Subject: Re: What are possible future audio innovations? Posted by Adveser on Thu, 03 Feb 2011 22:05:26 GMT

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jazzlover wrote on Thu, 03 February 2011 06:41Adverser, I wonder how the upgrade to 24-bit is going to be done. I can see that recording studios would have to rerecord the songs, because it doesn't make any sense to simply produce the 24-bit "master" by copying the old master.

It already happened. They are just mastering the final product down at 16bits or 20bits if it a HDCD or is going on a DVD.

It isn't so much what they need to do to make 24-bit standard it is what they will have to avoid doing.

Let's look at an example. The year is 1990ish and the Sony Mastersound studio has just received the masters from Tom Scholz to make an audiophile edition of Boston's debut album. They will run these tapes into a machine that will sample them at what is now up to 192Khz (though 48Khz is enough) and a bit-rate in this case of 20-bits (even back then)

Once everything is ready to go, they'll master the recording for CD, which results in turning the 48Khz/20-Bit digital transfer into a 44.1Khz/16 bit recording.

So the process is essentially to remove the last step.

Everything that has been "remastered" since the mid-90's is ready to go, they just need to stick the digital transfer on a hard drive in PCM/Wav audio and likely adjust the sounds since that is the second important part of mastering that is still needed.