

Re: Stream I/O driver XXX_Close race condition?

Source:

<http://www.tech-archive.net/Archive/WindowsCE/microsoft.public.windowsce.platbuilder/2005-06/msg00689.html>

- *From:* "Mark Moeller" <markmo@xxxxxxxxxxxxxxxx>
 - *Date:* 14 Jun 2005 23:31:56 -0700
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You hit the nail on the head Charles. It's about writing robust drivers and understanding vulnerabilities in the system.

I don't have an app that has this problem. I discovered it during a OS code review while tutoring an engineer on writing drivers and dealing with race conditions. However, the scenario is quite real that this can occur in – shutting down a thread pending in a WaitCommEvent. Using CloseHandle to force WaitCommEvent to exit is a typical case. In the example I sited if the thread calling WaitCommEvent suspended just before entry into the function it is completely legit to have CloseHandle called before WaitCommEvent is even entered. The chance of this occurring is largely dependent on thread priorities.

I've always used an internal handle table in my drivers so that even if my driver was called back with a defunct handle my drivers would trap this and return an error.

Understanding all these nuances of writing a CE driver is critical for writing fault tolerant code and creating reliable systems.

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- *Follow-Ups:*
 - ◆ **Re: Stream I/O driver XXX_Close race condition?**
◇ *From:* Steve Maillet \(\eMVP\)
- *References:*
 - ◆ **Stream I/O driver XXX_Close race condition?**
◇ *From:* Mark Moeller
 - ◆ **Re: Stream I/O driver XXX_Close race condition?**
◇ *From:* Bruce Eitman \(\eMVP\)
 - ◆ **Re: Stream I/O driver XXX_Close race condition?**
◇ *From:* Charles Peterson

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