9.0 System Implementation Plan

This chapter describes the overall system implementation plan with regards to training the users, converting from the legacy system, and converting old data to the new database.

9.1 Personnel Training

The objective of conducting personnel training is to familiarize and instruct the main users of the system with the features and capabilities that the system can do to maximize the new method in conducting business operations. In addition, the trainers should teach them well enough that the main users are able to instruct the futre employees of the company to utilize the system at its finest. This method is called as “Training-the-trainee”.

There are three (3) different user categories that will be using the system. These categories are as follows: (1) Staff, (2) Heads, and (3) Management Information System (MIS) department, which serves as the maintenance personnel for the system. Different functions are present depending on the user category, thus, three (3) different training sessions will be conducted. During the training process, it is important to get feedback from the users on their concerns and suggestions to further improve the system.

The plan of action for providing training will start with the trainers discussing the overall system, its main purpose and role in the company, and how users can navigate through the system features. The training sessions include the flow of the operations/features, explaining the special codes used, what actually happens in each function and how the information is handled by the system, where you can find and place information, and the acceptable inputs that will not cause the system to perform poorly. A technical manual will also be provided for them which includes the system architecture, system installation, information and error handling, backend operations per function, and how to provide help for user support.

The MIS staff will then help in training the rest of the users. Training sessions will be conducted by batch as the developers want to provide learning by hearing, seeing, and doing (Shelly & Rosenblatt, 2010). A more hands on training wherein the users can fully experience the system themselves will be able to help them familiarize themselves with the system. With limited number of trainees per session, the developers can provide easy help when a problem arises. In addition

to the training, a user manual will also be handed out in the hopes of it being useful to the users on how to perform the system's basic functions.

The trainers will include the procedures and the handling of information from the above features. In addition to the user manual for the general users and technical manual for the maintenance personnel, a video demonstration of the system will also be provided. The duration of the whole training process is estimated to be roughly a week, while aiming for at least 10 - 15 users to be taught per day.

9.2 System Conversion

The process of retiring the old system to a new one is known as system conversion or changeover. There are four (4) changeover methods, namely, direct cutover, parallel operation, pilot operation, and phased operation. Each changeover method has its own advantages and disadvantages, and risk and cost factors involved. For this project, the group decided that the best, if not, the most appropriate changeover method will be the parallel operation.

A Direct Cutover approach is when the legacy system is immediately replaced with the new system. This method is the least expensive among all the other approaches, however, it also involves high risk as users cannot compare outputs from the working legacy system with the new system's current output. It also includes the risk of the new system having critical errors that might cause the system to terminate. Unlike in direct cutover, the Parallel Operation allows both the legacy and the current system to run simultaneously in order to verify the output is as expected. In most cases, Parallel is the most expensive operation changeover method, however, for this case, no cost is involved in running both the legacy and the new system. Pilot and Phased Operation were not considered by the developers as a conversion method because all modules of the system are connected, this also applies for the users of the system.

The new system will be accessible through the Internet, with any web browser, the reason for this is because, not all tasks can be done in the office, such as construction, on-site training, and submitting government requirements. The deployment of the system is expected to be smooth due to the fact that they already have the necessary technologies in place. Once the system has been deployed to the company's server, the staff and heads can start using the system simultaneously with the legacy system. If there are no problems encountered while using the new system, the legacy system can then retire.

9.3 Data Conversion

Existing data is inserted into the database of the new system during data conversion. However, before that a data conversion plan is to be made, here conversion mapping will be done. The plan is made with the joined efforts of the developers and the MIS department.

To aid with the actual data conversion process, the group has developed an import function through the system to have all existing projects be easily inserted in the new database. A template in excel format is also available for download whenever a user needs it. The template includes instruction and sample data for the user to be able to fill the template with ease. All necessary details when creating a project, such as project details, task details, and role assignment should be filled up by the user *(Refer to Appendix W)*. The system also provides error checking to ensure that all data that will be inserted in the database are validated. This also limits human-error inputs. The import function also reduces risk of having incorrect, inaccurate, and redundant data entries. Data cleansing should be done before importing the template into the system.