FILE: NYSCA 74

Section II — Request for Assistance

Name of Organization: *Wright Computer Graphics*

In the space provided below, summarize the programs for which your organization is requesting assistance. Include the amount requested and list the programs in order of priority.

SUMMARY OF REQUEST

Purpose of organization is to develop through live performance electronic image synthesis using live video input. We are developing a portable video synthesizer to be used as a performance instrument. This will be a major advance in the application of technology in the arts. We propose to get technology out of the television studios and into various theatres, galleries & colleges throughout New York State. Sixteen concerts are already scheduled.

TOTAL REQUEST $ 28,370

Provide the following detailed information concerning <u>each</u> program for which funding is sought. Use separate sheets of paper for each program and head each sheet "Request for Assistance". Be sure to include your organization's name on each sheet.

A. Title of program or activity, total cost of and anticipated income from the program or activity, and funds requested from the New York State Council on the Arts. Include the name and telephone number of the staff person directly responsible for the program or activity.

B. A description of the program or activity and the audience it is intended to serve. Indicate whether the program will be new, continued, or expanded, and the time period the program will cover, including the starting and ending dates.

C. 1. A complete, fully itemized program expense budget, based if possible on the expense categories in the Organization Budget Summary on page 9, item B3. Prorate where possible central administrative costs which apply to the program concerned.

    2. Detail the amounts and anticipated sources of income to pay for this program's expenses. Include such categories as income from the program itself, funds from other organizational income, contributions, use of endowment, use of Other Accounts (see page 10, item E), and all other sources.

D. If funding for more than one program is being requested, indicate clearly the relative priority to your organization of each program.

E. Fill in on page 1 of this application the total amount your organization is requesting for <u>all</u> programs.

Please note: Requests in excess of your organization's Total Expenses minus Total Income for the year 1973-74 (1973)* (page 9, item B 3j) will not be favorably considered without extraordinary justification.

*See DEFINITIONS

3/12/73.

Proposal to the New York State Council on the Arts
submitted by Wright Computer Graphics ; a non-profit
corporation established 1973, to develop through
live performance , electronic image synthesis using
live video input & the modular video synthesizer
designed by Walter Wright .

Corporation directors are Walter Wright, Rudi Stern
and Joie Davidow.
Corporation advisors are Nam June Paik, Stiena & Woody
Vasulka and Ralph Hocking .

The proposal is divided into the following sections -
1) Description of the modular video synthesizer .
2) Program
3) Exclusive use & manufacture of hardware
4) Budget
5) Supporting materials .

This proposal was written by Walter Wright - that is
all the "I"'s are me .

RW - 200B - <u>section monitors</u> - allows the control
voltages driving the raster sections to be
monitored on a built in oscilloscope.

RW - 201 - <u>rotation control</u> - turns & spins the raster
and image on the display unit.

RW - 210 - <u>ramp generator</u> - produces a smooth
control voltage ramp (triggered) with
adjustable rate.

RW - 210A - <u>ramp modifier</u> - takes an already
generated ramp, clips it top & bottom
and re amplifies it.

RW - 211 - <u>3 parameter joystick controller</u> with damping

RW - 212 - <u>slide pot controller</u> with adjustable range.

RW - 220 - <u>waveform generator</u> - keyed oscillator
operating in low, 60 Hz & 15,750 Hz frequency
ranges, with simultaneous output of
sine, triangle, and square waves (+ve & -ve),
with frequency modulation and control
of waveform symmetry.

RW - 230 - <u>control voltage amplifier</u> with gain control
on 4 inputs, biased +ve & -ve output.

