

## Windows 7 WASAPI USB audio set-up guide

Windows Vista and Windows 7 both support Windows Audio Session Application Programming Interface (WASAPI) as an output method. Using WASAPI gives a maximum output of 24-bit/96kHz but has much lower distortion than DirectSound. For Windows Vista or Windows 7, WASAPI is always preferable to DirectSound.

A media player must be used which supports WASAPI output (such as foobar2000) and usually a WASAPI plugin for that media player will also need to be installed.

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

- Connect your Cambridge Audio USB product to your PC using a USB Type A to Type B cable. When the USB product is switched on, a dialogue box will appear at the bottom of your screen letting you know that a Cambridge Audio USB 1.0 device has been connected.
- 2. Enter the Control Panel and select Sound to set the Cambridge Audio product as the default audio device

Control Panel + All Con	trol Panel Items 🕨	<ul> <li>✓ ✓</li> <li>Search Control Panel</li> </ul>
Adjust your computer's settings		View by: Small icons 🔻
🏲 Action Center	🗟 Administrative Tools	E AutoPlay
🐌 Backup and Restore	💶 Color Management	Credential Manager
🚔 Date and Time	🕢 Default Programs	📑 Desktop Gadgets
🚔 Device Manager	a Devices and Printers	🖳 Display
🕲 Ease of Access Center	📕 Flash Player (32-bit)	Folder Options
强 Fonts	📳 Getting Started	🤣 HomeGroup
🔑 Indexing Options	Intel(R) Graphics and Media	🔂 Internet Options
📟 Keyboard	Location and Other Sensors	Mail (32-bit)
I Mouse	Network and Sharing Center	📟 Notification Area Icons
Performance Information and Tools	Personalization	📰 Phone and Modem
Power Options	Programs and Features	QuickTime (32-bit)
😂 Realtek HD Audio Manager	Recovery	🔗 Region and Language
🐻 RemoteApp and Desktop Connections	Sound	Speech Recognition
🔞 Sync Center	🕎 System	🛄 Taskbar and Start Menu
Troubleshooting	🎎 User Accounts	🔩 Windows Anytime Upgrade
📑 Windows CardSpace	Windows Defender	🔗 Windows Firewall
🖼 Windows Mobility Center	Windows Update	🎗 Wireless Configuration Utility



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Select the Cambridge Audio USB Audio 1.0 device and click Set Default

	Speakers Cambridge Audio USB Audio 1.0 Default Communications Device	0
0	Speakers Realtek High Definition Audio Default Device	



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

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

Components	Installed components:	Rig	ht-click a component for additio
Display	Name	Version	Module
eyboard Shortcuts	ALAC Decoder	1.0.7	foo_input_alac
- Album List	Album List	4.5	foo_albumlist
vorking	CD Audio Decoder	3.0	foo_cdda
ck	Converter	1.5	foo_converter
Manager	Default User Interface	0.9.5	foo_ui_std
output	foobar2000 core	1.1.8	Core
ntegration	ReplayGain Scanner	2.1.2	foo_rgscan
	Standard DSP Array	1.0	foo_dsp_std
ced	Standard Input Array	1.0	foo_input_std
	UPnP/DLNA Renderer, Server, Control Point	0.99.35	foo upnp
<	Get more components Why are some components grayed out?	I	nstall Copy report G



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

To install the WASAPI component;

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

Step 2: Go to the Components page.

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

🤪 Install Component	_		X	2 0 Z
🔾 🗢 🚺 🕨 Ben I	Beaumont 🕨 Downloads 🕨	✓ Search Down	loads 🔎	for additional options.
Organize 🔻 New	folder		i≡ <b>-</b> □ 0	
🛯 🔆 Favorites	Name	Date modified	Туре	
🧮 Desktop	NASNavigator2	30/08/2011 15:43	File folder	
属 Downloads	foo_input_alac.zip	17/10/2011 15:04	Compressed (zipp	
📃 Recent Places	🚺 foo_out_wasapi.zip	17/10/2011 14:29	Compressed (zipp	
	🚮 foo_upnp.zip	17/10/2011 15:07	Compressed (zipp	
4 词 Libraries	=			
Documents				
🕨 🎝 Music				
Pictures				
Videos				
4 🖳 Computer				
🖻 🚢 Local Disk (C:)				
Local Disk (D:)	• • • III		•	
File name: foo uppp.zip				
		Open	Cancel	
	Colores and the			
	Why are some components	ents grayed out?	Install Copy re	port Get updates
	Reset all Reset	t page	OK Canc	el Apply
				-

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 WASAPI output support plugin listed in the components page.

Components	Installed components:	Ri	ght-click a component for additional op
Display	Name	Version	Module
Keyboard Shortcuts	ALAC Decoder	1.0.7	foo input alac
Media Library	Album List	4.5	foo albumlist
Matuarking	CD Audio Decoder	3.0	foo cdda
4. Playback	Converter	1.5	foo converter
DSP Manager	Default User Interface	0.9.5	foo ui std
Output	foobar2000 core	1.1.8	Core
	ReplayGain Scanner	2.1.2	foo roscan
> Tools	Standard DSP Array	1.0	foo dsp std
Advanced	Standard Input Array	1.0	foo input std
	UPhP/DLNA Renderer, Server, Control Point	0.99.35	foo uppp
	WASAPI output support	2.1	foo out wasani
	Get more components Why are some components graved out?		install Copy report Get upd



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4. Now you must select WASAPI as the preferred output method. Go to the Preferences page once again and under Playback, select Output. Then select 'WASAPI (Cambridge Audio USB Audio 1.0)' as the output device.

Preferences: Output	8 ×
Components  Display Keyboard Shortcuts  Media Library Networking Playback DSP Manager Cutput Shell Integration Advaced	Device DS : Primary Sound Driver Null Output DS : Primary Sound Driver DS : Speakers (Cambridge Audio USB Audio 1.0) EDS : Speakers (Realtek High Definition Audio) WASAPI : Speakers (Realtek right Definition Audio) WASAPI : Speakers (Cambridge Audio USB Audio 1.0) 1000 ms
	Warning: setting too low buffer length may cause some visualization effects to stop working.  Output format  Output data format:  Dutput data format will be chosen automatically for the selected device.  Dither
	Reset all Reset page OK Cancel Apply

5. In the same Output page, set the output format to 24-bit, and press OK.

Preferences: Output	X 9
Components	Device
<ul> <li>▷ Display</li> <li>~ Keyboard Shortcuts</li> <li>▷ · Media Library</li> <li>~ Networking</li> </ul>	WASAPI : Speakers (Cambridge Audio USB Audio 1.0)
Networking     DSP Manager     Output     Shell Integration     Advanced	Buffer length  1000 ms Warning: setting too low buffer length may cause some visualization effects to stop working.  Output format Output data format: 24-bit
	Refer To your hardware specifications for preferred output bit depth; using bit depth above your hardware capabilities will only result in degraded performance.
	Reset all         Reset page         OK         Cancel         Apply

Apart from the improved sound quality, you will know that this has worked because the volume slider in the 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.