



In this column, we provide interesting historical briefs from the Journal articles of days past. The purpose of this column is primarily entertainment, but we hope it will also stimulate your thinking and reflection on the Society's history, how far we have come in the industry, and (sometimes) how some things never change. This is not meant to be an authoritative reference, and no attempt is made to correct any past errors or omissions of the Journal. We simply hope you enjoy the material. This column is sponsored by Television Broadcast Technology, Inc.



By Michael Dolan

25 YEARS AGO IN THE JOURNAL

The December 1990 *Journal* published in: "If Progressive Scanning Is So Good, How Bad Is Interlace?" by L. J. Thorpe and T. Hanabusa: "The issue of interlace versus progressive scanning for an HDTV production standard has been vigorously discussed in all HDTV-related standardization committees, beginning with the HDTV Study Group of the SMPTE (1977-79)...There is, of course, the long-established recognition that hand in hand with the additional advantages of progressive scanning there is the substantial extension of bandwidth. This formerly daunting penalty is, however, tempered by a confidence in technology's inexorable advance, rendering the handling of such bandwidth not only possible, but cost-effective. The urge to adopt progressive techniques is further enhanced by a perception that the technology that permits its implementation is just around the corner. At least it seems sufficiently close to persuade some that an HDTV production standard should be based on progressive scanning, demoting interlace scanning to second-class status and dismissing it as an outmoded necessary evil, though perhaps reluctantly recognizing it as a short-term expedient...the fact remains that the camera and VTR (the very basis of HDTV shoot and capture) are both subject to fundamental physical and technical limitations." For the full article, see: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7229158>

50 YEARS AGO IN THE JOURNAL

The November 1965 *Journal* published in: "Computer Animation: A New Scientific and Educational Tool" by E. E. Zajac: "Computer animation gives to filmmaking the advantages of computing, i.e., only one cycle of a repetitive action need be programmed; one program generates a whole family of films; and successful programs build into a library for subsequent use. Moreover, the scientist can now communicate directly through the film medium in his "natural" language of mathematics. This suggests the possibility of more imaginative educational films. It is recognized that computer animation has certain limitations. For example, cartooning by computer would probably be unprofitable... First of all, how does a computer "make" motion pictures? The process is illustrated in Figs. 1 and 2, which are themselves computer-made. First, one writes a program that computes the picture to be drawn. This is fed into a digital computer, usually by means of punched cards as shown in Fig. 1. The computer translates the program into a series of commands for the electron beam in a cathode-ray tube and the film-

advance mechanism in a camera. These commands are read onto magnetic tape. Next the magnetic tape is read into a device consisting of a cathode-ray tube and a camera (Fig. 2). As the tape is played into this device, it causes the cathode-ray tube to display the computed picture, which is recorded on the film of the camera." For the full article, see: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7264652>

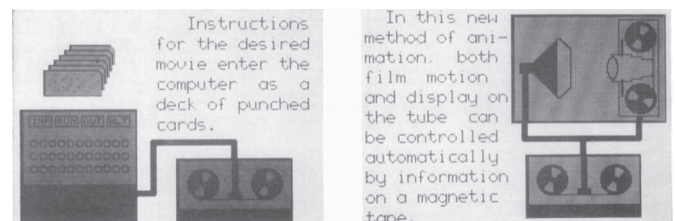


Fig. 1. Movie program on punched cards is fed into a computer, which outputs computed movie onto a magnetic tape. From *A Computer Technique for the Production of Animated Movies*. **Fig. 2.** Computed movie on a magnetic tape drives a cathode-ray tube and camera film advance. From *A Computer Technique for the Production of Animated Movies*. (From *JSMPT*E, Nov. 1965, p. 1006.)

75 YEARS AGO IN THE JOURNAL

The December 1940 *Journal* published in: "Proceedings of the Semi-Annual Banquet of the Society of Motion Picture Engineers:" "Nearly 350 members and guests of the Society assembled at the 47th Semi-Annual Banquet held at the Hollywood-Roosevelt Hotel, Hollywood, Calif., on October 23rd. Guests at the Speakers' table were: President E. A. Williford; the Hon. Fletcher Bowron, Mayor of the City of Los Angeles; Mrs. Fletcher Bowron; Mr. Walt Disney, recipient of the 1940 Progress Medal; Major Nathan Levinson, citationist for Mr. Disney...[moderately long bio with photo]... In recognition of his major contributions to Motion Picture technology, in the establishment of correspondingly advanced laboratory facilities and methods in the photography and sound recording of feature and short cartoon films, and in the evolution of outstandingly adequate technic in color and black-and-white cartoon film production... The Work of Lee de Forest. Few names loom so large in the history of the development of the electronic arts and their application to the talking picture as does that of Lee de Forest. Lee de Forest invented the audion detector tube which with the electronic amplifier opened a boundless field for scientific research. The banquet concluded with dancing and entertainment." For the full article, see: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7253039>