



# WADIA di122

## Preferred Settings to Play all File Types with JRiver Media Engine 20 using a Windows 7 or 8 Computer

To play DSD-DXD files over the WADIA di122 the following hardware will be needed:

1-A modern Win 7 or 8 computer using high performance Quad Core processors

2-A USB 2.0 High Speed A-to-B cable (Belkin Gold or better)

3-A Music Program that is capable of providing DSD-DXD support. We will be using JRiver Media Engine 20.XX in this example.

### Steps on set up of PC:

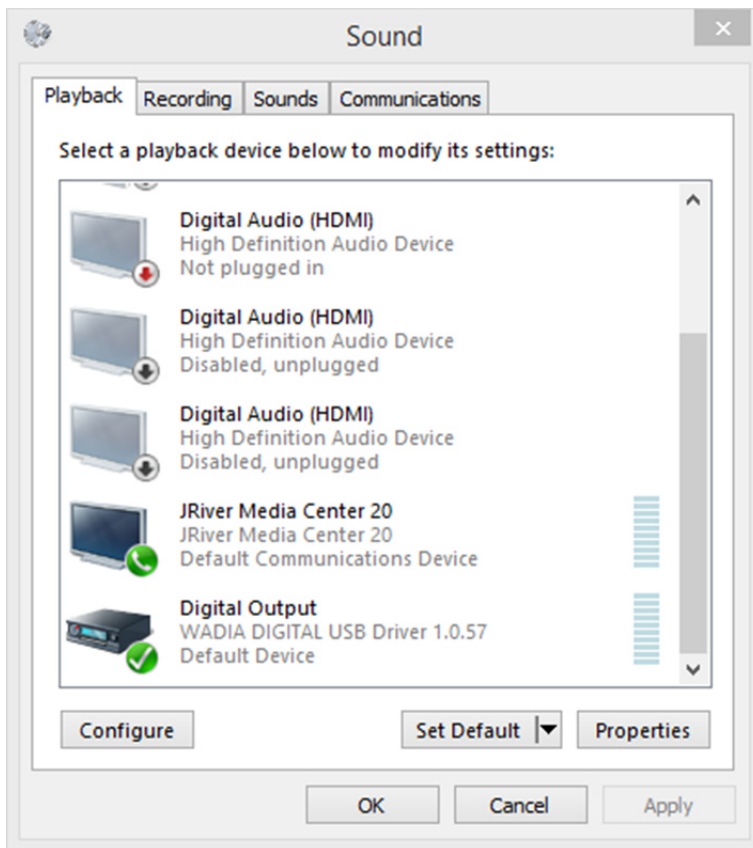
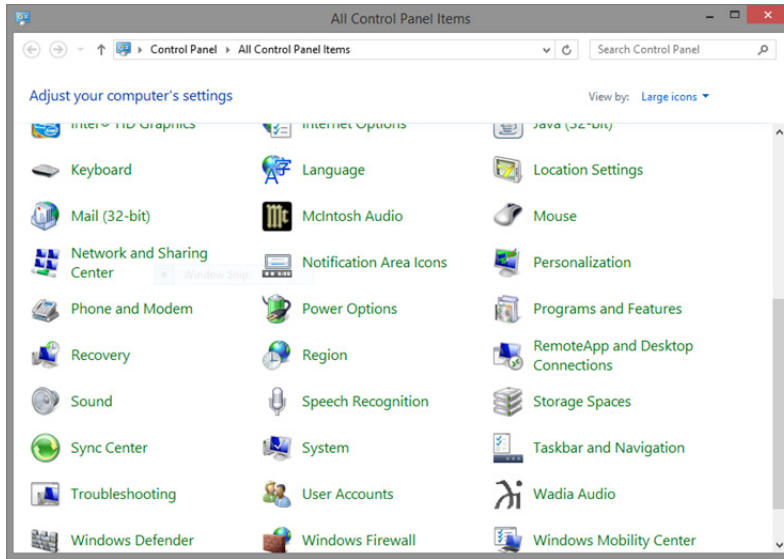
1-Download the Wadia PC driver from the di122 of the Wadia website, [www.wadia.com](http://www.wadia.com) -> di122 -> downloads-> PC Driver set up. Run setup and install on your computer.

2-Install JRiver Media 20 on your computer. If you have an older version of JRiver it is a good time to update to version 20. JRiver 20 is available as a 30 day free trial from [www.jriver.com](http://www.jriver.com)

3-Connect the Wadia di122 to your computer with a USB 2.0 High Speed A-to-B type cable and turn on.

4-In your PC go to Settings-> Control Panel and open SOUND.

