EE/CprE/SE 492 STATUS REPORT 3

Start Date – End Date: **09/20/2024 - 10/03/2024**

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 fourth and fifth week of classes.

Past report accomplishments:
During the past two weeks, the team has achieved a working serial communication with the Dom0 running on the ZCU106. The program encompasses quite a bit more information currently than is needed, so Alex has been working on simplifying the program down. Tony has been continuing work on getting OSs to boot in our platforms given DomU's. As for Hank and Joseph, they have been researching and testing both software and hardware architectures for their given resource contention points.

Pending issues:
- Establish Communication with DomU from Dom0
- Further develop Host and Target Control/Communication Programs
  - Establish a connection between the programs
  - Simplify the current communication program
- 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	Integrated serial control software with the ZCU Platform	5	79
Joseph Dicklin	Further research of I/O on our platform	6	78
Hankel Haldin	DomU Tests and image research	4	77
Anthony Manschula	Continued work on DomU's for group to use in stress environment & worked on stressing binary for Arm64	8	86

Plans for the upcoming week:
- Configure DomUs on Xen
- Get StressNG running on ZCU boards
- Further implement the Python control program
- Create plans for stress testing

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 have scheduled a meeting with Dr. Jones for this Wednesday (10/2) to discuss our design as well as the implementation steps we have taken. The team is also working on setting up a time to meet with Dr. Zambreno to present our software architecture design.