sdmay23-47: CyDAQ DSP Platform Firmware and Software Redesign

Week 3 Report October 10 - October 14

Team Members

Wyatt Duberstein — Engineer Lead Corbin Kems — Engineer Lead Blake Fisher — GUI Lead Cole Langner — Test Lead Long Zeng — Firmware Lead Yohan Bopearatchy — Firmware Lead Jens Rasmussen — Project Lead

Summary of Progress this Report

Software: Have a hello world program setup using PyQT Finalized CLI tool for demo by fixing some bugs and cleaning up commands

Hardware: Fixed the wrapper of the platform Functional ICC Fixed the dual-core branch, and merge into the current branch

Pending Issues

Software: CLI tool had some strange data overlap during demo CLI tool data collection produces some high values at the very end of data sampled

Hardware: Communication core needs to form a valid communication with CLI Communication core needs to support all commands for CLI We need to find out how to transfer data fast enough between two cores

Plans for Upcoming Reporting Period

Software: Start designing UI Set up pipelines on gitlab

Hardware:

- 1. Set up the firmware to support all of the commands in format.
- 2. Start testing the call & response with the front-end.

Individual Contributions

| Team Member | Contribution | Weekly Hours | Total Hours |
|-------------|--------------|--------------|-------------|
| | | | |

| Wyatt Duberstein | Worked on the finalization of the CLI for the demo at our weekly meeting, as well as began some code cleanup on the existing methods reused from the previous code | 4 | 0 |
|-------------------|---|---|---|
| Corbin Kems | Prepared the demo, constructed most of the CLI interface and interaction | 4 | 0 |
| Blake Fisher | Researched more into PyQT and started coding to get familiar with the language/framework | 4 | 0 |
| Cole Langner | Started writing input tests for the CLI | 4 | 0 |
| Long Zeng | researched zybo dual proessor communication, implemented dual-core tests | 8 | |
| Yohan Bopearatchy | research zybo-cli command needs, started working on implementing cli commands to zybo | 4 | 0 |
| Jens Rasmussen | Researched pyqt, worked on overall design plan | 4 | |
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Gitlab Activity Summary

Nothing to report.

Commit statistics for master Sep 20 - Oct 13

Excluding merge commits. Limited to 2,000 commits.

- Total: 33 commits
- Average per day: **1.4 commits**
- Authors: 6

