EE/CprE/SE 492 BI-WEEKLY REPORT 13

October 12 – October 25

Group number: 18

Project title: GPGPU Parallelization of Memworld

Client &/Advisor: Dr. Wymore

Team Members/Role:

- ***William Blanchard, Parallelization Lead***
- ***Mason DeClercq, Team Lead***
- ***Jay Edwards, Documentation Lead***
- ***Cristofer Medina Lopez, Integration Lead***
- ***Dalton Rederick, Communications Lead***
- ***Collin Reeves, Game Development Lead***

- **Bi-Weekly Summary**

Over these past two weeks, work on the game worlds continued. Various bug fixes have been implemented. Physics is now working correctly. UI can now increase the size of the text. There is a counter for collectable stars in the world. The starting world was implemented. This is where the player would spawn and be able to transfer worlds by walking through a portal. World one is finished. World two is being worked on currently. OpenGL/CL interoperability was decided to not be necessary.

- **Past weeks accomplishments**

  • Wil Blanchard:
    - Added triple-speed ability
    - Moved collision function to the Physics_object struct
    - Implemented object destruction functionality
    - Merged collision/object interaction functions with the main branch

  • Mason DeClercq :
    - Updated physics collisions to work correctly (bounces off walls now as well)
    - Various bug fixes that caused app to crash
    - Object rotation fixed
    - Helped Chris with interoperability, but decided it was more work than it is worth

  • Jay Edwards:
    - Implemented Collectables and font sizing for UI
    - Started working on World 3

  • Cristofer Medina Lopez:
    - Worked on interoperability implementation. Met with Mason to debug issues with implementation, however, decided it wasn't worth it
    - Tested teammates' feature branches on Mac, made any necessary changes and integrated into main

  • Dalton Rederick:
    - Implemented scaling functionality for file importer
    - Adapted world 1 with new scaling
    - Acquired assets for world 2
    - Started work laying out world 2
        - Various bug fixing

  • Collin Reeves:
    - Assisted with scaling functionality
    - Teamed with Dalton to work on world 2 with finding assets and beginning to lay out those assets

- **Pending issues**
  - *No pressing issues at this time*

- **Individual contributions**

NAME	**Individual Contributions** *(Quick list of contributions. This should be short.)*	**Hours worked**	**HOURS cumulative**
Wil Blanchard	Implemented collision events for Windows, double-jump powerup effects, world switching	10	51.5
Mason DeClercq	Updated physics collisions to work correctly (bounces off walls now as well), Various bug fixes that caused app to crash, Object rotation fixed	13	164
Jay Edwards	Implemented collectables and font size and started World 3	11	58
Cristofer Medina Lopez	Debugging OpenCL/OpenGL interoperability. Testing and integrating feature branches into main.	7	69.5
Dalton Rederick	Implemented scaling. World 2 prepwork (asset finding, bug fixing, etc.)	10	60
Collin Reeves	Helped Dalton in scaling and world 2 prep work.	10	73

- **Plans for the upcoming weeks**

  · Wil Blanchard: World and object development assistance, general assistance, work on presentation

  · Mason DeClercq : Start work on final paper/presentation. Help others where needed.

  · Jay Edwards: Get the layout and assets for World 3. Implement the Meteors.

  · Cristofer Medina Lopez: Try to fix rendering issues occurring on Mac with the Rotation-Fix branch and work on World 4.

  · Dalton Rederick: Try and finish up World 2

  · Collin Reeves: Provide additional assistance in World 2 creation, make gravity constant a field that is changeable during runtime.

- **Summary of the advisor meeting**

We had a meeting with our advisor. We showed him our progress, and he seemed happy with it. We talked about our future schedule for a little bit, and that was it.