

## Windows ASIO USB audio set-up guide

ASIO (Audio Stream Input/Output) is another method of audio transport which is superior to WASAPI as it bypasses the Windows Kernel Mixer (and the distortion this adds). Just like WASAPI, to use ASIO the media player will normally require some kind of output plug in, but it is only possible to use ASIO in Class 2 USB Audio mode (which allows transmission of higher data rates), using a dedicated driver (such as the free Cambridge Audio USB 2.0 driver).

ASIO is preferable to all Kernel streaming audio transport methods (eg. WASAPI or DirectSound), as it delivers lower latency, lower jitter and no mixing of audio streams.

Using the free Cambridge Audio USB 2.0 audio driver allows access to ASIO, so therefore using the driver in conjunction with ASIO will give the best performance possible.

In order to run the Cambridge Audio driver and play 24-bit/192kHz content, the PC needs to have the following minimum spec;

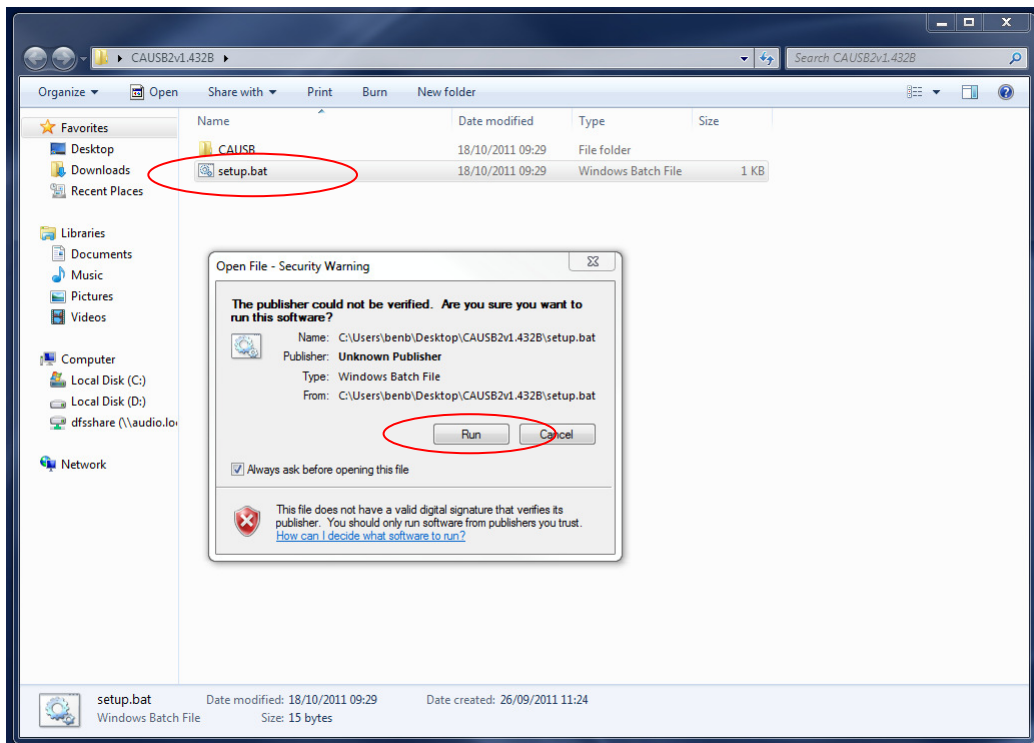
- 1gb RAM
- 1.6GHz core2 or amd equivalent
- Made after 2006 (UHCI compliant chipset)
- XP/Vista/7 with latest service packs installed

The example below shows how to configure a Windows 7 PC for use with a Cambridge Audio USB product using ASIO as an output method. foobar2000 is the media player used in this example.

