



# E Conference World

**International Conference on Interdisciplinary Studies and Scientific Research**

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## **MODERN SOFTWARE TOOLS FOR GRAPHIC OBJECTS AND THEIR REPRESENTATION ON A COMPUTER**

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### **ABSTRACT:**

The concept of computer graphics now includes a wide range of fields, from simple graphic drawing to creating various images in real life, decorating them, and even creating new image-related projects using software. Computer graphics is common software, meaning that computer graphics relies on existing and newly developed software. Working with computer graphics is becoming one of the most popular areas of modern computer technology. Currently, even professional artists and designers are engaged in this direction.

**KEY WORDS:** graphic objects, icons (symbols), games, digital cameras, graphic form.

It is known that visual information is more important than visual and sensory organs. Visual information is easy to absorb. This basic feature of human nature is used in graphical operating systems. In them, information is depicted in the form of graphic objects: icons (symbols), games and pictures.

All graphics objects of the operating system, as well as all other images, must be created or imported into the computer in some way. Special external (atroph) devices are used to enter graphic images into the computer. The most common device is a scanner. Currently, the scope of use of digital cameras is also expanding. Their difference from ordinary cameras is that the image is not



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captured chemically on the film, but is recorded in the microcircuits of the camera's memory. You can transfer data from the ground to the computer through a cable. Some digital cameras also have the ability to record data as a file on a floppy disk. You know very well that it is not so difficult to transfer data from a disk to a computer. An image does not need to be scanned, photographed, or photographed in order to enter it into the computer. The image can be created in raw form on the computer itself. For this, a class of special programs called graphic editors has been developed. The development, presentation and processing of information in graphic form, as well as the establishment of communication between graphic objects and non-graphical objects in files, is called computer graphics in computer science. Special computer programs made it possible to create images, correct and move them, such as drawing on the computer screen with the help of a mouse, that is, drawing various pictures with a pen or pencil on white paper. These programs are considered drawing programs or graphic editors, with which drawing elements are manipulated.

The rapid development of computer graphics and the updating of its technical and software tools require constant improvement of the course and constant study of new directions in this field.

No modern multimedia program can exist without computer graphics. Software developers creating general-purpose applications spend up to 90% of their working time working with graphics. The main expenses in editorial and publishing houses are artistic and decorative works with graphic programs. Due to the widespread use of graphics programs, the development of the Internet has increased significantly, primarily due to the WWW service, which combines millions of individual "pages" into a single network. Computer graphics plays an



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important role not only for academic staff, but also for artists, designers in various fields, advertising specialists, creating Internet pages, educational process and other fields. Its use, especially in the field of printing, led to the emergence of colorful literature, textbooks, artistic works, and the use of high decorative techniques. Creating eye-catching videos and web pages is hard to imagine without computer graphics. computer graphics is considered a new fundamental science in the world and has its own independent importance in the training of personnel in the field of economy. Computer graphics are divided into three types: - raster graphics - vector graphics - fractal graphics. They differ from each other in that they are depicted on the monitor screen and printed on paper. The difference between the original raster and vector graphics is known in the technology of creating a graphic image, the method of reflection, editing and borders. This difference can be briefly explained as follows: in dot graphics, the minimum element of the image is a point, and in vector graphics, it is a curve. In raster devices, images are formed from a set of points. These points are called pixels. A raster is a matrix of pixels that covers the entire screen area. So, the main element of raster graphics consists of dots. A bitmap consists of a set of points with coordinates and color.

## **Summary**

During the pedagogical internship at the 21st Specialized State General Education School of Uchkoprik district, we directly participated in the Informatics classes and got acquainted with the state of teaching computer graphics to students in educational activities. In particular, we were convinced that the innovative methods used in the teaching of various relevant departments of computer



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graphics in the course of training in this school can be developed based on the above recommendations and suggestions.

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