Subject: MOTU problem - ideas?
Posted by dc[3] on Thu, 24 May 2007 23:26:47 GMT
View Forum Message <> Reply to Message

So, I am helping a friend get his studio monitors and sub dialed in. We spend a couple of hours with the analyzer straight into the powered speakers and move things around, play with crossover points, etc, and get it pretty decent. Because of his placing the monitors on the console he had the usual 100hz. bump from the baffle extension. I got a brainstorm... Why not develop a 2 channel EQ template in Logic that he could put across the stereo masters and correct the speaker bump?

So, I put the pink noise into Logic via a MOTU 2408 and dang! there is an even bigger bump at 100... About 5db worse than straight to the speakers... Quit out of Logic and run the signal throught the MOTU PC424 virtual mixer only. No difference...

Where is this bass bump coming from? Anyone seen this?

MOTU tech support has so far been zero help on this issue.

Ideas?

thanks

DC

Subject: Re: MOTU problem - ideas?
Posted by Nil on Fri, 25 May 2007 00:07:48 GMT
View Forum Message <> Reply to Message

"DC" <dc@spammersinhell.com> wrote:
>So, I put the pink noise into Logic via a MOTU 2408 and dang!
>there is an even bigger bump at 100... About 5db worse than
>straight to the speakers... Quit out of Logic and run the signal
>throught the MOTU PC424 virtual mixer only. No difference...
>
>Where is this bass bump coming from? Anyone seen this?

I'll betcha it has something to do with the Panning Law in the virtual mixer... going straight into the speakers is giving you a fixed-source spectrum on each speaker, and the panning law of whatever it's set to in the virtual mixer is affecting something somewhere.

Are you using a single mic for the spectrum analysis? If so,

try disconnecting the right speaker, then taking a reading on
the left speaker only with the noise source pumped straight in
vs the same speaker with the noise going through the virtual
mixer & see if there's a difference then. Then switch speakers
& disconnect the left, etc. That method could also rule out
phasing anomalies.

Neil

Subject: Re: MOTU problem - ideas?
Posted by dc[3] on Fri, 25 May 2007 00:43:20 GMT
View Forum Message <> Reply to Message

Exactly! But even with a speaker off, the bump is still there...

very strange huh?

DC

"Neil" <IUOIU@OIU.com> wrote:
>
>"DC" <dc@spammersinhell.com> wrote:
>>So, I put the pink noise into Logic via a MOTU 2408 and dang!
>>there is an even bigger bump at 100... About 5db worse than
>>straight to the speakers... Quit out of Logic and run the signal
>>throught the MOTU PC424 virtual mixer only. No difference...
>>
>>Where is this bass bump coming from? Anyone seen this?
>
>I'll betcha it has something to do with the Panning Law in the
>virtual mixer... going straight into the speakers is giving you
>a fixed-source spectrum on each speaker, and the panning law of
>whatever it's set to in the virtual mixer is affecting
>something somewhere.
>
>Are you using a single mic for the spectrum analysis? If so,
>try disconnecting the right speaker, then taking a reading on
>the left speaker only with the noise source pumped straight in
>vs the same speaker with the noise going through the virtual
>mixer & see if there's a difference then. Then switch speakers
>& disconnect the left, etc. That method could also rule out
>phasing anomalies.
>
>Neil

Subject: Re: MOTU problem - ideas?
Posted by Neil on Fri, 25 May 2007 01:01:51 GMT
View Forum Message <> Reply to Message

Well then it's gotta be a bump that's built into the Virtual
Mixer software, innit?

Neil

"DC" <dc@spammersinhell.com> wrote:
>
>Exactly! But even with a speaker off, the bump is still there...
>
>very strange huh?
>
>DC
>
>
>"Neil" <IUOIU@OIU.com> wrote:
>>
>>"DC" <dc@spammersinhell.com> wrote:
>>>So, I put the pink noise into Logic via a MOTU 2408 and dang!
>>>there is an even bigger bump at 100... About 5db worse than
>>>straight to the speakers... Quit out of Logic and run the signal
>>>throught the MOTU PC424 virtual mixer only. No difference...
>>>
>>>Where is this bass bump coming from? Anyone seen this?
>>
>>I'll betcha it has something to do with the Panning Law in the
>>virtual mixer... going straight into the speakers is giving you
>>a fixed-source spectrum on each speaker, and the panning law of
>>whatever it's set to in the virtual mixer is affecting
>>something somewhere.
>>
>>Are you using a single mic for the spectrum analysis? If so,
>>try disconnecting the right speaker, then taking a reading on
>>the left speaker only with the noise source pumped straight in
>>vs the same speaker with the noise going through the virtual
>>mixer & see if there's a difference then. Then switch speakers
>>& disconnect the left, etc. That method could also rule out
>>phasing anomalies.
>>
>>Neil
>

Subject: Re: MOTU problem - ideas?

Posted by dc[3] on Fri, 25 May 2007 01:10:22 GMT
View Forum Message <> Reply to Message

Yes, or something in the 2408 hardware...

I can't get MOTU to take this issue seriously. The guy actually sent me audio files of 1K and 100hz. sinewaves to play back from inside Logic....

