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"Good Sound, Good Music"

Bryston BDP-1 File Player

Bascom H. King



FIRST HEARD about the BDP-1 from a Bryston press release sent to me by TAV's Editor, Gene Pitts. At first, I didn't really understand what it was and did. Shortly after, when I went to the Bryston web site, the explanation of the unit's capabilities suddenly made sense. I was interested in experiencing such a device and strongly encouraged Gene to get one for review. For whatever reasons, a review unit wasn't forthcoming and a number of months went by before I decided to simply buy a unit to satisfy my own curiosity and to measure its performance and listen to it – and hence the opportunity to now review it for TAV.

So what is this BDP-1? Think of it as a digital disc player like a CD transport for CDs, both needing an external DAC to play out the audio. Except in the case of the BDP-1, it accepts music WAV, FLAC, and AIFF files from USB thumb and HD drives. Further, and unlike a CD player or transport, the BDP-1 has the ability to navigate the file structures of the drives loaded in to get to the albums and songs one wants to hear. One can do this navigation with the front panel controls or from various remote applications. For these, one has to connect the unit with a wired Ethernet cable to one's home network router or connected network switch or hub. Alternately, one can use a wireless router for an arrangement isolated from other local networks. Also, I thought that a gaming adapter like a Link Sys WGA600n might work as a wireless connection to the local network's wireless router with the WGA600n being near the BDP-1 and with a short Ethernet cable

connecting them. And, in fact, I have one of these and it did work seamlessly right off the bat. Bryston has created two remote applications, one called MAX for running on large screens like a computers', and another named MINI for running on smaller devices like iPhone/iTouch/iPad and Android OS screens. Other programs which are more graphically endowed include Minion, an add-on for the Firefox browser; MPoD, a free Apple app for iTouch/iPhone/iPad, and Gnome Music Player Client, GMPC. These programs utilize a MPD (music player daemon) program running on the BDP-1. The Bryston MAX and MINI programs are not MPD-driven but are Perl Script programs running on the browsers. What some of these players look like can be seen in screen shots in Figures 1, 2, & 3 of MAX, Minion, and GMPC respectively.

The physical layout of the BDP-1 is simple and logical. On the front panel, from right to left are two USB ports, an infra-red sensor for controlling the unit from a Bryston BR2 remote, a centrally located small dot matrix screen for viewing file and other information, a set of navigating buttons, and the usual function keys for a player, and at the right-hand end of the panel is the power switch and LED indicator. Note that the BR2 remote only controls the basic drive functions. The rear panel, going from left to right, had a group of three connectors, a RS232, two USB connectors located vertically over each other, and an Ethernet connector. In the middle is a BNC connector for SP/DIF and a XLR connector for AES/EBU digital outputs. To the right is a pair



of trigger connectors and to the very right is the IEC a.c. power connector.

Inside the BDP-1, we find an industrial quality fan-less computer board running an embedded version of the Linux operating system that only utilizes a small

killer sounding THST album at 24/96. At first listen, I thought that things were a bit thin and not quite up to what some of this material sounds like when played as WAV files on my PS Audio PWT into the DAC-2. I left it on overnight and the next day, things sounded more

Take some time to learn what Bryston has done with its BDP-1, as many of its features are very new.

fraction of its computer power. Things are arranged to separate the data management function or storage and handling from the digital processing function of playing music files. The music data is sent to a Bryston-modified 24/192 ESI Juli sound card the digital output of which is sent to the AES/EBU and BNC SP/DIF output connectors. Bryston has incorporated electronic isolation of all audio components from computer components within the unit and has employed galvanic isolation to prevent charge-carrying particles from migrating within.

At first glance, the manual looked well-written and comprehensive. As to initial setup, the instructions were simple. One plugs it in, waits a few minutes for it to initialize, and then it is ready to go. Of course, the digital output of the BDP-1 has to be connected to a DAC and then into one's system. I used my Wyred4Sound DAC-2, a very good-sounding unit. Bryston supplied a nice little USB thumb drive with some Chesky hi-rez files on it. Plugging that drive into one of the front panel USB ports and navigating with the front panel controls had the first song in the folder on the drive playing in no time. I then copied some material of interest on one of my 2-GB USB thumb drives. This consisted of a few tracks from the Equinox album from Soundkeeper Recordings at 24/192 resolution and a few from the

correct. It's not surprising to me that this purely digital device needed some break in as everything else does.

