CS 480 Computer Graphics

PA 10: Pinball

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Table of Content

Overview

This a pinball game using Assimp for models & textures loading, lightings, Bullets implementation, and basic game logic.

Extra Credit:
1) Other: <u>Beautiful theme with uniform textures.</u>

User Manual

Compile Instruction:

- cd PA10
- mkdir build
- cmake ..
- make
- ./Pinball

Controls:

- 'z'---------- Left Paddle
- '/' --------- Right Paddle
- 'space'----launch the ball (start the game)
- 'p'--------- Change per Vertex between Per Fragment Lighting
- 't' --------- Side View
- 'y'--------- zoom out view
- 'r'--------- default view
- 'a'-------- decrement specular light
- 'd'-------- increment specular light
- 'w'-------- decrement ambient light
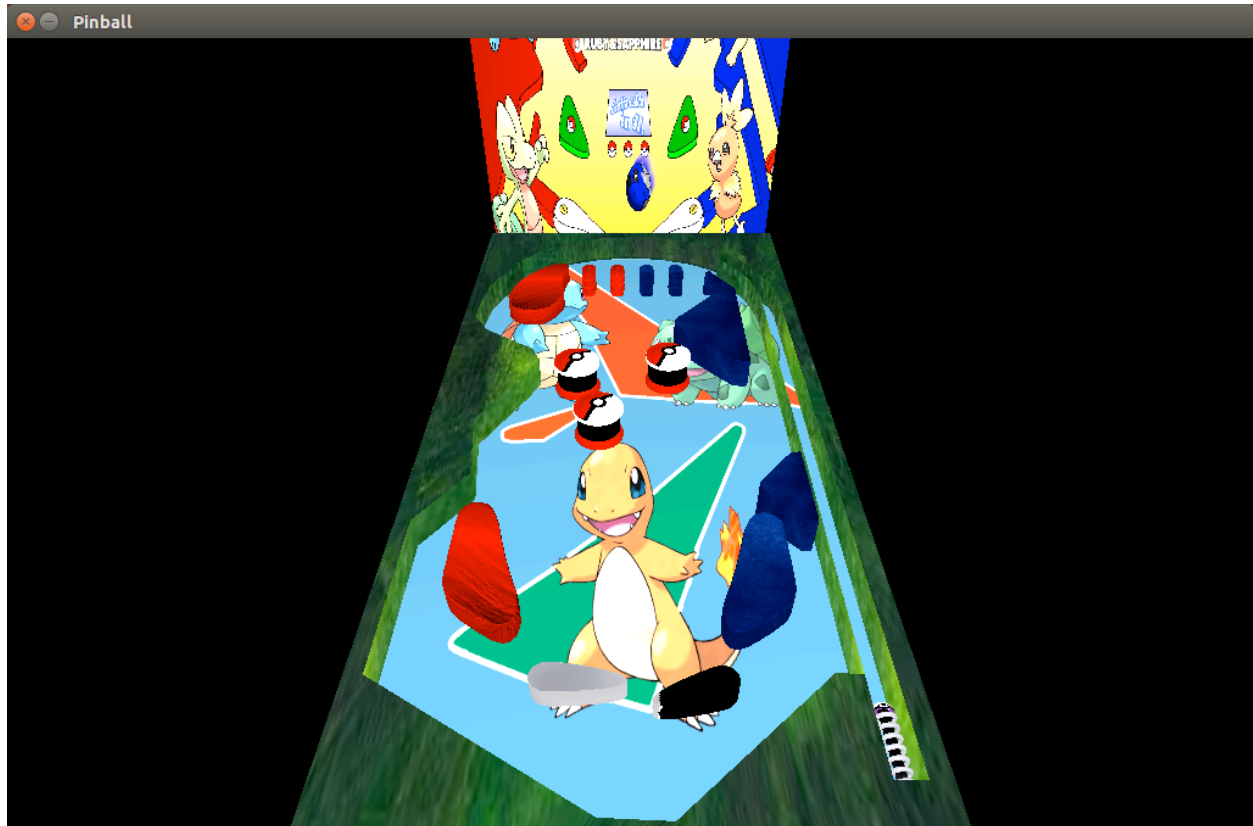- 's' -------- increment ambient light

