SoundStage! HI-FI
THE ORIGINAL ONLINE AUDIO MAGAZINE

Bryston
BDP-1 Digital Player

As high-end computer-based audio flourishes, and the number of products and product categories continues to grow, it's sometimes difficult to figure out where certain things fit in, or what they should even be called.

When the Bryston BDP-1 was released earlier this year, it created a new breed of digital-playback source that many, including myself, didn't quite know how to categorize. At first, I wasn't sure there was even a need for such a product at a price of $2195 USD. Now, having lived with the BDP-1 for a while, I've come not only to accept and admire what it does, but also to realize that it may have been released somewhat ahead of its time — it's exactly what certain audiophiles will be looking for when they get into the wonderful but often frustrating and complex world of computer-based playback. This review explains who those people are and why they will appreciate the BDP-1.

Description

The BDP-1 is essentially a stripped-down computer built into a case the size and shape of Bryston's preamplifiers — about 19"W x 2.75"H x 11"D — and weighing about 12 pounds. As with all Bryston's components, the BDP-1's 1/4"-thick faceplate of anodized aluminum can be finished in silver or black.

In the BDP-1 Bryston has created what I like to call a "single-purpose computer" designed with two goals in mind: 1) ease of use; and 2) bit-perfect streaming and conversion of music data files (WAV, FLAC, AIFF, Apple LossLess, MP3, WMV, etc.) from a USB storage device (hard drive, thumb drive, etc.) at all resolutions up to 24-bit/192kHz, for output to an external D/A converter. It does no up- or downsampling whatsoever; every music file it's fed remains in its native resolution.

To accomplish these goals, you don't need a monitor, keyboard, or mouse, which is why Bryston could house this computer in such a low-profile box. Inside are a small motherboard running a Linux-based operating system, a Juli@ soundcard that's been heavily modified (in particular the digital outputs), a Bryston-built power supply made with top-quality parts, and a few other things. What you won't find are any fans, drives, or anything else that makes noise. The BDP-1 runs silently, which Bryston feels improves its audio performance.

The BDP-1 has minimal controls. In the center of the front panel is a small, two-line, text-based display window. To the right of that is an array of four navigation buttons (up, down, forward, back), for use with the onscreen menu display. Then come the buttons you'd see on a CD player (Prev, Next, Pause, Stop, Play), with a Power button at the far right. On the far left are two USB 2.0 ports.

The rear panel has an IEC power-cord inlet, trigger ports for remote turn-on and -off, an RS-232 port, two more USB 2.0 ports, an Ethernet jack, and two digital outputs to feed a DAC: BNC-based S/PDIF and XLR-based AES/EBU. Bryston claims less than 20 picoseconds of jitter from 10Hz to 10MHz through either digital output.

All four USB ports are for connecting storage devices. The ports are all powered, so they're compatible with USB-powered hard drives; however, the bottom port on the rear panel delivers the most power; use that one if you have a power-hungry USB drive. If the drive is powered from the wall, any of the ports will work fine.

Provided the BDP-1 is turned on, the moment a storage device is connected to one of the ports, the library references of the music files contained on it are read into the BDP-1's memory. If the library is small, this takes only a short time; if it's large,

"...exactly what certain audiophiles will be looking for..."

it can take a very long while. Loading my library, which is pretty big, took about 20 minutes, although the BDP-1 does multitask: It will let you start playing music before it's finished reading all the files. Once read in, the library references stay in memory even after the BDP-1 is turned off, so there's no repeat of the read-in process. They're erased from memory only when the storage device is disconnected. (I use the word *references* because I don't want to give the impression the actual music files are read in. The music files remain only on the attached device and are played back from there. You could also call what's stored in memory an index.)

The BDP-1 can be controlled using the front-panel buttons or the optional BR2 remote control ($350), but these limit you to slowly scrolling through text-based library entries displayed on the front panel. This can be a real pain if your library is big, because neither method gives you search functionality or other such features.

By far the easiest way to use the BDP-1 is to hook it up to your home network's router via the Ethernet jack on the rear panel, then call up the BDP-1 using a Web browser (on a computer, iPad, iPhone, etc.) by typing in the address bryston-bdp-1.local. If, like mine, your audio system is nowhere near your router, which prohibits running a long Ethernet cable between them, you can connect the BDP-1 to your router by running Ethernet over your home power lines, which is easy, cheap, and convenient. That's what I did. (Ethernet-over-power-line adapters are available at any mass-market electronics shop.) Unfortunately, the BDP-1 doesn't operate wirelessly.

