**Preliminary Investigation Report: New Century Clinic October 27, 2014**

**Introduction**

I completed a preliminary investigation of the New Century Clinic’s office systems on October 26th, 2014. This investigation was the result of a system request submitted by Dr. Timothy Jones, Cardiologist, on September 17, 2014.

**Systems Request Summary**

The reason for the request was a growing workload that the current staff is unable to handle.

**Preliminary Investigation Findings**

1. Reports are being typed out each day for appointments and call lists. The lists are utilized during the work day and then thrown away at the end of the shift, or when each customer has been called with a reminder for their appointment the following day. Not only do these reports cost the company a lot in man hours and supplies (paper and ink), but they also leave room for manual errors. There is no way to prove follow-up calls have been made, because the form is no longer available to check.
2. The accounting package being used was implemented in 1994, when the office first opened. The system is being heavily taxed with the growth of the company. Currently the office handles 3,500 patients from 275 different companies, utilizing 34 different insurance carriers. The business continues to grow but the system has not grown with it. The insurance tracking and reporting is also becoming more and more difficult to manage.
3. Patient files are being manually updated and constantly handled by several different employees on a regular basis. As the files are accessed more frequently, the chance for misfiling a patient’s record or misplacing it becomes more and more of a possibility waiting to happen.

**Recommendations**

The current problems will continue to grow as the number of customer grows. The current system is already taxed beyond its capability and will only fall further behind as the business expands. Accordingly, I recommend a full analysis of the current system and possible solutions. The project should focus on two main areas: manual processing and reporting at New Century and computer-based reporting, tracking and accounting at New Century Clinic

**Time and Cost Estimates**

I can perform a study over a two week period. The following is a rough estimate of costs through the systems analysis phase:

System Analyst 2.0 weeks @ $1,500 per week $ 3,000

Other New Century Staff 0.5 weeks @ $800 per week (average) $ 400

Total $ 3,400

If the project continues beyond the systems analysis phase, total cost will depend on which solution is chosen. I estimate a total project cost of $15,000 to $20,000 to replace the current system and implement new procedures over a 3 month period.

**Expected Benefits**

A reduction in processing time and duplication of effort should increase efficiency and improve employee morale. During the systems analysis phase, I will investigate various strategies and solutions to current problems and strengthen New Century’s ability to input, process and report data, accounting functions and patient records for continued growth in the future.

**CASE Tools**

1. **Object Technology Workbench** – An object-oriented modeling tool that supports the entire engineering process. This tool allows the user to create system requirements analysis, systems modeling, system construction and deployment. It can be used for software engineering, business modeling, documenting the system or redesigning/re-architecting of an existing system. It provides a modeling tool for the entire life cycle of a system, toolkits for all participants in a project from designer to customer, and it enables modeling of all types of processes. It is able to generate reports in HTML format as well as in MS Word automatically. The system is offered in two different levels. The first level is the Private Edition which is designed for a single user. The price for this version is $795, but it is available at no charge for academic purposes. The second level is the Team Edition which is meant for multiple users to work cooperatively through a network or offline at remote locations. The cost for this version is $1495. This system would be good for a small company or a larger one. It would especially be good for users that might be more comfortable with its Windows look and feel.
2. **Visual Paradigm for UML** – Allows users to do business modeling, draw diagrams, collaborate to design systems, generate systems reports/Java/C++/databases, capture and simulate business processes, customize charts and analyze impact on the business. They offer several different options including Modeler, Standard, Professional and Enterprise. Each version offers different levels of tools from very basic to the full gambit of options that are offered. The price ranges from as low as $99 to as high as $1,399. They also offer site licenses for larger companies ranging from $10,000 to $130,000. They also offer options for maintenance and floating site licenses for an additional fee. This system would be good for companies of all sizes, whether one person handles all of the IT functions or there is a dedicated team assigned. This would be used in a structured analysis or object-oriented methods, as they require a separate program for agile methods.