

**USE OF INFORMATION TECHNOLOGIES OF VISUALIZATION IN THE PROCESS OF
CREATING COMPUTER GRAPHICS**

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In the twenty-first century, it is difficult to imagine an area in which computers and specialized programs would not be used. Computer graphics has become one of the most popular areas of computer technology, used in many areas, including design.

The aim of the thesis is to determine the importance of information technology in design and to study the main tools for processing and creating content in design. The results of research of information technologies of visualization in design are given in this paper. Based on the analysis of visualization technologies in design, the main tools for creating, storing and processing graphic models and their images are identified.

An urgent problem is to determine the main tools of information technology, their significance and ways of use in design, as well as to establish the importance of computer graphics for various areas of human life, especially for such areas as design.

In times of technological progress, information technology is evolving rapidly, enabling more and more tasks to be performed. The need for the use of computer technology in various fields of design is becoming increasingly important. With the help of information technology, it is possible to access a collection of software for graphic design, photo and video editing, web development.

The reasons for such a success of computer technology in the market are obvious. First of all, it is an opportunity to quickly and effectively implement the creative ideas of designers, which in turn allows to expand the audience of consumers. It also makes it possible to make changes at any stage of the project, which significantly improves the result.

Computer graphics is the innermost part of most visualization; they use colour and pattern coding and serve for drawing two- and three-dimensional models [1, p. 56]. Many scientists and researches study the phenomenon of computer graphics, in particular they discuss the essence and formation of the visual language of graphic design [2]. They also note that computer graphics techniques are used in various areas of human activity including art, where computer graphics takes on the role of its "technical arsenal" [3, p. 6]. Neglecting this arsenal of tools entails low work efficiency, often a complete inability to solve professional problems in a timely manner. For most designers nowadays, computers and imaging software have become the main tools. The same can be said about polygraphists, cinematographers and artists. What is more, the development and use of graphic information has not reached the limit, and today there are many plans to implement computer graphics. For example, many countries plan to search for information about criminals through photographs and video recordings on the Internet, using neural networks. At the moment, this technology is not fully clear, and it has a certain percentage of error, but scientists say that it will be fully mastered in the near future [4, p. 16; 5, p. 4].

Graphic editor is a software tool for organizing the user's work to change the composition and values of the parameters of the information model of the image. This process is called editing, which determines the name of this category of software. Editing operations are performed interactively [3, p. 7]. Modern technology is astounding, and efficiency is such that customers are used to waiting for quick solutions, almost instant fixes and updates [6, p. 2].

There is a wide range of software products that are recommended for use by modern designers. Some of them are analyzed below.

Adobe Photoshop is a multifunctional graphics editor owned by Adobe Systems. The main functionality is designed to work with a bitmap image, but also has some sets of vector tools. It is the market leader in graphic editors, as well as the most successful product developers.

Adobe Illustrator is a vector graphics editor, the second most popular software product after Adobe Photoshop, designed to create illustrations, logos, icons for websites, layouts for printing. The range of tasks of the program is quite wide. Just like Photoshop, it belongs to Adobe Systems.

CorelDRAW is a vector graphic editor, the functionality of which is very similar to Adobe Illustrator, but it has more possibilities in the application of effects and is more suitable for artistic tasks. Owned by Corel Corporation, it is among the top best graphic editors on the modern market.

Adobe After Effects is a software for editing video and dynamic images, song development, animation, which works on different types of effects. It is mainly used in the creation of captions, commercials, music videos, animations, as well as for a number of other tasks where the use of digital video effects is required. It is owned by Adobe Systems.

Figma is a vector online service for interface development and prototyping with the ability to organize collaboration, developed by the company of the same name. It works in two formats: in the browser and as a client application on the user's desktop. It saves online versions of files that the user has worked with.

So, in conclusion, a brief analysis of the scientific works concerning the use of information technologies of visualization in the process of creating computer graphics allows to realize the effectiveness of computer technology and their importance in various spheres of life including design as a kind of philosophy, which involves considerable research, negotiation, reflection, interactive adjustment and re-design [7]. Without graphic editors and their capabilities, many tasks would be simply impossible, and we would not have the tools to create and develop content as we do now. Nowadays more and more companies are creating programs that meet their needs and allow them to perform their tasks faster and more efficiently.

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