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## MD vs Metasonix R-51

Posted by Jims computer beats - 2010/12/01 21:55

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I figured I'd post this here since it involves a machinedrum and I know there are quite a few modular owners who visit this site.

This is a short demo I made of the machinedrum running through a Metasonix R-51 VCA/Distortion tube module.

The first 4 bars is the MD unprocessed, the rest is the exact same pattern going through the R-51 with changes made to the R-51's parameters every 4 bars.

There's no post-processing (except normalizing in logic). The reverb you might hear on the snare is the MDs reverb. I took a pretty straight pattern (almost boring) so you can see how the R-51 can bring some mayhem to your drums.

<http://soundcloud.com/jims-computer-beats/md-vs-r-51>

You can download the .aif file and zoom on those waveforms.

(EDIT : I'm not sure I posted this in the right forum section... So if an admin want to move this thread in another section, it won't hurt my feelings! :laugh: )

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## Re:MD vs Metasonix R-51

Posted by Syl KougaÃ - 2010/12/01 22:25

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Cool sound !

PS : Never normalize...

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## Re:MD vs Metasonix R-51

Posted by Jims computer beats - 2010/12/01 22:40

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Syl KougaÃ wrote:

PS : Never normalize...

For the sake of understanding better how sound works, would you care to elaborate on that? I just assumed it would put the highest peak to 0 db (and turning the general volume up based on that) and that's it... (I recorded at around -3 db if I remember correctly, so not a very big difference).

Thanks!

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## Re:MD vs Metasonix R-51

Posted by Jims computer beats - 2010/12/02 00:39

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Or if anyone knows why we shouldn't normalize and would like to explain...

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## Re:MD vs Metasonix R-51

Posted by LIVESEQ - 2010/12/02 00:46

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I love this demo. What settings did you use to modify the sound? Also if I bought one of these would I be able to put it in a box and use any suitable power supply to get it running. I can't see myself getting a modular case.

Looking into other tube distortion options. first stop EH.

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## Re:MD vs Metasonix R-51

Posted by Jims computer beats - 2010/12/02 00:59

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I can't recall the exact settings I used, as the Metasonix stuff must be tweaked gently to find a sweet spot, and those settings may vary a bit from unit to unit. Also, you must play carefully with the volume of what you're sending it to (in this case, the master volume of the MD) as it can change the sound a bit. I just tweaked until it sounded good to me!

I wouldn't suggest plugging an eurorack module to a non eurorack powersupply. Doepfer makes a little beauty case to accomodate 1 or 2 modules, but you need to verify that it would be able to feed about 400 mA of current (that's what this modules takes to start up) EDIT : ok, forget about the minicase, it maxes out at 200 mA.

But you could always contact Metasonix for suggestions or custom orders. Also, the eurorack stuff works with 1/8" jacks and this module (as most modules) is mono.

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## Re:MD vs Metasonix R-51

Posted by chrisnaked - 2010/12/02 02:07

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I'd like to know as well, why shouldn't we normalize?

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## Re:MD vs Metasonix R-51

Posted by Syl KougaÃ - 2010/12/02 02:15

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For the sake of understanding better how sound works, would you care to elaborate on that? I just assumed it would put the highest peak to 0 db (and turning the general volume up based on that) and that's it... (I recorded at around -3 db if I remember correctly, so not a very big difference).

Because when you normalize, you raise the level of the loud input passage BUT also the low level input, where there is a lot of bad things like noises, lose resolution of the soft excerpt due to digital interpretation, and +3db on that is a lot on certain material...

Sorry if i can not go futher because I don't find the precice word in english.

I recomand this book, witch is on mastering but speak about a lot things that we all need to know for mixing :  
Mastering audio: the art and the science by Bob Katz

For your gain, look at parallel compression, it is may be a good way, tell me...

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## Re:MD vs Metasonix R-51

Posted by Syl KougaÃ - 2010/12/02 02:18

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All the same, the Metasonix R-51 sounds awesome !!!

