#### This guide includes:

- Driver download & installation
- Professional audio players
- ASIO output
- Play DSD files with a professional player (settings)



For USB connection, please use the USB cable in the box to connect the Flamingo to a computer. (For a smartphone or a portable music player, the corresponding cable/adapter like the OTG cable/adapter is needed.)

#### **Driver download & installation**

- \* Apple's macOS doesn't need any driver.
- \* Smartphones and portable music players don't need any driver.

#### For Windows users:

Please go to:

 $\underline{www.auneaudio.com} \rightarrow \text{English} \rightarrow \text{Service \& Support} \rightarrow \text{Downloads} \rightarrow \text{Flamingo}$ 

Download the corresponding XMOS driver: For Windows7-10: v4.67 For Windows11: v5.30 or a later version

Drivers & Tools	User Manual
aune USB Driver v5.45.0 Last updated: 2022-08-20 Download Download the drivers her	Flamingo Manual Last updated: 2022-08-27 Download
aune USB Driver v4.67.0 Last updated: 2019-07-09 Download	USB Driver & Settings Last updated: 2022-08-27 Download (This is the file you are reading now.)

Extract the .zip file and double click the .exe file to begin the installation.



Joetup	
ອບຕອ	Welcome to the aune USB Audio Device Driver v4.55.0 Setup Wizard
	This wizard will guide you through the installation of aune USB Audio Device Driver v4.55.0.
	It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.
	Click Next to continue.
EXT"→	
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icense Agreement Please review the license terr Press Page Down to see the r End User Licence Agreement BY ACCESSING, USING, INST AGREE TO BE BOUND BY THE DO NOT ATTEMPT TO DOWN 1. Agreement This is an agreement ("Agree office at 107 Cheapside, Lon are entering into this Agreem If you accept the terms of the agreement to install USB Audi	ns before installing USB Audio 2.0 Stereo Driver v2.23.0. rest of the agreement. FALLING OR DOWNLOADING the XMOS Software, YOU FOLLOWING TERMS. IF YOU DO NOT AGREE TO THESE, ILOAD, ACCESS OR USE THE XMOS Software. ement") between You and XMOS Limited having its registered don, EC2V 6DN hereinafter referred to as "XMOS". If you nent on behalf of another legal entity such as a company, e agreement, dick the check box below. You must accept the to 2.0 Stereo Driver v2.23.0. Click Next to continue.
icense Agreement Please review the license terr Press Page Down to see the r End User Licence Agreement BY ACCESSING, USING, INST AGREE TO BE BOUND BY THE DO NOT ATTEMPT TO DOWN 1. Agreement This is an agreement ("Agree office at 107 Cheapside, Lon are entering into this Agreem If you accept the terms of the agreement to install USB Audi I accept the terms of the I	ns before installing USB Audio 2.0 Stereo Driver v2.23.0. rest of the agreement. FALLING OR DOWNLOADING the XMOS Software, YOU E FOLLOWING TERMS. IF YOU DO NOT AGREE TO THESE, ILOAD, ACCESS OR USE THE XMOS Software. ement") between You and XMOS Limited having its registered idon, EC2V 6DN hereinafter referred to as "XMOS". If you tent on behalf of another legal entity such as a company, e agreement, dick the check box below. You must accept the to 2.0 Stereo Driver v2.23.0. Click Next to continue. License Agreement

agreement to install USD AUGIO 2.0 Stereo Driver v2.22

☑ I accept the terms of the License Agreement

"NEXT"→



Choose the folder in which to install U	SB Audio 2.0 Stereo Driver v2.2	3.0.
Setup will install USB Audio 2.0 Stereo different folder, dick Browse and sele	Driver v2.23.0 in the following t ct another folder. Click Install to	older. To install in a start the installation.
Destination Folder		
beschadorri older		
C:\Program Files\XMOS\USBAudio	StDriver_3023	Browse
C:\Program Files\XMOS\USBAudio	StDriver_3023	Browse
C:\Program Files\XMOS\USBAudio Space required: 2.3MB Space available: 8.3GB	StDriver_3023	Browse

