

## An Automatic Shutter Control for D & J Printer HANS-CHRISTOPH WOHLRAB, *Bell & Howell Co., Chicago*

At the present increased printing speeds, hand setting of light changes is difficult and unreliable. The automatic shutter control kit which is described can easily be mounted on any D&J printer, and utilizes tape code and perforator presently available for the additive color printer. The control operates on 22 light steps incorporating fade release and automatic printer start and stop, including a dynamic braking device to avoid coasting of the printer. Good accessibility of all components facilitates servicing.

## The Effect of Developing Time Upon Distortion in Variable-Area Recording GEORGE LEWIN, *Army Pictorial Center, Long Island City, N.Y.*

Variable-area sound recording on film was originally thought to be immune from processing variations. While the effect of exposure and density upon cross-modulation distortion has long since been recognized and is well documented over the years, the significance of developing time is generally overlooked. It is shown that the common practice of adjusting developing time to compensate for exposure errors is not satisfactory. Large errors can never be fully compensated, and small errors are shown to require overcompensation if the optimum print density is to remain unchanged. The need for further study of the effect of changes in the developer itself upon cross-modulation is indicated.

## Laboratory Problems and Procedures in Processing Color Negative in the Cinemiracle Process and Preparation of Theater Prints Therefrom

PAUL A. KAUFMAN, *Tri-Art Color Corp., New York*; and COLEMAN T. CONROY, JR., *National Theatres, Inc., Los Angeles*

Louis de Rochemont's first Cinemiracle Adventure film *Windjammer*, produced for National Theatres, Inc., was photographed on 35mm Eastman Color Negative, Type 5248. Laboratory procedures in processing the negative, timing, color balancing, printing and vignetting Cinemiracle release prints are discussed.

## A Technique for Reducing Contrast for Special Purposes in Printing From Negatives of Normal or Excessive Contrast

PAUL A. KAUFMAN, FERDINAND INDIA and ROBERT M. SMITH, *Du-Art Film Laboratories, Inc., New York*

Owing to special requirements of the TV industry problems of severe contrast reduction have been imposed upon film processing laboratories printing from negatives which were photographed and processed for theater presentation. A technique has been developed whereby contrast reduction is effected with release positive stock under normal developing conditions. Other applications of this technique are also discussed.

## 12:15 Get-Together Luncheon

## MONDAY AFTERNOON

### 2:30 SYMPOSIUM on 16mm Color Intermediate Negative/Positive Release Printing

#### A Symposium on the 16mm Internegative/Positive Process

ROBERT A. COLBURN, *Chairman, Geo. W. Colburn Laboratory, Inc., Chicago*

Three 16mm motion-picture laboratories in the Midwest using the 16mm internegative/positive system of producing release prints describe the various methods used in their respective laboratories to obtain satisfactory prints. Each laboratory also describes special printing equipment that was designed and built by it for its exclusive use to meet the requirements of this system.

## Awards at the Convention

Presentation of Awards will take place Tuesday evening, October 21. The Awards ceremony represents one of the gravest responsibilities of the Society, that of designating the men whose achievements are of present importance and hold promise for the future. Following are the names of recipients, the Awards to be bestowed, and the names of the Chairmen of the Award Committees: to George Lewin, the Samuel L. Warner Memorial Award, Gordon E. Sawyer, Chairman; to Albert Rose, the David Sarnoff Award, William B. Lodge, Chairman; to Merle L. Dundon, the Herbert T. Kalmus Award, Herman H. Duerr, Chairman; to George Lewin, the Journal Award, S. P. Solow, Chairman. This award is for the paper on "The Infrared Transparency of Magnetic Tracks." Honorable Mention for papers published in the *Journal* will be awarded to Willy Borberg for "Effect of Gate and Shutter Characteristics on Screen Image Quality," Armin J. Hill for "Analysis of Background Process Screens," Donald Kirk, Jr., for "Economic Considerations in Closed-Circuit Television System Design" and R. G. Neuhauser for "Black Level — The Lost Ingredient in Television-Picture Fidelity."

