
CY-5100 Computer Software Guide

Setting up your
computer to play
PCM and DSD music
with the CY-5100.

Cyenne Audio Co. Ltd.

Using the CY-5100 with your computer over USB, software guide

Note: Foobar2000 is 3rd party open source software and recommended to use in Windows with the CY5100. Instructions here are provided as convenience to Cyenne Audio customers but with no warranty whatsoever. Cyenne Audio nor its dealers control the Foobar2000 development and accept no responsibility for any problems or damages while using Foobar2000.

1. For Windows, installation of Foobar2000

- a) Install the Cyenne Audio CY5100 USB driver if it's not installed already. Download from www.cyenne-audio.com
- b) Restart as required.
- c) Download the latest Foobar2000 from foobar2000.org, this is free of charge
- d) Install Foobar2000 with the default options.
- e) Add components WASAPI support and ASIO support from foobar2000.org/components. A component can be added to Foobar2000 by double clicking the (unzipped) component file to or to drag it to the "components" window. The 'components' section is the first option in the preference menu of Foobar2000.
- f) Download the SACD plug-in package. it's not hosted on the Foobar2000 site. The current host is <http://sourceforge.net/projects/sacddecoder/>
- g) Unzip, remember where you unzipped the files.
- h) Start the "ASIOProxyInstall" installer from the SACD package and follow the on-screen instructions
- i) Add the "foo_input_sacd.fb2k-component" from the SACD package to Foobar2000.

All installation is done now.

Note: all steps (except WASAPI) are really needed for native DSD playback!

The WASAPI is not strictly needed, but is handy to test playback in PCM just in case there is a problem with the ASIOProxy component.

Note: The instructions in this booklet are tested to work correctly with CY5100 driver version 1.06, Foobar2000 version 1.3.5, SACD package foo_input_sacd-0.7.3, WASAPI output support 3.2.3, ASIO support 2.1.2.

Most likely newer versions will work as well. Don't use older versions as they might not work as good or might not work at all.

Note: When using a computer for music playback, USB is recommended. Using COAX or optical will work, but playback will be limited to 192 kHz (COAX) or 96 kHz (optical) PCM format files. DSD is not supported for the COAX and optical inputs.

2. Making the correct settings

a) Open Foobar2000

b) Open Preferences panel (CTRL-P)

