

WaitCommEvent problem

Source:

<http://www.tech-archive.net/Archive/WindowsCE/microsoft.public.windowsce.embedded.vc/2004-08/0109.html>

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Hi All,

(Environment: SH3 device, PB 4.2)

My app is a Headless serial port App, it sends a trigger command to a barcode scanner (via writefile , works fine) the scanner sends the barcode ascii characters (all fine and Dundee) then i have to write it to a file (so other app's can access it)

all that works perfect, however, i need my app to timeout if no data was received within 3 seconds so that i am not waiting forever for the scanner to send some data. (when i send the trigger command to the scanner, it will turn on and attempt to capture barcode 4 ever, it will only send some data when it captures barcode) i want my app to terminate if no data was received from the scanner within 3 seconds

I am doing the COM port init, read, write all in the same UI (no separate threads, works perfect, juts want it to timeout)

i am using WaitCommEvent (hPort, &dwCommModemStatus, 0). i read in one of the posting by Steve Maillet that WaitCommEvent will timeout according to the timeout values set by SetCommTimeouts(). However, this doesn't seem to work , i think those values will only apply to ReadFile/WriteFile()

My approach was to set a timeout for the event to occur, and quit if it doesn't occur within 3 seconds. i did the following:

```
Time_out_event=CreateEvent(NULL,false,false,NULL);
```

And waited for that event to occur after i call WaitCommEvent().

<snap>

```
WaitCommEvent (hPort, &dwCommModemStatus, 0 ); //overlapped I/O is not supported in windows CE
// Re-specify the set of events to be monitored for the port
SetCommMask (hPort, EV_RXCHAR | EV_CTS | EV_DSR | EV_RLSD | EV_RING);
//Wait for the event to occur for 3 seconds
```

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```
Time_out_result=WaitForSingleObject(Time_out_event,3000);
```

</snap>

However, WaitCommEvent never timeout --- if no data is received within 3 seconds, it will wait 4 ever---

oddly, when the scanner gets some data, the WaitCommEvent() will return and WaitForSingleObject() will think that WAIT_TIMEOUT event has occurred instead WAIT_OBJECT_0 (which i believe indicated that an event has occurred)

here is the code:

```
<code snap>
HANDLE Time_out_event=0;
DWORD Time_out_result=0;
...

CommTimeouts.ReadIntervalTimeout = MAXWORD; //i also tried 1000, 0
CommTimeouts.ReadTotalTimeoutMultiplier = 0;
CommTimeouts.ReadTotalTimeoutConstant = 0;
CommTimeouts.WriteTotalTimeoutMultiplier = 10;
CommTimeouts.WriteTotalTimeoutConstant = 1000;

...

SetCommMask (hPort, EV_RXCHAR | EV_CTS | EV_DSR | EV_RLSD | EV_RING);

// Wait for an event to occur for the port.
Time_out_event=CreateEvent(NULL,false,false,NULL);
if (Time_out_event== INVALID_HANDLE_VALUE)
{
    // Could not create a Time out event
    PostMessage(HWND_BROADCAST,ERROR_BARCODE_MSG,0, 0);
    RETAILMSG(1,(TEXT("\r\nError: Unable to Create a Time Out Event \n")));
    //close the barcodemsg file
    CloseHandle(barcodemsg_file);
    //close serial port
    CloseHandle( hPort);
    return -1;
}
WaitCommEvent (hPort, &dwCommModemStatus, 0);

// Re-specify the set of events to be monitored for the port
SetCommMask (hPort, EV_RXCHAR | EV_CTS | EV_DSR | EV_RLSD | EV_RING);

//Wait for the event to occur for 3 seconds
Time_out_result=WaitForSingleObject(Time_out_event,3000);

switch(Time_out_result)
{
```

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```
case WAIT_OBJECT_0 :
    //note: the program never go here, even if the scanner send the data
before 3 seconds have elapsed
    //in theory, the program should get here if data was received before 3
seconds.

    // Operation completed
    /// Re-specify the set of events to be monitored for the port
    //SetCommMask (hPort, EV_RXCHAR | EV_CTS | EV_DSR | EV_RLSD | EV_RING);

    RETAILMSG(1,(TEXT("\r\nSuccess: Operation Completed\n")));
    if (dwCommModemStatus & EV_RXCHAR)
    {
        do
        {
            // Read the data from the serial port.
            ReadFile (hPort, &byte, 1, &dwBytesTransferred, 0);
            if (dwBytesTransferred == 1)
            {
                WriteFile (barcodemsg_file,&byte,1,&dwNumBytesWritten,NULL);
            }
        }while (dwBytesTransferred == 1);
    }

    // Retrieve modem control-register values.
    GetCommModemStatus (hPort, &dwCommModemStatus);
    ResetEvent ( Time_out_event );
    break;

case WAIT_TIMEOUT:

    //note: the code end up here when the barcode sends the data, otherwise
    // WaitCommevent() will block 4 ever.
    //in theory, the code should only get here if Time_out_event has occurred

    //The time-out interval elapsed, and the objects state is nonsignaled
    PostMessage(HWND_BROADCAST,ERROR_BARCODE_MSG,0, 0);
    RETAILMSG(1,(TEXT("\r\nError: WaitCommEvent didn't succeed or timed
out\n")));
    //close the barcodemsg file
    CloseHandle(barcodemsg_file);
    //close serial port
    CloseHandle( hPort);
    exit(-1);
    break;
}
</snap>
```

Any idea? will WaitSingleObject() ever work in windows CE?
do i have to Set/Reset Time_out_event somewhere?

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Your help is greatly appreciated.

Mo

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