# Wadia



# Wadia

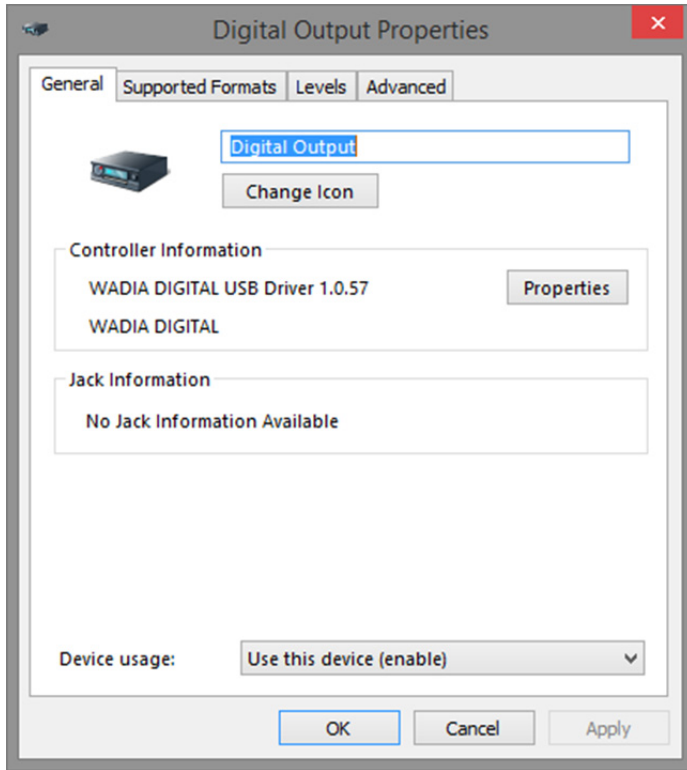
The Sound screen should show the Wadia 1.0.57 driver checked green as Default Device and JRiver Media Center 20 set as Default Communications Device. Both will show as a blue dashed line on their right side, with green icons on left side.

If the Wadia 1.0.57 driver is not set as default, mouse over then click, Set Default -> Default Device.

JRiver Media Center 20 should be set to Default Communications device.

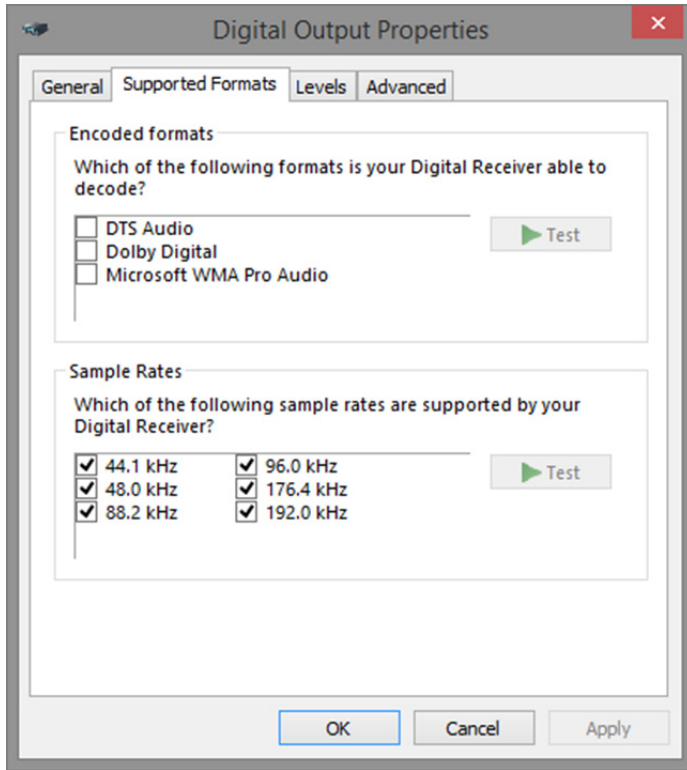
When other sound devices are connected to the computer such as an HDMI cable these will appear in the menu and will need to be enabled if used.

Clicking on Properties will bring up the Digital Output Properties screen below and its tabs. Device usage: Use this device (enable), should be the choice set. This will be the same on the JRiver Digital Output Properties screen.

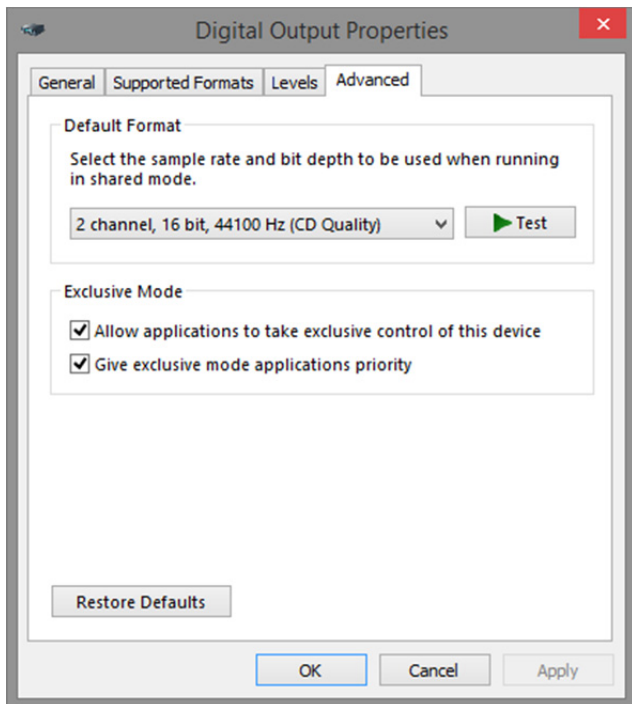


Next, clicking on the Supported Formats tab of the WADIA driver will bring up the format choice screen below.

Since we are playing stereo, check all audio formats as shown below.



