

GEORGIA STATE UNIVERSITY Proposal for the Use of FY2004 Technology Fees

Submitting Organization:

Major Unit: College of Arts and Science

Department: Music

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1. Project Short Title

Audio Production Studios in the School of Music
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2. Total Requested Amount (reference to funding for “Years Following” removed)

Fiscal Year 2004	
\$141,780	

3. a.) Executive Summary:

<p>Project Description (three or four sentences)</p> <p>The School of Music has two highly specialized and fully completed recording studio spaces in the Haas Howell building which need to be equipped and brought “on-line” as teaching/learning/ spaces. This proposal provides a foundation upon which the School of Music may build the technological infrastructure necessary for the highest levels of training for undergraduate and graduate students in composition, computer music, sound design, sound for film and intermedia applications, and for the highest levels of production realization. Crucially, funding will create a means for significant and high-level interdisciplinary learning for students working in the digital arts and will support potential collaborations between students of other departments and universities.</p>
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b.) Project Description

Digital Technology has revolutionized the Performing Arts. In the field of music, its comprehensive embrace across traditionally separate disciplines such as electroacoustic music, composition, performance and pedagogy necessitates the training of future musician-scholars who are readily able to grasp and implement the on-going changes inherent in the Digital Revolution.

The implications of these dynamic changes on traditional academic music programs are

enormous and must be reckoned with. As technological advances increasingly erode the conventional distinctions between musical disciplines, university curricula must provide appropriate courses in support of these redefined areas and reorient degree programs accordingly. In order to prepare students to flourish in the world of contemporary experimental, pedagogical and applied musical arts, academic institutions must radically rethink conventional curricular boundaries and make major commitments of resources and personnel to support the new, technology dependent course of study that must emerge.

The acquisition of necessary technology is key. To this end, the School of Music seeks to establish two well-equipped spaces to facilitate an effective teaching/learning environment for the 21st Century music student.

- 4. Record the review numbers assigned by UCCS and Facilities. Their assessments must be included in Sections 15 and 16.

UCCS: n/a
Facilities: n/a

5. Relevance to Regents Guidelines

[1] Technology fee revenues should be used primarily for the direct benefit of students to assist them in meeting the educational objectives of their academic programs.

This proposal arises from the knowledge that the Digital Revolution has inalterably changed the world of contemporary music. Academic music programs will remain vigorous and competitive only if they respond creatively to the influx of new media possibilities. It is our intent to absorb the new media into current curricula and to foster partnerships with other disciplines to forge new curricula linking traditional music practice and new digital media.

An inevitable by-product of the Digital Revolution is equipment obsolescence. To remain viable and relevant to pedagogical goals and student realization of educational goals and objectives, the School of Music must provide for reasonable upgrades and where necessary, additions to existing resources. Equipment currently in use in other spaces for teaching and learning was purchased in 1996. In the seven years since this original equipment came on-line, vast changes in technology have altered the ability of the School of Music to provide relevant and current instruction. To give just one example, the training of university educated recording engineers is severely handicapped by the lack of *ProTools* – a Macintosh based audio production system that is the industry standard.

[3] Technology fee revenues should be used for hardware and Network related expenditures that include support of general purpose or special purpose laboratories used by students for body productivity and more discipline related activities.

This proposal seeks to integrate high-end digital audio and video/moving image production tools into the already existing Haas-Howell recording studios that are purpose-designed for audio engineering for the moving image. The Haas-Howell studios were designed and constructed by the Walters-Storyk company of New York to very high quality and at considerable expense. The studios have a noise co-efficiency rating of NC-20 which means that they are of superior quality in rejecting ambient sound. Since their construction in 1995-6, the studios have sat empty awaiting support for equipment. The goal of this proposal is to develop two sophisticated studio environments in this pre-existing space, equipped with professional standard production tools for high-level teaching of digital audio, digital signal processing for sound, and audio post-production for the moving image. These facilities will function as both training spaces and as independent project studios for undergraduate and graduate students.

[4] Technology fee revenues may be used for training of students and, to a lesser extent, staff and faculty.

Specific tools and technologies have become industry standard in the field of audio production. One such system is the aforementioned *ProTools* audio production environment. At present, the School of Music does not have the capacity to provide training in this important technology vital for the fulfillment of a complete academic preparation in audio technology – a program offered at Georgia State University since the 1970's. It is important to note that the program in audio technology is among few in the region. It is currently the only such program in the state of Georgia. Furthermore, Georgia State University is the only School of Music Program to provide state-of-the-art training in computer music composition and digital signal processing for music at the Master's level.

