Promoting My Ensemble: An Encounter With Technology
by Bruce H. Frazier

Although it was my professional creative activities that first attracted me to the benefits of music technology--composing, orchestrating, and editing music for television and film--I have discovered since becoming an educator that there are many benefits to technology in support of my instructional program. A cadre of hardware and software applications has joined my regular arsenal to assist me in my work, in the case of this article, promoting my performing ensemble.

THE PROJECT

I direct a 20-member instrumental/vocal group that performs regularly for campus events and on tour to area public schools. The purpose of the group's public exposure is to generate community interest and support for our university programs and to serve as a recruitment tool to attract young musicians to audition for the ensemble. The usual "swag" that we distribute at our programs includes pamphlets and brochures produced by the university and the department. Not to diminish the effectiveness of print media, but our typical public school audience responds to material with a little more pizzazz. What I wanted was a media-rich product integrating music, text, graphics, photos and digital video: one that would be easy to use, interactive, and accessible universally--in short, a DVD.

THE PURPOSE

As I considered the aspects of creating a DVD about my group, I identified objectives for the project in addition to recruitment.

- As an archive of performance and classroom activities of the group.
- As a tool for pedagogy--presentation, demonstration and analysis of performance as an aid to instruction.
- For distribution of information--advertising dates and locations of upcoming concerts and campus events, providing historical and biographical data on the director and group members, repertoire lists, and contact information, etc.
- For artistic display--the aesthetics of a creative, attractive multimedia presentation.
- To gain expertise involved in the DVD creation process--learning the hardware and software interface.

THE PROCESS

The various types of media that I wanted to include gave me clues to the software and hardware I needed to complete the project. I assembled the media I already had: some good photos that were usable and some concert footage on VHS that was not. I knew that to get the quality product that I wanted, I needed to videotape the group with good equipment. I surveyed my software.

Before I encumbered funds for expensive media development software, I assessed the programs that came standard on my computer and realized this was adequate for the task at hand. My word processor (Microsoft Word) was suitable for the text duties. A video production software application (iMovie) was capable of video and audio capture, media editing, titling, adding effects, and exporting to various formats. Still images were processed with a simple utility (iPhoto) for storage and retrieval and simple editing tasks. A companion DVD authoring application (iDVD) was used to mix the elements and burn the disc for final delivery.

The hardware tools for media creation were another matter.

THE TOOLS

My office computer, a PowerBook, was equipped with a combination CD/DVD player-recorder and was satisfactory to burn the disc. It was the first item on my list of the equipment that I needed for the job. Most of the other items (listed below) were needed for successful video, audio and still image capture.

- Digital video camcorder
- Video camera tripod
- Lighting kit
- Microphones
- Digital still image camera

There were several digital camcorders in the university music department that were available for use. The one I chose (Sony VX1000) was an older camera but had the necessary features: a viewfinder, zoom, focus, image stabilizer, external microphone input, ND filter, still shot, and more. This is a three CCD camera (charged-coupled devices) that provides a much better picture quality than a single-chip camera. This particular camera did not have an LCD display but most current models include this and the other features needed as standard. An adjustable LCD allows for flexible camera positions, including viewing below the camera for overhead shots. One of the critical features of the camera is a FireWire (iLink) communication port. This is necessary to connect the camera to the computer for media capture. The FireWire cable I needed had a 4-pin connector on one end to connect to the camera and a 6-pin connector on the other end to connect to the computer. Simply connecting the cable, turning on the equipment, and launching the video software allowed communication between the two.

Unless you are planning to recreate the jerky camera technique used in the "Blair Witch Project," a tripod is necessary for stabilizing the image. It allows for smooth shots that include panning, tilting and zooming. The tripod I used (Velbon) was sturdy with versatile positioning knobs for adjusting height and angle.

Proper lighting is critical for quality images. Vibrant color and intensity in the picture is dependent on good lighting. Much of the video I captured was on stage in the school recital hall where theatre lighting proved to be adequate. Unless you are videotaping outside or in a well-lit environment, a lighting kit is really needed for superior shots. The

equipment I borrowed from the department (a simple Lowell kit) had three instruments designed for three-point lighting typical of quality photography. A keylight, placed at a 15-45 degree angle to the camera, provides highlights. The fill light placed in opposition to the key bathes the subject with additional, less intense light. A backlight provides depth to the image. I used this setup to videotape close-ups and single-person interviews.