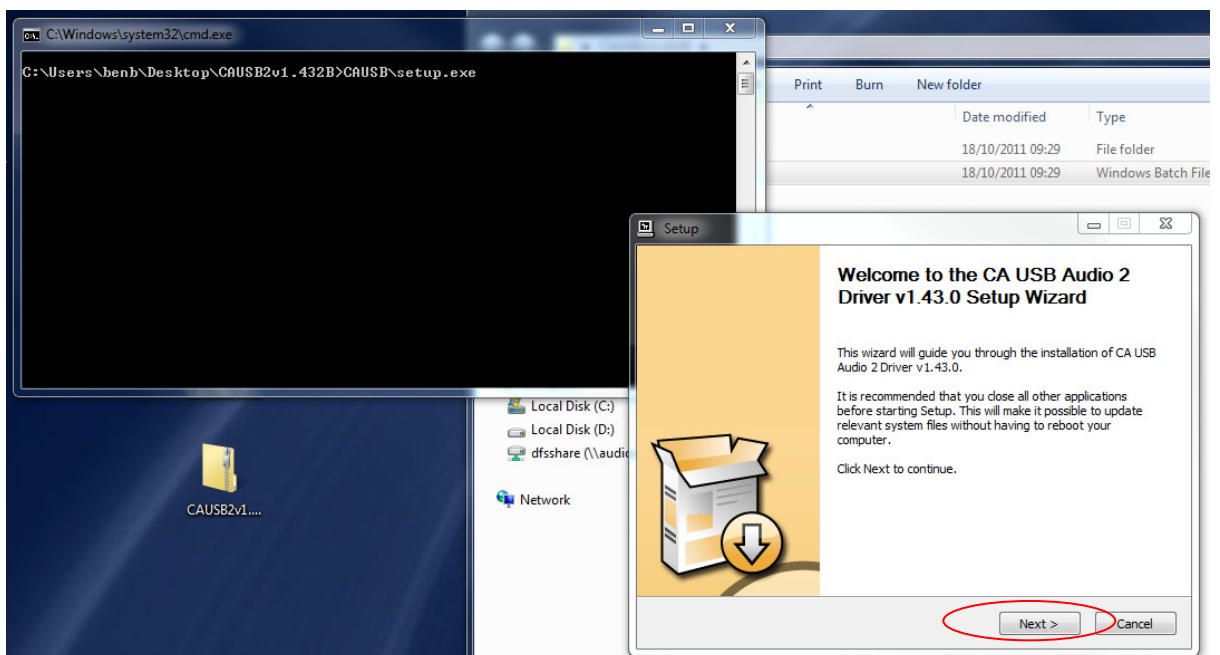
1. Connect your Cambridge Audio USB product to your PC using a USB Type A to Type B cable. Switch on your Cambridge Audio USB product and ensure that it is set to USB Class 2 operation – see product user manual for details.  
A message will appear at the bottom of your screen informing you that a new device has been discovered. Shortly afterwards, an error message will appear informing you that the device was not installed properly. This is because the free Cambridge Audio USB 2.0 driver is required but has not yet been installed.
2. Download, save and unzip the Cambridge Audio USB 2.0 driver from the Cambridge Audio website

The downloaded zip file must be unzipped and can be saved to a convenient location on your PC, such as the desktop. It can be deleted after the installation is complete.

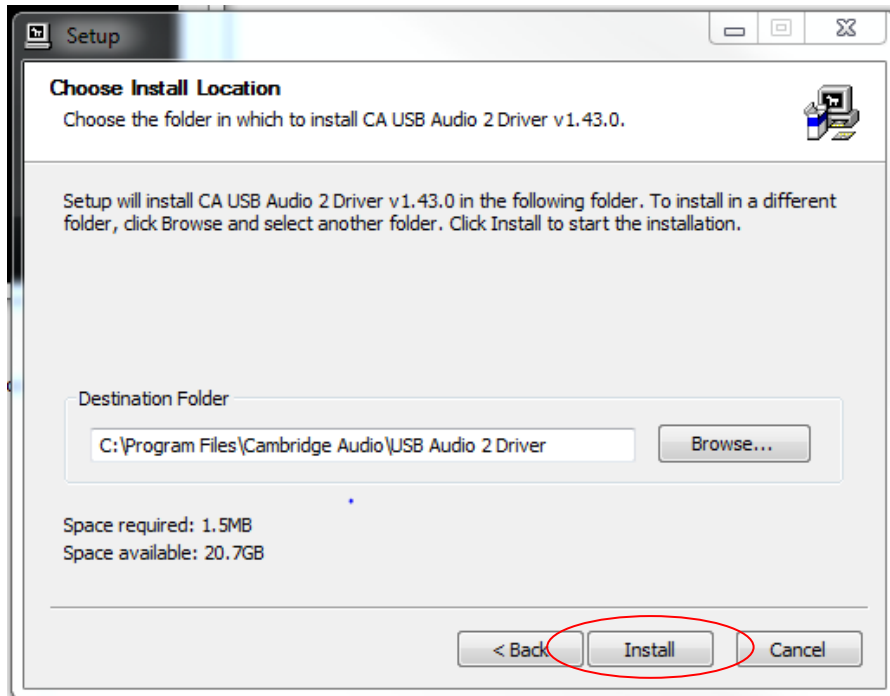
3. Once the driver has downloaded been unzipped, open it and click on the setup.bat file  
Click Run when prompted



