Montreux festival in technology showcase

As well as a platform for the world’s finest musical talent, the 1991 Montreux Jazz Festival proved to be a showcase for one of the most technically advanced video and audio productions ever attempted in Europe: involving an impressive blend of high definition television and the latest digital audio technology, the project was co-ordinated by Sony, working in close association with Mountain Studios of Montreux and a team of British, Swiss and Japanese engineers.

Staged for a full month every summer, the Montreux Jazz Festival continues to be one of the world’s biggest musical events. Co-produced by Quincy Jones, the 1991 line-up included artists as diverse as Sting, Miles Davis, Toto and Depeche Mode, offering a mix of artistes familiar to a wide audience. Mike Preston, Claude Nobs, who founded the festival back in 1966, said: ‘All the Festivals in the past have been archived and 1991 was to make sure the 25th would be recorded with the latest techniques, hence the extensive collaboration with Sony.

All 25 evening performances at the Casino were captured on Sony 1125/60 High Definition Video Systems (HDVS) equipment by a five-camera team, with all sound recorded on two Sony 48-track digital recorders. With more than 70 hours of material at the disposal of the producers, a comprehensive programme of the 1991 Festival is being post-produced as an HDVS videoclip, complete with a digital audio soundtrack.

Sony’s association with the Montreux Jazz Festival stretches back several years. Working in close association with Montreux’s legendary Mountain Studios recording facility, the company has been providing digital recording equipment for previous Festivals since 1979, when it supplied one of the world’s first stereo digital systems, the PCM-1. Since then there has been a gradual introduction of digital multi-track technology and this year, saw the event recorded on PCM-3346 machines for the first time.

Mountain Studios is based within the Casino complex itself and its facilities include a state-of-the-art recording studio,_lm, and a concert hall for recording and live broadcast. Chief Engineer, Dave Richards is not only a Mountain veteran with production engineering credits spanning Queen, David Bowie and Chris Rea, he is also an experienced when it comes to large events. Not only had he handpicked the recording of previous Montreux Festivals, but he was responsible for the PA/live for Roger Waters’ Berlin performance of The Wall. Richards explained how the 1991 Festival differed from previous shows: ‘In the past, the technicals had always been fairly standard, with a split coming off the PA mic lines into the control room and down to multi-track, with the monitor mix acting as the live broadcast feed. This year, with our suite of four track digital we have stepped up to quality digital, the new Sonorax mix pre-amplifier system and everything is directed to stage.

The two 36s were run back-to-back, with the second 3345 patched to the first via the digital I/O ports, allowing continuous recording with no breaks for real changes. Both machines were video locked to timecode with the HDVS VTRs. In spite of the increased number of tracks available, Richards had no problems in filling them. ‘We ran 40 lines for the PA in the main hall and the studio takes a passive transformer split from the stage mics, these were patched onto tracks 1-40 on the Sony recorder via the Sonorax system. The remaining 8 tracks were taken up with ambient mic feeds, from the AKG C414 over the stage and several B&Ms positioned in various parts of the hall.’

Richards was enthusiastic about the flexibility and performance the set up gave him: ‘That was the first live set up on the world, with the pre-amps and signal, and it was the ideal system for live recording’. Added Richards: ‘if you were not concerned about a monitor mix, you wouldn’t even require a console!’

To capture the action, two Sony HDVS Outside Broadcast vehicles were deployed outside the Casino, equipped with a mix of five cameras and five digital HDVS video tape recorders – and as Sony’s on-site HDVS specialist Shonichi Saka pointed out; Each HDVS VTR has eight audio channels capable of accommodating 48kHz sampling rates.

While Sony wanted HDVS material, both Claude Nobs and European broadcasters required PAL video for their own use. Another technology first at Montreux saw Sony’s British-designed prototype real-time PAL down converter making its live production debut. This unique device accepts an HDVS signal and provides a fully motion compensated 625 line PAL output. This output was recorded on Sony D-3 and Betacam SP recorders, with stereo digital audio soundtracks on both formats.

While Sony has won the rights to produce a videoclip of the 1991 Festival, this is intended for the company’s own promotional purposes, with screenings set to take place at trade shows and exhibitions over the next ten years. Any decisions about rights for commercial Distribution - either as a 35mm film or as a television programme - are yet to be confirmed, although film is now technically feasible, thanks to the latest Sony EBR (Electron Beam Recording) HDVS-to-film transfer technology.

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