

mendo **stadia**

PRIDE PARK

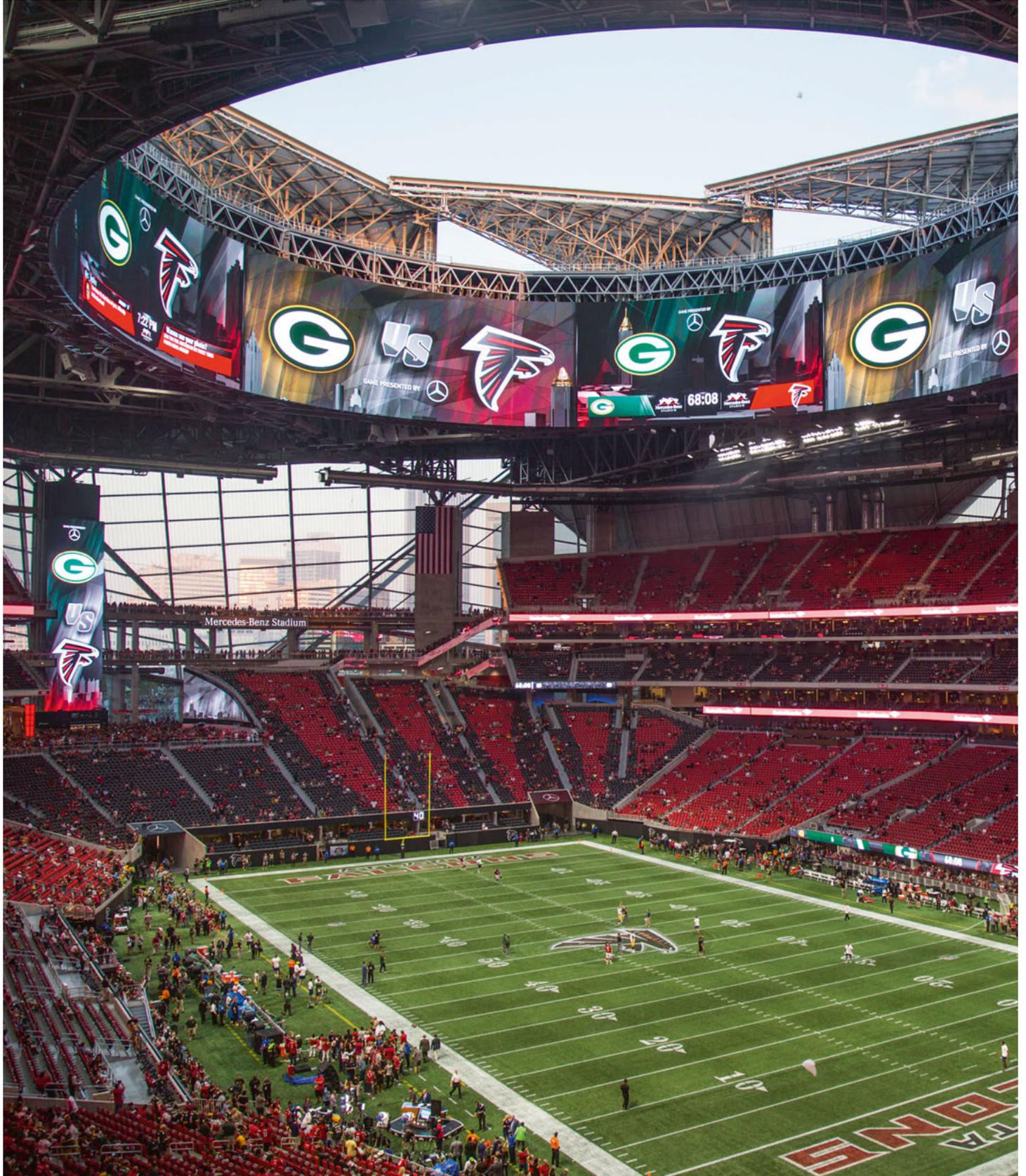
Broadcast and audio upgrades for Derby County's forward-thinking home ground.

