

Re: Intermittent work in UI thread

Source: <http://www.tech-archive.net/Archive/VC/microsoft.public.vc.mfc/2007-10/msg01004.html>

- *From:* Joseph M. Newcomer <newcomer@xxxxxxxxxxxxx>
 - *Date:* Wed, 17 Oct 2007 00:01:31 -0400
-

In rereading this, there are a couple bugs. See below...

joe

On Tue, 16 Oct 2007 15:34:20 -0400, Joseph M. Newcomer <newcomer@xxxxxxxxxxxxx> wrote:

OK, then the issue here is that you would have a timer handler something like

```
if(nIDEvent == IDT_MY_REQUEST)
{
    if(active)
        DoDatabaseQuery();
}
```

where you would have handlers like

```
LRESULT OnSetQueryActive(WPARAM wParam, LPARAM)
{
    active = (BOOL)wParam;
    return 0;
}
```

So you could `PostMessage(UWM_QUERY_ACTIVE, TRUE)` to enable the database queries, and use

`FALSE` to disable the database queries, so this would "pause" the thread. You could also set it up so that the code was

```
..OnSetQueryActive(..)
{
    if(active == (BOOL)wParam)
        return 0; // no change
    if(!active && (BOOL)wParam)
        { /* reactivate */
        DoDatabaseQuery();
        SetTimer(60000, IDT_MY_REQUEST, NULL);
    }
}
```

```
active = (BOOL)wParam;
```

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```
return 0;
} /* reactivate */
else
{ /* deactivate */
KillTimer(IDT_MY_REQUEST);
```

```
active = (BOOL)wParam;
```

```
return 0;
}
}
```

Note that activating the queries causes an immediate query with this code, and then one query a minute thereafter. FALSE simply shuts the timer off, the thread itself is still responsive.

Note that the secondary UI thread should not have any user-visible windows that it is manipulating. That leads to a lot of potential problems.

joe

On Tue, 16 Oct 2007 20:21:53 +0100, Pedro Ferreira <none@xxxxxxxx> wrote:

Thanks for your help.

I'm sorry for not explaining better. In "need it to be responsive", the "it" was referring to the secondary UI thread :)

I needed to be able to pause or query the secondary thread even when it was "waiting" 1 min between cycles. This would exclude any Sleep() call.

Pedro Ferreira

Joseph M. Newcomer wrote:

I presumed that by "keep the UI responsive" the OP meant that there should be no blocking calls in the main UI thread itself; that the secondary UI thread would be doing background work. So the main GUI thread would not be blocked, but the UI thread provides a nice queueing mechanism, and doesn't require any PeekMessage hacks.

For example, see my serial port example on my MVP Tips site, which uses a worker thread to handle input but a UI thread to handle output.

joe

Re: Intermittent work in UI thread

On Tue, 16 Oct 2007 07:31:31 GMT,
jetan@xxxxxxxxxxxxxxxxxxxxxx ("Jeffrey Tan[MSFT]")
wrote:

Hi Joseph,

Yes, I agree that using the build-in message queue of the GUI thread will make us a bit easy for coding. But, as the OP stated, he wanted to keep the UI responsive, so I assume that he will show visible windows. Then, this depends on whether his background work is length or not. If the background work will cost a lot of time, it definite will block the GUI message dispatching which causes non-responsible for this UI thread. Sure, we may use PeekMessage to lighten this problem.

Anyway, this depends on the OP's specific scenario. Thanks.

Best regards,
Jeffrey Tan
Microsoft Online Community Support

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