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I was born in April 10th of 1959. At 1987 I'm working as assistant professor at Department of photogrametry and Cartography in University of Architecture, Civil Engineering and Geodesy. My professional qualification is photogrammetry and creating DEM (digital elevation models) by modern photogrammetrical technologies.

Приложение на WEB дизайна и мултимедийните технологии за моделиране на учебни процеси във картографията и фотограметрията.

(автор:Пламен Малджански)

РЕЗЮМЕ

Разглеждат се въпроси за влиянието на WEB -дизайна и съвременните информационни технологии за създаване на програмни системи и симулационни модели за целите на обучението по картография и фотограметрията. Посочват се примери на създадени такива системи.

Применение WEB-дизайна и мултимедийные технологии для моделирование учебных процесов картографии и фотограметрии.

РЕЗЮМЕ

Присматриваються запросы об влиянии WEB-дизайна и современные информационные технологии для создания програмных системах и симмулационных моделах для цели картографии и фотограметрии. Показываються примеры созданными такими системами.

Using WEB-Design and Modern Technology for modeling studies of Cartography & Photogrammetry

SUMMARY

Requests on the influence WEB- design and modern information technologies for creating program systems and simulation models for purposes cartography and photogrammetry are discussed. Examples created by such systems are showed.

Using WEB-Design and Modern Technology for modeling studies of Cartography & Photogrammetry

(By Plamen Maldjanski)

Developing the multimedia technologies and Internet arising lead to new possibilities in the developing of the education and the creating of new systems for education. The existence of many computers, connected in nets /networks/ allows a phenomenon or a process to be observed from many places simultaneously, and studying in photogrametry needs analytical simulation models of this phenomenon or process to be created, which simulate different aspects of the studying.

WEB design includes using many modern techniques for building of Internet pages (sites). These sites are connected according to the way of modeling and allow a concept (notion, idea) about the object, phenomenon or process to be achieved, as well as, to take a solution if it is necessary.