Audio quality is really important in a multimedia project that features music. A built-in stereo shotgun microphone was already mounted on the video camera. Except for camera noise occasionally picked up by the mic, this is usually fine if you are filming close to your subject and all you want is ambient sound. But let's face it--this is not going to be adequate for a good audio recording of a musical ensemble! I had two solutions. The first was an add-on audio interface to the camera (BeachTek DXA-4). This had balanced audio inputs to plug in two high-quality microphones. This worked fine. I positioned the borrowed mics to get a good stereo sound image of the group and recorded the audio directly into the camera.

Proximity to the mic is important for quality audio. One of the mics I employed to videotape the single-person interviews was a lavaliere. This too was plugged into the add-on audio interface. This allowed me to place the mic close to the subject without it being too noticeable in the picture.

The second audio-for-video procedure involved using a good performance of the group that was previously recorded to CD. I played the CD back to the stage and videotaped the group as they mimicked the performance. This worked surprisingly well. In this way I was able to videotape successive takes of the group, changing the camera angles on subsequent playback. When I began the editing process, I copied the original audio recording to the computer, imported it in the software, then imported and edited the various video takes together keeping the shots in synchronization with the music. This was more time consuming but yielded a satisfying result. As a side benefit, this forced me to learn the editing fine-points of the software. This composite video was featured in the DVD and balanced some of the live-concert footage that was of lesser technical quality.

I did not have a digital still camera for photo capture but it wasn't necessary--the students were well-equipped. They were eager for their best shots of the group to be included in the DVD. Actually, students were involved in all the technical aspects of the process including the videotaping and editing phases. In any event, the video camera I used had a still image feature and it was possible also to export a still image from any of the videos with the video editing software. I used still images to create slideshow montages and as accent photos in the DVD main menu (using the "drop zones"). They were also imported into the PDF documents I created with my word processor.

VIDEOTAPING TECHNIQUE

One of my objectives was to create an artistic presentation and I discovered a few simple rules could help.

Plan the shot! A variety of shots provide interest. Long shots of the full group were balanced with medium shots of sections, couples and individuals. Close ups capture gestures, individual expressions or featured performances. Extreme close-ups and wide angle shots can provided further interest and variety. Beware of too much of pan, tilt and zoom. Continuous zoom-ins and -outs are better separated by a cut away or dissolve to a different shot. This can be added in the editing process.

Focus! Even though the video camera was equipped with auto focus, I was forced to turn this feature off. As the group moved on stage the camera was searching for the focus point and consequently was moving in and out of focus. I observed that manual focus produced a better outcome.

Composition! Good framing can add artistic value to the video. The "rule of thirds" is one of the long-standing guidelines for aesthetic image layout, design and composition. The point is to avoid the tendency to place the main subject squarely in the center of the frame. Weight in the corners and the intersecting lines of horizontal and vertical thirds of the frame can provide pleasing results. Take care not to put important images, especially text, too close to the edges. Some TVs and video monitors clip the viewing edges of the video. The video editing and DVD authoring software have "title safe" features that identify the best area of the frame for interest.

EDITING TECHNIQUE

I found the video editing software to be simple to use. After connecting to the computer using the FireWire cable, video capture from the camera was easy--press the capture button and, with the camera in videotape mode, play the tape. Many software programs allow the camera controls to be operated from within the editing software. The imported clips appear in a bin (Clips pane) and can be sequenced by dragging them to the timeline, a linear view of the clips. I trimmed the beginning and ends of the clips using the "Split Video Clip at Playhead" command. When all of the clips were captured, trimmed and sequenced I was able to apply transitions (such as dissolves) between clips, create titles, and import and adjust audio. Using the "Share" options of the software, the finished movie could be exported back to the camera, or to the computer hard drive in various compressed formats for use on the Internet or as movie files for DVD creation--the option that I chose.

In addition to editing captured video, I used the editing software to create a montage of still images. I began by importing and editing the music track to accompany the images. I used this as a bed for the photos. The timing of the music dictated to some extent the flow of the pictures. The photos were imported into the bin then sequenced in the timeline in sync to the music. I used the "split" tool to alter the length of the pictures. Transitions and titles were applied. I used a feature called the "Ken Burns Effect" to apply motion to the images. This gave the illusion of full-motion video. The montage too was exported as a movie for inclusion in the DVD.

