

12 NEW EQUIPMENT

CTL: is working on electronic editing from two or more pretaped helical scan sources, with quad there is no problem. The trouble is now with the horizontal lock. You get either Information or Snow. A more precise Servo is needed.

: has modified the Sony SEG 1 (Special Effects Generator) to provide keying and matting facilities and to make possible three camera fades and wipes/with the addition of gen lock, pretaped (or off air) materials can be mixed with live cameras; the tape sync serving as sync for the cameras. \$400.

: is developing a two track taping system. You don't turn the tape over but use the empty space between the signal by slowing or speeding up the video heads. The combined effect of Channel A and Channel B is superimposure.

: also has a 5" TV monitor which plugs into the VTR and needs no other current. You can have a hand held monitor. \$195

: is developing an improved colorizer with controls to approximate skin tones if desired. It will add adjustable color to any video coming from a camera, taped playback or off air signal. Used in conjunction with a color VTR, e.g., Sony 5000 and color monitor, it will produce colorized tapes. Several people have developed colorizers: Eric Siegel, George Brown at CTL Electronics and Spatial Data Systems, Inc., in Goleta, California.

a note on ERIC SIEGEL's color synthesizer:

Siegel's color synthesizer is a unique machine which colors videotape. The Kansas City tapes are the first to be colored by the synthesizer which Siegel only recently completed. The color synthesizer is different from color TV in that the synthesizer has a series of controls with which the artist can electronically paint the tape—that is, the machine allows the artist to select, control, modulate and change each color and its intensity—it is rather like the Moog except Siegel's machine synthesizes color instead of sound.

a world first!

: has developed a cableless camera which will send a video signal to a VTR up to 200 feet away—it sends a video only (not audio). It weighs 1 pound additional to the camera and operates on 12 volts.

The VTR is set to a TV receiver set to any open basic frequency channel (6). Cost of modification: \$400

Can build a drop out compensator on any machine.

CTL encourages new ideas. Come down and see Lui.

CTL Electronics, 86 West Broadway, NYC—Chi Tien Lui, George Brown, Al Phillips, Melvin Oscar

- + Oscillation is like turning a magnet on and off.
- + Basic Oscillation produces frequency. (Just throwing energy in the air.)
- + An electric current oscillates and generates waves = radiation.
- + Modulate = Control = Changing Voltage
- + Frequency = Speed of Oscillation
- + Frequency of 1,000 cycles per second = Kilocycle
- + The wavelength of electromagnetic radiation multiplied by its Frequency is always equal to the Speed of Light in outer space (a vacuum).

SERVO—is a regulating motor which generates a signal (= electronic sprocket), compares with the reference (= standard), feeds back pattern, and corrects itself. It is the Basic Feedback System: it compares and corrects.

The **CAPSTAN SERVO** is to control the tape speed according to incoming signal.

The **HEAD SERVO** controls the speed of the video heads. The existant servo detects a whole revolution.

← IBM wants a colorizer for checking microcircuits. It would work by enlarging and colorizing microscopic images.

FOR SALE

ERIC SIEGEL

Recorder—Ampex 660 2" helical scan; stereo with 2 channel sound; 350 lines resolution; up to 5 hrs. continuous recording. In very good condition—\$750.00. Comes with 30 hrs. of tape and extra heads.

3" Image Orthicon Camera—400 lines resolution; 1 extra image orthicon; 50 mm lens; 8" electronic viewfinder atop the camera; cradle focus system; reversible scans; synchro-lock with any video or live camera. \$500.00

Special Effects Generator—Switcher/fader; 4 inputs; 4 preview channels; geared fader arm; does not need a sync generator; horizontal wipes; box wipes; 2 camera key in; grey balance control. \$600.00

For inquiries call: (415) 567-0543



PROBLEMS with SONY AV SERIES

- Deck:
 - Screws for latches seem to come loose—should be tightened.
 - The levers break off. Be careful when you're putting the machine from Fast Forward to Stop. They easily slip from Fast Forward to Rewind
 - Tape winds around the Capstan and gets caught.

NEW AV SYSTEM COMPARED TO OLD CV

○ Panasonic came out with the first AV (Standard). Sony lowered the price and came out with a model that had playback, however, with no prior field test. They, therefore, omitted things. That's why it has a bad head.

