

Best Practice #017, Chapter Audio / Visual Systems

Heading: Meetings and Demonstrations

Issued: October 15, 2004

As chapters become larger there comes a time when an audio/video system becomes a crucial element of its success. An audio system will keep all members involved by helping them hear the demonstrator over the whine of the lathe, and for those at the rear of the room. The video system can be used to record the demonstration for library reference, and to zoom in on the demonstration with minimal intrusion. Add a projection system and everyone gets to be up close and personal.

This paper is an introduction to the advantages, costs, and sources for integrating audio and video systems into your chapter meetings.

AUDIO SYSTEMS

ADVANTAGES:

- 1) **Member Involvement;** Keep members involved in meetings and demonstrations by making it easier for them to hear.
- 2) **Reduces Distractions;** Reduces the amount of talking between members at the rear of the meeting. These conversations are directly linked to members not being involved in the meeting. These side conversations are very distracting to other members, and the demonstrator.
- 3) **Attendance;** Improve the attendance of the chapter by making sure that everyone can hear. Improved attendance helps bring in funds to enhance the chapters library, future demonstrators, and other events.

COMPONENTS: The cost of an audio system can range from \$50 to \$400 depending on the system, features, and place purchased.

- 1) **Simple Audio System;** The simplest audio system can be a hand held microphone wired to an amplifier. These setups can be purchased from Ebay at a cost of \$50 - \$100. Search words: *Audio Amplifier*
- 2) **Mid Level Audio;** Northwest Woodturners (NWWT) uses a Phonic PowerPod 408 that was purchased from a local music store for \$399. It includes two impedance matched speakers and is capable of mixing from several sources.
- 3) **Wireless Microphone.** NWWT uses a JWL-300 wireless microphone system that includes two handheld microphones, and a headset for a demonstrator. Ebay Search words: *JWL Wireless Microphone* (not always available)

VIDEO SYSTEMS

COMPONENTS

The video system can be as simple or complex as a chapter wants. However, costs will increase dramatically as a system gets more complex. Outlined below are components that are reasonably priced for video systems.

CAMCORDER

The simplest video setup includes a camcorder for recording meetings and demonstrations. The camcorder alone will not help the chapter view the demonstration unless coupled with a television set. The camcorder can be used to get tight frontal views of a demonstrator, but does not allow close up views of tool use or techniques without visual interference of the members.

Older camcorders are available on Ebay for \$50 to \$300. Search words: *VHS Camcorder*

DEMONSTRATOR CAMERA

Woodchuckers Supply (www.woodchuckers.com) provides low cost video cameras and switchers. These systems have been used at AAW symposiums in the past. The cameras (\$85) have a fixed focal length lens and need to be setup close to the demonstrator to get reasonable results. Low cost boom stands can be constructed to keep the cameras from getting in the way of your audience.

SWITCHER

The Woodchuckers switcher provides a low cost (\$45) solution for control of up to (5) microphones, and (6) video cameras. A higher end mixer could be used to enhance the effects if desired.

CCTV COLOR ZOOM CAMERA

Color CCTV security cameras provide better resolution than the Woodchuckers demonstration camera, and include a zoom lens. They can be mounted overhead to reduce the obstruction to members. These cameras are not remotely controlled and must be setup prior to the meeting. Color CCTV cameras can be purchased on Ebay for \$70 - \$100. Search words: *CCTV Color Zoom Camera*

TELEVISION DISPLAY

A television set can be used for the output of your video system. To help those at the rear of the room set the TV up at the side of the room, and approximately in the middle. The larger the set the better, and one or more sets can be used. Computer monitors should not be used as they require a digital signal versus the analog signal used in television equipment.

PROJECTION SYSTEM DISPLAY

A video projection system can make a huge difference to your chapters presentation. The older video projectors are now showing up on the used market. A projector with a minimum 1200 lumen should be used to ensure a bright display in a lighted room. Caution should be exercised when buying an older projector as the cost of the lamp can be more than what you pay for the projector. Ebay Search words: *Video Projector*

LIGHTING

The lighting of the demonstrator can be the most complex aspect of the video system. The cameras need a good diffused light source from both overhead, and the front. The lighting system shown below uses an overhead light bar (Home Depot) with a rip stop nylon diffuser panel to soften the lighting. Additional lighting from the front is needed to help highlight the demonstrators face, but without “blinding” the demonstrator.

SETUP

The ideal setup for the audio/video system is to have a single control station that can switch between cameras, zoom in from the camcorder at the rear of the room, control audio levels, and monitor the recording process.



In this photograph Northwest Woodturners member David Williams is demonstrating the making of his Harry Potter magic wands. He is wearing a wireless microphone to keep his hands free, and three overhead zoom cameras are preset to capture close up action without blocking the members view. A video recorder captures both the audio and the video for the chapter library. The fourth camera is a camcorder with zoom lens which is set up at the rear of the room to catch those views of David when speaking to the members, or working at the erasable white board. All four cameras are switch selectable at the recording station. Two speakers are setup at the rear of the room, and a video projector is used to display a 5' image of the action keeping everyone involved in the presentation.