When I wanted to control the BDP-1 with my computers and iTouch, it became clear that the manual was lacking some basic information. I had the BDP-1 connected to a wired connection to my network router. The



Fig. 2 - The Bryston Minion is intended as an add-on for use with Firefox.



Fig. 1 - Screen shot of the Bryston MAX program running on Bryston's Music Player Daemon or MPD.



Fig. 3 - The Gnome Music Player Client or GMPC also uses the MPD running on the Bryston BDP-1.



manual indicates that to address the unit with a web browser, one uses the address “bryston-BDP-1.local”. Well, that absolutely did not work with several browsers and computers. I was messing with the display on the unit and found out what network address was assigned to it. Further, there was a choice to enable DHCP addressing which I did. Regarding this, subsequent conversations with Bryston indicated that DHCP was supposed to be the default network mode for the BDP-1. Now, with the numeric address assigned to the BDP-1, my browsers did connect to the unit. Ah, success. The first thing I did was to try to start the Bryston MAX pro-

gram on my Windows 7 laptop. That came up but didn't work. There was a settings choice on the application and when I went to that, it asked for a user name and password. Well, what might those be? At this point, I emailed James Tanner of Bryston and asked for the password and user names, which were both “bryston” in lower case. That got the MAX app responding, but there was a large blue patch in the program window that covered up essential information. Turns out the IE 9, which I had installed on the Windows 7 machine wasn't supported. When I brought the program up with Firefox, it now looked proper and worked. I had already previously installed the MPoD app on my iTouch and had no clue how to set it up. A phone call to James Tanner at Bryston got me to Chris Rice, the programmer for the BDP-1. He walked me through setting up the MPoD app and, with some difficulty, we got that working. Part of the problem was putting in the numerical address for the BDP-1. Using that bryston-bdp-1.local string made it work. An earlier problem was that the MPoD had

Okay, the Bryston BDP-1 can be tough to set up, but the unit also offers broad abilities for handling songs.

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become corrupted and I had to reinstall it. I was told that additional information on these issues will be posted on the Bryston web site to handle items not covered in the manual. Further, the manual will be updated to cover them.

I then connected a 0.5 TB drive on which I had numerous CD files along with higher resolution 24/88, 24/96, 24/176, and 24/192 files on it. It took a number of minutes with the front panel display indicating “updating” before it was ready to use. Now, however, I could create play lists and play all the hi-rez stuff on this drive. As I have said before, this is way cool!

I found the MAX & MINI programs to be useable and OK, but I did have some trouble trying to figure out how to use them. These programs along with the navigation on the front panel of the BDP-1 are folder-based, meaning that all song selection starts with a folder and then goes within it. In contrast, the Minion, MPoD, and GMPC programs offer more selection possibilities like artist, song, genre, etc. I did use the GMPC and MPoD programs a lot and found them a lot more intuitive and easy to use. Despite all efforts, and help from Bryston, I was unable to ever get the Minion program to connect to the BDP-1. I ended up using the Gnome and MPoD programs the most and used the MAX program to control the streaming radio program. Despite what Bryston says about the Ethernet connection being used only for controlling the playing of files of connected USB drives, they offer an option of playing streaming radio called RADIO 1. This function is somewhat limited as opposed to other systems as the programs are selected and loaded by Bryston and the music is played out some-

NOTES

Bryston BDP-1, \$2,100.50. Bryston Ltd., 677 Neal Dr., Peterborough, Ontario K9J 7Y4 Canada. Phone 705/742-5325 or 800-632-8217; fax 705-742-0882; Email contact@bryston.com; web site: www.bryston.ca.

Associated Equipment

Genesis 6.1 Speakers, DSPeaker anti-mode 8033 room EQ units for the Genesis active servo woofers, Lector Zoe tube preamp, Constellation Audio prototype 250W/ch power amp, PS Audio PWT, PS Audio PWD, PS Audio Bridge for the PWD, Apple iTouch, Dell Inspiration Windows 7 laptop.

how from their website. They were nice enough to put the URLs of five of my favorite stations on the site. I had been using my PWD and bridge to access streaming Internet radio and was particularly fond of a classical guitar station, <http://38.107.220.224:8020>, as I play that instrument.