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## Re:MD vs Metasonix R-51

Posted by chrisnaked - 2010/12/02 02:32

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(to hijack just a moment longer...)

I don't see how normalizing would be much different than turning up the volume on your stereo in that case. Perhaps with analog tape, where the minimum noise level can be high (or the MK 1 machinedrum!), you need to be careful about

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introducing too much gain, but with a DAW there shouldn't be too much noise, right?

However, I can imagine if you're going to send your tracks off to be mastered that normalizing would reduce the engineer's options for compression and EQing. Don't they ask for at least -3 dB of headroom?

Anyway, I'm no expert, and Katz's mastering bible has been on my to-read list for a long time!  
;)

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## Re:MD vs Metasonix R-51

Posted by Jims computer beats - 2010/12/02 02:47

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Ah! thanks for the answer! I understand that in some cases you don't want to bring the unwanted noises up (like in the case of some guitar amp where you hear a constant "SHHHHHH") but the MD and R-51 (well, depending on the settings) have very few of that.

I'm far from a knowledgeable person when it comes to mastering. I don't know what the difference is between parallel compression and straight compression, but my understanding of compression is that it reduces the distance between peaks and quiet sounds (it reduces the dynamics), effectively bringing up the low noises you don't (or do) want.

An expander would do the opposite; augmenting the amplitude difference between the quiet and loud sounds, and thus could act as a noise reducer.

Anyway, the demo was intended to show the difference between a straight pattern from the MD and the same pattern going through the R-51, so I didn't want to compress or process anything... I only normalized so the sound would be loud without peaking, but yeah I could've just exported the file without normalizing too.

BTW, thanks for the book suggestion. I'm going to buy that! I read a couple of Mr Katz's articles and it was very interesting.

And while the subject of mastering and post processing wasn't my initial intention when posting this, I always find interesting to read and discuss on the subject. So if any of what I said isn't accurate, feel free to correct me!

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## Re:MD vs Metasonix R-51

Posted by Toni - 2010/12/02 04:00

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Syl KougaÃ- wrote:

Because when you normalize, you raise the level of the loud input passage BUT also the low level input, where there is a lot of bad things like noises, lose resolution of the soft excerpt due to digital interpretation, and +3db on that is a lot on certain material...

Some common sense is can also be applied. +3dB isn't a lot at all when you are doing mixing for example. You raise the faders, you lower the faders as you want, you use EQs etc.

Syl KougaÃ- wrote:

I recommend this book, which is on mastering but speaks about a lot of things that we all need to know for mixing :  
Mastering audio: the art and the science by Bob Katz

Yes Katz book is good and the information it contains should be interpreted in context of mastering. Normalizing stuff which is sensibly recorded at 24 bit does not ruin the sound or make it any more noisier than it is. After all, after recording sound gets treated in mixing which is, by its definition, altering sound levels.

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## Re:MD vs Metasonix R-51

Posted by ipassenger - 2010/12/02 05:01

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Toni wrote:  
Syl KougaÃ wrote:

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Syl KougaÃ wrote:

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Yes Katz book is good and the information it contains should be interpreted in context of mastering. Normalizing stuff which is sensible recorded at 24 bit does not ruin the sound or make it any more noisier than it is. After all, after recording sound gets treated in mixing which is, by its definition, altering sound levels.

Agreed, normalising is fine as long as your not doing it to cover up a poor signal level. Best off trying to record a loud signal with sufficient head room, if your not sending it to anyone for mastering then normalising is pretty sensible. :)

On Topic:

The Metasonix sounds really nice. :)

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## Re:MD vs Metasonix R-51

Posted by Syl KougaÃ - 2010/12/02 05:24

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+3dB isnt a lot at all when you are doing mixing for example.

And if you want to re-use a track on an other project, and for example in solo... :silly:

Yes Katz book is good and the information it contains should be interpreted in context of mastering.

