

# ***Dance to Your Own Drummer***

## *Creating Original Music Using Soundtrack and GarageBand*

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### **Abstract:**

This report proposes a methodology accessible to instructors at Mt. Hood Community College (MHCC) for creating original musical compositions using a personal computer (PC) and related peripherals. Music enhances learning and offers a procedure to address the various audio learning styles more efficiently; as an added bonus, music can relax student anxieties tremendously, allowing for a pleasant learning experience. However, creating music from scratch has traditionally required musical skill, attention to detail (pitch, tempo, etc.), coordination with other musicians (if additional instruments are desired) and/or music engineers (for mixing, producing, etc.) as well as appreciable amounts of time.

This project proposes a methodology to create original music for use in PowerPoint and Web-based applications by people with little or no musical experience using the computer programs Soundtrack and GarageBand. The music created through this project would originate from sampled instruments or computer based sound generators, and stacking and looping of several samples would create the music passages. Details for creating the music will be provided along with any technical details necessary for the construction of the required sounds.

Examples of original music would be created within the parameters of this project and shared with the community. The procedures used to insert music clips into PowerPoint will be provided, and an example of background music applied to a learning module webpage will be provided. This methodology is applicable towards all faculty and staff interested in capturing the attention of students anywhere on the MHCC campus.

Note that this document may be viewed on the World Wide Web: <http://gst-d2L.com/TLC>

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Thank you for considering my request. If I can answer any additional questions you might have, please contact me. Thank you for your time,

Michael Russell, Ph.D.

## **I. Project Goals:**

Imagine life without music. An existence devoid of soothing rhythms, exuberant melodies or reflective passages of music would rob life of its glory. Music inspires and motivates us to do better; indeed, instructors at Mt. Hood Community College and other institutions could (and maybe should?) use music to highlight certain passages, to express emotion, and to deliver a message with emphasis. I have found in my own classes that students can recall material more efficiently when I use music passages in PowerPoint lectures and Web sites to focus their attention. Student evaluations often express delight at listening to the rap group Public Enemy while discussing acids and bases, or hearing the band EMF when discussing Electromotive Forces in Electrochemistry.

Hence, I am convinced that music can stimulate students to remember concepts in lecture with greater efficiency. But instead of using popular music, I would like to design original musical creations. I would like to play solemn passages for heavy concepts, light "party music" for success stories, classical music when discussing historical personages, etc.

I have dabbled in music composition in the past using computers, and I have studied the piano and guitar... but needless to say, I do not consider myself to be a true "musician", just a "weekend warrior" who likes to create a new tune on occasion. Constructing songs or musical phrases for lectures would take me copious amounts of time *if* I had to create them from scratch. Fortunately, there is another option.

The computer programs **Soundtrack** and **GarageBand** have the potential to allow non-musicians like myself to create and publish songs and musical phrases fairly easily. Soundtrack uses samples (i.e. digitized pieces of music) that can be layered together and looped to create songs. GarageBand uses built-in (i.e. computer controlled) synthesizers that can be "programmed" without too much detail, then looped and stacked to create music. Soundtrack and GarageBand automate the control of pitch and tempo, allowing the musician to be more creative. Both programs have been made for the Apple Macintosh platform, but equivalent Windows-based programs exist (Soundtrack's equivalent in the PC world is **Acid** and GarageBand's equivalent is called **Reason**). Techniques used in Soundtrack and GarageBand will be applicable to non-Macintosh faculty as well as to faculty using Macintosh computers.

The "*Dance to Your Own Drummer*" project proposes to explore the methodology needed for creating and utilizing the power of original musical creation for faculty to use in PowerPoint lectures and on the World Wide Web. The proposal can be divided into three goals:

- Goal #1 of the project will explain how to create music on Soundtrack and GarageBand. Technical details of the creation process will be explained.
- Goal #2 of the "*Dance to Your Own Drummer*" project will show in detail how to insert and utilize sound clips within Microsoft PowerPoint presentations for classroom use. Hints will also be provided on utilizing music clips on World Wide Web sites.
- Goal #3 will be to actively encourage other faculty and staff members to create their own music for lectures. The goal will be accomplished through a variety of mediums: a **written paper** outlining the research performed and results obtained for this project (which will be released to the TLC when completed); an **oral presentation** (to be arranged with the TLC, possibly for Fall Term 2004); a **web site** with accompanying materials (<http://gst-d2L.com/TLC>); and a **commitment to assist other faculty and staff** members to implement the capabilities of music in their domains.

It is not enough to simply present the material; providing a forum by which interested faculty members can ask questions and receive answers is essential to the goals of this project. The primary goal is to enhance the use of music within the classroom setting whether through PowerPoint, the Web, or another medium. I will do everything in my power to help others accomplish this goal.

