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IGME 202, Section 5

Assignment: HvZ

Description:

This project implements various AI movement functions such as Object Avoidance, Pursuing, and Evading, by creating multiple “zombies” (in my case tigers) that pursue “humans” (spiders) which are trying to evade them. Objects max speed, weights, and conditionals are controlled to make the scene interesting. In the way are some trees, which objects will move around without intersecting. Objects also utilize separation to prevent them from moving into each other. When not being chased/pursuing, spiders/tigers will simply wander around. Finally, objects will seek the center of the map if they start to move out of bounds.

User Responsibilities:

The user can switch between various cameras by pressing “C”. One of these cameras is a first-person controller (details on that will be in Above and Beyond). Other cameras include: 2.5D view, side view, top view, and a tiger following camera. Pressing “L” displays debug lines showing the following: forward vectors, right vectors, future positions, and tigers current target.

Above and Beyond:

Multiple extra controls have been added to the game. Pressing “P” shuffles the current position of the tigers, to break up the large packs that form as they chase down spiders together. Pressing “R” resets the scene to its initial state. Pressing “H” or “Z” spawns humans or zombies respectively. While in first person mode, right clicking on a tiger or spider will place that target at a random position. Left clicking on a tiger will turn it into a spider. Additionally, I learned how to implement animation for the tigers and spiders.

Known Issues:

* I intended for the initial camera to be the 2.5D camera, rather than the First Person camera.
* Every now and then, all tigers and spiders will “glitch” above the terrain for a short while, before returning to their proper position. This event does not create errors or warnings, and does not cause any issues with the programs behavior.

Requirements not completed:

All requirements were completed as per the rubric.

Sources:

* Darth\_Artisan’s Free Trees on the Unity Asset Store .
  + Link: https://assetstore.unity.com/packages/3d/vegetation/trees/free-trees-103208
* ZEALOUS INTERACTIVE’s Golden Tiger on the Unity Asset Store.
  + Link https://assetstore.unity.com/packages/3d/characters/animals/golden-tiger-55797
* [PRISIM BUCKET]’s Animated Spider on the Unity Asset Store.
  + Link: https://assetstore.unity.com/packages/3d/characters/animals/animated-spider-22986