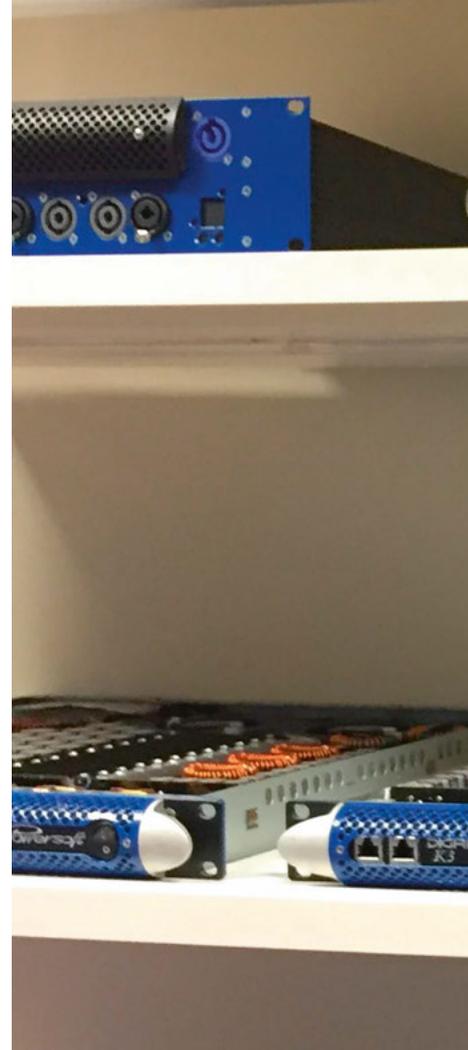
SEA GAMES

A closer look at Peavey's impressive work for the 2017 event.

MARC KOCKS

Powersoft's Business Development Manager discusses the latest technology in stadiums.





MARC KOCKS

Business Development Manager, Fixed Install, Powersoft

Firstly, tell us a bit of background about how you first got into the audio industry?

I started nearly 30 years ago as an apprentice for a company that specialised in installing boardroom systems and installing all the systems in the Dutch court houses. From there, I went to another company for a couple of years to do system designing, which was followed by working for Ampco Audio Products in The Netherlands in a junior sales role. This more or less played in to the managing director position at Ampco Flashlight Group, which consisted of TM Audio, Lightco and Pixel Source, which is a video-related company.

During my Ampco Flashlight days I was managing the sales companies. One of my tasks was to design the system and project manage. I was involved in a lot of projects outside of The Netherlands too, ranging from theme parks to cruise ships, theatres, stadiums and many more.

You've been working for Italian manufacturer, Powersoft for almost two years now, what first drew you to the company?

Powersoft is a company that has existed for many years and I have worked with the brand before in my previous employment. At that time, the company was predominantly well-known in the live sound and rental markets, and the products were only used occasionally for fixed installations. However, with the introduction of the Ottocanali amplifiers about four years ago and the Quattrocanali range this year, Powersoft now offers a complete line of products for fixed installation.

My task at Powersoft is to develop the fixed install market, meaning that I am looking at vertical markets and how a product can be placed within them. When looking at the vertical markets I need to build up a network, collect market information that might lead to new fixed install dedicated products we can integrate into existing products, or add to our product road map in the years ahead.

Another part of my job is to develop training programmes for system integrators, consultants and end users. As a result of this we will be conducting dedicated fixed install training in 2018. This programme will be offering AVIXA CTS RU points.

Powersoft has always struck me very innovative company and provides great support too. I had first hand experience of that maybe eight years ago.

There was an issue with the equipment, which was actually not Powersoft's fault but down to the application. Powersoft was quick in replacing those products and sending support and really helped us out with the project and so that attitude also drew me to Powersoft.

What makes Powersoft amplifiers applicable for a stadium installation?

The touring range of products, which are our flagship platform X Series, the K Series and M Series products are fitted with XLRs and speaker connectors, and are mostly used in a live environment, in terms of power rating and features they have onboard.

The install line products like the Ottocanali, the Quattrocanali and Duecanali are products equipped with Phoenix connectors, which make them easier to install. They also offer features which are perfectly suited to use in a fixed install environment, like they're able to power 70V/100V high impedance loudspeakers or low impedance loudspeakers to be set per channel. They are also equipped with GPIs and GPOs for monitoring and remote control. The emphasis is really for the products to have the most efficiency and they have a very dense power ratio too. They're available in lower output power ratings as well, so can be used in small and medium installations easily.

