Abstract

Due to the large development in the use of distributed systems applications many problems emerged. We have discussed in this paper one of the most important problems that are faced when using distributed systems to send data, the distortions that occurs while image is being sent where these distortions caused reduced color accuracy and clarity of images. This paper introduced a very efficient algorithm to process the problem of distortions that occur with images and this algorithm is very fast to images interpolation. The basic idea of this algorithm is digital image segmentation into homogeneous areas and edges, depending on the structural analysis of the images. In addition, in order to get the best performance of images interpolations, algorithms used are customized to interpolate area classified images, respectively. The experimental results showed a significant improvement in the quality of interpolation of images compared with the interpolation of images by using the proposed algorithm. The comparison results of complexity calculations of the proposed algorithm are shown in this work.

**Index Terms**

Computer Science

Image Processing

**Keywords**

Image processing  Distributed System  Image Enhancement  Image Quality