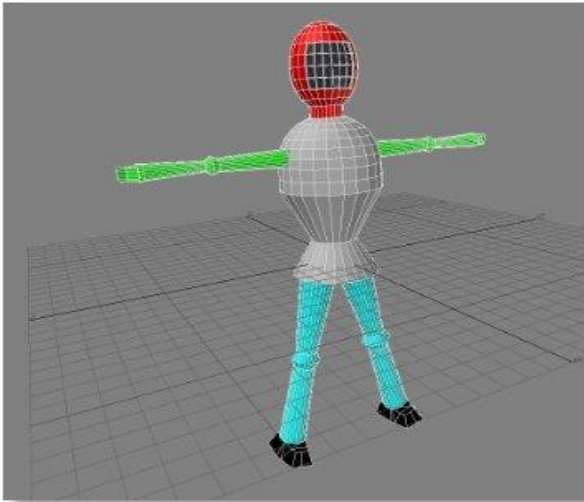# Modeling and Animation

Lightwave 7.0 was used as my Geometry and Morph Target creation tool. The model and the skeletal system were created in LWModeler and the transformed Morph objects were created in LWLayout. The transformed objects are finally exported to the Wavefront OBJ format and loaded into our Scene with the help of the j3d utility OBJ loader.
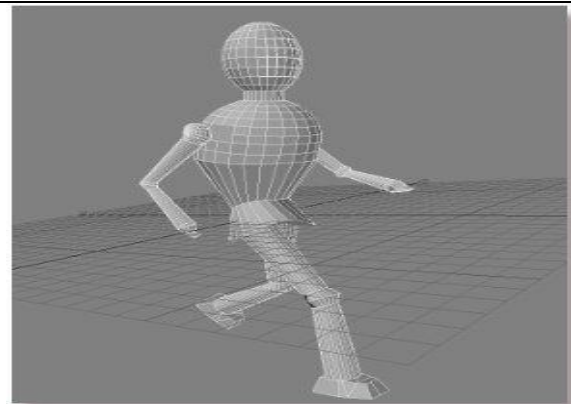

In the first step, I modeled a high polygon count model which each body part in separate layers.
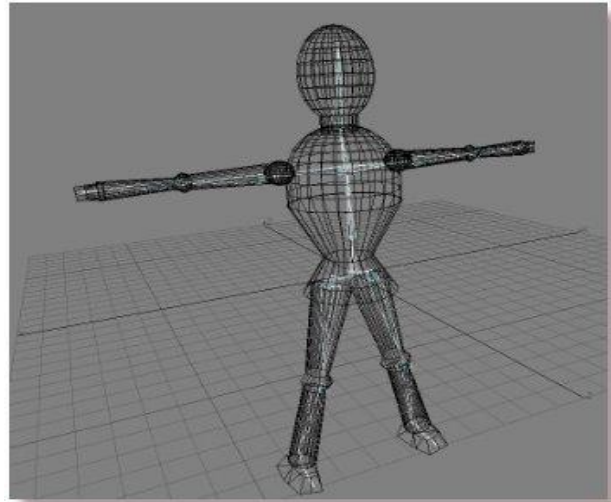

In the second step, I built a skeletal system for the high polygon count model with the LWModeler skelegon feature.
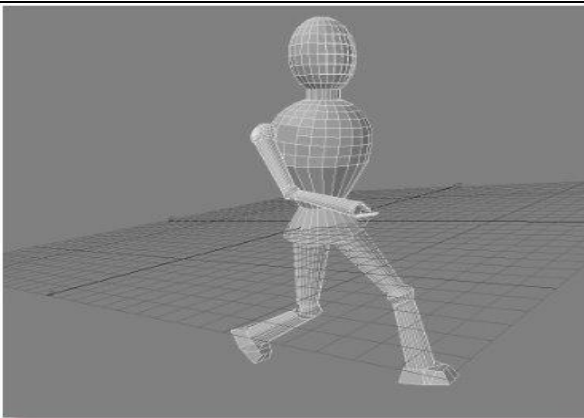

In the third step, I used LWLayout to convert the skelegons into bones for the model and create our first target morph.
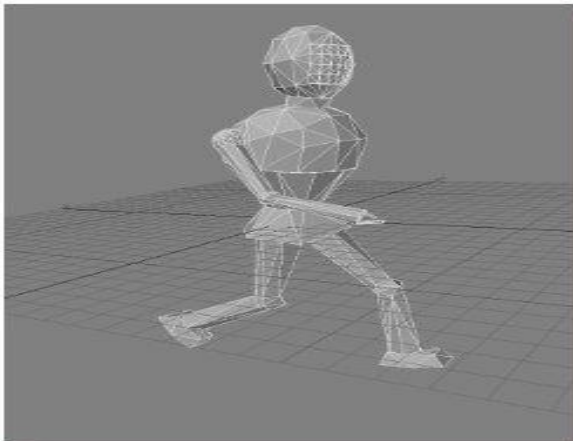

