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Fachmagazin für Veranstaltungstechnik

Monitor mix by
Horst Hartmann

Get the Party started: Yamaha Rivage PM10 for P!NK

A Rivage PM10 was deployed for P!NK's open-air concerts in the summer of 2017. We spoke with monitor mixer Horst Hartmann about his experience with Yamaha's new digital console system.

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Technikmagazin für Veranstaltungstechnik

Report
from issue 09/2017



» ... After a longer break, with the Rivage PM10, Yamaha now seems to have more than just its proverbial foot in the doorway to the market for contemporary digital professional consoles. ... «

In the summer of 2017, US superstar P!NK gave two sold-out concerts at Berlin's Waldbühne. The 22,000 concertgoers were not disappointed: accompanied by an excellent band (outstanding: drummer Mark Schulman and guitar player Justin Derrico), six dancers, all kinds of pin-cushion voodoo, a huge video wall, rhythmically blazing flames and plenty of fireworks, Alecia Beth Moore cultivated her power woman image and especially demonstrated her impressive vocal potential during the time-code-based show's balladic parts. Who de facto calls the shots in the band became clear during the first concert evening, when the singer reprimanded her keyboarder in front of the whole audience after a rather uninspired piano prelude to the new single "What about us" with a definite "This sounds like shit!" – ouch ...

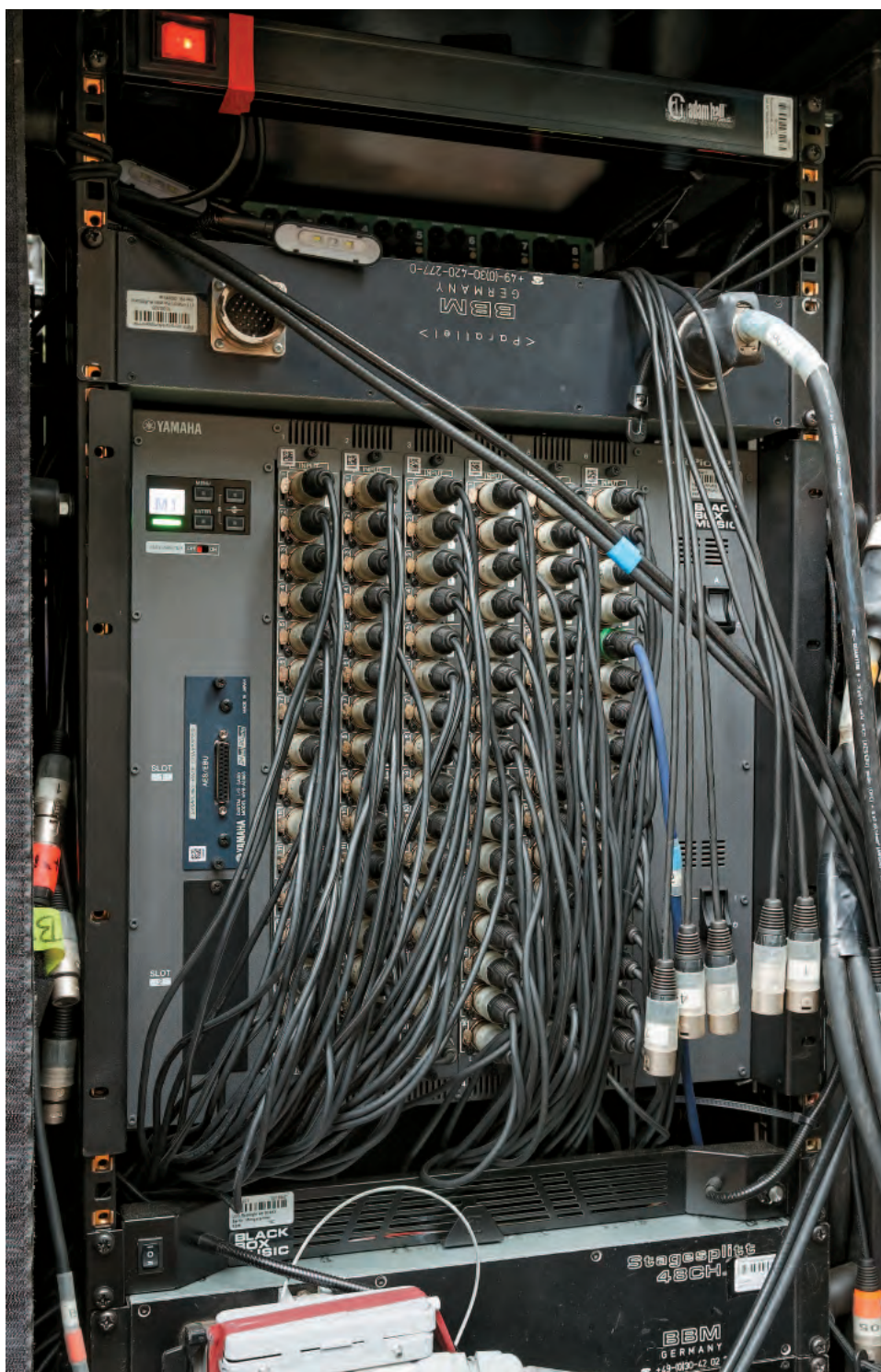
Sound waiter meets "Christel von der Post"

