UNIVERSITY OF LOUISIANA
AT LAFAYETTE
STEP Committee

Technology Fee Application

iMac Upgrade for the Resource Center, Angelle Hall

Dr. Catherine Roche-Wallace
Dr. Robert Willey

School of Music

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Dean, College of the Arts

Title: iMac Upgrade for the Resource Center, Angelle Hall Date: 8/3/07

Name (Contact Person): Dr. Catherine Roche-Wallace Address: PO Box 41207 70504-1207

Phone Number: 482-5208 e-mail: cmr3877@louisiana.edu Dept/College/Org: School of Music

ABSTRACT (250 words or less)

The Resource Center presently has eight iMac G3s, a model introduced in 1998 running at a maximum speed of 600MHz. Students are reluctant to use them due to their speed and limited capabilities.

The STEP Grant iMac Upgrade for the Resource Center, Angelle Hall would offer greatly increased speed, usefulness, and stability in Angelle Halls' only open-access lab. This will create a facility where students will be able to do homework and projects involving word processing, musical score editing and printing, music synthesis, video editing, DVD production, and exercises in theory and class piano. The Resource Center's increased capabilities will help students do their homework, increase their skills, and be more productive.

The new iMacs would use be connected to an existing server network and printer, in an established lab with an overseeing faculty member and 12 graduate assistants. For the student body as a whole, this grant will provide computing resources in a building whose open lab facilities have never been adequate. With up-to-date computers, new software, a fast, stable LAN environment, this lab will be a valuable resource for the University community. If funded, the upgraded Resource Center will serve as the only open access lab for music technology on campus, and provide a facility where music students can do homework assignments using the same software as they use during class.

3. Description of Proposal

a. Purpose of grant and impact to student body as a whole

Previous STEP grants and a BORSF/LEQSF grant have funded the development of the School of Music's Resource Center and adjoining computer classroom. A computer upgrade will improve conditions for students studying there. New software will be used for music notation classes and projects, and to increase the integration of music theory and piano classes, making the theory sequence more effective.

The purpose of the grant *iMac Upgrade for the Resource Center, Angelle Hall* is to increase speed, usefulness, and stability in the lab. In addition to current word processing, database, spreadsheet, and printing capability, MIDI (Musical Instrument Digital Interface) synthesis and music notation, the lab will be useful for multimedia and computer aided instruction in music theory, ear training, and keyboard.

With the existing network wiring of Angelle Hall, it was hoped that students would be to complete ear training assignments in the lab, and drop scores to a central fileserver. The older Macs' speeds (600 MHz max.), made this impossible. The Resource Center has eight Macintosh computers, which cannot meet current students' needs in the way that even the least expensive iMac can. While these computers are available during Resource Center hours, students have been reluctant to use them due to their limited speed and instability.

The Resource Center's computer classroom is equipped with iMac computers, and is used for teaching MUS365 (Music Notation), MUS276 (Introduction to Music Technology), MUS277 (Sound Synthesis), MUS376 (Audio Recording Techniques I) and MUS377 (Audio Recording Techniques II), as well as seminars in research techniques and music industry, and theory classes. Due to the busy schedule of classes and necessity of insuring its functionality for instruction and labs the facility is not available to students outside of class periods. The present eight iMac G3 computers in the Resource Center are not capable of running the same versions of music notation, sequencing, and multimedia software taught in the computer classroom. Twelve iMac computers are proposed that will be of the same type as are used in lecture and laboratory sessions in the classroom, and with the same software as what students use there. This will allow students to continue their study outside of class and to work on homework, significantly improving the learning process. Students who have already taken the courses will be able to maintain and practice their skills and develop projects for other classes or for personal interest.

The new iMacs would utilize an existing Ethernet hub, G4 server, print server, printer and software, in an established lab with an overseeing faculty member and 12 graduate assistants. This would provide file sharing in the only MIDI lab open to the general student population, and allow our CAI ear training software to be used as it was intended

Copies of Finale, the industry standard music notation program, will be installed on the computers in the computer classroom and on the new machines in the Resource Center. This will support the teaching by Scott Landry of MUS365 in Finale notation, allow students to do their homework in the Resource Center, and be available to all music students to produce musical scores for homework theory and composition classes, or for personal projects. The availability of the software at individual workstations will improve teaching conditions in MUS276 and 365, facilitate homework, and raise the technical skills of all music majors.

