Subject: Compressed formats
Posted by Barry S on Thu, 24 May 2007 15:50:39 GMT
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After hearing Skip's Squeezebox at the audio festival it got me wondering about moving cds onto a computer. Storing the music on hard drives would open up an amazing amount of space in my listening room. What sort of file formats provide some level of compression without degrading the sound?

Subject: Re: Compressed formats
Posted by Wayne Parham on Sun, 27 May 2007 16:29:01 GMT
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A high-quality MP3 file is a pretty good way to go. While MP3 is a lossy compression system, MP3 files of various quality levels can be made. There are other compression/decompression (codec) systems available too. See the references below:Audio codecsComparison of audio codecsMP3

Subject: Thanks! NT
Posted by Barry S on Tue, 29 May 2007 12:37:13 GMT
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nt

Subject: Re: Compressed formats
Posted by akhilesh on Wed, 30 May 2007 03:05:01 GMT
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HI Barry,If you don't want to degrade the sound, then you need a lossless compression format. I use FLAC (Free Lossless Audio Codec). It usually compresses the matieral quite well, on average to about 40% of the size, but with no loss (i Can recreate the .wav file if I want to). A lossy scheme like MP3 cannot allow one to recreate the .wav file if one wants to. Hope this helps.-akhilesh

Subject: Re: Compressed formats

Posted by Bob Brines on Thu, 31 May 2007 12:39:56 GMT
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Barry,If you will remember, I ran my demos off of a laptop computer. Worked amazingly well. The sound could have been better, since I was using a USB Sound Blaster as a DAC. I am not about to drop kilobucks on a high end DAC, all of which seem to perceive a need for a tube sage. I'm looking for something more modest that is all SS but still addresses the clocking problems inherent with USB audio. But I digress.Disk space it so cheap that it is pure folly to store your files in anything except a lossless format. TERAbite external drivers are now only a couple of hundred bucks. (Warning -- buy two and make two copies of your library. That hard driver WILL fail some day.)I am about to launch out on the process of ripping my entire library. I intend to use EAC and convert to FLAC on the fly. I would prefer to leave the files in WAV, but I think that I need the extra tagging available in FLAC to catalog things. My library is mostly classical, ant the standard file naming and tagging doesn't work.Perhaps Akhilesh has a hint or two for me? BTW Akhilesh, what are you using for playback?Bob

Subject: Re: Compressed formats
Posted by akhilesh on Thu, 31 May 2007 21:17:21 GMT
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Here's an article in the NY times that talks about tis, and how the average consumer is realizing this now. Lossless is better. Flac is a great CODEC, and it;s free. Winamp player plasy it great. It's also free. -akhilesh
 NY Times article

Subject: Re: Compressed formats
Posted by akhilesh on Thu, 31 May 2007 21:23:57 GMT
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HI Bob,I have been using EaC with the FLAC plugin (same ting you are proposing), and rip CDs to FLAC with EAC. EAC does a great job, of course. If I ever need to make a copy of the CD (that I legally bought of course), I use FLAC frontend (a free FLAC to WAV converter software) to decode the FLAC file into the WAV, and then use EAC to burn it onto a CD-R. Works great. I bought the iaudio X5: an IPOD like device that in my opinion, has-better sound quality than the Ipod-Functions as a pure USB memory device on any operating system (windows, MAc OS or linux) so no need for itunes or any othe rsoftaware, just drag your files and copy -Has FM radio (great recveption)-has a builtin in ADC that allows one to convert an analog input in 320 KBPS MP3 if you ever want to record analog-has a built in equalizer (which I don;t use)-does not scratch like the Ipod-MOST IMPORTANT: It plays FLAC files natively! -costs less than the IPod This is the Iaudio X5 by COWON. I have the 60 gb version. For my laptop, I use Winamp player: it is free and excellent. Hope this helps, buddy. -akhilesh

Subject: Re: Compressed formats
Posted by Bob Brines on Fri, 01 Jun 2007 02:06:56 GMT
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Thanks for the info. If I understand correctly, the Iaudio is for stand-along headphone listening. If so, I have little interest here. I will download a copy of Winamp and look at it. I had heard that it was becoming bloated with features and tends to run slow. Foobar is a bear to learn, but it does have a native half octave equalizer which I am looking forward to for room equalization. However, as long a Winamp sound OK through my amp and speakers AND I can find stuff in my library, I'll go with it. Some library systems support artist-album-song only making classical stuff impossible to find. Example -- try to fine a particular classical album on Amazon. Nearly impossible.Bob

Subject: Re: Compressed formats
Posted by akhilesh on Fri, 01 Jun 2007 04:23:33 GMT
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"Iaudio is for stand-along headphone listening"It has a 1/8 inch standard stereo analog output. YOu can connect a headphone or whatever to it. I actually connect a home made amplifier to it (burr brown OP amp) that gives it a 25 db or so fixed gain and really mellows out the tone like a tube amp) and then play it either on headphones or through a regular power ampifier/home setup. I can also play it in my car, which is cool. and also in my office. And everywhere i go. I don't use winamp for anything but playback. My library is organized as such: artist-album-song. I suppose you could organize it otherwise, but it's adequate for my needs...however my file structure has nothng to do with winamp. Winamp plays m3u files, if that helps you any. I've never tried foobar (perhaps the name scared me away?)-akhilesh

Subject: Re: Compressed formats (and STORAGE?!?)
Posted by Barry S on Fri, 01 Jun 2007 12:53:05 GMT
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Thanks for all the ideas. It has been a great help sorting through the endless formats.I'm a Linux fan and it looks like its pretty easy to extract cd's to flac format with the tools provided. The software seems to automatically handle all the tagging (and album cover) issues on the jazz, rock and pop discs, too. So most of this project will just be putting the discs in the computer and hitting the extract button. My job has me in front of a computer all day so it'll just be a matter of feeding the discs into the computer.Bob, thanks for the tip on the library backup. Figuring out where to store the cd's will be a harder task. They can't go in the attic (heat) or the basement (humidity) and they'll need to be accessible from time to time. Anyone have any tips on how to store the physical discs without eating wallspace?

Subject: Sanity check
Posted by Wayne Parham on Mon, 04 Jun 2007 16:02:43 GMT
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Not to be overly contrarian, I have the greatest amount of respect for all you guys but I have to remind you about something. The mere step of digitizing an analog signal removes information from it. Digital conversion is a lossy compression system. Some would say it is pure folly to digitize a music signal at all. I am not necessarily one of those, but remember that there are lots of analog lovers that would poo-poo the use of any digital format, whether compressed or not, "lossless" or not.An analog signal that has been digitized and stored can never be returned to the original analog signal exactly as it was in analog form. The sampling rate (bitrate) and sampling width (number of bits) set the limit of how much information is lost. So remember always that all digitized signals have information loss, and all are therefore "lossy" systems. A compresion system that is "lossless" cannot overcome this limitation, it just uses a compression system that preserves the digital data without further data loss.Even analog systems suffer from information loss. They all have a noise floor that describes the lower limit of their ability to store and reproduce a signal. Signals that are below that threshold are lost, or at least mofified by noise. Most analog systems suffer from outside noise sources too, like mechanical vibration and what not.I felt the need to remind everyone about this. MPEG/JPEG compression is a lossy compresion system, that is true. But you can set the level of loss. If set low enough, there is less loss in the compression system than there is in the digitizing process. At that point, it's mute. Because of that, I'd suggest that all other factors (bitrate, sample width, etc) be considered, not just the compression system used.