ABSTRACT

The development of digital communications technology is curently growing

rapidly. One of the advantages of digital communications technology is at its compression

technic. By this, large files can be reduced in size, therefore in a telecommunication system

does not need too large channel space. The problem is there are too many kind of video

compression with various performance from each technic. Because of varying

performances so user will be difficult to choice what type of compression and codec they

will use. This will affect to the less optimal of using an codec in an application.

In this final project, is done by comparating the performance between H.264 and

WMV. The performance of each codec are evaluated in subjective (MOS) and in objective

based on: PSNR, MSE, dan compression ratio. In its design is done by coding the original

video file first with H.264 and WMV video codec using Format Factory 2.15 so it got

video input file for performance calculation.

To get the information about the performance and characteristic of each codec, so

the quality of video input file are tested according to parameters using functions that has

made in MATLAB 7.8.0 (R2009a). The result has shown that in objective WMV is better

than H.264 for the quality of video, but in for the compression ratio H.264 is better than

WMV. While in objective H.264 is better than WMV. It can happen because the audio

componen is ignored when the quality tested of both codec is created in MATLAB so it

effected the value of PSNR and MSE. Moreover it can happen because of the delay factor

in WMV that affects the respondents ratings.

Key word: codec, wmv, H.264, psnr, performance