

In Search of the “Perfect Wave”

The New PS Audio Transport and DAC

By Lawrence Devoe



In classic surfing terms, a “perfect wave” appears out of nowhere. If you miss it, another might not return for a long, long time. Now, some new gear from PS Audio promises a perfect wave every time you surf digital sources. But is anything really perfect?

PS Audio, begun in the mid-1970’s by Paul McGowan (“P”) and Stan Warren (“S”), produced components that were reliable and great sound values. My original Digital Link DAC and Power Sonic line conditioner, bought more than 20 years ago, still work! McGowan has since reinvented PS Audio and has introduced new disc transport and digital to analog converter, optimistically called “Perfect Waves.”

The Waves Come Ashore

Two matching silver boxes with touch screens were easily hoisted onto my equipment rack. I connected them to my main system: Pass Labs XP-20 preamplifier and XA-100.5 monoblocks, Martin Logan CLXs, and Running Springs Audio Dmitri and Maxim line conditioners, all tethered and powered by Nordost Odin cables and cords.

The minimalist façades of the PWs conceal their versatility. The PerfectWave transport (PWT) can be yoked to the PerfectWave DAC (PWD) by coaxial, toslink and XLR cables. I used the preferred connection, an HDMI input (labeled I2S) and ran the PWD in balanced mode, as recommended by McGowan.

The PWT plays CDs, CD-Rs, CD layers of hybrid SACDs and DVD-Rs with UDF 2.0 formatted WAV files. The screen will display disc track names and cover art thanks to Ethernet access to the PS Audio GlobalNettm Future software updates that can be performed using the supplied SD card.

The PWD can upsample conventional digital sources (44.1 kHz/16-bit) all the way up to 192 kHz /24-bit domains. However, PS Audio contends that the PWT's data management makes CD upsampling unnecessary and sample-rate converters may actually degrade the sound. The PWD can invert polarity, which could improve some recordings. A variable volume control allows the PWD to be used directly with an amplifier, if desired. It also features a Type B USB port for direct connection to a PC, but more about that later.

There are five digital filters that differ mainly in the degree and slope of high-frequency cutoff beyond 20 kHz. Listeners are encouraged to use the "Auto" default setting that selects the minimum phase Soft Knee filter 2 for red book CDs and the linear phase Soft Knee filter 4 for higher sampling rates. I noted small but audible differences between the filters and ended up preferring filter 1 for CDs and filter 2 for higher sampling rates. The PWD stores filter and sampling rates selected for each input, a nice feature if you have multiple digital sources.

The "Wow!" moment for your friends and neighbors happens when you eject a disc that is playing. Abracadbra, the music continues for several more minutes! McGowan explains this sleight-of-hand as follows: The disc's original data are read many times with write-once detection and error correction before transfer to the 64 MB buffer memory of the PWT's "Digital lens." The reconstructed data are fed to an asynchronous clock, independent of the optical disc reader, before arriving at the DAC. This proprietary process eliminates timing errors, getting listeners one step closer to the compact disc's promise of "perfect sound forever."

Listening to the Play of the Waves

Serious listening started with Diana Krall's "Peel me a Grape" from *Love Scenes* and continued with Sonny Boy Williamson's "Keep it to Ourselves" from the disc with the same title on Analogue Productions, and Neil Young's "I am a Child" from *Live at Massey Hall 1971*. These recordings share a very warm and lifelike presentation of the human voice. All were well-served by the native sampling rate which sounded less "digital" when compared with the same tracks upsampled to 176.4 or 192 kHz. On a lark, I tossed in Vampire Weekend's *Contra*. (continued)

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The “Diplomat’s Son” is a new-school toe-tapper and the PerfectWaves captured the studio acoustics and the infectious pace of the music, well, perfectly. Conventional CD sessions concluded with Dick Hyman’s playing “Honeysuckle Rose” from the Reference Recordings copy of *Dick Hyman Plays Fats Waller*. The piano sounded big, sassy and three dimensional in native CD rate.

Perhaps More Waves?

If you have an internet music source, another treat is in store. My Squeezebox Classic was connected via coax SPDIF into the PWD and then upsampled from 44.1 kHz to 176.4 KHz. This was an absolute ear opener, and I often mistook my Rhapsody files for their CD versions. When I switched to Sirius and other high-quality internet radio stations, I got more musicality and less apparent compression than I had experienced with my reference system.