Horst Hartmann, who has accompanied P!NK since 2006 and can look back a decade-long career in the audio industry, was responsible for the monitor sound: the Toten Hosen, the Scorpions, Sade, Cher, Anastacia, Kraftwerk, Tokio Hotel, Nena, Juli and many other artists can be found on his personal credit list. For P!NK's concerts, Hartmann has been sharing the work for some time now with Jon Lewis (amongst others AC/DC, David Gilmore, Paul McCartney), who is solely in charge of the singer on his own mixer. For her shows, Alecia Beth Moore almost continuously uses a single earpiece and listens to the stage monitors with her free ear, which at Berlin's Waldbühne included 16 wedges as well as the obligatory side fills – technically speaking, this is not an optimal solution, especially since all other stage actors, including the drummer, exclusively use in-ear systems (Sennheiser EM 2050 IEM with Combiner AC 3200-II and A 5000-CP circularly polarized helical antenna).

At his console, Horst Hartmann takes care of the band's monitor needs and the surprisingly extensive communication channels between the participants: "I'm a big fan of communication between everyone," Hartmann explained in Berlin and pointed out that the whole P!NK crew is equipped with in-ear listeners and that twelve communication microphones are distributed at strategically sensible positions during concerts. Hartmann jokingly referred to himself as "Christel von der Post" in reference to a German homeland film of the 1950s –



Horst Hartmann at his workplace



One of the RPi622 I/O racks *was exclusively equipped with inputs*

a thought-image that brings a smile to your face in light of an accomplished monitor man who likes to call himself “sound waiter” in other contexts.

In Berlin, the monitor area, which was protected from rain by a black tent, was equipped with two consoles that received their input signals separately from each other via a passive splitter: “I don’t want to share with anyone – it’s too complicated for me,” commented Horst Hartmann. “I like to work with plenty of gain, which is not necessarily the case in this form for many colleagues. Sometimes you just can’t get together ...” The internationally experienced monitor specialist had opted for a Yamaha Rivage PM10, while Jon Lewis and his FOH colleague relied on a Digico SD7 (with shared SD racks). For viewers with an audio technology background, this resulted in a remarkable picture at the monitor station, where two consoles from the same combat class and comparable pricing were placed in a very confined space.

During the shows, Hartmann managed about 90 input channels; twelve stereo ways and various mono ways were distributed. Of course, for safety reasons, all mixes were kept on both of the two monitor consoles, so that in the event of a console failure, an emergency solution would have been ready for use immediately.