○ If you have found that there's more dropout—it's because of the bad head. The head sometimes causes Black Drop Out which is a bright spot with a tail and the picture is weaker. Replace the head. You can test it by focusing on a wide Black and White bar. You will see a smudgy outline.

— Problems with Sony AV camera: The eyepiece is very poorly engineered and will break off easily. There is a lens in the eyepiece and if broken off will make focusing difficult.

○ 10-pin camera cables are notoriously weak. Has three set screws which inevitably come out. Put clear nail polish over them. Cable should only be able to go into deck one way—make sure it's in tightly without wiggling.

! Someone said the diode is bad.

○ Difficult to focus zoom lens because the casing of the vidicon forces it too far forward.

+ Heinrich Hertz - generated electric oscillations that radiated waves in space. Demonstrated that waves could be reflected, refracted, polarized with rapidly varying strength.

+ Variations in the strength of electromagnetic waves is Amplitude Modulation.

It could send a signal more than 200 feet if FCC regulations allowed. A transmitter of 11 miles is available also surplus transmitters for \$11,000 which transmit 75 miles and put out 5 kilowatts.

SPARKS

- + Frequency Modulation
- + Frequency is the carrier of electric oscillation.
- + Frequency is inversely proportional to wavelength; waves of longer lengths have lower frequencies.
- + This is true because all Electromagnetic waves always travel at the same speed in outer space (a vacuum), 2.9979250 ± .0000010 × 10¹⁰ centimeters per second.
- + Electromagnetic waves differ in only 2 ways:
 1. Strength (amplitude of swing - or intensity of electric and magnetic force)
 2. Frequency (number of times they vibrate - number of complete cycles performed - in each second)

EUROPE NOW: by John Hopkins, TVX London

Standardization

We're in the generation of hardware before global compatibility. This is very serious because it means U.S. tapes can't be played in European machines and vice versa. Ironically, movie stock is still world standard for TV material exchange, and 2" videotape runs it a close second. Manufacturers have got to pull their fingers out and (1) standardize on a tape width and running speed worldwide, (2) produce a dual standard playback machine operating on 525 lines 60 cycles and 625 lines 50 cycles, (3) make the whole thing cassette loaded. Then, whatever the originating hardware—and present incompatibilities will last for a few years—at least the hardware for a global network will be standardized.

Prices

"It's a well known fact in the electronics business that retail price is about 4 times cost price to the manufacturer."—Hans Heinzl, Hamburger Filmschau, September 1970. Prices have got to come down.

Information—1

There is a shortage of information in Europe about latest hardware developments. And a shortage of hardware. We got the feeling that the Sony-625 line portable is already obsolete with its 11 ips tape speed, and correspondingly greater drop-out and running costs. Akai quarter inch seems to have beaten Sony half inch AB series to the post as far as European appearance goes. Sony doesn't realize that at this stage, for individual/group use, the line system is relatively unimportant, but what is important is cost, both running and capital. I think this is because they don't understand how this hardware is actually being used, and this includes the social context. We've tried making feedback to Sony about this and the time lag in comprehension is at least twelve months, and even then, slow as a tortoise.

Information—2

How well are we, as seminal groups in the subculture, disseminating information to the people who could use it: the revolutionaries, the youth, the alternative press, the filmmakers? To all groups of people actively engaged in accelerating social change? Our recent experience with groups of newcomers at festivals in Stockholm, Hamburg, Scotland, London, shows that they often need a total introduction: the setting out, as clearly as possible, of an overview. What is familiar territory to us is virgin to them.

The Global Net

Its emerging throughout the Western World that the network of video heads is both local and international. In practical present terms, the separation between any two points on the net is the travelling time between them of a little parcel of videotape (half-inch); depending on the means of transit this can be several days. Closest analog is the global transportation system for people. It's still actual matter transfer, mechanical rather than electronic, like the distribution of printed matter.

No one has yet said much about the local configuration of software movement thru a point on the global net. Evidently some sort of further distribution—broadcast or narrowcast—would be useful in reaching more people and as a source of income. Broadcast—TV station or regular access to one. Narrowcast—videocinema.

