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THE dCS ROSSINI

PLAYS EVERYTHING & SOUNDS GREAT

LOVELY LP PLAYBACK FROM ACOUSTIC SIGNATURE & ORTOFON

IN REVIEW

AWESOME AMPLIFICATION FROM AUDIO RESEARCH, CARY, LAMM, PASS LABS

PERSONAL LISTENING FROM AUDEZE & FOCAL

DECEMBER 2016

TEN THE ENTHUSIAST NETWORK

JOHN ATKINSON

dCS Rossini Player & Rossini Clock

CD/NETWORK PLAYER & WORD-CLOCK GENERATOR

It has been 20 years since I first became aware of the British company Data Conversion Systems, which manufactures audio products under the dCS brand. Rather than use off-the-shelf conversion chips, the groundbreaking dCS Elgar D/A converter, which I reviewed in our July 1997 issue,[1] featured a then-unique D/A design that they called a Ring DAC. This featured a five-bit, unitary-weighted, discrete DAC running at 64 times the incoming data's sample rate—2.822MHz for 44.1kHz-based data, 3.07MHz for 48kHz-sampled data and its multiples—with upsampling and digital filtering and processing implemented in Field Programmable Gate Arrays (FPGAs). Oversampling to a very high sample rate allows the word length to be reduced without losing resolution, and use of a low-bit thermometer DAC makes for very high accuracy in the analog voltage levels that describe the signal. (If this seems like voodoo, for a given signal bandwidth, bit depth and sample rate are related. To oversimplify, double the rate, and you can reduce the bit depth by one bit while preserving the overall resolution.)

dCS followed the Elgar with other models of D/A processor and SACD player, all using variations on the original Ring DAC, until 2012, when the company launched the Vivaldi series—D/A processor, SACD transport, upsampler, and master clock—based on a comprehensive revision of the concept, and which Michael Fremer reviewed in January 2014.[2] The earlier Ring DAC used quad latches (a circuit element that can be instantaneously "flipped" between two stable states) to select current sources based on metal-film resistors. The new Ring DAC design still included high-speed latches and precision metal-film resistors, but instead used 48 individual latch chips said to eliminate between-latch, on-chip crosstalk, resulting in lower jitter. A pair of high-speed, software-updatable FPGAs replaced the earlier models' mapping ROM chips, which allows individual errors in the DAC's current sources to be randomized, which was claimed

SPECIFICATIONS

ROSSINI PLAYER
Upsampling CD/network player with digital and word-clock inputs and iOS Control app. Digital inputs: 2 AES/EBU (XLR), 2 S/PDIF (1 RCA, 1 BNC), S/PDIF (TosLink), USB2 Type B (high-resolution audio). Network interface on RJ45 connector acts as a UPnP renderer in asynchronous mode, streaming digital music from a NAS or local computer over a standard Ethernet network, decoding all major lossless formats including FLAC, WAV, and AIFF at up to 24-bit/384kHz native sample rate, plus DSD64 & DSD128 in DFF/DSF format. Other supported formats include WMA, ALAC, MP3, AAC, OGG (some formats limited to lower sample rates). Accepts data streamed from an iPod, iPhone, or iPad via Apple AirPlay, 44.1 or 48kHz only. Analog outputs: 1 pair balanced (XLR), 1 pair single-ended (RCA). Output levels: 2V or 6V RMS for full-scale input, set in the menu. Output impedances: 3 ohms (balanced), 52 ohms (unbalanced). Residual noise (6V output setting): below -96dB ref 0dBFS, 20Hz–20kHz, unweighted 16-bit data; below -113dB, 20Hz–20kHz, unweighted 24-bit data. Channel separation: >115dB, 20Hz–20kHz. Power consumption: 26W typical, 35W maximum.
Dimensions 17.5" (444mm) W by 6" (151mm) H by 17.2" (437mm) D. Weight: 38.3 lbs (17.4kg).
Serial numbers of units reviewed ROROS2 1C4, 1D1 1B1 S01 0051423; RPROS2 1D1 1D1 1B1 S11 0052118. Front panel: v.1.03. Control board: v.1.03. Network board: v.198 (sample '51423), v.286 (sample '52118). Control app: v.1.1.8, then v.1.2.3.
Price $28,499.