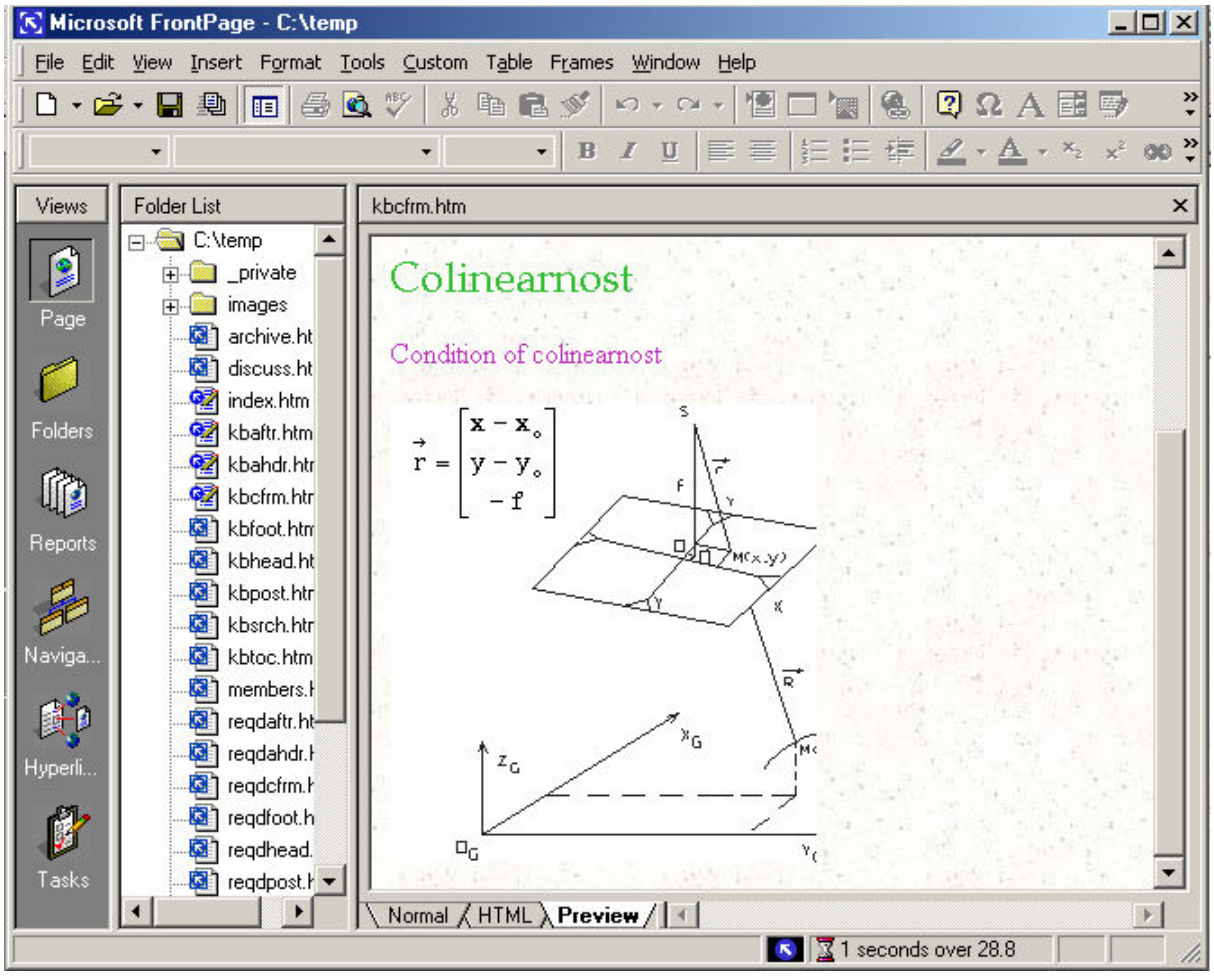
There are standard tools and techniques for accomplishment the pointed requirements. The browsers (standard programs for viewing Internet pages) are most oftenly used. The information is reported according to definite regulations (using a standard formats) by these browsers.

The formats HTML, VRML, etc. have proved to be more successful. Controls which distended format legibility of the prepared Internet pages are oftenly added to the standard browsers.

The most propagated from the browsers are Internet Explorer and Netscape Navigator.

There are spatial languages for writing such pages. JAVA and Java Script are more propagated (familiar).

The page is considered as an aggregate of certain construction elements (title, body, tools for internal and external relations etc.). Program systems, which realized a visual graphical consumer interface, are used lately. Thus the work at creating the pages, realized the definite model, is been simplified. An example for a system for education is shown on (fig.1)

