
Subject: Re: WaitForMultipleObjects() analog?

Posted by [Mindtraveller](#) on Wed, 28 May 2008 20:19:43 GMT

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hojtsy wrote on Wed, 28 May 2008 12:16Mindtraveller,

What are you trying to achieve with multiple Semaphores? I would expect that an alternative implementation could use Monitors. These are fancy mutexes which also have Wait and Pulse methods.

I am working on a U++ example code which uses Monitors to implement a Producer-Consumer queue.

See the concept explained in <http://www.albahari.com/threading/part4.html>

Hojtsy

I just didn't fully understand about Monitors usage as we don't have ones in U++ for now. Then about waiting a number of Semaphores. Let's imagine the real world application. Your program must heavily work with a number of devices attached to serial port (or ethernet or something else). Of course it is solved by adding a class which creates new thread and have cycle which is sleeping most of time. But there is a number of awake signal types. And these signals could be activated from within: this thread, OS and main thread. These signals are:

application close event. sleeping i/o thread should do finalization and close.
OS i/o event. sleeping thread should handle the fact of newly sent or received data.
queue event. sleeping thread just got a new task to do. this task was added by another thread.
timer event (timeout). happens when system i/o functions didn't respond in time or final value of some deferred OS call didn't arrive in time.

These events are dramatically different from each other and when my thread is awakened I should know the type of this event to handle it. So I use one synchronization object (let's say Semaphore for simplicity) for each event type. Doing this with one Semaphore would be a nightmare, wouldn't it?
