

Re: SDSynchronousBusRequest taking long time

Source:

<http://www.tech-archive.net/Archive/WindowsCE/microsoft.public.windowsce.embedded/2007-10/msg00158.html>

- *From:* Advait <Advait@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Thu, 18 Oct 2007 19:03:00 -0700
-

Oleg,

I see the sdbus.dll built in my workspace but when I tried to copy it across to WM device it says access denied. I cannot even see sdbus.dll in the \Windows directory BUT when I try to copy it across it shows that the file is in there and is being overwritten.

Any suggestions on this.

—

Shiva

"Advait" wrote:

Oleg,

Thanks for all your replies.

We were wondering if you will be able to help us out in person. Are you in Bay Area?

—

Shiva

"voidcoder" wrote:

It is definitely bad idea to modify public sources in place. Instead copy SDCARD tree to your platform directory and correct SOURCES files to build from there. Or you can use sysgen capture tool (I'm not a big fan of it):

<http://msdn2.microsoft.com/en-us/library/aa459163.aspx>

Sdcardlib is a statically linked library containing various sdcards related functions that you are using in your client driver. While sdbus driver is a true standalone driver, sdbus.dll or something like that on WM devices. I pointed you to the sources.

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—
Oleg

Advait wrote:

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.

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

--
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?

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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

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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\SDI

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
CE
support ...

--
Oleg

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Advait
wrote:

Sorry
I
was
not
aware
that
I
could
taget
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

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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

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in
"to"
field
if
you
want
to
post
to
multiple
groups.

--
Oleg

Advait
wrote:

Hi,

From
the
SDIO
driver
we
get
from
Arasan
they
use
SDSynchronousBusRequest()
to
issue
a
bus
request
to
their
chip.

We
timestamp
before
and
after
calling
this
API,
and

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it
takes
>
230ms.
Why
it
takes
so
long
and
how
can
we
make
it

much
faster?
The
following
are
the
code
sample:

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

where:

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

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SD_COMMAND_RESPONSE
response

Your
kind
responses
are
greatly
appreciated.