

Media Management in C++

By Michael LeGore

Problem

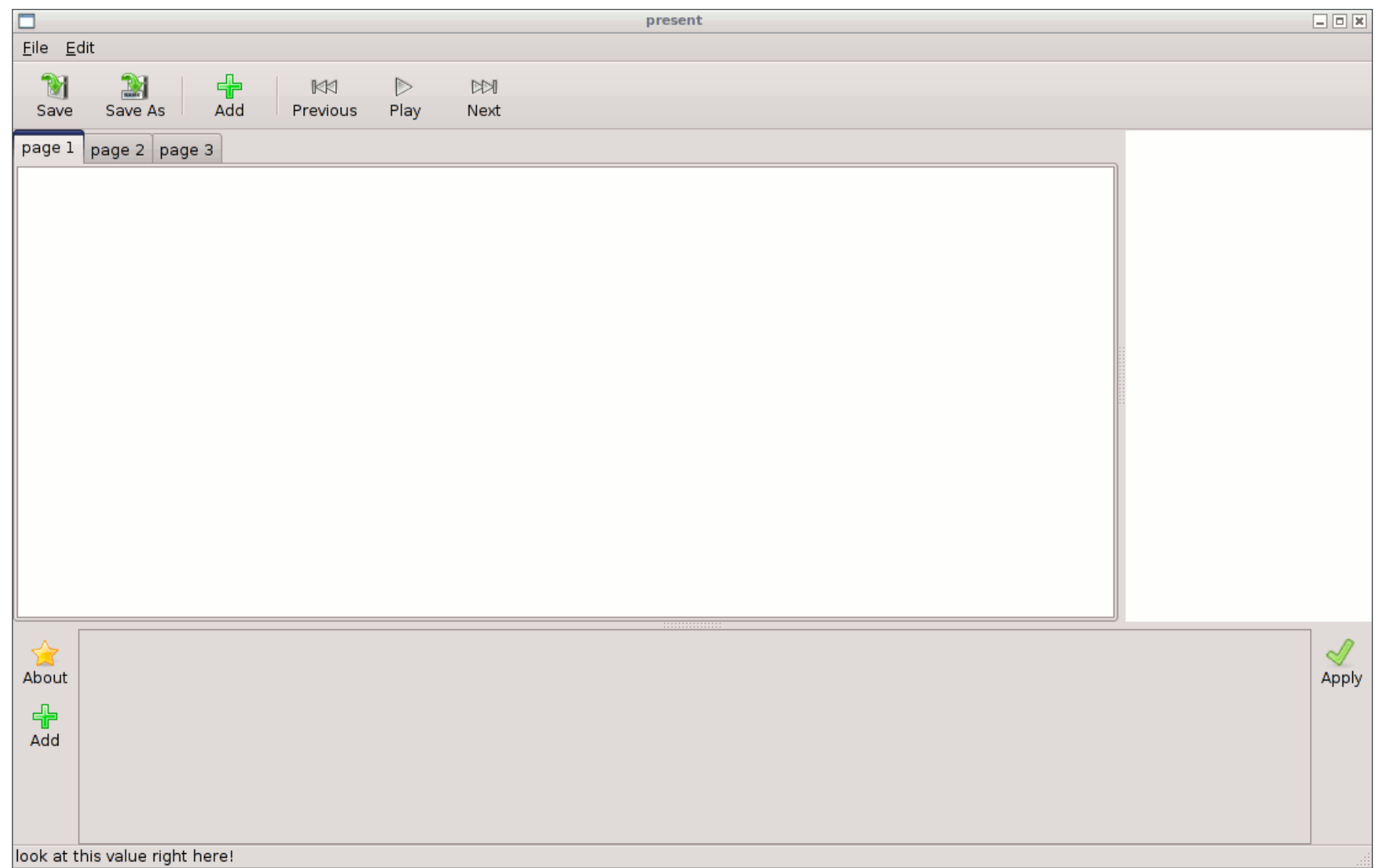
There currently exists no way for home users to organize and present many different types of media. There is also no easily accessible application intended for Live Digital Artists to manage mixed media and facilitate creative design.

Purpose

In order to fill the void of digital media programs, my project is to design a program capable of dealing with several types of media, but more importantly than the media management itself, is to create a program capable of being extended with other types of media quickly and easily. The primary purpose of this project is to learn more about Object Oriented Design, and its application in real world programming and software development.

Procedures

When designing the core structure of the application, the majority of classes are made to be extensible. For example, the main loop operates with a Timeline where any class extending an event class can be added to the timeline and, so long as it implements all of the required methods, the event will be played. This mechanism has been implemented in order to play sound clips simulated to be playing from various locations using OpenAL 3D sound API.



An prototype of the application GUI

This mechanism has been implemented in order to play sound clips simulated to be playing from various locations using OpenAL 3D sound API.

Possible Features

With so many different types of media that can be worked with, there exist as seemingly infinite number of possible features that can be imagined. While it would be nice to address all of them, time is limited and so I will only address a few during the course of this year. I would like to create a system for easy access to hardware micro controllers through a simple USB protocol whereby a piece of compliant hardware can identify its methods and variables and therefore the application can access and call those methods. Another possible feature that would greatly help in allowing for extensible programming is the use of an embedded scripting interpreter.