You can also change the destination folder. Then "Install"  $\rightarrow$ 

stallation Complete	all a
etup was completed successfully.	B
Execute: regsvr32 /s "C:\Program Files\XMOS\USBAudioStD Execute: regsvr32 /s "C:\Program Files\XMOS\USBAudioStD Create shortcut: C:\ProgramData\Microsoft\Windows\Start Preinstalling drivers.	iver_3023\xmosusbaudi iver_3023\xmosusbaudi 1enu\Programs\XMOS\U
This may take some time to complete. Please wait	
Preinstallation was successful. Click Next to continue.	



Restart.

After installation, when you connect an aune device to the computer, you can click the icon on the status bar/system tray (bottom right corner)



and check the status of the connection.



tatus	Format	Buffer Settings	Info	About	
USB	Audio Dev	vice			
aune	e usb dac				*
~		<b>D</b> .			
Curre	nt Sample	Kate			
4410	U Hz				

Now you need to set XMOS device as your default device:

Right click the speaker icon in the notification area of your status bar. Click playback devices.

Select XMOS as the default device.

3	N増加20首米修改00直 	efinition Audio
	Realtek Digital ( Realtek High De 准备就绪	Output efinition Audio
0	あ声器 XMOS USB Aud SUSB Aud	dio

Double click aune / XMOS device, and in the Advanced section select both options:

◎ 扬声器/听筒 属性

24 位, 192000 Hz (录音室音质) ✓ ▶测试① 独占模式	高级	印心涩度
独占模式 (又)分午应用程序独占控制该设备	2000 Hz (录音室音质)	~ ▶测试①
☑ 給与独占模式应用程序优先	程序独占控制该设备	

# Some professional audio players:

#### Microsoft Windows XP/7/8/10

JRiver Media Center Official website: http://www.jriver.com/ Foobar2000 Official website: http://www.foobar2000.org/ Signalyst HQPlayer Official website: http://www.signalyst.com/

#### Apple macOS X 10.7 and above

Audirvana Plus Official website: http://www.audirvana.com/ Amarra Official website: http://www.sonicstudio.com/index.html Pure Music Official website: http://www.channld.com/puremusic/

# ASIO output

ASIO is a proprietary audio interface standard in use on Windows which bypasses the operating system's mixing kernel, so providing lowest latency direct communication between computer audio software and hardware.

After installing the USB driver, use a professional player to achieve ASIO output. You can set the output options, and find the corresponding device. In different players the ASIO name may vary: "ASIO:XMOS USB Audio 2.0 ST 3023", "ASIO: USB DAC ASIO Driver" "ASIO: X8 USB DAC ASIO Driver" "ASIO: X1s USB DAC ASIO Driver".

	选项	
▶音乐	需要配置的区域: 攝放器	~
🕙 光盘刻录	▼ 音频设备	•
💽 CD, DVD & BD	✓ XMOS USB Audio 2.0 ST 3023 [ASIO]	
🔁 编码选项		
國 文件位置	▼ 播放设置	
😚 文件类型	DSP和輸出类型	
🗹 综合选项	✓ 数位流: Yes (DSD)	
▲ 便携设备	◆ 播放预缓冲: 6秒 (推荐)	
1 图片	✓ 在启动播放时为使硬件同步等待(静音):无	
(自动导)	□ 使用内存描成功能而不是直接从磁盘读取描放(用于所有区域) □ 林田山DAII加速信号(収住田山DAII音)	
一世休网络		
	▼ 目初切换	
	▼ 切換目初: 20回帰 ▼ 不播放天声部分(开斗和结尾)	
	☑ 无间隔播放专辑音轨	
	▼ 停止 寻道与跳过	
◎ 启动远坝	♥ 寻道: 光滑 (中)	
日田祝	✔ 停止: 淡出 (快)	
■ 剧院视图	✔ 暂停: 淡入 (快)	
1 视图和目录	跳转行为: 前进 30 秒 , 后退 10 秒	
💭 视频	注解: 当播放停止后更改生效	
搜索你需要的内容	确认取消	帮助
11 <u>Lucencis (175</u> 6171, 56).		

