TRANSMIT
Program 19 January 1983

10:00 ***Opening Remarks*** - Muriel Cooper, Director of the Visible Langauge Workshop, MIT
10:30 ***Graphic Information Systems*** -Patrick Purcell, Assistant Professor of Computer Graphics, Architecture Machine Group, MIT
11:00 ***Research Policy on Communications Policy*** -Russell Neuman, Assistant Professor, Political Science, MIT
11:30 ***TV as Ritual*** - Dr. Gregor Goethals, Professor of Art History, Rhode Island School of Design
12:00 ***Lunch*** - Gregorio Rivera, Graduate Student, Visible Language Workshop, MIT will be conducting an informal survey concerning media perception, the topic of his thesis
1:00 ***Not Art, Teleculture*** - Robert Horvitz, Art Editor, Coevolution Quarterly
1:30 ***Research in Music and Technology*** - John Stautner,Experimental Music Studio, MIT
2:00 ***Whoried in the Balance: The Perils of Pandora,*** videotape of a satellite transmission between the National Museum of Science and Technology, Ottawa and Centre Georges Pompidou, Paris by Kitchen Sync Productions - Rachel Weiss, Dana Moser, Matt Belge and John Waite
2:45 ***Networks and the Arts*** - a videotape of Lowry Burgess, Center for Advanced Visual Studies, MIT
3:00 ***New Transmission Technology*** - Dr. William Schreiber, Professor of Electrical Engineering, MIT
3:30 ***Slow-scan and interactive audio transmission***- between panel discussions at the Visible Language Workshop and the School of the Art Institute, Chicago.
Panel Topic: How Do Transmission Media Affect Information Communicated?
MIT Panel: Peter Droege, moderator
Robert Horvitz, Art Editor, Coevolution Quarterly
Shelley Isaacson, WGBH
David Backer, Architecture Machine Group, MIT
John Stautner, Experimental Music Studio, MIT
Rachel Weiss, Independent Artist
Dana Moser, Independent Artist
Curtis Rhodes, Editor Computer Music Journal

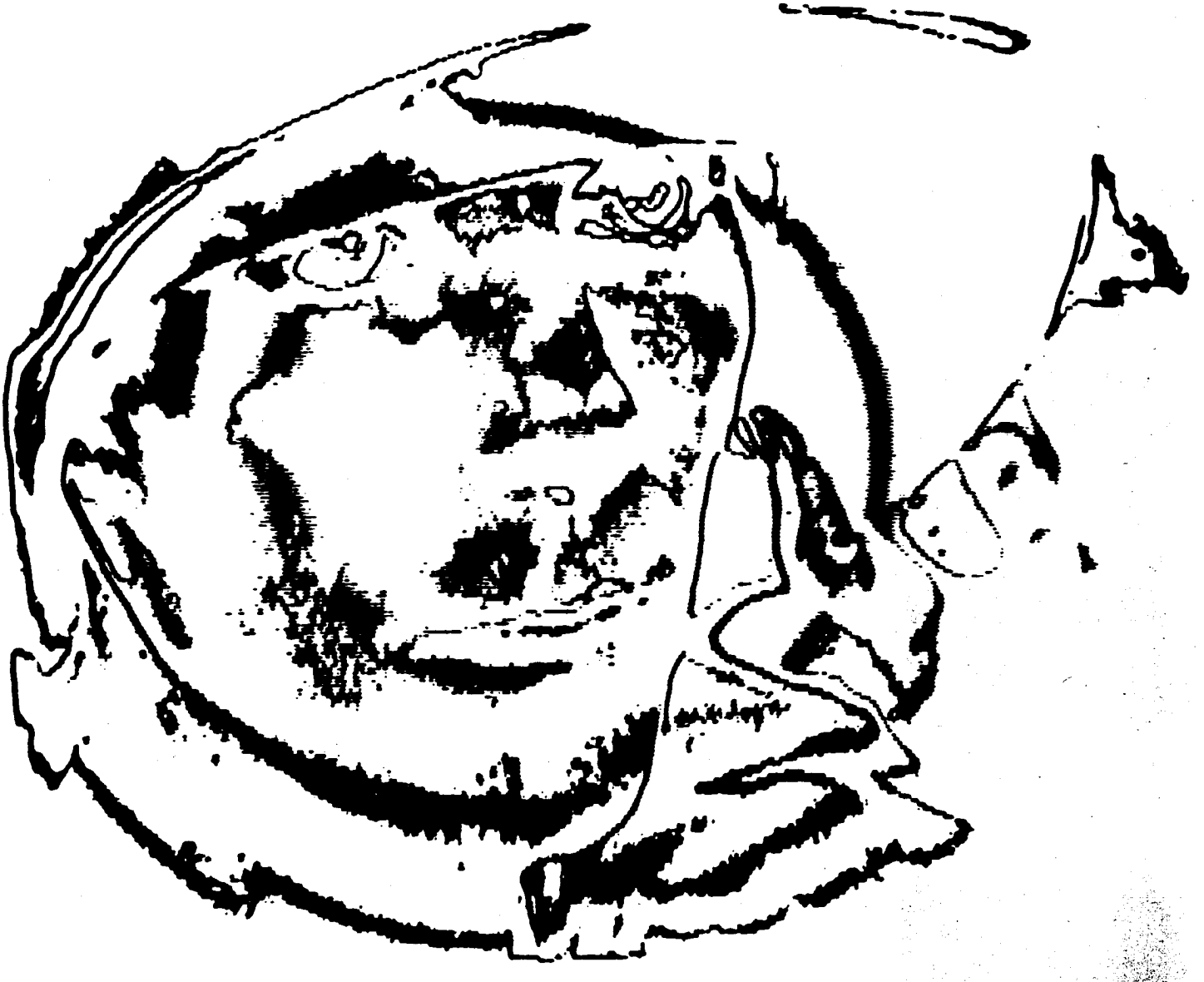
Chicago Panel: Sonia Sheridan, Generative Systems, School of the Art Institute
Barbara Latham, Video Area Head, School of the Art Institute
Robert Snyder, Chairman, Time Arts, School of the Art Institute
John Manning, Art and Technology Area Head, School of the Art Institute
Thomas Jaremba, Chairman, Design and Communication, School of the Art Institute
6:00 ***Transmission Performance Event, 'I am a Machine',*** Slow-scan video and interactive digital audio performance between the School of the Art Institute, Chicago and the Visible Language Workshop, MIT. Designed and engineered by Edward LePoulin and Lee Silverman.

