

Re: reduce interrupt rate for CD/DVD drive(r)

Source: <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/performance/2006-09/msg00000.html>

- *From:* "Jin Guojun [VFFS]" <j_guojun@xxxxxxx>
 - *Date:* Mon, 28 Aug 2006 11:43:17 -0700
-

Peter Jeremy wrote:

On Sun, 2006-Aug-27 16:37:29 -0700, Jin Guojun [VFFS] wrote:

I have difficulty to get CD/DVD write speed above 1.6MB/s (10x for CD, or 1.1x for DVD).
The problem seems to be the interrupt rate is high (70-80% of CPU) for CD/DVD drive(r).

Your drive is probably in PIO4 mode (due to there being bugs in the UDMA implementation on many drives). Check `hw.ata.atapi_dma` and "`atacontrol mode acd0`". You may find you can change to WDMA2 mode which will significantly reduce the interrupt and CPU load. You will need to do some experimenting with your drives to see what works for you.

Yes, this is the problem. `hw.ata.atapi_dma=1`
but 6.1-R configures `acd0` to PIO4.
"`atacontrol mode acd0 WDMA2`" makes `acd0` into correct mode.

Under 4.11-R, things are complicated.
`hw.ata.atapi_dma=1` makes boot process configure `acd0` to UDMA2,
but Tx (I/O) rate limits at 1.6 MB/s. `atacontrol` will not help.

`hw.ata.atapi_dma=0` makes boot process configure `acd0` to PIO4,
and initial Tx rate is 1.6 MB/s. However, use `atacontrol` to change
mode to WDMA2, or UDMA2, or back to PIO4, Tx rate can go up
for a single I/O session or more, but not stable. In random time,
the Tx rate will drop back to 1.6 MB/s.
Since 6.1-R works, I would not think we need to worry about 4.11-R
for this issue.

Re: reduce interrupt rate for CD/DVD drive(r)

Thanks for the information,

–Jin

freebsd-performance@xxxxxxxxxxx mailing list

<http://lists.freebsd.org/mailman/listinfo/freebsd-performance>

To unsubscribe, send any mail to "freebsd-performance-unsubscribe@xxxxxxxxxxx"