ROSSINI CLOCK
Class 1 master clock with three word-clock outputs on 75 ohm BNC connectors (output 1 fixed at 44.1kHz, output 2 at 48kHz, output 3 at 44.1kHz, RS232 controllable). Clock accuracy: better than ±1ppm when shipped, over an ambient temperature range of 50–86°F (10–30°C); typically ±0.1ppm when shipped and stabilized. Startup time: typically 1 minute to rated accuracy. Power consumption: 3W typical, 4W maximum.
Dimensions 17.5" (444mm) W by 2.6" (64mm) H by 17.2" (437mm) D. Weight: 18.3 lbs (8.3kg).
Serial number of unit reviewed RCK51500.
Price $7499.

COMMON TO BOTH
Finishes Silver, Black. Approximate number of dealers 18. Warranty: 3 years, parts & labor, from date originally shipped from dCS, to original owner only.
Manufacturer
dCS (Data Conversion Systems), Ltd., Unit 1, Buckingway Business Park, Anderson Road, Swavesey, Cambridge CB24 4AE, England, UK. US distributor: Data Conversion Systems Americas, Inc., PO Box 541443, Waltham, MA 02454-1443. Tel: (617) 314-9296.

The Rossini Player and Clock are a flexible, future-proof, superbly well-engineered, and equally superb-sounding complete digital source.

ERIC SWANSON

to reduce the level of distortion and spuriae by 3dB.

The Vivaldi components are expensive—the SACD Transport costs $41,999, the DAC $35,999—so it was welcome news to see, at the 2015 Rocky Mountain Audio Fest, the introduction of the somewhat less costly Rossini models, which also use the new Ring DAC. The line comprises the upsampling CD/Network player ($28,499), an upsampling D/A processor ($23,999), and a master clock ($7499). As Michael Lavorgna had reviewed the Rossini DAC and the Clock for our AudioStream.com site,[3] I asked for a sample of the Rossini Player to review.[4] It arrived accompanied by a sample of the Rossini Clock.

Rossini Player

Superficially, the Rossini Player resembles the dCS Puccini SACD player ($18,999), which I reviewed in the November 2009 issue, along with the matching U-Clock ($5499).[5] But while the Rossini doesn't play SACDs, it accepts digital audio from external sources via: a USB Type B port; two AES/EBU ports that can be used singly or in parallel to handle DSD data from a dCS Vivaldi, Scarlatti, or Paganini SACD transport; a TosLink input; and two S/PDIF inputs, one on an RCA, the other on a BNC jack. A USB Type A

1 See www.stereophile.com/digitalprocessors/259/index.html.

2 See www.stereophile.com/content/dcs-vivaldi-digital-playback-system.

3 See www.audiostream.com/content/dcs-rossini-upsampling-network-dac-rossini-master-clock.

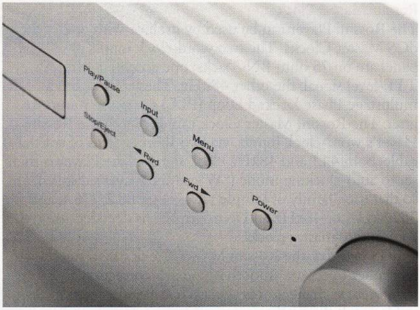
4 I actually ended up with two samples of the Player. I began with the first sample (serial no. '51423), but continued with a second sample (serial no. '52118) when dCS discovered that the first sample had a minor manufacturing fault that had affected the first five units to come off the production line.

5 See www.stereophile.com/content/dcs-puccini-sacd-playback-system.

port accepts a thumb drive so that audio files stored on the drive can be played, and an Ethernet port permits audio files stored on other devices on the network to be played, as well as music from online streaming services Spotify and Tidal, and from Apple devices via Apple's AirPlay. File formats supported include all major lossless PCM codecs up to 24 bits sampled at up to 384kHz, plus DSD in DoP format and native DSD up to DSD128. The only format it doesn't support is 32-bit floating-point WAV, which Pro Tools now works with.