This conference has been organized by members of the SMVisS program at MIT.
It has been generously supported by the Council for the Arts at MIT, Polaroid, Sony, Lexicon and Colorado Video.
Special assistance has been provided by Educational Video Resources, MIT, Randy Winchester at MIT Cable, the School of the Art Institute, Chicago, and Connex.

new video art

wednesday, june 25

9 AM - 6 PM auditorium



PRESENTATION 1 PM - 4 PM

Wyndham Hannaway, a cinematographer, video technician, electrician, musician, photographer, and recording engineer will present a demonstration of video technology as an avenue for artistic expression. Included in the presentation will be video feedback, image "freezing", pseudo color generation, abstract pattern generation, and other effects.

Boulder Public Library **1000 canyon boulevard**

CLIENTS FOR WHOM WE HAVE DONE WORK

January 1977

Allen and Dorward Advertising, for Shell Chemical
Browne Vinters, for Paul Masson (2 jobs)
Commart, for Perkin, Elmar, Altec (2 jobs)
Commart, for Syntex
Cheveron School of Broadcasting(2 jobs)
Peter Chope, for Itel
Corporate Graphics, for American Building Maintenance (3 jobs)
Creative World Travel
Cronan-Tucker Associates, for Bookpeople
Cunningham and Walsh, for Royal Viking Lines
Dakis Concern, for Cado
Dance your Ass Off
Design Communications
Fiberboard Corporation (2 jobs)
George Dickenson, photographer
Harcourt Brace Javanovitch, publishers
Health Awareness
Hoefer, Dietrich, and Brown, for American Motors
Jay Maisel
Joe Hernandez, for Interior Marketing
KEMO, Channel 20
Future Technology Magazine
Great America (3 jobs)
Landor Associates and Media Generalists, for Philco Ford
Mariner III, for Wells Fargo (L.A.)
Mariner III, for Security Pacific National Bank
Mc Donough Communications, for Cetec
Mc Donough Communications, for Television Research International
Mc Donough Communications
Oceans Magazine
Pinne, Garvin and Hock, for Ramtek Electronics
Register Mark, for Allen and Dorward
Pacific Telephone
Panorama Productions, for Bestline International
Register Mark, for Shell Chemical
Robert Pease & Co., for Fairchild
Sandicker Studios
San Francisco Light Works, for Itel
School in the Exploratorium
Scientific Photo Arts
Bob Seltzer, for Marijuana Monthly Magazine
Slide Synchers
Slide Synchers, for Varian Corporation
Standard Oil of California (3 jobs)

United States Patent [19]

Southworth et al.

