

Re: How to develop a random number generation device

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- *From:* "John E. Perry" <jp@xxxxxxxx>
 - *Date:* Sat, 15 Sep 2007 22:15:33 -0400
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krw wrote:

...
The OS is necessary, but insufficient, part of the solution. The API is certainly part of the solution. Compilers too. Saying that the "OS can't" do something is letting it completely off the hook. Windows, or more accurately M\$, *is* the problem.

Yes, the OS is part of the problem/solution, but it needs hardware help. Actually, hardware/software combinations have existed at least since the late '70's. One I'm personally familiar with is the Motorola MC6809 (what a sweet chip!) running Microware's OS-9.

The 6809 had a software interrupt that could be programmed (as could all the other interrupts) to switch memory maps. A non-privileged user running under OS-9 had no access at all to the system space; the user could do any stupid thing imaginable and affect only himself. To get to system resources he had to load a register with a code and issue a SWI.

I believe a few other microprocessors had similar features (didn't the 68K?) — I'd be very surprised if they didn't have corresponding OS's.

And, notwithstanding the empty-headed MS worshiper who keeps calling more knowledgeable people idiots, Microsoft still doesn't make use of even what Intel provides.

John Larkin wrote:

...Microsoft's approach to multicore is incompatible with this architecture. In a few years we'll have, say, 1024 processors on a chip, and something new will be required to manage them. It will be a thousand times simpler and more reliable than Windows.

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But, John, we already have it. Linux is running right now on hundreds of processors -- I don't remember offhand how many cores per chip, but it's one of the later PowerPC processors. I think it's at Livermore.

....Yes, here it is. The whole list at livermore, with operating systems and hardware summaries.

http://www.llnl.gov/computing/tutorials/lc_resources/

John perry

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