Next is the Wadia Driver Advanced tab below.



# Wadia

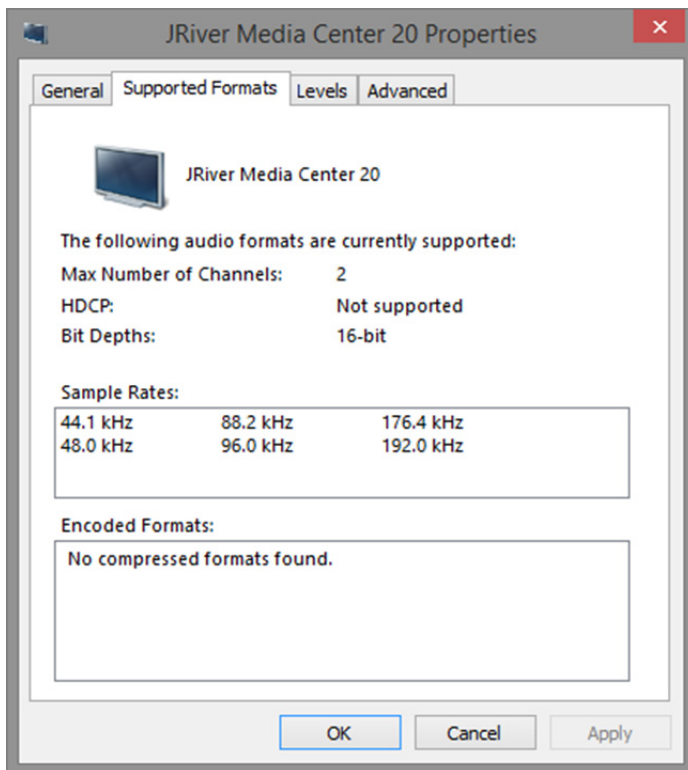
Mouse over the test window, left click and you should hear the left then right speaker chime. This will show you are properly set up and the di122 driver is installed.

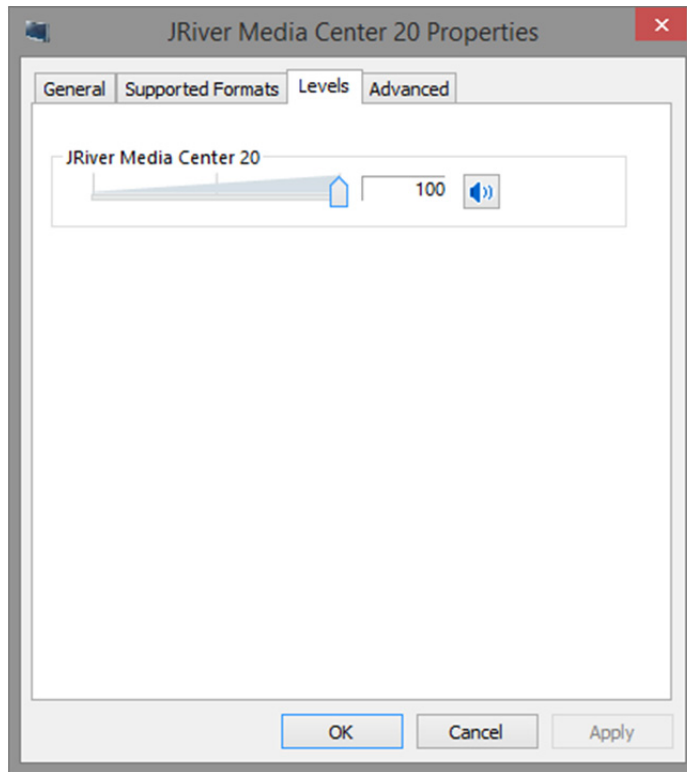
Since JRiver will control the actual data rate communicated to the Wadia di122, simply set to Restore Defaults and let the program do its job of syncing with the DAC. Leave at 16/44 as the Exclusive Mode will allow JR to control the output data rate of the driver.

Next is to set JRiver up in Windows Control Panel Sound. It will be similar to the WADIA di122 settings.

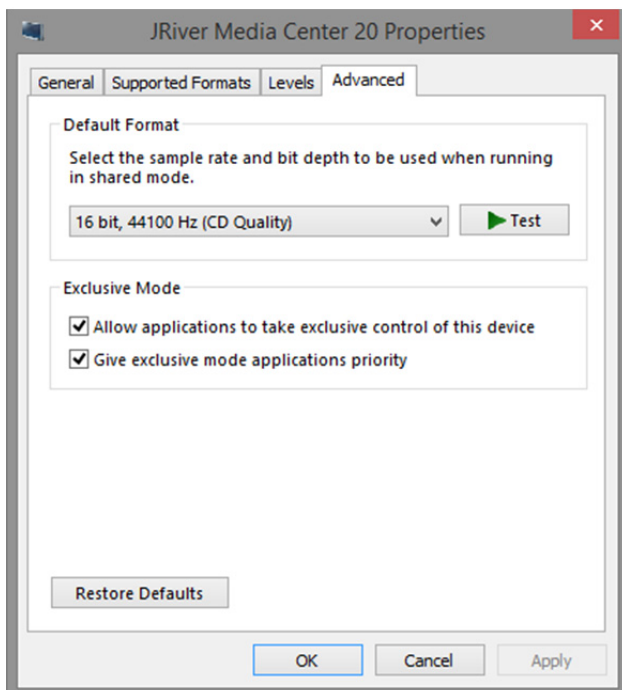
Mouse over the JRiver tab as below so it is highlighted in blue

Clicking on the Properties box on the lower right will open up the JRiver Digital Output Settings. 44.1kHz through 192 kHz should be shown.