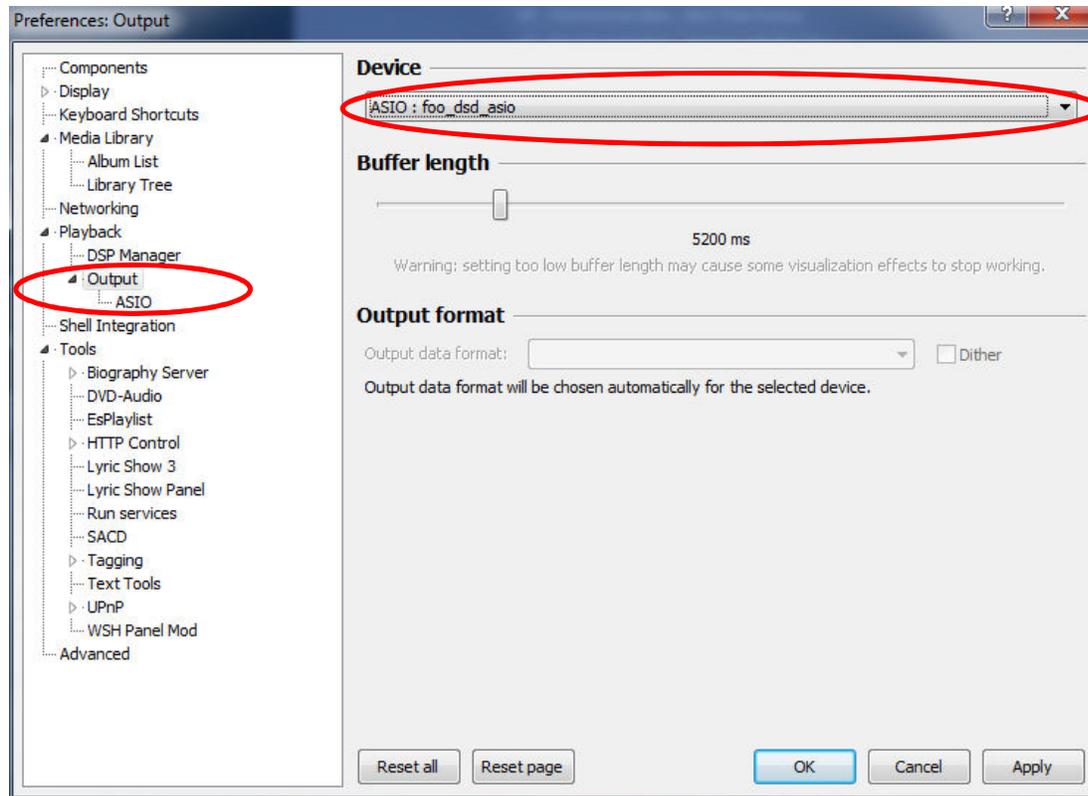


Fig 1:

c) Set playback output (playback-> output -> device) to ASIO: 'foo_dsd_asio'. If there is no such option, recheck if you really installed everything.

d) Double click the 'foo_dsd_asio' line in the ASIO control panel (playback-> output -> ASIO)

