Alex Blair

Chris Blair-Garcia

Eben Schumann

Aaron Meyers

Requirements and Specifications

**Objective:**

Our objective with this project is to create an application that will take data from past master schedules and organize it in a fashion that meets the requirements of the school and faculty. Then, once this data is organized we will have our application show a visual representation of the new master schedule.

**Requirements:**

Our application will be able to take in data from a Microsoft Excel spreadsheet as well as prompted user input. For example we may ask the user to input the time school begins, and ends, for further accuracy and precision when organizing data. This will also help us ensure that some variables that we do not foresee will be accounted for.

It will organize the data based on the constraints below. And finally, this application will print the new schedule to the screen or to a new Excel Spreadsheet in a way that is understandable and readable to anyone who may need to view this schedule.

**Constraints on organization:**

Teachers require a 30 minute prep period each day, no less.

Specialists are available on a district schedule not a schedule determined by the school.

Must account for differing contracts with teachers and staff on how school time works. The best example of this comes with early release days and when those are in coming years.

Must be set within window of school hours.

Students must have 15 minutes of recess per class and lunch period.

Recess must be before lunch.

Lunch must be 20 minutes per student (including transition time), except kindergarten.

Every 5 minutes a class is released from lunch.

Custodian has 15 minutes of setup and 15 minutes of breakdown for the lunch room/gym for PE.

Kindergarten must have 25 minutes for lunch.

Early Release Schedule and Assemblies must be accounted for.

**Timeline:**

1. Create a program that reads data from an Excel document and stores it.
2. Create a program that organizes the data based on the criteria above.
3. Output the program to a new Excel Document

**Stretch Goal:**

1. Create a user friendly graphical user interface so that anyone can choose which file to make the new schedule from, and then it outputs to the screen in an organized and visually appealing fashion.