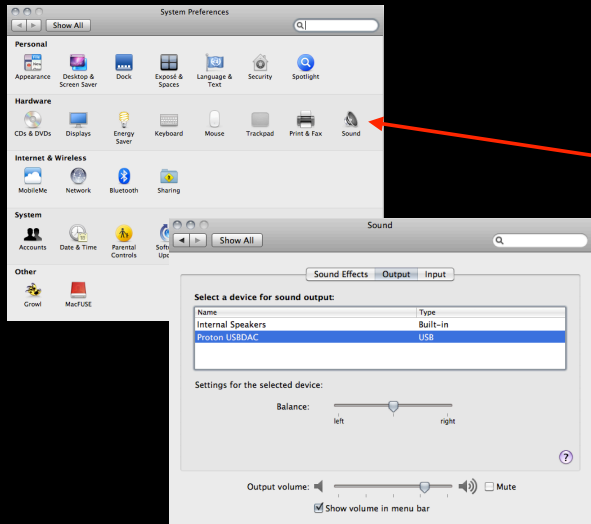# Computer Audio Setup Guide

This guide is intended to be used as a quick reference tool for those embarking on their journey into the world of Computer Audio. While there is always more to discuss and discover, we hope that this guide serves you well.

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Getting the most out of computer audio

- **How to set up your computer**

- **How to set up and use iTunes**

- **How to set up and use alternative music players**

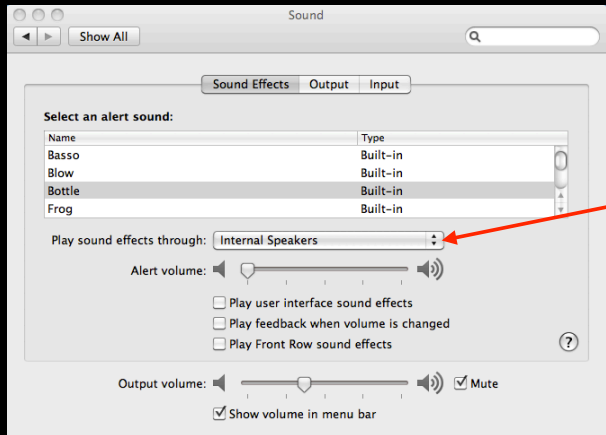- **Simple improvements and recommendations**

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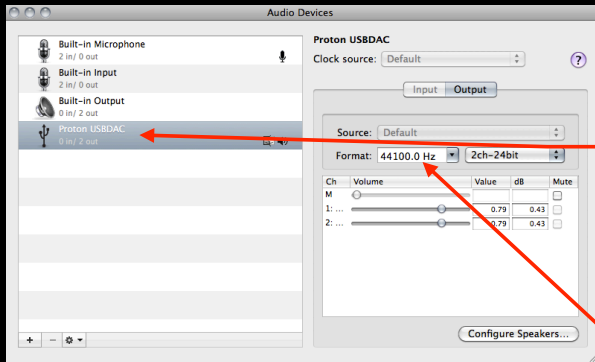# Setting up iTunes for Mac with an External Device

- Open "System Preferences" from Apple Menu

- Open "Sound" panel

- Click on "Output" tab

- Choose the device you would like to play music through. In this example we are selecting the "Proton USBDAC"

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Setting up iTunes for Mac...

- **Select "Sound Effects"**

- **In "Play sound effects through:" choose "Internal Speakers"**

- **This will route internal alerts through the internal computer speakers**
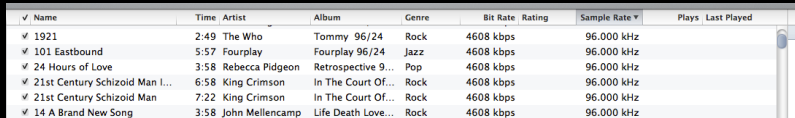
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Setting up iTunes for Mac... Midi Settings

- **Launch Applications and select Utilities. Launch Midi**

- **Select Output**

- **Select the device you would like to play music through. In this example we are selecting the "Proton USBDAC"**

- **Under "Format" select native sampling rate of your files - e.g. Compact Discs are 44.1khz**

