

📖ステレオレビュー誌 98 年 12 月号

DTS, THX, M-O-U-S-E

コーリー・グリーンバーク

報道によれば、DTS は DVD-Audio の導入を阻止すると脅迫しているそうだ。トニー・ハーディングがオリンピックで尻餅をついた時、審判団に靴のひもがほどこしていたのもう一度やり直しさせてくれと泣きついたのを思い出すといい。DTS ならその時、「よし、やり直してこい」と言ったに違いない。業界全体が集う WG-4 の決定に対して、同じような言い訳で迫るのだから。

実のところ、DTS の言い分はコロコロと変わっており、最初は自社の不可逆圧縮が DVD-Audio の規格に採用されていないと泣きを入れていた。ところが、「ロスレス型」圧縮方式しか許容されないことがだーんーだーんーと解ってくると、DTS はバグ修正に WG-4 がもう少し時間の猶予をくれたら自分たちのロスレス圧縮方式だって機能すると主張する神経だ。DTS は WG-4 がメディアンの MLP を採決するまで、ロスレス圧縮に取り組んでいることなど公言したことさえなかったことにはおかまいなしだ。

こうしたことは DTS では毎度のことで、もっと優秀な選手が、たとえば最初の時はドルビーで今回はメディアンだが、さっさとトリプルルッツを決めて観衆の喝采に応えている頃に、靴のひもを締め直すまで待ってくれと業界に泣き込むわけだ。自分もこういう言い訳を使ったことが昔はあった。高校生の頃だが。

DTS は広範かつ強力なメーカーの支援を常に口にしてきたが、WG-4 での MLP 採用の是非を問う最終投票は 47 対 1 の圧倒的な大差で、DTS だけが反対票を投じた。信じがたいことだが、DTS 副社長のダン・スラッサーは WG-4 が DTS に対してチャンスを与えないなら、DVD-Audio ハードとソフトの出荷を阻止する法的権利があるとの主張を書面で表明している。DTS はこの業界がこれまで遭遇した唯一且つ最も無能な会社かも知れないとの認識にまだ至っていないのは残された数少ないオーディオマニアくらいだが、もしあなたがその一人だったなら、上述の 3 つの段落をよく読み直した上で、早速宗旨変えなさることをお勧めしたい。📖

📖ホームシアター誌 98 年 12 月号

The DTS Debacle

ブレント・バターワース

待って、待って、待つだけの価値はあるか？

DTS がレシーバーやプロセッサに最も要求される機能のひとつだと誰もが知っている。そして DTS DVD の発売が 10 月現在 4 ヶ月遅れで且つカウントが続いていることも誰もが知っている。これはもちろん誇張して私が言っているのだが、本当に誰もが知っているわけではない。私のお袋だって、ビル・クリントンだってそれは知らない。しかし電話や電子メールから判断する限り、本誌の読者は皆知っている。

誰もが発する質問は「私には DTS は必要なのか」ということで、遺憾ながら私の返事は「さあ、分かりません」となる。なぜなら本当に DTS DVD が出荷される前に、ディスクの制作に直接関わっていない者がどれくらい良いかを予測するというのは、正直言って間抜けででしかない。

DTS のプラス要因は音声記録に 1.5Mp/s のデータを使うことだ。5.1ch 全帯域音声をストックに納めるにはそれでも圧縮が必要だ。だが DVD で 448kb/s のドルビーデジタルでは DTS より 3 倍以上の圧縮をしなければならない。

マイナス要因はこの数学的利点が必ずしも DTS に音質上の優位を与えるとは限らないことだ。我々自身の LD 比較においても判明したのは、良くて微妙な利点が DTS にある位で、私には全く差は聞き分けられなかった。DTS は余分なスペースを食うので、外国語音声がなくなるかも知れない。関係ない？いかにも、但し音声に消費するスペースがこんなに大きいとビデオ圧縮に負担が加わるという噂も耳にしている。DTS 社以外でこうした噂の真偽に答えられる者はいない。我々にはすべて製品を見てしか判断はできないのだ。

DTS が通常の DVD よりコスト高になるとすれば、ドルビーデジタルがいまやデジタルテレビや DSS に採用されていることを考えても、DTS がドルビーデジタル並の普及を果たすことは疑わしい。一方、DTS DVD がより高音質を提供できるとすれば、特定の映画でドルビーデジタル上映がない場合、DTS 版でない製品を買うのが安全かどうかは私には分からない。待ちくたびれたあなたにもっと違った説明ができると良かったのだが。📖