Videocenters

Let's take a look at the sort of functions a point on the global net might have or what is a videocenter? Any manufacturer with the foresight to spend a few hundred thousand dollars setting up videocenters thru the Western World would be very smart at this point in time. A videocenter would house a production unit, a compatibility center and videocinema, a small tape library and a gang of resident video freaks. The payoff for the manufacturer is software market research and publicity—huge publicity. The payoff for the man in the street is access to the means of production and the chance to decondition all those years of one-way TV viewing.

Getting it on: hardware

Where is the hardware and who's got it? There is one Sony portable to every 20,000 people in the USA. So where the fuck are they all? Most of it needs liberating. Our particular interest is how to liberate it from schools and colleges. One way (legally) is to turn on the person in charge of the hardware to the immense possibilities of this friendly little machine. Best way is to turn it at its owner and zap him/her with immediate feedback. It works. Most people never see themselves on TV, etc. Then it's just a case of letting the guy take some ideas from you and call them his own, in return for which you get to use the hardware. Reference to previous experience with TV hardware also cuts ice. Tell a few lies.

Leasing

In England, leasing companies are uptight about long term hardware hire. And the potential sponsors wanted by them—Arts Council, TV Companies—are just as stupid. Something's got to give. Already there's a healthy scent of "Rip It Off" in the air, as potential videoheads get more ruthless with pussyfoot suppliers.

Mass Media: what is to be done?

Production. Portable video has to be established as an important input to broadcast. This has already started in Europe but hasn't got further than news flashes and the occasional interview about it, although there are notable exceptions; David Frost interviewing Ian Smith; TV Childrens program on Swedish TV, Sept 70, shot entirely by children on portable half-inch videotape.

Structural shift in network TV is already possible. England is covered by 3 networks, approximately, according to the 4-color theorem of topology. This can be broken down—perhaps on a new fourth channel in UK—so that every transmitter is linked to a TV studio, or video center. Rigging up a TV studio is not expensive. In fact there are over a hundred "ham" TV stations in the UK alone, and the universities and colleges are cram full of unused hardware. British Amateur Television Club is organization for the hams.

Software concepts

One of the reasons broadcast TV is so rigid is that the producers haven't yet got concepts to fit the possibilities of the medium. Evidently the opposites Entertainment/Documentary and Sport/Education are not the right parameters, or program concepts. We're actively pushing the concept 'Advanced Television' at TV stations. It means whatever you want it to mean, and it's what we've been doing and developing all along.

Software Markets and Types

West Germany is the healthiest TV market. They've already bought U.S. underground movies for regular programming, and some of their home grown products are very heavy, violent, exciting. There are no video makers there yet outside TV stations. All the output of the underground filmmakers is in some way political. So feed your antimatter to one of the 9 West German TV stations.

In England it is not generally realized that the legal weekly 53 odd hours does not include schools, religious, education, and outside broadcasts. Adult education is quite a good loophole here, especially for late night programs. And what is needed is a late night program for young people that isn't just pop music, trendy clothes and talking heads. We hope that our "Electric Newspaper" is the answer (see below).

The People

The movie industry and the TV industry is generally out of touch with young people. The exception are Startrek and Easy Rider. Another reason for using video as input to broadcast: it shows the people to the people. The potential is enormous. Most people never saw themselves on TV, etc. A new communication parameter: how many people in a locality can be served by one open-access TV station?

Cassette Market

No one manufacturing cassettes yet knows what sort of software will be consumer popular. Early EVR demand is for more pop music than expected (source: APB, Boston) and early video cassette use in Japan is for blue movies (source: Association of Broadcasting Staff bulletin Sept. 70).

The Electric Newspaper

This is our next step, in spite of the fact that we're broke and don't have the right hardware yet. We're putting out a regular videotape series called "Electric Newspaper", to anyone who sends us an empty reel of videotape and some bread (a few dollars), or free to anyone who sends us a full reel of videotape. During the next few months we'll be making prototype activity with the Electric Newspaper project: a pilot which is also the real thing. Inlets and outlets should be properly set up by 1971.

MASS MEDIA IS A SOURCE OF BREAD.

We need \$25,000 for starters. Any suggestions?

Prediction

The first travelling bunch of freelance video heads rather like a pop group but making TV. Gigs at TV stations. Software spinoff to cassette market.

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