

Key Technical Issues

- Cross Platform
 - No platform-specific functionalities could be added
- Cursor Manipulation
 - Since the text displayed on the screen may not (all) be the text in the actual document, time was spent figuring out a way to translate a position on the screen to a position in the document itself

Key Algorithms

- Inserting/Removing Text/New Lines
 - Since each of these commands manipulate the text, a chain of things needed be done, including:
 - Actual text manipulation
 - Cursor manipulation in a way that is intuitive
- Paragraph Formatting
 - Since different styles of formatting may be desired, the program is designed to abstract formatting the text on the screen, given the text in the document. Things like word/line wrapping needed to be considered depending on the format type.

Refactoring

- Different OO Principles were applied throughout this project
 - Observer Pattern
 - Corresponds to *who* should be making changes when a command is started
 - Model View Controller Pattern
 - Having a main controller separate from the document allows for an abstraction between the document being written, formatting to the screen, and separation of commands
 - Composite Pattern
 - Document can be considered a composite of objects that hold text (vectors)