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 92 times