



t|AQWO & c|AQWO



Metronome Technologie.

Time: late 2019.

Place: 166 rue du Castellet, Montans, France.

Job: remember your ancient Greek where the verb *akouo* meant 'to listen to'. Now this curtain rises.

A year ago I'd profiled the first member in a new range, from a company who for a dogged 30 years already have pursued cutting-edge digital audio. That range is called **AQWO**, its first entry a hybrid which spins CD *and* SACD—a first for the French—and outputs them analog either through tubes or transistors. Today is about #2 and #3 called t|AQWO and c|AQWO for, you guessed it, a dedicated transport and converter. Those now come with a triple-transformer Kalista range Elektra outboard power supply for 't', a quad-trafo job for 'c'. Divide and conquer. Divide again. Voilà, uncompromised separate separates.

Like the integrated drive, the dedicated transport reads pure and twin-layer SACD. Hence it must output DSD digitally. Enter I²S over HDMI, a parallel not serial protocol which here is good for 32/768 PCM and DSD 512. The drive mechanics and laser optics are from Japan's D&M again so a Denon SACD module which Métronome fit with a custom Delrin puck. The matching DAC again runs on dual-mono Asahi Kasei AK4497 processors and links its digital engine to the defeatable twin JAN 6922 buffer to offer tube or transistor paths at will. Analog outputs are on RCA and XLR. Each can be set to 1.4, 2.4 and 3Vrms to best suit a system's overall gain structure.



c|AQWO mother board left and power supply right.

As the opening photo showed, the 6.5" touch screen menu accesses sub functions and settings including the display color scheme. Naturally, dress code is silver or black and a metal remote is standard.

If you'd assumed that spinning discs was passé because streaming makes all the noise, I recently heard two ultra-ambitious systems which relied on discs exclusively, no streamer in sight: an Ansuz, Aavik, Børresen factory reference in Denmark's Aalborg; and a Living Voice Vox Palladian system by its designer in the UK.

Those with unbiased ears and expansive wallets *know* that we haven't yet heard the last of polycarbonate discs; in fact still haven't mined the totality of what there is to be heard from their pits and lands.

It's perverse that this should be so in the waning days of the format when the vast majority have their sights set on compressed but free virtual media or are fascinated by ever-higher sample rates and MQA.

Mais c'est la vie et la malaise et la merde magnifique et merveilleux.



As we saw, the power supplies consume so much raw space that they simply wouldn't fit inside the main chassis unless those grew to twice their existing height. It's not just a matter of divide 'n' conquer. It's lack of real estate to build out the current and capacitive reservoirs to the desire size. Given the outboard Kalista power supplies, thinking readers will already wonder.

How close in performance do these AQWO separates come to Métronome's iconic [Kalista](#) flagships?

"This is a good question indeed. As we both know, quality of sound versus price follows an asymptotic curve and is additionally subject to listener perception and system and room variables. So I would say that in most situations, the combination of t|d AQWO would indeed be considered on the same performance plateau as a Kalista DreamPlay set."

That was unexpected candor straight from the horse's mouth.

By late November, managing partner Jean Marie Clauzel checked in again. "We are ready to ship immediately a set in black but would need it back mid December. Is this doable? I apologize but the roll-out of first production exceeds our expectations and we need products for buyers." So much for digital snobs claiming that physical media are dead. And yes, this does remain a niche market but ambitious CD players from Audionet to Gryphon, Accoustic Arts to C.E.C., B.M.C. to mbl, Esoteric to Luxman to T+A show that serious listeners with serious collections haven't given up on the format yet.



So I congratulated Jean Marie and expressed readiness if the units were fully burnt in. He confirmed that they were so the date was on. Buyers are expected to decide in a matter of hours, at best over a weekend with a loan from an amenable dealer. Should it take professional reviewers months to recognize then verbalize a presentational style? It's fun when illustrious loaners beyond one's pay grade are allowed to linger for a bit longer—who in their right mind would say no to living large for a spell?—but it's certainly no necessity. Holding costly gear hostage whilst waiting interminably for writer's block to thaw is unprofessional and disrespectful to the firms who dispatch expensive loaners.

