AMERICAN JOURNALS
Open Access, Peer Reviewed Journals

American Journal of Technology and Applied Sciences
ISSN (E): 2832-1766| Volume 18, | November, 2023

USING A DATA BANK THAT AUTOMATES DIGITAL MAPS IN THE ArcGIS APPLICATION

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A B S T R A C T

Creation of digital maps and visualization of the socio-economic processes taking place in the world and its various regions on the basis of modern GIS (geo-information systems and technologies) is of great importance. Also, one of the important issues is the wide use of cartographic support methods in the study and analysis of the automated data bank. In this regard, among other things, in the study of agricultural, natural and socio-economic problems related to the development of the economy in the developed countries of the world, it is recommended to obtain reliable information about the territory with the help of electronic maps of the automated data bank. special attention is paid to the provision as the urgent tasks of modern mapping. To collect, store, analyze, process, evaluate and create a geodatabase using modern geo-information systems and technologies in world mapping in various fields, including the mapping of agricultural sectors, to create data visualization and electronic maps. great attention is being paid to conducting targeted scientific research aimed at the development of effective methods. This article talks about the important tasks of developing modern technologies of geo-information system and cartographic provision methods in improving the method of creating electronic maps describing the agricultural sector, taking into account socio-economic conditions.

K E Y W O R D S

Electronic map, geoinformation system, analysis, processing, remote sensing, programming platforms, data bank.

Introduction

Currently, the development and modernization of computer and information technologies, telecommunications networks, and the penetration of data transmission into Internet services are becoming priorities in our republic. The speed of information exchange in economic sectors and society, the high demand for access to world information sources, the need to computerize educational processes and people's daily life, as well as the need to ensure the preservation of information and databases are considered very important [1,2,3].

The Main Part

Until now, certain works have been carried out in our country to ensure the implementation of programs and activities established by government decisions on the development of information and communication technologies by companies, societies and enterprises in the communication and information system, and the following indicators have been achieved [4,5,6,7].

According to the data of the State Committee for Communication, Information and Telecommunication Technologies in January 2021, there are the following indicators for the introduction and development of the information communication system in our republic:

- All PBXs have been transferred to digital service;
- the speed of connection to the international Internet network is 11.2 Gbit/sec;
- the total number of operators and providers is 924;
- 17,400 "UZ" domains;
- 274 economic entities engaged in software production;
- 208 software programs to be registered annually;
- 376,000 digital signature keys and certificates;
- 195 state information resources;
- 110 state information systems;
- 194 state interactive services;

State registration of the above-mentioned telecommunications and data banks, determination of their legal address, study of service quality, economic evaluation of objects and collection of all cadastral data and their database indicates the need to maintain a cadastre of data banks for the purpose of formation. All types of data banks are included in the initial list. In this, the main indicators are recorded, the content of these indicators is determined by the relevant normative documents approved by the Ministry of Information Technologies and Telecommunications Development of the Republic of Uzbekistan in agreement with the State Committee "Yergeodezkadastr". According to the results of the registration, a passport will be drawn up for each facility. Descriptions of quantity and quality are put to use during the main accounting and accounting and are carried out according to any data bank in operation (used for industrial purposes) [1,2,8,9]. Further changes in the descriptions of data banks are recorded in the current account. Taking into account the quantitative and qualitative characteristics of data banks includes their classification according to their economic, technological and ecological characteristics, the composition of these characteristics is reflected in the normative documents on maintaining the state cadastre of data banks [10-16].

In carrying out these works, the cadastre of data banks is the following object:

- international, intercity, regional and district telephone and telegraph stations;
- trunk lines;
- communication network nodes;
- city communication network nodes,
- district telecommunications nodes and rural line facilities;
- stations and facilities of communication radio relay lines;
- satellite communication stations;
- receiving-transmitting radio stations;
- land radio communication stations with mobile facilities, personal radio call,
- mobile phone base stations;

- radio and television stations;
- cable broadcasting stations and networks;
- mail and special data banks

Results

Based on the results of improving the method of creating electronic maps based on automated systems in the ArcGIS program:

— foreign and domestic experiences in electronic and digital mapping using the automated data bank in the ArcGIS program have been improved;

— Optimized on the basis of the technological system of agricultural mapping by remote sensing of the earth based on electronic and digital mapping;

— improved based on the development of a technological system for creating and integrating a data bank using automated systems in the ArcGIS program;

— Technological systems for creating electronic and digital maps of agriculture were developed taking into account the "ArcGIS Online" platform.

The practical significance of the research results, scientific conclusions and recommendations, as well as the electronic and digital maps created, are explained by the development of targeted state programs and practical measures aimed at the development of agriculture by mapping agricultural sectors and infrastructure objects.

Conclusion

Based on the research, the following conclusions were presented

1. The main indicators of electronic and digital maps in the databases are the address of the databases, their location by coordinates, land parcel information, technical equipment, service zones of networks, environmental status and economic performance of the object. These are the indicators.
2. Modern GAT technologies are an effective approach to the creation of electronic and digital maps and to the performance of tasks and analysis of problems facing a particular organisation or team. Automatic numbering of the data of the databases, representation and prediction of cartographic layers, the data was reduced to the topographic base according to the coordinates, and when submitting to the unified cadastral system it ensures overlapping of the coordinates of each object. .
3. In the development of programs of electronic and digital maps of data bases, projects on creation of a single interactive map were carried out primarily in connection with cartographic systems of the land cadastre and the cadastre of buildings and structures, and cadastral maintenance was carried out in their cartographic data. "An algorithm was developed for this purpose. When developing the algorithm for cadastral database maintenance and map creation, the main attention was paid to the cartographic models and the database system, and a three-level interdependent system was created.

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