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APPLICATIONS OF COMPUTER GRAPHICS

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Abstract : What does the concept of information society mean? This is a society in which the majority of workers are busy with the production, storage, processing and implementation of information. What is computer graphics (machine graphics)? Machine graphics means creation, storage, processing of volumetric models of objects and their representation using EHMs.

Basic phrases : super animator or 3-d studio , software , graphics, geometric modeling, designing graphic interfaces, informatics , computer networks , graphic image.

Introduction. It is known that in the exchange of information, the information received by the human organ of vision is the most effective, and it also leaves a deep impression on the memory. In particular, the information provided by means of sound has a positive effect. The least effective means of information is written information, which takes more time to receive and process in the brain, and due to the physiology of each person, a certain part of the information is lost and stored in memory. Computer graphics are divided into several types: commercial (on the job), visual, demonstration, animation, engineering and scientific. Let's look at the main features of graphic tools belonging to each of these classes. [A.1 ;,2;,3] .

Relevance of the topic. The composition of information in computer graphics is focused on human senses of sight and hearing. So simple by doing so to speak information to give for image and from sound wide is used . Main the goal information image and to the sound from scrolling consists of

Research of work purpose _ Computer graphics types and use branches study _

Commercial computer graphics. Information marketing is the widest and most diverse field of application of computer graphics tools. Interactive graphs, diagrams, and pictures created with the help of SC are often used as a tool for conducting financial analysis and making planning and marketing decisions. Thanks to commercial computer graphics software, it is possible to create various interactive graphs and charts with information about the budget, availability of goods, cash flows, profit amounts, interest rates, returns on investments, and the status of the order "portfolio".

Illustrative computer graphics. Being able to present the goods in a comprehensive and beautiful manner is very characteristic of the market society. It all depends on the quality of the goods. For example, a certain culture of how to provide

information about oneself, one's product or company has emerged. In particular, it is appropriate to use illustrative computer graphics to advertise information products.

Illustrative graphics tools serve to create high-quality machine images, illustrative texts, drawings, sketches, geographical maps.

Different from the graphic tools of the commercial computer graphics class, in the software tools of the illustrative graphics class, obtaining quality images is the only goal, and it is not required to analyze it separately. Software tools of this class allow simple and quick assembly of components and modification of graphic objects.

Currently , the tools of this class of computer graphics have not developed dramatically. Computerized advertising is one of the modern forms of advertising, it is a completely new form of creating and distributing modern advertising using computer graphics methods and tools.

The object of research . The use of computer graphics tools in modern advertising radically increases the role of the advertising company, and from it:

a) on television;

b) at international exhibitions and conferences;

c) in the process of using AMB;

g) in the development of interactive training systems;

d) in electronic conferences of international networks;

e) can be used in the learning process.

Quality changes in advertising are taking place mainly in three directions: computerization of the advertising process and, as a result, application of informatics tools to it, development of audio-visual equipment and cable television.

ADPs of illustrative graphics are often equated with graphic editors, but the latter are only one part of many ADPs in this class. For example, the graphic editor Storyboard Plus is one of the Picture Maker models in ADP, in addition to Story Editor there is a script editor, Story Te11er is a ready-made slide show, and Picture Taker is an image grabber from other ADPs.

Display computer graphics. In countries with a developed market economy, great importance is attached to the presentation of graphics and the scientific presentation of marketing research indicators for the purpose of presenting scientific and commercial results.

The further development of ADP in the class of illustrative and commercial graphics leads to the integration of its capabilities, thanks to which the display graphics were created. This resulted in the addition of Story Editor-like modules that allow commercial graphics ADP to construct certain graphics in a slide-film sequence and display them on the screen at set time intervals. The occurrence of such different slides can also be reflected in visual or auditory effects (for example, how it sounds). In addition, graphic editors have been added that allow you to edit the finished graphics

later. Illustrative graphics have been expanded to work with the commercial graphics module in ADP.

Thus, display graphics now have a set of basic tasks of commercial and illustrative graphics and three types of tasks: work with graphics and diagrams; edit and save images; provides a solution to the preparation and planning of the presentation material.

Right type of chart to display the information . Most of the graphical display tools support mixed 3D charts, histograms and stock market charts in addition to simple line, bar and pie charts. When choosing commercial computer graphics software for creating presentation materials, be sure to include a planner and text editor that allows you to print out diagrams for the speaker, followed by very small versions of the relevant slides. [A.1 ;,2;, 3 ; ,4 ; , 5] .

Commercial computer graphics software tools are very different from each other, but they have one feature that usefully unites them, in that the user is reliably protected from any technical complications, because he can no longer focus on what to get, rather than how to get it. possible Featured computer graphics software includes Power Point, Harvard Graphics, Freelance, Arrlause, Hollywood, and others.

Animated computer graphics. While watching TV commercials in our spare time, we witness the use of animation elements in them. 50 years ago, the Walt Disney studio created the cartoon "Eight and Seven Dwarfs". He has a worthy place in the history of animation. It was the first animated film of 1.5 hours. It describes several years of painstaking cocktail of artist animators. In 1991, the animated film "Beautiful Girl and Creature" produced at the IRIS INDIGO graphic studio of this company's Silicon Graphics company was shown with great success. All these films were animated by computer graphics.

combines the achievements of working with color, image and illustrative graphics scenario with the achievements of engineering graphics of three-dimensional objects . Looking at our television screens now, we see with our own eyes the fruits of this fruitful union in the form of computer commercials and TV broadcast decorations.

Animation is a task, a task that involves changing the place of objects, cameras, light sources or changing their parameters over time.

