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the absolute sound

THE COMPUTER AUDIO ISSUE

CHANNEL D PURE VINYL SOFTWARE AND SETA PHONOSTAGE

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THE TIME HAS COME TO DIGITIZE YOUR VINYL COLLECTION

Despite the 3,598,785 CD titles that have been unleashed into the world (according to Gracenote's data), a good number of priceless recordings have never been released on CD. I can think of five great records in my LP collection that have never come out in digital form—Blue Velvet Band's *Sweet Moments*, Bill Monroe's *The Master of Bluegrass*, The Nashville Allstars' *After the Riot at Newport*, Gary Burton's *Duster*, and *Reno and Smiley 1961* on Grasshound Records (seriously). I'm sure that anyone who has more than five hundred LPs in his collection probably also has some gems that aren't available in digital form. The solution is to make your own digital transfers.

Anyone who has tried to make digital transfers from LPs knows that the process and the workflow can be daunting. Some parts of the transfer process are time-consuming, such as the initial tracking of the LP, which takes at least as long as the playing time for the entire LP. Other parts of the process, such as transferring "metadata," often involve lots of typing which also gobbles up time.

Channel D Software, who make the Mac-based music-playback software, Pure Music, have a software suite, Pure Vinyl, which streamlines, simplifies, and optimizes the LP to digital process. And while Pure Vinyl can be used with a variety of hardware devices including conventional phono preamps and microphone preamps, to see how powerful, flexible, and smooth the LP-to-digital process can be you need to unite Pure Vinyl with Channel D's new Seta phono preamp and the Lynx Hilo DAC/preamp. This triumvirate of products creates the most efficient LP-to-PCM digital transfer system I've used so far.

PURE VINYL CAPABILITIES

So what does Pure Vinyl bring to the table that freeware programs such as Audacity do not? First, Pure Vinyl is a dedicated LP-ripping application that was designed from the ground up to transfer LPs into the digital domain. Its workflow from analog to digital is as smooth and seamless as possible. Pure Vinyl also is flexible enough so that you can set it up to function with maximum efficiency regardless of how you want to use it. You can do marathon transfer sessions where you do all the LP real-time transfers and then add all the information and tagging later, or you can rip each LP and add the tagging right after it's been loaded into Pure Vinyl.

My accompanying article, "LP to Digital Transfer," gives you a sense of the general workflow involved in transferring LPs into digital files. Pure Vinyl improves and simplifies the process in powerful ways, especially when coupled with Channel D's Seta phono preamp. I've been using the Seta for my LP transfers for the past month, and I can guarantee that going back to a conventional phono preamp and recording software for digital transfers would be a step back in both convenience and sound quality.

In the Seta phonostage sidebar I detail what makes the Seta special, but its most important contribution to the digital transfer process is that it outputs a non-equalized signal. That "flat" output allows you to do all your phono EQ in Pure Vinyl. This opens up almost endless possibilities. Currently Pure Vinyl has 65 EQ choices built-in from standard RIAA through a variety of older and exotic mono EQs. You can also make your own custom EQ curves which can be attached to particular recordings.

A second important function of Pure Vinyl is that you can set your recording levels at a lower level than with standard recording software because Pure Vinyl has some gain built into its EQ specification. This translates into an improvement in the overall signal-to-noise levels. As an old tapehead who's used to trying to wring every dB of gain from a recording, it took several passes before I had lowered the input gain enough so that the final levels were optimal.

Pure Vinyl supports transfers at any sample and bit rate used by your analog-to-digital converter. For my transfers I used 192/24 which was the highest sample/bit rate available on the Lynx Hilo. Early in the review process I compared a 44.1/16 file transfer with a 192/24 version of the same disc. After only a few moments of listening it was clear that the 192/24 file sounded far better. The most striking difference was the way the two files presented surface noise. On the 44.1/16 recording the noise was on the same physical plane as the music, homogenized and blended into one wall of sound. But on the

192/24 recording the record noise was like a curtain, clearly in front of the plane of the music itself, and like a diaphanous curtain, it was easy to listen through the noise to the music behind it. I've often noticed this phenomenon of the record noise being on a different plane when listening directly to an LP, but I've only heard it on digital transfers played back in DSD or 192/24. For my ears 44.1/16 lacks the resolving capacity to separate the out-of-phase record noise from the music.

