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499 Undergrad Research

Professor Fukuda

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**MASS Research Report**

Project Management

**Project Management Tasks**

In the position for Project Management for the MASS C++ library I was to achieve two tasks to help prepare the MASS C++ library for public release. Those tasks were:

1. Run previous students’ MASS C++ applications to test the MASS C++ library
2. Update documentation to help MASS application developers get familiar with development of MASS C++ requirements.

**Running MASS C++ Applications**

At the beginning of the quarter I started trying to run Wave2D and SugarScape. I ran into a problem with Wave2D where it was using a constructor that did not exist within the MASS library, so I set Wave2D aside. I then focused on SugarScape and actually got SugarScape running but I thought I was getting an error message when I wasn’t. Professor Fukuda got me a copy of Flute and I found Heat2D and Conway’s Game of Life on the Linux lab machines. I was able to get Heat2D running next but I was unable to get Conway’s Game of Life running because I did not create a symbolic link to mprocess. After creating a symbolic link to mprocess I was able to get Conway’s Game of Life running. I then tried to get Flute running but Flute is more complex than the other applications and used a makefile to compile the application. With Professor Fukuda’s help I was able to get the makefile working, but the application is still not in running state yet. I finally returned to Wave2D where I decided to change the constructor that did not exist within the MASS library to one that is within the MASS library. I asked Nicolas to run Wave2D in his debugger to see if Wave2D was running properly with the constructor that I used and the results were inconclusive. I then placed the applications into the director MASS/c++/appls on the Linux lab machines.

**Documentation Update**

The existing “MASS C++ Developer’s Guide” has useful information to help developers get started; however, I found that it did not contain all of the information I needed to get the applications running. I needed to gather information from within the MASS C++ Manual, the MASS C++ Developer’s Guide and information not found within either document. Throughout the quarter I documented important steps I took to get MASS applications running and updated the “MASS C++ Developer’s Guide” to document the required steps I found missing from the document. I then uploaded the updated “MASS C++ Developer’s Guide” to the directory MASS/c++ on the Linux lab.

**Future Goals**

With MASS applications being successfully run I was able to confirm that the current release version of the MASS C++ library is synced with the JAVA version, compiles, and runs applications properly. The updated documentation will also help new users get past the learning curve of running their own MASS C++ applications. The next steps towards public release should be removing the need to pass in a user name and password as arguments and run the MASS C++ in the Amazon Web Services environment.