
Subject: Attention PARIS MAC users - HELP NEEDED

Posted by [kerryg](#) on Sun, 05 Apr 2009 01:18:31 GMT

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As you've noted, we're in pursuit of nailing down the Reaper PAF extension - a plug-in for Reaper that allows you to work on PARIS-recorded PAFs in Reaper DAW without conversion.

You've probably also noted that an issue has cropped up with 24-bit files generated by the PPC (Mac) version of PARIS. It's turned out to be a bigger deal than an issue with one single app - it seems it might be pointing to an inconsistency between PAFs from the Mac and PC versions of PARIS.

Erik de Castro Lopo, the developer of libsndfile (the "library" we're using to do PAF conversion) has graciously agreed to help troubleshoot this definitively, and requested some test files done to a specific procedure. We need some Mac PARIS user help.

HOW YOU CAN HELP:

I've generated a test WAV file to Erik's spec, zipped it and attached it to this post. I've already done a PC-PARIS-converted PAF from it; now we need a Mac PARIS user to do the same conversion on the file, using precisely the same process, and re-upload it here so Erik can examine the original and the two different conversions of it and thus pinpoint the issue.

The procedure shouldn't take more than a couple of minutes, and if we do it I have every expectation we'll finally get this (potentially very old) problem addressed:

- 1) Download the small test file attached to this post and unzip it (probably easiest to unzip it to your desktop).
- 2) Open PARIS to a fresh project and set the bit depth to 24-bit.
- 3) Set Record Path to the folder you've just downloaded and unzipped; set the file name to "MAC TEST" and the file type to .paf.
- 4) Open the Audio window, select Add Audio File, navigate to the folder and open the "TEST FILE". Once you've added it, PARIS will automatically convert it to PAF and dump it into the directory you just pointed it to.
- 5) Switch back to the Finder and verify that there's now a file called "MAC TEST.paf" in there with the original "TEST FILE.wav".
- 6) Quit PARIS (you don't have to save the ppj once it's done it's single job).
- 7) Zip (or stuff) the folder and upload it back to this thread, and I'll take it from there.

When Erik gets the file he can look at a) the original WAV, b) what a PC-PARIS generated PAF looks like (I've already generated the PC version for comparison) and c) what a MAC-PARIS generated PAF looks like. That should give him the info he needs to fix this.

Thanks in advance!

PS: for those of you that'd like a bit more background on what's going on - I don't know if this rings a bell with anyone, but I used to see this now and then when using files generated by the Mac version of PARIS - I'd get an audio file that looked visibly correct in another app (say Peak) but played back as nothing but noise and static. I can't now remember the exact circumstances that triggered this - but I remember the frustration well.

If you've seen that issue from a Mac PARIS-generated file, that may well have been this bug in action - not a corrupted file per se, but simply a misreading of the file due to what's called an "endian" issue, which concerns the order in which data bytes are understood to be read. I'm not well-versed in the mechanics behind this, I'm just a guy trying to get a community problem solved, but if you want to know more, this Wiki entry has the gory details - <http://en.wikipedia.org/wiki/Endianness>).

Apparently PPC (ie, Mac) is "big-endian" and X86 (ie PCs) are "little-endian" (think "Gulliver's Travels"). And if we want to do something about it, the best place to either fix it or compensate for it is going to be in libsndfile, since that's where most developers wanting to support PAF in their apps would turn nowadays.

Anyway, libsndfile's developer is going to dig into it and hopefully give it a definitive fix ASAP - meaning wherever the fault may lie (whether in the PARIS app or in libsndfile itself), once fixed *any* app calling on libsndfile's translation routines will print/translate Mac PAFs as correctly as it does their PC equivalents.

Thanks!

- Kerry

File Attachments

1) [PAF TEST.zip](#), downloaded 84 times

Subject: Re: Attention PARIS MAC users - HELP NEEDED

Posted by [kerryg](#) on Tue, 07 Apr 2009 07:57:42 GMT

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Bump - assistance needed quickly on this one, *before we lose the attention of the developer*.

Subject: Re: Attention PARIS MAC users - HELP NEEDED

Posted by [kerryg](#) on Tue, 07 Apr 2009 17:26:56 GMT

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Bumping again, Mac PARIS folks.

We have a developer's attention at the moment, and he's standing by waiting for your input. That's what we've said about a million times that we wished would happen, so let's git'er done.

Don't think of this as a Reaper-specific development - this will affect *every* application, present and future, that relies on libsndfile to translate PAF files into another format.

Subject: Re: Attention PARIS MAC users - HELP NEEDED

Posted by [TC](#) on Tue, 07 Apr 2009 19:49:41 GMT

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I think this is great, but I'm wondering how many mac paris users are still out there? The problem is that we are talking about OS9 with G3 or G4 systems, whereas Paris on PC is a little more "future proof".

I did have paris running on a g4 years ago, but of course upgraded to G5 and now intel.. wish I could help..