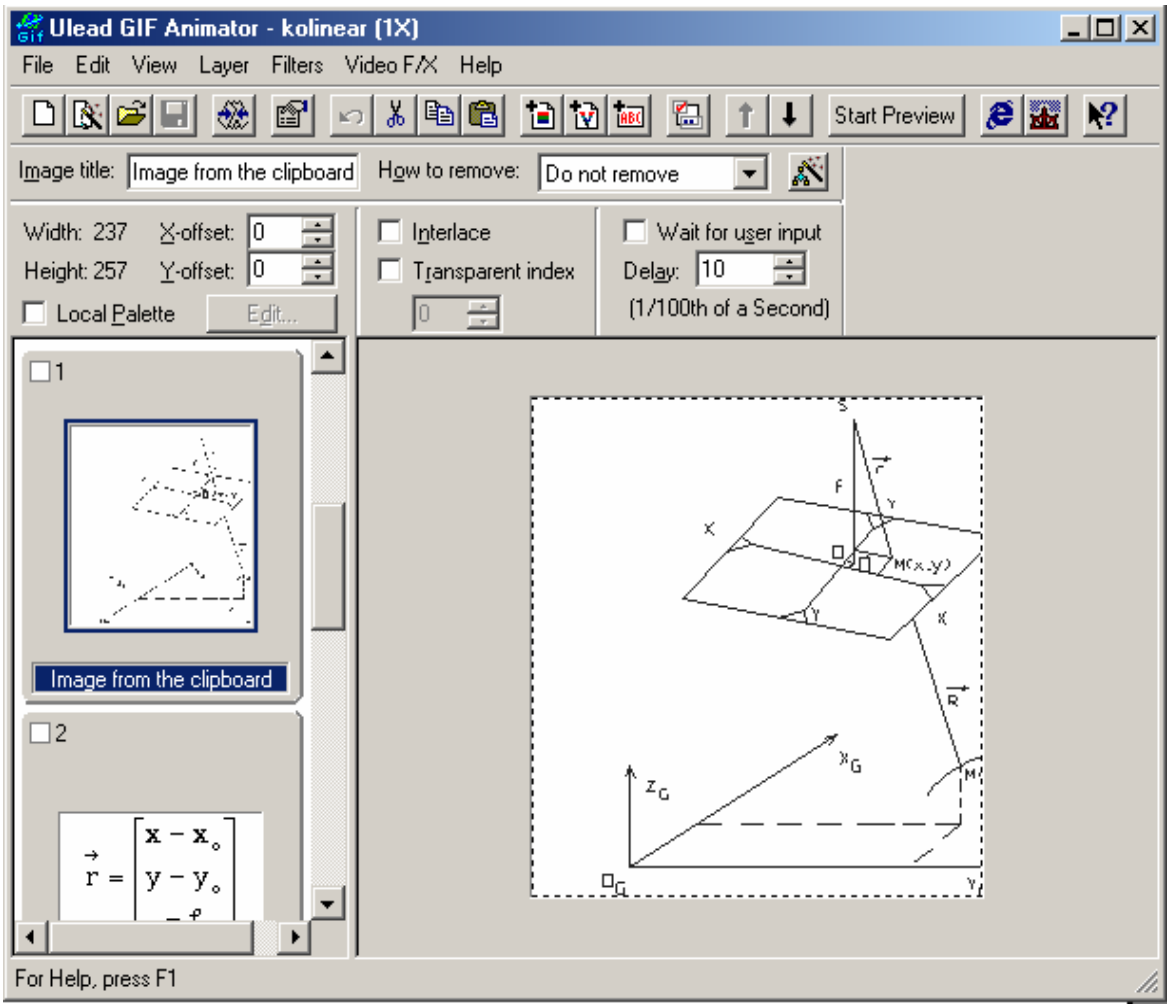


(фиг.1)

Creating hyper-relations to other pages and the possibility for the transitions to them to be managed in a program manner furthers the increasing of the learner's interest, and leads to increasing the efficiency of the learning system.

The wholeness of Internet pages can be (prepared) done with an adequate software (Front Page, Netscape Composer Got Live) etc.

