

[PATCH] Fix cdrom error handling in 2.6

Source: <http://linux.derkeiler.com/Mailing-Lists/Kernel/2003-08/6247.html>

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Date: 08/23/03

Date: Fri, 22 Aug 2003 19:21:42 -0600
To: Linus Torvalds <torvalds@osdl.org>

In both 2.4 and in 2.6, error handling for bad cdrom media is wrong. And it is my fault I'm afraid, since I botched an earlier fix for the problem by putting the fix in the wrong spot.

My kids have a "Jumpstart Toddlers" cd they have long since completely killed, which makes a great test disc. Without this fix, the best time projection I can get for completing a dd type sector copy is about 2 years... Most of that is spent thrashing about in kernel space trying to re-read sectors we already know are not correctable.... After the fix, I was able to rip a copy the CD (or rather muddle through it getting lots of EIO errors) in about 15 minutes.

Attached is the fix for 2.6.x,

-Erik

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Erik B. Andersen          http://codepoet-consulting.com/
--This message was written using 73% post-consumer electrons--
--- linux-2.6.0-test3/drivers/ide/ide-cd.c.orig 2003-08-22 19:04:36.000000000 -0600
+++ linux-2.6.0-test3/drivers/ide/ide-cd.c      2003-08-22 19:04:49.000000000 -0600
@@ -794,16 +794,16 @@
         request or data protect error.*/
         ide_dump_status (drive, "command error", stat);
         do_end_request = 1;
-     } else if ((err & ~ABRT_ERR) != 0) {
-         /* Go to the default handler
-         for other errors. */
-         DRIVER(drive)->error(drive, "cdrom_decode_status",stat);
-         return 1;
+     } else if (sense_key == MEDIUM_ERROR) {
+         /* No point in re-trying a zillion times on a bad
+         * sector... If we got here the error is not correctable */
+         ide_dump_status (drive, "media error (bad sector)", stat);
+         do_end_request = 1;
+     } else if ((err & ~ABRT_ERR) != 0) {
+         /* Go to the default handler
+         for other errors. */
+         DRIVER(drive)->error(drive, "cdrom_decode_status",stat);
+         return 1;
+     } else if ((++rq->errors > ERROR_MAX)) {
```

Linux-Kernel: [PATCH] Fix cdrom error handling in 2.6

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/* We've racked up too many retries. Abort. */  
do_end_request = 1;
```

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