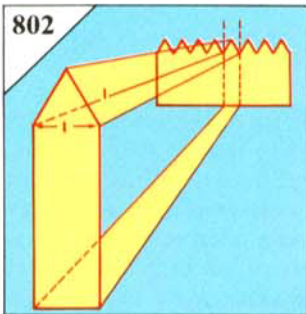


Highlights

802



The Measurement of Image Sharpness Through the Approaches Used to Describe Fractals

J. A. Davidson and
D. J. Keller

"Sharpness" is perhaps one of the most difficult image characteristics to quantify accurately. In this article, actual picture elements are compared with their Euclidean geometrical equivalents through the concepts which are used to describe fractal objects. A fractal object is one which possesses an extremely irregular form at all scales or levels of magnification. Although any accurately mathematically defined geometric shape can be used in conjunction with any imaging system, some preliminary experimental results are given on the image of a straight line recorded on photographic film.

810



High-Level Switcher Interface Improves Editing Techniques

B. Rayner

Ninety percent of editing is done with a minimum requirement for the switcher interface. The remaining 10%, however, involves the creation of complex effects and sequences, and requires not only a video switcher, but a large investment in digital video effects, graphic equipment, still stores, and title cameras. Thus an improvement in editing techniques for producing effects could make better use of several major pieces of equipment. A serial interface that allows better communication between the editor, switcher, and digital effects equipment has been developed. This interface allows the switcher to report manual operations back to the editor, dumps effects memory register contents to the editor, and permits editor control of all switcher functions. Operation of the interface and proposed new features are discussed.

814



Vertical-Interval Encoding for the Recordable Laser Videodisc

D. R. Hayes

The introduction of the recordable laser videodisc has brought the full process of videodisc technology into the user's hands. Along with the playback power of fast access on low-cost

players, the user can now record the disc in his own facility in real time. The burden of properly formatting and encoding the material for disc is now in-house. The LaserVision videodisc and an encoder/generator that encodes the vertical interval to the IEC specifications in the LaserVision standard are described.

821



Three-Dimensional Color Television

M. G. Maxwell

This article describes a new system, devised by the author, of presenting television programs in 3-D using eyeglasses with plain, rather than dark-colored, lenses. The system introduces no degradation of color, is applicable to both color and black-and-white television sets, and is compatible with conventional 2-D transmissions. It also enables home video recording of 3-D transmissions without modification of existing recorders. Conventional TV sets can be used to produce the 3-D pictures by means of an "add on" device.

826

	Coefficient of Friction (Sle)	
	M/E	Static Average M/B
5384 Fresh	0.32	0.41
5384 Cycled	0.32	0.39
5302 Fresh	0.49	0.48
5302 Cycled	0.47	0.53

Pressure = 11.7 psi
Speed = 1.2 in./sec (unloaded)
M/E = Metal against emulsion

Freeze/Thaw Cycling of Motion-Picture Films

D. F. Kopperl and
C. C. Bard

Experimental results and physical considerations are cited that should alleviate concerns about the freeze/thaw cycling of processed motion-picture film. Neither ice crystal formation nor high relative humidities are expected to occur under the recommended storage practices. No significant effects upon image stability or physical properties were observed in the experiments.

828

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the backbone, it wou
could have some HD
with component proc
system in the plant."*

Component Television — A Panel Discussion

The following is a transcript of a panel discussion that took place at the 19th Annual SMPTE Television Conference in San Francisco on February 15, 1985, following the session on Analog Components. Merrill Weiss, Imagex Corp., moderated the panel, which included Birney Dayton, Grass Valley Group; Stanley Baron, Thomson-CSF; Larry Thorpe, Sony Broadcast Products Co.; Charles Poynton, Poynton Vector Corp.; Dominique Nasse, TDF/CCETT; and Geoffrey Leighton and David Griffin, Rock Solid Productions. The transcript has been edited to conform to *Journal* style.