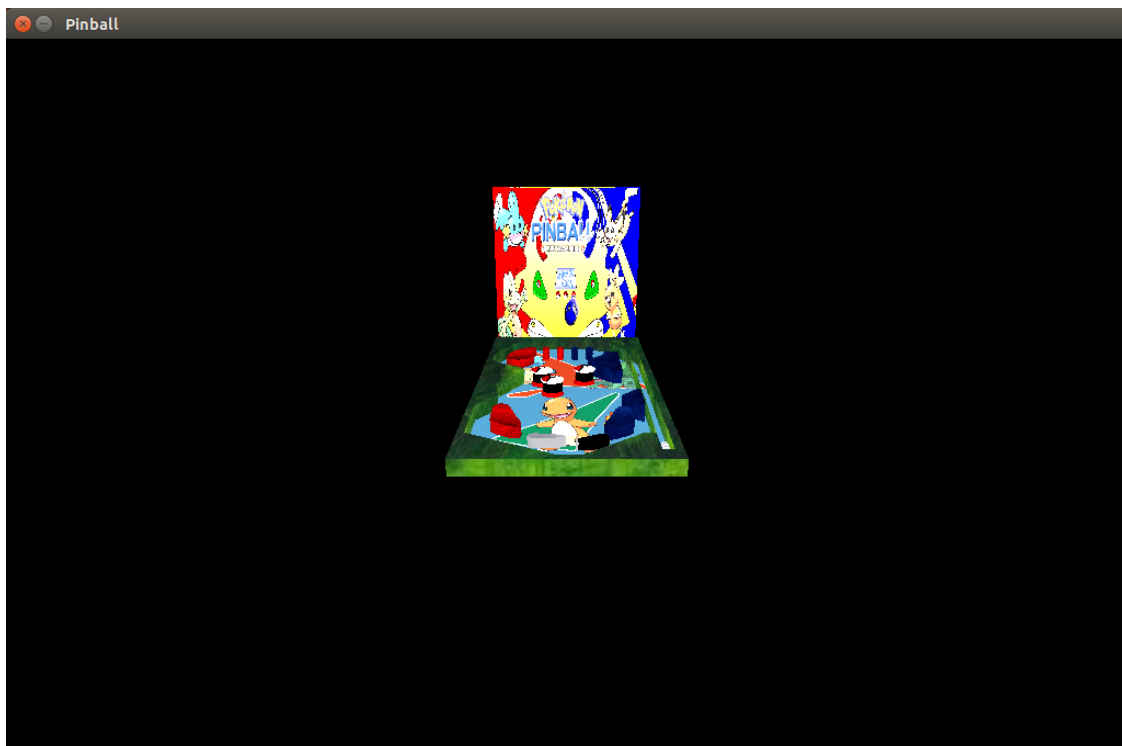Fig 1: 'r' – button Default view and the initial startup of pinball game.
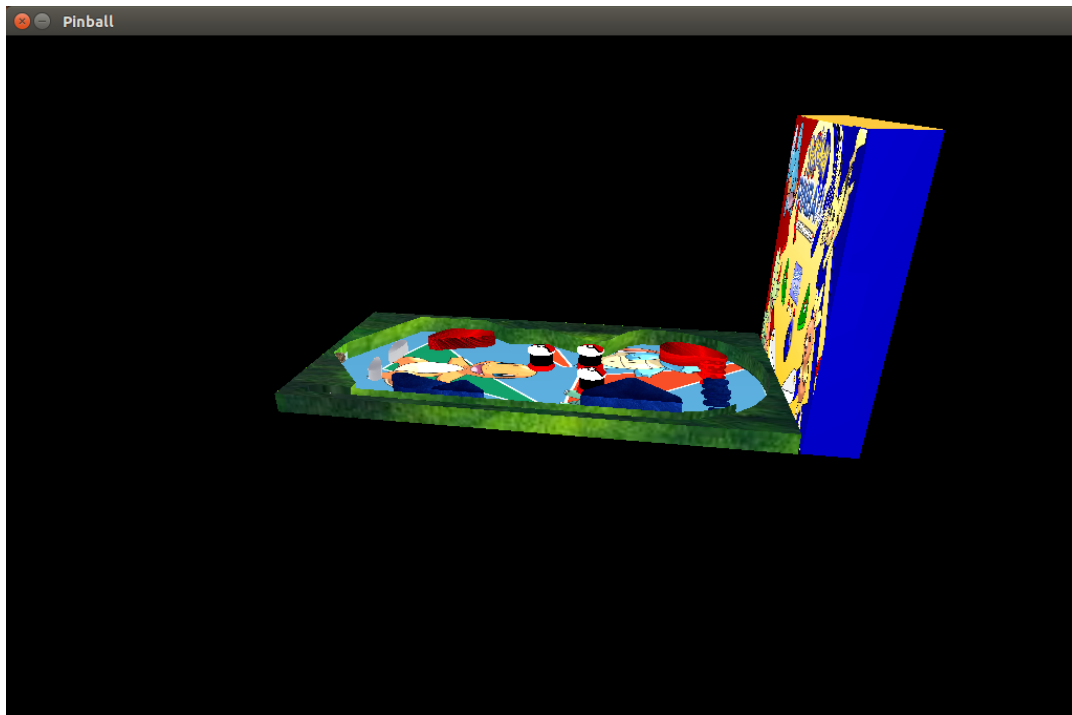

Fig 2: 'y' button to zoon out from default view.

Fig 3:'t' button to change to side view.

Rules:
- Try to get the most scores
- Keep the ball inside the board
- 3 balls (3 tries)
- After 3 balls then game (program exit code 1)
- Scoring system based on the amount of time that player keep the ball alive.

Tech Manual

Issues
1) Spotlight doesn't work.
2) Multiple lights.

Things to do differently in the future
1) Better understand of light calculations
2) Create the lighting code to work with multiple lighting.

Changes (modified)
1) Added more bumpers.
2) Added blackboard.
3) Added more textures to pinball game.
4) Modified pinball game logic.
5) Added lightings