

## ABSTRACT

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**Actuality.** Today, often occurs a necessity to convey a small-size confidential message, wherein the usage of complex cryptographic systems is difficult for a number of reasons. One of these reasons is the inability to use reliable products, which are usually commercial and are not available for the ordinary computer users. In the modern information society, a large number of services are provided through computer networks and information technologies. The information presented in digital form must be reliably protected against many threats: unauthorized access and usage, destruction, forgery, leakage, violation of license agreements, copyright denial, etc. Information protection is extremely important both in the commercial and public spheres. The Law of Ukraine "About fundamentals of national security of Ukraine" dated 19.06.2003, among the threats to the national interests and security of Ukraine in the information sphere, are: computer terrorism and crime; disclosure of secret or confidential information owned by the state or aimed at ensuring the needs and national interests of society and the state; manipulation of public consciousness, in particular, by disseminating inaccurate information. Thus, the issue of developing effective methods for the protection of digital information, in particular the methods of computer steganography and steganoanalysis, are relevant and of great importance to the state and society.

**Connection with academic papers, plans, themes.** The work was done at the branch of the department of automated data processing systems and management at the V.M. Glushkov Institute of Cybernetics NAS of Ukraine within the research topic "Development of optimal algorithms for solving problems in accuracy and speed: integration of fast-sensing functions, digital processing of signals and images, remote monitoring of objects, information security" (state registration: 0114U000357).

**The goal of the research** – analysis of steady-state operations for the processing of computer steganography methods and steganoanalysis methods for the detection of the most common graphic containers.

To achieve the goal the following **tasks** should be performed::

- perform a review of existing steganographic algorithms;
- make a comparative analysis of various steganographic algorithms;
- propose a method of increasing the quiltedness;
- determine the effectiveness of the solution;
- perform the analysis of the results.

**The object of the research** – the process of protecting information embedded in a graphical container.

**Subject of the research** – methods and algorithms for computer steganography and steganoanalysis for images.

**Research methods**, applied in this work, are based on steganographic algorithms.

**Scientific novelty of the obtained results** is as follows:

The algorithm of computer steganography was proposed for digital containers in the form of an image, which is distinguished by the increased efficiency, allows to make operations on drawing of text on an image.

**Publications.** The materials of the work were presented in two scientific articles at the international conferences ISCIENCE 2017 and ISCIENCE 2018, Pereyaslav-Khmelnytsky, Ukraine.

STEGANOGRAPHY, INFORMATION PROTECTION, STEGANOCONTAINER,  
INFORMATION EMBEDDING, STEGANOANALYSIS