#### Play DSD files with a professional player

# 1. Foobar2000

Foobar2000 requests some third party plug - ins for DSD playback. What's more, the volume control of Foorbar2000 must be set to 100%( - 0.0dB) for DSD playback.

First, you need to download and install the 'Super Audio CD Decoder' plug - in at:

http://sourceforge.net/projects/sacddecoder/files/foo\_input\_sacd/

Download 'foo\_input\_sacd - 0.6.5.zip'(or later version), open and

extract all files:

BUNE®



Click and install 'ASIOProxyInstall - 0.6.5.exe'(or a later version):

ASIO Proxy for foobar2000	Setup: Installation Opti
Check the components you don't want to install.	ou want to install and uncheck the components Click Next to continue.
Select components to install:	ASIOProxy (required)
Space required: 212.0KB	
Cancel Nullsoft Install	System v2.46 Next >

After the installation is finished, copy '**foo\_input\_sacd.dll**' file into Foobar2000's

components folder. For example: 'C:\Program Files (x86)\foobar2000\components\'





Go to Foobar2000 website ,download and install the 'ASIO support 2.1.2'(or later version) plug - in:

http://www.foobar2000.org/components/view/foo out asio/

Run the downloaded file 'foo\_out\_asio.fb2k - component' to install the ASIO plugin:



Start Foobar2000, click menu and select **'File'**, enter **'Preference'** section. Jump to **'Playback'>'Output'** tab at the left hand side. Select **'ASIO: foo\_dsd\_asio'** as output device on the **'Device'** section at the right hand side:

Components	Device
D Display	
D Media Library	1010.100_030_030
- Networking	Ruffer length
▲ Playback	
Output	
ASIO	1580 ms
<ul> <li>Shell Integration</li> <li>Tools</li> </ul>	Warning: setting too low buffer length may cause some visualization effects to stop working.
SACD	Output format
Advanced	Output data format:
	Output data format will be chosen automatically for the selected device.

Jump to **'Playback'>'Output'>'ASIO'** tab on the left hand side, double click **'foo\_dsd\_asio'** item under **'ASIO drivers'** section on the right hand side:

▲·播放 … DSP 管理哭	ASIO drivers	
▲ 输出 ▲ 输出 ● 输入 ● 输入 ▲ 工具 ● SACD	foo_dsd_asio XMOS USB Audio 2.0 ST 3023	
▶ /小亚 ● 快捷键 ▶ 媒体库	Double-click an entry to activate the driver's	control panel.
小克交互	Use 64-bit ASIO drivers	
	Run with high process priority	
- 业小 ▲·默认用户界面	Custom channel mappings	
□ 一冊加列表视的 □ 一颜色和字体 □ 上下文菜单 □ 组件 □ 高级		Add New Edit
		Remove
	This feature allows you to configure alternate soundcards. You may need to close and re-open the foob added mappings to appear as output devices	e channel mappings for your ASIO-enabled var2000 preferences dialog for your newly s in the "output" page.
	<b>重罟全部</b> 重罟页面	<b>通定 取消</b> 应用

Double-click the 'foo\_dsd\_asio' Select 'XMOS USB Audio' as 'ASIO Driver' and use 'DoP Marker 0x05/0xFA' as 'DSD Playback Method' option on the pop-up window:

