
Subject: ATMOS ROOM CORRECTION AND FOLD DOWNS

Posted by [demetrievidox](#) on Thu, 07 Jul 2022 17:01:56 GMT

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I just got my first Metric Halo interface: LIO 8 and working on setting it up for use with POST and MUSIC mixing in HT ATMOS (BOTH BASS MANAGED AND FULL RANGE), 5.1, and Stereo. I want to accomplish 2 things with the DSP graphs:

- 1- Fold down ATMOS 7.1.4 to 5.1.2 (since format not supported by Dolby DAPS or Metric Halo)
- 2- Perform room correction (eq, delay, phase correction)

1- The fold down is pretty straight forward just emulate what downmixer plugin would do going from 7.1 to 5.1 .. Fold side surrounds into rear surrounds @-3db, and then fold rear tops into front tops @-3db. I think this is the best way to do it but let me know if someone has a better idea. I used volume control linear with -3db setting.

2- Room correction: complicated topic and I've never calibrated an ATMOS room before so not sure if my chosen DSP signal flow and chosen tools are the best way to do it. Please help me understand what could be better about this design:

SIGNAL FLOW- PT host outputs 7.1 beds + objects > Dolby DAPS 7.1.4 > MH MC source 7.1.4 > MC output graph folds 7.1.4 to 5.1.2 > DSP GRAPHS ROOM CORRECTION > ANALOG OUT TO SPEAKERS

ROOM CORRECTION SIGNAL FLOW IS: INPUT > BAND SPLIT > EQ CORRECTION VIA SONIC EQ > PHASE CORRECTION VIA MIO ALLPASS VD, SPEAKER DELAY CORRECTION VIA MIO DELAY (1K)

ATTCHED IS A SCREEN SHOT OF MY MONITOR GRAPH

File Attachments

1) [LIO ATMOS 7.1.4 TO 5.1.2 FOLD AND ROOM TUNE.jpg](#), downloaded 80 times

Subject: Re: ATMOS ROOM CORRECTION AND FOLD DOWNS

Posted by [henningaround](#) on Thu, 07 Jul 2022 19:05:53 GMT

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Hi!

Why did you choose Sonic EQ for correction?

Best

Henning

Subject: Re: ATMOS ROOM CORRECTION AND FOLD DOWNS

Posted by [demetrievidox](#) on Fri, 08 Jul 2022 20:31:21 GMT

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it just seemed like a good eq.. not sure which one would be the best for this application though..
lest phase distortion?

Subject: Re: ATMOS ROOM CORRECTION AND FOLD DOWNS

Posted by [bj](#) on Fri, 08 Jul 2022 22:31:11 GMT

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Sonic EQ is a good choice here because it only uses DSP for the bands that are active.

Subject: Re: ATMOS ROOM CORRECTION AND FOLD DOWNS

Posted by [bj](#) on Fri, 08 Jul 2022 22:34:19 GMT

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I don't really see what you would want/need the Allpass filters for. I think you are just burning DSP with those.

You don't need the MIODelays; you can set the delays for the outputs in the output path. That will save DSP.

Otherwise it looks pretty good to me.

Subject: Re: ATMOS ROOM CORRECTION AND FOLD DOWNS

Posted by [demetrievdox](#) on Sat, 09 Jul 2022 07:39:12 GMT

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Thanks for the tips so far, BUT if I use the delays on the monitor out will those be PRE or POST DSP+ blocks? I need delays last or it screws up bass management.

Im having lots of problems getting this software all set up:

1. Can't figure out why pre 9 and 10 (to host output) can't be used ever even if i delete all tracks and start fresh.. skips those and assigns from 11 onwards??
2. can't barely use any plugins.. I have 13 MH channelstrips, 1 halo verb and 1 dirty delay and the DSP is maxed out (monitor paths and DSP+ eating some up but seems like a very small amount of DSP available on this box. Maybe I'm missing some obscure setting that will help?
3. monitor source individual channel trims do nothing.. have no effect.. only gobal trim works, but if the global trim is used at all causes glitches in monitor level (if i assign +6db of global trim the monitor level jumps to -6 on source change and that becomes the max level available.. bug i suspect.

