



## TiMax SoundHub takes a bow

The Royal Shakespeare Company has added the flexibility of a TiMax2 SoundHub matrix to its audio system at its Courtyard Theatre. LSi reports from Stratford-upon-Avon . . .

UK - Few names carry more weight in theatre circles than the Royal Shakespeare Company, whose renowned stagings of The Bard's works tend to set the global benchmark for how it should be done. But, without losing sight of its historic roots, the RSC has gone through something of a renaissance in recent years, with more than a nod to the contemporary both in its modern re-works including a Bollywood-style *Much Ado About Nothing*, and with its very own smash hit West End and Broadway musical, *Matilda*.

The main Royal Shakespeare Theatre auditorium and smaller adjacent Swan Theatre were reopened in late 2010 following extensive remodelling, accompanied by a substantial and ongoing investment in new production technologies (see *LSi December 2010*). Prior to the re-build, the nearby Courtyard Theatre was created as a temporary home for the RSC's productions (see *LSi September 2006*); it was also the prototype for the new one-room theatre format proposed for the RST and Swan to create a more traditional Shakespearean performance area, characterised by a deep thrust stage surrounded by audience on three sides.

A recent purchase for the Courtyard's audio infrastructure has been a 48x48 TiMax2 SoundHub matrix with MADI option. This was partly to satisfy a need to get MADI to and from the DiGiCo SD9 and provide onward signal distribution to what the RSC describes as its "three-dimensional delay system", comprising multiple Meyer UPM-1P balcony delays,

UPJ-1Ps either side of the proscenium, and a central UPM-1 cluster above the thrust stage. As well as signal distribution and speaker system management, another fundamental requirement for the sound department was flexible delay-matrix processing to apply variable upstage/downstage vocal localisations and band imaging.

Other generic DSP platforms under consideration needed relatively complex hook-ups between several units to achieve the same end. As head of sound Jeremy Dunn observes: "We were initially going to go with gear our crew are all familiar with, to avoid them having to learn a new bit of software. But it was always going to be a bit of a science project involving a number of separate boxes and interfaces feeding into each other."

Dunn was introduced to TiMax SoundHub by HD Pro Audio's Andy Huffer who visited, with Dave Haydon from TiMax developer Out Board, to demo the unit and in particular to convince him that its "task-based" Mac/PC software was simple and intuitive enough that there was really nothing to learn. "The big attraction was that TiMax SoundHub could give us MADI, analogue and AES I/O, plus DSP, all in one box," said Dunn.

After about an hour's tuition from Dave Haydon, RSC engineers were programming and auditioning TiMax image definition delay-matrix setups for the different stage zones, applying linked EQ adjustments and assigning Group zone controls to tune and trim the multichannel, distributed Courtyard Theatre sound system. As most shows currently have fewer than four or five vocal mics, the

Above: A performance of *Romeo & Juliet* at the Courtyard Theatre.

Above, inset: RSC head of sound, Jeremy Dunn (photo: Sarah Rushton-Read)

Facing page: The Courtyard Theatre auditorium.

operators use aux sends on the SD9 to crossfade individual mics between TiMax inputs which are statically routed to level/delay image definitions programmed to ensure that each actor's voice is always precedent to any of the loudspeakers whenever they enter that localisation zone. "We tried it for about a month; it was a joy to use, sounded great and the price was right so we asked Andy Huffer to get us one," Dunn confirms.

The TiMax SoundHub-S48 unit was first deployed in the RSC's Courtyard Theatre, which saw its original temporary role grow into being an overflow venue during festival seasons, and which is now mooted as a potential new studio-style home for the RSC's more experimental and contemporary productions. The new TiMax has also since done service in the West End for the RSC's Bollywood-style production of *Much Ado About Nothing* at the Noël Coward Theatre, and Jeremy Dunn sees other units possibly being required for future roll-outs of their temporary auditoriums which regularly take up residence in London's Roundhouse and venues in New York.

The Courtyard hook-up is interesting, exploiting the diverse "hub" capabilities of the new acquisition. The RSC's TiMax SoundHub unit comprises 32 analogue and 16 AES analogue inputs, with 48 analogue outputs and 16 AES outputs. The built-in MADI interface takes vocal mic direct outs, mix busses and aux sends from the SD9 as inputs to TiMax. MADI out from the TiMax goes via an RME MADI card into a Mac Powerbook, allowing mic signals to be sent via TiMax to Altiverb reverb plug-ins hosted by Plogue Bidule on the Mac. MADI out of the Mac goes back to the desk to deliver Altiverb reverb returns and QLab sound effects to the console.

Once the reverb returns, vocals, band and sound effects have been re-assembled back at the SD9, its MADI link to the TiMax SoundHub then gets everything out to their respective parts of the PA system via the SoundHub's delay matrix and analogue I/O. If AES digital outputs are required in the future, TiMax can provide these at different sample rates (48/96kHz) on any AES output pair, each with independant clock source selectable from internal 48kHz or 96kHz, external WordClock BNC, or from any AES input pair.

Jeremy Dunn has also shown interest in TiMax Tracker performer tracking automation, and took time out to experience it first-hand at Raymond Gubbay's in-the-round production of *Carmen* at the Royal Albert Hall. "I'd always assumed there'd be phasing artifacts unless a real person was judging and managing the transitions, but in *Carmen* you really couldn't hear the join, so I'm definitely looking into opportunities to use it at the RSC," said Dunn. "We're also interested to start trying out the SoundHub's playback capabilities for effects - even though it's generally all QLab here, TiMax offers an alternative workflow for certain things and some powerful features like editable delay panning. Also Dave Haydon has explained how these can be seamlessly integrated with QLab using MIDI."

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Inside the Courtyard Theatre, Stratford-upon-Avon.

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