Email: sales@auneaudio.com Web: www.auneaudio.com

|--|

ASIO Driver:	XMOS USB Audio 2.0 ST 3	3023			•	
SD Playback Method:	DoP Marker 0x05/0xFA				•	
CM to DSD Method:	None	•	Fs:	DSD128	•	
SD/PCM Transition:	0 ms	•				
_dsd_asio v0.7.1.2	A 117 M			Į	23	(0.3) 
_dsd_asio_v0.7.1.2	XMOS USB Audio 2.0 ST 3	3023		Į	53	 
_dsd_asio v0.7.1.2 SIO Driver:	XMOS USB Audio 2.0 ST 3	3023		Į	×	(0.3)
_dsd_asio v0.7.1.2 SIO Driver: SD Playback Method:	XMOS USB Audio 2.0 ST 3 DoP Marker 0x05/0xFA	3023			•	
_dsd_asio v0.7.1.2 \SIO Driver: \SD Playback Method: \SD to DSD Method:	XMOS USB Audio 2.0 ST 3 DoP Marker 0x05/0xFA None	3023	Fs:	DSD64	52 • •	
ASIO Driver: DSD Playback Method: DSD to DSD Method: PCM to DSD Method:	XMOS USB Audio 2.0 ST 3 DoP Marker 0x05/0xFA None	3023 •	Fs: Fs:	DSD64	83 • •	

Close the 'foo\_dsd\_asio v0.6.0'(or a later version) pop - up window, go back to

Tools>SACD' tab, :	select 'DSD' as 'ASIO Driver Mode' option:
Preferences: SACD	.? 🛁
Components Display Keyboard Shortcuts Media Library Networking Playback DSP Manager Output ASIO Shell Integration Tools D. Tagging Advanced	ASIO Driver Mode: DSD  PCM Volume: +0dB  PCM Samplerate: 176400  DSD2PCM Mode: Multistage (Fixed-Point)  Load Save Preferable Area: Stereo  Editable Tags Edited Master Playback
	Reset all         Reset page         OK         Cancel         Apply

Click 'OK' button on Preferences windows and restart the program. Foorbar2000 is now ready for native DSD playback. Please remember, you Email: sales@auneaudio.com Web: www.auneaudio.com

must set Foobar2000's volume setting at 100% ( - 0.0dB) when you play any DSD files(SACD ISO and DIFF file).

#### Play DSD files on Foobar2000

DirectStream is able to play DSD files from a computer over USB, or the coaxial, balanced or I2S inputs. To do so, the DSD files need to be converted to DoP (DSD over PCM). This process is typically handled on the fly by programs like JRiver. Foobar, the free Windows media player can be setup as well to play DoP. In addition, it is possible to play original extracted ISO files (what's on an SACD) through Foobar if setup properly.

This process is not for the faint of heart, necessarily, but with these instructions and some diligence, it is certainly possible and valuable once setup.

The page describing the project:

http://sourceforge.net/projects/sacddecoder

The latest release of the sacd decoder project at sourceforge:

http://sourceforge.net/projects/sacddecoder/files/latest/download?source=files

Note that it's a file with a read me and three components. The first two components are still in the latest release .zip and the third is in the older releases or here: <u>http://sourceforge.net/projects/sacddecoder/files/sacd\_metabase/sacd\_metabase.7z/dow</u> nload

The readme file to a first approximation says:

Run ASIOProxyInstall-0.6.5.exe to install the foo\_dsd\_asio proxy. It's an ASIO driver available to any program on your system that supports ASIO – it receives audio over ASIO and redirects it to another ASIO driver (PS Audio USB Driver in our case), but as it redirects the audio it provides some optional processing functions. For us we want it to wrap DSD in DoP. To set it up you need to go to foobar2000 options, Playback, Ouput and select foo\_dsd\_asio as your output device. Then in foobar2000 options, Playback, Ouput, ASIO, double click on foo\_dsd\_asio to open the foo\_dsd\_asio control panel. There you need to use Device: PS Audio USB Device, DSD Playback Method: DoP Marker 0x05/0xFA, PCM to DSD method: none, Fs: DSD128, DSD/PCM Transition: 0ms.

foo\_input\_sacd.fb2k-component is an input processing add in for foobar2000, install it like other foobar2000 addins (drag and drop it to the foobar2000 components option page, or if you have a standard foobar2000 installation just double click it and it will install.) This component decodes DSD related input files for foobar2000. It adds a new SACD option page under the tools page in the options. The critical values for us are to use ASIO mode: DSD, Preferable Area: Stereo, Editable tags, and probably Store Tags with ISO.

