

**EE/CprE/SE 491 WEEKLY REPORT 10**

**11/15 - 11/21**

**Group number: Team #37 - sdmay25-37**

**Project title: Non-Euclidean Game**

**Client: Josh Deaton**

**Advisor: Dr. Joseph Zambreno**

**Team Members/Role:**

**Tasman Grinnell      Project Manager/Rendering Engine Engineer**

**Josh Deaton            Rendering Engine Lead**

**Ben Johnson           Rendering Engine Engineer**

**Cory Roth              Rendering Engine & Game Design Engineer**

**Spencer Thiele        Game Design Lead**

**Zach Rapoza           Game Design Engineer**

**Lincoln Kness         Game Design Engineer**

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- **Weekly Summary:** The Rendering Engine team continued working on tasks from last week, making progress with JSON parsing, hyperbolic meshes, and handling component systems. The Game Design Team continued to make progress on creating the world, researching assets, and adding new functionality in the prototypes. Additionally, the teams discussed the requirements for the collision detection portion of the engine, with the main functionality that will be required to be implemented. Using layers for interactions between objects is the primary focus, with an ideal number of five layers.
  
- **Past week accomplishments**
  - Tasman: This week, I focused on discussing and implementing the map between the GLFW enums and strings as well as the reverse. I implemented the parsing from JSON to the input configurations, running into some issues with mapping the function calls to the inputs. Continued looking into different methods for collision detection for eventual implementation.
  - Josh: I focused on working on the hyperbolic square mesh. Spent some time on non-Euclidean geometry content for the slideshow. Scheduled a presentation preparation meeting with Zambreno.
  - Ben: Finalized engine system for dispatching components to user implemented systems. Made some progress on loading global assets into resource objects.
  - Lincoln: Spent time working on creating the main world in unity, Researching different asset packs to use for the tile maps and entities.
  - Cory: Spent time making git work for unity and writing game design documents. Getting things prepared for the final presentation
  - Zach: Watched videos about start menu and started merging inventory and equipment with general layout scene
  - Spencer: Added enemy trap implementation. This included off screen trapping odds and entity spawning. Looked into NPC interaction styles and decided on a forefront text bar with paused gameplay.
  
- **Pending issues**
  - Tasman: I need to figure out a way to store the function mappings in the json file. Hardcoding would be a solution for storing the function declarations, but would not be ideal due to bad practices.
  - Josh: N/A
  - Ben: Need to have a group discussion about engine architecture decisions.
  - Lincoln: N/A
  - Cory: N/A
  - Zach: Bugs integrating packages
  - Spencer: Need to figure out how to handle text size greater than the allotted space.

○ **Individual contributions:**

<i>Name</i>	<i>Hours This Week</i>	<i>Total Cumulative Hours</i>
Tasman	7	61
Josh	6	59
Ben	8	65
Lincoln	6	65
Cory	8	66
Zach	6	60.5
Spencer	6	66

○ **Plans for the upcoming week**

- Tasman: I would like to finish the json parsing and flushing to the files, along with testing the parsing from the file and writing out to the configuration file. Additionally, I want to ask the game design team regarding collision detection systems to determine their requirements for functionality.
- Josh: I am continuing working on non-Euclidean geometry rendering. I would like to produce a demo over break and show it in the presentation.
- Ben: Piece together engine parts and make a demo game to show functionality.
- Lincoln: I would like to continue working on the main demo for our game in unity. The goal is to have this demo completed prior to our faculty presentation.
- Cory: Finishing implementation of igt, and make sure that we have everything prepared for the final deliverables of this class
- Zach: Finish integration or projects (figure out the conflicts), finish implementing the start menu
- Spencer: Get a majority of NPC interaction working. Included some cycled dialog and potentially item exchange.