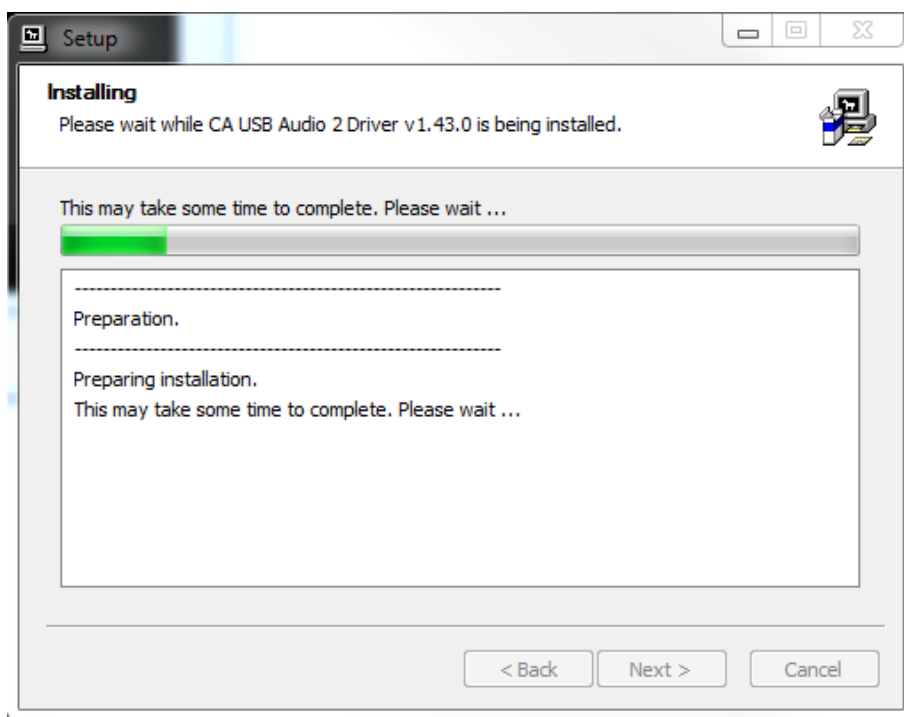
Make sure that the Cambridge Audio USB product remains connected and switched on throughout the process