I didn't realize this software was so unfinished.. there are lots of major problems that make using this system VERY difficult:

- lots of GUI glitches with mixer and popup routing windows
- monitor controller window displays sources and outputs tiny once you have more than 4.. nearly impossible to read names.. should cascade into rows when window is stretched.
- reordering monitor sources and outputs is impossible, must delete all and start over
- no numeric peak level readout on mixer channels
- no numeric pan setting readout (pan should not default to middle of the room in 5.1, should default to C like pro tools)
- no send follows main pan
- no pre/post on aux sends, no send mute
- i/o buss routing on insert doesnt work at all (buss routing not an option)
- input strip assign to host is automatic and if you need to change order you must start over from scratch
- DSP+ block connecting has no copy and paste, must add every single block 1 at a time
- no matrix router
- no edge card meters, no AES meters, analog meters are horrible

Subject: Re: ATMOS ROOM CORRECTION AND FOLD DOWNS

Posted by [bj](#) on Tue, 12 Jul 2022 02:28:33 GMT

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1. As with on your other thread, I can't guess why you are unable to access pre 9 and 10 without seeing your configuration. Please file a bug report from the help menu so we can look at your files.
2. What sample rate are you running at? Also you are using significant processing in your MC config.
3. I'm not sure I understand what you are describing here; perhaps you can work through this with the support team on a call.
4. Please file bugs/feature requests if you feel the product is not meeting your needs. We will try to address them.
 - what specific GUI glitches?
 - the pan issues are for the surround Panner?
 - There is pre/post on sends; it currently controlled per bus (not per send) and accessed from the Mixer Config Window
 - sends can follow main pan and gain; it currently controlled per bus (not per send) and accessed from the Mixer Config Window
 - There is per send mute; there are two ways to access it:
 - command-option click the send fader in the mixer to toggle the mute
 - put the aux bus on the main faders by clicking on the name of the aux in the left-hand

legend; then the send fader, mute, solo and pan will be put onto the main surface

- click the name of the aux again to return to the main mix
- the busses are routed to via the sends or bus assign
- input strip assign: there is a preference for this (Mixer > Route New Strips to Host)
 - If you want to have random assign access, use the direct outs
 - If you want to bulk assign, probably easiest to clear the To Host, arrange the strips in the order you want the host channels, then select all the strips and assign to host

+DSP/metering request - these would be be good feature requests

Matrix - it is hard to use a matrix to describe the mixer at best it would be incomplete and potentially misleading; but that said it may be reasonable to add matrixes for input and output routing

Subject: Re: ATMOS ROOM CORRECTION AND FOLD DOWNS

Posted by [demetrievidox](#) on Wed, 13 Jul 2022 07:53:07 GMT

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Thank you for all the details, this was very helpful.

1- the to host pre 9 -10 issue got resolved only by selecting 9 and 10 as a direct out on some other strip and then un-assigning it.. then they showed up again in the to host as available.. bug but not sure how to recreate it.. will monitor

2- all work for me is 48k 24b- and even with a basic stereo mixing setup..only 5 input strips with no plugins or graph inserts only direct outs to host record, 0 auxes, 0 buses, and a stereo monitor source and output (2 mono sonic eq for room eq) ... I'm already running at 50% DSP! how is that possible.. not even using anything hardly.. 2 mono eq's. coming from an antelope audio interfaces with DSP I always was impressed with how much DSP I had available.. this box seems to not even have enough for a small track count 48k session.

I built a basic music tracking session with 20 tracks total i couldnt even get 1 channelstrip plugin per track.. I was only only able to get about 13. can't even accomplish the basics i need.

3. i'm looking forward to talking to someone from support about some of these issues i'm having.

thanks again i really appreciate you taking time to help me. cheers