

IMT3601 Game Programming

Individual Report

Group Neuton

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Abstract

This project has been refreshing and a lot of work. Even though I have had two chunks of downtime, I feel I have given a good shot at this, and delivered an ok product.

1 Features Worked On

1.1 Networking

Week 50 and 51 were spent on networking and thus threading. This was all to late in the process. And even though I think I could have gotten the code finished, it would have been untested and most prone to breaking at unexpected opportunities. It still resides in the branch '30-world-network-sync'

1.2 Configuration File

Week 49 I spent working on reading a configuration, and creating it if it was missing. I spent a lot more time on this then I should have, mainly because I wasn't familiar with the differences between 'fopen' and 'freopen'.

1.3 Framework

From the start of the project I did work on most of the framework. Getting among other things the World singleton; The MineFactory factory object-pool singleton and Tile up and running. I also had some work doing the makefile and Includes header.

1.4 Libraries

We have at times been struggling with getting libraries to play with MSBuild and Visual Studio. I have more often than not been involved in troubleshooting these issues as I have more experience with the workings of libraries, compilers and linkers from my use of GNU/Linux.

2 Things Learned

2.1 Libraries

I have during this project for the first time compiled an external library. And through that I have familiarized myself further with CMake and GNU Make.

2.2 Git

Learning git has been way more fun than i thought it would be. It also proved to be really good at helping organize work, and workflow. Branching makes software configuration management's value increase exponentially.

2.3 Design Patterns

When I first learned of them at the start of the semester I was thrilled. During this semester however, I have come to see them as tools to be catious of. Awesome tools for the right job. Bloating if used for a wrong job.

2.4 Threading

Pthreads, I have learned, are both a pain and a joy. There are quite a few snags to hit for us using (or attempting to use) object orientation and C++.

2.5 Networking

Is a bit of a design issue. Especially if implementing it at a late stage in development.

2.6 Portability

The biggest issue I believe we have had throughout the project is in dealing with Visual Studio and external libraries. We have run into few problems outside of this.

2.7 Groupmanagement

As I did much of the work on the initial prototype and frameworks of the game, I got to know it rather intimately from the beginning. This lead to me sitting metaphorically in the middle of a lot of the decision making throughout the project.

2.8 Generally

Static code analysis makes me sorry I didn't use it earlier.

Valgrind has become more of a saviour than it ever where.

Doxygen enhances commenting. A lot.