

TJHSST Senior Research Project

Computer Systems Lab

Composition Software

2006-2007

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May 24, 2007

1 Background

As internet availability expands, more people are turning to the internet, rather than a textbook, to teach them new skills. Teaching programs in the fields of math and science have been widely distributed, but there are few programs designed to teach students composition. Composition programs, like Finale, exist, but they are targeted toward studied composers and professionals, not untrained students.

2 Description

Designing and creating a program that teaches composition is broken down into four primary sections. The first three sections are building a simple version of an existing composition software and the fourth quarter is creating teaching tools for students to use. These four sections correspond to the four quarters that I will be working on this program and the four major releases for this program.

The first release focuses on building a design shell for the program to be built in. This includes designing the architecture for the program and building the necessary methods and commenting what they should do. Also,

a basic file input and terminal output is built to test the structure of the design.

The second release focuses on making an attractive graphical output to replace the existing terminal output. Because the architecture is already completed, the entire release is spent creating and adjusting the output to be as much like written music as possible.

The third release focuses on making a graphical user input to replace the existing file input. Again, the entire release is focused on making buttons that give the user complete control of editing the music. After this release is completed, the basic program is finished and the only thing to be added is the teaching aids.

The final release focuses on adding teaching aids to the program. A series of lessons, chord charts, and a chord pattern chart are the primary aids. This release also focuses on testing the program and adjusting it to fit the user's suggestions to make the program more usable.