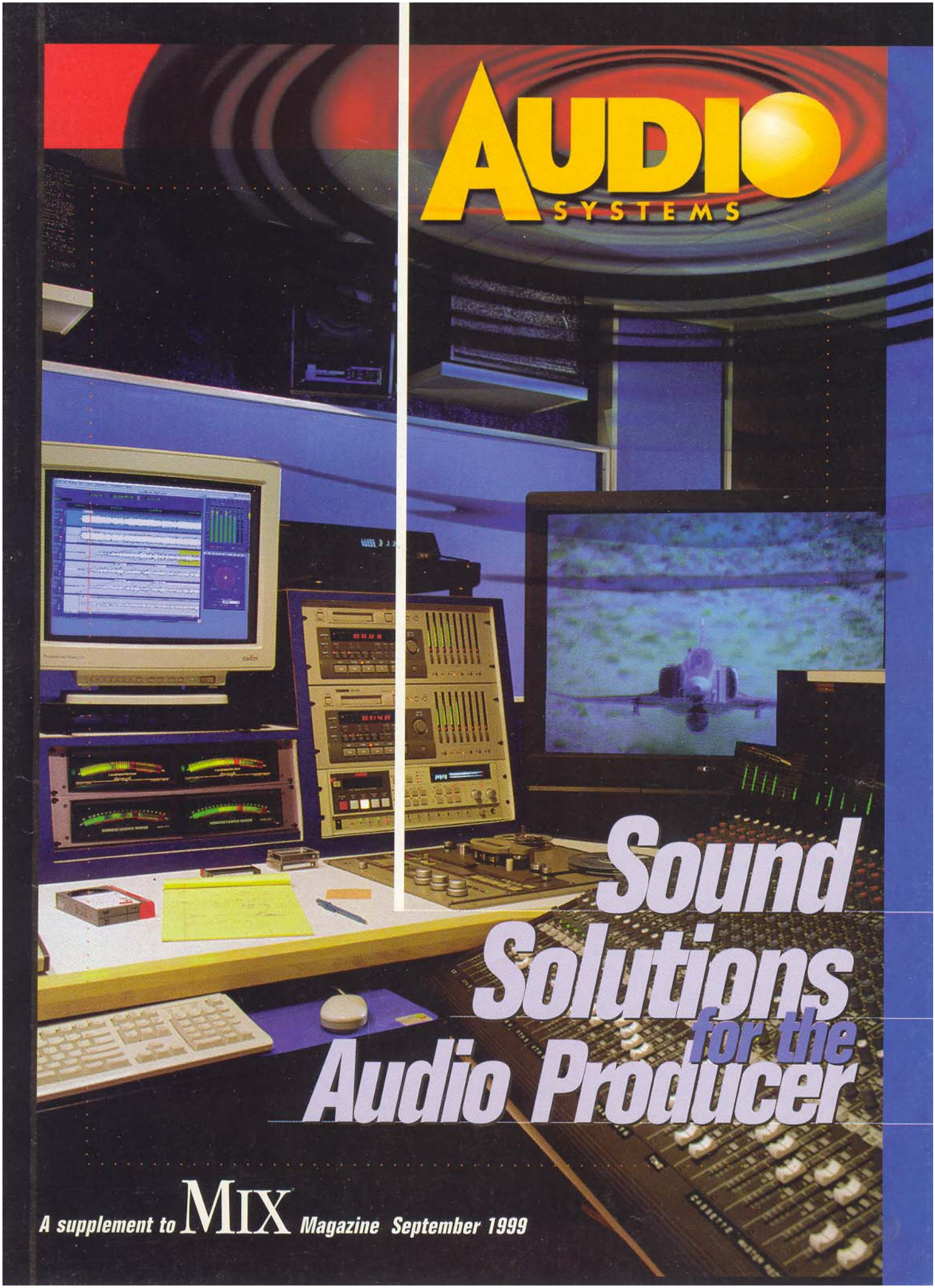

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The Other Side

Corporate Audio Playback Systems

By Pete Tidemann

SYSTEMS FOR PLAYBACK OF CORPORATE audio are a direct reflection of what's being achieved on the audio production side. In other words, just as the tools for creating and producing audio tracks have gotten increasingly sophisticated in the past few years, so too have the systems and devices created to play back this source material.

From corporate boardrooms to huge international shareholders meetings, many of the same audio playback formats are used. It's the size of the system that's different. However, just as many boardrooms these days offer the capability to play back audio in surround format, so too do the larger-concert-type systems used for bigger applications in spaces like hotel ballrooms, sports arenas, and stadiums.

As an audio engineer who designs and mixes on many of these systems, I've found that particular formats work better than others. We consider it to be our primary responsibility to deliver the absolute best audio quality, no matter the format. In every case, we try to act as a partner with the client and their production people to provide suggestions as to what will work best, given our experience. But we're prepared to deal with anything and everything that might be handed to us for audio playback.

Here's a look at the most common formats we work with and some ways we go about the business of providing optimum playback audio in the corporate realm.

Format Options

CDs are popular for what we term *audio cues*. These are portions of corporate meetings for *walk-ups* to the stage, voiceovers, general music, and other sound effects. Not so long ago, clients had outside production companies record these audio tracks and then burn them to CD for playback.

With the advent, affordability, and ease of use of CD recorders (CD-Rs), many clients now produce these tracks in-house and then hand them off to us. We find the quality of these to generally be quite acceptable, although of course there are a few exceptions. (But then again, this was also the case with professionally produced tracks as well.) Standard, professional-caliber CD players are employed for these applications.