A lot helps a lot

In the summer of 2017, Horst Hartmann was touring with the Yamaha Rivage PM10 in parallel with P!NK and the Toten Hosen. The monitor operator is a Yamaha user with many years of experience, so the question of comparability with other digital consoles made by this manufacturer was obvious: “In terms of operation, the PM10 has many similarities with other Yamaha consoles, although there are of course significant differences in terms of

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RPio622 I/O rack for the outputs under the monitor console

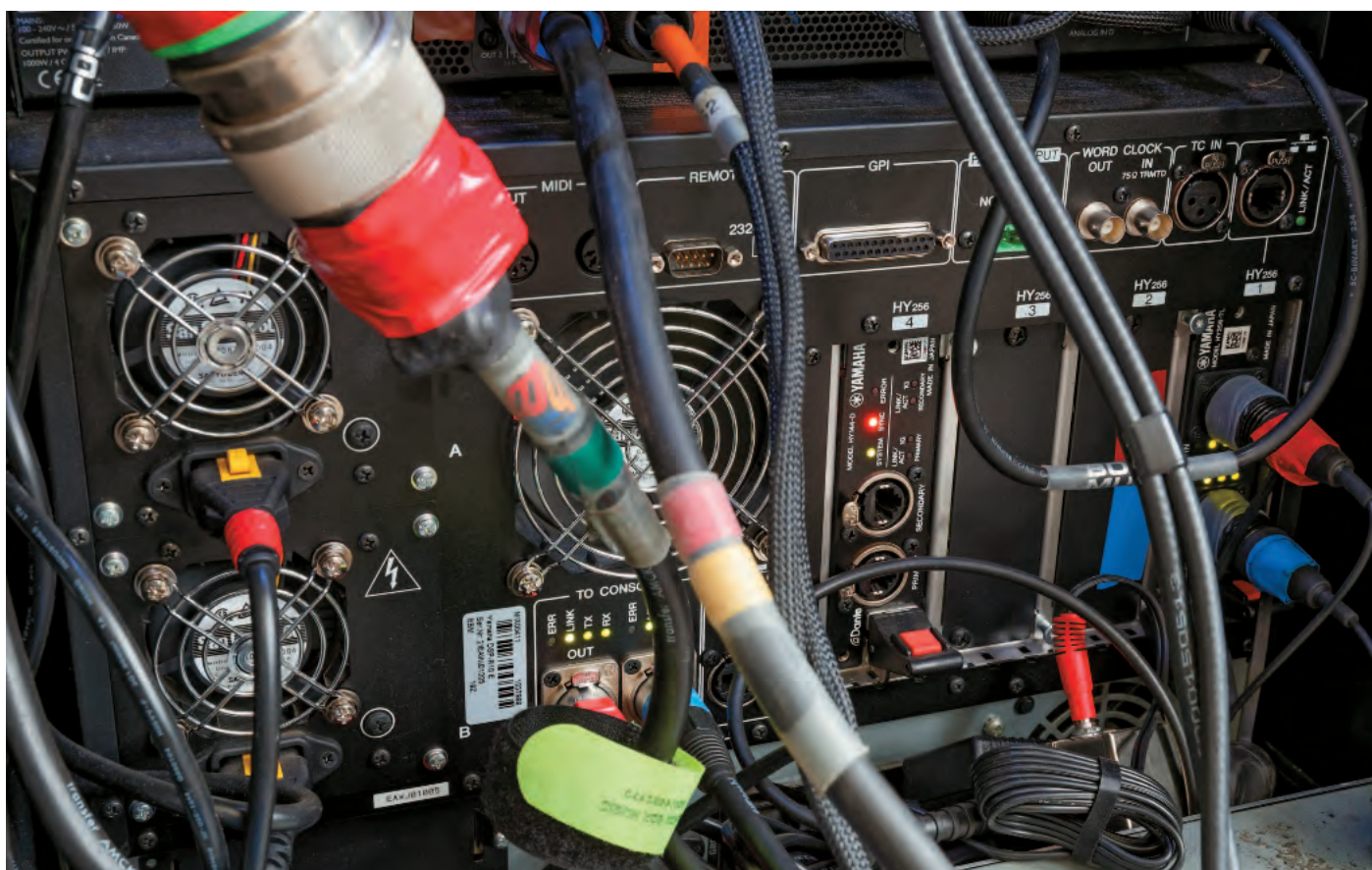
design,” Hartmann replied. “In any case, I got along with it right away. The ergonomic design with its combination of touch screens and hardware controls meets my needs and the overview is great!”

