EE/CprE/SE 492 STATUS REPORT 2

Start Date – End Date: **09/05/2024 - 09/19/2024**

Group number: **9**

Project title: **Multicore Operational Analysis Tooling**

Client &/Advisor: **Steve Vanderleest/Joe Zambreno**

Team Members/Role: **Alexander Bashara – Embedded Engineer, Joseph Dicklin – Hardware Design Engineer, Hankel Haldin – OS/Tooling Engineer, Anthony Manschula – Project Coordinator/Engineer**

Tri-Monthly Summary:

This report covers the team's activities during the second and third week of classes.

Past report accomplishments:

Alex has written a basic host side python script to establish serial communication with Dom0 running on the ZCU106. The program currently is barebones, but Alex is working on fulfilling the full Git issue requirements of storing data, setting relevant config files, etc. Tony has been working on getting Linux running in a DomU, and has been successful in getting one running. This is essential to our project and now allows us to progress forward with the collection of performance metrics on our system.

Pending issues:
- Establish Communication with DomU from Dom0
- Develop Host and Target Control/Communication Programs
  - Establish a connection between the programs
- Pass Config data between Host and Target
- Automate creation/deletion of DomU's with XL toolchain commands and shell scripts

Individual contributions:

NAME	Individual Contributions	Hours this week	HOURS cumulative
Alexander Bashara	Worked on Serial Control software and software architecture	5	74
Joseph Dicklin	Further research of I/O on our platform	4	72
Hankel Haldin	Defined software architecture	4	73
Anthony Manschula	Investigated and brought up DomU's for group to use in stress environment	6	78

Plans for the upcoming week:
- Present summer's progress to Boeing client
- Propose our semester plan and software design
- Determine how to create a DOMU on ZCU106
- Verify communication with DOMU on ZCU106

Summary of weekly advisor meeting:
Due to unforeseen circumstances, the team was unable to meet with Boeing for our weekly 1:1. Therefore, we have nothing to report on there. We did meet, however, meet with one of our 492 professors, Rachel Shannon, to discuss what is expected from the project come December. Professor Shannon wanted us to meet with our other Iowa State advisor, Dr. Philip Jones, to discuss his expectations for the project. We are currently working on setting up a time with Dr. Jones, but our expectation for his feedback is somewhat similar to the guidance we get from our client, Boeing.