

EE/CprE/SE 492 STATUS REPORT sdmay25-29

End of 491 - January 30, 2025

Group number: 29

Project title: Implementation of the ABC using modern technology

Client &/Advisor: Professor Alexander Stoychev

Team Members/Role:

Connor Hand - Client Interaction and Team Organization

William Mayer - Meeting Time Tracking and Note-Taking

Peter Hurd / Noah Butler / Zach Scurlock - Testing and Individual Component Design

Peter Hurd - Budget Handling

Weekly Summary

Between our last report in 491 and now, we had a 3+ hour brainstorming session with Stoytchev in an attempt to fully understand the operation of the ABC. We gained a further understanding of the ABC's operation and are hopeful with what we will be able to accomplish this semester.

Past week accomplishments

Our team refreshed our current position for the second semester of Senior Design. We broke down the and finalized the current process in which the ABC solves a linear system of equations. We used the instructions to understand how it solves a linear system.

Individual contributions

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Connor Hand	Brainstorming sessions	6	49
Zach Scurlock	Brainstorming sessions	6	47
Peter Hurd	Brainstorming sessions	6	51
William Mayer	Brainstorming sessions	6	52
Noah Butler	Brainstorming sessions	6	48

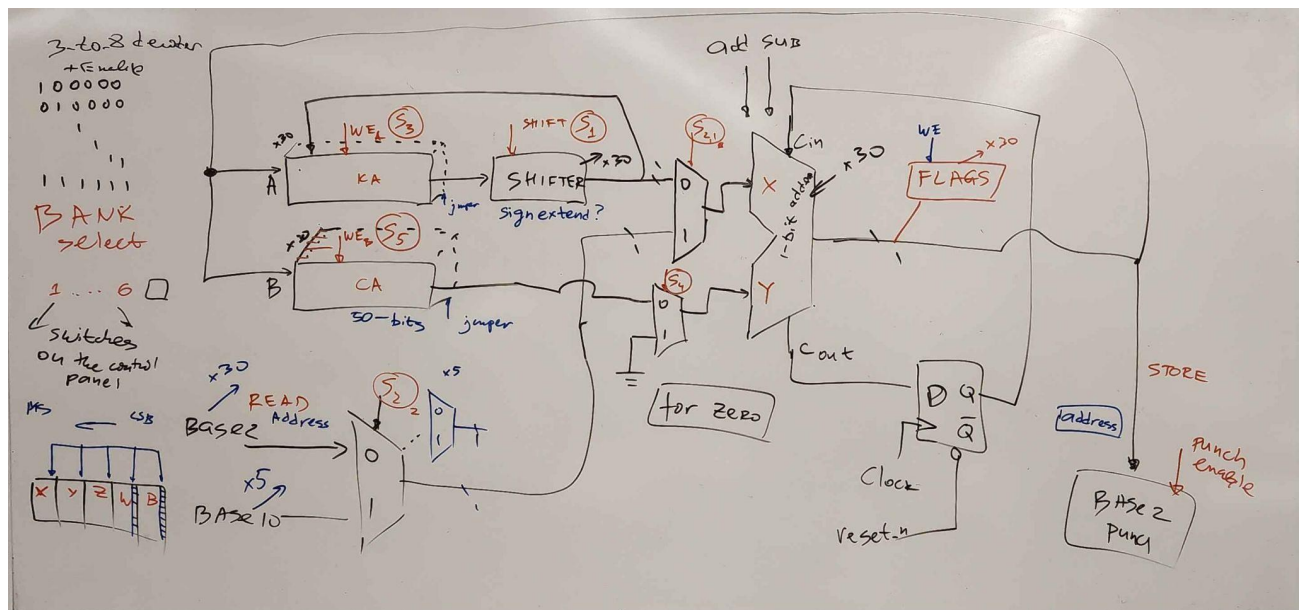
Comments and extended discussion

For the upcoming semester, Stoytchev wants us to be more disciplined with our approach to development and research.

Plans for the upcoming week

Our plans for the upcoming week is to solve examples of systems of equations given to us. We're tasked with reading pages of the Burks & Burks textbook to extract and write down anything that might be a control line. Compare notes with each other in the Friday meeting with Stoytchev.

Summary of weekly advisor meeting



In the final days of last semester, we had a meeting with Dr. Stoytchev that culminated in this whiteboard diagram that illustrates the functionality of the ABC in terms more aligned with modern CPU design. We created this diagram in an effort to better understand how the ABC functioned since this is something we are more familiar with from our computer architecture classes.

Then, in the first week back from winter break, we again met with Dr. Stoytchev to regroup and re-visit what we learned last semester so that we could identify what we need to learn this semester. In this meeting, Dr. Stoytchev advised us to reread some of our primary sources to get back into form, and additionally asked us to take a model set of linear equations and solve them using the same algorithm as the original machine to ensure we all have a solid foundation of the underlying math that governs the machine's function.