Bigger Waves? High-resolution download sources have landed on the beach. Internet sites such as HDtracks (www.hdtracks.com) and iTrax (www.iTrax.com) offer 88 kHz and 96kHz 24-bit downloads. 96/24 HDtracks of *Reference Recordings’ Exotic Dances from the Operas* were downloaded to compare with the actual HRx disc and CD versions used later in this review. After connecting my PC to the PWD through its USB interface, I leaned back and listened. These full-bodied orchestral tracks sounded clearly better than my original FLAC files, which had been created from the original CDs. They were bested sonically by the physical 44.1/16 bit discs played in native rate on the PWT. The USB-port music simply lacked the openness and impact inherent in these recordings.

Bigger Waves are Still Breaking

For the past couple of years, Reference Recordings has issued “HRx” discs or DVD-Rs burned with 176.4 kHz/24-bit WAV files. These were originally intended for playback on capable PCs ported into standard stereo systems. *(continued)*





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Well, Nothing's Perfect

I only had some minor quibbles with the Waves. Considering the otherwise excellent build quality of these units, the disc drawer is flimsy. Since the disc mechanism serves mainly to load the disc content into buffer memory, this might not be a big deal for potential buyers. The remote control is very lightweight with small buttons. Not a show stopper, though I prefer larger units with better button spacing. If you have a typical universal remote, resolve this issue by cloning the PW controller and then store it in a safe location.

The Tide Goes Out

The PW system handles most current and some exciting newer means of how music will arrive in our listening rooms. For me, the major excitement was the Wave duo's unique ability to play high resolution discs.

But wait; there's more. Although playing computer-archived music through a USB port remains a sonic work in progress, PS Audio will be introducing later this year a plug-in component aptly named "The Bridge." The Bridge will enable access to wired or wireless networks and music collections stored on your own server, much like the Naim HDX. McGowan confides that this feature will exploit the digital-lens technology for such increasingly popular music sources. Given the already high performance of the current PerfectWaves, this should be another value added feature.

Paul McGowan's team has clearly thought outside of the box in the design and execution of these pieces. The company website states that "this is the last transport you'll ever need." Given my experience with the Waves, I would conclude that "if you can do it, it ain't braggin'." And these Waves can really do it. ●

Joel Fan's *West of the Sun* is a stunning piano recital with lifelike tonality and presence in all cuts. *Exotic Dances from the Operas* and Rachmaninoff's *Symphonic Dances*, played by the Minnesota Orchestra under Eiji Oue, convey a large acoustic space, natural sonic decay and an impressive wall of orchestral sound. Their CD cousins were no sonic slouches, but the HRx discs were better in every audible respect. In short, the PWT Combo with HRx discs came closer to delivering analog magic than anything I have heard to date, and without tape hiss or groove noise. Will HRx recordings be fruitful and multiply? Or will they enter the La Brea tar pits of such past hi-rez sources as the DVD-A? Based on my experience, I surely hope the latter is not the case.

Going Toe-to-Toe With the Reigning Champs

My reference digital system is an all Esoteric combo, D-03 DAC, P-03 transport, and G-0Rb atomic clock, which weighs in at \$42,000, compared with the \$6,000tab for the PW ensemble. On standard CDs, the PS Audio combo comes within a whisker of the Esoteric ensemble, no doubt due to its handling of digital errors and special filters. The differences in warmth and depth of image favored the Esoteric ensemble on most of my reference CDs. However, *these differences were usually all not dramatic*. HRx recordings played through the PW trumped what I was getting from the Esoteric gear even with upsampled CD or SACD sources. A cautionary note must be sounded. While these new-format high-rez discs played perfectly in my computer, I had to go through a couple of copies of each to get one that played flawlessly on the PWT without locking up the system. Fortunately, Reference Recordings made good on any defective disc, which is reassuring given their \$45 price tag.

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A hardware device and a free App available on iTunes turn the iPhone and iPod touch into a remote control

redeyeremote.com



The Perfect Wave
Transport and DAC
MSRP: \$6,000 for the combo,
\$3,000 individually

MANUFACTURER

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Preamplifier Pass XP-20/Lexicon 12HD-B

Power Amplifier Pass XA-100.5/Pass X-3

Speakers Martin Logan Summit/Stage/Script-i/Descent-I
(2)/Descent (2)

Interconnects Nordost Odin/Valhalla

Speaker Cable Nordost Odin

Power Cords/Conditioning Running Springs Audio
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