Subject: Native sumbixes - do you use them?
Posted by drfrankencopter on Mon, 22 Feb 2010 15:44:16 GMT
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It occurred to me that Native submixes might be a nice way to employ Senderella returns (this is probably news to nobody except me).

I was thinking that setting up a template session with some typical FX (maybe a couple of SIR reverbs, some delays, and split harmonizer) on a native submix might be time saver.

Can the C16 controller be used to vary fader position in virtual submixes (can you tell I've never used virtual subs before)?

I've heard that the native subs don't sound the same as the EDS ones (not a surprise, considering that they're CPU versus DSP), but I'm curious if folks here are using in their workflow.

Cheers

Kris

Subject: Re: Native sumbixes - do you use them?
Posted by kerryg on Mon, 22 Feb 2010 16:31:06 GMT
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Hmmm... hadn't occurred to me to try. Never used them in my Mac days, they just weren't an option with the processor power I had available on a beige G3.

But with more modern computers and their radically increased processor speeds, native submixes might be worth a closer look for possibilities... let us know if you experiment, this will be interesting.

Subject: Re: Native sumbixes - do you use them?
Posted by drfrankencopter on Sat, 27 Feb 2010 16:44:04 GMT
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OK, I have some news to report on native submixes.

I set up senderella to return sends 1 & 2 to channels 1 & 2 of a native submix. These senderlla returns were nested in a FFX4 chainer, and then in the plugin slot below them I inserted a stereo VST reverb and checked the stereo box. I had to drop a couple of tracks of silence into the editor window in order to fool the plug-in to work with no audio present on the track. But, I'm happy to report it worked!

Now here's some of my observations:
1) The C16 can control most functions on the native submix. Faders, pan, EQ, mute all work.

2) Solo on the native submix does not work....either from the C16 or the mouse. It's been de-activated somehow. I guess because the solo buss goes to the monitor sends only, and needs a direct connection to the EDS to make that happen. Not sure. At any rate, Faderworks might be the way to address this issue.
3) Using the senderlla send controls to determine panning and level of FX sends is not an intuitive process. For some reason senderella works in % rather than dB, which makes it even harder. I also ran into some streaming errors when the I had two senderella sends set to zero % (I think it was okay if I left it there, but had streaming errors if I adjusted it to zero while audio was playing...I'll need to double check).

I think this could be a nice way to establish some FX return templates. If only senderella could be re-written to better address stereo instances (e.g. with level and pan). Is it open source by any chance????

Cheers

Kris

PS: I'm also happy to say that my new PC was stable and happy running a 30 track project with a few plug-ins, and the VST reverb on the native sbmix. All with a CPU loading of 1-3%. Oh, and I haven't even set my paris configurations yet (buffers etc).

Subject: Re: Native sumbixes - do you use them?
Posted by kerryg on Sat, 27 Feb 2010 17:49:53 GMT
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Great work! OK, I'll start doing some testing with Senderella myself - you might want to do a forum search for Dimitrios' posts on it, he's done some really brilliant work too.

A cursory web search didn't turn up any info on it going open source; I found that the dev is subminimal software, aka ModuLR, but subminimal.org now appears to be defunct. Interesting avenue to pursue.

My basic philosophy on PARIS community development is that since Mike Audet's effectively the only person on the planet to whom we have access that knows PARIS-specific code, I like to explore other options for non-PARIS-specific coding. For example the OMF stuff, the PARIS-specific tweaks in FaderWorks, the PAF work and the libsndfile wrapper were all brought to us from outside the PARIS community (or more correctly had their roots in our overlapping membership in other communities such as Reaper). Essential driver development was able to continue while those things happened because of that diversity.

Some projects that could potentially be of great interest to us as PARIS users are (or have now become) "open source" - if community members with coding skills were interested in tweaking or modifying existing code to make it more PARIS-friendly, we'd see amazing advances fast. We already have a ton of cool options - as far as I'm concerned we also need a lot of them to be more rock-solid with PARIS - the words "it's a little flaky, but..." make my grind my teeth. I want solid, and solid is reachable when we have access to source code.

It might be time for me to post a list of the more relevant open-source projects that could be of great use to us given a tweak or two for compatibility in case anyone wants to roll up their sleeves.

By the way - as far as "not news to anyone but yourself" - a lot of really cool discoveries have been made over the years, but sometimes they've been forgotten by the mainstream, including myself. Maybe people thought some of them sounded cool but never really tried them out because they didn't really grasp how they worked, or what benefits they could bring. Maybe they just thought "wow, cool - but sounds really complicated". My primary motivations for starting the Wiki were the ideas that folks bought those insights the hard way and once we learn something about PARIS it should never be forgotten - and every attempt should be made to make those insights as easy to use as possible: complexities broken down and explained, workflows "walked through" etc.

I don't know if that's the teacher in me coming out (although with PARIS I'm "student", not "teacher"), or (more likely) merely that I know I'll be one of the prime beneficiaries of getting this laid out in "for dummies" format - I know how crappy my memory's getting.