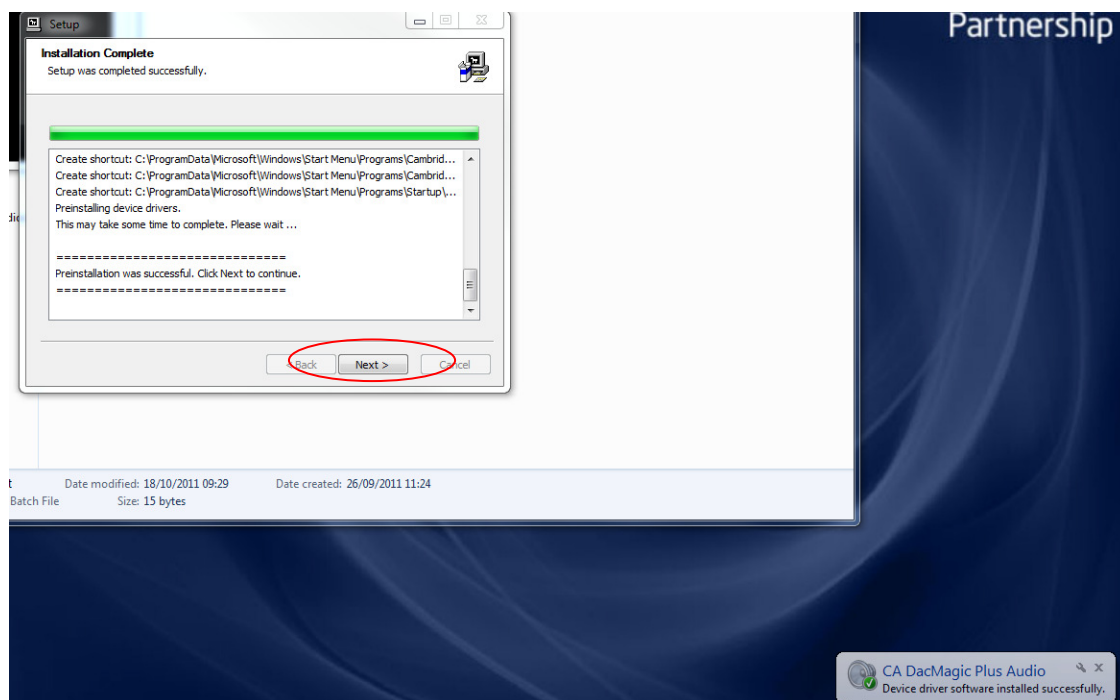
Follow the prompts on screen to install the Cambridge Audio driver



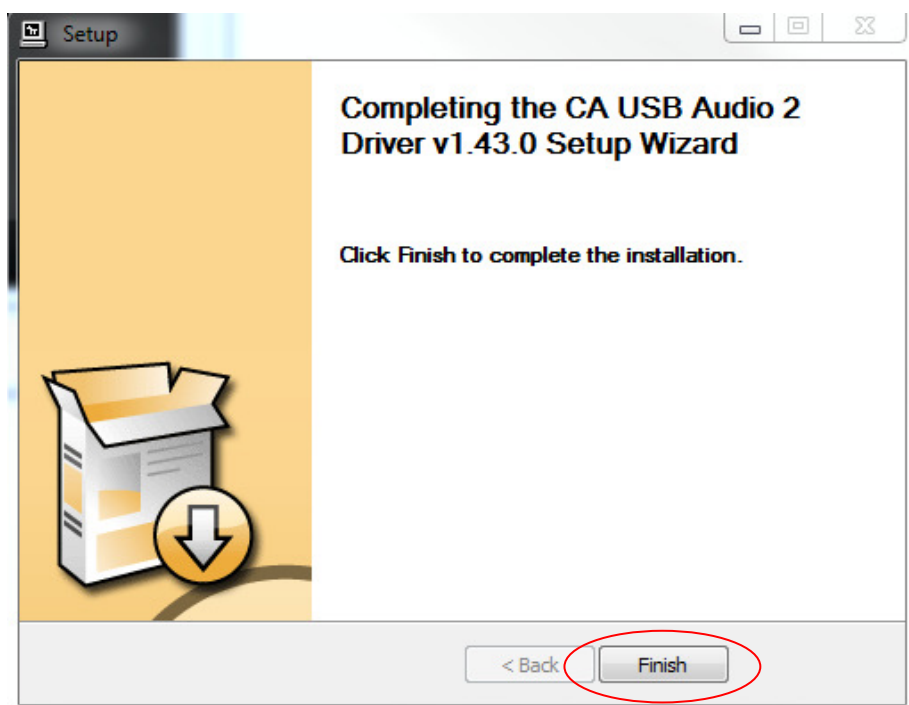
The installation may take a few minutes to load