Cheers,

TC

Administrator wrote:

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>
>
> -----
> :: [posted via the PARISForums] ::
> :: kerrygalloway.com/ParisForums/ ::
> -----

Subject: Re: Attention PARIS MAC users - HELP NEEDED

Posted by [Ted Gerber](#) on Tue, 07 Apr 2009 19:50:01 GMT

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Sorry Kerry - I said I would do the OMF thingy last week, but I had gigs on the weekend and also was connecting new gear. I'll try to knock this off tonight.

Ted

Administrator <kg@kerrygalloway.com> wrote:

>Bumping again, Mac PARIS folks.

>

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>input. It's what we've said about a million times that we wished would happen, so let's

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>:: [posted via the PARISForums] ::

>:: kerrygalloway.com/ParisForums/ ::

>-----

Subject: Re: Attention PARIS MAC users - HELP NEEDED

Posted by [Ted Gerber](#) on Tue, 07 Apr 2009 20:30:02 GMT

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For now I'm still on Mac, but will migrate to PC when I feel confident I can manage the change, +/- or when my last Mac G4 dies... (probably within the year for both of these).

Ted

TC <tc@spammetodeathyoubastards.org> wrote:

>I think this is great, but I'm wondering how many mac paris users are >still out there? The problem is that we are talking about OS9 with G3 or

>G4 systems, whereas Paris on PC is a little more "future proof".

>

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>
>TC
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>> :: kerrygalloway.com/ParisForums/ ::
>> -----

Subject: Re: Attention PARIS MAC users - HELP NEEDED
Posted by [kerryg](#) on Tue, 07 Apr 2009 22:05:58 GMT
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TC wrote on Tue, 07 April 2009 15:49: I think this is great, but I'm wondering how many mac paris users are still out there? The problem is that we are talking about OS9 with G3 or G4 systems, whereas Paris on PC is a little more "future proof".

I did have paris running on a g4 years ago, but of course upgraded to G5 and now intel.. wish I could help..

Cheers,

TC

Heya TC - part of this, to me, is about completeness of interoperability - making certain there are no "gotchas", that we don't have to know where a PAF originated to know it will "just work" - making sure we can say "yes, Reaper reads PARIS PAFs" without any ifs, ands or buts.

Even though I'm not on PARIS Mac and this will have little effect on me, it will *bug me* to know there's one single flavour of PAF that libsndfile can't handle reliably, and even more to know we had the solution in our hands and could have solved it easily, but let the moment pass.

But as a more practical concern, this is about future-proofing the files of Mac users too - all 24-bit

PAFs that PARIS Mac user have created in the last ten years are potentially subject to this issue. So if a Mac PARIS user sells their rig and switches to PC, and then decides down the road to revisit something from their archives and remix it in Reaper (or in any app yet to come that relies on libsndfile to translate or import PAF), I want to make certain that their archive of PAFs will translate reliably.

Subject: Re: Attention PARIS MAC users - HELP NEEDED

Posted by [TC](#) on Wed, 08 Apr 2009 00:47:57 GMT

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Excellent point, makes total sense. Sounds like you have Ted on it, I just wasn't sure if there was anyone out there still running paris on mac.

Cheers,

TC

Administrator wrote:

So if a Mac

> PARIS user sells their rig and switches to PC, and then decides down the

> road to revisit something from their archives and remix it in Reaper, I

> want to make certain that their archive of PAFs will translate reliably..

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> -----

> :: [posted via the PARISForums] ::

> :: kerrygalloway.com/ParisForums/ ::

> -----

Subject: Re: Attention PARIS MAC users - HELP NEEDED

Posted by [Micha](#) on Wed, 08 Apr 2009 19:39:59 GMT

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Kerry, did anybody sent you the mac-paf already?

Subject: Re: Attention PARIS MAC users - HELP NEEDED

Posted by [kerryg](#) on Wed, 08 Apr 2009 23:31:14 GMT

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Not yet, Micha - if you have a chance, it'd be greatly appreciated!

- K

Subject: Re: Attention PARIS MAC users - HELP NEEDED

Posted by [Micha](#) on Thu, 09 Apr 2009 09:33:17 GMT

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no problem!

File Attachments

1) [Mac_PAF_TEST.zip](#), downloaded 74 times

Subject: Re: Attention PARIS MAC users - HELP NEEDED

Posted by [kerryg](#) on Thu, 09 Apr 2009 17:20:54 GMT

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Excellent, Micha, thanks very much for the help! I've just packaged your test files with mine and sent them on to Erik, and now we wait for a fix and a recompile of libsndfile. At that point, according to Xenakios the current extension for Reaper should work "as is" - he reckons it's already doing its job correctly.

Here's a screenshot I just made that illustrates the issue - the first pair is the 24-bit test WAV and the 24-bit Mac PAF you just contributed. The second pair is the same 24-bit test WAV and the 24-bit PAF I generated from PARIS running on WinXP. Hopefully soon we'll never see this again.
