John Sellers- 202-3

Project 2 Asteroids

Description:

The premise of the project was very simple, recreate a beloved arcade classic, with the unity game engine. This predominantly served to develop an idea of how an actual game would work including basic movement and the creation and destruction of runtime objects. Additionally it developed the method to understand they way in which modern collision systems work by forcing the students to develop their own collision system. As well as the idea of a game over.

Functionality:

The project starts on a title screen with a title and two buttons. The play button opens the game to be played. With the W for forward, S for turn left, and D for turn right, the user can navigate the world with a small ship using velocity vectors to move. The space bar produces up to 5 shots at any given time and they are destroyed upon leaving the camera view. The game also spawns asteroids at the start and continuously. Note only 5 large asteroids may be spawned at any given time. There is no true cap on the small asteroids but the large asteroids won’t spawn until there are less than 5 asteroids. Upon destroying an asteroid the player gains points, 100 for a large asteroid and 200 for a small. When a player collides with the an asteroid they are reset at the center and lose a life. This is denoted in the top left corner by a image counter and a numerical counter. Upon dying for a third time the game over screen appears where the user is presented with their final score and play again option or return to main menu option.

Above and Beyond:

For above and beyond I focused on creating a scene changing system that functions much like a simple game. The text buttons are clickable and produce sound when hovered over or clicked. As well I took time to look into object persistence with static objects. Finally for my own fun I made a more retro looking asteroids with some classic sounds for nostalgia's sake. The original game also has sound effects for death and shooting.

Caveats:

The reset button doesn’t work for classic.

Notes:

Ship used Normal Game:

<http://1.bp.blogspot.com/-ZFVNAKdhZEo/Uhue-jFl7nI/AAAAAAAAA3A/iflN3Xh31xY/s1600/RD2.png>

Asteroids used Normal Game:

<http://pics-about-space.com/asteroid-sprite-png?p=1#>

Shot used for Normal Game:

<http://bbsimg.ngfiles.com/2/5769000/ngbbs42d4f33e2d9cb.gif>

Ship and asteroids used for Classic Game:

<http://imakeretrogames.com/wp-content/uploads/2015/08/gameplay1.png>

<http://thedoteaters.com/tde/wp-content/uploads/2013/03/asteroids_feat.png>

Space Background:

<http://pre13.deviantart.net/7e26/th/pre/f/2011/210/c/a/starscape_by_ausdrake-d420hk9.jpg>

All sounds found at:

<https://freesound.org/>