ABSTRACT

Currently the spread of data in the form of digital video over the internet is becoming increasingly common . Movie trailers , video clips and video that contains a review of the commercial products , become a pull factor consumers to buy the product. This video needs to be disseminated protected to avoid abuse and perlanggaran copyright law . One way is using the watermarking technique .

Watermarking is a way to protect the intellectual property rights of multimedia products (pictures / photos , audio , text , video) by inserting information into multimedia data . Insertion of the information used in this thesis using watermarking technique and its application to the AVI video format by the method of randomization Least Significant Bit (LSB) and the System of Steganography using Bit 4 (SSB - 4) . Insertion of information on video using a Pseudo Random Number Generator (PRNG) as a method of randomization . PRNG output will determine the method of insertion of information that will be used . In LSB method , the insertion of information will replace the LSB bits of the original video . While the method of SSB - 4 , insertion of bits of information to replace the bits to 4 of the original video .

Testing and analysis of video watermarking using the Mean Square Error (MSE) Peak Signal to Noise Ratio (PSNR) and Mean Opinion Score (MOS) . Insertion watermarking using the method of randomization PRNG bits LSB and SSB - 4 run through a desktop application . This application is made by MATLAB (R2012b) .

Key: Watermarking, AVI, PRNG, LSB, SSB-4