

Re: SDSynchronousBusRequest taking long time

Source:

<http://www.tech-archive.net/Archive/WindowsCE/microsoft.public.windowsce.embedded/2007-10/msg00152.html>

- *From:* Advait <Advait@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Wed, 17 Oct 2007 02:52:03 -0700
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Yes other cards work fine and are recognized after a reboot.

How do I clone the sdbus and sdcard libraries? I was thinking of changing the source for these libraries and build their libs. Use these libs when I compile my dll. Will this NOT suffice? Are the sdbus and sdcard libraries a separate dll in the system?

"voidcoder" wrote:

- > Associated with this I have some more questions. The SDIO card we have is
- > NOT identified by the Symbol M70 running Windows Mobile 5.0 after a reboot.
- > We have to remove the card and re-insert it back for the OS to recognize the
- > card and load the driver dll.

Does M70 recognize any other sdcard after reboot, say sdmemory?
Try turning it off, then insert the memory card and power on.
Is the card detected?

- >> 1. Are there sources in Platform Builder that I can add some print
- >> statements and find out what is happening during the boot process when the
- >> devices are being loaded?

In theory, you can clone sdbus driver/sdcardlib and add some additional debug output to it. Next you can patch registry on WM target to load your new sdbus driver instead of original one. This may or may not work properly, do not forget that WM is a bit different thing although it is based on CE core.

- >> 2. Is it possible to write a EXE that I can run to force load the driver
- >> instead of physically re-inserting the card.

No, you can't do that. The client drivers get loaded in response to the slot state change notification initiated by the host controller driver (which is normally triggered by the card

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detection interrupt). Something what you don't have sources for.

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Oleg

Advait wrote:

Thanks for the much helpful info. We will follow your suggestions to find the problem.

Associated with this I have some more questions. The SDIO card we have is NOT identified by the Symbol M70 running Windows Mobile 5.0 after a reboot.

We have to remove the card and re-insert it back for the OS to recognize the card and load the driver dll. The registry settings are right as the driver loads successfully when we re-insert the card. So questions are:

1. Are there sources in Platform Builder that I can add some print statements and find out what is happening during the boot process when the devices are being loaded?
2. Is it possible to write a EXE that I can run to force load the driver instead of physically re-inserting the card.

"voidcoder" wrote:

- > Can you suggest me how to go through the debugger? The code runs on a
- > Windows Mobile device. Currently I am debugging by writing to a file. I
- >

Well, if you have no possibility to debug on the target device it is getting more complicated. There are not too much things you can do about it on a ready made WM5 device. Especially because the bottleneck may be in the lower level sdcard host controller driver (device specific) and not in the sdbus driver or sdcard lib (device independent thing). Try different WM devices, try to analyze sdcard sources, fortunately you have PB installed. Look here:

...\WINCExxx\PUBLIC\COMMON\OAK\DRIVERS\SDCARD\SDBUS*

It is definitely worth buying a development KIT if you want to untie your hands. Try to google around, there are enough devkits with SDCARD on board and Windows

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CE
support ...

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Oleg

Advait wrote:

Sorry I was not aware that I could target multiple groups in "to" field. Can you suggest me how to go through the debugger? The code runs on a Windows Mobile device. Currently I am debugging by writing to a file. I thought SDSynchronousBusRequest is a call in a library provided by Microsoft. How can I step through? I am new to Platform builder. Thanks for your help.

"voidcoder" wrote:

Why not just step in debugger and see where it spends so much time?

Also separate cross posting is evil. List all target groups in "to" field if you want to post to multiple groups.

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Oleg

Advait wrote:

Hi,

From the SDIO driver we get from Arasan they use SDSynchronousBusRequest() to issue a

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bus request
to their
chip.

We
timestamp
before and
after calling
this API,
and it takes
> 230ms.

Why it
takes so
long and
how can we
make it

much
faster? The
following
are the code
sample:

```
SDSynchronousBusRequest(pDevice->hDevice,  
SD_CMD_IO_RW_EXTENDED,  
argument,  
SD_WRITE,  
ResponseR5,  
&response,  
1,  
blockLength  
,  
pBuffer,  
0);
```

where:

```
argument =  
BUILD_IO_RW_EXTENDED_ARG(SD_IO_OP_WRITE,  
SD_IO_BLOCK_MODE,  
pDevice->Function,  
wAddress,  
SD_IO_FIXED_ADDRESS,  
1);
```

```
SD_COMMAND_RESPONSE  
response
```

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Your kind
responses
are greatly
appreciated.