親戚の中に、その嫌らしさが余りに執拗でなるべくなら会いたくないというような人をお持ちではないだろうか。そんな思いに駆られるのが DTS だ。

私が DVD-Audio 仕様の技術セミナーに参加するため日本に向けて出発する間際のことだが、良いニュースは DVD フォーラム WG-4 が原提案の不備を修正したことだった。最も重要な改善点は 5-6 チャンネルのハイレート PCM に対しても妥当な再生時間や自由度を持たせるために不可欠なロスレス圧縮の採用で、WG-4 はこの役目にメリディアンロスレスパッキング(MLP)を採択した。

ここで話がややこしくなる。私の手元には DTS 社 CEO ダン・スラッサーが WG-4 議長 B・鈴木(JVC)に宛てた 9 月 10 日付けの手紙のコピーがある。その全文を引用しないで手紙の雰囲気を中心に伝えるのは困難だが、手紙の終わり近くで「我が社は法的措置に訴えることを望むものではありませんが、それが唯一の選択となるなら、他の方法はありません。」言い換えれば、「うちのドッグフードを買わないなら、おまえの犬を撃ち殺すぞ」と言うことだ。

オプション規格という同じ轍を踏みたくない DTS の言い分はふたつだ。ひとつはその不可逆圧縮を使わない限り、片面一層 DVD-Audio ディスクに 5-6 チャンネル版と 2 チャンネル専用版のプログラム音声を同居させるスペースが確保できないため、2 チャンネル出力は DVD-Audio の自動ミキシングに依存することになると言うことだ。DTS は過去にも物事に対して疑わしいあるいは誤った説明をすることで際立っているが、正しい情報へのアクセス能力がないとしか思えない。(例えば、DVD-Video 用に彼らのシステムを設備する予定のスタジオがどこにあるだろう。) MLP のようなロスレス方式の採用自体が、DTS の言うようなことを可能にするための最大の理由なのだ。自分たちは圧縮の専門家であるはずなのに、私が 5 分でおかしいと分かることに、彼らはなぜ気付かないのだろう。

もうひとつは厚かましくも本末転倒で、DTS を採用すれば DVD-Audio が DVD-Video 互換にもなると言う

ことだ。DTS は DVD-Video 規格のオプション音声方式でしかない。現存する DVD プレーヤーで(私の知る限り予定されるものも含めて) DTS 音声をアナログ出力できる製品は皆無だし、DTS データストリームを認識してデジタル出力できる製品さえ数少ない。DTS をデコードできるサラウンドプロセッサやアンプも多くはない。皮肉なことだが、DVD-Audio で後方互換性を実現する確実な方法はディスクにドルビーデジタルを併用することなのだ。

民生用の一方式として、DTS は音声データの低減が必要とされる DVD-Video などの用途に提供できる圧縮量が常に少なすぎ、一方で DVD-Audio のような帯域に縛られない多くの用途に対して必要以上のことをしてきた。DVD-Audio に対する DTS の強硬な手口を見れば、オーディオファイルやメーカーが同社の戯言にこれ以上我慢を続けるべきでないことは明らかだ。

DTS は土に帰れ。消えてしまえ。📖

DTS, THX, M-O-U-S-E

DTS AND THX have long been The Audio Gangs Who Couldn't Shoot Straight, but both recently made the news with behavior so startlingly dumb that my will to loathe is starting to thaw into something approaching — dare I say it? — sympathy. I've seen both of these companies fight logic and reason tooth and nail without advancing the art of sound reproduction, and I've been heartened by the growing sentiment among A/V manufacturers and consumers alike that DTS and THX are simply well-funded and (at least in the case of THX) well-oiled marketing efforts. That hasn't stopped either company from trying to elbow its way to the trough, but their latest exploits don't merely call for a sad shake of the head — they call for the fat lady to gargle some salt water and give it one last yodelay-hee-hoo.

DTS is in the news because the company is threatening to derail the product launch of DVD-Audio. Remember when Tonya Harding fell on her ass in the Olympics and then begged the judges for another chance because her skate laces had come untied? DTS must have jumped up and shouted, "You go girl!" because it's playing the same excuse card with the WG-4, the industry-wide group that decided the DVD-Audio standard.

Last month I told you about the WG-4's approval of Meridian's MLP lossless audio compression for the official DVD-Audio format specification. MLP was chosen because, by keeping *all* the original data but packing it more efficiently on the disc, it gives all the space-saving benefits of lossy data-compression systems like DTS and Dolby Digital — increased playing time and resolution — without any loss in fidelity. But even though the WG-4 made it patently, abundantly clear that only a *lossless* compression system like Meridian's would be acceptable for DVD-Audio, DTS is actually threatening to *sue* the WG-4 because its *lossy* compression system was rightly rejected in favor of Meridian's technically superior approach.

