ROLE AND APPLICATION OF COMPUTER GRAPHICS

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ABSTRACT

The concept of computer graphics combines a wide range of current areas, from simple graphic drawing to the creation of various images of real existence, giving them visibility, creating new projects related to the image using a program tool. This makes it possible to work in a multimedia environment.

Key words: computer graphics, sphere, graphics, drawing, image, designed, projects.

The concept of computer graphics, its types, color models, methods for improving the quality of images, changing contrast, smoothing noise, methods for filtering images; algorithms and techniques related to the inclusion, processing and storage of digital images in computer memory; color models, additive, subtractive, perception RGB,CMY,CMYK,HSV), algorithms for transferring from one model to another, computer approach to drawing; Adobe Photoshop CS5 is a raster graphics editor with options for creating, managing images, working in various color situations, linking images, editing texts, combining Palettes; options for decorating a web page and creating animations using the Adobe Flash 8 program, basic concepts of raster and vector graphics; Corel DRAW is a vector graphics program, Photo Shop raster graphics program, as well as practical tasks This tutorial will help the student to expand the possibilities of computer literacy and working with the internet, web design, graphics in youth, to gain interest in the science of computer graphics, to develop knowledge, skills and abilities in them.

The concept of computer graphics combines a wide range of current areas, from simple graphic drawing to the creation of various images of real existence, giving them visibility, creating new projects related to the image using a program tool. This makes it possible to work in a multimedia environment. Computer graphics is a software utility widely used in all sectors of society, it is based on existing and newly created programs. Computer graphics made it possible to accurately describe how processes take place in three-dimensional space. Therefore, we can obtain its result in graphical form by entering the basic values of the issue under consideration through the currently available application packages. In our country, too, the demand and attention to programming is growing. The aim of this project is to digitize the construction, energy, agriculture and water management, transport, geology, cadaster, health, education, archive areas of our society in the future. Currently, computer graphics are widely used not only for scientific workers, but also for artists, designers, professionals involved in design and advertising, website creators, the teaching process and other areas. Therefore, one of the tasks before us is the preparation of mature personnel in the field of computer graphics, the delivery of literature on computer graphics to young readers. Taking into account the above points, this tutorial fully covers topics such as image types, computer graphics types, graphic formats, color models, projections, methods to improve the quality of images, image filtering, animations in Adobe Flash. I think this tutorial will help to increase the interest of students of higher educational institutions, academic lyceums, professional colleges, general high school students and independent learners in computer graphics, work in a programming environment and create an independent program, create applications for various areas of our country, form skills in using modern information technologies and pave the way for new.

Computer graphics-graphic display is the process of making visual information visible on the monitor screen. In contrast to the method of displaying the image on paper, photocopy, etc., in computer graphics, it is possible to immediately delete the image generated on the computer, make adjustments to it, narrow or stretch in any direction, zoom in and out, rotate, move, change color and perform other actions. It is used in the decoration of books, in the preparation of paintings and drawings, in the design and manufacture of models of items, in the creation of TV shows, in the creation of cartoons, in the creation of interesting shots in motion pictures and much more. A number of programs can be listed among the programs that work with computer graphics. Including Microsoft Paint, Adobe Photoshop, Adobe Illustrator, Corel Draw, Adobe Freehand, Adobe InDesign, Adobe Image Ready, Adobe Flash, Discreet, Cinema 4D, Alias, Autodesk Maya, Light Wave, Adobe Brush, etc. In these programs, work on computer graphics can be carried out. While some may have simple drawing, some will have house projections, and some will have three-dimensional modeling and even four-dimensional modeling. A person perceives the bulk of information about the outside world with the help of his eyes. The viewing system receives an image of various objects. With them, a person develops an idea of the external environment and objects in it. Creating images of objects, describing them in storage, processing and imaging devices is one of the most difficult and fundamental issues of a computer. It displays an image that should appear on its screen dozens of times per second when the computer is not given any tasks, that is, even when it is idle. The images that appear on the computer's screen are created and released to the screen using its so-called video card device. For video cards, special video processors are produced. 11 video processors left the main processor of the computer behind in terms of complexity and speed of execution of computing work.

Computer graphics are such a type of activity in which, using a computer and specially created programs, images are created, existing ones are transferred to a digital view, processed, stored and described in a convenient way. Nowadays, computer graphics are so developed that the satisfaction of its needs remains one of the main reasons for the rapid development of computer technology. Computer graphics also apply to science, commerce, art and sports and are widely used in all fields. Every year, many conferences on computer graphics are held, scientific sentences and teaching aids are published, dissertations are defended. Every year, several hundred billion dollars of computer graphics products are produced and sold. Masterpieces of art are created. World Championships in electronic games, created on the basis of computer graphics, will be held, and millions of participants will take part in them.

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