

# TECHNICAL NEWS

## Image Transform of Canada

by Harris Kirshenbaum

Videotape to film transfers are becoming more practical almost every day. The people at Image Transform of Canada, headed by John Lowry, are making large forward strides in this direction, according to company vice president, Bob Sher.

Lowry's process involves an electronic method of transfer which is in no way similar to kinescope recording — this is not a process of photographing a television monitor. Although the company will give no word on how the process works, they will say that it is completely new.

Negotiations are underway with a Québec producer to make a Canadian feature film using the transform process. As of this writing, contracts are incomplete, and information cannot be released. However, Cinema Canada will follow the production of this film, and we will have more on it in future issues. The film will be shot in a television studio in Montreal, and the finished, edited videotape will be transformed at Image Transform's California laboratory.

To date, most of Image Transform's orders have been television commercials, which enjoy many of the advantages of video tape production including multiple camera setups, instant playback, and budgetary considerations. While Mr. Sher is the first to admit that there are situations where video shooting is impractical, eventually the "transform" process promises to be good enough to intercut with film original.

The videotape system is still relatively immobile compared to self-contained film equipment. But where studio shooting is possible, it is to the advantage of the filmmaker to use the video system and then go through "transform". Use of computerized VTR editing will allow much faster production of feature films, to the point where it should be possible to shoot, edit, transform, sound mix, and have the film in theatres within two months. The advantages to the producer are obvious, in terms of return of investment, but the filmmaker himself will benefit from the increase in speed as well.

Image Transform has also developed a modification for television systems which gives an increase in the number of scan lines, from the standard 525 to 655, along with a compression of the image for increased detail. Any camera and VTR combination can be adapted to this increase, the net result being an even better final film image. There are cinematographers who are actively involved in experimenting with the process to find out just what changes must be made in shooting techniques to yield the highest quality.

There are no claims of perfection from those who handle this system, but there are promises of constant improvement. Currently, the process is certainly good enough to pass by the average theatre-goer. Lowry and his team of engineers hope to work to the point where electronic original will be every bit as good as film original. They see no reason why this is not possible.

They make it clear, however, that the finished product is totally dependent on the quality of the original recording. For this reason, they are limiting their work to the professional standard of two-inch quadraplex videotape. Experiments with one-inch helical scan recordings have not been made. Transforms can be made to 70, 35, 16, or Super 8mm film. Special effects can be incorporated at the video stage by the electronic effects generators.

While the electronic image will not compare favorably with 70mm original, it is the medium-budget film that will best make use of the transform process. Savings can be realized in video shooting that will more than offset the cost of the transform. The process seems to apply itself without problem to the Canadian feature film industry.



## New product release.

The Stuart R. Cody Company of Boston introduces a new product, the S-30 Playback Synchronizer. The unit is an accessory to Kudelski's Nagra SN, the professional pocket recorder.

The filmmaker, using a crystal-controlled camera such as Eclair's ACL, may place the SN Recorder and microphone on his subject, eliminating both the soundman and his array of microphones, booms, and recording equipment.

During playback, the S-30 Synchronizer senses and retrieves a 30 Hertz signal generated by a crystal clock and recorded inaudibly on the Nagra SN's 1/8" tape. This synchronizing signal is compared to the power line by the S-30 and tape playback speed is controlled to match sound to picture, eliminating "sync drift."

Audio playback signals are amplified within the S-30. The output is +4 dbm at 600 ohms unbalanced, and is sent to a sprocketed film recorder through banana plugs.

Other features are a front panel audio gain control and an internal regulated power supply and charger, allowing the SN to use nickel cadmium batteries.

The S-30 Playback Synchronizer is priced at \$549.50.

The Cody Company has also developed a miniature wireless switch for the SN Recorder, allowing it to be started and stopped by the cameraman. Operating in the VHF bands, it has proven to be very reliable. The wireless control package can also control other tape recorders. It is marketed on a custom made basis only.

### S-30 SYNCHRONIZER (FOR NAGRA SN RECORDERS)

The S-30 Synchronizer combines a signal conditioner, speed resolver and battery charger for the Nagra SN recorder. The device extracts a reference signal from the Nagra SN audio signal and synchronizes the SN playback speed to match the absolute recorded speed.

\*Completely self-contained unit requires no modification to Nagra SN recorder.

\*Wide locking range: +3%, -4% speed error.

Internal regulated supply powers SN recorder.

\*Built-in charger (switch selectable) enables simultaneous charging of nickel-cadmium SN batteries.

\*Speed Correction/Pilot Level meter.

\*Test socket for observing speed tracking on oscilloscope.

The signal conditioner circuit contains cascaded active filters specially designed for slow transient response and sharp cutoff, insuring maximum phase lock stability under conditions of large pilot level variations. The phase lock loop incorporates a pilot level threshold circuit for wide locking range and high noise immunity.

Price: \$549.50.

