

## Re: Serial COM port communication problems

---

*Source:*

<http://www.tech-archive.net/Archive/Development/microsoft.public.win32.programmer.kernel/2007-05/msg00202.htm>

---

- *From:* Ali <[abdulrazaq@xxxxxxxx](mailto:abdulrazaq@xxxxxxxx)>
  - *Date:* 21 May 2007 06:13:04 -0700
- 

On May 21, 6:18 am, an0...@xxxxxxxx wrote:

Hi,

Working on a application that does extensive Serial I/O and using MSDN functions as `WaitCommEvent()`. `CreateFile` is used to open the com port, and use `ReadFile()` and `WriteFile()` to read and write to the serial port.

The serial port receives char packets of different sizes, each packet is divided by different size sub-packets, each of those sub packets contains a CR char that signals it's (sub-package) end. The end of the hole package is embedded only on the interpretation of the last sub-packet inside the main packet...

The receiving buffer is read by setting the mask to rx flag being the event char CR, so, each time the CR is detected, an event is triggered and the read port operation is then called. The problem is that many sub-packages arrive in succession and some sub-packages are lost. I suppose some bytes are lost while the Read operation triggered by arrival of the CR event reads the Buffer.

As for now the only way to get the hole package is by reading the receiving buffer after some time has elapsed or when one knows for sure that the package has arrived by counting nearly by hand the number of events, not so nice...

I would like to read the receiving buffer each time a sub-package is detected but I don't know if that is a good approach as sub-packages arrive in quick succession and information is lost.

The other approach that was tested is to read each byte that arrives and later build up the entire package and analyze it, in this case the Overlapped method was used after requesting the number of bytes in the receive buffer. But for some reason packages are also lost.

From the other side of the transmission there is no further

## Re: Serial COM port communication problems

signalization, overhead or a fixed package size.

Unfortunately I don't know how to continue or even if the approach is a good one. Any advise or ideas would be kindly appreciated, Thank you very much.

Best Regards

PD: I have read the document serial communication in Win32 and many other related documents from code guru. I found pertinent to ask some advice at dejanews too.

I have few question regarding to your post:

- 0) What is your COM device? is it some MCU or anything else.
- 1) What baudrate you are on? switching to some other baudrate should confirm the consistent error rate that should make sure about hardware reliability.
- 2) What is average packet size of yoru data?
- 3) Last but not least, what is the cable length tha tyou are using between device and PC? i had a wier experience in last few days about that.

ali

.