The sacd\_metabase is a directory of user contributed metadata for common SACDs. It's installation is optional but it might save time if you have many SACD .ISOs. To install it extract sacd\_metabase.7z to your foobar2000 configuration folder. To get to your foobar2000 configuration folder, press the shift key as you click on foobar2000's File menu, then click on Browse configuration folder. The sacd\_metabase.7z file can be extracted by WinZip, WinRAR or similar compression programs. At this point you should have a new sacd\_metabase directory in your configuration folder. There's a !!!readme!!!.txt in that folder with a little more info. http://www.audiostream.com/content/how-play-dsd-file-using-foobar2000 has a set of



slightly different recommendations for configuring this stuff. Here's exesound's take http://www.exasound.com/Blog/tabid/74/articleType/ArticleView/articleId/61/Configuring-F oobar2000-for-ASIO-DSD-DXD-Playback-with-exaSound-DACs.aspx Another one: http://jlsounds.com/uploads/foobar\_ASIO\_setup.pdf Ted Smith

Native DSD is only currently available on Windows platforms using the foobar SACD plugin and the Thesycon (ASIO) driver. For DSD playback on other platforms (OSX, iDevice, Linux, Android..) Please use DoP (DSD over PCM).

To setup DSD native playback on a Windows device:

1. Install the aune driver

2. Install Foobar 2000 if you haven't done so already. It is available for download here <a href="http://www.foobar2000.org/download">http://www.foobar2000.org/download</a>. When prompted, click "standard installation"

 Install the ASIO Proxy and SACD input plugin, downloadable from <u>http://sourceforge.net/projects/sacddecoder/</u>. This single download contains everything you need. Double click on the zip file to view it's contents.

4. Run ASIOProxyInstall-x.x.x.x.exe and follow instructions on the dialogue to install.

5. Double-click on the file foo\_input\_sacd.fb2k-component. This should open foobar 2000 and take you to the components dialogue. When asked if you want to continue to "install foo\_input\_sacd", click "YES"! Then click "APPLY". Foobar will ask if you want to restart, click "YES"

6. Download and Install the official ASIO output plug-in for Foobar2000 from <a href="http://www.foobar2000.org/components/view/foo\_out\_asio">http://www.foobar2000.org/components/view/foo\_out\_asio</a>. Double click the file foo\_out\_asio.fb2k-component. When asked if you want to continue to "install foo\_out\_asio", click "YES"! Then click "APPLY". Foobar will ask if you want to restart, click "YES"

7. All installation is now done. Next configure foobar to playback DSD. Start foobar2000 and click to File->Preferences

8. In Playback->Output Choose "ASIO: foo\_dsd\_asio" and click Apply.

omponents	Device			
isplay evboard Shortcuts	DS : Primary Sound Driver			
Media Library Media Library Networking Playback DSP Manager DOUtput Shell Integration Tools Advanced	Null Output         ASIO : ASIO4ALL v2         ASIO : foo dsd_asio         ASIO : TUSBAudio ASIO Driver         DS : Primary Sound Driver         DS : Speakers (High Definition Aud         DS : Speakers (MOS XS1-U8 MFA         Warning: setting too low buffe         Output format         Output data format:	io Device) ) r length may cause som	e visualization effects	s to stop work
	Output data format will be chosen	automatically for the se	lected device.	
	Output data format will be chosen - Fading	Fade in	Fade out	
	Output data format will be chosen a Fading Name	Fade in	Fade out	
	Output data format will be chosen a Fading Name Pause and stop Seek	Fade in 100 ms 100 ms	Fade out 100 ms 100 ms	
	Output data format will be chosen of Fading Name Pause and stop Seek Manual track change	Fade in 100 ms 100 ms 100 ms 100 ms	Fade out 100 ms 100 ms 100 ms	
	Output data format will be chosen of Fading           Name           Pause and stop           Seek           Manual track change           Automatic track change	Fade in Fade in 100 ms 100 ms 100 ms 0 ms	Fade out 100 ms 100 ms 100 ms 0 ms 0 ms	