Another important benefit of equipping the Haas-Howell spaces will be a greater ability for inter-disciplinary collaboration. Even with the current limited resources available, such student and faculty generated collaborative/interdisciplinary projects are already underway. An important and pioneering example of this type of project is the *Pulse Field* exhibit currently showing in the GSU Galleries and curated by faculty in both the School of Music and School of Art and Design. The importance and relevance of this international exhibition has been well documented in the Atlanta Journal-Constitution and other important print media. The equipment requested in this proposal for the Haas-Howell spaces will provide the necessary tools to continue building upon projects like *Pulse Field*. This is where the important creative work of this millennium is taking place. Students can no longer limit themselves to one area of focus. Interdisciplinary study is vital for success beyond the university. These spaces and the curricula that will arise from the partnerships that support and administer them, will provide appropriate training ground to prepare our students to excel as both experimental and applied artists, professionally skilled and poised to become actual contributors to the evolution of this new musical world.

6. Relevance to Strategic Plan(s)

This proposal is in compliance with the University's stated goal of providing technology

enhanced education. Achieving this goal requires providing appropriately equipped classroom facilities and assuring that curriculum appropriate instructional technologies are available to faculty and students. This proposal represents the critical equipment needs of an existing program that has evolved steadily over the years. It delineates precisely the melding of technology enhanced education with traditional methodologies envisioned in the strategic plan.

7. Impact on Students Served

The successful funding of this proposal would have a significant impact on a large number of students both within the School of Music as well as other disciplines. Within the School, all students are required to take a course in *Computer Applications in Music* (MUS 4730/6730). Currently, there are two sections of this class offered each semester with a capacity of 18 students per section per semester. In order to give the proper professional training to these students, exposure to *ProTools* is critical. Moreover, with the Haas-Howell spaces properly outfitted, the School could create an intermediary course in music technology for students completing the MUS 4730/6730 course. Such a course is now impossible due to lack of proper equipment.

Another large group of students impacted by the outfitting of the Haas-Howell spaces would be the performance majors and music education majors. Increasingly, the professional performer is expected to have experience within the recording environment. Student audio engineers are expected to also have experience in recording studio performances at the highest artistic level possible. Both student performers and student audio engineers would benefit and compliment their respective pedagogical requirements through utilization of the equipment requested.

The need for music educators to be familiar with current trends in music technology is also essential. Many student teachers in the field find that they must set-up and run basic music technology labs. Aside from the course MUS 4730/6730, there is no opportunity for these students to gain the valuable knowledge and experience to survive in the new educational environment. With current resources, the offerings in MUS 4730/6730 can only serve as an introduction to the topic. However, even without adding a subsequent course, additions to the Haas-Howell space would allow for significant redesign in MUS 4730/6730 in order to accommodate the need for professional training in music technology for music education majors.

The equipment is also critical for use by students in the Composition Program (especially those concentrating in computer music) as well as for those students concentrating in Music Technology.

This proposal will also support the various courses in film scoring and music video production which have been offered in the School of Music for some time. The equipment would make these courses more viable and effective aspects of the total curriculum. An emphasis in film scoring has been projected in the composition area dependent on support for equipment.

Outside the School of Music, other significant student populations will be positively impacted by funding of this proposal. Chief among these are students from the School of Art and Design who are working with interdisciplinary methods and materials (i.e. *Sound Art*) and those who are working in the area of video and film. A fine example of the type of course which would directly benefit is the current *Intervention / Invention* course taught by Craig Dongoski and Robert Thompson combining students from both the School of Art and Design and the School of Music. A major project of this

course is the creation of a work of art in sound. The instructors have found that, as of yet, the resources available are not adequate to fully support this type of project and class size (approximately 30 students). In the Department of Communications, film and video students will be able to use the equipment and studio spaces for critical technical support of their projects, such as dialogue replacement, sound effects editing and music score layback. Similarly, students in theatre will be able to collaborate on the development of sound designs for the live stage.

Degree tracks outside the School of Music which would be directly impacted are the MFA in film (School of Art and Design and Department of Communications), BFA and MFA degree tracks in Art which incorporate new media and a new B.I.S. program in Music Technology currently under development. The support of this proposal would also enable special innovative projects of various kinds such as summer and evening workshops for the general student, specialized accreditation programs supported by Digidesign for ProTools certification of students, and similar types of projects which extend the reach of audio technology education to a broader segment of the general student body at Georgia State University.