Currently, this field of computer graphics tools is experiencing a strong development. Foreign experience shows that now in many countries of the world there are computerized sources of advertising information, databases of specialized computer systems, to which advertisers receive information about their companies and goods (services) produced by them for fixed fees. enter data. Prospective buyers who are interested in buying this or that information product receive the necessary information for themselves during the number of calls to these data banks or using special terms.

Video projection systems are the most effective means of displaying computerized advertising at presentations, exhibitions, conferences and video halls. Broadcasting advertisements through large-screen video systems allows people to satisfy their information needs, which in turn attracts new customers. Many experts believe that the rapid introduction of high-definition large-screen systems to television will play a decisive role in the distribution of computerized advertising. [A.1 ;,2;, 3 ; ,4] .

Having studied the reasons why animation computer graphics tools are chosen as a tool for improving the development of modern advertising and analyzing the results of marketing research, it is possible to come to the conclusion that this field is considered as the highest intellectual and highest technological field of application of computing techniques in the world, but this is also The complexity of the technical and software solutions that ensure full-fledged work with video images in PCs, as well as the connection with the serious mathematical base underlying the modern methods of computer graphics. Additionally, creating a high-quality computerized ad calculator will be a fairly profitable type of activity these days. [A.3 ; ,4 ; , 5] .

Today, a minute of computerized advertising costs anywhere from $Z000 to $50,000, depending on the format and complexity of the design. In our republic, one minute of computerized advertising costs much less.

The software tools of animated computer graphics include, first of all, ZD-Studio, Animator Rgo and others.

Animated graphics allow those in the mood to:

1) to model and view the detailed ZD object , to modernize it and to manipulate it;

2) to select or create a material from the library to cover the surface of the built detailed object (such material is called a texture);

3) placing the simply created models in space, i.e. creating a scene, a place of action for these objects (for example, a table, on which you can cut an "unbelievably delicious orange" with a knife);

4) connect texture objects;

5) determining the nature of lighting, placing light sources and cameras on the stage;

6) determining the consistency of frames, changing or modernizing objects from frame to frame (again, movements for cameras and light sources can also be provided);

calculation of a single frame or several frames by taking into account the palette, light, shadows, viewing angle, mutual location of objects and their changes from frame to frame; such a calculation is called rendering (from English « rendering »). This is the final stage of animation, in which a complete advertising frame is obtained from some ready-made objects, episodes and circles;

8) display the sequence of individual images and frames in the form of a film.

Many teams working on computer graphics in the CIS countries do not even have the necessary equipment and software, but they understand well that in the near future, modern advertising will be determined, first of all, by the synthesis of video and television images. It is possible to enumerate many wonderful works of high quality and technical level in Uzbekistan. This is, in particular, computerized advertising of broadcasts such as "Akhborot", "Respublika mulk birjasi", "Avto birja", "50G'50", "Sarik submarine". [A.1 ;,2;, 3 ; ,4 ; , 5] .

The development of computerized advertising requires large financial costs for the purchase of technical and software tools of computer graphics. If the firm clearly formulates the task, accepts the decision that is not considered enough regarding the advertising budget, the selection of advertising means, if it does not take into account the evaluation of the results of the advertising activity, it can blow these costs into the air. Therefore, the economic effectiveness of advertising is closely related to the goals set for this advertising event and the amount of financial resources allocated for its implementation. In other words, these questions arise:

1. Do the funds allocated for advertising correspond to the set goals?

2. Will the goal be achieved as a result of the advertising event?

If these two factors coincide, then it will be economically beneficial. Moreover, while determining the economic efficiency of computerized advertising, it does not take into account the fact that most advertisements do not have a profit motive. For example, 80% of image-advertising is not aimed directly at profit, because in this case, not an information product, but an interactive service in general is advertised.

The technology of computerized advertising will be a powerful incentive for the development of modern information technologies and the creation of a new branch of fundamental research in the work of improving and improving the information and communication base of marketing. In the use of such media as radio and television, there are additional costs of ordering airtime and creating a quality advertising plot, which can be avoided if the available computing techniques are used in computerized advertising distribution.

Analyzing the means and methods of advertising information products and services allows to determine ways to improve them with the help of computer graphics, i.e.:

a) inclusion of live video and audio materials in animation elements;

b) distribution through a telecommunication computer network;

c) to provide consumers of advertising information with the ability to obtain previously unattainable visual effects that have a psychological effect;

g) for the accuracy of images, 16 mln. and achieve opportunities to use more colors;

d) supplement natural photography if necessary (for example, when showing the features of information products and services);

e) creation of advertising distribution tools that make consumers active participants in advertising communications;

j) use of new sources of graphic information. [A.1 ;,2;, 3 ; ,4 ; , 5 :,6] .

Engineering computer graphics. Engineering graphics project automation system (LIAT) serves to automate drawing and design work. Engineering graphics includes analysis, synthesis, modeling, testing, drawing, real-time control (i.e. overall design, organization of automation) and two main task features: object construction and manipulation. is described.

This division led to the concept of two coordinate systems: independent (worldly), in which a hardware system of object and coordinate is built.

The Auto SAD system is the most popular ADP in this class. [A.5 ;, 6 ;, 7] .

Summary

For the first time, three-dimensional modeling of real-world objects appeared in engineering graphics. These images are detailed in the form of vertices joined by edges. Then, surface models are created from thin wire covered with material, which are increasingly close to natural. The ADP library features glass, metal, plastic, wood, and marble. Then a portable camera was added, allowing light sources to change the point of view of the object, and finally, the speed of computers increased, which allowed real objects of complex shapes to be displayed on the screen in full color and within a reasonable time frame. allows you to reach and know. Thus, he firmly entered graphic design and design. Right now it's really all about:

Everything from the latest Ford car to perfume bottles is designed on computers. [A.1 ;,2;, 4 ; .5 ; , 6] .

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