

ABSTRACT

The way digital image stored in storage is by store all the pixels that contains in it. By that, the memory needed to store the image is depending on the total of the pixels. The more pixels in an image, the more memory needed. Generally, most of the image contains with data duplication. This data duplication suppose to not stored repeatedly because it may waste the storage usage, in fact this kind of application need a minimum way in represent the image. Besides, the time needed in transmitting the image can be longer. Therefore, a method that can minimize the memory usage of an image (image compression) is needed.

Compression is a process to change a group of data into a code in order to minimize the storage usage and data transmission. The basic problem in compression is no one particular method that applicable for every file format. In this research a vector quantization in fare share amount algorithm which formerly transformed using wavelet haar for the compression is discussed.

The result obtain from this research shows that the application's best weight using grayscale image with 256x256 and 512x512 and its size, and the compression factor is 1:13.07 and 1:16.95, the PSNR obtained is 23.91 dB and 24.42 dB. According to the PSNR and MSE standard, the category of the PSNR obtained from this research is fair enough as its still in range of 20 dB up to 40 dB. Meanwhile the MSE categorized as good because the value approaching zero.

Key word: Vector, Wavelet-haar, image coding, quantization, image compression, Fair Share Amount Algorithm.