ABSTRACT

The development of multimedia technology led to the quality of the information improvement. Virtual reality is one result of multimedia technology development, especially for displaying a specific object through the monitor screen. Through virtual reality, people get more information from an object because it can see the approximate three-dimensional visualization of these objects through the monitor screen. The objects in three dimensions is based on comparative data based on the original object.

Human face modeling in three dimensions is one of virtual reality technology. In this research, a simple prototype model of the face is formed based on deformable templates approach, which is a template that can change the shape in accordance with target digital image. One of the deformable template algorithm is called Active Appearance Models Revisited (AAM-r) developed by Iain Matthews and Simon Baker. The templates in the algorithm can only be changed according to target two-dimensional image only. Therefore, a prototype human face can be obtained by adjusting the template for the front face and side.

The results of this research is the application of simple three-dimensional modeling of human faces (prototype). This application is tested on two types of testing criteria such as testing the success rate of adjustment and stability testing of prototypes. Acquisition success rate adjustment to the 30 individuals showed 30% correct right, 40% moderate, 30% failed to face the right front and 10% correct for the face side. In stabiltas prototype testing results showed that 95.87% stable prototype.

Keywords : digital image, deformable template, AAM-r, prototype, virtual reality