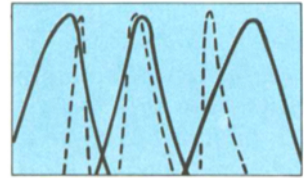
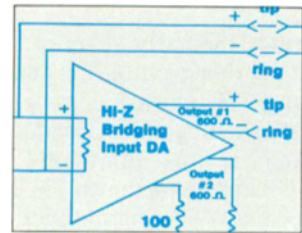


Highlights

- 614 Interface of Motion-Picture Films and Video** • *S. J. Powell, R. C. Sehlin, R. J. Zavada, and M. J. Bogdanowicz* • Some factors affecting the final television picture quality of motion-picture films interfaced with production telecines are identified. These areas include color masking, tone or gray-scale reproduction, and noise in telecine transfers. Various film stocks are examined, including camera negative, intermediate, and print-type films.



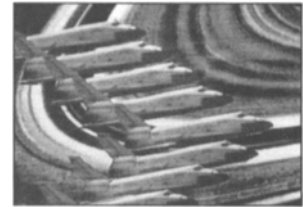
- 624 Stereo TV — Mono is the Problem** • *R. Hoffner* • This article describes the NBC Television Network's changeover from mono broadcasting to stereo, and some of the difficulties encountered. When a television network in the U.S. commits to stereo broadcasting, the shift does not take place all at once. Occasional stereo segments may be inserted into a program without prearrangement or special switching or level-setting equipment. Although the stereo signal could be distributed as sum on Channel 1 and as difference on Channel 2 to assure mono continuity, this would present many problems.



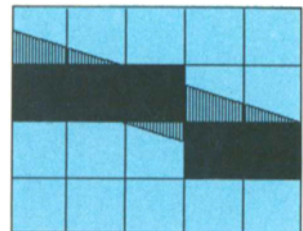
- 629 University of Calgary 3-D Computer Animation System** • *B. Wyvill, C. McPheeters, and R. Garbutt* • The computer has been used as a tool to aid animation artists in several ways, from controlling rostrum cameras to producing complete animation sequences from 3-D descriptions of real objects. This article describes *Graphicsland*, a suite of programs developed to explore the medium of 3-D computer animation. Comparisons are made with traditional methods of animation, and the capabilities of the system are described from the point of view of the end user, the animation artist. In *Graphicsland*, it is recognized that there is no single "correct" approach to solving problems of design, storage, movement, rendering, and production of animated film and video; instead, a variety of techniques are offered.



- 637 Dynamically Reconfigurable Video/Graphic Processor** • *E. Leonard* • A prototype design of a low-cost, simplified-operation video/graphic machine is described. The goal was the ability to generate VCR-quality short-subject programs using limited technical, artistic, and financial resources. The result is a compact parallel-processing hardware architecture that raises complex software problems, but suggests that present microprocessor-oriented designs may not provide the best implementation for video manipulating equipment and systems.



- 645 Computer Graphics: New Emphasis on Image Quality** • *R. T. Daly* • Increased processor speed, decreased memory and disk storage costs, and the advent of the bit-slice co-processor have enabled several companies to offer full-color (24-bit/pixel) computer graphics systems at significantly lower prices and in smaller packages than was possible a few years ago. These new systems are judged on speed, flexibility, number of features, and ease of use, but the overriding concern is image quality. The attributes of image quality are mostly perceived and of a qualitative rather than a quantitative measure.



- 649 Real-Time Video Assembly Involving Transitions and Keys** • *T. R. Shirk* • A new method has been developed for speeding the assembly of television programs that contain a substantial number of dissolves. The method, which loses one generation compared with conventional editing, uses A/B/C intermediate rolls, which can be created with a cuts-only editing system. Using this technique, a 30-min, moderately complex documentary with 82 dissolves has been successfully assembled in only 4 hours, which is estimated to be only half the time required to complete the same program using traditional methods.

1. 0600:0603	11. 0100:0603
2. 0601:0604	12. 0102:0103
3. 0602:0605	13. 0001:0604
4. 0300:0306	14. 0002:0004
5. 0302:0501	15. 0000:FFFF
6. 0401:0406	16. 0101:FFFF
7. 0402:0500	17. 0202:FFFF
8. 0500:0306	18. 0303:FFFF
9. 0501:0406	19. 0404:FFFF
10. 0502:0506	20. 0505:FFFF