Geometry Compression for 3D Polygonal Models using a Neural Network

Abstract

Three dimensional models are commonly used in computer graphics and 3D modeling characters in animation movies and games. 3D objects are more complex to handle than other multimedia data due to the fact that various representations exist for the same object, yielding a number of difficulties, among of which are the distinct sources of 3D data. Research work in the field of three dimensional environments is represented by a broad spectrum of applications. In this paper we restrict ourselves only on how to do compression using a neural network in order to minimize the size of 3D models for making transmission over networks much faster. The main objective behind this compression is to simplify the 3D model and make handling the large size of 3d objects much easier for other processes. Even the process of rendering, digital watermarking, etc., will be faster and more efficient.

Reference

Geometry Compression for 3D Polygonal Models using a Neural Network


[14]. E. Piperakis, I. Kumazawa. 2001,3D Polygon Mesh Compression with Multi Layer Feed Forward Neural Networks, SYSTEMICS, CYBERNETICS AND INFORMATICS VOLUME 1 - NUMBER 3.


**Index Terms**

Computer Science

Computer Graphics
Key words

Geometry Compression
Artificial Intelligent
Genetic Algorithm
Neural Network
Multilayer feed forward