Max and Mini, the two browser-based interfaces that Bryston supplies, are far less sophisticated than, say, Apple's iTunes or J. River's Media Center, but they work well enough. You can even set them up to stream Internet-based radio stations, although I stayed clear of that and streamed only music files from various USB storage devices — after all, the focus of this review is the BDP-1's sonic performance. You can also use third-party graphic user interfaces that are fancier and more rich in features than Max and Mini, but I stuck with what Bryston offered; they did the trick, and they're what come stock.

Performance

Even in computer-based audio, all sources are not created equal. Audiophiles routinely report sound-quality differences among various types of computers, not to mention playback softwares. There even seem to be audible differences among digital cables when there often appears to be no reason any difference should exist. Transferring ones and zeros seems to be harder than many people think. But despite all the assertions that this computer might sound better than that one, or that one cable is superior to another, I find that the differences people hear are rarely described very well. It's never specific enough, often simply being described as being "better" or more "analog-like." I'm not sure what those things actually mean. Perhaps the differences they're hearing are so subtle that they're barely perceptible.

The differences I heard between the BDP-1 and my regular source — a Sony Vaio laptop running J. River Media Center 15, its USB output converted to S/PDIF by a Blue Circle Audio USB Tunnel — weren't subtle. First, there was far more clarity across the audioband with the BDP-1, most noticeably through the midrange and highs. Cymbals sounded cleaner, losing a touch of digital roughness and edge; voices not only popped more noticeably from the mix, but had more fullness, presence, and detail. For example, Bruce Cockburn's voice in "Pacing the Cage," from *The Charity of Night* (16/44.1 FLAC, True North), always has tremendous power and presence no matter the source, but played through the BDP-1, he sounded clearer, was noticeably more defined on the soundstage, with greater presence and weight

"...there was far more clarity across the audioband with the BDP-1..."

than I'd ever heard. Ditto Mariza's voice on *Transparente* (16/44.1 FLAC, Times Square). Her already clean-sounding voice was even cleaner, with a greater sense of liquidity that was riveting to listen to. Like Cockburn's, Mariza's voice also increased in presence, weight, and fullness. The bass was a bit tighter and "meatier," but I didn't find the improvements in the lower ranges as big as in the mids and highs. Still, they were apparent. To repeat a phrase that other reviewers have used: There was more *there* there.

But the sound wasn't just cleaner — the musical backdrop seemed quieter, too, as if the noise floor had dropped. This resulted in some other improvements. One was that I could hear deeper into recordings — subtle details were easier to discern. In a nutshell, resolution was improved. Soundstaging and imaging markedly improved as well. With better clarity, increased resolution, and "blacker" backgrounds, images hung more starkly in space, the spaces between musicians on the stage were far easier to discern, and the width and depth of the stage were greater (provided the recording contained that information). Cockburn's voice took on a tangible, almost holographic presence at the center of the stage, distinct from the musicians and space around him. With minimalist recordings that capture an expansive acoustic space, such as the Cowboy Junkies' *The Trinity Session* (16/44.1 FLAC, RCA), the soundfield stretched from left to right and from front to back, to occupy as much of my room as I've ever heard. There wasn't just more *there* there, but more *there*. I was impressed — I rarely hear this combination of presence, richness, and detail from a digital source. Across the board, the BDP-1 sounded fantastic.

While I did most of my listening using CD-resolution (16-bit/44.1kHz) material, I also played a number of higher-resolution tracks to make sure that the BDP-1 would flawlessly play all the way up to 24/192, and to hear if the sound would further improve. The BDP-1 played everything I threw at it fine, but as for the second point, my inner jury is still out. One reason is that I don't have any recordings that I know came from identical master recordings that are available at 16/44.1 *and* 24/96 or 24/192. In other words, I couldn't compare apples with apples. But I won't discount the improvements that might be there. I will say that some of the very best sound I've heard *has* been with higher-resolution material: 24/88.2, 24/96, 24/176.4, and 24/192. Bryston supplies a thumb drive with the BDP-1 that contains Chesky-supplied music files at various resolutions up to 24/192, and all of them sounded spectacular. The sound was very natural and realistic, with none of the edge or hardness that's often associated with digital playback, and soundstages were noteworthy for their width and depth. That bodes well for the *potential* sound quality of high-resolution files, because, sooner or later, that is what most audiophiles will be listening to.

