

COP3503 TERM PROJECT

Final Report and Review

Team 8:



FotoShop

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Reflection

Our team's participation together on this term project was a vastly informative and important experience. Upon reflection, it was a very refreshing assignment due to the numerous ways that it increased the team's skill level as programmers and better prepared us for real situations as software developers. Many of the lessons learned throughout this project – including the importance of teamwork and communication – are tremendous traits that will be carried with each team member throughout their careers.

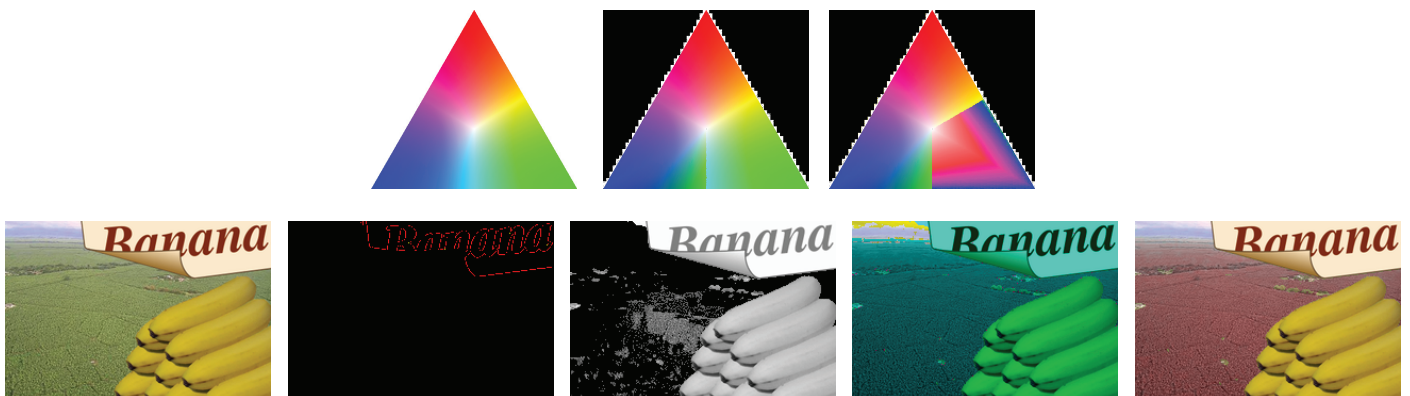
Learning Experience

Our group's experience in being able to work together on this term project was a fulfilling and important opportunity. Not only did it broaden our ability and understanding as programmers, but more importantly, it also better prepared us in our endeavor to work as software engineers and computer scientists. The team developed a heightened understanding of the importance of teamwork and communication, as well as how these traits are involved in a real-application programming environment.

From a practical perspective, the team learned a lot concerning programming and C++ through this term project. On the onset of the project, the team intentionally designed a program that would be difficult to complete and was beyond our current abilities. Upon completing the program, the team's desire to develop a photo manipulation program was indeed a challenging task that stretched and expanded our knowledge as programmers. Many members of the team had never been introduced to using external libraries, handling data and information for picture files, or developing graphical user interfaces prior to this project. Thus, thorough research had to be conducted so that the team members were adequately prepared to work on the program. Fortunately, much of the research and skills acquired through this project are very fundamental skills to obtain in order to work in the computer science field. Therefore, working on this term project heightened the team's skill level as programmers and equipped us with foundational skills that will be very useful in the future. It will be very beneficial to continue in our endeavors as software developers with the things that have been learned through this term project.

Though many practical things were learned concerning programming and computational information, our experience during the term project taught the team several other important qualities regarding working in a group. As has been stated throughout the course, individual programming is becoming infrequent. As computer science matures as a field of study, the demand for programming to be completed in groups and teams increases. Especially considering the scope what software is capable of today – including advanced photo manipulation programs – software development cannot be done alone. This reality was truly put into perspective throughout the term project. The team became better prepared for what to expect when working in future programming situations and real-applications of software development. The scope and complexity of what the team was trying to achieve with a photo manipulation program was beyond the work of any individual. Thus, the team came to realize the importance of relying upon the strengths and communication of others. It has become very evident why collaboration is such a foundational aspect of computer programming and why so many companies covet it.

Finally, perhaps the most important lesson learned by the team was the cruciality of communication. Throughout the entire term project, our success and collaborations as a group hinged upon clear, accurate communication.



Some failed conversion methods, showing progress towards successfully processing images

Regardless of how advanced team members were as programming and regardless of how feasible the project should have been – any progress made by the team was correlated to our amount of communication. Indeed, throughout the development of the program, the team experienced both the euphoria and excitement whenever the team would share creative ideas and ways to improve the program along with the dryness and frustration whenever the communication became muddled concerning progress. Overall, the team's experience in the term project better equipped each member for all future work. It became abundantly clear just how crucial it is to the team's success to constantly be communicating any progress each member is making on the project and ways the program can be improved upon.

Future Work

In many respects, this term project functions as a basic picture manipulation program that can be expanded upon for future use. As seen in more complex and professional photo manipulation programs, there are a plethora of features that can be implemented to increase its functionality and use. Given the time and resources available, the team only had the capability to produce a picture manipulation program with very elementary features. However, even in the early development of the program, the team had a fervent desire to implement more complicated effects if time permitted. Thus, even though only so much time was allowed to finish the project – it is an exciting notion that there are many ways to expand upon the program for future use. Examples for increasing the functionality of the program include rotating the picture, cropping the picture, adding pre-made filters, or appending simple painting features. With the team's program as a basic foundation for picture manipulation, there are countless ways that the program can be improved upon.

Overall, the team's involvement in the term project was a highly educational and important experience. Many of the things learned through participation increased the team's awareness for working in real programming environments. Not only has the team grown in their skills as programmers, but each member has witnessed the importance of teamwork and communication. The team's experience while working on the term project will become very valuable for all future work as software developers.