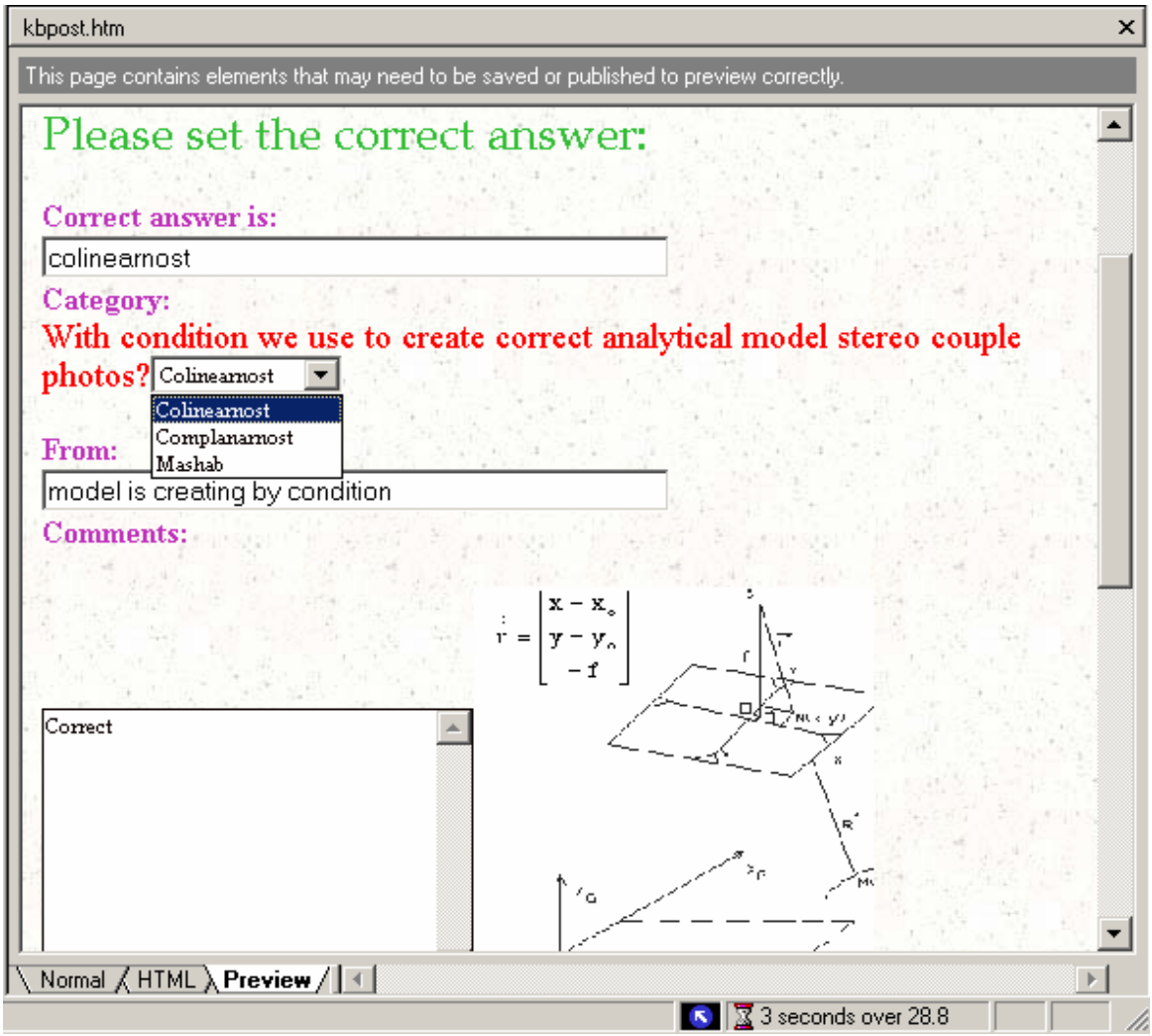
The particularly developed program tools are used (fig.2), by which different stages of the study (instruction) process are visualized and adequately animated. The abilities of the specialized software that makes up a raster, vector or combined digital model are oftenly used. The Photo Modeler, Gif-animators, specialized software for WEB applications can be pointed as such.



(фиг.2)

In the simulators can be included text assignments (fig.3), from whose replies the accomplishment of the task might continue or not. Thus, the developing of simulation instruction /education/ system leads to the experimental moment, as well as, to the cognitional.

Map surveys are connected as the future very narrowly as space and development computes technology. Up to the present photogrammetrical methods are the fundamentals at the processes generally geographic and thematic map surveys. Using WEB design to creating test and educational programs for study in cartography and photogrammetry contributed to import news at these research regions and to the improved technologies thyself.