Le Baskin Robbins. The US chain of specialty ice cream shoppes is famed for its breadth of flavors. With the big four-box Métronome set as deep as it is wide—the main chassis have three flat footers, the power supplies soft-nosed variants—one gets two main modes, three format choices, six filter options and

sundry upsampling. There's transistors or tubes selectable by touching the tube symbol on the DAC's screen. There's native PCM, CD resampled up to 24/384, native DSD, SACD resampled to 256, CD resampled to DSD64 or DSD128. DSD256 only works on physical SACD. "Our electronics can't manage resampling from 44.1kHz to 11.2MHz which I feel would be 'too much' anyway" explained JM. Then there are sharp, slow and super-slow roll-off filters, short-delay sharp/slow and low-dispersion slow. On the DAC, one can defeat unused inputs, on the transport the resampler option. There's a separate command to access the desired layer of dual-layer discs.



To make room for this quad stack, our Denafrips Terminator DAC had to leave the rack as did the Vinnie Rossi L2 Signature preamp which relocated to inbetween the amplifiers.

CD resampled to DSD128 then output via I²S over a top-line Audioquest HDMI cable with active dielectric battery bias.

The displays on both can be set to dark/light background with an extensive color palette and various dim modes including black-out. The DAC display even has two background motives aside from flat. With their thick U-shaped covers, case construction is solid but not of the fat-panel type à la Pass Labs preamp or our Kinki Studio and Denafrips kit. To push material excess further is for the pure Kalista models. The long narrow hard-plastic remote in black can be set to operate an amplifier to include volume up/down. Set to CD instead, it answers to direct track access, repeat modes, mute, next/last, fast forward/back, play, pause and stop commands. Two AAA batteries power it.



To feel the digital pulse of this imposing French metronome, the rest of the signal path became our L2 linestage with either Western Electric VT52 direct-heated power triodes or set to tube bypass. That fed 200-watt Linnenberg Liszt mono amps with lateral Exicon Mosfets which drove Børresen Acoustics 02 loudspeakers, all power delivery by Vibex, all cabling by South Korea's Allnic except for the Audioquest HDMI. Gain of the c|AQWO was set to 1.4V.

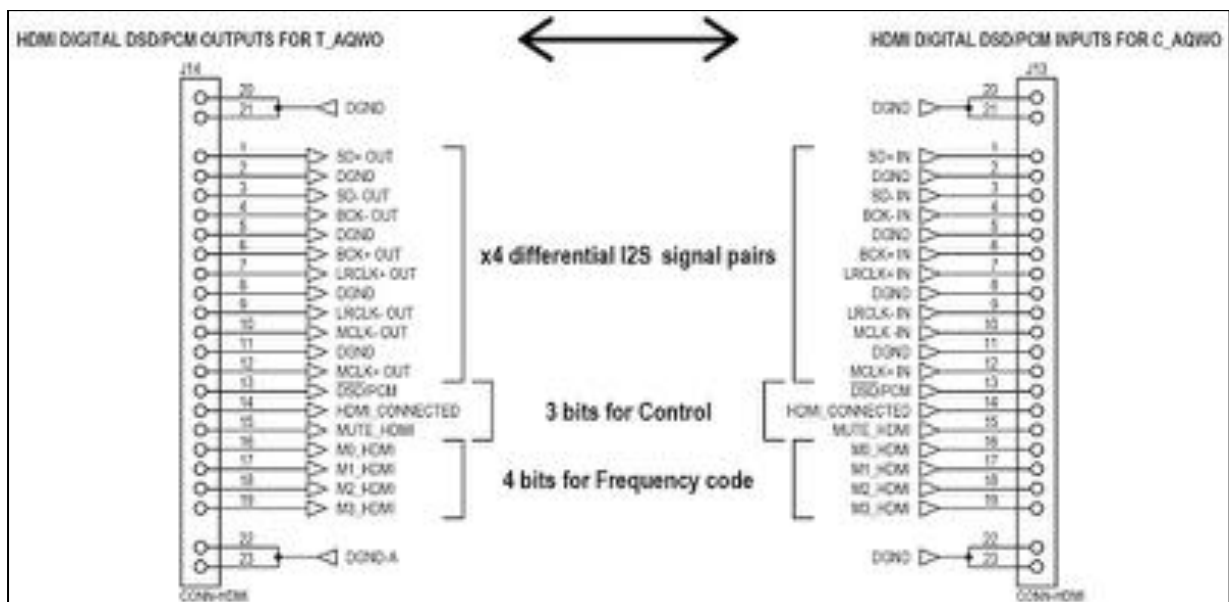
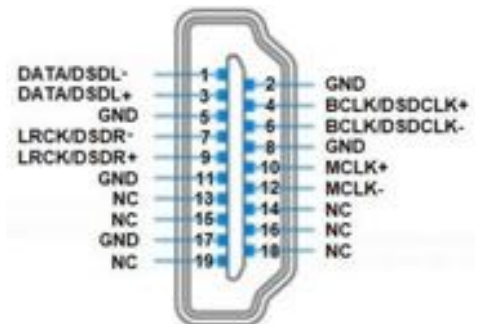
USB. Audirvana 3 recognized the c|AQWO's USB input as a *Combo384 Amanero* with 768kHz support. Set to maximal power-of-2 upsampling to thus dispatch a Redbook file as 705.6kHz signal, the Mét only acknowledged 352.8kHz to play with pitch-shifted distortion. Selecting in Audirvana's custom menu all 44.1kHz-based frequencies to render at 352.8kHz, all 48kHz variants at 384kHz fixed that promptly. 768kHz PCM was specific to the Amanero chip, not Métronome's subsequent FPGA and/or AKM DAC. With our 99.9999% pure CD-resolution library, such numbers games are ultimately irrelevant of course. Mentioning them only ticks off the topic and those misguided few who think that without extreme upsampling, modern digital isn't modern. Given fashion trends, they may actually have a point about the 'modern' bit. The misguided bit would be to think native 16-bit/44.1kHz passé. It's just weeks ago that Qobuz streaming at 1'411kbps aka CD resolution became their new default to eliminate 320kbps compression from their cloud for good.

