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Subject: Agreed to Disagree with Protools guy  
Posted by [Rod Lincoln](#) on Fri, 15 Jun 2007 03:13:57 GMT  
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I went over the Protools mix guy's studio yesterday to hear the mixes of the project that I played on. He mentioned again that I was cutting too hot. We got into a friendly disagreement about the subject. He said he would always gain down the track (basically rendering it and doing a gain reduction) if it was that hot because the plugs wouldn't have any headroom to work. (I noticed he was using UAD stuff)I asked about inserting a plug with more headroom before the offending plug to adjust level that way, and he was pretty opinionated that that would affect the sonic quality in a bad way. He's a good guy, so in the interest of not wasting the artist's time who invited me, I just let it drop. The mixes sounded pretty good though. Although very low in level. He's hip to the summing buss in protools choking if you push it too hard. It will just have to be made up in mastering. Opinions???

Rod

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Subject: Re: Agreed to Disagree with Protools guy  
Posted by [John \[1\]](#) on Fri, 15 Jun 2007 19:11:22 GMT  
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Has he done one of those experiments where you put a sine wave on 100 tracks and link all the faders and start bringing them up and monitor output to see where it clips?

I did it in cubase and was amazed how they have it setup so that you can simply pull down the master till the post master clip light goes out and it will render with no clips. At 32 bit float it has tons of headroom.

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Subject: Re: Agreed to Disagree with Protools guy  
Posted by [brandon\[2\]](#) on Fri, 15 Jun 2007 19:18:15 GMT  
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This is a multi-part message in MIME format.

-----=\_NextPart\_000\_0025\_01C7AF58.03ADC090  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: quoted-printable

Can you elaborate on this?  
I havent heard of this please.

--=20  
Thanks,

Brandon=20

"John" <no@no.com> wrote in message news:4672e45a\$1@linux...

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tracks  
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charset="iso-8859-1"