[11] **Patent Number: 4,713,693**

[45] **Date of Patent: Dec. 15, 1987**

[54] **COMPOSITE SINGLE VIDEO IMAGE SYSTEM AND METHOD UTILIZING VIDEO PEAK STORING MEMORY**

[75] Inventors: **Glen R. Southworth; Robert J. Cornilsen,** both of Boulder, Colo.

[73] Assignee: **Colorado Video, Incorporated,** Boulder, Colo.

[21] Appl. No.: **638,299**

[22] Filed: **Aug. 6, 1984**

[51] **Int. Cl.**[4] **H04N 5/14**

[52] **U.S. Cl.** **358/160;** 358/22; 358/105

[58] **Field of Search** 358/160, 22, 105, 183, 358/182

[56] **References Cited**

U.S. PATENT DOCUMENTS

3,478,164	11/1969	Southworth	358/140
4,148,070	4/1979	Taylor	358/160
4,168,510	9/1979	Kaiser	358/105
4,233,631	11/1980	Mahler	358/22
4,249,212	3/1981	Ito et al.	358/22
4,296,434	10/1981	Drewery et al.	358/105

FOREIGN PATENT DOCUMENTS

0130829	10/1979	Japan	358/105

OTHER PUBLICATIONS

"Video Peak Store 493", data sheets, Colorado Video Inc., 12/86.

Southworth, Glen, "Digital Photography", Imaging Technology, May 1984.

Sugimoto, Atsumi, "NEC's FS-16 Frame Synchronizer Revolutionizes TV Production", JEE, 2/80, vol. 17, No. 158, pp. 52-54.

"A Magnetic Disc Video-Scan Converter", by G. R. Southworth, Society of Motion Picture and Television Engineers, Jun. 1968, vol. 77, No. 6.

"The Tricolor Cartograph A Display System with Automatic Coloring Capabilities" by W. J. Kubitz and W. J. Poppelbaum, Information Display, Nov./Dec. 1969.