Copies of Microsoft Office will be installed on the new computers in the Resource Center. These are vital for students doing word processing (papers in many classes) and spreadsheets (budgets for music business class). Site licenses upgrades for two levels of MiBAC Music Lessons software will allow installation of 40 copies of each level on the processors of the new Apple computers in the Resource Center, and on the PC computers in the piano classroom on the second floor of Angelle Hall, which are used during class, and between classes for individual practice. All music majors take a two-year sequence in music theory, each semester taking concurrent classes in written theory, aural skills (sight singing and

ear training), and class piano. Dr. Willey's goal, as Theory Coordinator, is to have teachers in the various courses use the software to help integrate the three areas of study each semester, so that skills can be presented in a more synchronized manner and reinforced by approaching them in different ways. The Music Lessons software was chosen because it presents the same exercises in notated, audio, and keyboard form, and the curriculum of the theory lecture, aural skills, and piano courses will be modified to include software drills in fundamentals, chords, and harmony. It is expected that the exercises done with the software will help students see the connections between the three classes and learn more quickly, thereby making the study of theory more enjoyable and productive. As the Resource Center is an open lab, this software will also be available to any UL Lafayette student who would like to study music theory in a self-paced program, and the School of Music's musicianship website will explain how to use the software, and propose a sequence of exercises to learn a variety of skills. This software will be a useful tool for any student who does not want to take a full course but would like to learn specific skills like reading pitches on the staff, getting better at notated rhythms, chord formation, etc.

Digital video will be available on all workstations. Students will perform digital editing with iMovie, included with each iMac. Combined with our current MIDI capability, this would provide state-of-the-art opportunities to all university students interested in this medium. DVD-RW burners will allow students to archive their larger MIDI and digital video projects on inexpensive medium, and to make DVDs with iDVD of recitals, art installations, and theater productions. iWeb will be used to create individual web sites.

Without a funded technician, our graduate assistants have been hard pressed to solve the glitches that come up in a networked lab. This grant would provide a portable library of troubleshooting software to maintain the lab in useful, working order on a daily basis. If funded, an iBook will handle the labs troubleshooting, saving workstation down time. Our graduate students will be able to solve many problems in minutes that would otherwise render the lab inoperable for days. An Apple Care protection plan will provide telephone, software, and hardware support, making it easier to maintain the computers and keep them functioning smoothly. Subscriptions to .Mac will help when doing maintenance and working on the various servers and workstations in the Resource Center, and streamline the publishing of the School of Music's podcasts.

Moodle is an integral part of our courses throughout the university, and this lab desperately needs an upgrade to make access available for the students who attend school on our side of campus. The Resource Center's present equipment is not capable of the streaming video used in some classes, for example, an online version of Music Appreciation (MUS 300).

For the student body as a whole, this grant will provide computing resources in a building whose open lab facilities have never been adequate. With up-to-date computers, new software, a fast, stable LAN environment, and troubleshooting tools, this lab will be a valuable resource for the University community. If funded, the Resource Center in Angelle Hall will serve as the only open access lab for music technology on campus, now up to date, and provide a facility where music students can do homework assignments using the same software as they use during class.

b. Projected lifetime of enhancement

The iMac upgrade for the Resource Center in Angelle Hall will serve the University community for as long as the Mac OS X system is the prevailing technology (estimated at 5-7 years).

c. Persons responsible for implementation

Dr. Roche-Wallace and the Resource Center staff will be in charge of overseeing the changes to the Resource Center. Dr. Roche-Wallace will be the contact for grant expenditures.

Dr. Willey will orient the theory teachers and Resource Center staff to the use of the Music Lessons software. Manuals for both programs will be incorporated on the Resource Center's music theory website.

Dr. Garcia will install the Music Lessons software in the piano laboratory and orient the piano teachers in its use.

Scott Landry will teach students to use the Finale software in his notation course.

ii. Installation

Dr. Roche-Wallace and the Resource Center staff, with available assistance from Apple Higher Education, Apple Care, Dr. Willey, and the College of the Arts' Visual Resource Center, will be responsible for installation of all grant equipment and software.

iii. Maintenance

The AppleCare Plan purchased with each of the 12 iMacs and the iBook provides on-site Apple certified maintenance for the duration of the project. College of the Arts and School of Music operating budget money will be utilized to keep the lab functioning in the future.

iv. Operation

Day-to-day operation of the Resource Center is the responsibility of the Resource Center staff, overseen by Dr. Andrea Loewy, Graduate Coordinator, and Dr. Catherine Roche-Wallace, Resource Center coordinator. Training sessions occur at the start of each semester for the Graduate student workers on the day-to-day operations of the lab. The Resource Center is open during normal school hours, with some hours on evenings and weekends. It is protected by a motion sensor alarm when not open. The Resource Center currently has 10 study carrels with upholstered library chairs, and two large computer workstation tables, which are handicapped accessible.

v. Training

The Resource Center Coordinator will provide training in basic Macintosh use and networking for the College of the Arts, in open sessions each semester. The Resource Center graduate assistant monitors will help students when they come in to study. MIDI and music notation application training is a part of the following music courses:

MUS 120	Music Theory I
MUS 130	Music Theory II
MUS 280	Music Theory III
MUS 276	Introduction to Music Technology
MUS 277	Music Synthesis
MUS 365	Introduction to Finale Notation Software
AMUS 350	Introduction to Composition

Self-instruction videos are available for use in the Resource Center, and application manuals are available for student use. Dr. Roche-Wallace provides instruction in the use of Practica Musica software to all ear training sections at the start of each semester. Students will learn to use the MiBac Music Lessons software throughout the two-year theory and class piano core sequence.