(фиг.3)

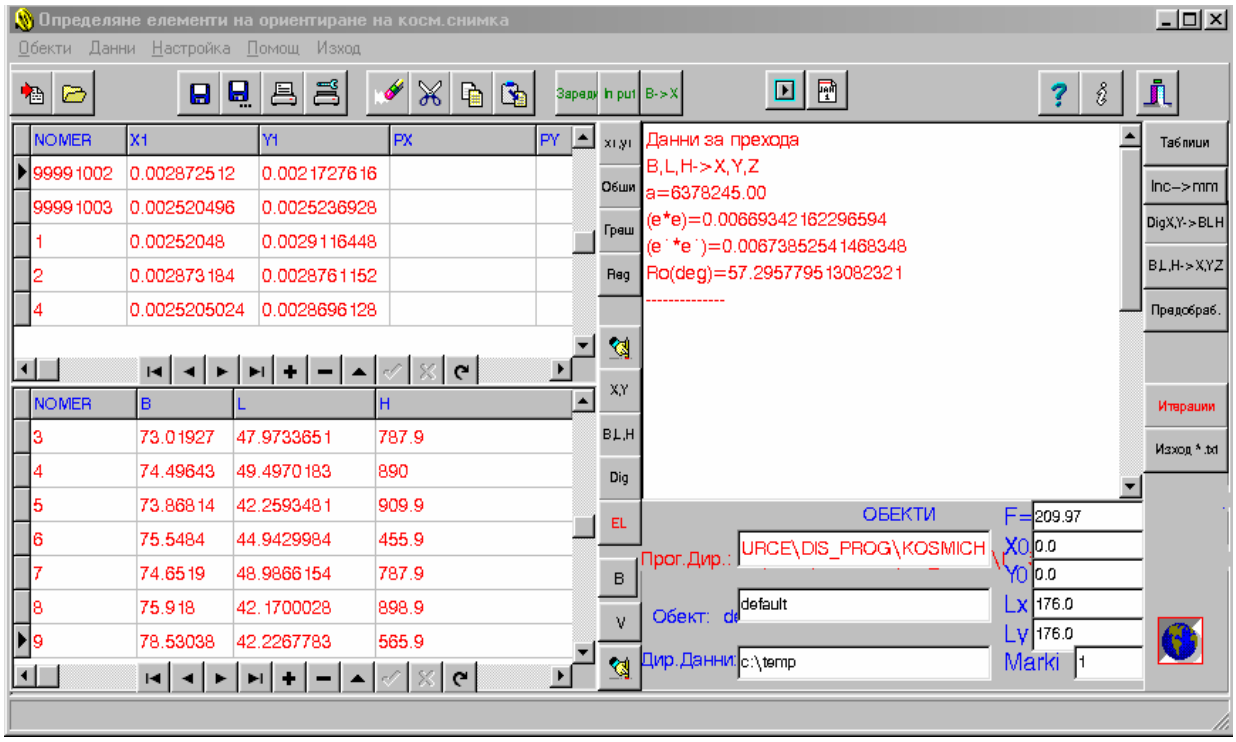
The questions, about the choice and determining of an adequate algorithm scheme, are important when creating such education systems. The following factors are decisive for the efficiency of the simulation learning system:

- Good knowledge about the identity of the photogrammetric process;
- Using contemporary ways and tools for formalizing the process and the phenomenon at its detailed description.

The following conclusions can be made from the said above:

1. Developing the information technology further helps the creating of simulation systems for improvement of the education process.
2. Using bifurcated algorithms and graphical interface leads to extension of the possibilities of the simulation system and enhancing its efficiency.

An experimental model of such simulation learning system for creating an analytical model of a cosmic picture, as well as, possibilities for elaborating the incoming and out coming of data are shown on fig.4.



(fig.4)

The simulator achieves the following actions:

- the task of creating analytical model of a cosmic picture (space photos) is solved using a relation data base;
- the elements in orienting about the cosmic picture are determined;
- the technological stages are traced and the errors are visualized;
- the model can be replayed many times.

Bibliography

[1]- **ЛОБАНОВ, А.Н.** Фотограметрия, НЕДРА ,1984

[2]- **БЕК, Л.** ,Введение в системное программирование, МИР, 1988.

[3]- **Лобанов**, **А.Н.,** Аналитическая фотограметрия", НЕДРА, 1982.

[4]- **Ulead GIF-animator,** User guide,1999.

[5]-Microsoft Front Page, User guide,2000