

Re: Problem using thread ??

Source:

<http://www.tech-archive.net/Archive/WindowsCE/microsoft.public.windowsce.embedded.vc/2008-03/msg00040.htm>

- *From:* "fred_d" <duchassin@xxxxxxxx>
 - *Date:* Fri, 14 Mar 2008 14:50:34 +0100
-

No i directly configure I2c regisiter in my application. So i configure the i2c hardware directly in my application.

"Bruce Eitman [eMVP]" <beitman.nospam@xxxxxxxxxxxxxxxxxxxxxxxx> a écrit dans le message de news: OzOj4fdhIHA.4712@xxxxxxxxxxxxxxxxxxxxxxxx

Is it possible that the I2C code disables interrupts? or runs at a very high priority? By code, I mean anything between your app and the I2C controller hardware.

—

Bruce Eitman (eMVP)
Senior Engineer
beitman AT applieddata DOT net

Applied Data Systems
www.applieddata.net
An ISO 9001:2000 Registered Company
Microsoft WEP Gold-level Member

"fred_d" <duchassin@xxxxxxxx> wrote in message [news:frds64\\$826\\$1@xxxxxxxxxxxxxxxxxxxxxxxx](news:frds64$826$1@xxxxxxxxxxxxxxxxxxxxxxxx)

Hi,

I'm quite disappointed : Maybe i make a mistake in my code or i don't understand something !

But I think it comes from the interrupt configuration. Indeed, using gettickcount() api i saw that many times, i enter in my interrupt on time_out (time_out=1sec). So i reduce the time_out delay to 12 ms and after it works better.

Maybe it help you to see better the problem. I'm certainly wrong in my code! (with the interrupt configuration). To my mind, i should forget or lost interrupt and after i go to interrupt on time_out event!!

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Have you seen a problem in the interrupt OS timer configuration ?????
I should make a mistake in the interrupt event, or in the ISR ????
I use pxa270.

Thanks a lot for your time...

Fred

"Bruce Eitman [eMVP]" <beitman.nospam@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> a écrit
dans le message de news: ucpjnLdhIHA.5900@xxxxxxxxxxxxxxxxxxxxxxxxxxxx

Fred:

This usually indicates that there is something wrong with
your code or
your understanding of the problem. This is the kind of thing
that can
go on for days, and then one day you will post that you
solved it by
fixing your code. It could even be something as simple as
your check to
see if the interrupt bit is set, that should have been done in
your ISR,
so you don't need to do it there. The ISR could be clearing it.

—

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Senior Engineer
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"fred_d" <duchassin@xxxxxxxx> wrote in message
news:frdbt1\$aa\$1@xxxxxxxxxxxxxxxxxxxxxxxxxxxx

Nobody has an idea please ???

Windows CE is a real time OS isn't it ?? Why
my 10 ms interrupt with a
very big priority are not ok every 10 ms
(even if an other thread has a
lot of work and this thread has a
"NORMAL" priority!!)

thanks

"fred_d" <duchassin@xxxxxxxx> a écrit

Re: Problem using thread ??

dans le message de news:

framj1\$tsr\$1@xxxxxxxxxxxxxxxxxxxxxxxxxxxx

Ok so to give more information my program is composed like this:

- my main thread which only give message to the main window :
priority=251.
- a thread INTERRUPT:
priority 50.
- a thread MONITOR with a normal priority:
priority=251
- a thread Interrupt on GPIO (which occurs only sometimes) and give SPI dialog: priority=250 (with a waitforsingleobject on GPIO event so i didn't use CPU if i have no interrupt)
- a second thread Interrupt on GPIO (which occurs only sometimes) and give SPI dialog: priority=250 (with a waitforsingleobject on GPIO event so i didn't use CPU if i have no interrupt)
- a thread with serial dialog and a priority=249 with a WaitCOMEvent().

There is a lot of thread because i use a lot of interrupt... But in normal mode (that's to say when i saw problem), there is only the thread MONITOR + INTERRUPT which are running.

I saw problem when i have a lot of dialog in my MONITOR thread. For example i have a do... while

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boucle with I2C dialog
inside and at this
time, i forget to go to 10 ms
INTERRUPT whereas he
has a priority of
50 !!!

So should i put a priority
higher than 50 in interrupt
thread???? (i
tried with priority 10 and it's
identical !!!!)

For superclass:

My timer event occurs every
10ms... So it's my
explanation
(commentary) which are
wrong!!! My time out is 10
seconds but i should
never use this Time_out !!!
My interrupt comes because
when i do
nothing in my monitor i
have 10 ms interrupt. If in
the monitor thread
i do a lot of I2C dialog, i
lost interrupt and i go to
interrupt every
10s or 20 seconds or 30
seconds !!!! It's not a ime
out problem but a
CPU use problem!!!

Thanks

```
WaitForSingleObject(g_TimerEvent,  
/*INFINITE*/10000);  
//Attente :  
Time_Out:1sec
```

You have here Timeout of
10 seconds, not 1 second. So
I assume that
your
interrupt never comes,
because you claim you are

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called 10 seconds

later.

"Bruce Eitman [eMVP]"

<beitman.nospam@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>

a écrit

dans le message de news:

uuT5CYGhIHA.4880@xxxxxxxxxxxxxxxxxxxxxxxxxxxx

Okay, that
confirms that
you are
actually
using an
interrupt, I
was
suspicious.