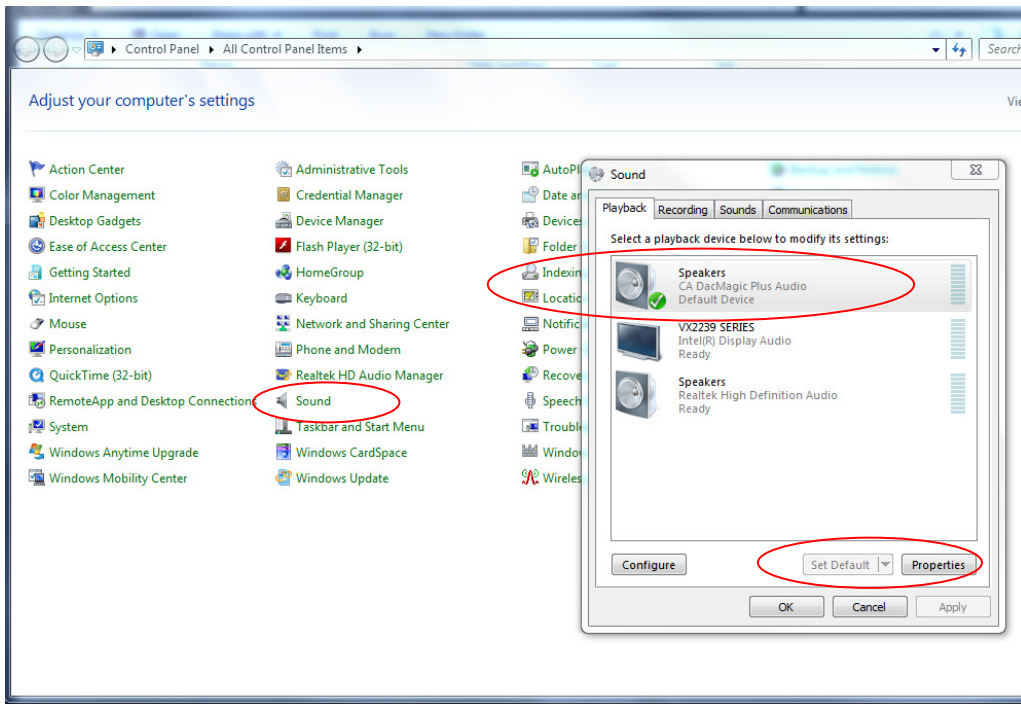
When preinstallation is complete a message will appear at the bottom right of the screen  
Click Next to continue



Click Finish to complete the installation of the Cambridge Audio driver

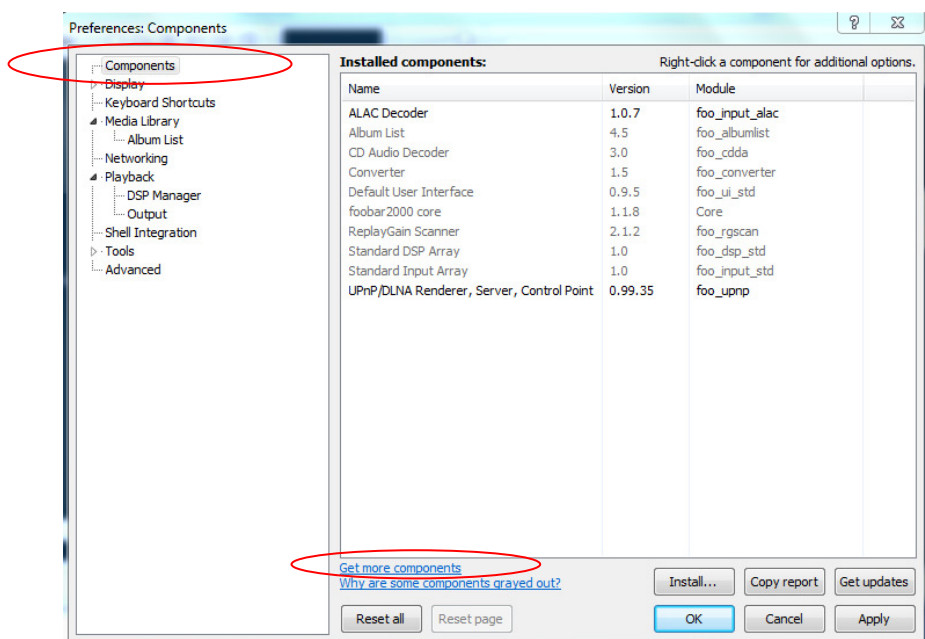


4. Enter your PC's Control Panel and select Sound to set the Cambridge Audio USB product as the default audio device.  
Select the Cambridge Audio USB Audio product device and click Set Default.  
Click Apply and OK to exit.