Actually, DTS's story keeps changing. First it cried foul because its lossy compression wasn't adopted for DVD-Audio. Then, when it was s-l-o-w-l-y pointed out, a-g-a-i-n, that only a *lossless* system

would be acceptable, DTS actually had the nerve to claim that it, too, had a lossless compression system in the works, if only the WG-4 would grant them a little more time to get the bugs out. Never mind that DTS had never mentioned that it was working on a lossless compression system until the WG-4 voted to approve Meridian's MLP.

This is vintage DTS, begging the industry to wait for it to tie its skate laces even though someone smarter — first Dolby, and now Meridian — has already hit the triple lutz and left the ice to cheers. Hell, I used to employ this excuse tactic myself — when I was in high school. "Um, I can't turn in my paper because, um, the ink ran out of my pen, and, um, there were no other pens in the house, and, frankly, I was distracted by *Happy Days*' season-ending cliffhanger when

reread the last three paragraphs and join the rest of us.

While DTS alienates most of the audio world, THX seems to be continuing its slide from Lady Justice to the Happy Hooker. Where once THX and its since-departed founder Tomlinson Holman boldly nailed a set of audio standards to the church door, standards that they claimed would insure true movie-theater sound in the home, now THX is *dumbing down* its requirements like a Florida school system so that even the kids who can't read get to graduate.

The company says that its new THX Select designation is being introduced for speakers, amplifiers, and A/V receivers meant for rooms measuring up to 2,000 square feet, as opposed to the previous THX target of 3,000 square feet. The minimum requirements for power output, noise, distortion, and speaker directivity have all been, ahem, relaxed for the new THX Select designation. The old set of standards, now to be called THX Ultra, will continue to identify those home the-

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Fonzie tried to water-ski jump over the sharks, and it was too late to go buy another pen, so can I please have another week to finish my paper, Miss Crabtree?" Unfortunately, I wasn't as savvy as DTS, or I would've sued the school because I needed more time to write my three-page essay on which Brontë sister was duller to read, Emily or Joanie.

Though DTS has always claimed wide and vigorous manufacturer support, the WG-4's final vote on whether to adopt Meridian's MLP was an overwhelming 47 to 1, with DTS casting the only nay. Incredibly, DTS vice chairman Dan Slusser is on record as claiming his company has the legal right to block the shipment of DVD-Audio hardware and software (see *How to Win Friends and Influence People*) until the WG-4 gives DTS another shot. If you're one of the dozen or so audiophiles left who hasn't long since come to the realization that DTS may be the single most brain-dead company this industry has ever seen, please

ater products whose performance is good enough to earn a front-panel THX badge — except, of course, for those products that will now be able to display the all-but-identical-looking THX Select badge.

I think THX could be onto something here. What about a new sub-class of product certification called "THX Velveeta," to be sported only by those \$200 rack systems at Wal-Mart that offer best-of-class performance? "THX Disposa" could be the prize ribbon worn by the finest under-\$50 portable cassette players with pictures of Disney Babies on the lid. Ever have a guy in a white van drive up to you while you're pumping gas and offer to sell you "name brand" speakers for a song 'cause his buddy works at the loading dock and yada yada? Slap the "THX Sucka" badge on those babies and watch 'em fly out the back door. And I bet you'd feel better about those \$20 plastic multimedia speakers that came with your computer if they wore the "THX Wassamatta U." logo. I know I would. □



The DTS Debacle

Is it worth waiting—and waiting, and waiting—for?



Brent Butterworth

Everyone knows that DTS is one of the most-demanded features in receivers and preamp/processors. And everyone knows that the arrival of DTS DVDs was, as of October, four months late and counting. I'm exaggerating, of course—not *everybody* knows this stuff. My Mom doesn't know it. Bill Clinton doesn't know it. But based on the calls and e-mails we've received on the subject, I think everyone who reads this magazine does.

The question everyone asks is, "Do I need DTS?" I'm afraid my answer is, "I don't know." Because until DTS DVDs actually ship, anyone not directly involved with DTS DVD production who makes a projection as to how good they'll be is, frankly, a fool.

The upside of DTS on DVD is that it uses a 1.5-megabit/second datastream to store audio. You still need digital compression to fit 5.1 full-range channels of audio into that datastream. But Dolby Digital, with its 448-kilobit/second datastream on DVD, demands more than three times as much compression as DTS.