On the other hand, not all the high-resolution material I've heard has sounded any better than CD. Part of that *could* be that not everything being sold as hi-rez actually is that. Oftentimes it's upsampled standard-rez, which might actually make it sound worse. Or it could be that certain kinds of music may not benefit from increased bit depth and higher sampling rates. For example, will a heavily processed modern pop recording with limited resolution sound better at 24/192 than it does at 16/44.1?

What really matters is that I heard the same things at 24/192 — excellent clarity, high resolution, superb soundstaging and imaging, etc. — that I heard at 16/44.1. So if you want to get into not only computer-based playback but hi-rez playback as well, the BDP-1 works exceedingly well, providing a first-class listening experience with any kind of file. Given that this was one of Bryston's chief design goals with the BDP-1, they've succeeded admirably.

Associated Equipment

Speakers —
Revel Ultima Salon2,
Vienna Acoustics Mozart Grand SE,
Vivid Giya G2,
Volent Paragon VL-2 Signature

Amplifiers —
Bryston 4B SST2 (stereo),
Ayre Acoustics VX-R (stereo),
Simaudio Moon 400M (mono)

Preamplifiers —
Simaudio Moon 350P,
JE Audio VL10.1

Digital sources —
Simaudio Moon Evolution
650D DAC-transport,
Ayre Acoustics QB-9 USB DAC,
Hegel HD10 DAC,
Sony Vaio laptop

Digital converters (USB to S/PDIF) —
Blue Circle Audio USB Tunnel,
Stello U3

Digital interconnects —
AudioQuest Diamond USB,
i2Digital X-60 coaxial

Analog interconnects —
Nirvana S-L,
Nordost Valhalla

Speaker cables —
DH Labs
Silver Sonic Q-10 Signature,
Nirvana S-L

Was there any downside to the BDP-1? In terms of sound, no. It readily bettered my current setup, and helped me get some of the very best sound ever produced in my room when hooked up to a system that included the astonishingly good Vivid Giya G2 loudspeakers (review forthcoming). There was no aspect of performance that was worse, and I've never set up a digital front end that sounded better than the BDP-1 hooked up to Simaudio's outstanding Moon Evolution 650D DAC/transport, which is just as accomplished a performer.

Compared to the setup problems that some experience using regular computers, the BDP-1 seems pretty darn simple in operation, and it's pretty much foolproof. If you hook up a drive to one of its ports and get it to play, you can be assured of getting a bit-perfect stream playing at its proper resolution. That doesn't always happen with normal computer setups, so the BDP-1 gets high marks for ease of use *and* not screwing up the music signal.

The BDP-1 falls down somewhat in features. If you're looking for a device that rips discs (which any computer will do), has advanced library management (which J. River Media Center 15 does splendidly), or has onboard storage (*i.e.*, a hard drive), the BDP-1 won't float your boat. Its lack of such features might disappoint some and make the BDP-1's price seem high for the few things it does, even if it does those things exceedingly well.

Conclusions

The BDP-1's purpose wasn't clear to me before it arrived, but it's very clear now: the high-quality transfer of music data from an attached USB drive. That's all it does, but it does it startlingly well and very easily. For those who want that kind of simplicity and straightforwardness from a quality product backed with the kind of sterling service for which Bryston is known, then the BDP-1's asking price of $2195 won't seem out of line, and its lack of features will actually be a plus. In fact, the BDP-1 is one of the cases in which less can be more — for a certain kind of listener.

The other night, I had dinner with a hardcore audiophile who has a great CD-based system and wants to get into computer-based playback in a big way with little fuss. Like all audiophiles, he's keen for the best sound. For about ten minutes I explained to him what he'd need to set up either a Mac- or a Windows-based system. It seemed simple enough to me, given my background as a programmer and network engineer, but as I talked, his eyes glazed over. I quickly realized something I'd encountered many times in my IT career: not everyone likes to mess with computers the way tech-heads do.

I changed tack. "You know what *you* need?" I said. His eyes lit up. "A Bryston BDP-1."

Unlike myself, but like most audiophiles, my friend wants ease of use, simplicity of setup, and top-quality sound — all areas in which the BDP-1 shines. If you're that kind of person, this might be the digital front end to usher you into the ever-expanding world of computer audio.

. . . Doug Schneider
das@soundstagenetwork.com

Bryston
BDP-1 Digital Player

Price: $2195 USD.
Warranty: Five years parts and labor.

Bryston Ltd.
677 Neal Drive
Peterborough, Ontario K9J 6X7
Canada
Phone: (705) 742-5325

Website: www.bryston.com