Now, all audio output by the PC will be output via USB to the Cambridge Audio USB product.

5. Install foobar2000.  
You then need to manually install the ASIO output support plugin. To do this, from the foobar2000 UI go to File > Preferences > Components > Get more components.



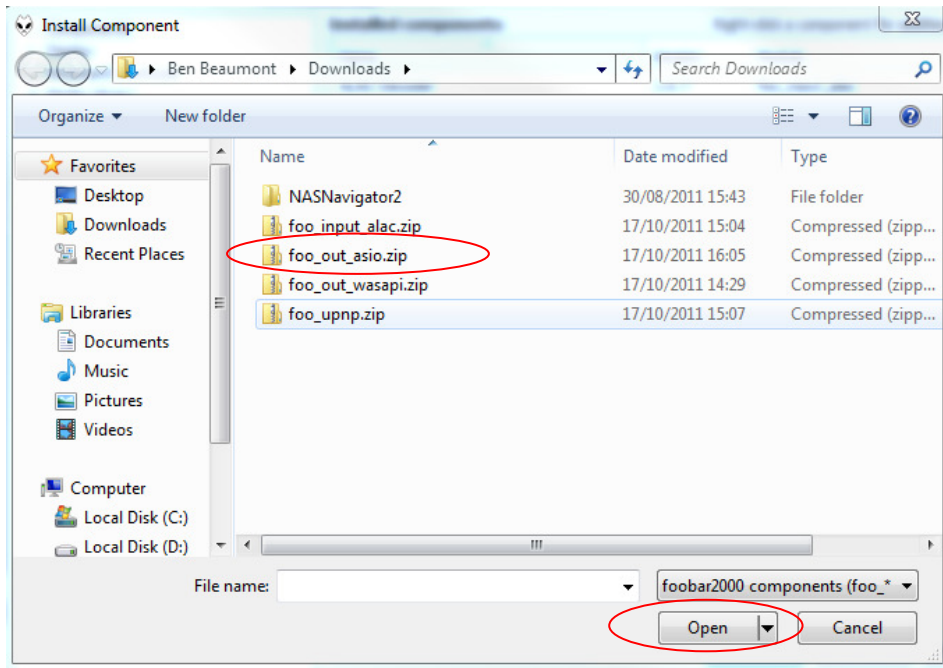
This takes you to an online download page where you can select and download the ASIO output support plugin which is a zip file that can be saved to your PC.

To install the ASIO component;

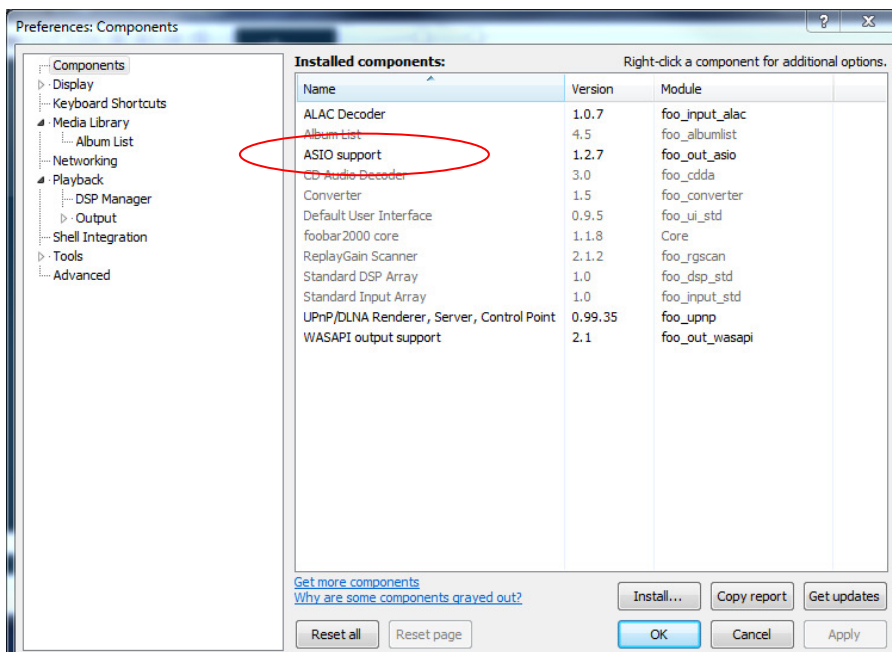
Step 1: Once again, open the foobar2000 preferences page.

