# EE/CprE/SE 492 WEEKLY REPORT

***3/24/18 – 4/6/18***

## Implementing OpenPLC's into a Cyber Defense Competition

***Group number: 16***

**Faculty Advisors: *Drs. Jacobson and Rursch***

*Team Members/Role:*
Matthew McGill — *Meeting Facilitator, Project Manager*
Brennen Ferguson — *Hardware Engineer*
Joseph Young — *Security Engineer*
Liam Briggs — *Hardware Engineer*
Joshua Przybyszewski — *Software Engineer*
Nicholas Springer — *Security Engineer*
Val Chapman — *Testing Engineer*

- **Weekly Summary**

  With only three weeks left of the project, we started clarifying exactly where we are and what the next steps are in our implementation. Organizing our final presentation documents and polishing the team member's respective portions of the systems has brought to light areas that need attention. These have been what the team has been working on will will continue to improve until the final presentation.

- **Past week accomplishments**

  **Matthew McGill**: Our 30 day trials for Factor I/O and Windows Server 2016 expired, so we needed to spin up new boxes in our virtual machine environment. I primarily worked on transferring all of our content and data over. We did some further testing on the Factory I/O SDK and connected the loose ends to our instance of Factory I/O. We also planned out poster and presentation outlines, and are busy getting ready for the end of the semester presentation.
  **Brennen Ferguson**: Wrote some documentation about Factory I/O and my experiences with the software.
  **Joseph Young**: Began creation of Final Poster. Compiled information to present on the poster and created a rough draft.
  **Liam Briggs**: Finalized parts of final team project documents and presentation, spent time with configuring Factory I/O based VM
  **Joshua Przybyszewski:** Worked with Matthew to create Scenario doc and get the .NET stuff downloaded and hooked to FactoryIO
  **Nicholas Springer**: Began documentation for information that next years Senior Design team will need to know for taking over the project

**Val Chapman**: Started preparing the final presentation for the presentation board. Also started working on documentation to leave for a future team to pick on the progress that we have made.

- **Pending issues (if applicable)**

  **Team:** From the meeting this week we learned about the resources available for a CDC. Currently our implementation uses a large portion of the available resources to a CDC so we will be looking into reducing the number of cores we use if possible.

  **Matthew McGill**: We had to restart our work on new boxes and instances of Visual Studio for development. We were able to transfer over a lot of the project files, but we had some git conflict issues. Luckily, we got those all resolved.
  **Joseph Young**: Create a near-final draft of the poster for review by our team next week.
  **Liam Briggs**: Create introductory document for creating and editing new factory floors (further examination of the original documentation is unsatisfactory)
  **Nicholas Springer**: Continue documenting what we need to inform the next Senior Design team about

- **Individual contributions**

| Team Member | Contribution | Biweekly Hours | Total Hours |
|---|---|---|---|
| Matthew McGill | I continued development on the implementation of the Factory I/O SDK and looked into some system resource issues we are running into as a team. | 8 | 102 |
| Brennen Ferguson | Wrote some documentation about Factory I/O and my experiences with the software. | 8 | 100 |
| Joseph Young | Continued security research and testing in the VCenter environment | 8 | 94 |
| Liam Briggs | Documentation received from CDC personnel and configured Factory I/O server further | 9 | 93 |
| Joshua Przybyszewski | Continued progress for the web application; investigate | 6 | 104 |

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|---|---|---|---|
| | feasibility of client side work with limited resources; went on spring break | | |
| Nicholas Springer | Maintained and updated virtual machines and the teams credentials for testing | 8 | 116 |
| Val Chapman | Prepared for Final presentations and started writing documentation for next steps as a pass off to students in the future to pick up our project. | 9 | 100 |

**Plan for coming week**

Put to use the documents and guidelines white team gave us, begin process of deploying project and tools used within for CDC use and confirm details of our mock CDC. Continue to polish 'final product' attributes such as organization and presentation (including final poster planning).