Chapter 5

Conclusions

In this work, we integrate two existing algorithms: Cutting and Filling, to remove topological singularities and to fill the holes we identified. We used the cutting method to convert the input mesh models into manifold ones automatically. And we use the filling method to generate patches to fill the holes. Furthermore, the triangulation algorithm of the filling method might produce new topological singularities, so we modified the definition of a connected component so that the parts that caused the triangulation algorithm to produce new topological singularities during the cutting process would be removed. This is our contribution. Finally, we converted the mesh models to be manifold and hole-free ones successfully.