9. Expand out the tree to Playback->Output->ASIO. Double click on "foo\_dsd\_asio". In the window below, select the final output (in this case it's your DAC or XMOS/Thesycon ASIO driver).

Components	ASIO drivers			
- Keyboard Shortcuts - Media Library - Networking 4 Playback	ASIO4ALL v2 foo_dsd_asio TUSBAudio ASIO Drive	er		
Output     ASIO	foo_dsd_asio v0.7.1.2		x	
··· Shell Integration ··· Tools ··· Advanced	ASIO Driver:	TUSBAudio ASIO Driver	•	
	DSD Playback Method:	DoP Marker 0x05/0xFA	•	
	DSD to DSD Method:	ASIO Native DoP Marker 0x05/0xFA dCS Marker 0xAA exD Marker		Add Nev
	PCM to DSD Method:	Intone ·	15. JUSU04 •	Edit
	DSD/PCM Transition:	0 ms 💌		Remove
	This feature allows you soundcards. You may need to close added mappings to app	u to configure alternate channel ma and re-open the foobar2000 prefi bear as output devices in the "outp	appings for your ASIO-enab erences dialog for your new ut" page.	iled Ily

10. Make sure you select "ASIO Native" in the DSD Playback method. If you select DoP Marker 0x05/0xFA it should still work, except that transport will be over DoP instead of DSD native. Email: sales@auneaudio.com Web: www.auneaudio.com

11. Close the foo\_dsd\_asio window and go to Prefrences->Tools->SACD. Make sure you choose ASIO Driver Mode "DSD" rather than "PCM", otherwise foobar will do a DSD->PCM conversion. Selecting DSD will send DSD direct to your XMOS-based audio device.

- Components		
Keyboard Shortcuts	ASIO Driver Mode: DSD -	
Media Library		
Networking	PCM Volume: +0dB -	
Playback	DOM Complementer	
DSP Manager	PCM Samplerate: 44100 -	
⊿ Output	DSD2RCM Mode: Multistage (Fixed Daiph)	- Load Save
ASIO	DSD2PCM Mode: (Multistage (Fixed Point)	Load Save
- Snell Integration		
SACD	Preferable Area: None	
▷ Tagging	None A	
Advanced	Editable Tags Store Tags With ISO	
	Edited Master Playback	
	Reset all Reset page	OK Cancel Apply

12. Click OK, select your DSD track and enjoy DSD native audio!

Final notes. You can verify what mode you are running in easily by adjusting the volume in the Thesycon control panel. (All Programs->Thesycon->TUSBAudio Driver->TUSBAudio Control Panel). If running in PCM mode, volume will scale up and down as you change the sliders. If you are in DoP mode, playback will mute down to very quiet noise if the level isn't set to maximum (sclaing trashes the DoP headers and so DoP isn't detected). If you are in DSD native, you will hear loud noise if the level isn't maximum. DSD signals cannot be linearly scaled like PCM so it generates noise as scaling destroys the DSD sigma-delta coding. This should probably be disabled by the driver as it is invalid.

#### 2. JRiver Media Center

How to setup JRiver 19 for DSD playback

Download and launch JRiver version 19. Connect the PerfectWave DSD DAC to your Windows computer using a USB cable.

