Abstract

In the mean time, technology is growing so fast. So does digital image. Digital image is easier to be manipulated by using computer. Many tools can be used to manipulated the digital image. At the other hand, when it is easy to manipulate image, it is going to be hard to identify the purity of image. As the result, we are going to need a system that can be used for authentification.

Digital Image *Watermarking* offers a great solution as the problem continues. Digital image *watermarking* is a process embeding data into an image. With embedding *watermark* which is a feature of an image, the *watermarking* system can detect manipulated image and do some restoration.

Right now, Absolute Moment *Block* Truncation Coding (AMBTC) is used to get the feature of the image. The feature is embeded to the real image by using difference expansion.

The experimental result the system can make good quality *watermark*ed image with the PSNR value is 31-37 db . The system can also detect and repair the image that has been manipulated. The repaired image shows it has better quality than tha manipulated image. It can be showed by the increase of the PSNR value is 4 points. The performance parameters that are used to measure performance of *watermarking* system are *Bit Error* Rate (BER) and Peak Signal to Noise Ratio (PSNR).

Keywords: *watermarking*, AMBTC, difference expansion, BER, PSNR