



**EXECUTIVE**

David L. George  
*Editorial Vice-President*

Frederick M. Remley  
*Chairman/Board of Editors*

Lynette Robinson  
*Executive Director*

**JOURNAL STAFF**

Jeffrey Friedman  
*Editor/Publisher*

Joyce R. Hurwitz  
*Senior Editor*

Carol King  
*Associate Editor/Public Relations*

Mathew V. Kuriakose  
*Graphics/Production Supervisor*

MaryAnn Fruscianta  
*Production Coordinator*

Marilyn Waldman  
*Advertising/Editorial/Program  
Coordinator*

**MARKETING/EXHIBITS**

Alan Ehrlich  
*Marketing/Exhibits Manager*

**ENGINEERING**

Sherwin H. Becker  
*Director of Engineering*

Mark S. Hyman  
*Staff Engineer*



**Advertising Representative:** Debby Crane,  
Crane Marketing, Inc., 462 Farview Ave.,  
Paramus, NJ 07652. Phone (201) 967-  
9838; Fax (201) 967-1977.

Printed in the USA

# SMPTE Journal

VOL. 102, NO. 6

JUNE 1993

**ARTICLES**

HDTV and Film — Digitization and Extended Dynamic Range  
*Laurence J. Thorpe*..... 486

A Variable-Tracking Playback Development for Professional S-VHS  
Videotape Recorders  
*N. Neubert, R. Nishima, K. Shudo, T. Yasuda, M. Takemura, and S. Narita*..... 498

A 35mm Autostereoscopic System for Live-Action Imaging Using a Single  
Camera and Lens  
*Christopher A. Mayhew*..... 505

European HDTV Operations (1250/50 Production/HDMAC Broadcast) in the  
Winter and Summer Olympic Games  
*Michel Oudin*..... 512

An Aqueous-Based Motion-Picture Film Cleaner — Final Report  
*R. W. Bauer, J. L. Baptista, F. J. Ricotta, E. F. Snow, and Z. Bogdan*..... 518

**SMPTE REPORTS**

135th SMPTE Technical Conference and Equipment Exhibit, Oct. 20-Nov. 2,  
1993, Los Angeles Convention Center..... 522

SMPTE to Participate in 18th International Television Symposium and Technical  
Exhibition, Montreux, Switzerland, June 10-15, 1993..... 523

**SMPTE NEWS AND DEPARTMENTS**

Section Meetings..... 527

News..... 528

Reader Service Card..... 529

New Products..... 531

Calendar..... 531

Classified..... 532

Professional Services..... 533

Application for Membership..... 534

**STANDARDS AND RECOMMENDED PRACTICES**

Approved American National Standards..... 536

*ANSI/SMPTE 151-1993, Motion-Picture Film (8-mm Type S) — 16-mm Film Perforated 8-mm Type S (1-3); ANSI/SMPTE 184M-1993, Motion-Picture Film — Raw Stock Identification and Labeling; and ANSI/SMPTE 234-1993, Motion-Picture Film (8-mm Type R) — Projectable Image Area and Projector Usage*

Proposed SMPTE Standards..... 541

*SMPTE 263M, Television Digital Recording — 1/2-in Type D-3 Composite Format — Tape Cassette; SMPTE 264M, Television Digital Recording — 1/2-in Type D-3 Composite Format — 525/60; and SMPTE 265M, Television Digital Recording — 1/2-in Type D-3 Composite Format — 625/50*

*SMPTE Journal* (ISSN: 0036-1682) published monthly by the Society of Motion Picture and Television Engineers, 595 West Hartsdale Ave., White Plains, NY 10607. Second-class postage paid at White Plains, N.Y., and at additional mailing office. Copyright © 1993 by the Society of Motion Picture and Television Engineers, Inc. All rights reserved. Printed in the U.S.A. No part of this issue may be reproduced without written permission of the publisher. Statements and opinions expressed in articles or editorials in the *SMPTE Journal* are expressions of contributors and do not necessarily represent the policies or opinions of the Society. Advertisements appearing in this publication are the sole responsibility of the advertiser. Subscription rates: SMPTE members, \$20.00 included in membership dues; nonmembers, U.S., \$75; elsewhere, \$85.00; airmail surcharge in addition to nonmember rates are: Europe \$50.00, Asia \$65.00. Single copy, \$8.00. MEMBERSHIP in SMPTE is available according to qualifications at the following annual dues: Active and Associate, \$65.00; Student, \$25.00. All members receive the *SMPTE Journal* as part of membership.

**POSTMASTER:** Send change of address to *SMPTE Journal*, 595 West Hartsdale Ave., White Plains, NY 10607-1824.