

Sontana Meeraksa 2014: Wavelet Image Encoder using Combination of Simple Bit-Plane and Wavelet Difference Reduction. Master of Engineering (Electrical Engineering), Major Field: Electrical Engineering, Department of Electrical Engineering. Thesis Advisor: Assistant Professor Poonlap Lamsrichan, Ph.D. 98 pages.

The main objective of this study is how to compress multimedia data efficiently. Because multimedia data always needs a lot of storage, multimedia data transmission on the network performance has slow loading time. The simple way to increase the performance for it is to apply data compression.

Data compression is information encoding process, used to reduce the data rate of the original data. It is not the process to encrypt data for preserve confidentiality. The data after compression and the original are different due to the compression coding. Despite of the distortion of the reconstructed data, many applications adopt the compression process in order to reduce the data storage and shorten the transmission time in communication scheme.

Target for this research is to find the exact value of distance from one significant pixel to another significant pixel that we must change from WDR encoding to Simple Bit-Plane to obtain the optimal image compression efficiency.

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Thesis Advisor's signature

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