Subject: Re: Native sumbixes - do you use them?
Posted by drfrankencopter on Mon, 01 Mar 2010 01:45:19 GMT
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I found the source for Senderella. ModuLR posted it to KVR's forum here:

http://www.kvraudio.com/forum/viewtopic.php?p=1006 166#1006166

It's not the most recent version but should be close enough to give a good start.

Now, if this is to be truly useful for Paris users, would be to find a way to tap into the Fader and Pan values for each channel so that the native plugin could be made 'post fader/post pan', instead of having to be controlled manually. This would also let you do fader automation and have it come across in the auxes too.

I"m not familiar enough with the Scherzo driver code to know if it's possible, but perhaps Mike Audet could shed some light. If somehow it's possible to send a UDP packet with each submix's fader/pan position, only sent when the values change, we'd be in good shape.

Cheers

Kris

Subject: Re: Native sumbixes - do you use them?
Posted by kerryg on Mon, 01 Mar 2010 03:30:49 GMT
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Nice find! I just forwarded the code, the link and a link to this thread to Mike.

Hmm - I have my (uneducated) doubts that what you're suggesting would be possible. It would be pretty exciting if it were - that would be the key to a lot more Aux automation, including using dummy channels to control stuff. But I understand it's very difficult to connect the EDS subsystems with the VST subsystems.

Subject: Re: Native sumbixes - do you use them?
Posted by drfrankencopter on Mon, 01 Mar 2010 03:48:50 GMT
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Connecting a VST to the audio going to/from the EDS cards is probably impossible. But, snooping on the mixerstate traffic signal might be possible. I think that code sits in the PSCL dll. I'll need to do more digging.

Cheers

Kris

Subject: Re: Native sumbixes - do you use them?
Posted by kerryg on Mon, 01 Mar 2010 04:16:48 GMT
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Hmmm... that would be verrrrry intriguing... Talk to Mike, that might lead to some really interesting interactions with ideas he's pursuing.

Subject: Re: Native sumbixes - do you use them?
Posted by kerryg on Mon, 01 Mar 2010 07:53:06 GMT
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Are you thinking of changing the meters to dB instead of % while you've got the hood up?

Subject: Re: Native sumbixes - do you use them?
Posted by drfrankencopter on Mon, 01 Mar 2010 14:41:04 GMT
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Here are my proposed changes:

1) Create a stereo send version, that can be inserted on mono tracks (like Paris uses), but allows for control of level and pan. Essentially, this will be two instances of senderella tied in series, and with their controls linked to handle the fader & pan. This will be more intuitive than the

arrangement currently used in senderella.
2) Level fader to be in dB (not %)
3) Pan control to mirror Paris' pan law
4) Option to have a delay (up to 250 ms) on the send. I figure this could be a really cool way to establish separate pre-delays for various instruments feeding a common reverb. I don't think any DAW is capable of doing this right now, and could be a really great way to define an acoustic space.
5) If possible, tie the level and pan amounts to the paris mixer fader/pan. This would allow the native FX sends to reflect fader and pan changes in the paris mixer. Not quite a post-fader send since there's paris EQ stage in there, but pretty close.
6) Meters might be nice...if I can figure them out

Cheers

Kris

Subject: Re: Native sumbixes - do you use them?
Posted by kerryg on Mon, 01 Mar 2010 17:10:09 GMT
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A tailor-made "Senderella In PARIS" version would be an insanely cool add-on, and #4 is a very smart addition. Should we contact the dev to make sure he's fine with us branching his code? He'd probably be fine with it, particularly if some of those innovations could be added to his own version.

Subject: Re: Native sumbixes - do you use them?
Posted by drfrankencopter on Mon, 01 Mar 2010 18:23:43 GMT
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I'm all in favour of contacting the developer. I'll try, but his site is now 404...perhaps email still works. I've got a post up in KVR's forum, so if ModuLR is still around perhaps he'll see what I'm up to.

My plan is to make the source available. I've got no financial interest in it...I just see an opportunity to address a shortfall in Paris' capabilities.

Cheers

Kris

Subject: Re: Native sumbixes - do you use them?
Posted by kerryg on Mon, 01 Mar 2010 18:24:57 GMT
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Let me know if you need beta testing; I'll start familiarizing myself with the existing version of Senderella.

Subject: Re: Native sumbixes - do you use them?
Posted by drfrankencopter on Mon, 01 Mar 2010 20:55:00 GMT
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Just a quick update. I've contacted Sean (ModuLR), and he's more than happy to see someone hack away at his code. He's going to try and dig up the latest version of the source if he can.

This is good news....now I need to go and learn the ins and outs of the VST SDK.

Cheers

Kris

Subject: Re: Native sumbixes - do you use them?
Posted by kerryg on Mon, 01 Mar 2010 21:04:25 GMT
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wooooT!

Subject: Re: Native sumbixes - do you use them?
Posted by Ted Gerber on Mon, 01 Mar 2010 21:16:02 GMT
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Two questions:

What does Senderella do that Faderworks doesn't?