A standard feature of the Rossini is upsampling to the DXD format (PCM at 352.8kHz or 384kHz); DSD upsampling is also available. Like the Vivaldi, the Rossini offers a choice of reconstruction filters; Filters 5 and 6 operate only at 44.1, while Filters 1–4 work at all sample rates from 44.1 to 384kHz. From the manual: "Filter 1 offers the sharpest cutoff, least Nyquist imaging but longest energy smear. Filter 4 gives the gentlest rolloff (usually with significant Nyquist imaging) but the shortest transient response with least energy smear." The four filters available for DSD playback progressively reduce the level of ultrasonic noise.

The front-loading CD mechanism is the Stream Unlimited JPL-2800 SilverStrike. The Rossini's Ring DAC analog board is claimed to be the fifth generation of the one originally designed for the dCS950 Pro DAC, and is the same as used in Vivaldi DAC. The power supply features separate transformers for the digital and analog sections, and



multistage voltage regulation.

The panels of the Rossini's enclosure are machined from aerospace-grade aluminum, with internal damping applied to reduce vibration. The front panel echoes the "wave" contouring first seen on the Vivaldi, but in simpler form. A rectangular display to the left of the CD drawer shows source, file, and setup information; when the volume is adjusted either with the app (see later) or with the control on the other side of the drawer, this changes to a large numeric display in dB that can be seen from across the room.

MEASUREMENTS

I measured the dCS Rossini with my newly recalibrated Audio Precision SYS2722 system (see the January 2008 "As We See It," http://tinyurl.com/4ffpve4). As well as test CDs and the Audio Precision's serial digital outputs, I used WAV and AIFF test-tone files sourced via USB from my MacBook Pro running on battery power and played with Pure Music 3.0. I began the testing with the first sample, but continued with the second sample. The Rossini Clock was used for all tests.

Apple's USB Prober utility identified the Rossini as "dCS Rossini Player USB class 2" from "Data Conversion Systems Ltd," and revealed that its USB port operated in the optimal isochronous asynchronous mode. Apple's AudioMIDI utility revealed that it accepted 24-bit integer data via USB sampled at all rates from 44.1 to 384kHz. I tested the transport's error correction with the Pierre Verany *Digital Test* CD. The Rossini played without glitches until the dropouts in the pit spiral reached 1.25mm in length. With the minimum track pitch, it had problems when the dropouts reached 1mm in length, but this is still good performance, if not up to the standard set by the SACD transports in the Puccini and Vivaldi players. (The CD standard specifies only that a player cope with gaps up to 0.2mm long.)

With up to six reconstruction filters available for PCM data, two of which operate only at 44.1, four low-pass filters for DSD data, and a choice of four maximum output levels, testing the Rossini was a complex and time-consuming task. The Rossini's maximum output level can be set to 200mV, 600mV, 2V, or 6V, which was confirmed by my measurements at both the balanced and unbalanced jacks. Unless stated otherwise, all subsequent testing was performed with the output set to 6V and the DSD filter set to F1.[1]

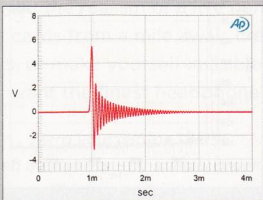


Fig.1 dCS Rossini, F5 filter, impulse response (one sample at 0dBFS, 44.1kHz sampling, 4ms time window).

Both sets of outputs preserved absolute polarity, the XLRs being wired with pin 2 hot. The balanced output impedance was extremely low, at 2 ohms, the unbalanced impedance higher, at 51 ohms—still low in absolute terms.

The Rossini's impulse response with 44.1kHz data varied depending on which filter had been chosen. Filters 1–4 are all conventional time-symmetrical FIR types, with the length of the filter decreasing from F1 to F4. By

1 You can see the differing ultrasonic rolloffs of the Vivaldi's DSD filters in fig.10 at www.stereophile.com/content/dcs-vivaldi-digital-playback-system-measurements. F1 has the widest bandwidth.