Most digital engineers I've talked to consider 24/96 the reasonable limit. Now anything above it becomes fool's gold for the gullible. But anyone with HQ Player on a music computer/server can resample PCM to DSD so feed the t|AQWO an already quad-rate DSD signal to sample yet another variation in the endless "*which* sound" amusement of this French source.



I²S. Our Soundaware D300Ref USB bridge and Denafrips Terminator are both I²S enabled and compadre. So I checked on pin compatability with Métronome's. There's no standard. External I²S can distribute over HDMI, RJ45, S-video, even paralleled BNC as Ancient Audio, B.M.C. and C.E.C. do it. Matching ports on either end still don't guarantee a successful handshake if pins aren't assigned identically. As you can see, HDMI has many pins and not all are needed for our purpose. Which to wire up for what data?

As had been the case with their one-box AQWO, Métronome's at first was incompatible with ours. To take the suspense out of potential matches elsewhere, I asked Métronome's design office manager Cyril Monestier for their pin-out for I²S over HDMI. Here we see it. I now asked Denafrips whether their variable pin-out options could be made to match Métronome's.



They could. Set the Terminator to its I²S-A input, hit 'mute' once to enter configuration mode, then briefly hit 'phase' so the sample-rate indicators show PS Audio's I²S standard of "100", i.e. with the 1X LED on, the 2X and 4X LEDs off. (Our domestic setting had been "111".) Wait 10 seconds for the Terminator to resume operational mode. Voilà, AQWO luv. t|AQWO output native CD, CD at 24/384 and at DSD128. The Terminator's display switched instantly to confirm the new data stream and deliver perfect sonics either way. Any DAC running PS Audio's HDMI scheme or being configurable to it is thus compatible with Métronome's transport for I²S transfer of PCM/DSD. Likewise compadre are the Jay's Audio disc transports with Métronome's DAC because their default pin-out is PS Audio's. Which now ends all this talk over bits, bobs, bytes, sample rates and formats. What happens if we just hit *play*?

Play'n'away. To kick off, I indulged a 74-min. playlist of Jan Garbarek cuts from his *Visible World* and *Rites* albums for ECM, one on a Maxell CDR, the other in an .aiff folder of Apple's FusionDrive. Brief smudgy taps on the glass displays switched instantly between 352.8kHz USB, 352.8kHz I²S and DSD128 I²S. I had all other inputs disabled to toggle between just disc and computer whilst silver disc and RAM kept going. Regardless of an eventual small preference for physical media as first CD resampled to DSD128, then CD to 352.8kHz, then 352.8kHz USB, my loaner Mét Quartet majored on burly dynamics, profound bass, rich tone textures and dense staging. Ultimate contrast ratio, extreme separation, air and speed all were subservient to a very organic master plan. That prioritized weight, loaded voltage swings and very earthy if slightly soft materialism. And that's *before* the small triodes kicked in. Those increased some elements, softened others and in general inched farther away from the air/speed axis. Métronome's slogan "the most analogue digital audio" had come home to roost. I thought of the young starlings which each year enter our chimney to end up trapped behind the fire place glass until we catch and release them. To fling my French starlings into the bigger outdoor air meant bypassing those NOS Vinnie Rossi bottles.



