

ABSTRACT

MPEG-4 video has three types of frame : key frame, prediction frame, and bi-directional frame, which different characteristics has ensure it's high compression ratio. This final project will apply steganography into MPEG-4 video using Least Significant Bit method, and focuses on the quality of video when the embedding process is applied to each video frame types.

Besides the Least Significant Bit method, this final project will be using Least Significant Byte method. This method is derived from Least Significant Bit method, which used all 8 bits in a byte to embed data.

This final project shows that embedding into bi-directional frames only have the highest video quality compared to other types, and embedding into key frames have the lowest video quality. Data embedding using Least Significant Byte method also have higher video quality compared to embedding using Least Significant Bit method. Data embedding on slow motion and animation videos will achieve a higher quality compared to fast motion videos, as they have higher bi-directional frames count.

Keywords : steganography, video, least significant bit