### Programming Languages

The programming languages chosen for this solution are Java, C, and C++. This solution will utilize these languages because these are some of the languages that are compatible with the Oracle database server. As mentioned in the above considerations section, the ANSI C and C++ languages are very similar to one another, and both languages once they are compiled into machine code can work very closely to the lower levels of the computer system. This is good, because since the system doesn’t need to interpret the instructions for the program, the program can then execute and perform at the near real time rate that Dr. Salamah mentioned in the interview with him. Because of this if care is not taken when developing the program, it has the possibility of failing catastrophically and potentially harming the computer system. Since the SDAT team does not have much experience with programing in C or C++ the Java language will be used as intermediary, where some code will be produced in but will then be translated into C.

### Database

The SDAT development team decided to explore the use of the Oracle system because today it is one of the more popular and widely used database servers. The Oracle database is a relational database, a relational database is a database in which the different fields have a relationship with one another. The data is stored in tables usually with a unique identifier for each row. Relational databases work on the principle that each table has a key field that uniquely identifies each row, and these key fields can be used to connect one table to another. The Oracle X3-2 database appliance is an integrated system of software, servers, storage, and networking. The X3-2 appliance is capable of holding up to 18 terabytes of data, which is ideal since the data being processed on a daily basis could range in the terabytes. Since we don’t know how much data will be processed on a daily basis or even a weekly basis it is difficult to assess how much storage space is needed for regular operation. The monetary cost of this piece of hardware is unknown because the Oracle Company would need to gain a better understanding of what the client needs out of the database server.

### Graphic Application

<<insert graphic application reasoning here>>

### Mapping Application

<<insert mapping application reasoning here>>