

On the shoulders of giants

The process of big-brand digital audio mixers squeezing into smaller gaps continues as installation markets become ever-more refined. **Phil Ward** looks through the magnifying glass

Once again the 2009 PLASA show produced a wave of smaller digital mixing desks, each testing the price-performance ratio to the limit. DiGiCo's SD8-24 set the pace, offering an even smaller footprint than the SD8 while retaining the DSP whack of Super FPGA and Stealth Digital Processing – quickly followed since the show by the EX-007.

Soundcraft followed suit with the Si1, which joined the Si2 and Si3 in a series of compact reinventions of the successful large-format Vi Series. Roland stepped up with the eminently dovetail-able M-380, and Yamaha continued its characteristically practical evolution of designs with Version 2 of the M7CL – the first version of which was arguably the primary co-ordinate of this arc, with precedents 18 years back into the Yamaha portfolio.

It's been a clear trajectory. In the past year Innovason has presented the Eclipse, a versatile console with a flexible range of applications. Elsewhere Digidesign concocted the SC48 from the Venue, and Allen & Heath fixed the iLive-T to a price and a feature set that makes it an entry-level alternative to iLive itself. The PRO6 Live Audio System from Midas also uses technology derived from a bigger brother: the influential XL8, which first offered the sample-synchronised audio performance now found in the PRO6. And one newcomer made its arrival: PreSonus, demonstrating extreme economies of scale with the all-encompassing StudioLive.

Localisation

As an expander module for the SD7, the EX-007 quite literally takes DiGiCo's high-end technology into new corners, providing remote access to the main engine up to 100m away. The footprint is smaller, too, with the obvious advantages to venue ergonomics and economics.

"Digital consoles are now more accepted in the live

environment and engineers have got used to assignment and layering," comments DiGiCo MD James Gordon. "This makes it possible to control a high number of channels with reduced fader count. Space has always been an issue with theatre productions and corporate sound, so being able to offer a large amount of channels and outputs is an attractive solution.

"The SD8 allows a large number of stereo channels and busses in a compact format, but without reducing the total number available. The SD8-24, at under a metre in width, has an even smaller footprint but still no reduction in either functionality or number of inputs and outputs. At the other end of the scale, we have the larger-format SD7 that, at



'Engineers are more relaxed about using smaller surfaces since user interfaces have been improved'

Andy Brown, Soundcraft-Studer

first glance, may not seem like it would work in a small console situation. However, we've recently developed the EX-007 that gives the ability to increase the number of available faders and channels substantially, or can be used as a remote surface when space is limited.

"I think the growing trend for small solutions is due to the expansion of digital consoles



The RSS digital system installed in Bryanston School, Dorset includes M-48 live personal mixers

into other types of live sound. In the beginning they were only used for large West End shows or major tours. Now, regional companies and local theatres have recognised their benefits."

Andy Brown is head of digital console strategy at Soundcraft-Studer. He believes that, once into the digital realm, product design contains a kind of self-fulfilling prophecy. "To some extent, the trend for physically smaller mixers is the result of manufacturers' natural drive to produce lower-priced – and therefore smaller – products," he says. "This is in the relatively immature lower-end digital console market where it's still an open battleground with market share up for grabs.

"But more importantly it's that the digital technology itself unlocks a whole range of advantages for breaking up the mixer into chunks and being able to distribute these around a venue, giving advantages such as keeping the I/O on stage with short cable runs to

microphones and so reducing the footprint at the control position. There are also further advantages linked to the increased integration of digital audio network technology into mixing consoles, which brings benefits of much greater freedom for system designers to create a system tailored to a particular building and application.

"Also, we think engineers are more relaxed now about using smaller surfaces to access multiple channels since the user interface designs have been greatly improved. We think most manufacturers are now entering the next phase of digital development, where having proved they can build reliable products they are now able to start extracting more of the real benefits that the technology offers.

"Modularity is one of the most important of these and there's a host of benefits for installations that in most cases are derived from client requirements. These include: FOH space-saving and consequent additional revenue from extra seating or audience capacity; freedom of control from several places yet the ability to have overall control from one location if required; more portability in venues such as sporting arenas where control surfaces could be easily

moved to different locations; and more space or freedom for co-placement or substitution by incoming production mixers."

Liquid channels

Roland's pro-audio arm RSS has recently announced a range of products that aims to exploit this almost liquid nature in which digital audio is seeping into architecture. Once plumbed in, several further benefits quickly become apparent.

"The current trend towards smaller footprint digital audio reflects the way in which the installation market is shifting and digital audio capability is rapidly developing," believes Martin Thomas, RSS sales & marketing manager at Roland UK. "The cost implications of installing large-format consoles and FX racks – with the associated infrastructure and, sometimes, lost seat revenue – are obvious. With building costs escalating and budgets

Key points

- Compact consoles with a smaller footprint but no loss in functionality are becoming increasingly popular
- This is driven by size constraints in many venues, the move to digital systems and requirements for flexibility in control locations
- Live venues, houses of worship, local theatres and multi-use spaces are key users