Audio quality is very important, so this is something we emphasise in all of our products and I think the way we are using Class-D amplification and the DSP management is a very good tool to reach this audio quality demand. But, with fixed installation, there are some other aspects to consider - which are quite important - such as product efficiency. Powersoft call it Green Audio Power - it's efficient and works in every kind of environment. Furthermore, third party control is becoming more and more important too and is now an important design criteria to put into a fixed install product. We offer a full range of remote control plug-ins for almost any external control product.

Are there specific models that are particularly well suited or is there any kind of built-in function that assists sporting venue projects?

For the install line products we have specific models available - the Quattrocanali, the Ottocanali and the Duecanali - effectively eight, four and two channel product. Those three product lines offer a complete range and use the same DSP platform and use the same means of digital audio



transport, in this case Dante. So the products can be perfectly mixed and matched for installs.

We also offer very good remote control in our software, Armonia, which allows the user or the system integrator to create presets for the system and allows for signal processing in a system that is unmatched. If you look at other amplifier based DSP products, we are able to offer more functionality in terms of being able to monitor the system. Then we've got all kinds of systems available to work with Armonia, so it can work with third party controlled systems, for example a Creston system or maybe another DSP system, but you're also able to use it with Operator View, our own user interface.

Tell us more about the Powersoft amplifier technology and why it is so adaptable for a sporting installation?

I think there are a number of reasons why our amplifiers are very good at being adapted to sporting installations. First of all it's Class-D amplifier technology. The Class-D amplifier is very dense and allows us to have a very dense power pack of amplifiers, which actually saves a lot of rack space. The efficiency of our amplifiers is unmatched, especially if you compare it to our competition thanks to a very low current draw and thermal dissipation. There are a very large number of large speaker pre-sets available in the system, allowing for combinations of different manufacturers, which helps the integrity of the system and the service ability of the system. We have all kinds of monitoring and safety features onboard too - a system integrator can remotely monitor the system and see if the system health is okay.

What is the most prestigious stadium to date that features Powersoft products and why?

First has to be Parc Olympique Lyonnais, now known as Groupama Stadium, that was commissioned and delivered last year. It comprises a very dense package of amplifiers, just 18 Ottocanali amplifiers, powering 144 independent, configurable loudspeakers. The ease of integration and the power capabilities of the product resulted in a huge saving in both installation costs and operation costs.

Another one is Iduna Park Stadium, Dortmund, Germany, where Ottocanali and X Series products are used. Actually this system is used for PA and VA

purposes. But it was a renovation project only so the loudspeakers remained unchanged. The former amplifiers needed to be replaced, and by changing them the system integrator found out that they had full remote control and full remote monitoring available on the system as well. A huge advantage for the owner is that the mains power required was limited by almost 40% compared to the original solution.

Are there any difficulties that you experience on a regular basis for stadium installations - if so, what are they?

The ability to work with lots of different loudspeaker systems and still being able to use one amplifier platform, in this case, Powersoft is very important in our pre-set library. The extensive monitoring, like Live Impedance monitoring, and redundant system set up offered on our DSP enabled product allows for full integration in a PAVA system.

The graphical user interface we provide saves costs in setting up the system. And then the extensive third party control we are offering also helps to integrate with other kind of systems like fire detection systems or maybe another DSP system.

Can you predict any future trends for amplifier solutions in stadiums?

I think that one of the most important aspects will be the ability to integrate the products or the systems in to the existing Ethernet structure in a stadium. Meaning that we have to have systems and products available that can sit on an Ethernet structure and can be used in the stadium's general Ethernet backbone. It's something that we see as a trend, it's happening now and will be increasing more and more.

The second trend is decentralised DSP, so the DSP is essentially split across the amplifiers so they are better equipped to protect the loudspeakers and monitor the system. By using a decentralised DSP solution we are also limiting the amount of network traffic and reducing the channel count of on the network.

The other most important trend that I foresee will be more important in the next years is the combination of a PA and a VA system. I think we'll see this a lot more in the not too distant future.

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