Level tab should always be set to 100% as shown since listening Volume is set in the WADIA di122 and all bits are always sent from the JRiver player to the di122 for Bit Perfect, Asynchronous playback. Finally open the Advanced Tab section of JRiver.





Once again 16/44 should be checked or simply restore defaults as the data rate will be set in the music program.

If you are using, say a laptop for music storage on multiple USB audio playback devices, each with their own drivers, you will need to switch default devices in the Sound settings whenever you connect to a different device. You may have multiple drivers installed on a computer since you are only using the Default device and driver at any one time with JRiver doing the actual work while bypassing the built in audio processing of the computer.

Most computers will change the default driver to the one the computer USB port is connected to, di122 or the different 321 Wadia model as an example, since they do not use the same drivers. When the computer is powered up it will recognize the device and driver needed as long as the driver has been previously installed on the computer.

If you are listening to a streaming feed like YouTube JRiver should be on but not playing music as it will then process the streaming feed automatically.

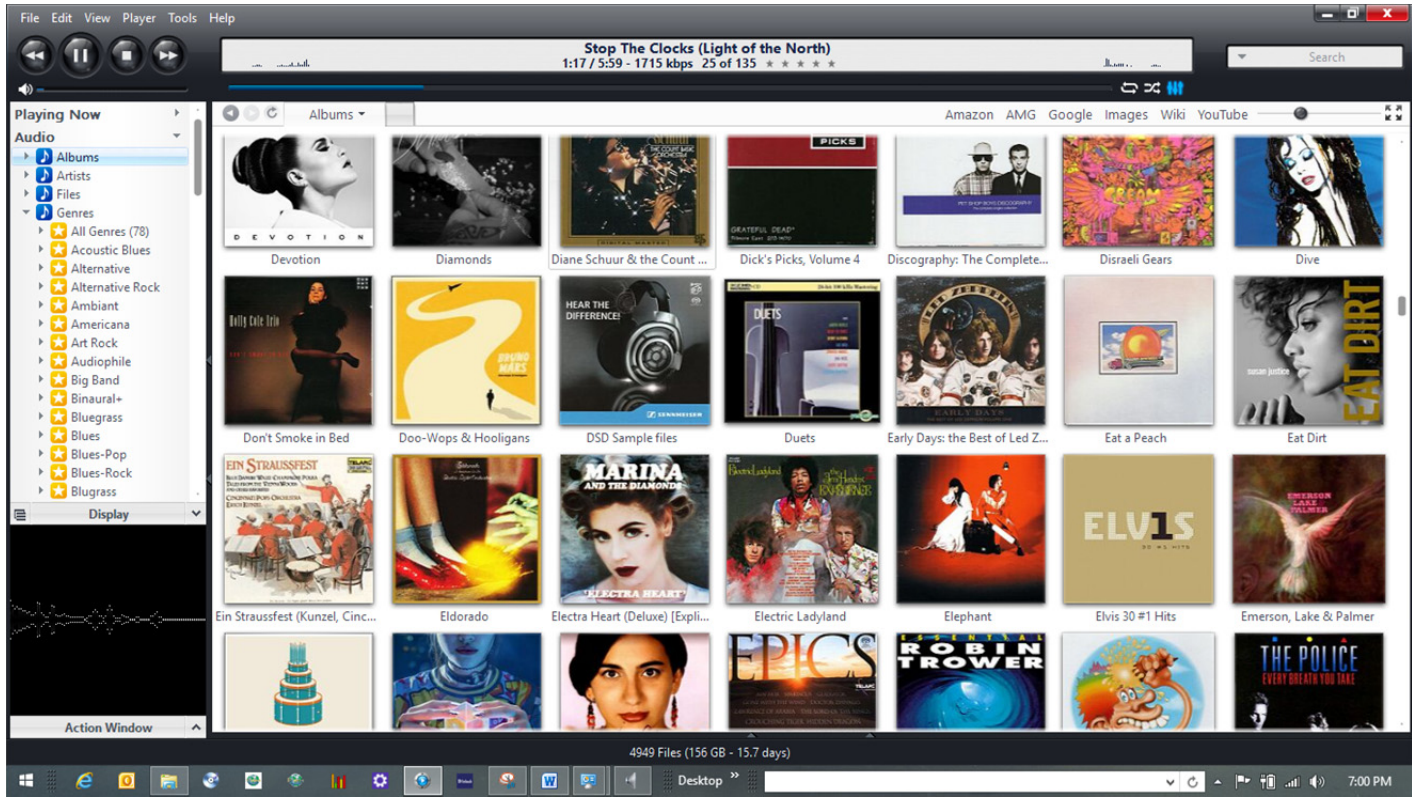
The next section will cover the settings in the JRiver Media Engine 20.

