Group: Ikari Warriors
Melanie O'Neal (mfo264)
Andrew Vohl (acv563)
Stephen Ridings (sjr94)

Assignment 2

Final Project Report

Observations

- Sounds
  - What we did well:
    - We implemented every requirement and extra credit with sound except GUI for it. Instead, everything has keyboard controls.
    - Sound came easily once we set up SDL.
  - Difficulties:
    - It took a long time to link the SDL libraries.
      - Finding the linker flags took longer than expected.
      - Finding the right things to include took longer than expected.
- User-Controlled Racquet
  - What we did well:
    - Tutorials made setting up a model and paddle fairly easy. This didn't take much time at all.
    - Tutorials also made handling user input easy.
  - Difficulties:
    - Difficulties arose when trying to detect collisions on the racquet. While it was easy to move the racquet in the Ogre world, it was difficult to move the racquet in the Bullet world. Instead, a stationary, invisible, object that the ball would collide with.
- Camera Control
  - What we did well:
    - We attached the camera to the player. This was very easy.
    - The camera could be controlled with the arrow keys.
    - Moving the mouse turned the camera view.
  - Difficulties:
    - There was some accidental functionality that we happened to like. Holding shift while moving the model made the camera move much faster than the model would move.
      - This made it easy to move the camera quickly, even though the model moved as well.
- Physics Engine

    - What we did well:
        - In a broad sense, we got bullet to work.
    - Difficulties:
        - It took a very long time to get Bullet working, much longer than expected.
            - Why?
                - Unfortunately, we didn't know how much manpower Bullet would take. After reading the suggestion to split up the work rather that doing it all together, we thought that giving bullet all to one person to focus on would be a good idea. It turns out that it was more like a two-person job. Everything else could have almost been done by a single person, but it sounded like more.
        - Even though bullet works, it's hard to make the racquet in the bullet world move along with the one in the ogre world.
- Scoring Mechanic
    - What we did well:
        - Using SDKTrays was very simple, so it took very little time to use.
        - Even though we couldn't base scores off of collisions (because collisions weren't complete), we could get the score to update based on time.
    - Difficulties:
        - Because CEGUI did not work on the lab machines for a while, a lot of time was spent trying to figure out something that wasn't going to work in the first place. We just stuck with SDKTrays for this project so that we could move on.
        - Converting numbers to strings was more of a challenge than expected. This made setting the score label text take a longer chunk of time than just being able to add the int to the string. We had to use stringstreams to convert.
- Extra Credit:
    - What we did well:
        - Many parts of the extra credit didn't take long at all because there was a lot of documentation for those parts and the requirements easily led into some of the extra credit.
    - Difficulties:
        - Though we wanted to do the player interfaces part of the extra credit, we didn't want to build everything with SDKTrays when we were going to switch to CEGUI for the next project anyway.
- Overall Team Dynamic:
    - Though it was hard to get the ball rolling (pun intended), eventually the team was able to meet consistently. We found a way to work well together and didn't have any confrontations.