

Center for Computer Research in Music and Acoustics
Department of Music
Stanford University
Stanford, California 94305

Budget Justification and Detail

Much of the signal processing associated with recording and production will be accomplished in a digital form under software control on computers, however basic channel routing, panning, preview mixing, etc. is more efficiently realized when transferring between two digital machines. To accomplish this transfer/processing digitally would require the use of a digital mixing console, the cost of which is entirely beyond our means (minimum \$250,000).

The only way we can obtain a device which meets our specifications is to have it custom designed and built. We need only a limited number of mixing functions instead of a "full-blown" console which includes a number of functions (eg. filtering) which we prefer to accomplish digitally. This device will replace the John Curl 8-channel mixing console currently being used. A cost breakdown for the device follows:

Detail for multi-track console:

material

input (300 x 16)	4800
output (200 x 8)	1600
metal work	800
jack field	2000

labor

design	1000
assembly	4000

TOTAL \$14,200

**Music
Centers for New
Music Resources
Fiscal Year 1986**

Supplementary Information Sheet

The original and one copy of this form (both sides) must be sent with all other required application materials to: Grants Office/CTR, 8th floor, National Endowment for the Arts, Nancy Hanks Center, 1100 Pennsylvania Avenue, N.W., Washington, D.C. 20506.

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Name of applicant: CCRMA, Stanford University

Date: 9-25-85

Number of years in existence: 10 11

Total number of staff using the facility: 14 14

Visiting professionals: 18 20

Total number of students using the facility: 25 26

Use of facility in last two years

	Number	% of time	Number of Works Produced
Staff	16	42%	10
Students	31	27%	11
Other composers	35	32%	20
Total	82	100%	41

Do you have a long-term equipment acquisition plan? Yes ☒ No ☐
If yes, please describe:

State of the art equipment is essential to a facility such as ours. As technology moves forward in new directions, we will move in these directions as well. Some of these areas include: incorporating into the overall facility commercially available digital synthesizers and personal computers to develop affordable personal music work stations; the integration of high-speed telecommunication and signal processing technology into the area of digital recording and analysis; the incorporation of artificial intelligence software and computers to facilitate recognition and transcription applications for composition and research.

Is your center primarily a teaching facility or a professional composers' facility? Explain.

The center serves as an international facility where musicians, composers, students and researchers work together with computer-based technology. It is a teaching facility in that a seminar in computer music is taught at the center (attended by students and professionals) and graduate students use the facility to realize compositions and research projects. The center is equally used as a "professional composers' facility" by resident and visiting composers and musicians for research and to create works of art.

more space is needed, you may attach an additional 8½" × 11" sheet. Be sure to include the applicant's name on the sheet.

(Continued on reverse)

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Supplementary Information Sheet (Continued)

Name of applicant: CCRMA, Stanford University

Date: 9-25-85

In the space below, please detail your artistic achievements for the past two or three years and your goals for the next three to five years.

CCRMA's main goal is to maintain an interdisciplinary, technologically advanced facility where composers, musicians, researchers and students can work together using the computer as a musical and artistic medium, and as a research tool, to create new works of art. The facility is capable of serving a number of composers and researchers simultaneously, providing a direct control over the medium to a degree not possible before. As technology moves forward in new directions, and as the medium become more and more accessible to the artistic community, CCRMA will strive to integrate these new technologies to provide an environment where artistic experimentation and ideas can be realized.

In support of this technological base, areas of current interest include:

-- the development of inexpensive music work stations based upon the increased potential of commercially available synthesis and processing devices and personal computers for compositional purposes.

-- expanded research in the area of digital recording and processing - to include the digital recording and analysis of performed music; particularly the great vocalists of today.

-- the support of collaborative works of art which integrate technology into real-time performance.

Works produced at the Center have been presented in concert and broadcast on radio throughout the U.S. and in Europe, Japan, and Australia and have won numerous awards. They have been represented at major new music festivals including the International Electroacoustic Music Competition of Bourges, the Venice Biennale, the Warsaw Autumn Festival, the New Horizons Festival in New York, the Cologne Festival, the International Computer Music Conference in Paris, and the Aspen Festival. Works will be presented this coming year at the Cabrillo Festival, Triplex in New York City, the International Computer Music Conference in Holland and the Darmstadt Festival in Germany.

Current works at the center include a collaboration with composer Dexter Morrill and jazz musician Stan Getz for a piece for saxophone and computer generated tape; a collaboration with composer Michael McNabb and ODC/San Francisco for a five movement ballet score for live and taped computer synthesis, piano, saxophone, dancers and robot; a musical theater piece for percussionist, dancer, bassist, vocalist and computer-generated sound by composer Janis Mattox; a work for computer and digital keyboards by composer John Chowning; a work commissioned by the Kronos String Quartet for string quartet and computer tape by composer David Jaffe; a commission for a choral work with tape by composer David Jaffe; a commission by the Kronos String Quartet for a work for string quartet and computer tape by composer Ira Mowitz; a work for bass clarinet and tape by composer Amnon Wolman commissioned by Harry Spaarnay; a work commissioned by musician Stan Getz for saxophone, orchestra and computer tape by composer Amnon Wolman; and a proposed collaborative work with composer Dexter Morrill and musician Wynton Marsalis.

Articles and interviews regarding composers working at CCRMA have appeared recently in Mix Magazine, Smithsonian Magazine, Keyboard Magazine, and the New York Times.