TJHSST Senior Research Project
Music Editing/Compsition Software
2006-2007
Project Proposal 2

Patrick Mutchler

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1 Purpose

1.1 Purpose Statement

To make an easy to use composition aid software that incoporates a simple and intuitive GUI into a robust highly capable system of music display.

1.2 Target audience

Ametuer and recreational composers who do not have the budget to buy a sophisticated program like Finale or do not understand enough about composition to use Finale without confusion.

2 Scope

2.1 Boundaries

I will not focus on making the printed music particularly attractive, only functional. Many free programs exist that take completed scores and pretty them.

I will also not focus on complicated musical notation, only the amount nessecary to make simple compositions functional. Barring patterns will not be troubled with because once again a program like Lilypond can handle that very effectively.

2.2 Goals

I want to be able to print out notation in many different clefs and score styles. The printout should be somewhat attractive simply to make the program usable.

I do want to incorporate a GUI into the editing software to make the interface much more usable. This very important to the project, but will be worked on last because it is the least fundamental to the goal.

The last thing I want in the program is several compositional tools such as a table of chords for easy access.

3 Background

3.1 The Purpose

Score copying is notoriously difficult. A copyist must copy a score excatly onto dozens of different parts before the finished product can be given to an orchestra. This is expensive and time consuming. By producing the score electronically, the computer can do what takes a copyist weeks in seconds. Also, electronic scores can be saved and edited much more easily than written scores.

Many people have taken it upon themselves to make a program that accomplishes these goals, but the problem is complex due to the sheer variety of music possbile. These complexities make the programs enormous and costly to produce. Several programs have suceeded, but they are not without their own flaws.

3.2 Finale

Finale is a program for music composistion that is very powerful and does almost everything that I want to do in my program well except for three things. First, it is expensive. Second, it can be too complicated for an

ametuer user to understand. Third, it does not give any assistance to the composer and only assumes that he is competant.

3.3 Lilypond

Lilypond is a program that does not help you compose easily, but beautifies the score to make it look more like human printing. The program is simply an example of the varying types of music software that exists.

4 Procedure

4.1 Version Plan

1. version 0.x - File input and ASCII output - 1st quarter
2. version 1.x - File input and Graphical output - 2nd quarter
3. version 2.x - GUI input and Graphical output - 3rd quarter
4. version 3.x - GUI input, Graphical output, and GUI compositional aids - 4th quarter

4.2 Language – Java

I am using Java because it is easy to use and has both easy graphical output and GUI systems built into the language.

4.3 Input system

For version 0.x and 1.x the input will be strictly from a file. It is set up to the basic input and get basic understanding about the program

For version 2.x and 3.x the input will be from a GUI. The GUI will be constructed using java swing.

4.4 Testing

I will test each version with inputs using note durations, accidentals, octave registration, and other compexities. There is no method to create these files because there are not too many possiblilites to test from.

Also, once the GUI is incorporated, I will get other students to test the program to make sure that it is understandable and intuitive.

5 Expected Result

The software is being developed primarily for my use and the use of others at TJ that cannot afford Finale or similar programs.

I will be able to show my results using screenshots of input and output systems, as well as code snippits of important methods.