

## Re: New library: libpidfile.

**Source:** <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/arch/2005-08/0211.html>

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**From:** Pawel Jakub Dawidek ([pjd\\_at\\_FreeBSD.org](mailto:pjd_at_FreeBSD.org))

**Date:** 08/23/05

Date: Tue, 23 Aug 2005 10:07:54 +0200

To: Hajimu UMEMOTO <[ume@FreeBSD.org](mailto:ume@FreeBSD.org)>

On Tue, Aug 23, 2005 at 12:46:52PM +0900, Hajimu UMEMOTO wrote:

+> Hi,

+>

+> >>>>> On Mon, 22 Aug 2005 23:30:28 +0200

+> >>>>> Pawel Jakub Dawidek <[pjd@FreeBSD.org](mailto:pjd@FreeBSD.org)> said:

+>

+> pjd> I'd like to commit a small library for handling "pidfiles".

+>

+> NetBSD and OpenBSD has similar functions already in libutil. I think

+> we alone have a different API is bad idea. So, it is good to bring

+> them into FreeBSD from NetBSD or OpenBSD, IMHO.

I assume you're talking about NetBSD's `pidlock(3)`.

This is exactly an example of a bad way of doing it, as I understand the code.

It doesn't use `flock(2)`, instead, it reads PID from the file and checks if process with this PID is alive. \*SOME\* process, not necessarily already running instance of the daemon, but some process which has the same PID. This is most important in case of `pkill(1)`, when we don't want to kill some random process.

This of course is also racy – daemon could be started between checking if process is alive and renaming `(lock|pid)file`.

It only provides one function which writes the PID of the current process into the file. With `libpidfile(3)`, you can open the pidfile before `fork()`ing, so daemon can report if another copy is already running before going into the background.

In general NetBSD's `pidlock(3)` isn't a complete solution (there is no function to remove just remove pidfile on exit, etc).

In OpenBSD `pidfile(3)` exists, but it is even worse. It doesn't even check if daemon is already running...

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It also doesn't support any pidfile name, you may specify only 'basename' and it creates pidfile in a form "/var/run/<basename>.pid", so it won't work if most of our daemon where you can specify alternate pidfile location.

Anyway. There is no one API they share and none of them is a sufficient solution.

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Am I Evil? Yes, I Am!

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