Before You Begin:

Installation & Program Information

Altium:

Altium is a professional circuit schematic and PCB CAD program. It's used by NASA and is how the PCB was designed. BYUI currently has 2 licenses. This means that only 2 computers may use the program at a time. Altium is currently only installed on computers STC159L01-STC159L04.

When using git with Altium, it is better to just use the GitHub desktop client to pull and push to git. Altium is a little finicky with git. The main thing to keep in mind when using version control in Altium is that **BEFORE** you create a new document in the project, pull from version control. Afterwards, create the new document, name it to the desired name, and **IMEDIATELY PUSH** the new file to the version control. Failing to do this will cause documents to disappear from the project's file system. The document will still be located in the operating system's file system and will have to be added to the project's file system manually.

There are also a few accounts that will need to be given to you, namely the one for the PCB manufacturer company. Contact Zac Carico to have the account switched over to your group's leader.

If help is needed when using Altium, message either Zac Carico or Sam Bagley for help.

Libero:

Libero is a program made by Microsemi and is used for programming the FPGA and flashing the FPGA's SPI FLASH memory with the program for the RISC-V core to run. Since we only have one license of Libero, only computer STC159L01 has Libero installed.

There are some issues with the school's anti-virus software (Sophos) and Windows Defender. Because of the convoluted process involved in order to let Libero work correctly, another document has been created under the "Before You Begin" section in the index.html file. In order to complete the process, you must be an administrator for that computer. Talk to Brother Smith about becoming an admin for the computer.

Another issue that Libero has is the need for at least 16GB of RAM. The computer was upgraded in the Winter2020 semester, but only temporarily. Before you start working on this project, double check that the computer still has 16GB of RAM. If it doesn't, talk to Brother Smith about getting the needed RAM. If it does, talk to Brother Smith about sending a message to IT telling them not to remove the RAM until next semester.

When working as a team on the projects, it is best to use the Public directory under "C:/Users/Public" as a place to store the project. This makes it easier for multiple people to edit the project since git can also be finicky with Libero.

If help is needed when using Libero, message either Zac Carico or Sam Bagley for help.

Soft Console:

Soft Console is a program that is used to create a program for a processor on one of Microsemi's FPGAs. The program uses Eclipse, meaning that it's very similar to Code Composer Studio. It requires no license to use and can be installed on any computer (even a personal computer). However, the only way to test the program is using the FPGA.