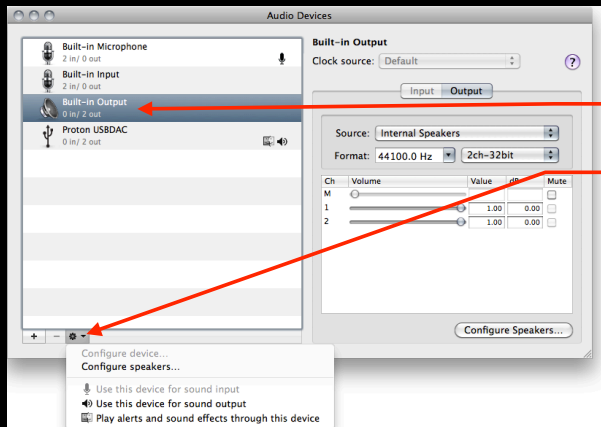audioquest.

Setting up iTunes for Mac... Midi Settings

- **Some of your files may be in a different format, such as 24 bit 96Khz (see the file sample rate example from iTunes below)**

- **In order to play these files at their intended sampling rate the midi must be manually adjusted to that native sample rate**

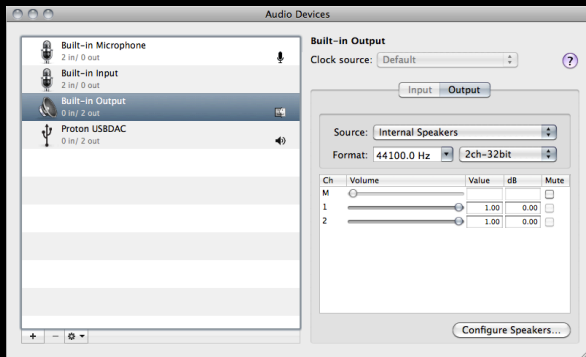| ✔	Name	Time	Artist	Album	Genre	Bit Rate	Rating	Sample Rate ▼	Plays	Last Played
✔	1921	2:49	The Who	Tommy 96/24	Rock	4608 kbps		96.000 kHz		
✔	101 Eastbound	5:57	Fourplay	Fourplay 96/24	Jazz	4608 kbps		96.000 kHz		
✔	24 Hours of Love	3:58	Rebecca Pidgeon	Retrospective 9...	Pop	4608 kbps		96.000 kHz		
✔	21st Century Schizoid Man I...	6:58	King Crimson	In The Court Of...	Rock	4608 kbps		96.000 kHz		
✔	21st Century Schizoid Man	7:22	King Crimson	In The Court Of...	Rock	4608 kbps		96.000 kHz		
✔	14 A Brand New Song	3:58	John Mellencamp	Life Death Love...	Rock	4608 kbps		96.000 kHz		

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Setting up iTunes for Mac...
Midi Settings

- **Highlight/select "Built-in Output"**

- **Click on "Widget" drop down button**

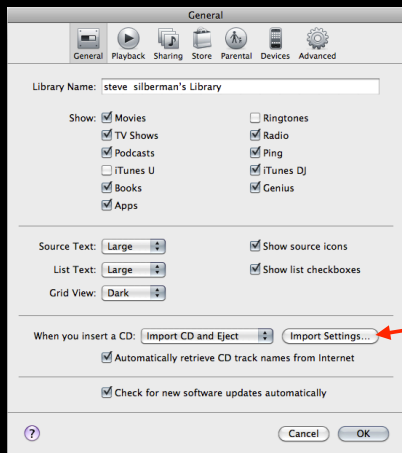- **Select "Play alerts and sound effects through this device"**

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Setting up iTunes for Mac...