Content-Transfer-Encoding: quoted-printable

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charset=3Diso-8859-1">
<META content=3D"MSHTML 6.00.6000.16481" name=3DGENERATOR>
<STYLE></STYLE>
</HEAD>
<BODY bgColor=3D#ffffff>
<DIV><FONT face=3DArial>Can you elaborate on this?</FONT></DIV>
<DIV><FONT face=3DArial>I havent heard of this please.</FONT></DIV>
<DIV><FONT face=3DArial></FONT>&nbsp;</DIV>
<DIV><BR>-- <BR>Thanks,</DIV>
<DIV>&nbsp;</DIV>
<DIV>Brandon </DIV>
<DIV>&nbsp;</DIV>
<DIV><FONT face=3DArial></FONT>&nbsp;</DIV>
<DIV>&nbsp;</DIV>
<BLOCKQUOTE=20
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BORDER-LEFT: #000000 2px solid; MARGIN-RIGHT: 0px">
  <DIV>"John" &lt;<A href=3D"mailto:no@no.com">no@no.com</A>&gt; wrote =
in message=20
  <A =
```

href=3D"news:4672e45a\$1 @linux">news:4672e45a\$1 @linux</A>...</DIV><BR>Has =  
he=20  
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tracks<BR>and=20  
link all the faders and start bringing them up and monitor output =  
to<BR>see=20  
where it clips?<BR><BR>I did it in cubase and was amazed how they have =  
it=20  
setup so that you can<BR>simply pull down the master till the post =  
master clip=20  
light goes out and<BR>it will render with no clips.&nbsp; At 32 bit =  
float it=20  
has tons of headroom.</BLOCKQUOTE></BODY></HTML>

-----=\_NextPart\_000\_0025\_01C7AF58.03ADC090--

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Subject: Re: Agreed to Disagree with Protools guy  
Posted by [John \[1\]](#) on Fri, 15 Jun 2007 21:46:14 GMT  
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Sure, a common problem in the summing busses is clipping at the master bus when you mix many tracks. You can find this point by getting a sine wave (like these <http://www.rme-audio.com/english/download/audtest.htm>) and putting the sine wave on each track all in phase.

This way the peaks of all tracks are at the same point. So you have all these tracks at 0db and you find that they will often clip the master bus if you have more than 1 at 0db and so you have to pull the fader back on each track to avoid clipping.

You will find that for 8 tracks you may have to be down 20 db to not clip on the master bus. Real music doesn't have all channels at the peak 0dB at the same time so it's a more extreme test but using this you can find where your master clips.

In cubase if you do 32 bit float projects there is so much headroom you can clip the crap out of the input to the master (light design to go on at 0db) and it will still not clip the signal. Every DAW is different. In Paris 0db has some headroom so you can go above that by a few db and not get a nasty clip.

In cubase you can monitor the master fader pre fader or post fader. If you monitor prefader you will see the clip light at 0dB even though it doesn't clip the signal and you have tons of headroom. If you render/bounce this "clipped" signal to disk though it WILL be clipped. The trick in cubase (and I think it's awesome) is you monitor the Master POST fader and simply pull down the fader so it's not clipping, render/bounce and you're done.

You can have cubase clipping the crap out of the master fader Pre fader and it's no problem and you don't have to pull your faders back down because of the 32 bit headroom. Most people DON'T understand this point about Cubase. In Paris you have a nice feature where it will warn any clipping but you have a limited headroom so you need to make sure not to clip on your faders as a rule.

John

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Subject: Re: Agreed to Disagree with Protools guy  
Posted by [Martin Harrington](#) on Sat, 16 Jun 2007 02:22:11 GMT  
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A sine wave in that situation will show you nothing relevant at all. It is purely used for lining up a channel or channels. not for summing.

--

Martin Harrington  
www.lendaneer-sound.com  
0414 913 247

"John" <no@no.com> wrote in message news:4672e45a\$1@linux...

>

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Subject: Re: Agreed to Disagree with Protools guy  
Posted by [John \[1\]](#) on Sat, 16 Jun 2007 11:11:32 GMT  
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If you have sine wavs on multiple channels they are being summed in the master fader and if they are clipping it will show. What are you trying to say?

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Subject: Re: Agreed to Disagree with Protools guy  
Posted by [Martin Harrington](#) on Sat, 16 Jun 2007 12:59:43 GMT  
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It proves nothing with respect to dynamic audio reading and summing.

--

Martin Harrington  
www.lendaneer-sound.com  
0414 913 247

"John" <no@no.com> wrote in message news:4673c564\$1@linux...

>  
> If you have sine wavs on multiple channels they are being summed in the  
> master  
> fader and if they are clipping it will show. What are you trying to say?  
>

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Subject: Re: Agreed to Disagree with Protools guy  
Posted by [John \[1\]](#) on Sat, 16 Jun 2007 14:51:31 GMT  
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I'm sure there are many pulse related tests you can do if you're trying to measure the summing of dynamic signals. I'm discussing how to measure clipping on outputs.

"Martin Harrington" <lendan@bigpond.net.au> wrote:

>It proves nothing with respect to dynamic audio reading and summing.

>--

>Martin Harrington  
>www.lendaneer-sound.com  
>0414 913 247

>

>"John" <no@no.com> wrote in message news:4673c564\$1@linux...

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>

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Subject: Re: Agreed to Disagree with Protools guy  
Posted by ["Kris"](#) on Sat, 16 Jun 2007 17:49:02 GMT  
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Sure, a 32 bit float (and also 64 bit float) will have lots of headroom, but it makes for mixes that clip the 2-buss instead of clipping at the faders. You can't 'play the console' with this kind of structure like you can with a mixer that has limited headroom at the faders (like Paris and its integer based buss). What you see as a limitation, I see as an advantage, and vice

versa...

What you lose with the high headroom 2-buss is variation in clip point...a high headroom 2-buss will only clip at one spot, where you've set the master fader to. It's nice to be able to clip a channel using the EQ trim, then run the fader down a bit, using the trim/clip as a bit of a limiter/level control. This means that all your tracks clip at different points relating to their fader settings, which is harder to perceive as clipping per-se since it sounds more musical in a mix. To do this on a floating pt system you'd need to add a saturation pluggin.

Cheers

Kris

"John" <no@no.com> wrote:

>

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>have a limited headroom so you need to make sure not to clip on your faders  
>as a rule.  
>  
>John

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