Single-box AQWO in the silver finish.

I'm one of those contrarians who thinks that one can have too many tubes, be they physical or equivalent virtual effects. Without physical specimens, our Denafrips Terminator had aged in that direction until the new DSP board earlier this year sent it on a stem-cell cure.

On paper it was ultra-modern 1'536kHz PCM and DSD1'024 support. In practice it was higher small-detail magnification and resolving power for ordinary 44.1kHz fare. Something quite similar happened now after I defeated our big tubes. That ran the preamp as top-notch passive with active i/o buffers. By flicking two hidden toggles, what had felt slightly thick on my subjective scale for at least non-classical fare had moved back into the sweet zone of personal rightness. Everyone hosts different ideas on where to sit ideally between speed and substance. Everyone's system benefits more or less from being nudged in any given direction. With the Mét, the basic attraction is this organic fulsome generously textured gestalt with its saturated rich colors. DSD resampling enhances it a tad more like a cube of sugar in mild coffee. Tube drive increases it further like milk in coffee. So you can sip your java black, sweet black, white or sweet white. It works like an adaptable multi-stage affair and the digital filters become tiny little deciders within it.

Growing timbres not timber. At 5'46" in her video, Juilliard graduate Katie begins to play four different traverse flutes, a Gemeinhardt 2SP, a Yamaha 482, a Haynes Q3 with two different head joints and finally a Muramatsu. She takes each through the same three excerpts from Anderson's *Etudes N°1-3 opus 33*. Even with YouTube compression, it's a rare chance to sample sundry instrumental timbres with the same player, music and microphone. DSD128 + tubes was the Muramatsu. Native PCM + transistors was the Yamaha. These obviously coarse pointers also mirror the *scope* of actual hifi changes. Those weren't polarizing by any stretch just as Katie's delivery and phrasing doesn't change whilst swapping instruments. So AQWO's organic milieu stayed put. Yet the same differences in harmonics and tonal balance we hear with the flutes were clearly present. If one pays sufficient attention *and* cares enough, one should end up with a favorite. And not being locked in, with the Gallic quad stack one is allowed to change one's mind or apply different sonic nudges to different recorded balances with a few taps on the touch screens. Such multi-tasking is *very* 21st-century modern after all. Thinking about which of our possible hardware combos would ideally interface with the French lead, a natural suggestion was Node Audio's compact Hylixa run off Bakoon's AMP-13R, then Acelec's Model One monitor. So that's what moved downstairs into the main room for the next sessions.

Calling any hifi *musical* is like saying eating fills us. It says nothing about taste and nourishment. So what does musical mean? Do we think human to differentiate playback from something more robotic or mechanical? Humans breathe. Machines do not. Humans have personalities. Machines do not. Humans insert irregularities from spontaneity. Machines do not unless they malfunction. Now the otherwise empty thus meaningless calories of 'musical' attempt, in just one word, to capture a listening experience which informs us that we're listening not to machines but real breathing performers. If so, what heightens that sense? What diminishes it? What makes one system more human and musical, another more mechanical and canned?



c|AQWO display set for dark-yellow font and wave motif. t|AQWO set for upsampling 16/44.1 CD to 24/352.8.

In my book, the sense of breath connects to microdynamics as the ongoing ebb 'n' flow which melodies and rhythms ride on. Human personality and spontaneity also connect to tone modulations as deliberate changes in timbre; and to elastic phrasing in time. Melodies fluctuate dynamically. Tone fluctuates harmonically. Phrasing fluctuates on time to play off/against the core beat. Common to all three are those unpredictable fluctuations which set living irregular humans apart from dead perfectly repetitive robots. All of these elements factor in this short instructional video on how to get some (if you have a violin). As the playing becomes more emphatic, chemistry develops.