- **Now iTunes will play through the external device**
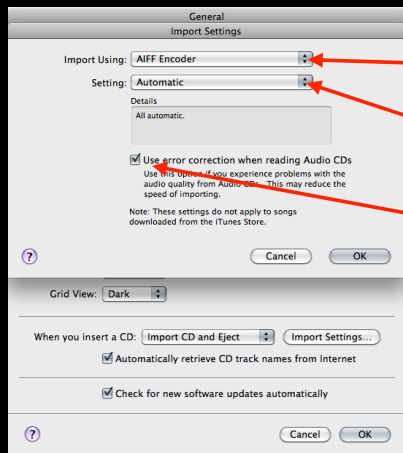
- **Alerts will be routed to the internal speakers**

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Setting up iTunes for Mac

- **Launch iTunes application**

- **Open "Preferences" from menu Bar**

- **Select "Import Settings"**
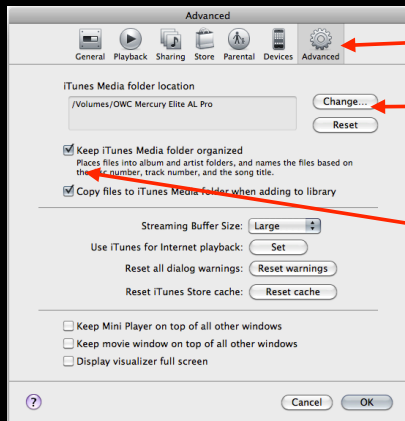
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Setting up iTunes for Mac...

Select Encoder - choose AIFF or Apple Lossless

"Setting" leave this as "Automatic"

Check "Use error correction when reading Audio CDs"

- Click OK

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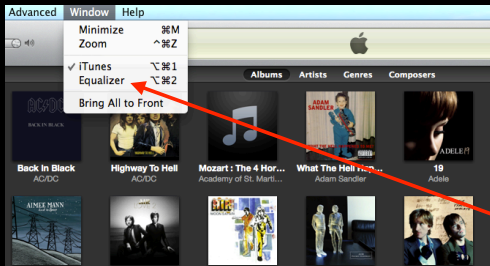# Setting up iTunes for Mac...

- **Click "Advanced" tab**

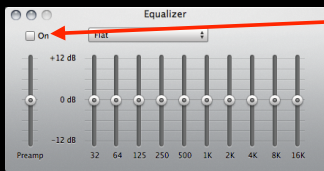- **iTunes Media folder location: click "Change" button to select the desired location/storage hard drive**

- **Check "Keep iTunes Media folder organized" & "Copy files to iTunes Media folder when adding to library"**

- **Click OK to finish**

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Setting up iTunes for Mac...

- **Click Window (menu bar)**

- **Select "Equalizer"**
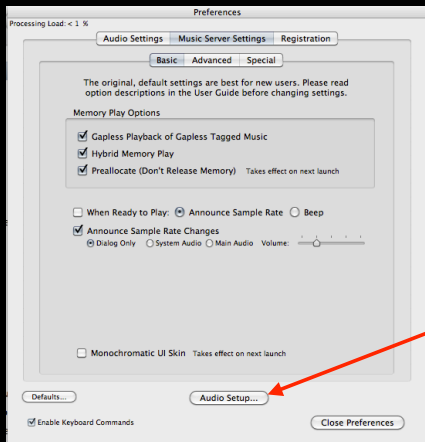
- **Uncheck "on"**

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Pure Music is...

- **High-resolution, high-performance music playback software for Mac computers**

- **Automatically docks with iTunes**

- **iTunes acts as GUI, database, playlist organizer, etc. but doesn't play the music. Pure Music replaces the actual iTunes player software**

- **Automatic sample rate switching**
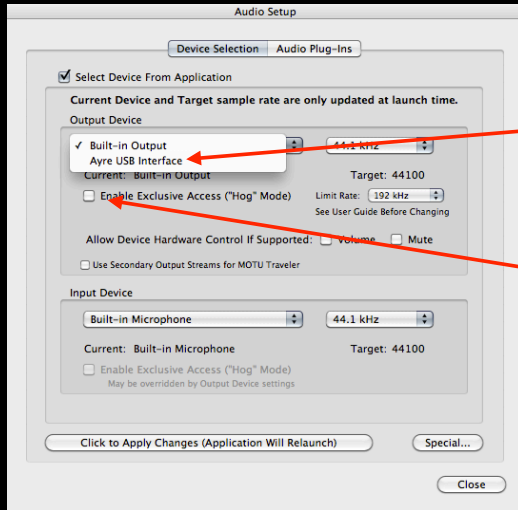
- **Plays all iTunes file formats as well as FLAC**

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Pure Music for Apple iTunes

- **Purchase and download Pure Music**

- **Launch Pure Music application**

- **Open "Preferences" panel in Pure Music**

- **Configure Audio-Output-Device: click "Audio Setup..." button at the bottom of the Preferences panel to select and configure the Audio Output Device**

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Pure Music for Apple iTunes...