I don't know what he is thinking other than trying to find somewhere else to point a finger. Maybe if the files playback at equal levels he can say "no problem found" and go get some coffee...

I'm trying to get him to understand that it even happens on the 424 mixer, but he keeps coming back with the files to play back... So I am supposed to drive for two hours to see if the problem exists in a totally different set of conditions.

Pass pink noise through the 2408 and back out and you get a bass hump... What the hell is going on?

Very annoying.

DC

"Neil" <IUOIU@OI.com> wrote:
>
>Well then it's gotta be a bump that's built into the Virtual
>Mixer software, innit?
>
>Neil
>
>
>"DC" <dc@spammersinhell.com> wrote:
>>
>>Exactly! But even with a speaker off, the bump is still there...
>>
>>very strange huh?
>>
>>DC
>>
>>
>>"Neil" <IUOIU@OIU.com> wrote:
>>>
>>>"DC" <dc@spammersinhell.com> wrote:
>>>>So, I put the pink noise into Logic via a MOTU 2408 and dang!
>>>>there is an even bigger bump at 100... About 5db worse than

>>>>straight to the speakers... Quit out of Logic and run the signal
>>>>throught the MOTU PC424 virtual mixer only. No difference...
>>>>
>>>>Where is this bass bump coming from? Anyone seen this?
>>>
>>>I'll betcha it has something to do with the Panning Law in the
>>>virtual mixer... going straight into the speakers is giving you
>>>a fixed-source spectrum on each speaker, and the panning law of
>>>whatever it's set to in the virtual mixer is affecting
>>>something somewhere.
>>>
>>>Are you using a single mic for the spectrum analysis? If so,
>>>try disconnecting the right speaker, then taking a reading on
>>>the left speaker only with the noise source pumped straight in
>>>vs the same speaker with the noise going through the virtual
>>>mixer & see if there's a difference then. Then switch speakers
>>>& disconnect the left, etc. That method could also rule out
>>>phasing anomalies.
>>>
>>>Neil
>>
>

Subject: Re: MOTU problem - ideas?
Posted by Chris Ludwig on Fri, 25 May 2007 15:57:01 GMT
View Forum Message <> Reply to Message

HI DC,
Do you have a external AD/DA? You can probably confirm that way if it is
a in the MOTU hardware. Won't surprise me if they mess with the AD/DA
stage to make it "sound" better.
You could also try using the digital I/O looped back to see if there is
a bump but I'm not sure what your using to do the measurements with.
If it happens on the digital I/O also and you are sure the pan law
between the Motu and Logic are the same then it is either Logic or Motu.
Is there a way to change the the Pan law in the MOTU stuff or in Logic.
I've never seen either option in them.
It will be easy to rule out logic by just using another program to test.

Chris

DC wrote:
> Yes, or something in the 2408 hardware...
>
> I can't get MOTU to take this issue seriously. The guy actually
> sent me audio files of 1K and 100hz. sinewaves to play back from

> inside Logic....
>
> I don't know what he is thinking other than trying to find
> somewhere else to point a finger. Maybe if the files playback
> at equal levels he can say "no problem found" and go get some
> coffee...
>
> I'm trying to get him to understand that it even happens on
> the 424 mixer, but he keeps coming back with the files to
> play back... So I am supposed to drive for two hours to see if
> the problem exists in a totally different set of conditions.
>
> Pass pink noise through the 2408 and back out and you get a
> bass hump... What the hell is going on?
>
> Very annoying.
>
> DC
>
>
> "Neil" <IUOIU@OI.com> wrote:
>> Well then it's gotta be a bump that's built into the Virtual
>> Mixer software, innit?
>>
>> Neil
>>
>>
>> "DC" <dc@spammersinhell.com> wrote:
>>> Exactly! But even with a speaker off, the bump is still there...
>>>
>>> very strange huh?
>>>
>>> DC
>>>
>>>
>>> "Neil" <IUOIU@OIU.com> wrote:
>>>> "DC" <dc@spammersinhell.com> wrote:
>>>>> So, I put the pink noise into Logic via a MOTU 2408 and dang!
>>>>> there is an even bigger bump at 100... About 5db worse than
>>>>> straight to the speakers... Quit out of Logic and run the signal
>>>>> throught the MOTU PC424 virtual mixer only. No difference...
>>>>>
>>>>> Where is this bass bump coming from? Anyone seen this?
>>>> I'll betcha it has something to do with the Panning Law in the
>>>> virtual mixer... going straight into the speakers is giving you
>>>> a fixed-source spectrum on each speaker, and the panning law of
>>>> whatever it's set to in the virtual mixer is affecting
>>>> something somewhere.

>>>>
>>>> Are you using a single mic for the spectrum analysis? If so,
>>>> try disconnecting the right speaker, then taking a reading on
>>>> the left speaker only with the noise source pumped straight in
>>>> vs the same speaker with the noise going through the virtual
>>>> mixer & see if there's a difference then. Then switch speakers
>>>> & disconnect the left, etc. That method could also rule out
>>>> phasing anomalies.
>>>>
>>>> Neil
>

--
Chris Ludwig

ADK Pro Audio
(859) 635-5762
www.adkproaudio.com
chrisl@adkproaudio.com