Budget Proposal

Length of Implementation (In years)	1 [2] 3	
1. Equipment		
a.12 iMacs 17-inch, Intel Core 2 Duo MA590LL/A Keyboard & Mouse, Mac OS X SuperDrive 8X (DVD+R DL/DVD±RW/CD-RW) 2GB 667 DDR2 SDRAM - 2x512 160GB Serial ATA drive	$1,275.00	15,300.00
b. 12 AppleCare for above	119.00	1,428.00
c. 4 USB MIDI interfaces purpose: to connect MIDI existing keyboards and synthesizers to iMacs	59.00	236.00
d. LaCie 320GB mini Hard Drive & Hub purpose: to provide central student file storage	199.95	199.95
** Please Note: Departmental Match of a G4 server, G5 server, Ethernet switch, cables and 2 hubs, MIDI keyboards, Hewlett Packard LaserJet 4M laser printer, and print server.		
TOTAL FOR EQUIPMENT		**$17,163.95**
2. Software		
a. 13 MS Office for Education	149.95	1,949.35
b. Site license for Finale 2008 notation software purpose: music notation software upgrade to Mac OS X, compatible with the new Intel iMacs	1,200.00	1,200.00
c. 1 Retrospect Workgroup Backup 4 .3 purpose: backup, archive, and restore files in case of hard drive or network failure	299.99	299.99
d. 1 TechTool Pro purpose: protect computers from software conflicts and crashes	89.99	89.99
e. MiBac Lessons level I (40 copies) music theory computer aided instruction in fundamentals, compatible with new Intel iMacs	333.50	333.50
f. MiBac Lessons level II (40 copies) music theory computer aided instruction in intermediate level topics, compatible with new Intel iMacs	333.50	333.50

g. 2 subscriptions to .Mac purpose: assist Drs. Roche-Wallace and Willey in working between computers, and publishing the School of Music podcasts	99.95	199.95

** Please Note: Departmental Match of AppleShare IP 6.2, OS X Server, Finale 2006, Overture music notation software, Practica Musica ear training software, MiBac Music Lessons levels I and II, Norton Virus Protection software, and Norton Utilities.

TOTAL FOR SOFTWARE	**$4406.28**

3. Supplies

a. 1 Maxell CD-R Spindle 50-pack	29.99	29.99
b. 1 Maxell CD-RW Media 25-pack	37.99	37.99

TOTAL FOR SUPPLIES	**$67.98**

4. Personnel

**Please Note: Departmental Match of 12 graduate assistants to provide help-desk support and part-time staff position to organize operating schedule of the lab.

TOTAL FOR GRANT	**$21,638.21**

V. Project Implementation Schedule

- November 2007 (or Month 1): Submit purchase requisitions.
- January 2008 (or Month 3): Receive equipment.
- February 2008 (or Month 4): Install equipment during Mardi Gras.
- March 2008: Re-open enhanced Resource Center. Training for graduate assistants in operation of the lab. Training for faculty and students.
- Spring Semester, 2008: Implement Center's capabilities into classes taught regularly in the spring.
- Fall Semester, 2008 (and subsequent semesters): Review training for faculty and students, implement software and hardware into courses regularly taught in the fall.

VI. Previous Funded STEP Projects

Dr. Roche-Wallace:

The '99-'00 STEP Project, MIDILAN for the Resource Center, Angelle Hall, laid the groundwork for the first music technology lab open to the University public. Unfortunately, the computers upgraded in that grant proved too slow and unstable for file sharing.

The '00-'01 STEP Project, Macintosh Multimedia Presentation Cart , has already made music technology a larger part of the course offerings at Angelle Hall, necessitating an up-to-date student lab for continuing work in the newest media.

The '02-'03 STEP Grant SmartClassrooms for Angelle Hall
(with Jon Kulp) brought the first SmartClassroom online in Angelle Hall, followed by a larger installation in our large lecture hall. Total Award Amount: **$195,755.00**

Dr. Willey:

The 2004 STEP Project, Postproduction Studio Equipment
Equipped a new studio for video editing, surround sound mixing, and DVD production

The 2004 STEP Project, Resource Center Upgrade
Created video transfer and editing station, DVD authoring

The 2005 STEP Project, Recording System for Angelle Hall
Upgraded Angelle Hall auditorium audio and video recording, $8,762

The 2006 STEP Grant, New Pro Tools System for the Recording Studio
Upgraded Recording Studio to professional 24-track recording system, $41,337