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PLACE OF COMPUTER GRAPHICS IN THE INFORMATION SOCIETY

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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. Computer graphics is considered to be one of the constantly developing directions among new information technologies. Such development is visible both in the field of technology (graphic stations) and in the field of software tools (SUPER ANIMATOR or 3-D STUDIO) . They allow you to create realistic, large-scale moving images that are comparable in quality to video footage. These software products are used in the fields of art and multimedia technology as advertising tools. In addition, great attention is paid to display graphics, geometric modeling, graphic interface design, animation (working with animal images) and visual motion.

Computer graphics can be successfully used in the field of economics , especially in the analysis of economic indicators [A.1,2,5] .

Purpose of work.

A general understanding of "computer graphics". Computer graphics is considered a new fundamental science in the world, and studying its unique independent importance in training personnel in the field of economics.

The task of the job.

1. Special computer programs made it possible to draw pictures on the computer screen with the help of a mouse, that is, to create, correct and move images, just like drawing various pictures with a pencil or pen on a sheet of white paper.
2. These programs are considered drawing programs or graphic editors, with the help of which the elements of the picture are managed.

Expected result of the research . The very rapid development of computer graphics and the updating of its technical and software tools make it necessary to constantly improve the course and constantly study new directions in this field. In recent years, there have been great changes (shifts) in this field, i.e. displays that can

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display more than 16 million colors and color types (ottenok), devices for entering graphic information (paper part) - scanners, graphic workstations; and in the field of software tools, programs that can explore the real computer world have appeared.

In addition , there have been changes in the society's consciousness, and now there is no area where computer graphics has not penetrated.

Computer graphics is gradually becoming an integral part of computer science curricula and has been central to engineering education since the early 1980s. Current on time computer graphics in tune of courses structural part is calculated as :

- "Economic Informatics and Computing Techniques"
- " Computer informative systems "
- "Computer information systems of material resources (marketing)"
- ADP (practical programs package)
- " Computer networks " and others .

Research object . _ _ Computer technology and methods him learner _ _ persons . Personal on computers done to be increased current time graphics systematic economic in research , given information analysis in arrival , received the results Curly by showing and for a presentation _ _ materials in preparation and another in the fields waiting is used .

The graph make up and him to understand for graphics elements meaning and them different in cases addition learning necessary _

Graph using prepared realities right to understand him organize doer everyone elements collection there is just in case can _ (scales , titles and sh.o '.).

To describe graph method or graph language is _ the idea of expression spatial describe , or some kind of in the plain conditional respectively reflection carry on methods is a set .

Examples of graphic representation are geometric maps, a system of diagrams of economic analysis, structural schemes of enterprises, etc.

The process of creating drawings representing a set of ideas is called graphing, and its result is called graphics. A graph conditionally describes reality or some process. All symbols used in graphics are symbols of ideas, the graphic itself represents a set of ideas as a whole.

In graphics, its two elements are distinguished: graphic image and_explication

A graphic image is a set of drawings, understood together with their interconnections.

An explanation is a set of information that reveals the meaning of a graphic image. A graphic image can be symbolic or geometric.

Symbolic images are composed of conventional signs, the meaning of which is not connected to its geometric shape, and which can be understood depending on the conditions.

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Conventional signs can be carefully associated with some concepts (symbols), and a specific set of regional signs can be represented by symbols.

Two-dimensional graphic images in symbolic form constitute graphics.

An image that has a geometric meaning and represents an equation or inequality in this form is called a geometric graphic.

For example, the curve showing inflation growth is interesting not as such, but as an economic category.

A graphic image is understood as a scale scaled using a coordinate system, a grid with a unit name, a general graphic title, a general and specific explanatory method, a number line filler, and returned numbers. [A.1 ;,2] .

A graphic image can be expressed as an integer.

Graphics explanation can have three types of appearance: geometric, ideographic and personalized.

Ideographic explanation - explains the meaning of conditional symbols - figure, line, background, etc. (if these symbols are not standardized), these conditional symbols give a specific meaning to graphic elements.

Geometric explanation - coordinate axes, grid, scales, scales. With their help, geometric figures acquire geometric properties, because with the help of these tools, the properties of geometric surfaces are used.

Customized explanation - titles, explanations (to output numbers and characters). These explanations show how graphics occupy a place in the whole complex of this knowledge, and from the point of view of language it is the most necessary element of graphics, because without it graphics would have no meaning.

In addition to explication, graphics can also contain additional information: numerical data, repeated values, and xk Logical processing represented by graphics is permissible, and grouping it according to some symbol is correct. is the basis for making a judgment about.

If the chronological order of the given information is broken, the impression of graphic integrity is broken. [A. 2;, 3 ; ,4 ;] .

The result of scientific research. Thus, graphics is a graphic representation of special, conceptually unified imaginary devices (ensembles) expressed in a two-dimensional (or three-dimensional) image and its explanation.

In connection with the establishment of the technological basis of the construction of graphs, we will consider the conditional symbols used in them.

