

Re: RFC: libkse*.a in 7.0

Source: <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/arch/2007-11/msg00129.html>

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 - *Date:* Thu, 29 Nov 2007 06:17:11 +0200
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On Wed, Nov 28, 2007 at 09:42:10PM +0000, Robert Watson wrote:

On Wed, 28 Nov 2007, Brooks Davis wrote:

A number of people have proposed a direction in 8.0 that would remove support for the syscalls and kernel data structures required by libkse. Apparently this would enable significant simplification of portions of the kernel, but I have no deeply held personal opinion. The intent is that if that happens, alternate versions of the necessary dynamic libraries will be supplied in updated compat#x packages. This will address most consumers. The one set of consumers that would not be addressed is those who have statically linked, threaded binaries using libkse.

It's worth noting that some other mainstream operating systems work hard to disallow static linking for precisely this sort of reason -- when I last checked, Mac OS X had only one statically linked binary, init, and it may well be that launchd is dynamically linked. This is part of a very explicit policy that the defined ABI for applications is **not** the system call layer, but rather, the library interfaces, which gives greater flexibility to modify the system call interface as needed.

Some more other mainstream operating system did break the ABI at the syscall level precisely changing the threading model. Now, they have to implement separate project to be able to execute runtime for version 8 on the version 10. What is worst, they require a full zone to do this.

FreeBSD ability to run the old binary is very valuable.

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