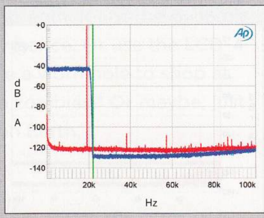


Fig.2 dCS Rossini, F5 filter, wideband spectrum of white noise at –4dBFS (left channel red, right magenta) and 19.1kHz tone at 0dBFS (left blue, right cyan), with data sampled at 44.1kHz (20dB/vertical div.).

Rossini Master Clock

The Rossini Player can be used by itself or with one of the dCS Master Clocks. The two word-clock inputs on its rear panel are on 75 ohm BNC jacks; one accepts a 44.1kHz TTL-level signal, the other 48kHz. These inputs use a multistage Phase Locked Loop (PLL) system to minimize jitter. The Rossini Master Clock can output to the Rossini Player's word-clock inputs, via two short lengths of coaxial cable, both 44.1 and 48kHz clock signals. The Player is then set to auto-clocking mode ("W" on the Player's display), so that each family of sample rates—44.1, 88.2, 176.4, and 352.8kHz, or 48kHz and *its* multiples—is decoded using the appropriate master clock.

dCS says that the Rossini Master Clock uses a microcontroller to ensure smooth frequency correction as the temperature changes, this approach claimed to give "a more stable result than either oven-controlled crystal oscillators or even atomic clocks."

I don't need to be convinced of dCS's philosophy of using an external word-clock generator. In 2005 I reviewed the dCS Verona clock,[6] then priced at $6995. With the Verona clocking dCS's Verdi SACD transport and Elgar Plus DAC, I wrote: "there was an authority to the sound that I didn't remember from the system pre-Verona." Without the Verona the "sound was the same, but there was less 'there' there . . . the soundstage was slightly less developed, and the sense of images of musicians and a vocalist hanging there in the space between and behind the loudspeakers was slightly diminished."

Like the Verona, the Rossini Clock offers the choice of applying to its clock signals dither—a small random timing offset—this selected with two front-panel buttons. Dither avoids the "dead zone" that receivers using a PLL with a very narrow acceptance window can suffer from. I had no problems using the Clock without dither, but ended up leaving it switched on. I'm a belt-*and*-suspenders guy.

Rossini App

Perhaps as important as the technology used in the Rossini hardware is the fact that every function of the Rossini Player can be controlled with an iOS app. And not only such regular functions as source selection, CD transport controls, and the choices of reconstruction filter and upsampling, but selecting files to be played from a USB stick or, via the UPnP interface, files on any network devices running UPnP server software. The Rossini app also features a configuration wizard to allow easy setup of a Rossini Player or DAC.

I began my auditioning using v.1.1.8 of the app, then a beta version of the upgraded version, v.1.2.3, which includes Roon endpoint integration as well as some unspecified

6 See www.stereophile.com/digitalprocessors/305dcs/index.html.

measurements, continued

contrast, F5's impulse response reveals it to be a minimum-phase type, with all the ringing following the single sample at 0dBFS (fig.1), while F6 is again a linear-phase FIR type, similar to F1, with more coefficients than F2–F4. Tested with 44.1kHz-sampled white noise,[2] F1 offers a very sharp rolloff above the audioband, with no trace of the aliased image at 25kHz of a full-scale 19.1kHz tone. The increasingly shorter impulse responses of filters F2–F4 result in increasingly slow rolloffs above the audioband, with reduced suppression of the 25kHz image. With F3, for example, the image is just 23dB below the level of the 19.1kHz tone that produced it. F5 and F6 performed identically on this test; you can see from the spectral analysis with F5 (fig.2) that these filters are apodizing types, with a null at half the sample rate (indicated by the vertical green line). Note also the very low level of harmonic-distortion components in this graph.

