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A.I. for Games

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Assignment 2

In the flock steer I implemented a blend steering. The flock steering passes in different types of steerings and the blend steering would take the steerings and averages their rotational acceleration and their accelerations. This flock steering passes in wander steering, separation steering, cohesion steering, and alignment steering. The wander steering was discussed in the assignment one document. Separation steering takes in objects that are within the unit managers and checks if they are within the threshold of the unit. If there are units within the threshold the main unit would add an acceleration away from the group. Cohesion steering also has a threshold. This threshold should be higher than the separation steering's so the unit would want to be apart of a group. Cohesion finally gives the player an acceleration that would be towards the group's center. The align steering is the last of the steerings. It takes objects within a threshold, most likely the same as cohesion's threshold, and average's their rotation. The main unit then faces towards the average rotation.

In the development of the project I found that making the steerings singularly wasn't hard, but combining them was difficult. It seemed that blending all of the steerings made weird movements. I had to come up with random numbers to see how they'd react. I know the book said that blending them was a trial and error kind of debugging, but I didn't think I'd have to get into the hundredths of a number to get things working. Lastly a small difficulty was file

manipulation. I hadn't done file manipulation in a while, so I had to freshen up my memory of using outside files.

I would've liked to have done more debugging in the code to see why it needed weird numbers. The program works right now, with some outliers, but I feel like the weights I have been giving were too abstract. Maybe there was something in my cohesion or separation that made the rest of the blending so fragile.