

Abstract

The security is a very important thing in an information system. An information usually only addressed to the right party, so that very important to prevent it fall to other party which have no right. One of way to take care of the data security is using a cryptography method that is representing science and art to hide information from the unauthorized people.

In a cryptography method, somebody can use a key (password) where can change the original data (plaintext) into a form which can't be read (ciphertext), and change the ciphertext into plaintext.

In this Final Task is made the implementation by using Borland Delphi 7 and analysis the comparison between Serpent algorithm which has a very high security but less in speed, and Rijndael algorithm which has a balance in security and speed. The parameters that will be compared to are avalanche effect, the speed of encryption and decryption, the size of files after encryption and decryption, and security level.

Keywords: cryptography, key, Serpent, and AES (Rijndael).