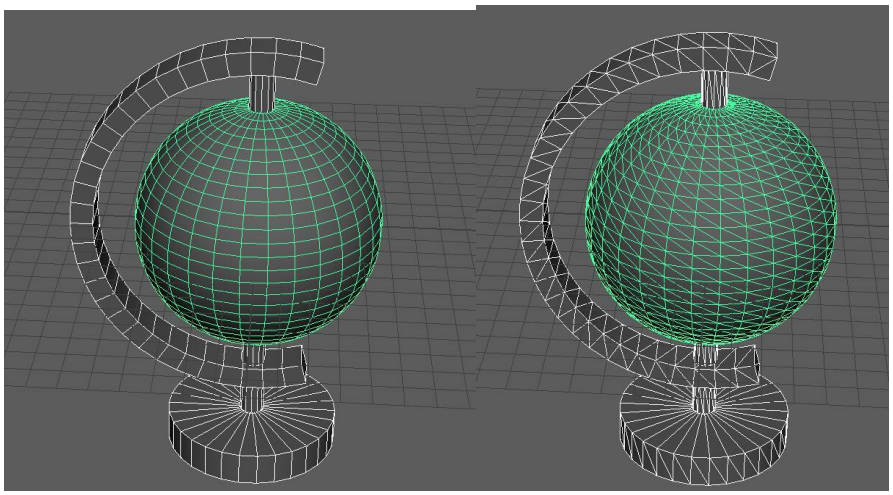
1.3 Analysis of Model in ARColor Project

1.3.1 Basic knowledge of models

Surface modeling and mesh modeling are the most commonly used methods of 3D modeling. In general, the mesh model is used in the Unity, which is called Poly or Mesh in English.

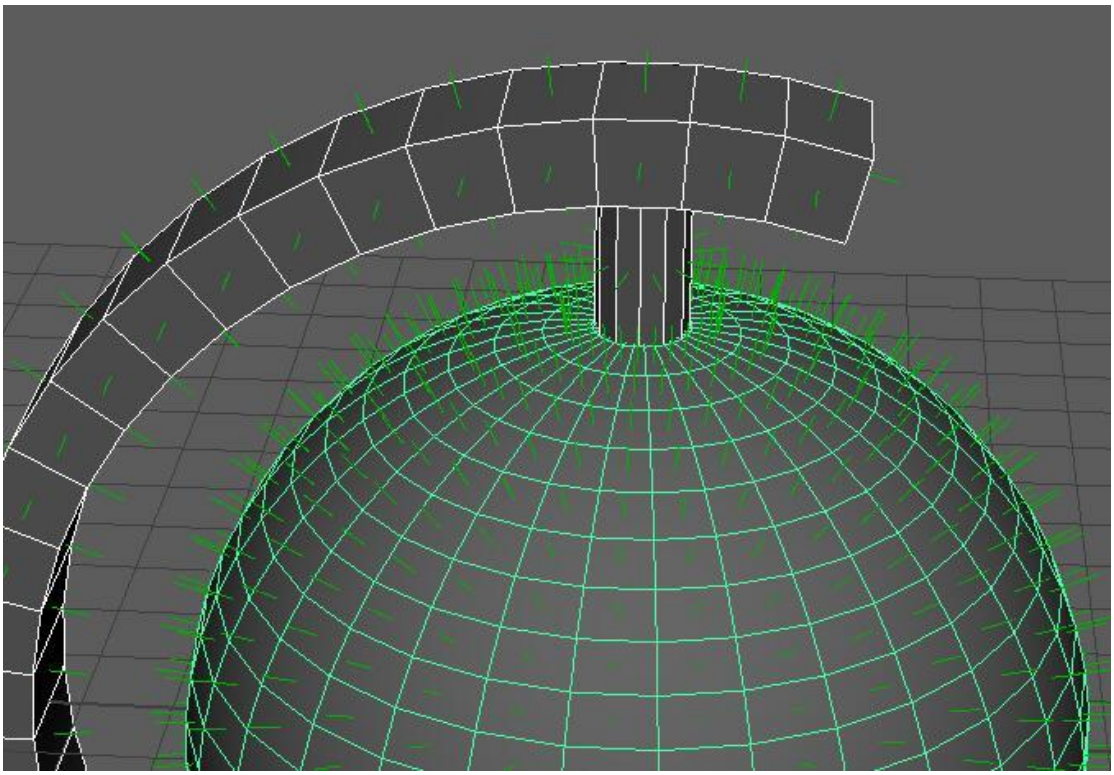
As the name implies, a mesh model consists of patches of meshes. Whether the model is built using a few polygons, all the meshes on the model will be transformed into triangles (Tris) when entering the program. Generally speaking in game, the number of meshes on a model means the number of triangles on the model.



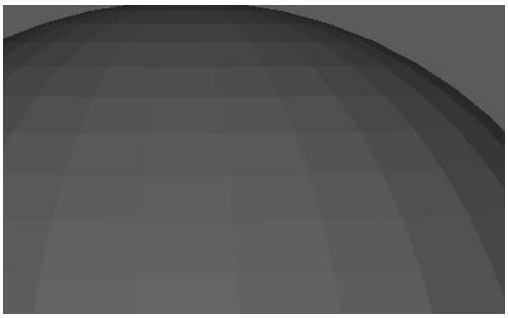
The most basic elements in the model are vertexes, edges and faces. Modeling changes to the model are actually changes to the vertex, edge and face of the model.

There is a concept of normal in the model, and there are positive

and negative differences in the face of the model. Normal represents the positive or negative of the face of the model.



The edges of the model are divided into hard and soft edges. Soft edges make the transition between the two surfaces smoother, while hard edges make the transition between the two surfaces harder. Look at the display of the same sphere under the hard edge and the soft edge respectively.



Each model has its own coordinate axis. The position of the coordinate axis determines the reference standard for moving, scaling and rotating objects.