It's important to remember these files made by Pure Vinyl are pre-EQ, and if you try to play them with playback programs other than Pure Music or Pure Vinyl they will sound thin and bass-light. For portable devices or other playback programs Pure Vinyl can make a second set of files that have been equalized. You can also designate that Pure Vinyl create Apple Lossless files for your portable player if space is an issue. For iTunes users Pure Vinyl offers a function called "render" which creates iTunes "bookmarks" which directs iTunes to the files and makes them playable with EQ and at the native rate. I'm listening to my transfer of Gary Burton's *Duster* at 192/24 through Pure Vinyl and iTunes as I write. Render can also create native sample rate or 44.1, 48, or 96kHz files for playback with other software. Unlike Korg's AudioGate software, which can take quite a while to do format conversions, Pure Vinyl's "engine" uses as many cores as your Mac has to offer, resulting in very rapid file rendering.

The version of Pure Vinyl that I used was 3.13. A new version will be available by the time you read this. According to Rob Robinson the next version will have a number of changes including a simplified recording set-up user interface, simplified rendering, a new snap-stylus-to-track feature, a new "Tidy Tail Editor" feature that will automatically trim silences at the ends of tracks, an improved auto track finder, the option to render each side as an individual track, a new "jump to side" command, the addition of a zero-phase rumble filter, and lots of "under-the-hood" changes to improve stability and overall performance.

PURE VINYL DAY-TO-DAY USE

No one jumps into a Formula One racing car with only a learner's permit. Pure Vinyl offers the same level of performance and also requires some skill to use optimally. I strongly recommend downloading Pure Vinyl's "User's Guide" PDF from Channel D Software's Web site. It walks you through the entire LP-to-digital process. I also strongly suggest reading the Pure Vinyl User's Guide PDF more than once and keeping a copy nearby during initial transfers. It took me several tries with my first LP before I got it right. Fortunately for those folks whose reading comprehension is as dismal as mine Channel D offers remote hands-on setup. This involves using a piece of software called "TeamViewer Quick Support" that is available for download from Channel D's Web site. With TeamViewer, Rob Robinson at Channel D can look at your setup and make whatever changes are needed to make Pure Vinyl run optimally. I had several problems during initial installation that Rob was able to diagnose and solve quickly via TeamViewer. This service is available to all Pure Vinyl owners, not just reviewers.

Does Pure Vinyl have any serious drawbacks? Yes and no. The primary drawback is that once you begin using Pure Vinyl it will be very hard to go back to archiving LPs with any other system. Also because of the way Pure Vinyl integrates your LP tracks into iTunes, when you want to listen to them it usually will be *with* iTunes and Pure Vinyl. If you're the kind who insists on listening to a track through several different playback programs before you decide which one sounds best, you can create more universally usable files (with the EQ built in) through Pure Vinyl's "render" function.

As for sonic quibbles, I found that the quality of my transfer depended more on the quality of my analog setup and digital components than the sonic properties or possible degradations caused by Pure Vinyl software. In comparisons between my digital copies played back by Pure Vinyl at 192/24 and direct analog feeds, the sonic differences were hard to discern. On several recordings, including a very clean copy of *After the Riot at Newport* (RCA LSP-2302), the two versions were indistinguishable. Even the ticks and pops and surface noise sounded identical. Whether you will hear differences between your original LPs and your copies depends on many factors, not the least of which is your choice of analog-to-digital converter, digital-to-analog converter, phono preamp, and turntable optimization at the time the recording was made. If your copy made using Pure Vinyl sounds markedly inferior to the original LP either something in your recording chain isn't up to snuff or you haven't optimized and refined your transfer methodology. In other words, it won't be Pure Vinyl's fault. It's even possible with some recordings and turntables that your Pure Vinyl rendition could turn out better sounding than the original. Pure Vinyl's rumble filter makes it possible to improve the extreme low frequencies by preventing turntable rumble or tonearm resonances from intruding on the music.

PURE VINYL DELIVERS

If you've decided to get serious about transferring your LPs into the digital domain then the Pure Vinyl application offers an elegant way to accomplish that. But Pure Vinyl can't work alone. It's part of a system that requires an analog turntable, phono preamp, analog-to-digital converter and a digital-to-analog playback converter. I found the Channel D Seta Preamp and Lynx Hilo DAC/preamp to be ideal companions for the Pure Vinyl application. Together they produced results that were sonically equivalent in quality to the original LPs. If you've been waiting for the state of the art in digital transfers to improve before committing any of your vinyl to digital, the time has come to begin your own archiving process. Pure Vinyl will give you all the tools you need to do the job right. tas

SPECS & PRICING

Pure Vinyl software: $279
Seta phonostage: $3799–$6998 depending on finish and options ($6998 as reviewed)

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THE CHANNEL D SETA PHONOSTAGE ALONE AND WITH FRIENDS

The Seta phonostage performs all the functions of a conventional analog phono preamp, but its most salient additional feature is that it has multiple outputs, and one of these is a "flat" output that has not been equalized. The reason for the "flat" output is so that users can apply RIAA equalization or or other EQ curve in the digital domain within Pure Vinyl. But for this you need a way to go from its analog output to a digital signal—to wit, you will need an analog-to-digital converter. There are many professional A/Ds that can perform this function, but for my review I used the Lynx Hilo DAC/preamp (Issue 234). With its stereo analog inputs and built-in analog-to-digital converter, the Hilo makes an ideal companion for the Channel D Seta phono preamp and Channel D Pure Vinyl software.