There is a good session inside the book about mixing.

Normalizing stuff which is sensible recorded at 24 bit does not ruin the sound or make it any more noisier than it is.

It does "ruin" the sound because you multiply a whole number by a number with comma to get a whole number. So if you want to process +3db on a file, It is better to calculate if you can applied +3 o +6 and then apply it with the gain changer.

There is a session about it in the book of bob...

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## Re:MD vs Metasonix R-51

Posted by Syl KougaÃ - 2010/12/02 05:28

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ipassenger wrote:  
Toni wrote:  
Syl KougaÃ wrote:

Best off trying to record a loud signal with sufficient head room !

1000% agree

The Metasonix sounds really nice. :)

1000 millions thanks :lol:

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## Re:MD vs Metasonix R-51

Posted by Wintermute - 2011/01/29 04:56

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Heya guys:

I'm far more an engineer than I will ever be a musician so here's my thoughts:

Normalisation is often a poor choice, on clean single hit samples it's ok, but in an ideal world you want to be raising your gain stage without raising the noise floor which is something normalising can never do.

As for parallel vs. standard insert compression, parallel compression rocks! It's also commonly known as New York compression, and in some ways acts in the opposite way as a normal compressor.

The benefit of putting a compressor across a group (or sending the thing you compress through a send with a compressor on it) means that the higher value signals (the loudest parts) will remain untouched, and the quieter signals will be raised. So instead of "squashing" the loud signals, you're "raising" the quiet ones. This works particularly well with drums (send them all to a bus and compress the hell out of it, then feed it back in. In addition to making some very punchy drums (think Jon Bonham, Dave Grohl etc) you can control the amount that is fed back in via the aux returns.

To the OP, how are you processing it? Are you just running the audio into the audio input of the module or the CV? I'm saving up to buy a modular ATM and Have been wondering how to integrate my Elektron synths. Can you use GND machines as a CV/Gate source? This is probably more suited to a thread on it's own, but any light you could shed would be much appreciated! :)

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## Re:MD vs Metasonix R-51

Posted by bsmith - 2011/01/29 06:10

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Pretty new to this stuff, but I've been clocking my modular stuff with the gnd-impluse machine out of output C, works great. Had to learn to p-lock every thing that can be p-locked on it (obviously do this once and copy/paste the notes a bunch of times), in case I use a ctl-all or something, because that will mess the pulse up. I'd asked about this in an earlier thread and thought it wasn't working for me, but I was failing to also p-lock the effects and routing. Have started a little utility pattern kind of thing where I have 16 beats of that set up, that also has rs click, and other meat and potatoes stuff to quickly grab....

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## Re:MD vs Metasonix R-51

Posted by Jims computer beats - 2011/01/30 00:08

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Wintermute wrote:

To the OP, how are you processing it? Are you just running the audio into the audio input of the module or the CV? I'm saving up to buy a modular ATM and Have been wondering how to integrate my Elektron synths. Can you use GND machines as a CV/Gate source? This is probably more suited to a thread on it's own, but any light you could shed would be much appreciated! :)

I took the audio out of the MD and connected it into the R-51's input. Since the R-51 is mono (like most modules), I took only one channel out of the MD (the left main). The R-51 output was connected in RCA on my crappy low end m-audio sound interface (I got a new MUCH better audio interface since).

If you would like to get stereo, you'd need 2 R-51.

Like bsmith said, you can use the GND machines as CV triggers on the modular.

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## Re:MD vs Metasonix R-51

Posted by tIB - 2011/01/30 00:35

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An envelope follower before it would be interesting too: there's an LPG compression patch for the up at MW somewhere that lead to interesting results with the maths and QMMG... Id imagine it could get real nasty real quick on the metasonix stuff. I like the sound of the metasonix stuff, Im not overly keen on some of the noises coming from the manufacturers though.

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