## **II. TLC Goals:**

The "*Dance to Your Own Drummer*" project discussed above fits well into the Teaching and Learning Cooperative's two primary directives.

Directive #1, "*Developing and sustaining effective teaching and learning with the emphasis on student learning*", is followed absolutely in each of the project goals listed above. The first goal, creating music, is necessary to address the diversity of learning styles expressed by students; we should not discriminate or express a bias to a particular learning group while teaching. The second goal, utilizing the created music in PowerPoint, will help to address the needs of the audio learners as well as offer a tool to keep student attention focused on the learning material. Sound bites and "mood music" have been used by the news media due to their attention gathering powers; instructors should have this opportunity available to them as well. The primary goal of this project is to enhance student learning and teaching effectiveness; the medium by which this will occur is through a novel utilization of music in a lecture setting.

Directive #2, "*Ensuring broad applicability throughout the MHCC teaching and learning community*", will be followed closely as well. All of my protocols and instructions are available free of charge to any learning community that wishes them, be they from Mt. Hood Community College or elsewhere. I will be sharing my results with my colleagues through a written paper, a web site (<http://gst-d2L.com/TLC>) and a presentation on the MHCC campus during late 2004. I am always available for comments and questions, and I am committed to instructor success as much as I am committed to maximizing the power of student learning.

## **III. Innovation:**

Although the Music Department and Television Production Department utilize music for their needs, I am unaware of anyone else on the MHCC campus that has used "home-made" music for their PowerPoint or World Wide Web presentations. The use of professionally recorded sounds has been undertaken for the Web (by Dr. Walter Shriner, Larry Dawkins, myself, and others.) The use of sound is not novel, but actually creating *original* music for non-music and non-TV purposes *by a non-musical faculty* is novel on the MHCC campus to the best of my knowledge.

The basic tools are accessible to almost anyone at MHCC with a Macintosh (the iLife suite includes GarageBand, and Soundtrack is available as part of the Final Cut Pro suite.) Windows users can apply the principles of this project to the equivalent programs Acid and Reason. All that is needed is a vanguard to lead the way, mastering the technical obstacles and sharing the results with everyone interested in developing customized music, and I would be honored to be MHCC's vanguard!

## **IV. Evaluation:**

I hope to create several original music tracks for utilization in PowerPoint. With PowerPoint, I can test the functionality of incorporating music within presentations and subsequently present the work to my colleagues either live or through a kiosk presentation. I also hope to show how music can enhance a Web site presentation.

Testing these protocols on an audience is mandatory. I have a small contingent of students who have volunteered to "test drive" the Web and/or PowerPoint projects for me, telling me what they like, do not like, and possible improvements. The PowerPoint will be given "live", and the Web version they will be able to view anywhere with Internet connectivity.

#### **V. Post-project Responsibilities:**

A presentation will be arranged in Fall Term 2004 for interested faculty and staff regarding the various methods of creating and utilizing original musical creations. A formal paper outlining the specific details of this project shall be created and distributed to interested parties. A web site for my proposal (<http://gst-d2L.com/TLC>) will contain these documents as well as any other pertinent information. In addition, I can always be reached for personal consultation either through electronic mail ([russellm@mhcc.edu](mailto:russellm@mhcc.edu)) or telephone (503.491.7348), and multiple presentations can be arranged to meet the interests and expectations of the MHCC community - I am happy to share the knowledge gained!

#### **VI. Progress and Timeline:**

All of the plans outlined in the Project Goals section will be complete by September of 2004. The results of the project will be available for colleagues at this time. This project should be completely finished - including the paper, presentation, and all research - by December of 2004. All of the timelines are dependant on the TLC's wishes - I am *very* flexible.

#### **VII. Use of Funds:**

Personnel:	\$1000
Materials:	\$0
Other:	\$0
<b>Total:</b>	<b>\$1000</b>

Learning the software required to create musical compositions and then incorporating the tracks in PowerPoint presentations and on the World Wide Web will take considerable time. I will be using both sampled and external ("live") sources of audio to create songs on the computer, and the programs Soundtrack and GarageBand will assist me in creating my original creations. I have never used Soundtrack or GarageBand before, so my summer will (hopefully!) be quite busy!

Making your own music on the computer is easier now than it has ever been, and I hope to be granted the funding for this project to help others create their own songs for use in PowerPoint and on the Web. All I need are the resources to get started!

### **VIII. Personal Comment:**

I appreciate your time in considering my request. If I can answer any questions that this paper does not address, please feel free to contact me using the information given below. Thank you for your time,

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