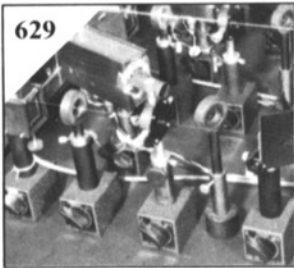


**VTR Modifications for Computer-Assisted Editing Systems**

*D. Thornton and G. Simon*

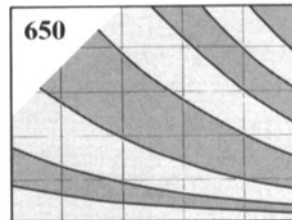
Many VTRs, particularly 3/4-in. U-Matic format machines, are not designed with application to high-speed time-code editing in mind. This presents a major challenge to the designer of computer-assisted editing systems, to provide the user with constant maximum performance, regardless of the type of VTR selected. In order to accomplish this goal, it is necessary to evaluate each model of VTR carefully before it is interfaced to the system.



**A 70-mm Film Laser Telecine for High-Definition Television**

*T. Ishida, K. Hayashi, T. Taneda, T. Motoki, and Y. Sugiura*

This article details a new telecine for use in high-definition television. The telecine incorporates a laser flying spot scanner, and was designed to use 70-mm motion-picture film to obtain better picture quality. An outline of principles is presented, as well as the features, configurations, and characteristics of the new laser telecine.



**Long-Term Storage of Videotape**

*J. Wheeler*

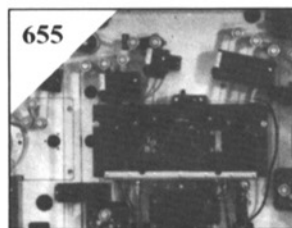
This article describes the many factors necessary for long-term videotape storage, including a cool, dry environment and proper VTR maintenance. Correct winding techniques are described, detailing tape faults, proper wind tension, and how often the tape should be rewound. Several suggestions are given for measures to prolong the life of videotape, as well as advice on what to do if the tape is exposed to heat or water.



**A Study on Variable-Speed Reproduction of the Digital VTR**

*Y. Hirano, S. Mita, A. Kohgami, Y. Eto, K. Takeshita, and N. Fujimura*

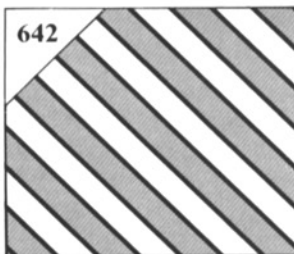
Variable-speed reproduction, i.e., still, slow, and shuttle reproduction capability, is an important function in the practical use of a digital VTR. During variable-speed reproduction, the playback heads scan across the plural signal tracks, and the relative speed between the heads and the tape changes from normal speed. The optimum parameters of both data format and tape format have been investigated, and a new scheme for a timing circuit has been developed.



**Bi-Directional Total Immersion Printing System and High-Speed Light Valve**

*H. Teitelbaum*

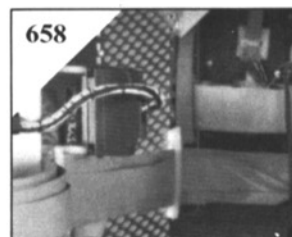
This article gives an overview of bi-directional total immersion printing, now accepted as the normal method of producing high-quality answer prints, internegatives, CRIs, television transmission prints, and prints from damaged negatives. It describes a new bi-directional printer introduced by Hollywood Film Co., together with a description of a new high-speed servo light valve developed for use with the printer.



**The Effect of Word Distribution on the Error Management of Digital Recorders**

*J. L. E. Baldwin*

In the SMPTE and the European Broadcasting Union, groups are working toward a single format for digital television tape recording. This paper discusses the relative benefits of different methods of distributing words, both on the tape and between one head and another. The use of every head on all parts of the picture is shown to be beneficial.



**Microcomputer Printer Control Unit**

*C. F. Mossman, W. Clark, V. Dey, J. Gear, and S. Morrissey*

A new type of control unit for film printing machines has been developed by Rank Film Laboratories. It provides a new approach to the operation of printing machines, with greater efficiency for typical printing operations and a lower incidence of operator errors or machine failure. The unit is based on a 16-bit, 64-kbyte microcomputer. It is designed and constructed in logical modules, and features extensive self-testing capabilities.