

State of the FreeBSD Audio Subsystem

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September 20, 2024
09/2024 DevSummit — Dublin, Ireland

Who?

- Contracting for the FreeBSD Foundation
- Failed musician
- Want to be able to use FreeBSD for music production

Complaints, tech support

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sound(4)

- Several kernel bug and panic fixes
- Modernization and simplification efforts
- More laptop support
- Better OSSv4 support
- Wrote some tests
- Improved `share/examples/sound/`
- Breaking things...

Notable patches

- sound: Implement asynchronous device detach (44e128fe9d92)
- sound: Get rid of `snd_clone` and use `DEVFS_CDEVPRIV(9)` (e8c0d15a64fa)
- sound: Retire `unit.*` (25723d66369f)
- sound: Implement dummy driver (c15c9315b2cb)
- `snd_uaudio`: Provide information about the device name and attached driver (18d87fe4fe3b)

Userland

- audio(8) (D46227)
- mididump(1) (D46418)
- mixer(8) rewrite (GSOC 2021)
- mixer(8): Implement hot-swapping (9aac27599aca)
- Took over development of `virtual_oss`

Ongoing and future work

- More `sound(4)` bug fixes and improvements
- Implement a generic MIDI layer, similar to `pcm/`. Also modernize the MIDI codebase in general.
- Continue `virtual_oss` development
- Attempt to automate `snd_hda(4)` pin-patching
- SOF/DMIC support
- Bluetooth device management utility

Track progress

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FreeBSD for music production

FreeBSD for music production

- Yes. There are people who do this thing
- `sound(4)` with `virtual_oss` is pretty good for a production setup
- Bit-perfect and `mmap`
- Good and growing collection of DAWs and LV2 ports

FreeBSD for music production



Acknowledgments

- Ed Maste <emaste@FreeBSD.org>
- Florian Walpen <dev@submerge.ch>
- Goran Mekić <meka@tilda.center>