

Abstract

Nowadays, the need of transfer data especially images is great. The file-size enhancement would make some problem in the data transfer process. For that we need a mechanism to reduce the file size. Mahmud Hasan and Md. Kamruddin. Nur are offering a simple image compression algorithm based on location pixel approach that is able to reduce the image file size with a better ratio of approximately 4.87% as compared to the PNG (Portable Network Graphics).

In this study, the compression algorithm based on location pixel approach is applied to full- color images, gray-scale images, medical images and SHD (Super High Definition) images. Test result shown that location based compression algorithm only fit with the gray-scale images which is non-medical or medical images. The compression ratio is about 50-90%. For full color images, the compression ratio is really bad because of compression failure always happens. To increase the compression ratio, the algorithm is developed. Development is done by adding a color quantization rules and change the encoding process. By doing development, the compression ratio is increased by 13-30% for full-color images and 1-16% for gray-scale images.

Keywords: *data compression, compression based on location approach, color images, gray-scale images.*