As this video also demonstrates with that extra acting dimension, pure sound eliminates the visual subtext. It's why eye-oriented listeners enjoy hyper-specific imaging, sharp focus and deep layer separation as the quasi holographic location aspects of soundstaging. To retrieve all recorded spatial cues, we want maximally low noise for top low-level detail aka resolution. We might also want sharp edge limning, steeply rising transients and lowest possible phase shift in our speakers

Systems which play up visuals with greater transparency often get leaner in trade. Systems which play down visuals rely on pure feeling to recover music's subtext. They prioritize tone, timbre, dynamics and weight. After all, the difference between ghosts and embodied persons is that the dead are translucent. The living block the light. Ratcheting up a hifi's transparency generally leads to ghostlier performers. We sees right through them. With more physical playback, foreground performers visually block performers behind them.

Now separation diminishes which to some listeners implies lowered resolution. In those terms, Métronome's sound was more physical than visual. It was more about the fluctuating feeling elements of phrasing, tone and dynamics than overdeveloped imaging. In live music, extreme imaging doesn't exist. It's an invention of upscale hifi. Against this backdrop, we now can justifiably say that the AQWO set played it more musical than special hifi effects. It prioritized the illusion of living breathing performers. It magnified the small fluctuations of dynamics and overtone changes. Now 'musical' means something quite specific.



tIAQWO set to DSD128 resampling, c|AQWO to tube mode with white font on black background.

Why the Bakoön/Node combo? Nearly all small speakers benefit from more weight, color and dynamics as aspects where Métronome's stack dished out extra. Simultaneously the tiny 50-watt amp with the patented *Satri Jet* circuit is our most lucid resolved finessed amp to balance out the influx of density and mass from the French source. As hoped for, these qualities dovetailed splendidly. Why then experiment with two different monitor speakers?

Because if weight is the enemy of speed, I wanted to see how changes to that balance would reset performance. With compound 1st-order filters not the 2nd-order networks of Hylixa and none of its time-delayed summing of front/rear woofer energy through a thrice-helical transmission line, Acelec's Model One in its rubber-bonded thick aluminium enclosure is the faster more precise less bloomy speaker. Its Mundorf air-motion transformer tweeter also is more dynamic and energetic than Node's silk dome. To my mind, higher speed would digest AQWO's contributions of more weight with the minimum impact on timing. So I had to clock and hear it. As it turned out, knowing our ancillaries well hit a bull's eye.

This became my favorite combination yet. The Acelec's superior timing and low-level detail magnification did well on sugar and milk, i.e. Redbook as DSD128 and enhanced by tubes. For my hot buttons, this combined gargantuan soundstaging, high microdynamic vitality, burnished tone and in-the-pocket timing in one quite ideal balance. So a €38'500 source played into a petite-but-potent €5'800 integrated amp into €5'800/pr speakers including stands. Yet such inequality of allocation won the day. For a very moody number with soaring vocals, try out the above title track to Homayoun Shajarian's latest album. For something more peppery, how about this happy-go-lucky rumba by *Indialucia* which mixes Karnathic Indian with Flamenco? With the Model One's faster reflexes, this last track with all its fiery string attacks came off brilliantly without devolving into trite sizzle. Clearly this sound was the antithesis of any dry mechanical tick-tock, tick-tock. If all of the above suggests to you that these digital AQWO separates ought to be *ideal* for classical music, you've kept your thinking cap on indeed. Let's explore.

For this home stretch, the system reconfigured to Børresen Acoustics 02 loudspeakers driven by Aavik's U-380 integrated. That served three purposes. One, at €46'700/pr and €36'000 respectively, this gear more closely played in the financial strata many prospective AQWO separates buyers will move in. Two, this Danish kit is groomed for maximum speed and resolution to serve as ideal test bed for the French voicing. Three, I'd be able to compare c|AQWO to Aavik's built-in DAC as a data point I wanted for the U-380's own review. But first, two digital housekeeping notes. By lacking an I²S input, the Aavik's S/PDIF input limited to 24/192 just as the c|AQWO's. Neither could benefit from the t|AQWO's upsampling to 352.8/384, just 176.4/192. Though S/PDIF's bandwidth would be good for DSD64, as native not DoP it didn't work over coax into the U-380. For that I'd have needed USB. Why upsampling *ahead* of a converter chip has advantages, watch this [video](#) by Eelco Grimm on their MU1 streamer. Condensed, he says that whenever more processing power and longer code is assigned to perform upsampling at higher precision—already the very first 1979 14-bit Philips chip used on-chip upsampling to 176.4kHz!—the upsamplers built into all commercial DAC chips will work less, produce fewer rounding errors and as a result, improve the sound. It's why upsampling in 64-bit computer software can sound better than letting a DAC chip with lesser computing powers do it. In their t|AQWO, Métronome have applied the very same thinking to the playback of physical media.

