

Re: Why can't we sleep in an ISR?

Source: <http://linux.derkeiler.com/Mailing-Lists/Kernel/2007-05/msg06547.html>

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On 5/14/07, Learning Linux <learninglinux4@xxxxxxxxxx> wrote:

Ok, but how about an ISR, that does not take any locks? Why can't we sleep in SUCH an ISR?

LL

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The killer reason why you can't sleep in an interrupt is because an interrupt is not associated with any context in the first place. What is a context, then? It is the state information for a process. This includes the kernel and userspace stack pointers, the register set, and the page tables for that process. The scheduler has access to all this information, to preempt one process and run another. Contrary to this, an interrupt, depending on the version of your kernel and arch, uses a separate irq stack or the kernel stack of the interrupted process. An irq is not a context but merely a temporary execution to be concluded asap.

Hope this helps,
Bahadir

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