

ABSTRACT

Information in telecommunication technology improvement lately, thus makes information becomes the most valuable things. That's why the information need protection in many methods. One of the method is encrypting the information, so that it wouldn't be able to read by others.

In contrast to other types of data such as text or digital image, digital video is not compressed (audio video interleaved) is generally large and the process is more complex computing. Therefore required an appropriate method for the encryption process is quick, but the confidentiality and durability guaranteed.

The results of this implementation is how the system is able to encrypt the video with a high security level and processing time is fast enough. Based on the experiments applied to 240x320 pixel video and ten frames test, combined baker map-AES needs 74,1357 minutes to complete the process encryption, Advanced Eryption Standard (AES) algorithm needs 54,5329 minutes, whereas baker map algorithm needs 0,0144 minutes.

To solve the key of each methods of enryption by using brute force attack on a system with 256x256 resolution video input, obtained the longest brute force attack time on baker map-AES algorithm, because that algorithm needed $6,4881 \times 10^{96}$ years, then to AES needed $6,4217 \times 10^{33}$ years, and for the bakermap needed $2,0156 \times 10^{54}$ years.

Keywords : encryption, Advanced Eryption Standard, baker-map, audio video interleaved, brute force attack.