OLLI Tom Swift Squad – Summer Update
August 2009

As we begin the seven week break in our class schedule, with the office closed for the next two weeks, this seemed like an appropriate time to catch everyone up on what's going on with OLLI's technology efforts.

Thom has directed Kelly Keys, our AV contractor, to proceed with the equipment acquisition and installation of most of the work associated with the improvements in Reston. The goal is to make the Reston classrooms functionally equivalent to Tallwood, within the parameters we have to work with there – the AV equipment has to get set up before classes start, and put away when the classes conclude.

The centerpiece to this effort is permanently mounting music quality speakers (two pair - one pair for each room) on the end walls, and four ceiling mounted PA speakers in each classroom. This will allow the AV cabinet for the room to be wheeled to its central position as a stand for the video projector, and a single, multi-conductor cable to be plugged into a jack on the cabinet, a jack on the wall, and, voila' – the sound equipment is ready to go (with the addition of an AC power connection.) Plugging in a networking cable, and setting up the laptop computer completes the setup for each room. Reston has two of our newest laptops, spec'd and acquired by John West in Sept. '08 and earlier this year.

Another addition to Reston Rm2 will be an "OLLI standard" AV cabinet on wheels, to serve as a base for the video projector (Hitachi CP-X253) acquired earlier this year. The cabinet will also house a music-quality amp, VHS / CD / DVD combo player, PA Amp, and wireless mic receiver. Currently, to get this AV functionality requires taking individual pieces of gear out to the closet, connecting it up, and praying it works.

At this point, the music quality speakers, and six of the eight PA speakers are in place, waiting on delivery of additional speakers and wiring connectors. The second AV cabinet is on-site, but awaiting delivery of doors – the manufacturer was just acquired by another company, and some of the delivery interfaces have been affected.

All the equipment for this stage of the project is in Kelly's hands, with a new Bogen Gold Seal 60 PA amp installed in TA3. This will allow, for example, the drama club club to use up to six microphones in presenting or recording a performance, and provides basic infrastructure for a panel discussion. The Bogen C20 amp from TA3 will be used in Reston Rm2. Reston Rm1 has a GS60 PA amp installed last year.

The GS60 amplifiers include a graphic equalizer with 10 frequency bands, that may also be used to reduce feedback, depending on a switch setting. The feedback reduction will be the standard mode employed at OLLI. Another feature

of these amps is the Aphex Aural Exciter circuitry, which "results in increased presence and clarity, increased intelligibility, greater perceived loudness (without using extra power), and reduced listener fatigue", according to the manual. Check out the Wikipedia entry for Aphex for more information on this technology. I'm looking forward to trying this out, and seeing how it sounds / works !

Operations Note – TA3: Wireless and Handheld mics are connected to MIC inputs 5 and 6 of the new amplifier; we'll probably want to move the mics for Reston Rm1 to the same inputs, so that, to the extent possible, all our gear is arranged the same way, to simplify AV operational training, and instructional materials (which we need to start producing – any volunteers?)

The Reston project will be completed, when additional Friends of OLLI funding becomes available, with the installation of two new screens (80" x 60" vs existing 48" square), which will allow a larger image to be projected in both rooms. The final piece of the project will be to move the existing wireless mic system (Audio Technica 1400 series) from TA3 to Reston Rm2, to be backfilled with an AT 3000 series system purchase for TA3. Reston Rm2 has been using an Audio Technica ATW0327 VHF Wireless Mic System, which will be retired to backup status, in storage at Tallwood.

John West is working on a "wireless microphone frequency / spectrum allocation plan" for OLLI. Looking to the future, our goal is to utilize AT 3000 series mic systems at all locations. These mics have the ability to transmit on 200 different UHF frequencies. The frequency plan will establish specific frequencies for each of our classrooms, such that there's no interference on a given campus. It will also take into account the possible use of the "roadshow" equipment at each location, and the additional spectrum required by the microphones in that kit, as well. Our older 1400 series mic systems operate in the portion of the UHF band to be devoted to additional cell phone channels or "new technology" applications, such as Internet distribution, so their long-term usability may be in jeopardy.

Each OLLI location now has one or more lavaliere-style mics for use with the AT body pack transmitters, to cope with the issue of behind the ear hearing aids, often complicated by eyeglasses, conflicting with the use of our standard head-worn microphones. Two Audio Technica 898cW Subminiature Cardioid Condenser Lavalier Microphones were purchased, one for Loudoun, one for the "road show" kit. Tallwood and Reston have older lavaliere-style mics, of the sort used before we standardized on the head worn units.

We acquired a "pad" adapter, that allows the output of the "road show" kit's Phonic mixer (PM801) to be connected to the microphone input at the front of TA1 (or any similar mic level input). The adapter is a metal cylinder, with male and female XLR jacks at opposite ends, and a switch that can be set for 10, 20, or 30 db of attenuation, (thus padding down the signal level) to reduce the mixer output to mic level inputs. The 30 db setting worked fine when used on July 18th.

The adapter will be kept in the equipment case of the road show kit.

On our “project plate” - adding casters to the AV cabinet in TA2, which requires taking out all the equipment, so the cabinet can be placed on a table, on its side, and the casters installed on the base of the unit. HiFi / music quality speaker evaluation – we'll soon have another pair of speakers (Pioneers from Reston) in addition to the Altec Lansing Model 1's donated by Harriet Kaplan, to choose the best for installation in TA1 and 3. TA1 has a pair of AR4XA's, and TA3 a pair carry a Coral label.

It will be interesting to set up A / B comparison listening tests and see what the best sounding speakers prove to be. The Pioneers have the potential to be the best of the lot, being newer and three way systems (woofer, mid-range, and tweeter), where the others are two way, having only woofer and tweeter components, and are 35+ years old. Speakers tend to have “age” issues, with the attachments between the cone and the metal frame deteriorating over time, voice coil “rub” issues, and crossover components aging poorly, as well.

In Reston we'll be using pairs of Sound Advance 860W two way speakers for the music quality applications, to meet the size and color preferences of our landlords at the WPBC. These seemed a reasonable compromise, given the advantage of being able to permanently mount all the speakers, both PA and music quality, and reduce the setup / take down issues with our existing AV arrangements.

Paul Howard, 08/02/09