Looking at frequency response in more detail, there was a steep rolloff below half of each sample rate with F1. F2–F4 had slower rolloffs above 20kHz, but none of them suffered any loss below 20kHz. Channel separation was superb, at >115dB below 10kHz, and the Rossini had a very low level of self noise, correlating with the superb resolution seen in fig.3. This graphs the spectra of the Rossini's output as it reproduced a dithered 1kHz tone at –90dBFS with first 16-bit, then 24-bit data. The increase in bit depth drops the noise floor by 21dB, suggesting resolution close to 20 bits' worth. Although some power-supply-related spuriae are apparent below 3kHz in this graph, these all lie below –134dB (0.00002%) and are therefore irrelevant. With its low noise and high resolution, the Rossini reproduced an undithered 16-bit tone at exactly –90.31dBFS with a superbly symmetrical waveform and the three DC voltage levels well defined. With undithered 24-bit data at this low level, the dCS

2 My thanks to Jürgen Reis of MBL for suggesting this test to me.

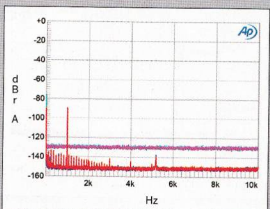


Fig.3 dCS Rossini, spectrum with noise and spuriae of dithered 1kHz tone at –90dBFS with: 16-bit data (left channel cyan, right magenta), 24-bit data (left blue, right red) (20dB/vertical div.).

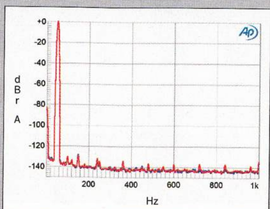


Fig.4 dCS Rossini, spectrum of 50Hz sinewave, DC–1kHz, at 6V into 600 ohms (left channel blue, right red; linear frequency scale).

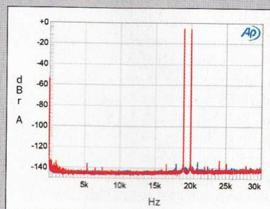


Fig.5 dCS Rossini, F1 filter, DXD upsampling, HF intermodulation spectrum, DC–30kHz, 19+20kHz at 0dBFS into 100k ohms, 44.1kHz data (left channel blue, right red; linear frequency scale).

enhancements. I loved the app. My only criticisms are: 1) With the app that controls the Aurender N10, I've gotten used to the music fading down when I press Pause. With the Rossini app, the music stops immediately. 2) The volume-control icon on my iPad mini is a bit too small for my fat fingers to repeatably set the level. I know—First World Problems!

The Player's clean rear panel. Note BNC word-clock inputs and outputs.

Listening

The first matter to address with the Rossini was which upsampling algorithm to use. In general with CD-sourced music, I preferred the DSD upsampling, which slightly increased the sense of spaciousness of the soundstage. But some hi-rez rock recordings—such as "Under Pressure," from Ray LaMontagne's Pink Floyd–tinged *Ourobouros* (24/96 FLAC download from RCA/PonoMusic)—sounded a little less aggressive in the treble with DXD upsampling. This was with Filter 4 (see later).

Turning to the sound of DSD files: The only UPnP server I have on my Mac mini is Twonky Server, which doesn't play DSD files, but I could play DSD recordings via the Rossini Player's USB port, sourced from my Aurender N10 server. As I mentioned earlier this year, in constant rotation these past months has been the complete set of Brahms Piano Trios performed by violinist Christian Tetzlaff, cellist Tanja Tetzlaff, and pianist Lars Vogt (DSD128 files, Ondine/HDtracks), and engineered by René LaFlamme. (The Rossini app reported these files as having a sample rate of 5644.8kHz and a depth of 1 bit.) The sound was on the forward side, but with the three instruments set within a believable if subtle acoustic. The Rossini presented this robust music making in an appropriately robust manner, especially in the joyful final movement of Trio 1, but without any unwanted aggression. There was also the necessary hushed

measurements, continued

output a well-formed sinewave.

The spectral analysis in fig.2 suggests that the Rossini offered very little harmonic distortion, and this was confirmed by fig.4, taken with a full-scale 50Hz tone driven into a punishing 600 ohms. The highest-level harmonic is the third, but this still lies almost 130dB down! This graph was taken at 6V; at 2V maximum output level the third harmonic rose to -120dB, but this is still a vanishingly low level.