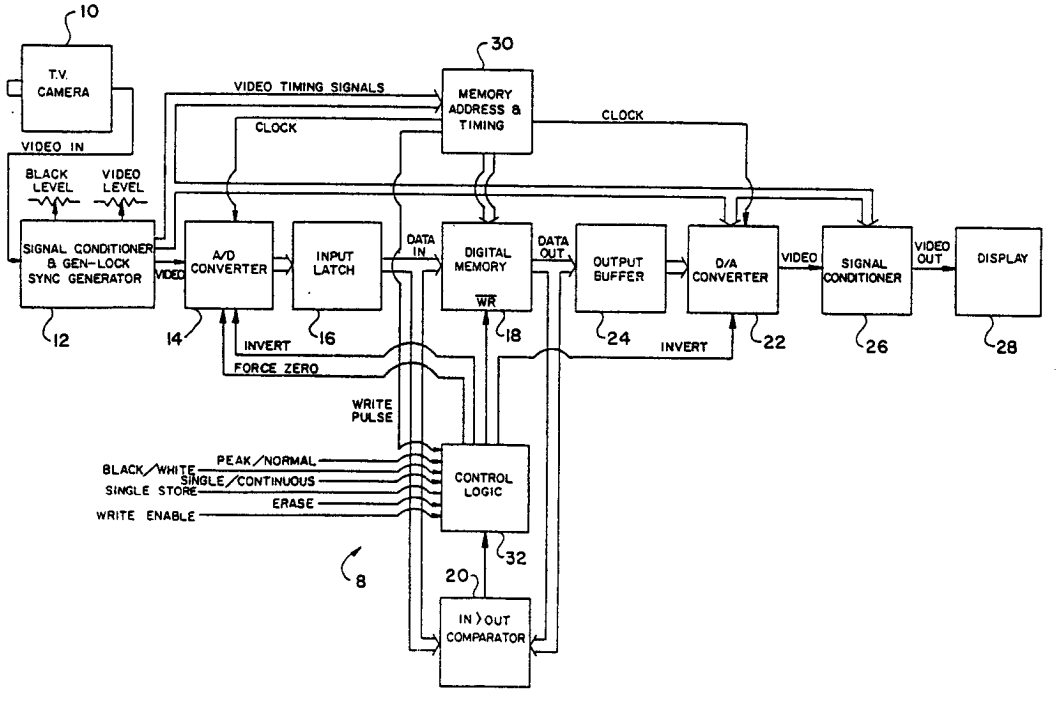
Primary Examiner—James J. Groody

Assistant Examiner—David E. Harvey

[57] **ABSTRACT**

A system and method for forming composite single video images utilizing a video peak storing memory to enable new information to be added on a preselected basis to a then stored image so that the image thereafter displayed is a composite of the stored image and any added information. A single field or frame of television information can be captured and digitally stored in memory with new information being added thereto based on the brightness level of the new information relative to the stored image information so that the resulting display is a composite of the information in memory. In a peak-white mode of operation, preselected information added to the memory includes only few information that is "whiter" that the stored information (alternately, in a peak-black mode of operation adding of new information to memory is dependent upon whether the new information is "blacker" than the stored information), with such information being selected through use of video peak storing memory. Either monochrome video signals or encoded color TV signals can be processed and displayed.

8 Claims, 6 Drawing Figures



United States Patent [19]

Southworth et al.

[11] **3,950,607**

[45] **Apr. 13, 1976**

[54] **BANDWIDTH COMPRESSION SYSTEM AND METHOD**

[75] Inventors: **Glen R. Southworth**, Boulder; **Roy W. Lewallen**, Denver; **John E. Sparks**, Boulder, all of Colo.

[73] Assignee: **Colorado Video, Inc.**, Boulder, Colo.

[22] Filed: **Apr. 30, 1973**

[21] Appl. No.: **355,802**

[52] U.S. Cl. ..... **178/6**; 178/6.8; 178/DIG. 3; 178/DIG. 24; 179/2 TV

[51] Int. Cl.[2] **H04N 7/12**

[58] Field of Search..... 178/DIG. 3, DIG. 4, 15.55, 178/6.8, DIG. 24; 179/2 TV

[56] **References Cited**

UNITED STATES PATENTS

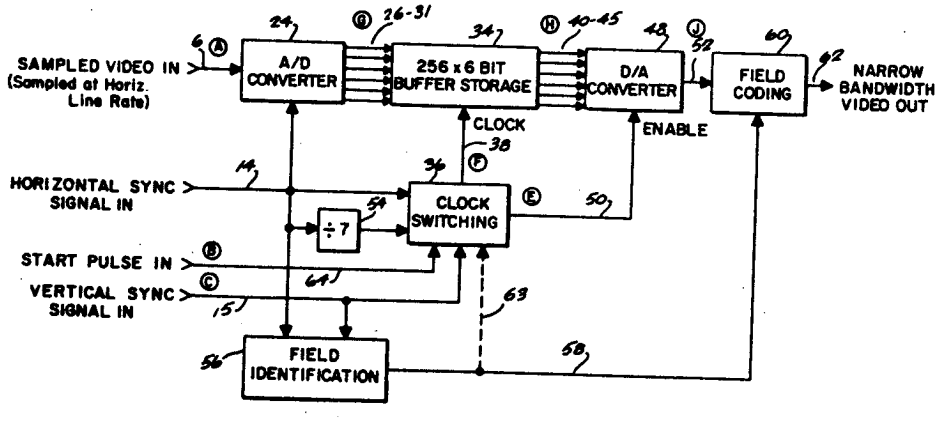
3,499,996	3/1970	Klayman et al.	179/15.55
3,683,111	8/1972	Southworth	178/6
3,736,373	5/1973	Pease	178/6
3,752,912	8/1973	Ohsawa et al.	178/6
3,806,644	4/1974	Browne et al.	178/6.8
3,825,677	7/1974	Kasprzak	178/6.8

Primary Examiner—Howard W. Britton
Assistant Examiner—Edward L. Coles

[57] **ABSTRACT**

A method and apparatus is disclosed for converting a wide-bandwidth signal to a narrow-bandwidth signal, the disclosed method and apparatus being particularly well suited for converting a wide-bandwidth real-time television signal to a narrow-bandwidth signal. A sampled video signal is coupled to an analog-to-digital converter which converts the amplitude of each sampled element to a binary code word having a predetermined number of bits. The binary code words are then written into a buffer storage element controlled by a clock switching device and later clocked out of the buffer storage device at a clock rate less than the input rate with the output from the buffer storage device being coupled to a digital-to-analog converter whose output is an analog signal with the same amplitude variations as the sampled video signal but with a time base stretched out by a predetermined factor. The field, either odd or even interlace, from which the sampled video signal was taken is identified by ascertaining the location of the horizontal signal pulses relative to the vertical signal pulse, and this field index may then be used to code the output narrow-bandwidth video signal. Another embodiment is disclosed which utilizes an analog shift register as the buffer storage device in place of the digital buffer storage with its attached analog-to-digital and digital-to-analog converter. An alternate embodiment is disclosed which utilizes a pair of parallel connected buffer storage units (either digital or analog) controlled by output gating to provide for a continuous non-interlaced narrow-bandwidth signal.

