The aim of this work is to compare some methods of file encryption. The main goal is to select the most suitable algorithm selected on the basis of their testing and comparing the algorithms. Another goal is to refer about cryptography itself, its history and its development. The theoretical part is first outlined the historical development of cryptography. In addition, this section analyzed and described theoretically selected ciphers, including modern and principles of their functioning. In the practical part, these encryption methods are compared for selected files in their suitability for a particular file type (video data, audio files, documents). These ciphers are tested to encrypt files and decrypt files.