I test for intermodulation distortion using an equal mix of 19 and 20kHz tones with the waveform peaking at 0dBFS; the resultant spectra of the Rossini's output varied with both the filter in use and the type of oversampling selected. Fig.5, for example, shows the result with F1 and upsampling to DXD (384kHz). Both intermodulation distortion and aliased images are MIA. When I switched to DSD upsampling (fig.6), some very low-level, higher-order intermodulation products can be seen, but the main difference is the rise in the ultrasonic noise floor. Switching to F2 with DSD, the filter's slower rolloff allows images of the fundamental tones to appear. With F3 and F4, the even slower rolloff meant that I had to reduce the signal level by 3dB to get an audioband spectrum free from aliasing products (fig.7). On this test, F5 and F6 behaved identically to F1.

Finally, the Rossini offered superb rejection of word-clock jitter in both its playback of CDs and through its serial data inputs. Fig.8, for example, shows the result of playing 16-bit J-Test data fed to the TosLink input. All the odd-order harmonics of the LSB-level squarewave are at the correct level (green line), and no jitter-related sidebands can be seen.

The dCS Rossini offers measured performance that is about as good as can be gotten from a thoroughly modern digital audio product.—**John Atkinson**

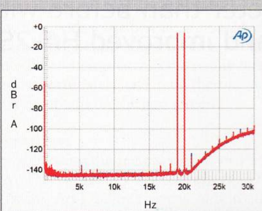


Fig.6 dCS Rossini, F1 filter, DSD upsampling, HF intermodulation spectrum, DC–30kHz, 19+20kHz at 0dBFS into 100k ohms, 44.1kHz data (left channel blue, right red; linear frequency scale).

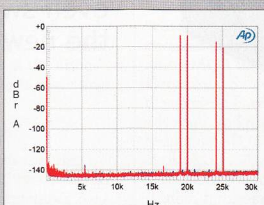


Fig.7 dCS Rossini, F4 filter, DXD upsampling, HF intermodulation spectrum, DC–30kHz, 19+20kHz at -3dBFS into 100k ohms, 44.1kHz data (left channel blue, right red; linear frequency scale).

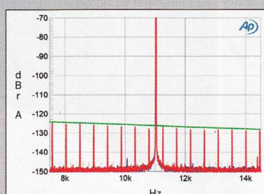


Fig.8 dCS Rossini, F1 filter, high-resolution jitter spectrum of analog output signal, 11.025kHz at -6dBFS, sampled at 44.1kHz with LSB toggled at 229Hz: 16-bit TosLink data (left channel blue, right red). Center frequency of trace, 11.025kHz; frequency range, ±3.5kHz.

sense of expectancy in the slow movement. I drove myself crazy trying to decide if I could hear any difference at all among the four DSD low-pass filters. I couldn't, so for all my DSD listening I stuck with Filter 1, which has the widest bandwidth.

Turning to PCM, I could hear no significant difference between CDs and the same recordings played via USB from the Aurender N10, even though I was using both an AudioQuest JitterBug and UpTone Audio's USB Regen (that belt-*and*-suspenders thing again). This is a superb CD player.

There was some confusion about the file format when, via UPnP over my network, I played "North Dakota," from Lyle Lovett's *Live in Texas*. I'd ripped this track from CD (Curb/MCA MCAD-11964) as an Apple Lossless file, but the iPad app identified it as "44.1kHz, 32 bits," the Player's front-panel display as "24/44.1k." Not that it mattered—the purr of Viktor Krauss's double bass and the palpability of Rickie Lee Jones's soft scatting at the end of the song were both striking.

Playing the same files via USB from the Aurender N10 or via Ethernet using Twonky Server running on my Mac mini, if I had to swear to it, I felt that the Aurender-sourced playback was a touch more palpable than that via my network. In Lovett's "You Can't Resist It," the driving rhythm in the chorus seemed a touch more solidly grounded via the USB connection (or from the original CD).

I recently retrieved from my archive the 24/44.1 masters of Hyperion Knight playing arrangements for solo piano of songs by George Gershwin, which I'd recorded with dCS 900 A/D converters. The CD was released in 1997 as *Rhapsody* (Stereophile STPH010-2), but I wanted to hear the original 24-bit files, as I'm thinking of reissuing the album as a download. Via USB, the sound was more forceful than I'm familiar with from the CD, the left-hand register of the piano having a good sense of weight and power. This was with PCM Filter 5, which brings me to the subject of...