The rank of Honorary Member will be bestowed upon Herbert T. Kalmus. Deane R. White is Chairman of the Committee on Honorary Membership.

#### Preparation of Originals for 16mm Internegative/Positive Printing

ROBERT A. COLBURN, *Geo. W. Colburn Laboratory, Inc., Chicago*

The Geo. W. Colburn Laboratory sets up originals in A & B rolls to incorporate fades, lap dissolves and invisible splices; timing is both for color balance and exposure balance; originals are cued for automatic printer operation; and originals are treated to minimize Newton ring formation.

#### 16mm Color Intermediate Negative-Positive Printing Procedures and Controls

JOHN R. STILLINGS, *Lakeside Laboratory, Gary, Ind.*

Printing procedures and control techniques using an additive printer in the production of 16mm color positive prints from 16mm reversal color film are described. Matrix algebra is used in determining a basic exposure for each emulsion type and number used. These matrices can be used for initial printer calibration as well as for routine printer control.

#### 16mm Internegative and Positive Processing Controls

WILLIAM D. HEDDEN, *The Calvin Company, Kansas City, Mo.*

Processing control of 16mm color internegative and color positive is necessary to produce a high-quality product. This paper deals with methods of photographic and chemical processing production controls and their coordination with motion-picture printing controls.

#### Two New 16mm Printers Designed Especially for the Internegative and Color Positive Process

GEO. W. COLBURN, *Geo. W. Colburn Laboratory, Inc., Chicago*

The internegative printer is a contact step printer for daylight operation. A mechanical dissolve shutter will operate at two speeds. Light changes are accomplished by use of glass neutral density filters. Color filters are introduced automatically to make individual scene color-balance changes.

## Tentative Schedule of Committee Meetings

### Monday, October 20

- 2:00 P.M. Film Dimensions
- 5:30 P.M. Association of Cinema Laboratories (including dinner)

### Tuesday, October 21

- 10:00 A.M. Screen Brightness
- 10:00 A.M. Papers
- 11:15 A.M. Board of Editors
- 12:30 P.M. Editorial Luncheon
- 2:00 P.M. Film Projection Practice
- 2:00 P.M. Publications Advisory
- 3:00 P.M. Section and Student Chapter Officers

### Wednesday, October 22

- 10:00 A.M. Public Relations Advisory
- 2:00 P.M. Education

### Thursday, October 23

- 10:00 A.M. Sound
- 2:00 P.M. 16 & 8mm

### Friday, October 24

- 10:00 A.M. High-Speed Photography
- 2:00 P.M. Television

*Final schedule will be listed in the Convention Program and meeting notices will be mailed to Committee members.*

The color positive printer operates at 300 ft/min and handles both color internegative and negative sound rolls in one pass.

#### Equipment for Printing 16mm Color Internegative and Color Positive Film

R. PAUL IRELAND, *EDL Company, Gary, Ind.* Equipment for printing 16mm color internegative film differs from other 16mm printing equipment in only one essential way: considerably more exposure must be provided for color negative than for other films. There are several other differences which are desirable although not necessary.

#### The Colormatic Printer

LLOYD THOMPSON and KENNETH B. CURTIS, *The Calvin Co., Kansas City, Mo.*

The making of 16mm color prints from color original reversal by the internegative system is more difficult and exacting than making reversal prints. Black-and-white equipment demands extensive modification or new color equipment must be built. This paper outlines some of the problems and the details of a new high-speed production printer for making positive prints from the internegative.

## MONDAY EVENING

### 7:30 DOCUMENTARY AND EDUCATIONAL FILM PRODUCTION

#### Milking the Oddball Camera

WILLIAM R. WITHERELL, JR., *Video Films, Detroit*

Without demeaning the importance of standard motion-picture equipment, it can be claimed that such gear, by virtue of its inflexibility, can be a limiting factor in approaching a production. The value of substandard, "oddball" equipment is stressed, with film examples. There is good reason to put emphasis on the creative freedom