

## Re: WaitForSingleObject() will not deadlock

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*Source:* <http://www.tech-archive.net/Archive/VC/microsoft.public.vc.mfc/2007-07/msg00148.html>

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- *From:* "Alexander Grigoriev" <[alegr@xxxxxxxxxxxxx](mailto:alegr@xxxxxxxxxxxxx)>
  - *Date:* Sun, 1 Jul 2007 21:35:36 -0700
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CRITICAL\_SECTION (EnterCriticalSection, LeaveCriticalSection) provides a memory fence, too.

CRITICAL\_SECTION is fast, intra-process, recursive mutual exclusion synchronization object.

Kernel mutex (CreateMutex) can be used to synchronize `_between_` processes, too, but since it requires a roundtrip to kernel mode, its overhead is more than of CRITICAL\_SECTION. A kernel mutex also takes care of priority inversion, which CRITICAL\_SECTION does not.

"Frank Cusack" <[fcusack@xxxxxxxxxxxxx](mailto:fcusack@xxxxxxxxxxxxx)> wrote in message <news:m2r6nrtxgj.fsf@xxxxxxxxxxxxxxxxxxxxx>

On Sun, 1 Jul 2007 17:01:07 -0700 "Alexander Grigoriev" <[alegr@xxxxxxxxxxxxx](mailto:alegr@xxxxxxxxxxxxx)> wrote:

This is just a CRITICAL\_SECTION rough equivalent.

Sorry to be following up so many times when once would have been sufficient. I don't know the semantics of CRITICAL\_SECTION, but POSIX mutexes provide memory visibility guarantees that, from the name of it, CRITICAL\_SECTION doesn't sound like it does.

They are different beasts.

-frank