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**DIGITAL SOUND UPDATE:
THE SMPTE ASKS FOR YOUR HELP:**

BY

JOHN F. ALLEN

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FIRST IN DIGITAL STEREO

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The adjacent postcard is your invitation to contribute to the future of digital soundtracks on motion picture release prints.

Nothing, in recent years, has revolutionized the audio industry more than digital sound. The unprecedented recording quality afforded by the compact digital disc has caused no less than a sensation in the consumer Hi Fi market. Almost from their introduction, the demand for CD's has outstripped production capacity.

The motion picture world, where Hi Fi actually began, has been slow to catch on to digital, let alone catch up. Walt Disney Studios' sound department was the first to take advantage of digital sound and began digitally recording films in 1981. These first digital soundtracks were for films solely intended for the Disney parks. Then came the need to rerecord Disney's 1940 classic masterpiece, FANTASIA, for re-release. The engineers at Disney opted for digital. Thus the first stereo film ever made also became the first feature length motion picture recorded, edited and dubbed in digital audio.

While Disney's digital activities continued, it wasn't until two years later that another digital feature was produced. Once again, the film was a classic: Fritz Lang's 1926 METROPOLIS, restored and scored in 1984 by Giorgio Moroder. During that same year, Glen Glenn Sound took the extraordinary step in producing their own film. DIGITAL DREAM was created with the sole intent of exploring and demonstrating the advantages and quality of digital sound with film.

It still remained for a full digital presentation to actually take place in a theatre. When I first developed the HIGH PERFORMANCE STEREO™, HPS-4000™ theatre sound system in 1979, I had a more dynamic future in mind than current films required, and designed our systems to be "Digital Ready." In 1984, after years of selling theatre owners on the merits of digital ready sound systems, I was getting tired of waiting. When Plitt Theatres and I introduced Los Angeles' first HPS-4000™ installation at the Century Plaza Theatre to an invited industry audience, I decided it was time to do the World Premiere of digital sound in a commercial movie theatre. In cooperation with Glen Glenn

Sound and Giorgio Moroder we did just that on December 6, 1984.

The success of this demonstration lead directly to the first full digital stereo presentation of a feature film. On February 8, 1985, with the considerable assistance and genius of Walt Disney Pictures' sound engineers, FANTASIA opened at the Century Plaza Theatre in full digital stereo. The audience response was phenomenal.

Up to now, these and all other digital film presentations have used a double system with the sound and picture running separately and interlocked. While this works quite well, it is generally felt that for digital sound to become widely used in theatres, the digital soundtrack must be on a composite release print, just as today's analog tracks are now.

This is no small feat. Two systems have been the subject of intense research. The first is the so called "Fluorescent" sound system developed by Peter Custer. In this approach, the digital information is actually printed across the picture area of the film and read with ultraviolet light. A second technology, under development by Eastman Kodak, stores the digital information on in the areas of 35 and 70 MM films currently used for soundtracks. Since, in this approach, the digital recordings are designed to be printed along with the picture on today's high speed printers, the Kodak system is getting serious attention by many in the industry. With more and more films being recorded using digital techniques, interest in digital release prints has become greater than ever.

Recently the Society of Motion Picture and Television Engineers (SMPTE) formed a study group to formulate recommendations concerning digital sound on film. These recommendations will be used by the appropriate sound and film committees when they get down to the process of proposing actual standards and practices. Perhaps because of my activity in this area, they have kindly asked for my participation in the study group.

During the first meeting it was decided to seek comments from those producers, mixers and exhibitors who would use and benefit from digital movies. BOXOFFICE magazine has generously consented to publish the following questionnaire. Though primarily intended for those in the exhibition industry, anyone who is interested is urged to participate.

Please tear out and fill in the adjacent postcard for your answers. Please mail this postage free reply card as soon as possible since we will need the information for our next meeting in February.

Thank you in advance for your help. The questions are as follows:

1. Do you agree that digital stereo film presentations in theatres will increase ticket sales?
2. How much of an increase would you expect?
3. How much would you realistically be willing to spend to equip a single operating theatre for digital stereo (in thousands of dollars)?
4. How many channels of discrete digital sound, including surrounds, should films have?
5. How many surround channels should there be?
6. If digital movies would require theatres to replace current speakers and amplifiers, how willing would you be to replace them?
7. Which best describes you?

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DIGITAL SOUND SURVEY: ANSWER CARD:

	Strongly agree	Slightly agree	Don't Neutral	agree
1. Increase ticket sales?	—	—	—	—
	0-5%	5-10%	10-20%	20%+
2. How much of an increase?	—	—	—	—
	\$3-5,000	5-10,000	10-20,000	20,000+
3. How much would you spend?	—	—	—	—
	4	5	6	8
4. How many channels total?	—	—	—	—
	1	2	3	4
5. How many surround channels?	—	—	—	—
	Very willing	Only in the top theatres	Neutral	Unwilling
6. Willingness to reequip?	—	—	—	—
	Theatre owner	Technical director	Manager	Projectionist
7. Which describes you best?	—	—	—	—
	Other			
	—			

John F. Allen is the founder and president of High Performance Stereo in Newton, Mass. He is also the inventor of the HPS-4000® cinema sound system and in 1984 was the first to bring digital sound to the cinema. John Allen can be reached by E-mail at JohnFallen@aol.com.