Conventional symbols are drawings that represent given quality indicators in conventional symbols. When defining the same concepts - from the same conditional symbols, different symbols are used when defining different concepts. As a result , complete that's it with together graded image to the body comes :

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- figures (letters , numbers , open and closed figures schematic and the picture in the form of images);
- lines (proportions designation for , communication lines , geometric measurements show for (length , direction , view etc.);
- background symbols - area and surfaces with color or dashes with them features show for cover _

Conditional characters drawing on the surface known one in order will be placed . Without scale in graphics characters free assembly in the form of , zonal and table net in the form of is given Here _ graphics brightening tool as of color is used .

Zonal grid - given the field into pieces is , har one piece special the value attached to put Har one zone is horizontal or vertical strip in the form of is own _ to the title have will be

Table net is this mutually intersecting of zones from the combination consists of

Graphics in making , his technological the basics fighting his download problem - graphics released drawings refers to the number catch need _ Here _ to be placed main demand - graph by displayed of the complex the most main parts the first in line details are shown in the shade , the second in line second level details , third in line helper details is displayed and that's all . [A.1 ;,2;, 3 ; ,4 ; , 5] .

Reducing the load of the graph is carried out in the following ways:

1. Method of successive detailing (instead of one graph, a series of graphs similar to the first one is created.)
2. Connection method (image taken from several different points and integrated into a common system).
3. The main contour method (making a series of graphs with a general outline and drawing on each graph corresponding to its character.)
4. Simple comparison method (grouping graphs that are unrelated and based on the same rules).

When building the technological foundations of graphics, it is necessary to take into account its clarity.

One of the tools that increase the clarity of graphics and increase its downloadability is the coloring method. But the color should not cause confusion in the graphics. For example, when showing the population density in certain regions or when showing a graph of child mortality, it gives the impression of representing a discontinuity between different regions. In this case, it is better to use the same color as dark or light depending on the value of the number.

The widespread distribution of application software packages is based on the fact that it is more natural for humans to perceive images as a means of communication, and in this way, sufficient accuracy can be achieved.

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It is already known to divide machine graphics into passive and interactive parts. 20 years ago, it was common to print great scientists, artists, athletes, cartoon characters (for example, wolf, rabbit pictures), Albert Einstein's picture on digital printing devices. In this case, the image is made by drawing the same marks at certain points, and the color difference is made by hitting these marks several times in some places (for dark color), and in some places by dropping them once (for light color). was produced at the level of ozi. Image generation in this way is a passive machine_belongs to graphics. [A.4] .

Interactive machine graphics (IMG) are those in which the state of the image, its shape, content, dimensions and color are dynamically and continuously changed and controlled by means of interactive devices on the display screen.

From a practical point of view, the graphics produced on modern personal computers are all interactive.

Passive machine graphics include images produced by tablet and drum graphics devices, as well as by printers, film, and video cameras.

The image produced by these devices cannot be directly affected. It is possible to control the image process as much as you like when creating an image using a display device, mouse input, keyboard, or scanner devices.

All of the above-mentioned imaging methods have in common that the image is generated using a digital processor.

In order to get better acquainted with the modern methods of creating graphic images, we will consider the creation of computer graphics in two ways - raster and vector. The main difference between these two methods is the different way of characterizing the light on the surface of the screen.

Vector computer graphics - this method uses vector displays. In vector devices, a memory electronic beam tube is used, the beam runs once along a given trajectory across the screen, and this state is retained in the tube's memory device until a second command is received. [A.1 ;,5] .

Summary

In raster devices, an image appears as the sum of the dots that make it up. (sum of pixels and PELs). Raster is the sum of horizontal lines per unit of time. Each consists of a number of separate PELs. The light runs through one row after another. The intensity of the light changes as it passes through each PEL . Displays can work in different modes.

The number of pixels per line multiplied by the number of lines on the screen indicates the sensitivity level of the display. The higher the sensitivity, the better the quality of the image, but inversely, the cost of the equipment becomes more expensive.

Displays used in personal computers have 2 types of sensitivity:

1. Low sensitivity - 200 vert. Points * 320 horizon.points ;

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2. High sensitivity - 200 vert . Points * 640 horizon . dot

Books

1. Foley Dj. Val Dem . A. Basic interactive machine graphics. M., 1995g.
2. E.Kh.Kholmatov , N.I. Tailakov , U.A. Nazarov " Infarmatics wa hysob - lash technicasi .» T-2001.
3. George Omura. AutoCAD 2007 Express course. Peter, Maskva, St. Petersburg, Kyiv. 2007.(George Omura . Just Enough AutoCAD 2007. San Francisco London. 2007) .
4. Mykola Poleshuk, Vilga Savelyeva. Self-taught. AutoCAD 2007. Saint-Petersburg "BHV-Petersburg". 2006
5. Sew a candle. Effective work AutoCAD 2005. Peter, Maxva, St. Petersburg, Kyiv. 2005.