

Bryan Werth

UDP/IP Project Work Log

October 28 - I spent 4 hours today doing research to understand how UDP/IP is implemented. I've been trying to figure out how UDP and IP are separated. Lots of different resources explain this differently and I've been spending a lot of time trying to reconcile this.

October 29 - I spent 3 hours today continuing what I started doing yesterday.

October 30 - Today I spent 4 hours planning my implementation of UDP/IP. I spent a lot of time just doing research today because I'm still trying to learn as much as possible about how the system works.

October 31 - Today I spent another 4 hours doing research and starting implementation of the CRC receiver and transmitter. I started with this part because I still have some questions to answer but I think I have enough of an understanding of how CRC works to do that part of the implementation. I have already made some trade-offs in the design in an effort to get something coded.

November 1 - After meeting with Ben today, where some of my questions were answered, I spent another 4 hours writing up a detailed block diagram of how my implementation is going to work. This helped me synthesize my understanding of the protocol.

November 4 - I spent 2 hours today refining my block diagram and writing my update for submission.

November 6 - I spent 6 hours today completing a first pass implementation of the ring buffer and the udp receiver module. The ring buffer was a lot simpler than I expected it to be, but the udp receiver was fairly complicated. I didn't actually compile these yet so there might be some syntax errors within.

November 7 - I spent 4 hours working on the udp transmitter module today. I didn't quite finish, but I got close. It is notable that I decided after making the crc receiver and transmitter packet size hard-coded, I designed the udp transmitter and receiver to be more flexible. With this said, I haven't gone back to fix the crc front-end yet.

November 10 - Today I spent 3 hours finishing the udp transmitter and writing up a quick weekly update for Ben. I submitted it today, late unfortunately. I also started to debug.

November 11 - I continued to debug today. I ended up spending 8 hours on debugging. I got everything close to compiling but it took longer than I thought it would.

November 12 - After spending 7 hours on debugging today, I got everything compiling except for the ring buffer, developed a test bench for the udp receiver, and started to debug the udp receiver.

November 13 - I spent 6 hours debugging today. I'm still working on getting the problems ironed out with the receiver, but I think I'm getting close.

November 14 - I finally got the receiver working today after spending another 6 hours on debugging. I also started to put together the udp transmitter testbench.

November 18 - I started debugging on the udp transmitter today, spending another 5 hours.

November 19 - I continued to debug the transmitter today, I made some progress and spent another 6 hours.

November 20 - I finished debugging the transmitter pretty early today. I also spent some time trying to figure out the ring buffer, which I never got compiling. I spent 6 hours today.

November 24 - Today, I finished developing the ring buffer testbench and debugged the module. I spent 6 hours today.

November 25 - Today, I started working on the crc receiver validation. I got the initial version working but I had to extend the design to work for more flexible packet length. I didn't finish validating the changes. I spent 8 hours today.

November 26 - I confirmed the changes to the receiver today and also validated and extended the transmitter. Tomorrow I just have to confirm the full design from transmitter to receiver and I'll be done. I spent 8 hours today.

November 27 - I finished confirming the full design from transmitter to receiver today, but I didn't get the writing done. I spent 10 hours today.

December 2 - I finished a first draft of the report today, it only took 3 hours.