Subject: Re: ASIO DRIVER current status ?
Posted by mikeaudet on Tue, 01 May 2018 21:47:38 GMT
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To answer an earlier question that I've been meaning to answer, it's not really in my plans to create a way to use the EDS1000 cards to load the Ensoniq effects. The source code for the effects loader was lost when Ensoniq shut down. The time it would take to reverse engineer the old code and rewrite it for 64 bits would be better spent doing something else, like maybe porting some of the effects to VST.

I'll try to make a longs story short - I found some new functions that were added in Windows 10 to allow for lower latency streaming. I've roughed some code in, but I haven't even compiled it yet. The reason I haven't tried to compile it is that Microsoft didn't document some of it. I got on a mailing list for Windows audio drivers to ask if anyone knew about this one new function that allows registering IRQs and threads as "streaming" resources. Nobody knew. I've emailed Micorosft's audio guy, and he hasn't replied yet.

But, the mailing list folks did know that there is a problem with the memory manger in Windows 10 - it's been there for 2 years - that if you wait long enough - and it could take a couple of hours - Windows 10 will block for upwards of 200 milliseconds. I didn't notice this in my testing, but I may have just gotten lucky in the sense that Windows didn't block on the CPU the driver was running on. Or, it might be specific to some chipsets. I'm not sure. This problem makes Windows 10 completely unsuitable for any kind of real time work, including audio. There are rumours that this was fixed in the April update, but I haven't heard anything for sure yet. To compare, Windows 7 blocks for 2-3 ms at most.

So, if I can't get these new functions to work and if Microsoft hasn't fixed this memory manager issue, I may start on an OSX driver. We'll see. My next step is using the PARIS mixer to implement direct ASIO monitoring so that we can get 64-ish sample latency no matter what the buffer size is for monitoring during recording. This, of course, depends on getting the 64 bit existing version debugged and ready first.

So, that's as short a long story as I can tell.