

MediaMatrix is the perfect match at Amsterdam ArenA



The Amsterdam ArenA is the largest stadium in the Netherlands. Under its retractable roof it provides seating for 54,000 fans to watch home team Ajax dominate Dutch football, or 68,000 concert and event goers to see U2, the Rolling Stones and the inaugural Drone Racing World Series in 2017. Running MediaMatrix processing and Crest Audio amplification at its core, here we see how Peavey Commercial Audio worked with renowned speaker manufacturer, d&b audiotechnik, to bring the ultimate stadium audio system to Holland's vibrant capital.



MediaMatrix®



Commercial Audio

THE CHALLENGE

From the outset, it was clear that the Amsterdam ArenA was going to set new standards for Stadium Audio Visual. A wholly new speaker system was to be implemented, with four manufacturers invited to tender for the project.

Production manager at Amsterdam ArenA, Tim Oosterop, and head of technology, Martin Wielaart, defined three main objectives for the new system:

- Compliance with UEFA/ FIFA regulations for performance and intelligibility, and adherence to safety standards for evacuation systems.

- Address the venue's unique acoustics, difficulties that, in realistic financial terms, would be challenging to overcome.

- Enhance the stadium's reputation as a host of other entertainment events – especially concerts.

With no compromise on quality, Oosterop selected German speaker manufacturer, d&b audiotechnik, to partner with the latest MediaMatrix control suite.

MediaMatrix and Crest Audio serve as the 'backbone' of the PA-VA system, which is responsible for processing, distributing & controlling all analogue and networked audio channels across the site while Crest Audio CKi amplifiers feed the sound to various zones across the venue - including back of house offices, hospitality boxes and other public zones.

The crux of the challenge was to introduce new, high performance audio and control into the stadium 'bowl' area; for this, custom software was required for total harmony between the processing stage (via MediaMatrix) and the latest d&b amplifier and speaker systems.



THE SOLUTION

Working closely with d&b's engineers, Lee Freer – application engineer for Peavey Commercial Audio – helped to design a downloadable plug-in that brings total uniformity between the systems.

Available now as a download, the new d&b amplifier plug-in for MediaMatrix provides control parameters to adjust the mute status, levels, power On/Off, and alter the AmpPreset. This enables the complete system to be configured as a highly intelligible system for speech reproduction, and, via a simple button, to be reconfigured for full program material.

Critical status information can be monitored, ensuring the same is suitable as a PA-VA system in an emergency situation. MediaMatrix logs all audio connections to amplifiers, and the operating state of connected loudspeakers.

Lee explains: "MediaMatrix is a networked DSP and control system that is scalable, efficient and tailored to the needs of the user. The system is designed and managed via PC with the MediaMatrix NWare software, and then accessed and controlled wireless from any smart device supporting HTML5 via the Kiosk2Go remote control platform."

"The system is equipped with wired Kiosk control panels at the two command and control points in the stadium (East and West), which are used for phased stadium evacuation announcements and overall system health monitoring."

Lee continues: "Adding d&b to the MediaMatrix plug-in library gives our customers another great option when specifying and designing our Nion-based solutions. The amplifier plug-in gives both the programmer and the end user a seamless, reliable and intuitive control interface which can also be easily integrated into an overall MediaMatrix Kiosk and Kiosk2Go GUI control suite."

