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| Mailroom Proposal | May 15  2013 | |
| Contains the CSCI 301/302 proposal for the Adams State University Mailroom software. | | James Sitz  Thomas Nehring  Nick Webb  Austin Marshall |

Overview

Approximately 10-15 years ago, the Adams State University Mailroom received a program from the then current Computer Science Class. The programs had a simple objective of helping the Mailroom handle and maintain packages in a more effective manner. Now, it is 2013 and we have since gone through many different revisions of not only Operating Systems, but also programming languages. This document will serve as the general guidance of the remake of the Mailroom program. However, I must warn you that this remake is not just making the software again. This is a totally redesign and redeployment. Starting from the ground up we will bring to the Mailroom a new system that will serve the purpose of the original program, while also adding in new features to meet up with the current demands of modern day computing.

Current Version

The current program has about six buttons on the main screen, of which only half work. The other three buttons relied on a server that Computing Services quit supporting and shutdown. This is the first issue with the program. Package records are kept on paper and often times have to be kept a very long time to ensure that all packages are delivered. The next issue we found with the program is the language it was written in. At the time it was written, the language was a very good choice but over the years that language has aged and the Mailroom has reported that as new Operating Systems are developed they had many compatibility issues. This is another issue we are hoping to address. The last issue that we are looking to address is simply the options for customization. The current program has very little available for them to customize and change. This is a major thing we are looking to fix and make it so that the Mailroom can change the program to better tailor their particular needs. Even as time goes on and continues to tick away.

An Overhaul Is On the Way

With the numerous issues we found in the current program, we set out with a goal to design a new system that is not only better suited to fit the needs of today but also adapt and be maintainable for years to come. We chose to do a client/server setup because it allows for a central location to store the package records along with the stops that the Mailroom makes and the Routes that they define. In programming we do things a bit backwards. The average person would say that a Route has Stops and a Stop has Packages. Well in our world, a Package has a Stop and a Stop has a Route. It’s all for the principle of association. Don’t worry, it still works just fine. Our timeline that we are looking at doing this is small, but that doesn’t faze us a single bit even though Computing Services thinks we are leaning towards insanity. We have a very well laid out design and it is stable. Computing Services has agreed to provide us with a flat file database after we tell them what information we need from them. We will, under all circumstance, do our best to provide a level of encryption for all network communications. Although not a critical issue, it does need to be addressed at some point because the data that we could be sending over the network contains data pertaining to a specific individual on campus. Our program(s) will have a new level of customization available to the users. What we propose is two different client programs with one server program. The server program will never really be seen but will be heard. The two clients will be deployed in different locations. One of the clients will be tailored more specifically to the receiving area in Richardson Hall while the other client will be tailored and better suited to the Student Union Building Mailroom. The primary differences will be that the client program in the SUB will not be able to edit or create new routes, stops, or packages. However it will be able to update package statuses and search for packages that students thought they had gotten a long time ago. This helps speed up the process of finding lost packages (even if the student lost it). The next issue that is probably the most severe is software support. The current program has no one to maintain and update it and no one even knows where the source code to it is. We are looking to fix this by maintaining the software while we are here at Adams State University and before the last one of us leaves having a new group trained and capable of taking up maintaining it. This will allow the Mailroom to receive periodic updates and perhaps create a system that is richer in features and able to handle a lot of different tasks more autonomously.

Conclusion

As you can see the current system that the Mailroom is using has its flaws. Now that’s not to say that the redesigned system we bring to them will be flawless but it will address many key aspects that the current one does not. Please find attached the Design Diagram for the system, along with screen shots of the interfaces that the users will see. No screen shots of the server will be present as it is a command line based interface and those have no real excitement to them. Thank you for your time and we appreciate you reading this proposal.