29 Claims, 11 Drawing Figures



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colorado video inc

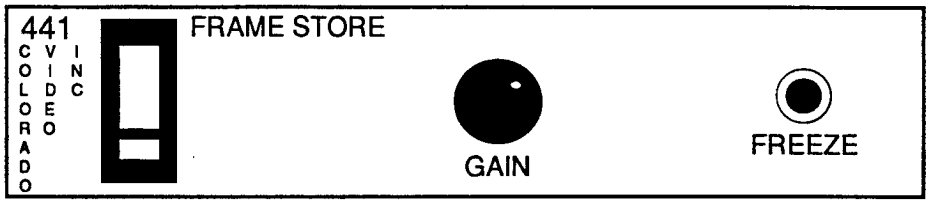
frame store 441

general description

The Model 441 Frame Store is a full frame video memory. Upon command, it captures a full video frame in a thirtieth of a second from a standard RS-170 video input. The Freeze command can be given by a front-panel push-button or rear-panel contact closure input. Resolution is 768 x 480 for standard units conforming to RS-170 specifications and 768 x 580 for units optionally ordered to conform to CCIR specifications. The Model 441 has an eight bit gray scale providing 256 shades of gray.

specifications

Size:	1¾" x 11" x 8"	
Weight	3.5 lbs	
Mounting:	Free standing (1¾" x 19" rack mount optional)	
Power:	117/220 VAC, 50/60 Hz, 75VA	
Inputs:	Video:	Composite, 1 V p-p 525 line RS-170 (625 line CCIR optional) Looping with Hi-Z/75 Ω switch
	Remote control freeze command (contact closure).	
Outputs:	Video:	Composite, 1 V p-p, 75 Ω
Controls:	Front Panel:	Power On/Off Gain Freeze
	Internal:	Horizontal Front Porch Horizontal Back Porch Vertical Active Lines Vertical Back Porch Sync Level Clock Lock
	Rear Panel:	Video in: Hi-Z/75 Ω
Indicators:	Power	
Performance:	768 pixels per line x 480 lines (580 lines CCIR) 8-bit Grayscale Bandwidth: 8 MHz	



Specifications subject to change without notice. 3/92

MEDIA GAMES

An international slow-scan video event

by Bernd Kracke
with Brian Raila and Lee Silverman

Transmissions between the Kunsthaus in Zurich
The Visible Language Workshop in Cambridge
and a grid of televisions in Somerville
will occur on
Friday, July 2, 1982
at 19:00 hours, Greenwich Mean Time

American viewing at 2:00pm EST
Visible Language Workshop, MIT
275 Massachusetts Avenue
Cambridge, Massachusetts 253-4406

An opening of an exhibition involving masks, boxes, objects, photographs will begin at 5:30 in the Visible Language Workshop Gallery located at 275 Massachusetts Avenue, Cambridge

"Slow-scan" allows the transmission of television pictures over ordinary telephone lines. Still frames of video are sent between scanner locations in a thirty or ninety second process.

This international performance is sponsored by Colorado Video; Comptronix Ag; Seyffer Company, Ltd.; and Amerikanischen Botschaft in Bern.

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Video Art Notes 26 January 1992

Users of model 606 Video Quantizer

1. U. Iowa Live performances
2. Swedish Broadcasting
3. TeleJocky
4. WFAA
5. Boston Museum of Science
6. John Roach
7. Stephen Beck - KQED
8. Mits Katioka - UCLA
9. Recreational Computer systems
10. MetaColor -Eric Morey
11. MetaImage
12. Goodnight Audio
13. Garden Wall
14. New Orient Media
15. Wilson/Lund
16. Commercial Break
17. Adler Planetarium
18. South Carolina State Museum
19. New York Hall of Science
20. CREIGHTON U. - BRK SOMERS