9.0 DISCUSSION

9.1 Problems Encountered and Solutions

1. Problem: Installation of GLUT library
   Explanation: GLUT header and DLL must be placed in the correct directory for the IDE used. Since I am using Microsoft Visual Studio 2008, these files must be copied to “C:\Program Files\Microsoft Visual Studio 9.0” instead of “C:\Program Files\Microsoft Visual Studio 8”. I made the error of copying to the second location, which is wrong.
   Solution: I copy these files to “C:\Program Files\Microsoft Visual Studio 9.0”.

2. Problem: User interface design
   Explanation: OpenGL application developed in Microsoft Visual Studio 2008 only have two windows, the visual front end and the console back end.
   Solution: Through the use of OpenGL lighting, I make the background more interesting and use right click menu to enhance user experience and usability.

3. Problem: Lack of understanding of OpenGL programming
   Explanation: Since I have taken any serious courses in multimedia programming, this type of programming is foreign to me.
   Solution: Through OpenGL programming books and extensive reading of related online sources, I try to familiarize myself with this knowledge.

9.2 System Application

9.2.1 Usefulness of the System

This tool is a collection of different algorithms stitched together for the convenience of users wishing to learn more about the use of Bounding Volume. Moreover, it can be expanded to include other collision detection algorithms since this tool is very modular. As well as being the learning tool for beginner users, it can also be used in limited real-life scenarios.
9.3 Benefits Gained

Flexibility of importing different types of objects into the tool allows the user to experiment with wide variety of collision detection scenarios. More advanced user can implement different Bounding Volume in this tool to make comparison about which BV is more suitable for which type of objects. For example, a rotated object may be more suited for OBB whereas an always upright object may benefit more from AABB.