ABSTRACT

Watermark is a technique to hiding some secret information into a data digital (image, audio, video) with specific techniques to protect a copyright, where the data which inserted is not visible by human eyesbut need to using a specific techniques to know whether the data had been watermarked or not. The information that had been inserted also need to resistant against various attack such as rotation, resize compression, and another else. Also data host (call for data to be inserted) that had been inserted should be look like the same as the original data (data before inserted the information).

In this final project, will be done the analysis and implementation of watermarking a digital image into an audio digital using Static Psychoacoustic technique, Dynamic Psychoacoustic technique, and Temporal Masking and then implement them into a software that has the ability to insert data and also can extract data objects that are on the watermark. Audio file type to be used in this final project are the WAV type and for the image will be used the BITMAP file type with the type black & white. The software used was matlab, constructed to be able to test whether the data that inserted are not easy to damage (robust) and resistant to various attack and is not easily to changed.

Testing using 20 songs from different genre, using Psychoacoustic Static techniques produced the average value of BER is 0.156915. While using Psychoacoustic Dynamic technique produced the higest average value of BER is 0.14659. And Temporal Masking produced the average average BER is 0.1841.

Key Word : Watermark, *Dynamic Psychoacoustic technique, Temporal Masking,* WAV, BITMAP.