To start with something dreamy all about space, tone and lazy decays, I cued up Hector Zazou's "Wanna Mako" from *In the house of mirrors*. The A/B was between c|AQWO and Aavik's implementation of Burr Brown's 1794 chip. Both received 24/176.4kHz over S/PDIF. Whilst a close call, the French converter's contributions were sweeter, richer and more reverb intense. Inserting the tube buffer enhanced those qualities and widened the difference. Engaging Métronome's advantage of I²S over HDMI, PCM resolution as contrast ratio notched up a click. Invoking DSD128 further enhanced the spatial decay cues. The verdict over S/PDIF was on par though slightly different. I²S for straight PCM gave the AQWO twins a small lead.

Progressing to Bruckner's *9th Symphony* with Eugen Jochum conducting the Berlin Philharmonic for DG, the Métronome advantage compounded. I'm just not embedding a YouTube link because their compression really shows up issues on such complex material.

Classical concerts are all about cubits of space, blended sounds and massive forces moving lots of air across a huge stretch of pianissimo solos or string tremolo to fortissimo tutti and brassy fanfares. The majority audience sits in the far field. Those listeners are immersed in 70% reflected sounds to suffer resolution loss over distance. Their perspective enhances tone, lengthens decay, blurs transients, softens separation and confuses precise localization cues. During the concert, the latter are offset by listening with open eyes. That doesn't work at home.

Again, the upshot is clear. Any voicing which enhances tone, bloom, decay and dynamics whilst slightly softening transitions, separation and ultimate layering specificity approximates this type of concert experience. And it certainly also shrinks *dramatically* in size. Nobody's living room equals a concert hall. But if you love large-scale classical, be it symphonic or operatic, Métronome's AQWO separates are your year-round tickets to enjoy a down-sized but gestalt-similar experience at home whenever you want – without battling traffic, chasing faraway parking or walking from there back in the rain in your finest threads and shoes. This photo of the LA Philharmonic's Walt Disney concert hall visualizes that whole reality of space, distances and instrumental forces perfectly.



Finale. 30 years are a long time to hone a craft. A fast rule says that it takes ten years of actual practice to achieve mastery in any sector. By that metric, Métronome must now be grande jefes in the field of digital playback. But they certainly don't approach it just by the raw numbers as pro-audio houses would. Especially when resampling PCM to DSD128 and adding their tube buffer, it's not unfair to suggest that these AQWO components express an alternate truth.

But unlike fake news were that expression is a euphemism for lying, in this instance it's actually a parallel reality where none of the basic facts get altered. It's all the very same bits. They're simply illuminated by selectable lighting and viewed from slightly different vantage points. From track to track, you're in control of the lighting *and* the seat assignment. What could be better than that? Surely no ordinary one-size-fit-all machine even if it had all the perfect specs.



This machine lacks the I²S output of the t|AQWO and doesn't read SACD because its transport is a Philips CDM12PRO CD-only affair.

The only thing these AQWO decks don't yet buy you despite their steep stickers is vault-like construction. Métronome reserve that for their Kalista range whose main units chuck the ruler and bent sheet metal and play instead with the compass, protractor, aluminium and methacrylate stock machined from solid. Of course extra flair demands longer green. For those keen on equivalent sonics who can do without such luxu cosmetics, Métronome assure us that today's AQWO separates have us fully covered. That means an organic non-mechanical reading which emphasizes the human irregularities of microdynamic flutters and tone modulations, then caps it off with fleshier physicality. All that has us more easily forget that it's inanimate machinery which creates our stereo illusion. And intuiting people not inanimate gear behind our playback is what could justifiably be called *musical* as in, *more human*. Unlike their metronome namesake then, these components are very musical indeed.

How do you say 'happy days' in French?

Srajan Ebaen