

Planning Report
Project – The SDL Library
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1. Summary

The SDL library has been chosen. The project is a game with graphical interface. Players can use keyboard control to Change player position and avoid obstacles.

2. Design plan

Large-scale

The aim of this project is using c language and sdl library to make a small game. The input is keyboard signal. The output is the change of image. The main problem includes: The realization of the rules of the game, how to convert input into image changes.

Medium-scale

Code module: logic module, graphics module.

Logic module:

- (1)read keyboard input.
- (2)update player position
- (3)generate obstacle position.
- (4)Timing function.
- (5)The rules of the game.

Graphics module:

- (1)Initialize the game data
- (2)Render current game state

Iterations of design:

Version 1: Create an obstacle that is constantly moving around the screen.

Version 2: Create a player who can be controlled by a keyboard.

Version 3: The game ends after players collide with obstacles.

Version 4: Movement of multiple obstacles within the screen.

Version 5: Timing function, obstacles with time from less to more, improve the difficulty of the game.

Version 6: Add background images with sound effects.

Version 7: The color changes after the obstacle collides with the edge of the screen.

3. Test plan

Test the success of each version by generating window images and keyboard actions. For functions in the logical module, the “printf” function can be added to detect. This shows if the function is correct and excludes SDL errors. The test of image module can only be verified by whether the graph in the window meets the expectation.

4. Schedule

Week 2: Complete version 1 and 2.

Week 3: Complete version 3 and 4.

Week 4: Complete version 5 and 6.

Week 5: Complete version 7 and report.