**Optional Accessories** (Inquire for prices.)

\*Nicad battery unit, SNN450

\*Marker pen output circuit

\*Manual Speed Control for correction above +3%, below -4%

\*Loudspeaker unit

**Technical specifications**

OUTPUT LEVEL: +4 dbm program, unbal., var. (clips at 20dbm)

OUTPUT IMPEDENCE: 600 ohms

ROLLOFF FILTER: -12 dbm at 30 Hz, 6 db per octave

FREQUENCY RESPONSE: +1 db, -3 db (100 Hz to 15 KC)

INPUT FROM SN AUDIO: 1V RMS max.

PILOT INPUT COMPONENT: 30 Hz, 10 mV RMS nominal, +200%, -50%

RESOLVING RANGE: Locking range: +3%, -4% SN speed error Tracking range: +4%, -5% SN speed error

EXTERNAL POWER OUTPUT: 3V, 200ma max.

CHARGER OUTPUT: 50ma 3V max.

DIMENSIONS: 8.75" X 7.0" X 3.5"

## Eastman Colour Negative II

by Peter Benison

On August 15th, Kodak held simultaneous presentations around the world to introduce a new camera stock.

They call it Eastman Colour Negative II, no. 5247 (35mm) and 7247 (16mm). It is supposed to be an improvement over the current negative stocks 5254 and 7254.

The presentation involved showing two 16mm prints side by side to compare the old and the new and members of the 'industry' were invited to comment. The show was quite flexible: any pair could be shown again or in any combination, since each three minute roll of film was on a separate reel.

The scheduled show presented these pairs:

### OLD

16mm neg. 7254 - print 7381

16mm neg. 7254 - CR 17249 print 7381

35mm rev. 5254 - 7249 7381

16mm rev. 7252 - 7271 - 7381

### NEW

16mm neg. 7247 - print 7381

16mm 7247 - 7249 print 7381

35mm 5247 - 7249 print 7381

16mm 7247 - 7249 print 7381

In addition to the above, 7247 - 7381 and 7247 - 7249 - 7381 were shown with each other to see the difference through the CRI and 7254 - 7249 - 7381 and 7252 - 7271 - 7381 were shown to compare 16mm negative with 16mm reversal systems.

This stock promised to have a sharper image than the '54 negative and certain advantages in processing. Kodak claims that ecological improvements have been made in the chemicals and costs of same would be down. In addition, processing time - not including drying - should now only require 13 to 18 minutes instead of the previous 45 minutes.

At the ten-thirty a.m. showing in Montreal, the audience was not overly enthusiastic. While many felt that the new stock was a little sharper when the two were viewed side by side, they didn't think there was enough difference to be noticed when the films were shown one after the other. The scenes viewed included controlled interior lighting as well as an outdoor garden scene, a plant or factory interior, and a night police/ambulance shot. It was the controlled interiors that showed the most improvements, but the shadow areas tended to green. The large areas of green in the garden scene were quite different, lacking the yellows that make the green in the old stock much richer.

While the ASA Exposure Index of the new stock is rated at 100, the same as '54 negatives, it is not recommended to push the new '47 stock. Other manipulations are not advised either (overexposure, underdevelopment, pre-fogging raw stock, etc.) This limits the creative cinematographer and appears to be a backward step.

We've all had trouble with the labs at one point or another, and I wonder if these rigid conditions will increase these incidents! The grain just doesn't compare with the 7252 for blow-ups, so it really isn't the ultimate camera stock at this time. In some instances the whites seemed to be crisper in the new stock, but after a comparison of both projector lamps, it was discovered that they weren't perfectly matched. Although we were told that the prints were balanced at 5400° Kelvin, we didn't see them projected at this color temperature.

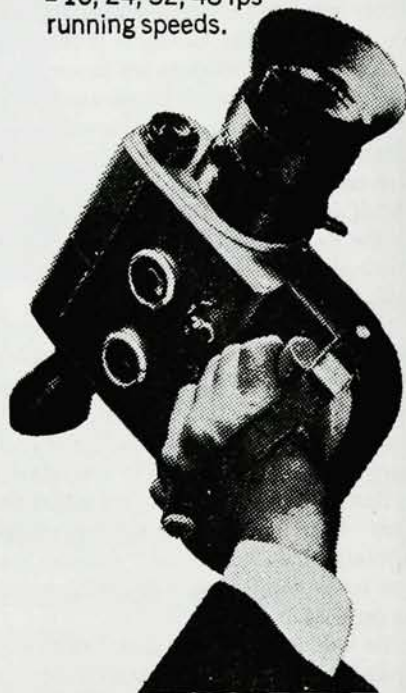
Of course all the research and specifications aren't available or complete at this time and we'll have to wait and watch for new developments. ●

## CANON SCOOPIC-16 FOR HAND- HELD MOVIES THAT DON'T LOOK HAND-HELD

Scoopic is designed to fit your hand, balanced and braced for rock-steady shooting. It's the perfect tool when you have to shoot instinctively and get it right the first time.

Here are a few of the reasons:

- CdS exposure automation with over-ride.
- 13-76mm f/1.6 Canon 5.84:1 zoom lens.
- Automatic loading, uses standard 100' 16mm spools.
- Rechargeable, instantly-interchangeable self-contained. (8 rolls per charge)
- Through-the-lens viewing and focusing.
- 16, 24, 32, 48 fps running speeds.



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