Halmstad's university

Advanced Oriented Object Programming

Sound editor framework

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Introduction

Name-of-the-framework proposes to its user to : synthesise, visualize and modify the sound through different effects and filters with the possibility the manage the volume. The required inputs to create a sound are the frequency (Hz), the duration (s) and a volume.

Design and structure

The main criteria to build the structure of this framework was the expandability, we wanted the class user to be easily able to add more functionalities. This is why we aimed for this framework to be as modular and generic as possible. To reach this goal, we had no choice but using design patterns. We can see that we used the model/view/controller architecture, which is represented here with the Sound as the model, the View is obviously a view.

The Strategy pattern is used several times, for the choice of the signal, of the filter and the effect.

Testing

Some interesting parts of the code

Results

Sources