What are the latency considerations with this proposed setup? ie: could this be used for a VST stereo buss comp from 8-10 channels all being sent to the same 2 inputs of a native submix?

Thanks for the good work!

Ted

Subject: Re: Native sumbixes - do you use them?

Posted by drfrankencopter on Mon, 01 Mar 2010 21:40:23 GMT
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Well, I'm not really sure what exactly Faderworks does. I haven't installed the demo to try it out yet. But my understanding is that it can control groups of tracks in a relative fashion, and can add delays to do latency compensation.

Senderella is entirely different. I think I'll write up a wiki entry on it. Effectively senderella is a native aux buss. You can instantiate the plug-in as send or as a return. All the sends will get summed together at the return.

The way I experimented with it was to set up the returns first:
1) I wanted a stereo return so I went to a native submix, and on channel 1's 1st native plugin slot instantiated Senderella set to be a return for Senderella's channel 1 (You can have up 64 'channels' in senderella, think of them as mono aux sends). On channel 2 of the native submix I set another Senderella as a return for Senderella's channel 2. This basically sets up a stereo return for Senderella's sends.

2) Next, on channel 1 in the 2nd native plug-in spot I selected a stereo native plug-in (Waves IR reverb), and checked the stereo box.

3) On an EDS submix on a snare drum channel, I instantiated 2 senderella plug-ins in series (the reason for this is I want to send the snare in mono to the reverb, so I need to send equal level to senderella channe l1, and channel 2). This is the interface issue I'd like to address.

4) Panning can be controlled by the balance of channel 1 vs channel 2 send levels on Senderella, and voila there is a native reverb working on an Aux.

Latency implications. I don't think there is any added latency from Senderella...so you can use it for doing parallel compression. BUT, and this is a big one, you'd need to have a compressor with zero latency. Or, otherwise do latency compensation by adding an equivalent delay after each send. This might be a useful addition to my plug-in.

Hopefully this makes some sense. I'll put some more thoughts down on paper tonight.

Cheers

Kris

Subject: Re: Native sumbixes - do you use them?
Posted by dnafe on Mon, 01 Mar 2010 22:34:40 GMT
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Having never used a Native submix this may be the wrong question

Are you saying that this kind of FX send /return (on a Native Submix) can be set up in conjunction

with an EDS Submix so that both run simultaneously and by switching views (so to speak) one can alter the FX returns in the native submix view or the sends in the EDS view...if so this has some interesting possibilities.

Assuming I've got this right...dumb Q time

Have you checked to see if there is a difference sonically between plugins inserted in the Native mix and the same inserted on an EDS mix?

Subject: Re: Native sumbixes - do you use them?
Posted by drfrankencopter on Tue, 02 Mar 2010 01:21:36 GMT
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You've got it! Except, you're not limited to having the senderella returns on a native submix, you can put them on EDS submixes too. I just figured it made more sense to put them on native submixes to free up EDS submixes for other purposes. A nice side benefit of having the returns on a channel is that you can EQ the returns with the standard paris 4 band EQ controlled by the C16. Also, by having the returns on a pair of channels you can get tweaky with the pan automation, going mono to stereo, or reverse. Stuff that ain't possible with the standard paris aux return automation.

Do native submixes sound different than EDS? Probably. They don't clip the same way, that's for sure. But for FX returns you're not usually cranking the trims and running the faders way up.

The down side to doing this on a native submix IMO is that the solo button doesn't work. There's where Faderworks would come in handy.

If you've got lots of EDS tracks, you can use a card mix, and then you keep the solo capability.

Cheers

Kris

Subject: Re: Native sumbixes - do you use them?
Posted by drfrankencopter on Tue, 02 Mar 2010 03:30:29 GMT
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I put together a quick tutorial on using Senderella in Paris.

http://web.ncf.ca/fk824/Senderella_tutorial.pdf

Kerry, feel free to put this on the wiki site.

Cheers

Kris

Subject: Re: Native sumbixes - do you use them?
Posted by kerryg on Tue, 02 Mar 2010 04:48:52 GMT
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Oh man, using a silenced audio file to fake out PARIS' FX - that's great! Can you email me the text and images broken out, and I'll insert it as Wiki article?

Subject: Re: Native sumbixes - do you use them?
Posted by drfrankencopter on Tue, 02 Mar 2010 13:46:04 GMT
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Here's the tutorial as a web page:

http://web.ncf.ca/fk824/Senderella_tutorial.htm

The images aren't optimized, so the load times aren't great, but it's easier to work with than a PDF for sure.

Cheers

Kris

Subject: Re: Native sumbixes - do you use them?
Posted by kerryg on Tue, 02 Mar 2010 21:40:07 GMT
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OK, got it, ported it over to the Wiki - look OK to you?

http://www.kerrygalloway.com/WikiPARIS/wikka.php?wakka=Nativ eSubmixSenderellaTut

- Kerry

[edited to add - I'm setting up a submix according to the tutorial right now - this might well become part of my Default Project.PPJ]