Hartmann continues: “For P!NK and Die Toten Hosen, there were also other desk concepts on my list at the beginning, but with the PM10, I found a solution that allows me to achieve good results in a relaxed way. To be honest, I was a little sceptical at first, but you can organize yourself very well on the PM10, which is the decisive point in the end: I know where to find everything and don't have to go searching when there's acute stress on stage – the musicians don't care why I can't solve a problem, and they rightly expect their wishes to be fulfilled as quickly as possible.”

According to Horst Hartmann, he often works on productions where a Yamaha CL console is “a bit too small” and the

optimum number of outputs is not quite reached. “The PM10 provides plenty of everything,” says Hartmann summarizing his thoughts on 144 channels, 72 mix buses, 36 matrix buses and 24 DCA groups. According to Hartmann, Yamaha consoles are also known worldwide for their reliability, which adds to the ease of use.

In Berlin, Yamaha's Rivage PM10 consisted of a CS-R10 desk surface, a DSP-R10 DSP engine and two RPio622 I/O racks, with completely separated inputs and outputs: one of the I/O racks was exclusively equipped with inputs and – together with the splitter, the Digico SD racks and several Sennheiser EM-6000 wireless receivers – was housed in large 19" cabinets, while the second I/O rack with a total of 96 outputs was housed in a roll-reinforced double case that served as a footprint for the CS-R10. The modular Yamaha RPio622 units can be freely assembled so that any combination of inputs and outputs is possible. For A/D conversion, Horst



DSP-R10 DSP engine with redundant power supplies

Hartmann relied on a high sampling rate of 96 kHz, which may be beneficial for the sound, but certainly also for short throughput times. “I aim for as little latency as possible,” Hartmann said in Berlin, stressing that the lengths in his set-up are not an issue for possibly critical candidates such as drummers or percussionists.

Effects with manners

For P!NK, Horst Hartmann produces the monitor mixes exclusively using Yamaha’s Rivage PM10; external analogue processors or effect devices are not used. For voice processing, Hartmann particularly appreciates the console’s on-board “Counterfeit 1176 Compressor” (compressor 276), the “Compressor 260” (Hartmann: “A dbx emulation with manners”) and the new Precise EQs, which he says are “very effective” especially in the bass range. Hartmann finds the internal Yamaha reverberators “absolutely fine” and considers

the highly acclaimed TC algorithms as “good” for use in more complex applications: “I can handle standard tasks perfectly with the Yamaha processors,” says Hartmann.

The monitor man comments on the Silk function, which was developed by Yamaha in collaboration with Rupert Neve: “quite good on voices, as long as you choose the red version”. The circuit has also proven useful for thickening the kick-drum and electric bass at P!NK’s shows. “Silk isn’t a panacea, but you can quickly achieve useful results,” says Hartmann. “It quickly makes harsh sounding signals a little softer and when it comes to sound dull, you can add more glitter. I consider Silk a treat, which makes a good figure in many contexts.”

While Horst Hartmann used to fall back on a basic scene for his monitor mixes and drove the entire show from there, he now relies on the existing automation possibilities: for P!NK,



This is how it looks like *under Horst Hartmann's table*

each song is assigned its own scene, which is called up in the course of the evening via the “Next” button. The procedure may be a result of the complexity of P!NK's timecode show, because at concerts of Die Toten Hosen, Hartmann serves the desk in the usual manner, mostly by hand.

