



FOUNDED 1916

**EXECUTIVE**

Robert B. Kisor  
*Editorial Vice-President*  
LeRoy E. DeMarsh  
*Chairman/Board of Editors*  
Frederick C. Motts  
*Executive Director*

**JOURNAL STAFF**

David J. M. Juhren  
*Director of Publications*  
MaryAnn Frusciant  
*Managing Editor*  
Mathew V. Kuriakose  
*Production/Graphics Supervisor*  
Dianne Ross Purrier  
*Associate Editor*  
Marilyn Waldman  
*Advertising/Editorial/Program Coordinator*

**ENGINEERING**

Carlos V. Girod, Jr.  
*Director of Engineering*  
Mark S. Hyman  
*Staff Engineer*

**MARKETING**

Linda Alexander  
*Marketing and Communications Manager*

**MEETINGS**

Dianne Gabriele  
*Meetings Manager*

Printed in the USA

# SMPTE Journal®

VOL. 109, NO. 12 DECEMBER 2000

**MESSAGE FROM THE PRESIDENT**

*Charles Jablonski* .....920

**SMPTE REPORTS**

35th SMPTE Advanced Motion Imaging Conference  
Washington, DC, February 8-10, 2001 .....929  
142nd Technical Conference and Exhibition—Special Report  
Pasadena, CA, October 18-21, 2000 .....933  
Keynote Speech—Industry Luncheon  
*Speaker Jack Valenti* .....942  
Fellows Luncheon Address  
*David George, SMPTE Past-President* .....944

**TECHNICAL PAPERS**

An All-Digital Pipeline: *Toy Story 2* from Disk to Screen  
*Bill Kinder* .....946  
Comparative Studies of Data Broadcasting  
*Henry Sariowan* .....949  
Video Performance Measurements in DTV Transmission Systems  
*Edward Reuss* .....953

**REPRINT**

Data Reduced Production Technology Using the DVCPRO  
and/or MPEG-2 4:2:2 Format  
*Rolf Hedtke* .....958

**SMPTE NEWS AND DEPARTMENTS**

Section Meetings .....966  
Industry News .....969  
Calendar .....970  
New Products .....971  
Professional Services .....972  
Classified .....973  
Application for Membership .....1010  
Membership Renewal .....1011  
SMPTE Sustaining Member List .....1012  
SMPTE Sustaining Membership .....1014

**STANDARDS AND RECOMMENDED PRACTICES**

Proposed SMPTE Standards .....975  
SMPTE 305.2M for Television—Serial Data Transport Interface (SDTI); SMPTE 351M for  
Television—Transporting MPEG-2 Recoding Information through High-Definition Digital Interfaces

**INDEX TO VOL. 109** .....989

*SMPTE Journal* (ISSN: 0036-1682) published monthly by the Society of Motion Picture and Television Engineers, 595 West Hartsdale Ave., White Plains, NY 10607. Periodicals postage paid at White Plains, N.Y., and at additional mailing office. Copyright © 2000 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, \$25.00 included in membership dues; Straight Subscription U.S., \$140.00; elsewhere, \$155.00; airmail \$195. Single copy, \$15.00 plus shipping. MEMBERSHIP in SMPTE is available according to qualifications at the following annual dues: Active Member, \$125.00; Student Member, \$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.