Step 2: Go to the Components page (shown in step 5).

Step 3: Click the "Install..." button and select the plugin from the component archive.

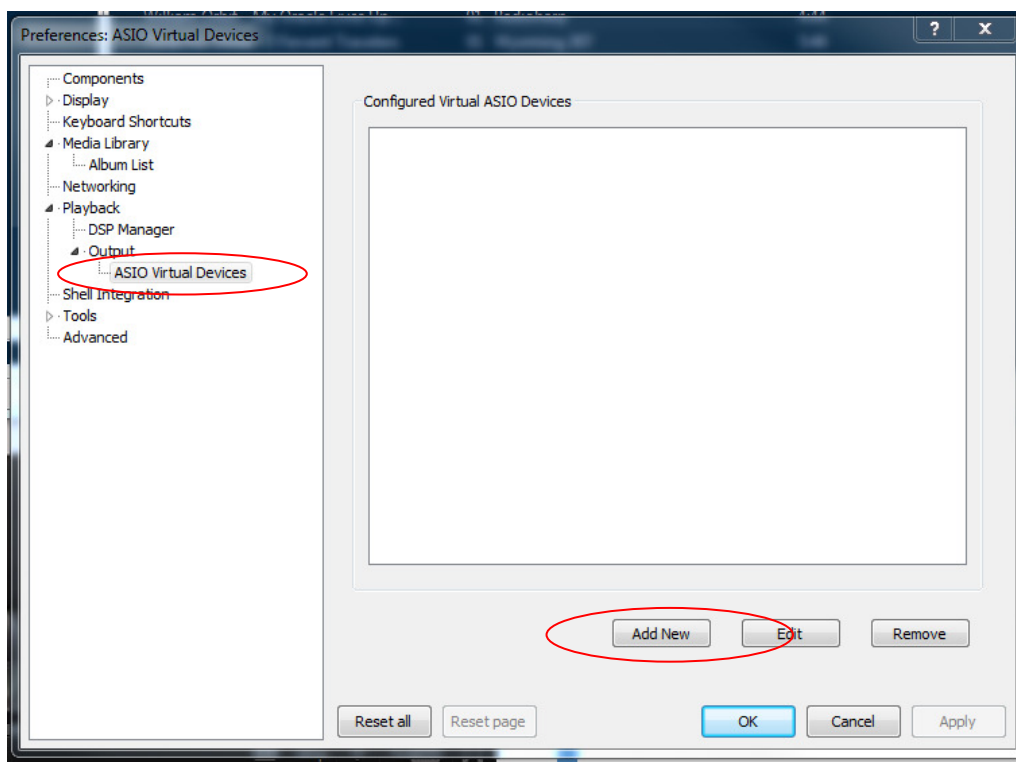


Step 4: Press "Open", you will be prompted to 'Apply' and restart foobar2000 in order to load the newly installed component. When foobar2000 restarts, you will see the newly installed ASIO output support plugin listed in the components page.