Projected number of students impacted by funding of this project *per semester*:

School of Music:	
Students enrolled in MUS 4730/6730	36
Music Education students	40
Music Technology students	40
Student Performers	20
Student Composers	18
<i>Subtotal for the SoM:</i>	154
Other Units Outside Music	
Students from Art and Design (Graduate and Undergraduate)	30
Students from Communications (Graduate and Undergraduate)	30
Students from B.I.S. program in Music Technologies	10
General Students of GSU	25
<i>Subtotal outside the SoM</i>	95
TOTAL PROJECTED STUDENTS IMPACTED BY FUNDING PER SEMESTER:	249

4. Justification of Funding Requirements for Fiscal Year 2003

Object of Expense	Itemized Descriptions	Quantity	Extended \$ Total
Staff Salaries			\$0
			\$0
Fringe Benefits			\$0
			\$0
Student Salaries			\$0
			\$0

Equipment (Note: Use standard dollar amounts and replacement thresholds from sections 10/11, or provide explanation in sections 10/11)	MAC G4 256MB/60GB/DVD- CDRW/56K/933 MHz (\$2,400) (for Haas-Howell Recording Studio)	2	\$4,800
	Glyph Trip Rack 3-36GB UW Hot Swap + DDS4 (\$6,000) (for Haas-Howell Recording Studio)	2	\$12,000
	Tannoy System 800A Active Monitors (\$2,000) (for Haas-Howell Recording Studio)	2	\$4,000
	ProTools System Hardware DigiDesign ProTools HD 3 (for Haas-Howell Recording Studio)	1	\$12,000
	ProTools System Hardware DigiDesign ProTools HD 2 (for Haas-Howell Recording Studio)	1	\$10,000
	ProTools System Hardware ProControl (for Haas-Howell Recording Studio)	1	\$12,000
	ProTools System Hardware DigiDesign Sync I/O (\$2,100) (for Haas-Howell Recording Studio)	2	\$4,200
	ProTools System Hardware DigiDesign I92 I/O TDIF Option (\$4500) (for Haas-Howell Recording Studio)	2	\$9,000
	ProTools System Hardware Control24 (for Haas-Howell Recording Studio)	1	\$8,000
	ProTools System Hardware DigiDesign AV Option (for Haas-Howell Recording Studio)	1	\$8,000
	ProTools System Hardware DigiDesign AV Expansion Chassis (for Haas-Howell Recording Studio)	1	\$1,500
	PC Audio System Hardware MidiMan Delta 1010 (for Haas-Howell Recording Studio)	1	\$1,000

	HHB Portadisc Pro Minidisc Recorder (\$1,600) (For Hass-Howell Recording Studio)	4	\$6,400
	Digital Audio Recorders TASCAM DA-78HR 8 Channel Recorder (\$3,500) (For Hass-Howell Recording Studio)	2	\$7,000
	Sony DSR-80 DVCAM Digital Editing Recorder (For Hass-Howell Recording Studio)	1	\$9,000
	Microphones for Portable Use with MiniDiscs Crown SASSPMKII Crown Stereo Condenser (\$1,000) (For Hass-Howell Recording Studio)	4	\$4,000
	Microphones for Portable Use with MiniDiscs Sennheiser Shotgun Mics (\$1,200) (For Hass-Howell Recording Studio)	4	\$4,800
Software	Waves Gold Bundle TDM (For Hass-Howell Recording Studio)	1	\$2,600
	DINR Noise Reduction TDM (For Hass-Howell Recording Studio)	1	\$1,000
	PostConform TDM (For Hass-Howell Recording Studio)	1	\$1,000
	Reaktor PC Version VST (For Hass-Howell Recording Studio)	1	\$500
	Metric Halo ChannelStrip TDM (For Hass-Howell Recording Studio)	1	\$700
	Absynth (For Hass-Howell Recording Studio)	1	\$300
Maintenance or Contractual Services			
Supplies	ViewSonic 21 – inch monitor (\$900) (For Hass-Howell Recording Studio)	2	\$ 1,800
	Sony NTSC 14” Video Monitors (\$625) (For Hass-Howell Recording Studio)	2	\$1,250