The Yamaha Rivage PM10 in Berlin came out of the stock of Black Box Music Veranstaltungstechnik and was equipped with software version 1.21 – Hartmann did not want to update to the current version 1.5.1 during the concert dates. At the summer gigs of the Toten Hosen, a different PM10, this time with software version 1.5.1 was used. Hartmann updated the PM10 via USB stick “in less than half an hour”. Since the update, the monitor man has access to “some very useful new features”: particularly practical for him is the overlay function, which – in contrast to the absolutely working “global paste” – operates in relation to the original; for Hart-

mann, a “beautiful, fast and well-functioning thing”. Hartmann continues: “The new shift function, which transfers one channel's settings to other selected channels in an uncomplicated way is also very useful – in principle I use this function for grouping in the AUX way. This works much more directly than with various competitor products”.

Software version 1.5.1

Part of Yamaha's product policy is to supply the Rivage PM10 with firmware updates now and in the future. New software versions are provided free of charge and can be added by the user himself. This approach puts the purchase price for a basic kit, which may seem a little high to some interested parties at first glance, into perspective – for example, elsewhere one is often asked to pay for new effects. A further, very practical advantage: if different PM10 systems are

equipped with the same firmware version, they always have identical (effect) features so that a project file brought along to the show can be adopted without any adjustments and/or annoying dongle or licensing problems.

At the beginning of July 2017, software version 1.5.1 was introduced for the Yamaha Rivage PM10, which, as expected, includes various new features. Key innovations include the possibility of bridging longer distances than the previously possible 300 meters using a single-fibre connection via a Neutrik OpticalCON fibre optic connection system. To match this, the new HY256-TL-SMF system card ("TWINLANE Single Mode Fiber") no longer relies on multimode fibres. Instead it gives preference to single-mode fibre optic cables. This way, connections of up to two kilometres in length between devices are now possible. The newly created option for large-scale broadcast applications is likely to be of particular interest. However, there may also be live concerts where, depending on the local conditions, 300 metres are not enough to lay the fibres. Incidentally, the network is also created as a redundant ring in the newly created single-fibre option.

With the new software version 1.5.1, the recall speed for scenes has improved significantly, which will undoubtedly be appreciated by users. When evaluating the recall speed, one should keep in mind that the Yamaha Rivage PM10 manages considerable amounts of parameters, all of which are affected by a recall.

The PM10 now also includes the Console File Converter 4.0.0 (Win/Mac), which can be used to transfer configurations created in other Yamaha consoles to the Rivage PM10. Transfer in the opposite direction is also possible. Those who travel internationally will be pleased to have the option of always having a "jump-start aid" for elaborate shows at their disposal, even if the PM10 they actually want for the show is not available in the respective country. Theatres will appreciate the File Converter for use in cases where a production from the permanent venue goes on tour and a CL5 is to be used instead of a Rivage PM10, for example. Of course, only those parameters that are supported by the participating consoles can be transferred, and the physically available channel/bus

number also sets natural limits to the conversion. The Console File Converter is available free of charge in the form of a standalone software (http://www.yamahaproaudio.com/global/en/downloads/firmware_software/rivage_pm10/).

An attractive feature for a console system in the Yamaha Rivage PM10's price range is the now available Tieline Patching (P2P TWINLANE patch). The new feature allows users to es-

tablish cross-connections between individual devices; it supports a maximum of eight RPi0622 or RPi0222 I/O racks. To give an example: a signal is fed into rack 1's second input of the third card, which is then taken as an output in rack 8's tenth output of the fifth card – as a direct connection that is not affected by the console's patching. The in-desk scene

change is located one level below the port-to-port patching and therefore does not affect the latter – the whole thing can be imagined as if a fixed cable had been pulled between an input and an output.

The setting is stored in the project file. For tie line patches, visualizations ("Patch Indication for Sources not on TWINLANE") have been created, which draw attention to the special status by their colouring and prevent nervous "Uh, why am I now hearing nothing in spite of the set cross point?"-questions.

After the installation of software version 1.5.1, inserts can be switched via TWINLANE, so that, for example, an effect device located on stage can be seamlessly integrated into the signal flow of an FOH console's channel. Previously, something like this was only possible directly on the DSP-R10 engine, which in such a case might be rather unfavourably located at the FOH.

