

The previous two weeks have been spent working with the appnode server and client programs for the innovation wall, as well as the laptop walls for the MLTI program.

When it seemed that TightVNC was a poor server choice due to the applet crashing on various occasions, we switched to RealVNC's server and the crashes appeared to stop. Plans were then set forth to apply multithreading to Real's server, since it appeared to work more efficiently than Tight. However, compiling Real's server from source turned out to be a larger burden than predicted. The compilation of the server required building the X source tree from scratch, which was in and of itself a highly daunting task. When X did not compile as desired, we decided to put multithreading on the shelf for now.

Plans were then set forth to prepare for the arrival of the laptop wall for major testing. Results for my project will come from those tests next week. We are hoping to run Tight and Real servers against Tight and Real clients and get data on performance for various combinations, including using the different clients and servers as well as encoding, number of clients connected, etc. In order to run these tests, Real needs to work with the added region option, and we are currently developing this feature.

Initially, it was thought that Real and Tight would be similar enough in code that the implementation would be rather simple. However, RealVNC is written in C++ instead of C and has a different structure of hierarchies with its classes. Therefore, it is important to find the correct parallels between the two programs in order to properly implement the region change. Similar differences were present between the Java applet codes; however, the Java implementation of Real appears to be similar enough to the C++ code that when either method works, solving the other should be simple.

Progress this week was minimal due to the stubbornness of X and being quite frustrating to compile and the delay in receiving the MLTI laptops. However, the server is being completely redone with 32-Bit Linux instead of 64-Bit (due to program compatibility issues, especially with Google Earth); the distribution of choice is Xubuntu, and the Innovation Wall and Dynamic Wall servers are being prepared for the tests in the coming week. Hopefully by the end of this week we will have all of the necessary components to run testing next week and I will be able to attain the results needed for my paper as well as results to further assist the MLTI program in being successful.