In the fourth step, I created the second target morph. To allow proper MorphBehavior in Java3d, the number of vertices in both morphs has to be the same and this is easily achieved as both morph targets are created with the same initial target and skeleton.
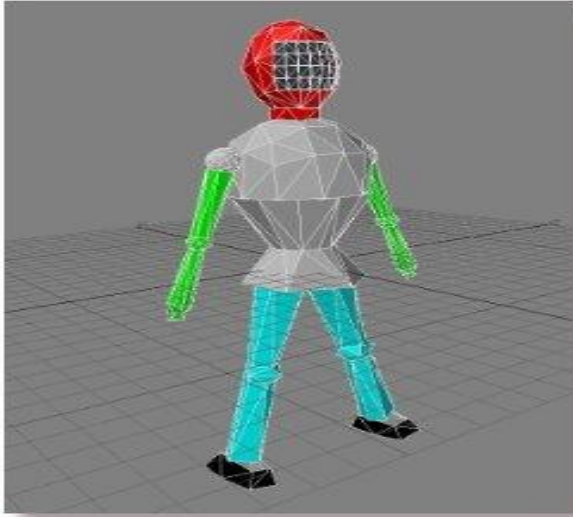
In the fifth step, the qemmLoss2 plugin of LWModeler was used to reduce the polygon face count by approximately half to be used by Java3d as the initial polygon count does not give satisfactory frame rates on lower end machines.
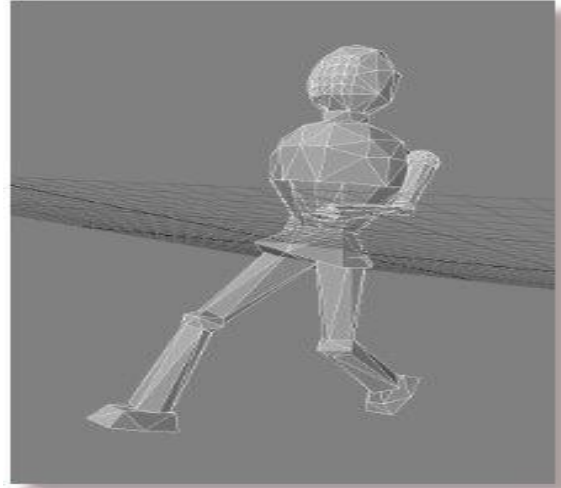
In the sixth step, I created one of the new low polygon morph targets and exported it to the Wavefront OBJ format
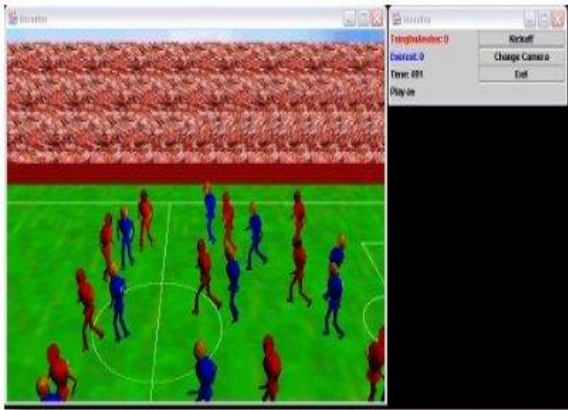

In the final step, I created the second new low polygon morph target and exported it to the Wavefront OBJ format.
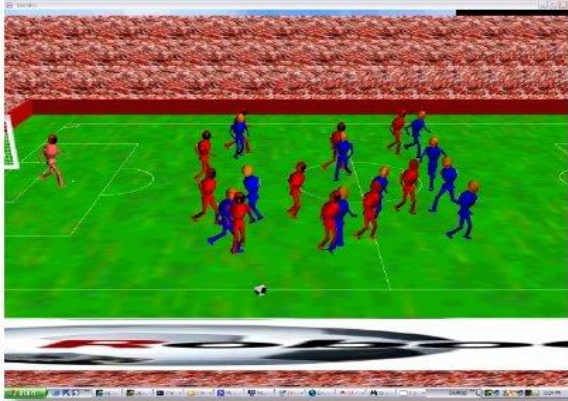
This screenshot is the monitor running in a maximized window from the view port of the moving camera	This screenshot is the monitor running in a maximized window from the view port of the stationary camera

The default window size of the monitor running alongside the Controller Window in the view port of the moving camera	The default window size of the monitor running alongside the Controller Window in the view port of the stationary camera