Subject: Digital noise
Posted by echopraxia on Fri, 19 Nov 2010 07:36:57 GMT
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I am a little confused. I am getting digital noise from my pc which I never got before. This started happening a week ago. I have a pc with one eds card and mec. The pc also has an emu 1820 sound card. I don't want to believe it is the paris gear but I can't be sure.

I think It is some kind of loop because the noise comes through both the 1820 and the eds/mec (I have both devices running into a single stereo amp with 4 inputs).The weird thing is I can hear a digital scratching noise when moving a explorer window or scrolling a website and when I am not doing anything it becomes a whining sound that gets annoying real quick and turning down the volume in the pc does not make the noise go away. I checked the headphone out of my 1820 and the noise is not there

When I run paris the noise goes away completely but only if the mec is turned on. If paris is not running and the mec is turned on I still get the noise.

In reaper, when I change the audio device from asio to wave ect the noise cuts out for a second but comes right back.

Now I did add some new case fans to my computer around the same time this started happening so maybe I should try checking without those fans installed.

Has anybody experienced this before? I'm glad paris runs noise free and also my headphone out on my 1820.

Subject: Re: Digital noise
Posted by kerryg on Fri, 19 Nov 2010 08:17:56 GMT
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Hmm, I don't claim to be an expert on this but looks to me like you're having the same noise issues I had with my dual G5 - although it certainly didn't sound to me like traditional ground noise that's exactly what it turned out to be. We hear ground loops in audio gear as 60 cycle hum because that's the frequency of AC but inside your computer it manifests as much higher frequencies. There was a particular high-pitched whine associated with my graphics card that worsened when i'd, say, click a dropdown menu, and in my case it turned out to be a bad batch of power supplies with a grounding issue in that production run of G5s which Apple fixed under warranty (probably won't be the same problem with yours though).

Inspect the new fans, try unplugging them one at a time if it's feasible and safe (careful not to cook your computer!) and see if you hear any difference, check for anything that looks like it might have been jostled. If you have a DI or some other means of lifting the ground on your Emu then give that a shot. IMO it's unlikely to be PARIS - it may be old but they really got that stuff completely right, it's remarkably over-engineered re: ground/shielding/noise. Keep us posted.

PS: both your Emu and PARIS going into your power amp separately increases the possibility of weird loops. Consider the merits of having PARIS be the only card connected to the power amp and routing your Emu into PARIS through a pair of spare MEC inputs - maybe two of the channels of ADAT, or the SP/DIF ins. I'd bet that would have a good chance of eliminating it. Only downside is leaving PARIS on all the time like you would with a mixer (although that's what I do over here - PARIS goes weeks between reboots sometimes).

Subject: Re: Digital noise
Posted by Wayne on Sat, 20 Nov 2010 03:22:42 GMT
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Could be a multitude of things.

If all was well before the fans, then it's got to be the fans. Either they are noisy fans (electrically) or maybe the PSU.

I wondering if the new fans are pulling the power supply to it's max.

When I was upgrading my PSU I went to a site to determine the power needed. To my suprise when I entered my USB components, each USB component pulled 50watts. I don't believe it but it how the PS vender determines usage.

So if your running two sound cards, USB stuff, video card, DVD and/or CD player/burners, extra fans, floppy drives, multi hard drives, etc, you can see you can use up 400 watts real fast.

Subject: Re: Digital noise
Posted by Wayne on Sat, 20 Nov 2010 03:36:41 GMT
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If you don't hear it with the headphones, I'm wondering if during your rebuild you crossed power cables over and around your audio cables or speaker wires. Things like that can induce noise into an audio chain and you may not hear it until after your stereo amp power output transformer.

Also, I've had bad luck patching my DAW or Paris to a stereo system when it's on a different A/C leg in my house, ie, power outlet on opposite wall in the room.

I've been taught to keep my DAW and MEC and outboard gear on the same A/C leg in my house. When I do, no noise.

And lastly, grounding. When I run my laptop (cakewalk while away from home) and I connect it to

a mixer and power amp, even when on the same power outlet, I have to take a wire with alligator clips and ground the laptop to the power amp. This is mostly a Dell laptop problem when connected to it's power supply. If I run the laptop on battery . . . no noise. Point is, it's another way to get noise.

Subject: Re: Digital noise
Posted by echopraxia on Sat, 20 Nov 2010 08:28:47 GMT
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Thank you for all the different ideas

I have a 650 watt supply with 3 sata hard drives going along with an ati 4850 video card, 5 case fans,sata dvd burner, usb for printer and a usb midi interface. I think that's everything.

When i get a moment on turkey week I'll see what happens with out the fans. I screwed up and bought 3 PWM fans to replace my noisiest fans in my case. one is for the cpu, which is correct, but the other two are running at full speed because I don't have a fan controller and when PWMs are ran like a 3 pin fan they run at full speed. So now maybe I can use up more wattage for a fan controller

I'll have to check if I also crossed power and audio cables when I plugged everything back in. Everything is running off the same monster clean power strip and I have never had a problem such as this before so the wattage and full fan load is starting to make sense. I hope that I can just get a fan controller turn down the fans and be good to go but I am thinking that maybe I might have to ace the 2 extra pwm fans not connected to the 4 pin cpu fan header on my motherboard and get the 3 pin versions. I got coolink fans and even at full speed they are still quieter than my old fans at there lowest speed.

Thanks again guys.