Project #2

Drawing with SDL 2.0

CpSc 4160/6160: Data-Driven 2D Video Game Development

Computer Science Division, Clemson University

Brian Malloy, PhD

January 23, 2019

Due Date:

In order to receive credit for this assignment, your solution must meet the requirements specified in this document and be submitted, using the `handin` facility, by 8 AM, Friday, February 8^{th}, 2019. The handin close date is set at three days after the due date. If you submit after the due date but before the handin close date there will be a ten point deduction. No submissions will be accepted after the handin close date and no submissions will be accepted by email.

Project Submission:

To submit your solution through handin, copy the README file from the project directory in the repo to your project directdory, fill in the blanks in the README, make clean in your project directory, and compress the project directory using tar or zip.

Project Specification:

The purpose of this assignment is to help you to become familiar with SDL drawing and to provide practice writing C^{++} classes. For this project you must use the SDL 2.0 drawing primitives to draw an image; an example is illustrated in Figure 1 showing a bulls eye target and an arrow shaft. The draw function primitives include: SDL_RenderDrawLine(s), SDL_RenderDrawPoint(s), and SDL_RenderDrawRect(s). There are demos of these primitives in the course repo.

Figure 1: Bullseye

In addition, your program must include at least two C^{++} classes: one that you write from scratch, and one that I wrote called FrameGenerator. This latter class, FrameGenerator, is included in the project 2 directory and will write your image to a file in a directory called frames. The prefix for the file that you draw must be your username and you can easily accomplish this by modifying the string, NAME, at the top of the main program. Do not use my name as the file prefix. Also, your program must draw a string in the lower left corner of your image; the string should contain your name and the title of your drawing. To draw the string, simply modify the string called TITLE in the main program. Your class must use initialization lists and must include an overloaded operator, for example the output operator, or the assignment operator.

Before you compress and submit your project make sure that (1) your program creates a bmp of your image with **your** user name as the file prefix; (2) your program writes a title in the lower left corner of your image. and (3) that you have used **make clean** in your project directory.