

Letter to the Editor

Re: Coding and Packaging Film for Broadcasting

Dear Sir:

Those of us who work in television have been very glad, over the years, to use the ideas and equipment developed by our motion-picture brethren in order to be able to show films over television systems. Although theatre-type projection is very rarely used, possibly only in review rooms and editing facilities, the realities of the situation have been such that television film projectors are basically theatre-type projectors, and television film arrives and is handled as if it were for theatre projection. In the last few years, the requirement that television films from different sources should match accurately has caused a considerable reassessment of color balance requirements, to the benefit of both theatre projection and TV interests.

The further development of TV projection practices could be considerably speeded if certain other modifications or additions to the projection system as a whole could be made. I am writing this letter, expressing only my personal views, because it is possible that some of these suggested modifications could be of value also in theatre projection. In fact some of the ideas may be well known in film circles, but have just not penetrated into the television world.

I would like to discuss first the identification of films for projection. There is the standard SMPTE leader which cues the film start, but it does not say whether the film is optical or magnetic sound, front or rear sound focus, color or monochrome. Further, it has to be projected and viewed by eye to tell if it is upside down or laterally reversed. These decisions do not arise in theatre projection, except on the rare occasion of a program change. They arise every few minutes of every day in a television station, and considerable paperwork and checking are necessary to ensure that the projection system is correctly set up.

What we would like is a code of some sort which could be read by the projector, and would automatically set the projector to the right conditions. This code should be part of the leader, but must also appear along the length of the film, for it is possible with multiplexed projectors that the film will be stopped part way through, a slide or another film with different requirements shown, and then the original film restarted. The coding should appear once every one or two frames.

Film timing and splicing, and the cueing of associated audio and video-tape machines, could be much simplified if each film frame was identified uniquely. A simple digital code would be ideal.

Automatic control of telecine exposure and color balance would be simpler if suitable grey scale or color wedges were recorded somewhere on the film outside the normal picture area.

If all the above information was included in some way on the film itself, we could solve a lot of problems for the television film departments. It may even be simple to adapt the system to slides, so that at least the slide holder is known to be inserted the right way round without having to project it. Perhaps some of the information could be used also to automate theatre projection. Such information is, of course, readily available with video tape.

As a second major point, there is the problem of film packaging. A feature film is normally received from the distributor, edited by the TV film editor to suit the station requirements, commercials or their cues are added, and the film, on reels, is then loaded and threaded by hand on a projector whose operating philosophy went out of style in 8mm some years ago. After projection, the whole film is reassembled for return to the distributor. Why cannot the distributor do the editing, with a possible improvement in artistic results because of his assumed closer contact with the original producer, and provide the film ready cued for commercial insertion? If the film frames were numbered as discussed above, automatic cueing would be easy and the film need never be physically cut or touched at all.

If the films could be supplied as a complete package, why could they not arrive in sealed cartridges for direct projection on automatically-threading projectors? Just imagine the simplifications possible if all commercials on film came in continuous-loop cartridges. If that seems impractical for feature films, why can't we have self-threading projectors? And for the budding inventors it might be pointed out that for TV it is not necessary to retain a vertical film path. Films could be projected on their sides if desired, a simple electronic modification to the camera restoring the picture correctly for transmission.

There is much food for thought in the above, and no doubt it will take time for decisions to be made. As a start, would someone like to suggest a code which can be simply added to existing and new films to indicate whether they are in color or monochrome? Perhaps a colored frame line would be enough

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