Select the device you would like to send your music to. In this case we are selecting the "Ayre USB Interface"

There's a lot more Pure Music can do! Spend some time with the owners manual

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Can You Hear Ones and Zeros?

No matter how an audio signal is packaged, stored and transferred, the music is always analog ... but after all that digital packaging and reconstruction, is it still music?

Since long before the CD and MP3, the many ways in which cable can damage audio information have been denied, debated, and proven. Since the CD arrived, the mechanisms which damage a digital audio signal have been denied, debated, and proven.
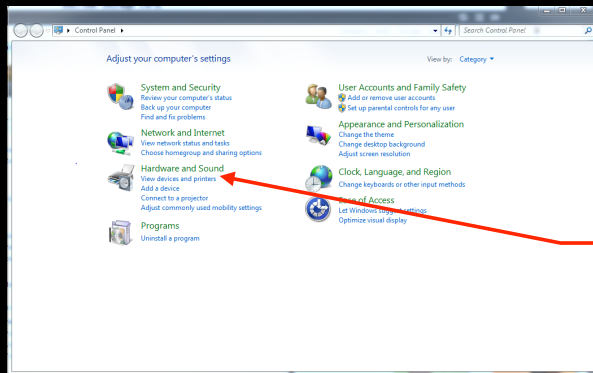
Now, audio is shifting to being stored in the "Cloud" and on drives, whether spinning or solid-state. Now HDMI and USB are becoming the dominant transfer modes ... and now, same as before, audio quality continues to be easy to damage. The frontier might seem to move so fast that old problems are dead and buried, but in fact, respect and care are exactly as important as ever before.

AudioQuest is not better because we have been minimizing damage to audio since 1980, but this does give us perspective. It is our competence today, facing today's challenges, which we hope will earn your attention, your listening, and if we earn it, your respect.
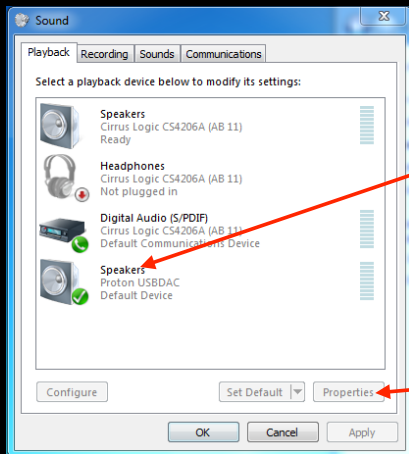
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iTunes for Windows 7 and 8

- **Launch "Control Panel"**

- **Open "Hardware and Sound" panel**
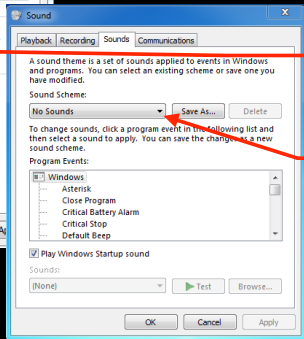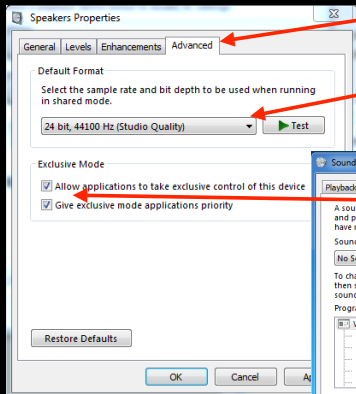
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iTunes for Windows 7 and 8...