However, the whole ballgame changes when we have multiple tracks to be organized, cued up, and played back from 10 different CDs. It can be extremely difficult to switch discs and cue up the track. And you don't always have the ability to offer a backup track playing in sync, to be brought up in case of a problem with the main track. At times like these, we employ a 360 Systems Instant Replay system.

Instant Replay is configured to record up to 16 hours of 44kHz stereo audio onto its internal hard disk. All cues can be assigned to the 50 hot keys on the unit's front, with each key providing access to 10 cues. This gives you up to 500 audio cues that are almost immediately accessible. Gone are the days when we had to have multiple CD players and tape decks onsite. Now everything is at our fingertips. Cue lists also can be assigned — hit play and the cue is triggered, with the next one ready to go.

Audio can be recorded to Instant Replay via either its analog inputs or digital AES/EBU. And, you can also set up an internal threshold so that recording won't start until the signal breaks the preset barrier. This allows playback of the cues to be instantaneous as soon as the operator hits one of the hot keys. Editing can also be easily done with the addition of an Instant Editor unit, which will store up to to four hours of audio for editing purposes.

Another option, although we don't utilize it much anymore, is the 360 Systems Digicart system. Audio is recorded on individual cartridges that can be plugged into multiple Digicart units, all controlled via computer from one center location. Given the comprehensive nature of Instant Replay, combined with its compact size and

At the house console, Pete Tidemann incorporates technologies like a 360 Systems Instant Replay system (right, foreground) during live corporate productions.

High-end corporate audio playback systems, like the one assembled here by AVF, help to fully realize all of the work done on the production end of the process.

ease of use, we believe it's really the better way to go for our particular needs.

Audio accompanying video presentations is usually supplied to us on Beta SP tape, which has four tracks available specifically for audio. We don't always receive stereo format, however. Sometimes it works better to have the music and voiceovers separated on different channels. The advantage is that this separation provides us with the ability for more individual control over factors like gain and equalization of these two distinct entities.

Times Are Changing

We are also receiving an increasing number of audio tracks that offer music produced in stereo with another discrete channel for spoken word segments and/or certain effects. This, of course, allows us to present music in the full soundstage, as big and dynamic as possible, while spoken word has more point-source intelligibility and localization to the front podium or stage.

And there's surround sound, with at least five separate full-range audio channels and a discrete subwoofer channel. Surround tracks work especially well for us if they're recorded on a Tascam DA-88 eight-track recorder. In playback, each individual channel can be routed through the mixing console to the appropriate loudspeakers. I've found recordings done this way to be easily and accurately controlled, even while adding live voiceovers to the center channel.

A hot new item we've recently seen in production suites is 360 Systems' TCR4 and TCR8 hard disk recorders. They provide four or eight tracks of 24-bit digital audio, plus complete timecode implementation and large storage capacity with removable, high-density disks for multiple recording capability. (Also viable for playback applications, we're thinking about adding at least one of these units in the near future.)

Certain computer-literate types have been known to employ software/hardware combinations to achieve this type of capability, recording everything to hard disk as desired. We've also found audio tracks produced in this manner work quite well, providing that the sound card in the computer is a quality component.

Sometimes more simple solutions work best. And they offer us ways of improving the quality and impact of a client's audio production. For example, there are audio processors that produce surround sound from a standard stereo signal. The one we utilize is called the MTI-3 TriSonic Imager from Miles Technology. You give it any stereo input, it gives you true, pristine left, center, and right output, as well as stereo surround that's full-bandwidth.

The MTI-3 also includes discrete inputs for center and surround channels, allowing an unprocessed signal to be mixed and sent to those locations. This is valuable when a voiceover needs extra boost in the center channel to separate it and provide distinction from what's being produced in stereo.

Fixed Solutions

In the world of installed systems — let's use corporate boardrooms — AMX and Crestron have created wonderful automated control devices that allow virtually any audio and video playback source to be activated at the push of a button. The good news for everyone is that audio can be presented in virtually any produced format, assuming the playback system has been designed to accommodate it.

Certainly no one will be surprised when I mention that DVD is emerging as a popular choice in the upper echelons of boardrooms and theaters. We're also going to be implementing DVD as the technology evolves. An interesting development on this front that we've been keeping an eye on is the Digital Theater Audio Controller (DTAC), produced by IMAX and Sonics Associates. DTAC can control a wide range of hardware- and software-based technologies, including film projectors, DVD players, CDs, cassettes, DA-88, and a host of other playback devices.

In a DTAC-based system, DVD supplies super-clean, compression-free digital audio to all channels of the sound reinforcement system. Entrance music and voiceovers can be easily programmed to loop for the length desired, and DVD audio can be tightly locked to film or video source for digital-quality surround sound.

DTAC also stores pre-programmed emergency announcements that can be inserted at any point during any event. Program set lists can be assembled simply from the different sources controlled by DTAC, and scheduled for automated playback. This allows for the flexibility needed when assembling a large exhibit or an ever-changing corporate theater.

One thing is certain: We're able to provide better services to our clients as a result of all of these developments. Going further, the state of audio playback in the corporate realm has never been better. In fact, I can't wait to see how much better it gets on the production and playback sides.

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PRODUCT INFORMATION CONTACTS

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Digidesign
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Event Electronics
Santa Barbara, CA; 805-566-7777
www.event1.com

Eventide
Little Ferry, NJ; 201-641-1200
www.eventide.com

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Petaluma, CA; 707-763-1010
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Sennheiser
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Tascam\TEAC America
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