## **Settings in JRiver 20 for WADIA di122.**

JR20 is a powerful computer program that will allow the manipulation and playback of many types of files. Under the HELP tab at the top left of the home screen you will find a drop down menu that lists HELP WIKI. This is an open interact forum where other JRiver users and experts can ask questions and share solutions. To be an expert on all computers and every JR 20 feature is beyond the scope of this outline but these basic settings will work well with the di122 WADIA for music playback of all file types using a Windows 7 or 8 machine.



# Wadia

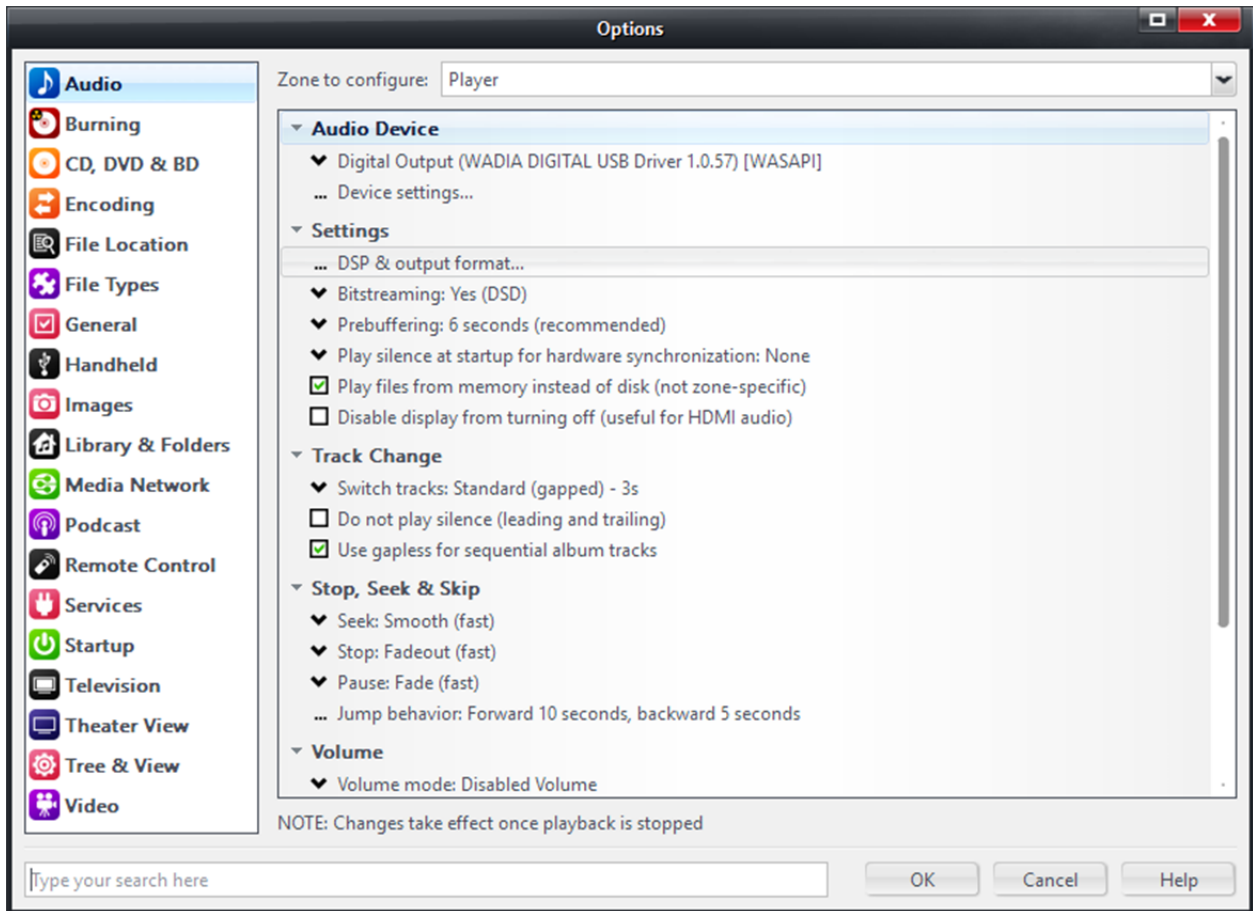


The top left corner of the JR home screen has a series of tabs and the Tools tab is where the playback settings are located.

Left click on the Tools tab and go to the bottom of the list and select Options. This will open up the main adjustment page. The left hand side AUDIO tab should be checked so the adjustments to the Audio Device section of the program are listed.

