

Team Name: sddec21-02

Team Members:

Matthew Dwyer

Prince Tshombe

Cody Tomkins

Spencer Davis

Braedon Giblin

Report Period: Oct. 26 - Nov. 8

Summary of Progress in this Period

Cody: Begin looking into a graphical application that can visually show data coming from our end to end model. Graphics.h seems like a useful library for creating graphs and charts in c++, not sure how difficult it is to implement. Also continued work on SystemC model, working through build issues in an online systemc compiler.

Matthew: Continuing to work with the Remote Port Buss Access protocol packets. As of now I am still having issues sending packets into the SystemC model without causing crashes to occur, but I feel I am close to a working solution. I have also been in communication with a user attempting to use our demos and documentation to implement a custom SoC based off our demo instructions. Those interactions are great to see this early on, as it shows that we are already garnering interest in the work we are publishing and that it is beneficial to the community as a whole.

Braedon: This week, I examined further IIO implementation on our buildroot embedded linux. This involves utilizing both the backend driver and front end tools to facilitate the connection of the IIO driver to our hardware (memory mapped IO registers).

Prince : continuing updating the website and making sure the website is up to date at the end of the semester.

Spencer - This week I created 4 diagrams of our system. The first being a basic system overview, the second being a use case diagram, the third showing Buildroot's interaction with software, and the final one showing how packets are formed and the handshakes needed for remote port. Though they are still rough drafts, I am meeting with my team during our design meeting with questions that I have and for their feedback.

Pending Issues

- SystemC doesn't give a lot of information about their error messages, so it's kind of a puzzle when trying to solve these issues.
- Authoring meaningful documentation and diagrams to explain our work clearly through images?

Senior Design Bi-Weekly Status Report; Spring 2021

- Had difficulty finding documentation for memory IO in buildroot.
 - Figuring out how to efficiently deploy packages to buildroot in a decoupled manner that can be added to our documentation
-

Plans for Upcoming Reporting Period

Finish SystemC model, prepare end to end demo/refine the requirements/MVP for our project. If time permits, implement a GUI to show data streamed from the demo.

Continue implementing IIO connection to hardware. The frontend has also been written and will need to be connected to the IIO device.

Weekly Hours Worked

Team Member	Hours Worked (Both weeks combined)
Matthew Dwyer	10
Prince Tshombe	7
Cody Tomkins	8
Spencer Davis	8
Braedon Giblin	10