The downside is that this mathematical advantage doesn't necessarily give DTS a sonic advantage. Even our own comparison of DTS and Dolby Digital laser-discs (see "Face Off," December '97) revealed at most a slight advantage for DTS; I heard none at all. The extra space DTS takes up on DVD will mean you don't get foreign-language soundtracks. Do you care? No. But I've heard rumors that using up so much space for audio might require additional video compression, or that it might demand the use of two discs where one would normally suffice. No one outside the DTS company knows if those rumors are true or false. The rest of us will know for sure only when we see the actual product.

Given that DTS DVDs will cost more than regular DVDs, and that Dolby Digital is now used in digital TV and DSS, I doubt DTS will ever achieve the same market share as Dolby Digital. But given that DTS DVDs could offer superior sound quality, and that you won't be able to get certain DTS-only movies in Dolby Digital, I'm not sure it's safe to buy a product that won't accommodate DTS. Wish I could tell you different, because I know you're tired of waiting. I sure am. 🗣️

Ever have a relative so relentlessly annoying that you hated to see him coming? That's the way I feel about DTS. I don't have space to recount everything that has pushed me to this state of dyspeptitude, but I do want to talk about the most immediate cause, which is DTS's stand with respect to DVD-Audio.

I am about to leave for Japan to attend a technical seminar on the DVD-Audio specification, which is now essentially complete. The good news is that the DVD Forum's Working Group 4 (WG-4) has polished away some of the flaws in its original proposal. Most important among the improvements is adoption of a lossless compression scheme, which is necessary to achieve adequate playing time and flexibility with five or six channels of high-data-rate PCM. (It seems likely that many producers will want to go with 96-kHz/24-bit coding on all channels.) WG-4 has chosen Meridian Lossless Packing (MLP) for this chore.

And that's where the plot thickens. I have in hand a copy of a letter dated September 10 from DTS CEO Dan Slusser to WG-4 chairman Bike Suzuki (of JVC). I can't convey the full flavor of the letter without quoting all of it, but it contains phrases like "injunctive relief" and "appropriate treble damages." The key sentence is near the end: "We have no desire to participate in litigation; however, if it becomes our only option, I would then have no other real choice." Translation: Buy our kibble, or we'll shoot your dog. My favorite part: The letter signs off with "Best personal regards." Charmed, I'm sure.

DTS wants to be part of the mandatory standard (like PCM and Dolby Digital are in DVD-Video), not an optional coding format (like it is in DVD-Video). In DVD-speak, the "mandatory standard" defines those things that all hardware for the format must support. For example, all DVD-Video players must be able to play PCM and Dolby Digital soundtracks, but they are not required to handle DTS soundtracks. Apparently DTS is desperate to avoid the same fate on DVD-Audio.

The company has made a couple of arguments to support its position. The primary one is that unless its lossy compression system is used, there will not be room on a single-sided, single-layer DVD-Audio disc for both a five- or six-channel version of the program and a dedicated two-channel version, forcing producers to rely on DVD-Audio's automated mixdown feature for two-channel output. Of course, DTS has

a distinguished history of questionable and even manifestly erroneous statements regarding matters in which it is hard to believe the company doesn't have access to correct information (what studios plan to use its system on DVD-Video, for example). But this claim is particularly amazing, since the main point of adopting a lossless compression system like MLP is to make possible exactly what DTS is saying it rules out. These DTS guys are supposed to be data-compression experts. If I can figure out in five minutes on the back of an envelope that what they're saying is wrong, why can't they?

The second argument is just brazenly preposterous: that DTS would afford DVD-Audio full backward compatibility with the existing DVD-Video format. DTS is an optional audio coding system for DVD-Video. No current DVD-Video player (or any contemplated, as far as I know) can deliver analog audio output from a DTS soundtrack, many cannot even recognize a DTS data stream and deliver it to their digital outputs, and many surround processors and receivers lack DTS decoding capability.

The irony is that there really is a way to ensure complete backward compatibility of DVD-Audio discs with DVD-Video players, which is to include a Dolby Digital version of the contents along with the PCM tracks. (Like DTS, Dolby Digital is an optional coding format for DVD-Audio.) With MLP lossless compression for the PCM, it usually would be possible to include three complete versions of the program on a single DVD-Audio layer: multichannel PCM, two-channel PCM, and multichannel Dolby Digital. And as I noted in the October issue, Dolby Digital is capable of audio quality extremely close or identical to that of CD-standard PCM.

As a consumer format, DTS has always suffered from providing too little compression for applications that need audio data reduction (such as DVD-Video) while doing more than is necessary for most applications that are less strapped for bandwidth (such as DVD-Audio). It's clear from DTS's strong-arm tactics on DVD-Audio that audiophiles and manufacturers should stop putting up with the company's guff. Earth to DTS: Get out of the way!



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