- Newly connected external device is added as "Speakers"

- Playback: Select preferred audio device. In this case it would be the "Proton USB interface"

- Click "Properties" button for more setup options

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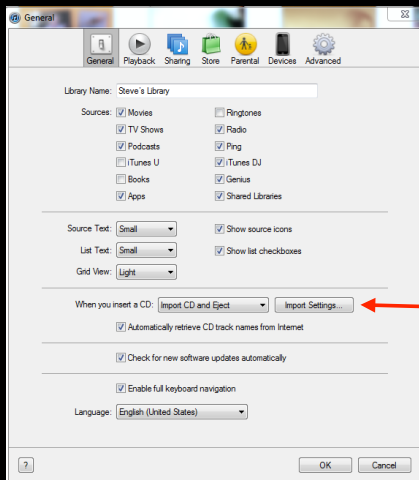# iTunes for Windows 7 and 8...

Click "Advanced" tab

Select the native sample rate of your music, for most users this will be 44100 Hz
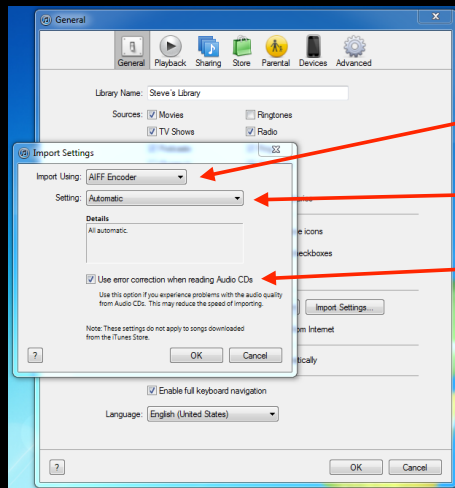
Exclusive Mode: check both options then click "OK"

Click "Sounds" tab, under "Sounds Scheme" select "No Sounds", this will prevent internal sounds from playing back through the stereo system

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Setting up iTunes for Windows 7 and 8...

- **Launch iTunes application**

- **Click "Edit" drop down from the main menu bar, select "Preferences"**

- **Select "Import Settings"**

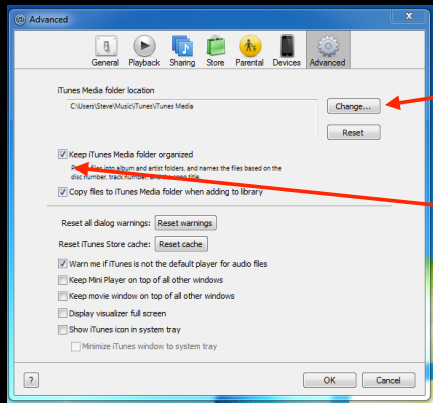audioquest.

Setting up iTunes for Windows 7 and 8...

- **Select Encoder - choose AIFF or Apple Lossless**

- **"Setting" leave this as "Automatic"**

- **Check "Use error correction when reading Audio CDs"**

- **Click OK**

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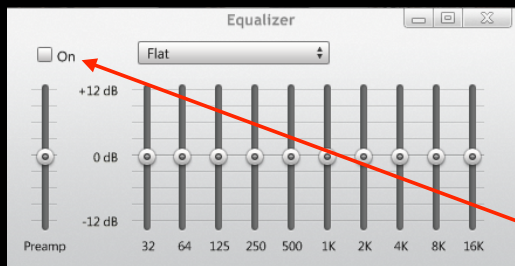
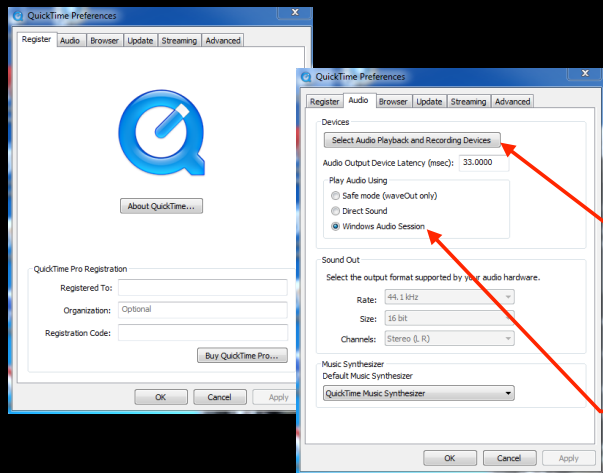# Setting up iTunes for Windows 7 and 8...