RW - 240 - <u>control voltage multiplier</u> with gain & bias
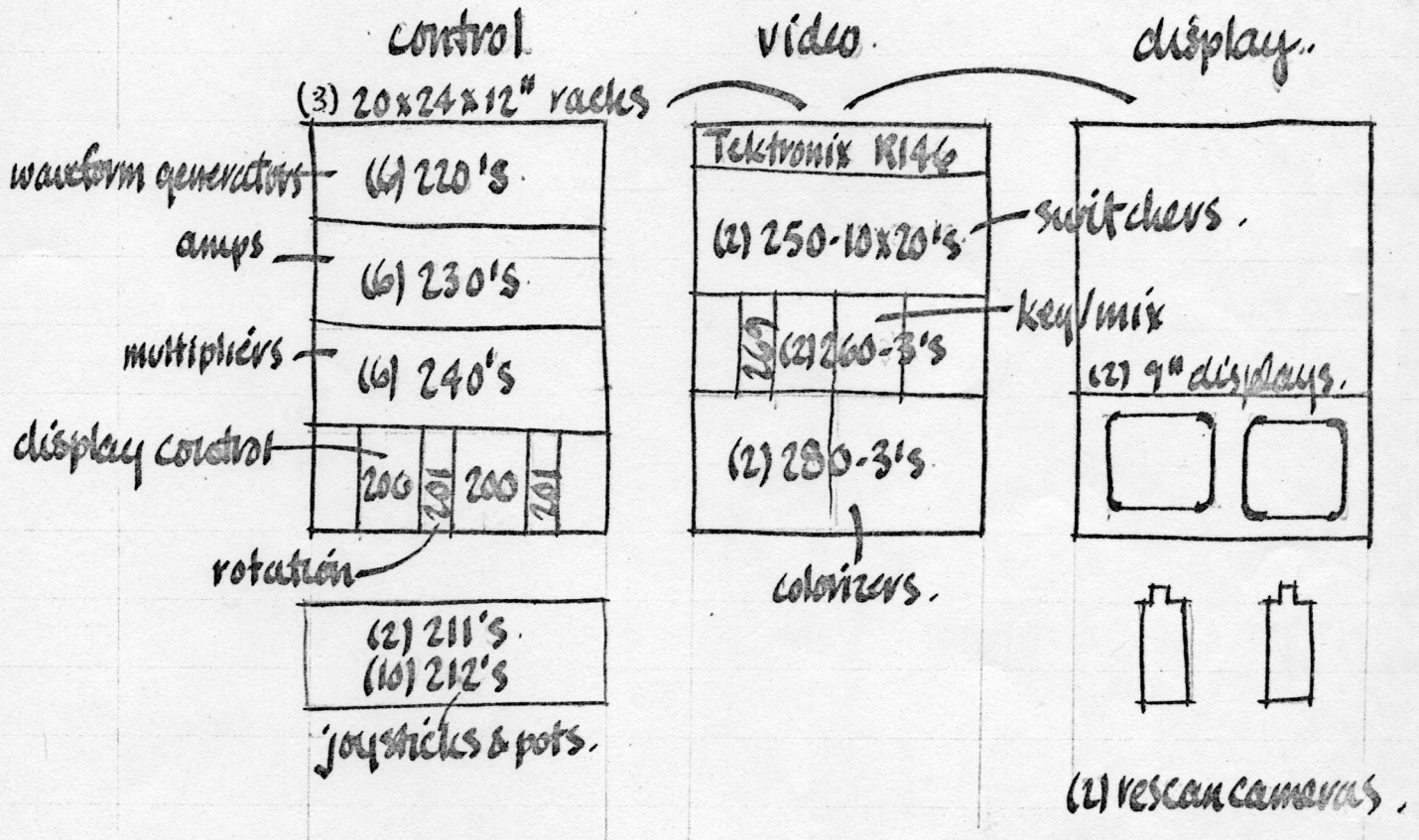control over 2 inputs, +ve & -ve output

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RW - 250 mxn - _video switching matrix_

RW - 260 n - _video key/mix_, b&w, n-channels input
with encoder & seperate control voltage inputs
to the keyers.

RW - 261 n - _video key/mix_, color, as above

RW - 269 - _black source_ with or without color burst

RW - 270 - _single channel colorizer_ - RGB or phase shift
control.

RW - 271 n - _single channel colorizer_ with encoder
and keyed output using seperate controls
for color on each level, n-levels.

RW - 280 n - _multi channel colorizer_ with key/mix,
n-channels, combines several RW 270's
with RW-261 n

Modules existing in prototype form are;
RW - 211 - dampened joystick
RW - 212 - slide pot controller
RW - 220 - waveform generator
RW - 230 - amplifier
RW - 240 - multiplier
The display modules have been diagrammed; and
the video modules block diagrammed.

Portable rack mounting for the modules I require in a live performance synthesizer is shown below;

control   video   display.

(3) 20×24×12" racks

waveform generators — | (6) 220's |

amps — | (6) 230's |

multipliers — | (6) 240's |

display control — | 200 | 201 | 200 | 201 |

rotation

Tektronix R146

(2) 250-10×20's — switchers

(2) 260-3's — key/mix

(2) 280-3's

colorizers.

