

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 Deee-lite, concluding with a Gospel extravaganza on July 21st featuring The Reverend Jesse Jackson and Billy Preston. Claude Nobs, who founded the festival back in 1966 said: "All the Festivals in the past have been archived and I wanted to make sure the 25th would be recorded with the latest techniques, hence the extensive collaboration with Sony."

All 20 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 videodisc, 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-3348 machines for the first time.

Mountain Studios are based within the Casino complex itself and tie lines through to the 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, but he is vastly experienced when it comes to large events. Not only has he handled the recording of previous Montreux Festivals, but he was responsible for the PA/live mix for Roger Waters' Berlin performance of 'The Wall'. Richards explained how the 1991 Festival differed from previous shows: "In the past, the technique has always been fairly standard with a split coming off from 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 first use of 48-track digital we have stepped up in quality adding the new Sonosax mic pre-amp/splitter system and going direct to tape."

The two '48s were run back-to-back, with the second 3348 patched to the first via the digital I/O ports, allowing continuous recording with no breaks for reel 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 Sonosax system. The remaining 8 tracks were taken up with ambience mic feeds, from an AKG C24 over the stage and several B&Ks positioned in various parts of the hall."

Richards was enthusiastic about the flexibility and performance the set up gave him: "That way I had the levels set up on the mic pre-amps with each signal assigned to its own track, so I had no need to worry anymore. For the live mix I monitored directly off the recorder in 'Line In' mode, which gave me plenty of time to concentrate on the quality of the mix itself. Before I was always in 'Record Mode' on the console, which inevitably leads to some kind of audio compromise, but in mix mode, it's much better."

Rogue levels presented little trouble to Dave Richards since the pre-amp/machine combination was lined up so that the clip level of the mic amp was just under that of the multi-track, ensuring a wide safety margin. "The combination of extremely high quality mic pre-amps and the Sony PCM-3348 has to be 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 total of five cameras and five digital HDVS video tape recorders - and

Big Band Night at Montreux. The George Gruntz Concert Jazz Orchestra - augmented by HDVS and 48-track digital

as Sony's on-site HDVS specialist Shohachi Sakai 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-2 and Betacam SP recorders, with stereo digital audio soundtracks on both formats.

While Sony has won the rights to produce a videodisc 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.



High Definition Software Centre General Manager Shohachi Sakai with the HDVS truck



Dave Richards checks his cue list in the Mountain Studios control room

"I've stuck with Sony's digital gear since the PCM-F1. Then along comes the PCM-3348 and Sony surpass themselves again."

- Phil Collins