According to Channel D's Web site, the Seta is fully balanced from input to output, and uses a direct-coupled differential circuit design with 5MHz of signal bandwidth and a measured slew rate of 500 volts per microsecond. The Seta uses a minimum-signal-path-length circuit with either an FET (field effect transistor) or a hybrid bipolar topology (see below). Its front-end circuitry is encased in a sub-enclosure machined from a solid block of copper.

The Seta comes in two versions, H and L. H is designed for high-impedance cartridges and uses an FET input while the L is made for low-impedance moving-coil cartridges and uses a hybrid bipolar input. Both have similar front faceplates with two small buttons. One button controls the Seta's "charge-lock" which controls the internal battery's charging. The second button adjusts the Seta's gain. The Seta offers four gain levels, 43, 46, 49, or 53dB. Each is designated by a slightly different color on the LED next to the button. Light blue is low, blue is medium, violet is medium high, and lavender is high.

All of the Seta's three sets of outputs are active. This allows the XLR pair with the "flat" setting to be connected to your computer audio system while one of the two RIAA-corrected pairs can go to your conventional analog system.

The back of the Seta phono preamp (L version) has one pair of balanced XLR and one pair of unbalanced RCA inputs. For outputs the Seta includes two pairs of balanced XLR outputs, one with RIAA curve and one flat, as well as one single-end RCA output with RIAA curve. The Seta back panel also has a ground connector and two variable impedance controls, one for each channel. Inside the Seta are additional sockets for custom impedance options. The H version can accept matched capacitors via the internal connectors.

When I first removed the Seta preamp from its packaging I was surprised by its weight. "This feels like a lead block," I thought to myself as I lifted it from its shipping box. The reason for its weight is the batteries inside—the Seta is a battery-powered preamp! It employs an AGM rechargeable battery that supplies up to 50 amps of current. It's kept charged by a proprietary rail balancing circuit that has far lower generated noise than a microprocessor. When in use, the charging circuit is automatically disconnected if an audio signal is present. Channel D rates the "typical" battery life as between three and six years, but up to twenty years is possible. For best longevity the Seta should be continuously connected to a power source. Its idling power consumption is less than five watts.

I was sent the L model in natural anodized aluminum for review (it's also available in a red powder-coat finish). The Seta L was mated with a Clearaudio Victory H moving-coil cartridge which was mounted in a Graham 1.5 tonearm on a VPI TNT III turntable with air suspension. The VPI is on top of a Bright Star Audio air-support base and dedicated VPI TNT turntable stand. The Graham tonearm was connected to the Seta L via a custom Cardas Clear tonearm cable, and the Seta was connected to the Lynx Hilo via a 10-foot length of balanced Discovery Plus 4 cable.

THE SETA SOUND

I've been using a John Curl designed Vendetta SCP-2A phono preamp as my reference for quite a while. It's quiet and reliable, and has sounded great ever since I got it more than twenty years ago. While I didn't find the Seta's sonic performance to be superior to the Vendetta's, I did find the Seta's performance was certainly on a par with the Vendetta. Both had more than enough gain to deliver a dead quiet background *sans* buzz, hiss, hum, or other additive noise. According to the meters in Pure Vinyl the Seta's steady-state noise level was lower than -93dB!

Since going from one phono preamp to another required disconnecting the tonearm outputs from one preamp and reconnecting them to the other, real-time A/B comparisons with less than five seconds between sources was impossible. The best I could do was, on average, a twenty-second switchover from one phono preamp to the other. When the levels were matched the similarities between the two preamps far outweighed the differences I heard through my Dunlavy SC-VI speakers. Both preamps did a superb job of resolving low-level detail and preserving phase information. With both preamps the record's surface noise was clearly separated from the music. Both preamps also did a superb job of putting each instrument in its proper location within a three-dimensional soundstage.

The principal difference between the two phono preamps was that the Seta had more low bass. I didn't hear a difference as much as I could see it in the travel of the Dunlavy SC-VI's 15" woofers on warped records. With the Seta the woofers had noticeably greater travel. While not a problem, this did indicate why Channel D included a configurable rumble filter in the Pure Music software. Because, in some systems, producing this extra low bass energy could tax a power amplifier's output capabilities.

After many days of happy listening I can only conclude that if my "legendary" Vendetta phono preamp ever gives up the ghost I could be very content using the Seta as its replacement.