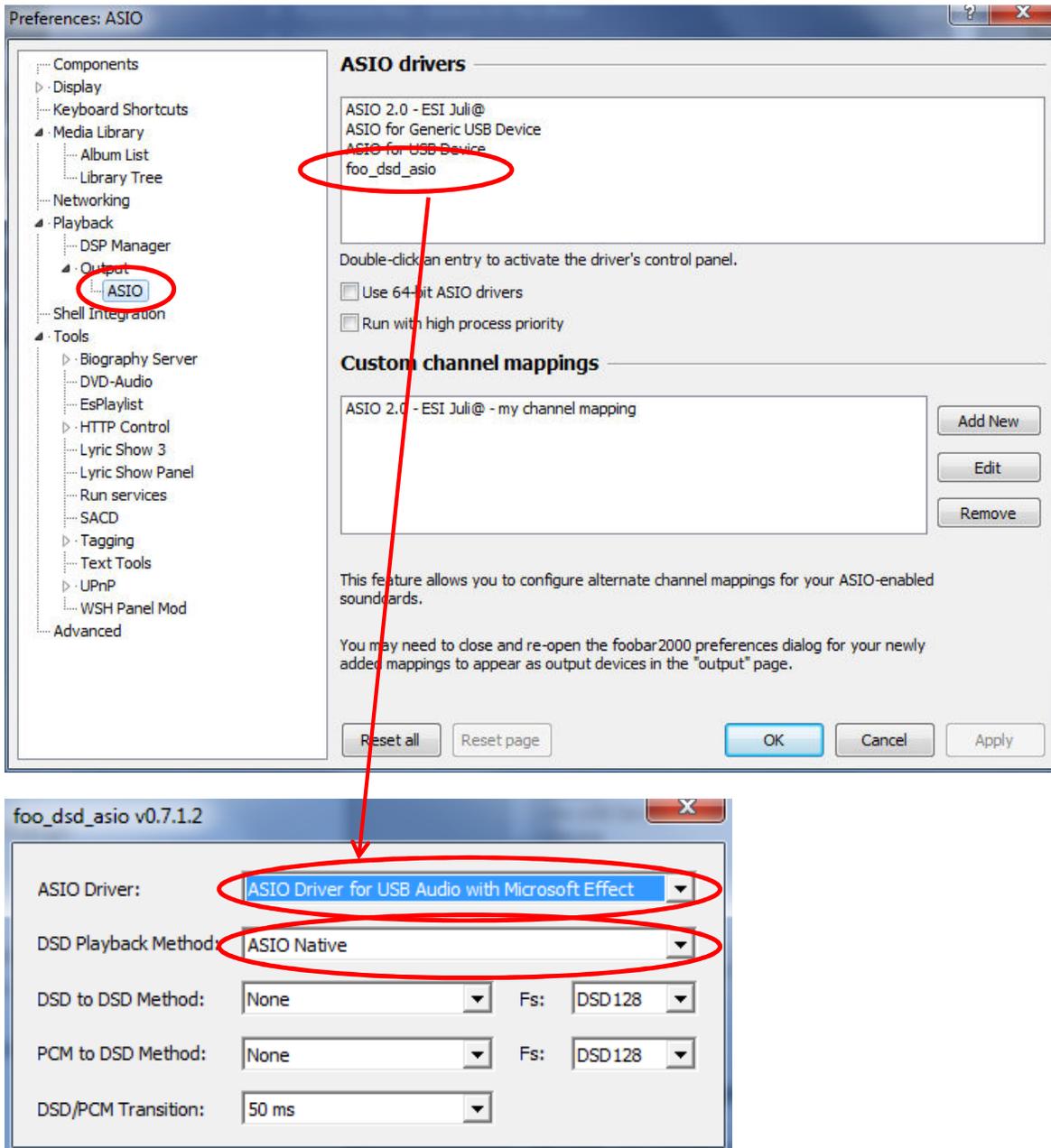


Fig 2:

e) Set options like panel above. The DSD to DSD and PCM to DSD options don't have to be set.

f) In the ASIO preferences screen, double click 'ASIO for Generic USB device' or similar and set it to 24 bits.

g) Now try to play some PCM files in Foobar2000, if everything was done right, they will playback correctly. The DAC display should indicate the sample rate of the file you're playing (check file properties if unsure).

If you hear sound, congratulations, the biggest part is done.

Common problems:

1. There is no ASIO option listed under the 'OUTPUT' options: you probably forgot to install the ASIO output enable component. (1.1, item 'e'). Foobar2000 needs to be restarted if a component is added.
2. You have an ASIO option, but there is no "foo_dsd_asio" device as output device. You probably forgot to install the ASIOProxy.
3. All was OK, but in the 'foo_dsd_asio' control panel, there is no ASIO Driver to select, the list is empty: The driver of the CY5100 is not installed properly. Re-install. Make sure the CY5100 is connected to your computer by USB. Restart your computer.
4. When playback, there is an error "could not query sample rate". Make sure the DAC is connected to your computer and the correct ASIO driver is selected in the "foo_dsd_asio" options.
5. Playback seems going, but no sound: Select "WASAPI Cyenne DAC" as output device and click "Apply". If there is still no sound, check your volume, cables to you amp etc. If now there is sound, recheck all installation steps.

To playback native SACD over the CY5100, the following additional steps are needed

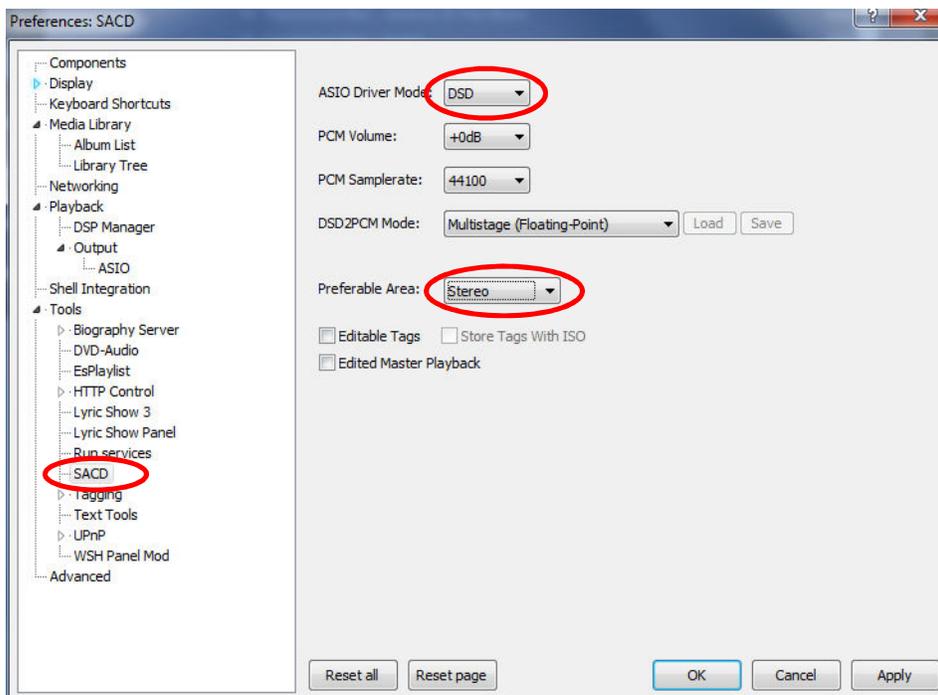
Setting up the SACD component for the CY5100