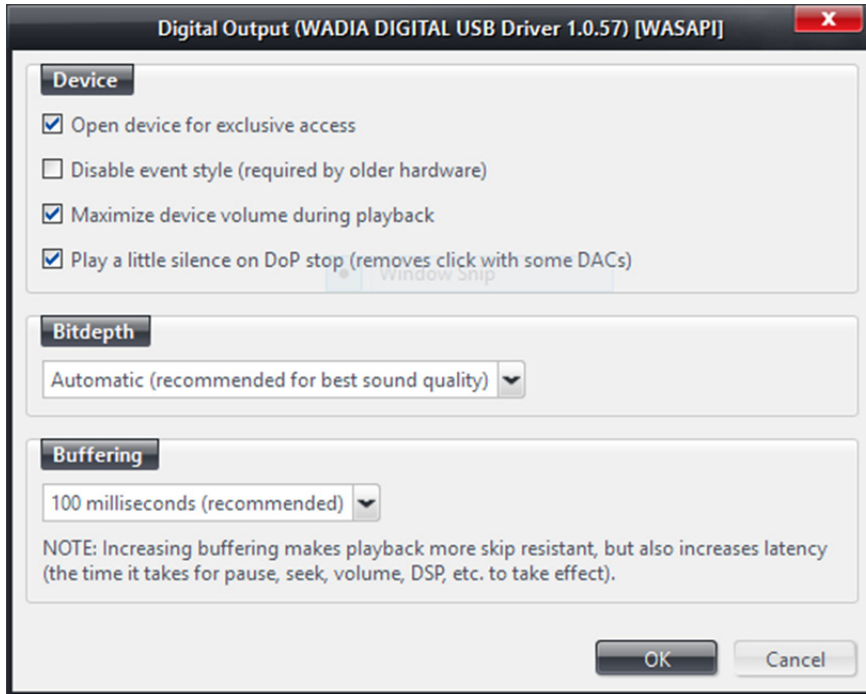
The first selection made needs to be the Digital Output under Audio Device. Selecting Digital Output will list all of the USB audio drivers on the computer. Please check, (WADIA DIGITAL USB Driver 1.0.57) WASAPI. This is the correct driver that matches the di122. If it does not appear in the list please download this driver from the di122 page of the [www.WADIA.com](http://www.WADIA.com) website under Downloads.

# Wadia



Next tab ... Device settings ... will need to be opened. The settings listed below are the preferred settings for smooth playback. After these are made click OK at the bottom of the screen.

All of the following adjustments are being made to match the way the data from the computer is sent to the di122. If only ONE type of file was used for all music this would be simple. If however, ANY audio file type and all resolutions are to be played then the JR settings must match the switching cadence of the di122. These recommended settings are based on extended testing using files from 16bit-44kHz CD quality through 5.6 MHz DSD files on a Windows 8.1 computer with a quad core i5 processor.



Next, open DSP and Output format under Settings, in the top left corner please check Output Format and Volume Leveling. This will allow access to the output format and activate Volume Leveling.

Volume Leveling will adjust the playback volume of each song in relation to all others in the music library. Since these files will be manipulated at 32 or 64 bits this will not change the actual volume of the songs but will adjust their playback relationship to each other so dramatic volume changes are lessened. Volume Leveling does not change the dynamic range of the recording in any way.

Output Format will allow the actual playback resolution bit rates to be set which also determines the file types that can be played.

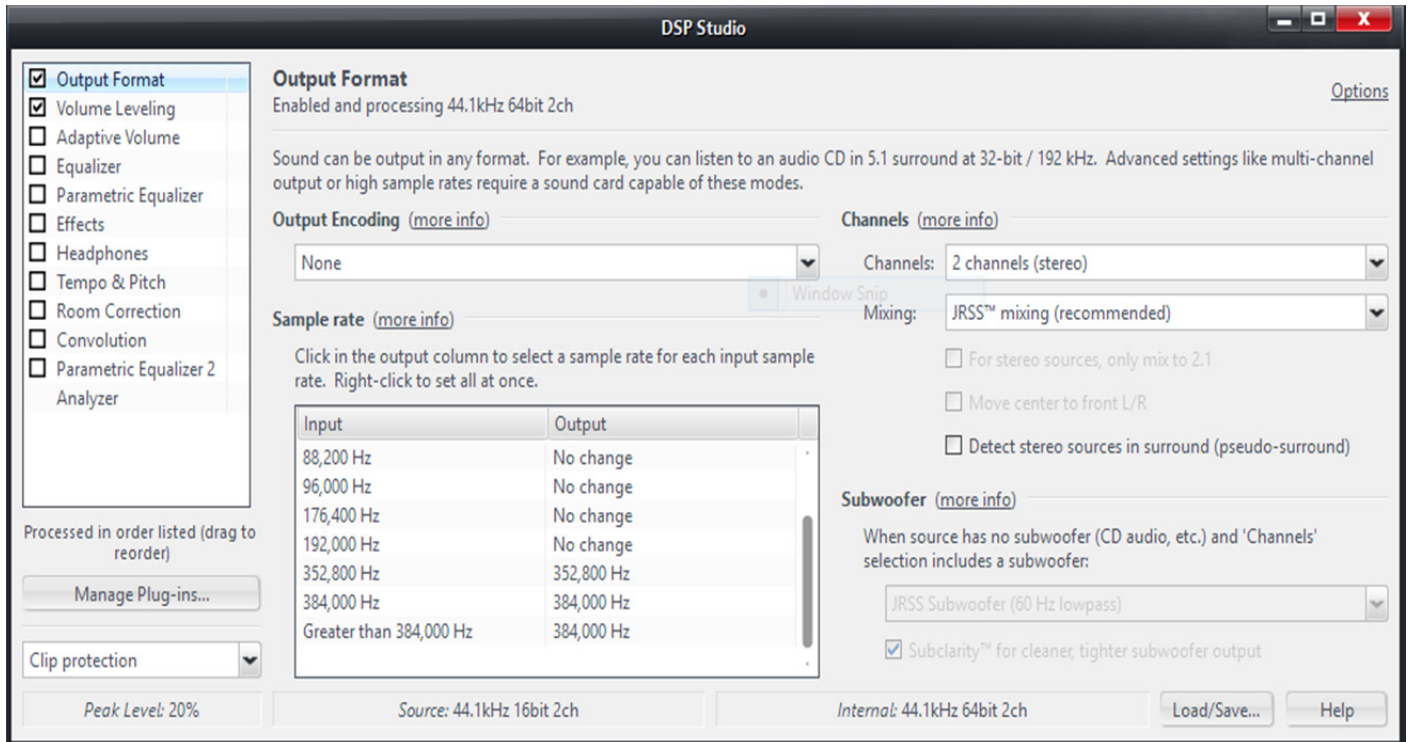
All other tabs in this left hand list can be used but this will result in the loss of Bit Perfect playback, which for maximum fidelity, is the goal of these adjustments.