Now to configure JRiver to play to the PerfectWave DSD DAC, From the top menu bar select Tools>Options, bringing up this menu:



Under Audio Device select 'XMOS USB Audio 2.0 ST 3023[ASIO]'

Under Bitstreaming, select DSD:



Then under DSP & output format click on output format on the left side of the screen and verify that all bit rates show 'no change':



	XI	MOS USB Audio 2.0 ST 302	3 [ASIO]		<b></b>
<ul> <li>设备</li> <li>声道抵消:0</li> <li>通道抵消法(0、2、4、</li> <li>信道交換:元</li> </ul>	定哪些输出设备上使用的选择。 等等),直到音频被路由到所需的了	<ul> <li>缓冲</li> <li>50 毫秒</li> <li>50 毫秒</li> <li>逆 使用:</li> <li>注解: 增</li> <li>, 搜索,</li> </ul>	> (推荐) 👻 校大硬件援冲 加缓冲能使播 音量 , DSP	呕(推荐使用以防止爆音) 脑波更流畅,但也会增加滞后时间(自动 ,等等,生效)	调整缓冲
音星 ASIO设备并不总是匹配 选择设备: (在回放明	配。请选择相应设备的音量控制。 时自动尝试选择)	<ul> <li>              Ⅰ 日本         </li> <li>             ↓             □ 设备</li> <li>             ♥ DSD         </li> </ul>	制面板 又使用最高的 码流伪装在D	) 24 - bits (Lynx 等)。 oP格式中	
Output Format     Volume Leveling     Adaptive Volume     Equalizer	Output Format Playback stopped or current playback Sound can be output in any format. F	DSP Studio doesn't support processing or example, you can listen to an audio	CD in 5.1 surrou	确认 nd at 32-bit / 192 kHz. Advanced settings like mult	取消 — □ × <u>Options</u> i-channel
Parametric Equalizer     Effects	Output Encoding (more info)	sound card capable of these modes.	Channels (m	ore info)	
Headphones	None	~	Channels:	Source number of channels	-
Tempo & Pitch Room Correction Convolution Parametric Equalizer 2	Sample rate (more info) Click in the output column to selec rate. Right-click to set all at once.	t a sample rate for each input sample	Mixing:	JRSS™ mixing (recommended) □ For stereo sources, only mix to 2.1	~
Analyzer	Input 44,200 Hz 48,000 Hz 88,200 Hz 96,000 Hz 176,400 Hz	Output No change No change No change No change No change	Subwoofer ( When sour selection in	Move center to front L/R more info) rce has no subwoofer (CD audio, etc.) and 'Channel ncludes a subwoofer: ubwoofer (60 Hz lowpass)	s'
Processed in order listed (drag t reorder) Manage Plug-ins	9 192,000 Hz 9 Greater than 192,000 Hz	No change No change	🗹 Subi	clarity <sup>m</sup> for cleaner, tighter subwoofer output	
Clip protection					
Peak Level: n/a	Source: 1	n/a		Internal: n/a	Help

Click OK.

# 3. Audirvana Plus (for Mac)

Start Audirvana Plus, select 'Preferences...' menu:



Audirvana Plus File	Edit
About Audirvana Plu	s
Debug Info	
Preferences	ж,
Check for Updates	
Load License File	
Services	•
iTunes Integrated M	ode
Hide Audirvana Plus	жн
Hide Others	<b>₹</b> #H
Show All	340 C C C C C C C C C C C C C C C C C C C
Quit Audirvana Plus	жQ
CONTRACTOR OF THE OWNER	

Select 'Audio System' tab, if the 'Preferred Audio Device' is not 'XMOS USB 2.0' 'Audio Out', then please click on 'Change' button and choose 'XMOS USB 2.0'

Select the 'DSD over PCM standard 1.0' as the 'Native DSD Capability' option and confirm on any warning dialog. Please also select the 'Exclusive access'

mode', 'Direct

**Mode'** and **'Integer mode (if avail. on device)**' for better sound quality Close the Preferences window, Audirvana Plus is now ready for native DSD playback.

# 4. Amarra (for Mac)

Video tutorials: https://www.youtube.com/user/AmarraChannel/videos