Filters

The Rossini remembers which filter you prefer for each sample rate, so you're not driven crazy experimenting with every track every time you play it. For CD playback, Filter 1 sounded too upfront for my taste, and while Filters 2–4 sounded convincing with some recordings, overall I preferred Filter 5 for the sense of slightly enhanced palpability I experienced. By contrast, Filter 4 sounded best with 24/96 recordings of solo piano. In Tor Espen Aspaas's performance of Beethoven's Piano Sonata 32, from his album *Mirror Canon* (FLAC download, 2L 2L-049-SACD), the piano's left-hand register was reproduced with optimal authority. However, with some private, purist 24/88.2 recordings of a Mendelssohn string quartet, Filter 1 sounded more natural, while Filter 4 emphasized the rosiny nature of the strings' sounds. Fortunately, changing the filter takes no more than a couple of taps on the app screen.

Comparisons

I've been using the review sample of PS Audio's PerfectWave DirectStream D/A converter ($5999), which I bought following Art Dudley's review of it in our September 2014 issue.[7] Comparing the dCS and PSA DACs with levels matched at 1kHz and "Lover You Should Have Come Over," from Jeff Buckley's *Grace* (ALAC file ripped from CD, Columbia CK 57528), and with both DACs directly driving the Pass Labs XA60.5 amplifiers, it sounded as if the kick drum and bass guitar had an extra half-octave of extension through the Rossini that they didn't have through the PerfectWave.

Back in 2009, I recorded a band called Heroes of the Open End, for which then-*Stereophile* staffer Ariel Bitran played lead guitar. In the 24/44.1k mix I tried to re-create some of the magnificent low frequencies you hear from rock bands in live performance. With "New York Afterparty," a song by singer Mike Baglivi, the PS Audio made the bass sound a little too much of a muchness, whereas the dCS better held on to the low frequencies—the intentionally phat bass-guitar lines were better differentiated from the kick drum, especially when the bassist drops an octave at the start of a phrase.

Similarly, the kick drum in "Rambling," from the Ginger Baker Trio's *Going Back Home* (ALAC file ripped from CD, Atlantic 82652-2), had more impact through the dCS, and with a little more space around the kit. But the PS Audio was a bit more believable in the sound of Charlie Haden's double bass on this track—the American DAC overall had a smoother sound. If the Rossini fully presented the impact of the music, the PS Audio focuses more on its approachability, perhaps sacrificing some resolution in the process. However, it's fair to note that I'm still running the earlier Yale firmware in the DirectStream DAC, rather than the latest Torreys OS, which Robert Deutsch discussed last month.

There are two relevant comparisons that, unfortunately, I don't have room to include in this review. The first is to examine how the Rossini compared with its predecessor, the dCS Puccini. My review sample of the latter has long since been returned to the distributor, but as Jason Victor Serinus has been using a Puccini as his long-term reference DAC, I asked him to hear how the Rossini DAC compares. His report will appear in our January 2017 issue. The second necessary comparison is between the Rossini and the Vivaldi, the latter recently having had its firmware updated to v.2.0 status. My report will also appear in January 2017, God willin' an' the crick don't rise!

Summings Up

The combination of the dCS Rossini Player and Clock produced what was, overall, the best sound from digital I have experienced in my system. While not as laid-back as the sound of my long-term reference PS Audio DAC, it didn't suffer from the glare that often accompanies digital components that concentrate on resolution at the expense of listenability. With the Rossini I got both, whether from CDs or files played via Ethernet or USB.

But the question you'll be asking as you read this is, "Given how impressed you were with the sound of MQA-encoded files in the September issue,[8] will dCS be incorporating MQA in its products?" I asked the question of Data Conversion Systems Americas' John Quick, who responded that they do have a software MQA decoder running on a Rossini, and that they intend to complete the work and to support MQA when enough recordings have become available.

So there you have it: The Rossini Player and Clock are a flexible, future-proof, superbly well-engineered, and equally superb-sounding complete digital source that, while still expensive, is more affordable than earlier dCS offerings. ■

7 See www.stereophile.com/content/ps-audio-perfectwave-directstream-da-processor.

8 See www.stereophile.com/content/listening-mqa.