

Re: elimination of intercharacter gap in RS232 stream?

Source: <http://coding.derkeiler.com/Archive/General/comp.arch.embedded/2007-10/msg00382.html>

- *From:* "Bo" <bo@xxxxxxxxxx>
 - *Date:* Wed, 10 Oct 2007 17:43:56 -0500
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"Grant Edwards" <grante@xxxxxxxx> wrote in message
<news:13gq98pse15f4c9@xxxxxxxxxxxxxxxxxxxxxxxx>

On 2007-10-10, Bo <bo@xxxxxxxxxx> wrote:

Writing an Embedded Linux app for a PC104/Versallogic board.
Linux 2.6.14.17.

Using write() to transmit data packets to another PC104 board.
If I write() 30 bytes, sometimes there is a 2-5mS gap in the
middle of the transmission, usually at about byte 15-20, but
sometimes at byte 29—as seen on a scope.

It sounds like either your serial driver is broken or you've
got interrupts disabled for a `_long_` time. The serial driver
should get an interrupt when the tx fifo is low and have tons
of time to fill it before it underflows.

No— no ISR being disabled—at least in the app. However, when we disable
our real-time signals during the wrote, the response time of the protocol
jumps from 10mS to 80-120mS!

Tried using low latency setting when opening the port—but
this made no difference. This is causing difficulties for the
receiving end—and we have yet to add two more serial ports
to the application.

Any ideas on how to force continuous transmission of the data?

Re: elimination of intercharacter gap in RS232 stream?

Fix the serial driver or fix the other driver that's locking out interrupts for so long. You could try raising the tx fifo threshold so that the serial driver has more time to respond. That will increase the tolerance for high interrupt latency, but it will generate more frequent interrupts and result in higher overhead.

You could also try fixing the receive end so that a gap between bytes doesn't make it fall over.

We're working that issue with some success.

THanks,

Bo

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Grant Edwards grante Yow! FEELINGS are
cascading
at over me!!!
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