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Subject: Digital Music Formats

Posted by [rockhound](#) on Mon, 02 Aug 2010 20:35:34 GMT

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What is the best digital music format. I know that CD's use WAV format which is uncompressed and takes up a lot of space on a computer. The most common compressed formats are mp3 and wma. I use wma @ 192 bauds as a standard and it sounds fine. Does anyone have an opinion on this as far as format or baud rate?

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Subject: Re: Digital Music Formats

Posted by [Adveser](#) on Mon, 02 Aug 2010 21:41:37 GMT

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This is what I know:

for some reason, people seem to hate WMA and AAC, the proprietary formats of MS and Apple. So I would avoid those.

There is Ogg Vorbis, which is better at lows and highs than MP3.

But MP3 is far better at mids, which is where the vast majority of the information is. Your hearing is logarithmic, so it seems like there are more low and mid frequencies than there are compared to high, if that makes sense.

This is what I use in LAME with Razorlame's front end: `-b 320 -m s -h --resample 48 -q 0 -k`

I'll explain those switches:

I use 320kbps constant, even though there is no additional loss using Variable bitrates.

I recently saw the voice prints of some "busy" sections of songs encoded at different rates. 320 was virtually identical to the wav file and things got really poor below 192kbps. But that is nothing new. Never ever go below 128kbps.

I only use Stereo. I don't trust any of the schemes to save more space by encoding the channels differently. I have heard claims that J-Stereo is superior because there is more room to do less compression.

the -h means high quality. It's an encoder setting telling it to "take your time and do it right because this guy doesn't care how slow the program runs"

I resample to 48Khz. Why not? It is only adding bandwidth, which comes in handy when using DSPs anything else that modifies sound. That is my opinion and it is not generally shared by the masses. Some are in the camp that what sounds best is the best and some are in the camp that modifying anything is a reduction in quality. I seem to, or used to when soundcards sucked, get a better sound from the higher sample rate. At the very least this was preventing the K-Mixer from doing it for me. These days I don't really worry about it since I don't get my files from the CD

anymore and don't have to encode my own files often enough. I still resample when I encode, if only because it does no harm that I can hear. Sorry for the length of the section. Go with 44.1 if you want accuracy, go with 48khz if you are modifying the sound digitally.

-q 0 is another setting for encoder that basically means don't ever take a shortcut with the math. It tells it to work slowly and do as many calculations as necessary to get the best result. This is the "real" quality setting. The lower the better.

-k tells the encoder not to use any filters such as passband filters. This switch may be obsolete. I don't know anymore. If someone does please tell me the new command line switch.

That's my take on the settings I use.

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Subject: Re: Digital Music Formats  
Posted by [rockhound](#) on Tue, 03 Aug 2010 23:12:22 GMT  
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Thanks Adveser for such a detailed response. The information is much appreciated. I had tried the different baud rates and I agree that 128kbps and below is very noticeably lacking. I really couldn't tell the difference between 192kbps and 320kbps but it definitely makes sense that 320kbps would be better. I am curious about the Ogg Vorbis and will look into that to see if I can notice better bass and treble. Thanks again.

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Subject: Re: Digital Music Formats  
Posted by [soundman](#) on Tue, 10 Aug 2010 08:56:42 GMT  
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Everyone hates proprietary formats for the simple fact they can only be used on one device. You can always trust Sony and Apple to come out with their own format to cash in.

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Subject: Re: Digital Music Formats  
Posted by [Adveser](#) on Wed, 11 Aug 2010 03:33:18 GMT  
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Another reason not to trust m4a or AAC. They maintain an "equal" sound quality at a lower bitrate than MP3. There is no way they are doing this without more filtering and other nastiness. MP3 would have just been updated to use it themselves if it were based on better data (lossless type)compression. Do not want.

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