(2) 9" displays.

(2) 211's
(10) 212's

joysticks & pots.

(2) rescan cameras.

Off-the-shelf hardware includes;
(1) Tektronix R-146 NTSC signal generator
(2) Panasonic 525 live cameras
(2) RE-1 display monitor systems.

Alternate equipment to be used if necessary in the video rack ;

(1) Panasonic SEG - substitute for switching, & camera control
(2) Shibaden keyers - modified for mix, & voltage control
(1) Seigel colorizer - modified for level keying.

2) Program

The project will be located in the Experimental Television Centre, Binghamton NY; which has the necessary facilities and an open & unpressured environment in which to test & develop the hardware. The Binghamton Centre is in a central geographic location allowing access to various communities throughout NY state for performances.

Several performances are being considered for '73-'74. Two programs produced by Rudi Stern & presented as live concerts and recorded for broadcast. One of these concerts is tentatively scheduled for the Everson Museum in Syracuse.

A series of 6 concerts at the Kitchen in NYC are to be produced by Shridhar Bapat. These concerts will be recorded for cablecast through the facilities of the Video Access Centre; the tapes will be available for distribution to other cable networks in NY state.

During the year I will be designing and building hardware modules. However, as time permits I will become involved with the program at the Experimental Television Centre; and maybe at WSKG.

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I feel the proposed video synthesizer is a major advance in the application of technology in the arts. This program emphasizes the synthesizer's mobility and its use as a performance instrument. The studio machines presently installed – the Paik-Abbé at NET's Studio 46 and Computer Image's Scanimate – are becoming more & more inaccessible to artists. I speak from personal experience at Computer Image; since the success of Ed Emshwiller's Scape-mates, Scanimate is no longer accessible to non-funded artists.

Therefore, I propose to get the technology out of the studio & into various theatres, galleries & colleges throughout the state. I further propose to license the manufacture of my designs; making them available to the public and perhaps allowing me to become self-supporting in the future.

3) Exclusive use & manufacture of hardware

The hardware modules that are researched and developed during the term of this grant will become the property of the NYSCA. However, as performance is a vital component of this proposal, I will have to be assured of exclusive use of the completed video synthesizer for as long as I continue to be supported by the Council.

In order to offset the expenses of a continuing program, I propose to license Rutt Instruments Corp. to manufacture & market the video synthesizer modules. This may allow the program to become, in the future, self-sufficient.

5) Supporting materials

The people involved in the project have the best possible qualifications in relation to their roles.

I have a background in architectural design, systems engineering, computer programming, & television broadcasting. In 1970-70, I designed & programmed a computer graphics system for Litton Industries. It is the only system of its kind developed for under $100,000, that remains in production. For the past two years I have worked with Dolphin Productions / Computer Image Corp. I believe my contributions there have greatly expanded the potential application of video synthesis in areas beyond advertising commercials. While at Dolphin I conducted informal "demonstrations", which allowed a number of artists to experiment with the Scanimate system. These artists include - Shridhar Bapat, Russel Conner, Dimitri Devyatkin, Ed Emshwiller (who returned to produce Thermogenisis & Scape-mates), Bill Etra, Rudi Stern, the Vasulkas, Jud Yalkut, and others. Unfortunately, Dolphin is no longer interested in informal demonstrations.

I believe I have the technical competence to undertake & complete this project & the artistic ability to guarantee a successful series of performances

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Shridhar Bapat, who will produce the concert series, has been a video director at the Kitchen for several years. He has produced a wide variety of artists & events involving video, electronic music, dance, light projection and so on. He is producer of the annual Video Festival at the Kitchen; & co-producer with Susan Milano of the Women's Video Festival.

Rudi Stern who will produce the two special concerts for broadcast in association with David Loxton of the Artists' Television Laboratory has an extensive background in the creation of projected light environments; and in video.

The (2) tapes enclosed are both examples of the potential of live performance video. (they are not artistic masterpieces) Central Maine Power is a processed version of a tape made live using (1) camera. However, if the Scanimate were portable, ~~that~~ the video could have been processed in real time. The Midnite Opera Company is live video, all done in real time using (1) mixer, (1) keyer, a switching pin board & (3) cameras. Again it only partially demonstrates the full potential of real time video processing — no synthesizer.