

## Re: Problem using thread ??

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*Source:*

<http://www.tech-archive.net/Archive/WindowsCE/microsoft.public.windowsce.embedded.vc/2008-03/msg00036.htm>

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- *From:* "Bruce Eitman [eMVP]" <[beitman.nospam@xxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:beitman.nospam@xxxxxxxxxxxxxxxxxxxxxxxxxxxx)>
  - *Date:* Fri, 14 Mar 2008 08:55:03 -0400
- 

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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"fred\_d" <[duchassin@xxxxxxxx](mailto:duchassin@xxxxxxxx)> wrote in message  
[news:frdbt1\\$aa\\$1@xxxxxxxxxxxxxxxxxxxxxxxx](news:frdbt1$aa$1@xxxxxxxxxxxxxxxxxxxxxxxx)

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](mailto:duchassin@xxxxxxxx)> a écrit dans le message de news:  
[framj1\\$tsr\\$1@xxxxxxxxxxxxxxxxxxxxxxxx](news:framj1$tsr$1@xxxxxxxxxxxxxxxxxxxxxxxx)

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.

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- 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 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 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

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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 very  
high, but there are 49 priorities higher.

—  
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"fred\_d" <duchassin@xxxxxxxx> wrote in message  
[news:fr8n38\\$46n\\$1@xxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:news:fr8n38$46n$1@xxxxxxxxxxxxxxxxxxxxxxxxxxxx)

The interrupt is initialized like this:

```
pTimerReg = MapRegister(TIMER_BASE);
pTimerReg->omcr5 = OMCRX_C |
OMCRX_P | OMCRX_S | 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 with the SYSINTR
test = InterruptInitialize(g_Timerintr,
g_TimerEvent, NULL, 0);

ThreadIT = CreateThread(NULL, 0,
```

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```
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); //Attente :  
Time_Out:1sec  
  
if((pTimerReg->ossr & OSSR_M5) ==  
OSSR_M5) //verifie que l'it provienne  
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. I use OS5 timer to generate an interrupt.

Thanks to help me.

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Fred

"Bruce Eitman [eMVP]"

<beitman.nospam@xxxxxxxxxxxxxxxxxxxxxxxx>

a écrit

dans le message de news:

%23wwaCpEhIHA.5900@xxxxxxxxxxxxxxxxxxxxxxxx

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

--

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"fred\_d"

<duchassin@xxxxxxxx>

wrote in message

news:fr8jil\$2n3\$1@xxxxxxxxxxxxxxxxxxxxxxxx

Hello  
everybody,

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

My  
application  
is runing  
under  
windows Ce  
5. I use  
evc++ to  
make my

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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

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

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

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

Thanks to  
help me  
please.

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Fred