FORMATTING TEXT

I had intended to create the text needed for the DVD (biographical data, timetables, repertoire, contact information, etc) using the text tools within the DVD authoring program. Even though text creation is possible in the application, it is primarily designed for title creation and has set limitations for this purpose. Importing text documents directly was not a viable option either. However, I could build a slideshow within the DVD program. Here was my solution. I used my word processor to compose the text. I formatted the text using a large attractive font, and inserted graphics and images directly into the document file. I found that landscape mode worked better for my purpose. After the page was formatted to my satisfaction, I exported it out as a PDF file (there is a print to PDF feature on my computer). I now had the images I needed to create a slideshow in the DVD.

DVD ASSEMBLY

Even more intuitive than the editing program, the DVD application allowed me to assemble the contents in a matter of minutes. After clicking the "Theme" button, the program provided a number of template choices. I selected one that seemed appropriate and changed the text of the title placeholders to reflect my theme. I imported the movie tracks, including the montages. They appeared directly on the main menu title page. I clicked the slideshow button icon to create the slideshow, imported and sequenced the appropriate PDF files, set the controls for timing and navigation, and added it to the menu. Using the slideshow for text files allowed navigation buttons to control the reading pace. Still images in the integrated photo software (iPhoto) folders were readily available via a "Media" button for use in menus and slideshows. A preview button allowed me to test the navigation and view the DVD as it would appear compiled. I put a blank DVD in the computer's drive and clicked the burn button--the one with the nuclear icon. It took a while to compile the first disc. After that, I simply feed discs to the computer as it requested until I had the discs I needed for my panel of proofreaders and testers. Although the first disc was not ideal, revising, editing and re-burning was effortless. It wasn't long before I was pleased with the product.

The final step was making copies for distribution. After a little paperwork and some graphic layout for the disc face and the cover (with the aid of the art department), the DVD was ready for mass duplication commercially. However, I decided to use the university duplicating equipment for the comparatively small runs that I needed. In this manner I could easily update the information about the group, keeping the product current.

BEYOND DVD

Once the media has been created, there are other exciting avenues for program promotion. Some of the sharing features of the video editing software make it easy to publish video to websites and blogs. The software can be used to create video podcasts, with chapter markers and live URLs. Using a companion HTML software application

(iWeb), the video podcast can be submitted to the iTunes Podcast Directory, where it can be seen and subscribed to by a wide audience.

CONCLUSION

The upshot of all of this was that I learned a lot while creating a vehicle to promote my performing ensemble, and in the process had a good time. In my humble opinion, you can too!

Below are a few links to the hardware and software I used and sites to a few other related topics.

http://www.apple.com/ilife/
http://www.apple.com/education/digitalmedia/
http://www.apple.com/itunes/podcasts/
http://www.videouniversity.com/vx1000.htm
http://www.beachtek.com/dxa4.html
http://www.velbon-tripod.com/video.htm
http://www.3drender.com/light/3point.html
http://photospot2004.blogspot.com/2004/07/rule-of-thirds.html

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Biographical information:

BRUCE H. FRAZIER joined the music department faculty of Western Carolina University in 1998 as the first recipient of the Carol Grotnes Belk Distinguished Professorship in Commercial and Electronic Music. He returned to North Carolina from California where he was active in music for television and film for twenty years. The Academy of Television Arts and Sciences has twice recognized him for his contributions to dramatic underscore and sound mixing for television programs. He has also been nominated for several Emmys for his role as music editor on the TV series *Quantum Leap,* and a Golden Reel nomination for his work on *JAG*.

In addition to his professional work as conductor for television and film, Frazier was the orchestra director and arranger for country singer Loretta Lynn for more than a decade. He has conducted for other artists including Ronnie Milsap and Mac Davis, and was the music coordinator for *Dolly*, the ABC TV series starring singer Dolly Parton,

Frazier holds the bachelor's and master's degrees in music composition, both from East Carolina University, and the doctorate in music from the University of Southern California where he studied choral music with James Vail and Rodney Eichenberger. Acrylic painting is an avocation, and he currently has a number of works on display in galleries around the state. Recent honors include the James B. Dooley Award for Excellence in Music Teaching and the East Carolina University Music Alumnus of the Year Award.