- Click "Advanced" tab

- iTunes Media folder location: click "Change" button to select the desired location/hard drive

- Check "Keep iTunes Media folder organized" & "Copy files to iTunes Media folder when adding to library"

- Click OK to finish

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Setting up iTunes for Windows 7 and 8...

- **Click "View" drop down from the main menu bar.**

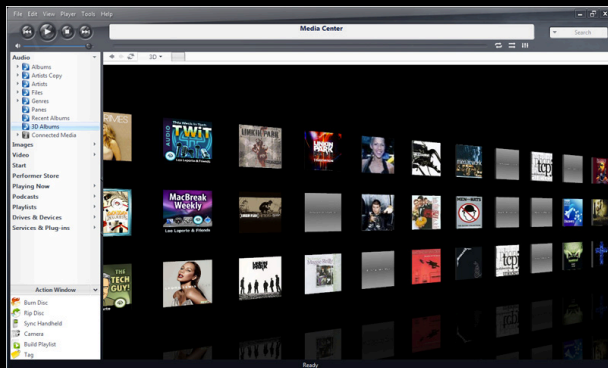- **Select "Show Equalizer"**

- **Uncheck "On"**

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QuickTime for Windows 7 and 8

- **Launch QuickTime application**

- **Open QuickTime "Preferences"**

- **Click "Audio" tab, then select "Audio Playback and Recording Devices"-then select the device that you want to play your music through**

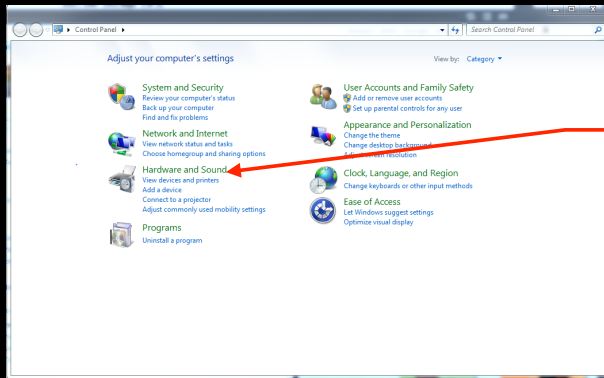- **Under "Audio Output Device Latency" check "Windows Audio Session"**
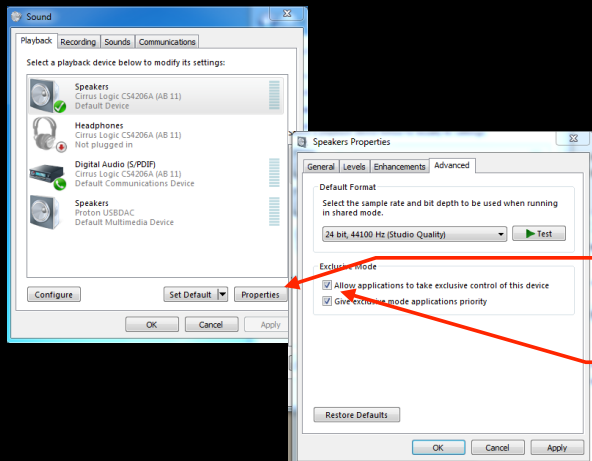
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J. River Media Center is...

- J. River is a whole house media center for music, movies, and photographs

- Sound quality leader for Windows based systems (Windows only)

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J. River for Windows 7 and 8

- **Purchase and download J. River**

- **Launch "Control Panel"**

- **Open "Hardware and Sound" panel**

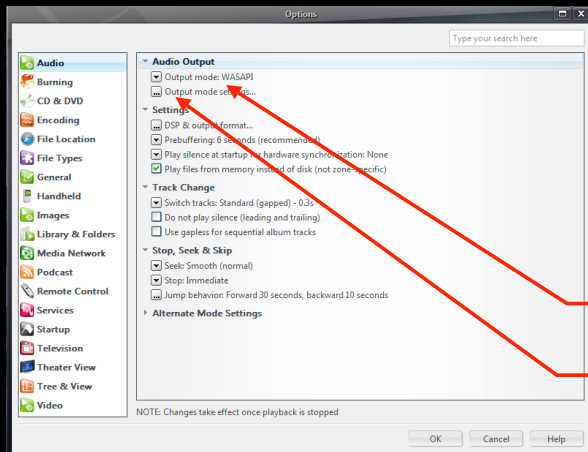audioquest.

