usable drive, but no attempt is made here at recovering data from it.

Identify your USB drive's letter, then issue the command:

```
sudo wipefs --all /dev/sdN
```

(replace N with your disks's drive letter; this command should complete instantly.)

Launch gparted now; select the USB stick, which will appear empty. You'll first have to create a new partition table (Device > Create partition table). If you're unsure you can choose 'msdos'. This should also complete in a second. Then you'll be able to create new partitions as usual.

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edited Feb 14, 2020 at 14:20

answered Sep 13, 2018 at 17:17

 [Roberto](#)  
199 1 4

Tried this for my hard disk but the problem still persists. – [Nav](#) May 28, 2019 at 1:31

THIS WILL ERASE ALL YOUR DATA. Just leaving that here so that someone doesn't accidentally run the wrong command – [benathon](#) Feb 11, 2020 at 4:50

- 1 [@portforwardpodcast](#) thanks, I added a warning. Didn't think about it because, well, it's the natural consequence of creating a new partition table. It's there now though. – [Roberto](#) Feb 14, 2020 at 14:22

Good. My warning was just trying to make the internet a safer place – [benathon](#) Feb 14, 2020 at 20:16

- 2 This worked for me. – [Andrew Fielden](#) Apr 5, 2020 at 20:20

Instead of the `bs` parameter it needs the `obs` parameter. From `dd --help`:

-2

```
obs=BYTES      write BYTES bytes at a time (default: 512)
```

The command would be something like:

```
sudo dd if=/dev/zero of=/dev/sdd obs=2048 count=32 && sync
```

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edited Dec 15, 2017 at 17:49

answered Dec 15, 2017 at 17:33



[Gaff](#)

18k 14 56 68



[user853477](#)

1

This seems to be a comment on the answer by LitmusD. If you intend it to be an answer to the question, please edit it so that it makes sense to someone who has only read the question.

– [Blackwood](#) Dec 15, 2017 at 18:04

`dd --help` also says “`bs=BYTES` read **and write** up to `BYTES` bytes at a time”. And [dd\(1\)](#) says “`bs=BYTES` read and write up to `BYTES` bytes at a time (default: 512); overrides `ibs` and `obs`” (emphasis added). So specifying `bs` alone should be just fine.

– [G-Man Says 'Reinstate Monica'](#) Dec 15, 2017 at 18:14