- a) If closed, open the preference panel again (CTRL-P or File->preferences)
- b) Under tools, find the SACD section and click it. If there is no such section, make sure you added the "foo_input_sacd.fb2k-component" during installation.
- c) Set the "ASIO Driver Mode" to "DSD"
- d) Set the "Preferable Area" to "Stereo". This is to make sure only 2.0 tracks are listed in Foobar2000 as the CY5100 cannot properly play 5.1 tracks.

Close the preference panel and try to play from an SACD ISO image or DSD file. If you don't have any DSD music, search the Internet for 'free DSD file demo' to download. When all is OK, the CY5100 should play the file as "DSD 2.8Mhz". Now enjoy your CY5100!

Common problems for DSD playback:

- a) Playback seems going, but only noise is played. : check the 'foo_dsd_asio' control panel' the "DSD Playback Method" should be set to "ASIO Native", not DoP etc.
- b) Foobar2000 says "Unsupported file type" but the file worked before. Make sure the file is still available (e.g. not on an external HDD which was unplugged) and not moved to a different folder.
- c) The CY5100 says PCM 44.1kHz for all DSD files you're trying to play: the SACD settings are still on "PCM". Redo the steps above.
- d) There is no sound when playing DSD files, PCM files work. Make sure the "foo_dsd_asio" is selected as playback output device. DSD requires playback over USB. You cannot natively play DSD files using SPDIF/COAX/Optical.



3. Quick way to make Foobar2000 look better

After first installation, the Foobar screen looks very basic. Follow these steps to make it look more attractive:

1. From the 'View' dropdown menu, choose 'Layout', then 'Quick Appearance Setup'.
2. In the 'main layout' section, choose 'Visualization + Cover Art + Tabs'
3. On the left side in the 'Colors' section, choose 'blue' or any other color you like.

Now the screen already looks better. There are many more options to customize the screen, see the Foobar2000 website for more info.

There are also components available to control Foobar with your phone or tablet.

4. Getting your music into Foobar

In the most basic form, use 'file -> add folder' and select the folder which contains the music files you want to play. All files will be added into a playlist. The list will be remembered the next time you start Foobar.

Double click a song to start playing.

Foobar can also play Internet Radio streams and music from a NAS etc.

5. Other music playback software

For Windows, Cyenne Audio recommends Foobar2000 as it's free, works well and has lots of customization options.

Alternative music playback software should use its own path to the CY5100 for bit-perfect playback, not Windows Direct Sound as this will resample the audio if the sample rate of your music doesn't match the internal set sample rate, seriously degrading audio quality.

iTunes on Windows and Windows Media Player are not the best for quality playback as they might resample. If you really want to use them, set the sample rate in Windows to the same sample frequency as your music files. To play CD quality music, set Windows to use 44100Hz, but in 24 bits to aid volume control. Both applications cannot playback FLAC files and FLAC files are the unofficial standard for high-end computer audio.

For MAC-OS, something similar is happening, standard iTunes does resample music, but the sound degradation is less as MAC-OS has much better internal audio software compared to Windows. Still dedicated music playback software with a direct path to the audio hardware will sound better and will allow you to play FLAC format music.

The CY5100 is tested to work great with Audirvana 2.x (not free). For DSD files, set Audirvana to convert to PCM at 352.8 kHz (DXD format). In listening tests, we found no clear difference in sound quality compared to native DSD playback under Foobar2000 in Windows.

The CY5100 works directly in MAC-OS, no driver installation is needed.

If you're still undecided to buy a Windows or MAC for music playback: In our tests with good playback software there is no clear sound quality difference between them. Note however, currently there is no native DSD playback available in MAC-OS for the CY5100.