
Subject: Re: ASIO DRIVER current status ?
Posted by [mikeaudet](#) on Thu, 03 Mar 2016 23:05:00 GMT
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Hi Will,

I was getting a fair bit of time in, and then we all got a cold, and I've had two sick kids at home to look after.

I've got the MEC control panel done. I just have to test the +4/-10 controls. It's hard to check that from remote desktop on a laptop in the car with PARIS running in the house.

Last week, I discovered a bug that I though was squashed wasn't. After finishing the MEC control panel, I started testing all sorts of settings, and With 24 streams of audio, I'm getting occasional audio distortion at 64 samples. By streams I mean 24 I/O ports in use transferring audio on my MEC and 442. I took a look through the voice engine code, and I think I've figured out why.

The core of the voice engine that runs on the EDS card is something called the "big loop." It runs every 64 samples. It does all the memory transfers, and then it checks for new streams to add.

I think the work involved in setting up the 24 streams is delaying the loop by a few samples, and it just carries on at that point, every 64 samples, but slightly late. That puts it slightly out of sync with the main loop in the asio driver.

That's my theory, anyway.

So, I've been working on it. I've almost finished a function to change the frequency of the IRQ firing on the cards. Since the big loop fires the IRQ every 4th loop through the big loop, the IRQ is always in sync with the big loop. I think I've figured out how to make it fire every 64 samples instead of every 256. I can then run the ASIO loop from that.

Other than that, I've just got to do a simple dialog for the 442, and make a couple of additions to the C16 code. There are a couple of knobs I haven't wired in, but it's pretty simple stuff.

That's the latest! I'll get it out the second it's done and working perfectly.

I'm starting to think ahead to the next steps. I'm thinking of attacking the PSCL to port it to 64 bits so we can get a 64 bit ASIO. I'm also thinking about the Mac a lot, given the state of Windows. Reworking the PSCL would make it easier to port it to a new OS.

All the best,

Mike