I thought that I had a good portion of the best classical guitar music on records or CD but after listening to this station a lot, I found a good deal of music that I had not even heard of and was thus motivated to learn some of the tunes. After I got that station put in the Radio 1 source, I found myself listening with the BDP-1 a lot.

I must give high marks to the BDP-1 for its sonic transparency in head-to-head listening tests.

But from a technical perspective, make no mistake about how this works in that it is definitely streaming music from the Internet and into the BDP-1. If this works, it would seem that it would also be possible with suitable software for the BDP-1 to also play music from other servers on the local network. Perhaps we will see such applications in the future.

Another situation that I feel that I should report was when I took the BDP-1 over to a friend's house to try it out. This person is really into playing files from a Mac Mini into his system via a USB output into a USB to SP/DIF converter and into his Wyred4Sound DAC-1. He has an 8TB network attached storage with TONS of music files on it. Even though his network had assigned an address to the BDP-1, no amount of trying various things would get either the MAX program or the MPoD programs to connect to the BDP-1. It was a most frustrating and rather embarrassing experience!

Now to some essential considerations about how the files played back on the BDP-1 sound compared to the same files on a DVD disc played into the DAC-2 from my PS Audio PWT (Perfect Wave Transport) or the same files on the same HDD connected to my desktop computer and fed out via the Twonky server into my Ethernet network and a wired connection to the PS Audio PWD (Perfect Wave DAC) via the Bridge accessory. I also can play the files on the HD drives connected to my desktop computer from the SP/DIF output of the M Audio Audiophile 2496 soundcard through a long digital cable across the room into my DACs.

One thing is clear. Of these other ways I have of playing files, only the BDP-1 is a stand-alone player. That's its reason for being. Plug in the USB device, and it plays into your system like a CD player without computers or networks involved, unless you want to control the BDP-1 with some of the above mentioned external controller programs. Another main point of this: No computer, like a PC or Mac, is involved with the processing of the signal before it gets to some external DAC to play it out.

I decided to compare WAV files put on to DVD data discs played on the PWT vs. the same files put on USB memory sticks for sonic comparisons. That seems to me to be comparing apples to apples with two different digital streams running into the same DAC. Along with other favorite material, I used a few of the 24/176 files

on the HRx sampler, namely track 2, the *Susato Dance* outtake, track 6, Weill's *Threepenny Opera Overture*, Track 9, *Yerba Buena Bounce*, and track 10, Mike Garson Trio *Blues* outtake. I also used a few tracks from an up-sampled to 24/96 CD of The Robert Hohner Percussion Ensemble CD *Far More Drums*. A note on the connections of the BDP-1 and PWT to the Wyred4Sound DAC: From the BDP-1, I used a NBS Monitor 0 AES/EBU balanced cable and for the PWT, I used a non-distinguished generic HDMI cable into one of the two HDMI ports. The DAC-2 utilizes HDMI connectors and the use of HDMI cables to transmit I²S

data into it as two of its selectable inputs. Well, sonically, it really turned out to be a toss-up as it was hard for me to really tell much difference if any. This is a good thing as far as I am concerned and I therefore give high marks to the BDP-1 for its sonic transparency.

Being the audio engineer, designer, reviewer, and measurer that I am, I finally took the BDP-1 out to my lab to see how good the played back digital data was. I had recorded on the aforementioned 0.5 TB drive a number of Audio Precision test files in various sample rates and resolutions. Right away, playback of a full scale 24/96 1 kHz test signal had the same THD+N as the measurement of the AP's digital generator at about -141 dBFS.

The THD+N residual at 24/192 of the AP system is not as good as the lower sample rates and is about -133 dBFS. Playback from the BDP-1 of a full scale 24/192 file measured the same. This is all typical of things I have measured in the digital domain when they are as they should be and the BDP-1 qualified as one of them.

In conclusion, the BDP-1 is one of the first of what is sure to be more examples of this new form of playing digital music. Despite the initial difficulties I had in connecting to the BDP-1 for remote operation, I was able to overcome these with help from Bryston.

No doubt the updated manual along with more web site support will be forthcoming so customers that buy the BDP-1 will have an easier time making it work in their setups. As I said, I tried all the other control applications that I could and liked controlling the BDP-1 best with my iTouch and the CMPC app. I must say that I really enjoy listening to music with the BDP-1 and enthusiastically recommend it to those whose desire to play music files this way.

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