THE RESULT

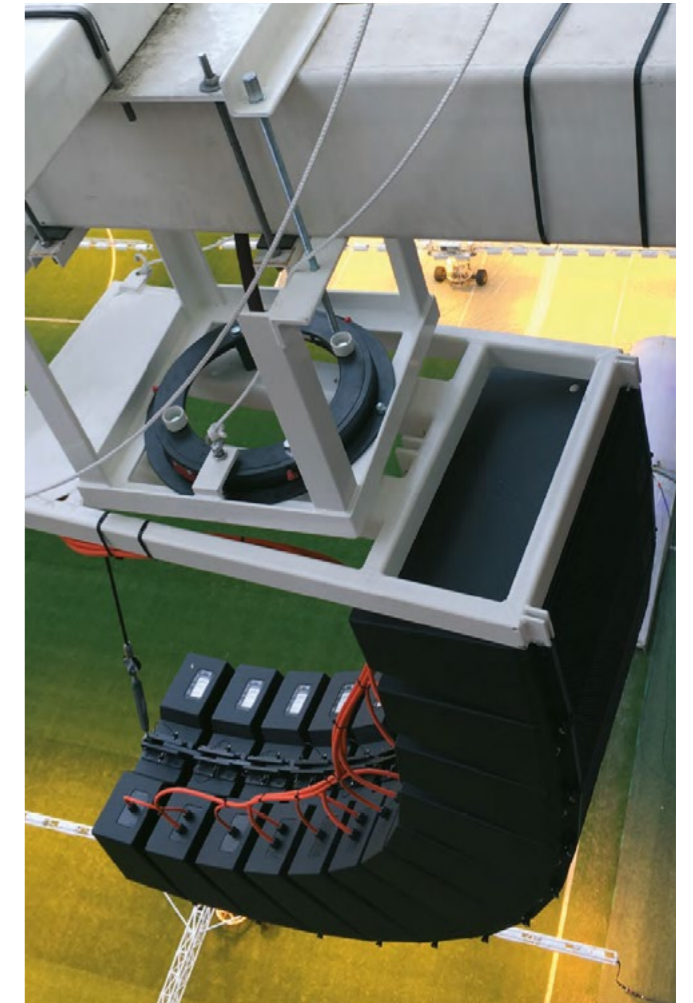
Stadium AV investment is a growing trend as systems are upgraded to meet new safety standards, as well as providing better quality and more efficient management. On this front, the Amsterdam ArenA now rates as one of the best installations in Europe.

Olaf Landzaat of Ampco Flashlight took on the technical integration of the system and says MediaMatrix is a key element in the installation, ensuring premium quality at every stage. He explains: "The new d&b amplifier control plug-in for MediaMatrix literally monitors every single device in the audio chain: every amplifier, and each individual speaker cabinet's low and high drivers."

The interface between d&b Array-processing software and the arena's existing MediaMatrix management system provided a simple and easily executed route to accommodating a variety of event formats, without compromising safety standards. "With what we have now, we can provide acoustic models and predictive scenarios to those planning to bring their shows here. We have an audio infrastructure that allows them to plan for best sound," Oosterop says. "With the modelling software and associated data, we give them the time and space to plan accordingly."

"The key for installation was interoperability, and total integration between the control system and the sound reinforcement system, whatever the application type," explains Wolfgang Schulz, product manager for installation at d&b. "The system design for many permanent installations now starts with the method for control and management, so d&b is looking to support system designers with complete interoperability with the MediaMatrix system, which guarantees easy planning and operation."

The last word goes to James Kennedy, operations manager at Peavey Commercial Audio EMEA.



"It's been a pleasure to work with d&b audiotechnik on this project and the high standards expected from both sides can be seen and heard at Amsterdam ArenA. The power and quality of the sound is simply staggering." He adds: "However, we all know that power is wasted without control and here we have a system that benefits from Peavey's proven management and processing with the fantastic quality of stadium speaker arrays for which d&b are renowned."

The d&b plug-in for Peavey MediaMatrix is available now on the d&b audiotechnik, and Peavey MediaMatrix websites.



"THE NEW D&B
AMPLIFIER CONTROL
PLUG-IN FOR
MEDIAMATRIX
LITERALLY MONITORS
EVERY SINGLE DEVICE
IN THE AUDIO CHAIN"



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AMSTERDAM ARENA

CONTROL AND NETWORK

4 x MediaMatrix n6 Dante
2 x 8 ch Mic/Line input card
2 x 16ch AES/EBU output card
6 x 8ch analogue output card
8 x d&b DS10 (Dante to AES convertor)
2 x HP Procurve 2530-48G
4 x HP Procurve 2524-24G
12 x HP X121 1G SFP LC LX
(Fiber Modules)

d&b amplifiers



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