## **DTV Summit**

## July 24, 2001 Comments by Robert Hopkins

In 1987 Sony Corporation of America established the High Definition Center in Burbank, California to serve three purposes:

- 1) to provide a high definition R&D facility,
- 2) to work with filmmakers to find ways that high definition might fit into a film environment, and
- 3) to provide a showcase of high definition equipment in Los Angeles.

Following Sony's purchase of Columbia Pictures in 1989, the HD Center was moved to the new Columbia Studios in Culver City, formerly the MGM Studios.

In its early years, the HD Center provided high definition cameras and recorders to filmmakers interested in shooting with high definition. And, on-line high definition edit services were provided as well, so projects could be completed in high definition.

The HD Center was also involved in equipment innovation. With assistance from the HD Center, Sony developed an electron beam recorder to transfer high definition images to 35mm film. With this equipment, HD projects could be shot and posted in HD, then transferred to 35mm film.

Some of the most significant R&D work done at the HD Center during those years, though, was devoted to transferring 35mm film to high definition, work that eventually led to the HD Center receiving an Emmy.

The HD Center also was involved in computer graphics work at high definition resolution.

In 1995, management of the HD Center was changed from Sony Corporation of America to Sony Pictures, and the mandate changed from being a cost center to being a P&L center. The capabilities that had been developed at the HD Center, and would now be offered as services for a profit, were the transfer of film to HD, the transfer of HD to film, HD editing, and computer graphics.

Since 1995, the HD Center has moved out of the HD camera/recorder rental business because that area is well covered by Panavision and rental houses like Plus 8, Bexel, etc. The CG business has not been a good one for a couple years, so we no longer offer services in that area, but we did keep a digital image restoration business going.

The services we offer now are transfers, both ways, between 35mm film and high definition, HD editing, and image restoration. Sometimes the restoration we do is for HD only, sometimes it gets back on film. For example, we restored two reels of the 1969 classic "Easy Rider".

We have made a very successful business based on high definition technology. Even though most of our work is not seen as HD — you will see our work more often in the form of a DVD or 35mm film — the technology is critical to our business.

The additional expense of high definition transfers of movies can be justified because one HD transfer can provide downconversions for both the 60 Hz market and the 50 Hz market, and because the transfer is higher quality than a telecine transfer made at 525 lines or 625 lines. And,

the HD tape is sitting in the vault waiting to be used again for HD broadcasting, for HD DVDs, etc.

We started this trend in Hollywood. We have transferred several hundred movies to HD. Now all new movies in Hollywood are transferred in HD, and many of the library titles are being pulled from the vaults to be transferred in HD. At this time, the HD Center is transferring four movies every week.

Essentially all post houses in Los Angeles now have HD capability. Furthermore, many television shows are being done in HD now. Some start as 35mm film, some start as 60i video, and some start as 24p video.

I am confident that the type of business we are running will grow in the future. Movies are now being shot using 24p HD cameras — post houses like us will be involved in the post production of these movies. Movies are being shown digitally in some theatres — we will be involved in preparing movies for digital cinema.

And, filmmakers like the added capability they have when doing the color timing of their movies with digital equipment, rather than chemical film timing. This is leading to what we call a digital intermediate — shoot the movie with film, transfer to digital to do the color timing, then transfer back to film for exhibition.

The theme of this conference is digital television. Much of what I have spoken about is a bit different, but we are using the same equipment to do our job. And, our movies, after some delay, do make it to television.