

University of Louisiana
at Lafayette

College of the Arts

Science Equipment

Angelle Hall
Audio Recording System Upgrade

Robert Willey

Signature of Dean

Signature of Department Head

Title: Angelle Hall Audio Recording System Upgrade

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Abstract

Previous grants have upgraded the recording capabilities in Angelle Hall. Now that the equipment is in use the need for a few additional items of equipment has been identified to improve performance in three areas: (1) existing microphones will be hung more effectively, efficiently, and aesthetically; (2) mixing on existing console will be done more accurately; and (3) the mixed signal will be distributed more dependably to the recording devices.

This will result in a system better able to obtain quality stereo and surround sound audio signals, and improve the quality of recording those signals on CD, DAT, videotape, and DVD.

Budget

1. Hardware

(1) Hang microphones more effectively, efficiently, and aesthetically:

Sabra-SOM SMS 5.1 surround sound microphone mount (for 5 microphones)	\$595
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Microphone stand (to hang the mount)	\$22
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(2) Mix audio more accurately:

Sennheiser headphones (to monitor the mix)	\$100
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(3) Distribute mix more dependably:

Henry Engineering – Patchbox II (to route mix to multiple devices)	\$150
Audio distribution box	

Cables (connect distribution box to recording devices)	\$100
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Total: **\$ 967**

2. Software

None.

3. Supplies

None.

4. Maintenance

The Auditorium is supervised by Mary Ivory Smith. Installation and maintenance of the equipment is done by her and her student assistants.

5. Personnel

The Auditorium is supervised by Mary Ivory Smith. Robert Willey teaches the recording classes in the School of Music and helps advise the Auditorium audio facilities. Karl Fontenot and Ivan Klisanin, engineers at KRVS, are also consultants on the project.

Description of Proposal

a. Purpose of Grant and the Impact to Student Body as a Whole

Previous grants have improved the audio recording capabilities in the School of Music's Angelle Hall auditorium. Last year an array of five microphones were purchased to create a surround sound recording system. The original plan was to hang the microphones over the stage, but this turned out to be difficult to get a good arrangement due to the limited rigging options, and since the microphones could not be individually located in ideal locations the resulting recordings were not as effective as they could be when played back in a surround sound situation, for example, with DVD productions. Having five separate microphones from the two overhead pipes in rows over the stage was also visually distracting for the audience, and so they were sometimes removed completely.

The first component of the current proposal is to get a single mount for five microphones that can be hung from one point over the stage. This will make it easier to hang, will contribute to more vivid spatial effects in the recordings, and be less distracting to ensembles and the audience. The mount will be attached to an upside-down microphone stand pole, which will be clamped and hung from a central location on the stage. This

should provide better recordings, be easier for the stage assistants to work when removing or setting up (for some productions overhead mics can not be used because of scenery or theatrical reasons), and be visually less distracting for the audience.

The second component of this proposal is to improve monitoring and signal routing from stage sources once they reach the booth in the back of the hall. Two immediate problems will be solved by the addition of two pieces of equipment. The first item is a pair of good quality headphones, which will give the person mixing and making recordings in the booth a more accurate idea of what they are doing. As it is now there are no speakers in the booth and the person mixing doesn't can neither hear well what is going on on stage, nor what is going through the mixing board. There is an open space in front of the board but the booth is still acoustically somewhat isolated from the auditorium. A window could be added to make the isolation more complete, but it would have to be able to be opened when the operator needs to communicate in rehearsal with the people on stage. If a window were added then monitor speakers could be installed, but the operator would have to get behind the board each time they want to talk and open the window, slowing down the work. The best solution for now is to get a good pair of headphones that the operator can put on for critical listening, and take off quickly when they need to approach the window. This will significantly improve the quality of recording and sound reinforcement for the hall.

The second issue to address in the booth is the need for a distribution box, to take the signal that the operator is mixing and send it simultaneously to the CD recorder, the DAT recorder, the video camera, and the DVD recorder. The board does not have enough parallel outputs to service all these devices, instead the output of the board presently goes to the DAT, whose output goes to the CD, whose output goes to the camera, whose output finally goes to the DVD recorder, but along the way the signal can become degraded, and should one device be turned off or not be set up correctly the remaining devices further on the chain get poor or no sound. This has caused problems. For example, the audio recorded by Channel One in the booth for a production by the theater and music departments of an original show "The Littlest Angel" last December produced in a high-quality video recording, but according to the composer the sound track for the video had a bad audio hum on the audio tracks, spoiling the result. Had a splitter box been used, the same audio that the engineer was hearing on the board would have been going to the input of the video camera. Because of limited staffing the booth has to be as easy to operate as possible, and a dedicated distribution box would automatically route signals cleanly to any or all the various recorders.

b. Lifetime of Enhancement

The upgrade will be an asset for at least ten years.

c. Persons Responsible for implementation, installation, maintenance, operation, and training.

Dr. Robert Willey (assistant professor teaching media courses) will implement and train staff in the operation of the new equipment.

Mary Ivory Smith (Angelle Hall manager) will supervise the installation and operation of the equipment by her assistants.

Budget Proposal Form.

See attached spreadsheet.

Timeline - Project Implementation Schedule

Additional Information

None.

Previously funded STEP Projects

Dr. Willey has received several STEP grants beginning in 2003-4 to upgrade the School of Music resource center in order to add video editing capabilities, and to make upgrades to the server and client operating systems and applications.