Performance Evaluation of Gray Scale Image using EZW and SPIHT Coding Schemes

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 124
Number 15

Year of Publication: 2015

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10.5120/ijca2015905625

Abstract

Digital wavelet transform based compression methods have higher compression rate with less amount of memory requirements, reversible and provide a better reconstructed images. In this paper execute image compression technique using EZW and SPIHT schemes. By using of different wavelet filters that is dmey, Symlets, Daubechies, Coiflets, reverse bi-orthogonal examine the compression performance. This method produces preserving most of the image information and the image is reproduced without degrading the image quality. Embedded zero tree wavelet is introduced by Shapiro and Amir Said introduced set partitioning in hierarchical trees. The best reconstructed images with better PSNR and minimum execution time provide by these techniques. Both techniques are compared by various parameters such as PSNR, CR, BPP, MSE & execution time. The results of image compression algorithm analyzed using MATLAB software and wavelet toolbox.

References
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arXiv:1407.3673,
Index Terms

Computer Science  Image Processing

Keywords

Image Compression, EZW, SPIHT, PSNR, CR, BPP, MSE, execution time