You should
confirm the
thread
priorities.
Especially
since you
tell
us that you
are running
at thread
priority
NORMAL,
that is a
term
from CE 3.0
that really
doesn't
apply since
then.

Also, is it
possible
that the low
priority
thread is
doing
something
causes a
high
priority
thread in
one of your
drivers to
run? 50 is

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very high,
but there are
49 priorities
higher.

--
Bruce
Eitman
(eMVP)
Senior
Engineer
beitman AT
applieddata
DOT net

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"fred_d"
<duchassin@xxxxxxxx>
wrote in
message
[news:fr8n38\\$46n\\$1@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:news:fr8n38$46n$1@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx)

The
interrupt
is
initialized
like
this:

```
pTimerReg  
=  
MapRegister(TIMER_BASE);  
pTimerReg->omcr5  
=  
OMCRX_C  
|  
OMCRX_P  
|  
OMCRX_S
```

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```
|
OMCRX_R
|
OMCRX_CRES_1mS;//match
control
regsiter
pTimerReg->osmr5
=
cDureeITPrimaire;
//
10
ms
pTimerReg->oier
|=
OIER_E5;
//interrupt
enable
E4
pTimerReg->oscr5
=
0x0000;
//init
à
0

//
Create
an
Event
to
wait
on
g_TimerEvent
=
CreateEvent(NULL,
FALSE,
FALSE,
NULL);

KernelIoControl(IOCTL_HAL_REQUEST_SYSINTR,
&TimerIrq,
sizeof(DWORD),
&g_Timerintr,
sizeof(DWORD),
NULL);

//
Link
our
Event
```

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```
with  
the  
SYSINTR  
test  
=  
InterruptInitialize(g_Timerintr,  
g_TimerEvent,  
NULL,  
0);
```

```
ThreadIT  
=  
CreateThread(NULL,  
0,  
Interrupt10ms,  
GlobalHwnd,  
CREATE_SUSPENDED,  
NULL);  
CeSetThreadPriority(ThreadIT,  
50);  
ResumeThread(ThreadIT); //pr  
démarrer  
la  
tache  
//
```

And
the
Boucle
in
the
thread
interrupt
is
like
this:

```
DWORD  
WINAPI  
Interrupt10ms  
(LPVOID  
pParam)  
{  
  
while(1)  
{  
  
WaitForSingleObject(g_TimerEvent,  
/*INFINITE*/10000);
```

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```
//Attente
:
Time_Out:1sec

if((pTimerReg->ossr
&
OSSR_M5)
==
OSSR_M5)
//verifie
que
l'it
proviene
bien
du
bon
timer
{
pTimerReg->ossr
|=
OSSR_M5;

TraiteIT10ms();//-->traitement
IT

InterruptDone(g_Timerintr);
}

if(QuitThread)
break;

}

ExitThread(WM_QUIT);

return
0;

}

The
source
of
the
interrupt
is
a
timer
interrupt.
```

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I
use
OS5
timer
to
generate
an
interrupt.

Thanks
to
help
me.

Fred

"Bruce
Eitman
[eMVP]"
<beitman.nospam@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>
a
écrit
dans
le
message
de
news:
%23wwaCpEhIHA.5900@xxxxxxxxxxxxxxxxxxxxxxxxxxxx

How
do
you
define
interrupt?
What
is
the
source
of
the
interrupt?

--
Bruce
Eitman
(eMVP)
Senior
Engineer
beitman

Re: Problem using thread ??

AT
applieddata
DOT
net

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"fred_d"
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wrote
in
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[news:fr8jil\\$2n3\\$1@xxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:news:fr8jil$2n3$1@xxxxxxxxxxxxxxxxxxxxxxxxxxxx)

Hello
everybody,

I'm
asking
for
help
because
i
have
problem
with
thread
programming!

My
application
is
runing
under
windows
Ce
5.
I
use

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evc++
to
make
my
application.

In
fact,
my
program
is
composed
of
2
threads:

–
One
main
thread
which
is
the
core
of
my
application.
Everything
is
done
in
this
thread.

-->
MAIN
thread
with
priority
NORMAL

–A
thread
which
occurs
every
10
ms.
Every
10
ms,
a
timer
interrupt

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occurs
and
I
control
if
a
key
is
pressed.
(if
a
key
is
pressed,
i
only
validate
a
flag
and
in
the
main
thread,
i
do
the
action
desired
by
this
flag).
-->
INTERRUPT
thread
with
priority
:
50
(high
priority).

So
you
understand
that
the
thread
INTERRUPT
wch
occurs

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every
10
ms
is
very
important.

My
problem
is
the
following:
If
in
the
main
thread
i
have
a
boucle
(a
do...while
for
example)
which
used
a
lot
of
CPU
time
(this
thread
has
a
normal
priority).
At
this
time,
I
never
go
to
the
thread
INTERRUPT
whereas
this
thread

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has
a
high
priority
!!!
(sometimes
i
go
in
this
thread
10
or
20
seconds
later
!!!)

I
don't
know
why
!!
I
just
would
like
to
have
a
periodic
interrupt...

Thanks
to
help
me
please.

Fred

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