B-Clip Protection should be checked as this will prevent digital overload which can produce harsh sounds. Volume Leveling will also protect against clipping. If di122 is connected to a power amp of low sensitivity Volume Leveling can be shut off for additional gain or volume.

In the center of the screen output formats are set. This is two columns of input, the original file encoding, and output what is sent to the DAC. By checking No change the di122 will see each file in its' original format. If all the formats are set to 192,000Hz, as



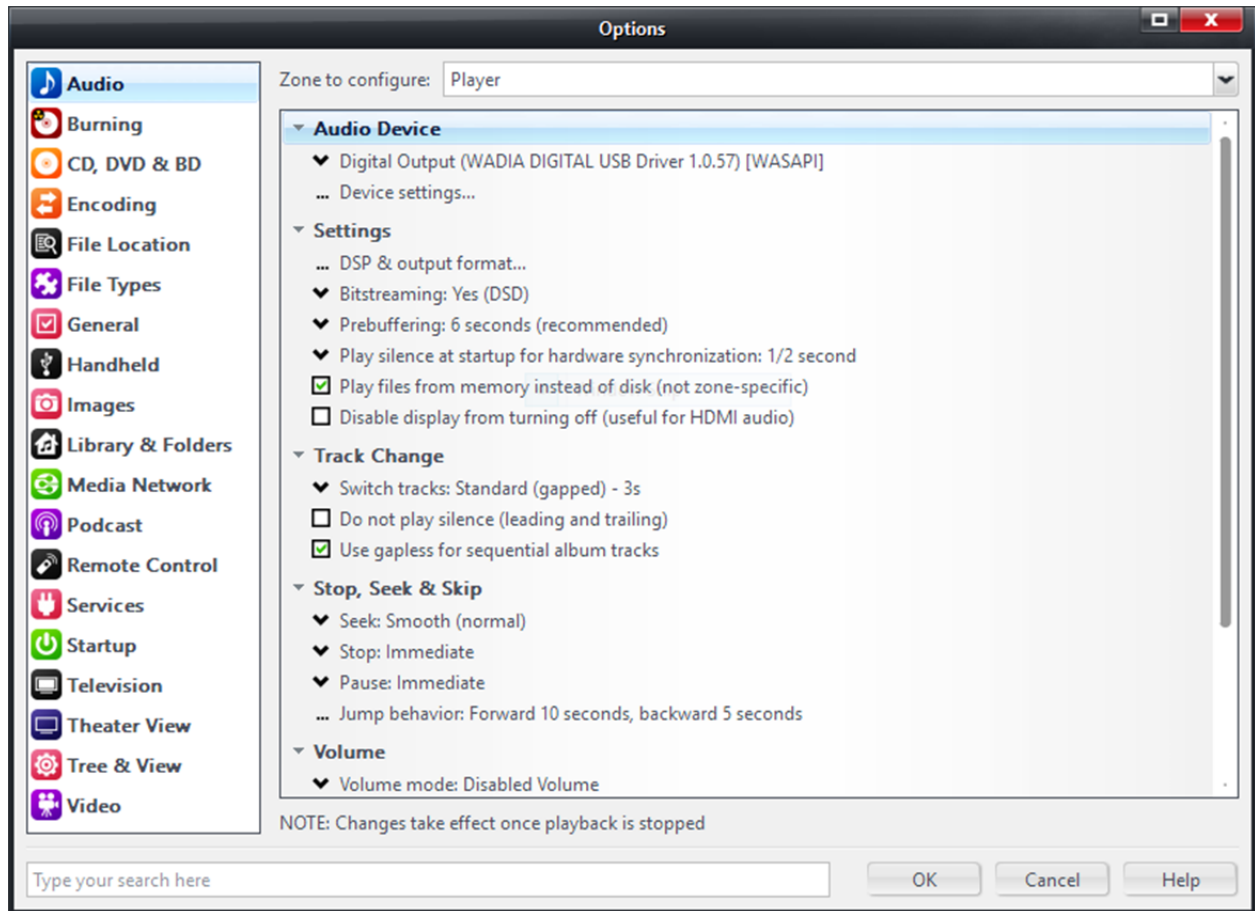
an example, this will only increase the file size or 'container' of the original music file with no change in sound quality.



