Test report

EMU 0404 audio driver

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# Tested driver details

EMU Audiodriver

Download: https://github.com/Wouter1/EMU-driver/commit/864b4cc93f22d54fcef41e422cda3e1da362be4c

Driver version 864b4cc93f22d54fcef41e422cda3e1da362be4c on Jan 31, 2015

Driver latency setting: offsetToSet = sampleRate.whole / 450 or 2.22ms.

# The test setup

The built-in output is used to play a 1000Hz sine tone for 10 minutes.

A headphone is attached to the output. The microphones (stereo pair) are put inside the headphone cusions and they are wrapped together into a blanket to shield room noise and to fix their position.

Sound is sampled using OSX 10.9.5 Mavericks (Retina Macbook Pro late 2013 quad core i7) the EMU driver into Audacity 2.0.5

Audacity recording settings: Audio to buffer 1ms, Latency correction -1 ms.

# Test procedure

1. We use the EMU control panel to select the test rate

2. Audacity is started and set on the selected sample rate

3. playback of the sine tone is started

4. recording is started in audacity

5. recording is stopped after 10 minutes

6. Notch filter is applied, 1000Hz, Q=10

7. Amplify is done of the remaining signal

8. Sound is scrutinized visually for sharp peaks in the signal (1 bit wide). If there are sharp peaks they are played and zoomed in further.

9. The console output is checked. There should be no input ring push warnings between “USB timer started” and “EMUUSBInputStream::stop” except at the very first and last second.

# Results

|  |  |  |
| --- | --- | --- |
| File | Result | Text |
| 96k1 | Ok | Na |
| 92k2 | ok | Ok |
| 96k3 | Ok | Ok |
| 44k1 | Ok | Ok |
| 44k2 | Ok | Ok |
| 48k1 | Ok | Ok |
| 48k2 | Ok | Ok |
| 88k1 | Ok | Ok |
| 176k1 | Ok | Ok |
| 192k1 | Ok | Ok |

# Summary

All the tests were perfect. No single click was detected in 100 minutes of total recording time.