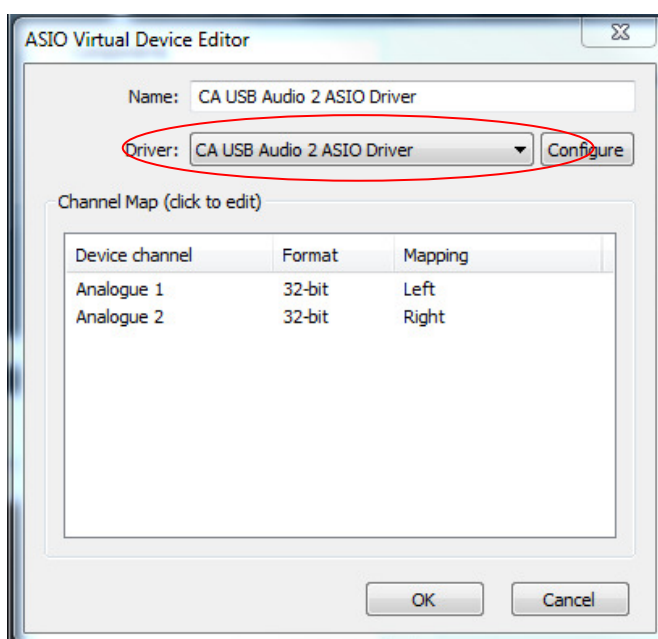


- Now you must select ASIO as the preferred output method. Go to the Preferences page once again and under Playback, select Output > ASIO Virtual Devices.

Click Add New



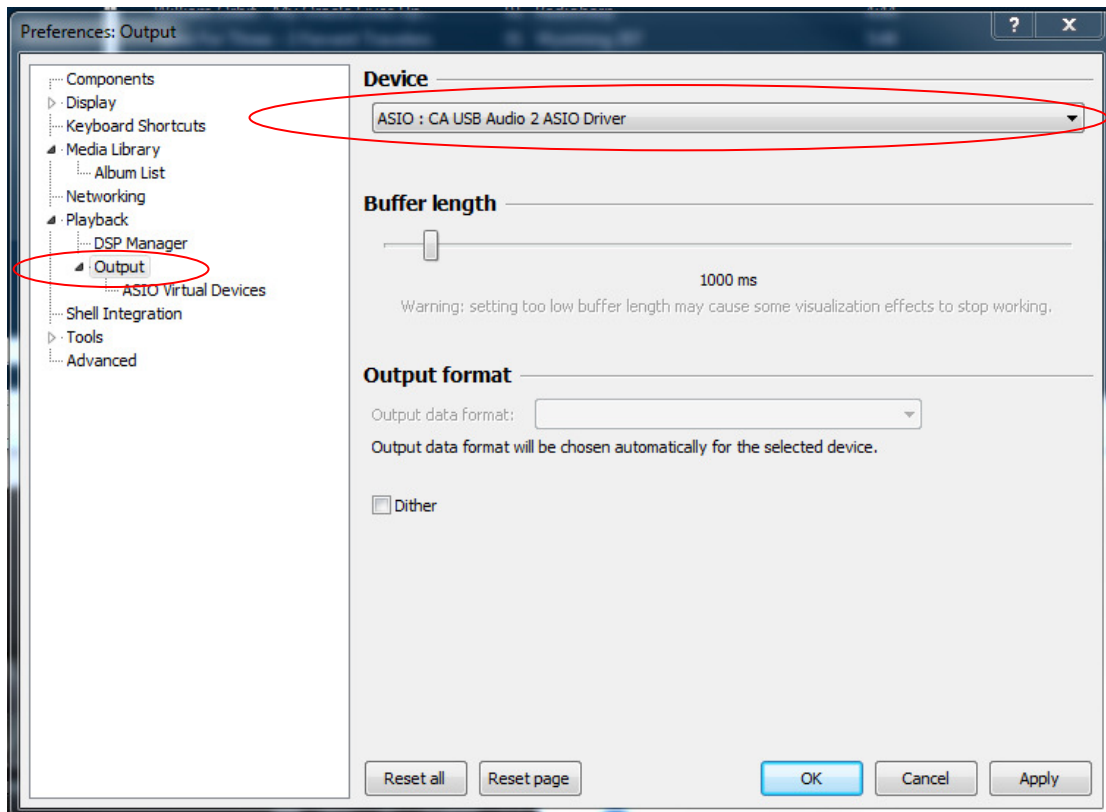
Ensure that CA USB Audio 2 ASIO Driver is selected, and click OK.





7. Once again, open the foobar2000 preferences page.

Under Output, select ASIO: CA USB Audio 2 ASIO Driver as the output Device



Click Apply and then OK to exit the screen.

ASIO output is now enabled. Apart from the improved sound quality, you will know that this has worked because the volume slider in the PC's task tray has no effect on volume levels during playback.

The sample rate and bit depth will now be adjusted dynamically according to the audio being played using foobar2000. The receiving Cambridge Audio USB product will display the signal information accordingly.