The limit of the WADIA di122 is 384,000Hz. 352,800 and 384,000Hz are used for DSD, DXD file types. Music files referred to as DSD64, DSD128 or DSD -2.8MHz and 5.6MHz can be used with di122 running JR-20.

This screen shot above is of a normal 16 bit, 44.1 CD rip to the HD playing. At the bottom of the page the actual peak level is showing 20% which goes up and down as the volume changes in the course of the song playing. Internally, JRiver is processing this CD file at 44.1KHz and 64 bits. The 64bit Internal processing allows Volume Leveling mentioned above since the maximum music file size of 24 bits is far exceeded by the computer so files can be volume leveled since the computer's processing is a much larger 'bit box'. Clicking on the red X in the upper right hand corner will close the DSP studio and return to the options box.

# Wadia



These **Setting changes** as shown will need to be duplicated for proper playback using the WADIA di122.

1-DSP & Output format ... was set above

2-Bitstreaming: YES (DSD), if DSD files will be played, if not, can be left to NO

3- Prebuffering: 6 seconds (recommended)

4-Play silence at startup for hardware synchronization: 1/2 second

5-Check - Play Files from memory instead of disk. Note: This will pull the music from the solid state memory instead of the spinning disc drive which is more precise.

## Track Change

1-Switch Tracks: Standard (gapped) - 3s, allows the time needed when tracks are of a different resolution. If the tracks are the same resolution they will switch like a normal CD.

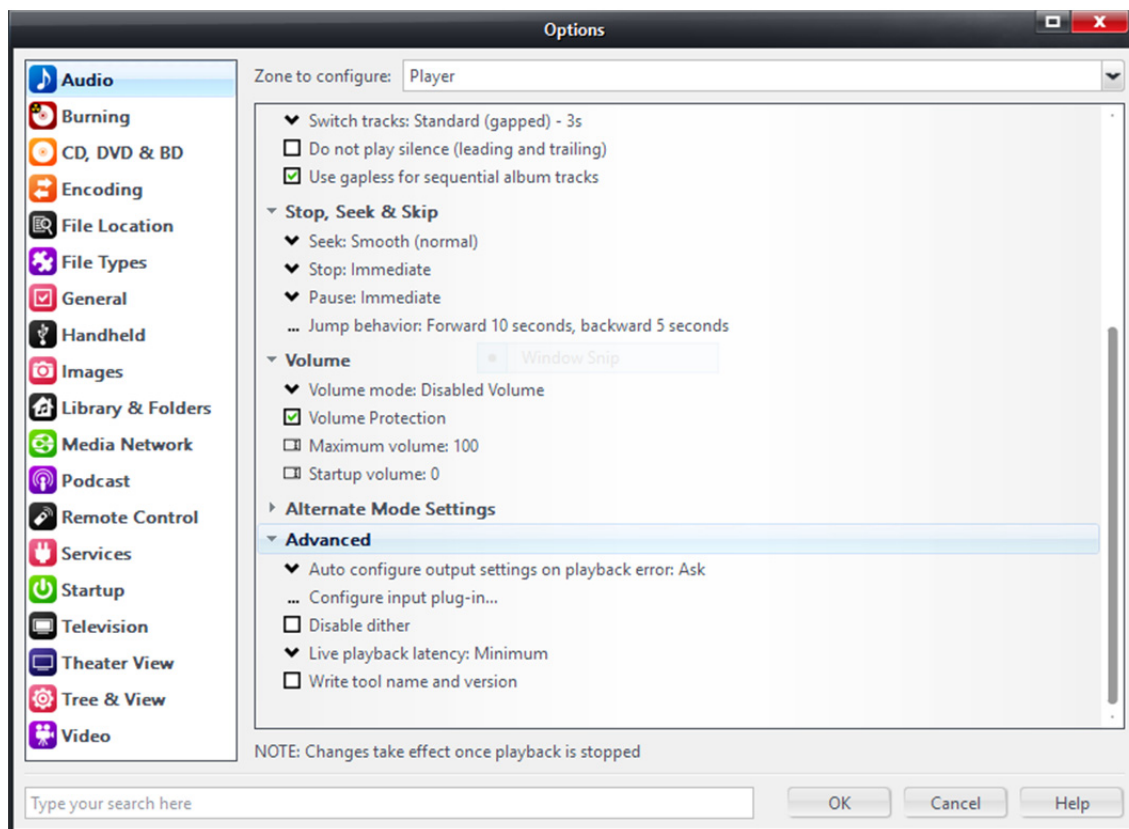
2- Use gapless for sequential album tracks- Check, Note: this is for albums that are gapless like Dark Side of The Moon, etc.

## Seek: Smooth (normal)

## Stop: Immediate

## Pause: Immediate

At the bottom of the Options page open the Advanced tab. Set Live playback latency: Minimum. This will prevent sync audio sync issues when streaming video content.





These are all of the settings needed for smooth playback using the Wadia di122 with music stored on or streamed from a computer. Please refer to the JRiver Wiki Help forum for detailed advice and information on JRiver operation.

Additional questions on the Wadia di122 may be sent to Wadia Tech Support at [www.wadia.com](http://www.wadia.com) -> Contact Us.

Thank you,

Wadia Tech Support.

RC 2-11-15