BACCH4ALSA Product Brief

v1.0

November 16, 2020

1 BACCH4ALSA Overview

BACCH Audio for the Advanced Linux Sound Architecture (ALSA) provides the patented BACCH 3D audio processing technologies in an ALSA based utility for Linux platforms. The BACCH4ALSA utility makes it easy to process audio from any valid ALSA input device to output device in real time on Intel or ARM CPUs.

BACCH4ALSA v1.0 supports multiple Linux platforms, includes several BACCH 3D Sound profiles, and is complete with the ready to use BACCH4ALSA utility, documentation, and source code. Downloadable packages include

1.1 Supported platforms

- Raspberry PI 3 A+
  - Archive of the BACCH4ALSA utility complete with source and precompiled BACCH4ALSA library
  - Image file of Raspbian Buster Lite configured to run the BACCH4ALSA utility as a service
- NanoPi Neo
  - Archive of the BACCH4ALSA utility complete with source and precompiled BACCH4ALSA library
  - Image file of FriendlyCore 16.04 configured to run the BACCH4ALSA utility as a service
- Archive for Linux of the BACCH4ALSA utility complete with source and precompiled BACCH Audio library for the following distributions:
  - Ubuntu 14.04 LTS, 18.04 LTS
  - Debian 10.5
  - Additional Linux distribution support can be requested by emailing sales@bacch.com

1.2 Included BACCH 3D Sound profiles(filters)

To request a measured filter for your specific device in a future release, email sales@bacch.com.
The list of supported measured and universal filters follow.

- Universal BACCH Headphone
- Universal BACCH Speaker
- Google Nexus 6P
- JBL Flip 3
- LG SL8YG Sound Bar
- LG XBOOM Go PK5
- LG XBOOM Go PK7
- Samsung Galaxy Tab S4
- Samsung Galaxy Tab S 8.4
- Soundcore Motion+

1.3 BACCH4ALSA Utility

The BACCH4ALSA utility is a command line configured executable that uses the BACCH Audio API and the ALSA API to provide real time processing of audio from any ALSA configured input to any ALSA configured output. Command line arguments passed to the utility enable configuration of inputs/outputs, BACCH 3D Sound Profiles, sample rate, data format and more. A full list of arguments is contained within the BACCH4ALSA utility source code; the utility can output usage instructions to terminal by using the -h or --help argument at run time.

1.4 Documentation

Documentation for the SDK and supported platforms can be accessed via https://developer.bacch.com (valid account required)