An emulation of the legendary Eventide H3000 Ultra-Harmonizer, which is released in software version 1.5.1, is likely to be a source of enthusiasm – such a free-of-charge offer is undoubtedly very welcome. Further effects are also included in the update for free. The dynamic EQ, which was previously designed as a two-channel dynamic EQ, proves to be an extremely useful tool in many contexts and now supports four (!) channels with side-chain inserts, now for example

**»I'm also kind of like Christel von der Post in
this production.«**

Horst Hartmann | Monitor mixer for P!NK

enabling frequency-selective ducking. Behind the name “Bucket Delay” is a VCM simulation of the famous and infamous bucket-chain circuit, which not only friends of Reggae and Dubstep will like. The Buss Comp 369 is based on an extremely popular analogue buzzer compressor, the sound of which can be heard on countless rock and pop productions. The new Dugan automatic mixer with up to 64 channels and five function groups (for example for discussion tables) will not only be used by theatres.

One of software version 1.5.1's new features is an event list, whose scenes can be triggered manually: the need for a numerical sorting is eliminated, so that individual scenes can be called up directly when, for example, the director or an artist issues a corresponding instruction – in principle, this is a virtual layer arranged above the scene management.

In the current software version, the Rivage PM10 and the popular CL and QL consoles support partial load and partial save functions, which should further underline the festival suitability of the new Yamaha system. The libraries for EQ, effects and more now have a total of 600 memory locations instead of 300.

The firmware update to version 1.5.1 provides a number of additional features that cannot be fully discussed here due to lack of space – interested readers can contact Yamaha Music Central Europe GmbH's competent ProAudio team in Rellingen for detailed questions.

Back on the block

PRODUCTION PARTNER reported on one of the Rivage PM10's first local deployments at the Classic Open Air at Berlin's Gendarmenmarkt just over a year ago. At Yamaha, the market acceptance that has been achieved since then will probably be seen as encouraging: José Carreras, for example, is touring internationally with the system and at Klassik am Odeonsplatz 2017 in Munich (with the truly unbelievable Martin Grubinger) a Rivage PM10 was also used. The demanding events are in line with a widespread assessment according to which Yamaha's new console can exploit its advantages especially when attention to detail and filigree editing options are required for complex performances.

Independent this, the much-noticed Silk circuit is also popular with established sound engineers, as the hybrid microphone preamplifiers' (RY16-ML-SILK) “analogue touch” can be mixed-in continuously via “texture” control for each

channel – even in the classical context, depending on the instrument, maximum sound neutrality is not always required. In many cases, the reverb algorithms of TC Electronic's virtual VSS4HD machines do a lot of convincing work – true to the motto: rather fewer, therefore excellent algorithms than an unclear mass of plug-ins of varying quality. The fact that the PM10 has automatic latency compensation and that the signal output remains phase-locked even during complex actions such as parallel compression with up to eight plug-ins in each channel, makes an audio engineer's life at the FOH easier, despite the inevitably slightly increased basic time. Another firmware update is to be released at the end of 2017. This is expected to have version number 2.0 and will support, among other things, a network operation of CS-R10s with the announced CS-R10-S compact interface (“S” for “small”).

As of summer 2017, the Yamaha Rivage PM10 is now available at several companies in Germany: Black Box Music Veranstaltungstechnik GmbH has acquired two systems, Babbel & Haeger OHG also has two systems and Profi Musik Handels GmbH has used its newly purchased PM10 for the main stage at this year's Elbjazz Music Festival. The Berlin State Opera was equipped with two PM10s during the summer break, while a further PM10 is currently being installed at the Deutsches Theater in Göttingen, while further users include Schauspiel Frankfurt, Schauspiel Hannover and BASF's Feierabendhaus.

In short: after a longer break, with the Rivage PM10, Yamaha now seems to have more than just its proverbial foot in the doorway to the market for contemporary digital professional consoles.