	ProTools System Hardware ProControlCK – Cable Kit (For Hass-Howell Recording Studio)	1	\$350
	ProTools System Hardware Control24CK – Cable Kit (For Hass-Howell Recording Studio)	1	\$700
	ProTools System Hardware DigiDesign AV Option FAN (For Hass-Howell Recording Studio)	1	\$150
	Sony MDR7506 Professional Headphones (\$130) (For Hass-Howell Recording Studio)	4	\$520
	Beyerdynamic DT770 Pro Headphones (\$175) (For Hass-Howell Recording Studio)	2	\$350
	Microphones for Portable Use with MiniDiscs Crown Boundary Mics SoundGrabber (\$100) (For Hass-Howell Recording Studio)	8	\$800
	Digital Audio Recorders TASCAM MD301 MK II Studio MD Recorder (\$500) (For Hass-Howell Recording Studio)	2	\$1,000
	TASCAM RC828 Remote Control for Digital Audio Recorders (\$775) (For Hass-Howell Recording Studio)	2	\$1,550
	<i>Furry Windsock for Shotgun Mics (\$300)</i> (For Hass-Howell Recording Studio)	2	\$600
	Patch Bays and Misc. Cabling (For Hass-Howell Recording Studio)	4	\$3,000
Construction Services (Requires review of Planning & Facilities)	Fabric Renovation on Soffit in control rooms (For Hass-Howell Recording Studio)		\$2,000
	Telephone installation (For Hass-Howell Recording Studio)		\$500
	Misc. Furniture - chairs, desk (For Hass-Howell Recording Studio)		\$500

	Shelving for storage closets (For Hass-Howell Recording Studio)		\$250
			\$
Network Connections and Infrastructure Costs (Requires review of UCCS)			\$
			\$
			\$
Other Expenses (explain)	Captain's Chairs (For Hass-Howell Recording Studio)	2	\$200
	Clamp-mount lamps (For Hass-Howell Recording Studio)	4	\$160
	Raxxess Lonestar Workstation (For Hass-Howell Recording Studio)	2	\$2,300
TOTAL			\$141,780

9. Consequences of Partial Funding

As stated in the description portion of this proposal, this request represents a total system for the full outfitting of the existing spaces in the Haas-Howell Building. Bringing this total system on-line immediately will provide important technology resources for both the School of Music and the Digital Arts Community of the entire University. This will be of particular importance now that the MFA in Film and the new Center for Research and Innovation in the Digital Arts and Media (CRIDAM) have been formally established on campus. CRIDAM brings together faculty from disparate disciplines for various types of collaborations in teaching and learning. The requested equipment would be the first major enhancement of audio production equipment since 1996 and would prevent obsolescence of resources within the School of Music.

Funding at 75% will require removal of key components and impede the effectiveness of teaching/learning. Funding at 50% would seriously compromise the ability to provide students with the standard audio quality required by the music industry.

10. Standard Dollar Amounts

Due to the intensive computational requirements of audio and video production equipment, peripherals and editing software, some of the computers chosen in this proposal exceed the standard in both performance and price. Memory and speed are critical components in digital audio and video production and the equipment requested represents industry standards.

11. Standard Replacement Thresholds: NA

12. Prerequisite, Non-Technology Fee, Funding: NA

13. Matching Funds: NA

14. Staffing and Other Support Availability

The School of Music Audio Production Studios are under the purview of Dr. Robert Thompson who will maintain them with staffing by student assistants. Rashid Muhammad is the School of Music technical specialist who will also assist in developing the integration of equipment and software. Additionally, the School of Music maintains a standing Technology Committee comprised of faculty from various musical disciplines that, in part, oversees the audio production studios and advises the Director.

15. Space Availability and Impact on Facilities

The equipment requested will be incorporated into already existing facilities in the School of Music. Digital audio and video equipment and production tools will be installed in the School of Music's recording studios in the Haas-Howell building.

This equipment is to be installed in already existent facilities. No construction or major renovation will be required. The Music Production Recording Studio will need minor furniture items, fabric renovation and telephone installation as listed in the budget.

16. Impact on Computing/Network Infrastructure

None

17. Post-Project Assessment Criteria

Successful implementation of this proposal will:

- Support the needs of students of music technology, composition and audio engineering
- Provide appropriate tools for the inclusion of advanced audio and video media into already existing courses
- Support efforts of academic programs to provide students access to the industry standard tools of their discipline
- Prepare student performers for the recording environment
- Facilitate collaboration with faculty of courses in the MFA in Film

While some of these points are not quantifiable the numbers of students accessing the equipment will be. Faculty and lab staff directly involved with the labs will make post-project assessment reports as to equipment use and met and unmet student demand.

18. Review and Acknowledgements