J. River for Windows 7 and 8...

- Select "Playback" audio device to internal speakers. Do not select the external DAC!

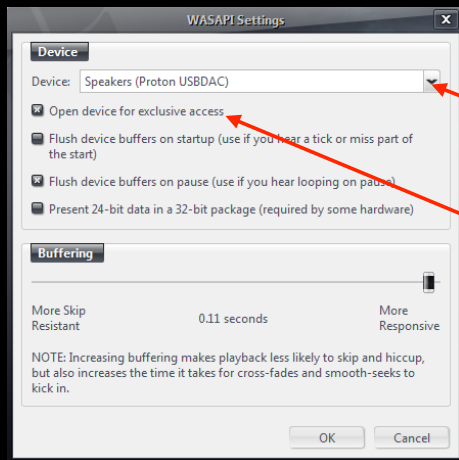- Click "Properties" button, select "Advanced" tab

- Exclusive Mode, check both options then click "OK

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J. River for Windows 7 and 8...

- **Launch J. River application**

- **Open "Options" panel from main menu, select"Tools", then "Options"**

- **Under "Audio Output" select WASAPI**

- **Click "Output mode settings..."**

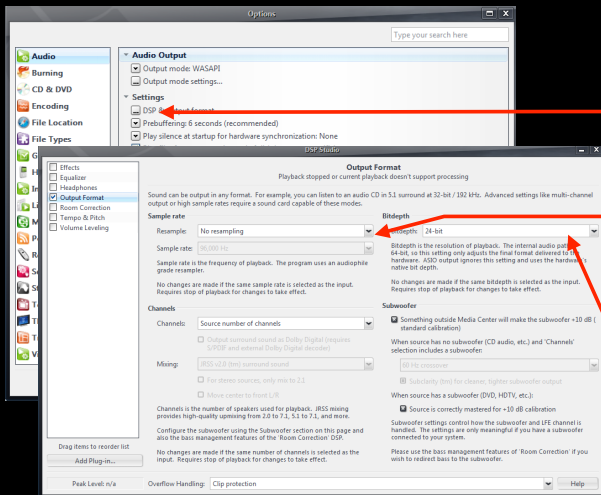audioquest.

J. River for Windows 7 and 8...

Select desired audio device from "Device" drop-down menu

Check "Open device for exclusive access" option

- Click OK

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J. River for Windows 7 and 8...

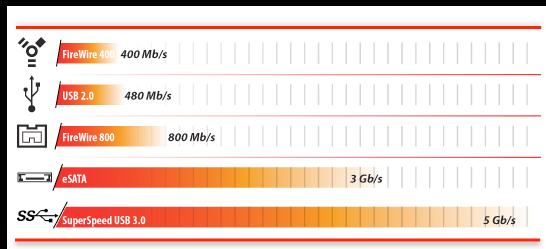- Click "DSP & output format" button to open "DSP Studio" panel
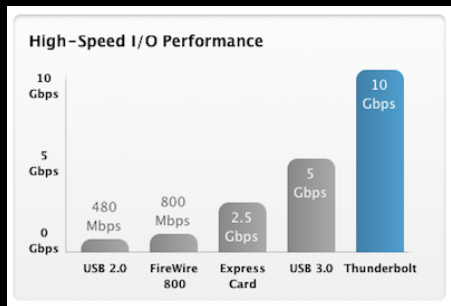
- Under "Sample rate" choose "No resampling"

- Under "Bitdepth" select bit rate to match that of the intended audio device such as a DAC

- Explore!

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External Hard Drive Connectivity

High-Speed I/O Performance

- **When possible avoid sharing the same bus to send and retrieve data. This means if you are using a USB DAC try and use a different type of connection (FireWire) for the external HD**

- **The faster the HD connection the better the sound**

- **Cables makes a difference! Between the hard drive and the audio device**

- **Mechanical isolation makes a difference. Try Q-Feet.**

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