

# Re: Threading Delay

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*Source:*

<http://www.tech-archive.net/Archive/Development/microsoft.public.win32.programmer.kernel/2005-04/msg00146.htm>

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- *From:* "Jimmy" <jim\_klos@xxxxxxxx>
  - *Date:* Tue, 5 Apr 2005 10:09:57 -0700
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1) 512 threads is ridiculous, but you say "of varying sizes", and you see this only occasionally, so it may be a low-resource situation... important system tables being paged-out, then paged-in. Do you see the problem with a reasonable number of threads, like 4?

2) Set up a dual-machine kernel-debugging situation with WinDbg, run your app with 512 threads, and when you see the delay, break into debuggee machine... the WinDbg help tells how to track down a cpu-hog. (Oh, you did not mention that cpu utilization was 100%... well, if upper-management approved this design, then it is a good reason to get another machine, if only to show that it will not work!!)

3) Use Task Manager, display Page Faults Per Second -- if the problem is that important system tables are being paged-out, this number should go up, especially if the system is thrashing.

4) Use a profiler like VTune -- it might show where most of the time is being spent.

5) I hope this 512-thread app is a research project or for internal-use-only!!! If everyone wrote apps that used 512 threads... it's the same thing as when everyone raises the priority of their processes!!!

"Rob Smitter" <rsmitter@xxxxxxxxxxxx> wrote in message [news:eo3jRhFOFHA.904@xxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:news:eo3jRhFOFHA.904@xxxxxxxxxxxxxxxxxxxxxxxxxxxx)

> I am confused about the action when threads terminate. I am having a  
> problem where, on exit of a thread, the system seems to hang for variable  
> amounts of time, from nothing noticeable to sometimes over a minute. In  
> most cases it is not noticeable  
>  
> Some background:  
>  
> I have an app that builds up thread pool of varying sizes, up to 512  
> threads. Each thread grabs it data from a queue. When the thread tries  
> to  
> get the next item from the queue, if the queue is empty, the thread  
> function exits. Each thread is started with beginthreadex. After the  
> thread is terminated CloseHandle is called. From the documentation it

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looks

- > like there is no need to call `_endthreadex` as it is called when the thread function terminates. The queue is filled up before the pool is started
- >
- > I have logged the exiting of the thread along with other thread activity and
- > from the log I can see the delay and it always shows up, if it shows up at all, when the thread exits.
- >
- > Is there a reason for this behavior? It also seems to happen more when the thread pool is mostly shutdown. But not always. Sometimes it runs with no delays. Is it related to the amount of the virtual memory used, actual memory used or ?
- >
- > Thanks for any hints to help me understand this.
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- **Follow-Ups:**

- ◆ **[Re: Threading Delay](#)**  
◇ From: Rob Smitter

- **References:**

- ◆ **[Threading Delay](#)**  
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