Geodesic Information Systems And Software

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Abstract— Mankind has been experiencing an information crisis for the last few decades. It is getting stronger every year and is entering many spheres of human activity. Today, cartographers have extensive experience in creating topographic, geographical maps and atlases on a variety of topics, decoding aerial and space images, processing field measurement results, and collecting data in computer systems using information from many sources.

Keywords— geodesic information system, software, processes, hardware, automatic system, practical innovations.

1. INTRODUCTION

The fact that many types of data change over time makes it difficult to use a simple paper card. Today, only an automated system can guarantee the timely receipt and updating of information. In this case, modern GIS is a model with a large number of graphical and thematic databases, combined with model and computational functions capable of working on the basis of the database, the transformation of spatial data into a cartographic form, various conclusions. is considered to be an automated system that performs extraction and monitoring operations. Today, computer literacy has increased significantly among the general public. A GIS card differs from a regular paper card in that it is well-designed, computer-aided, inaccurate, and has a number of other advantages. Make any changes you want to the card, add new content and color, add and delete diagrams and other information, and more. things can be done. To do this, the author must be personally acquainted with the computer technology of mapping and try to create a map based on them. This technology of card creation today is, firstly - a significantly universalized, and secondly - a very rapidly evolving process, covering all areas of human activity. Through books in Russian and foreign languages that provide basic knowledge in the field of geographic information systems, and through monographs and conference proceedings on various aspects of GIS, researchers are increasingly introducing both control and practical innovations into the GIS system.

2. MAIN PART

To date, there are more than 20 definitions of GIS, each of which deserves special attention. The following definitions of GIS are available in online and periodical scientific journals and publications:

1. Albyer R. GIS is a set of hardware and software tools and human activities that can store, process, and describe geographic data. 2. Byerry J. GIS is an internally positioned automatic spatial information system designed to map, edit, and manage data.

3. Clarce K.C. GIS is a special case of an information system that consists of a database of sources in the form of points, lines, and fields for tracking spatially distributed events, processes, and happenings.

4. Degani A. GIS is a dynamically organized data system that combines many models used to spatially recall, graphically and cartographically modify data on computers in order to meet the specific needs of users within a clear concept and technology structure.

5. Konecny M. GIS is a system of individuals, techniques and organizational tools that collects, stores, processes and transmits data from geographical research and their results that are easy to use in practice.

While many of these definitions contain similar words and phrases about GIS, there are some that are not used at all. This means that GIS is becoming more and more complex, making it difficult to understand and imagine without mastering it more deeply.We can give the following definition of GIS, which is close to the subject: GIS is the collection, processing, storage, updating, analysis of topographic and cartographic data on nature and society, land resources and other areas, and is a hardware-software automated complex that provides imaging.The simplest way to know GIS is to work with it, to learn its capabilities in the process. In fact, GIS is a single technical tool that can be used not only to beautifully equip the card, but also to solve some unresolved issues. That is why the potential of GIS is huge. This means that GIS is an advanced, highly computerized, accurate system that can process and process large amounts of information about a real being in its own database using a variety of methods and techniques. Spatial objects are understood to be space objects and events that are connected to a spatial point, that is, the location, shape, and size of these objects relative to other objects. Spatial data is information about the location and geometry of objects in space and in relation to other objects. There is no equivalent system for GIS today, as it can be applied to all areas of knowledge. Here are some definitions of GIS in other disciplines.

In natural geography, GIS explains the nature of natural and socio-economic phenomena, their origin, interdependence and distribution on the Earth's surface, and facilitates the implementation of these methods; recommends a spatial approach to any research and views. Through GIS, it is becoming a powerful tool for solving the important tasks facing geography. In this discipline, GIS can be described as an interactive system that collects, organizes (organizes), stores, processes, evaluates, describes, and disseminates data, and is based on them as a means of obtaining new information and knowledge.In social and economic geography, GIS can be used to collect, process, and describe statistical data. Generalization of socio-economic maps is

carried out through the use of mathematical methods and automation, which ensures that economic geography has a real geographical orientation and is separated from the formal-statistical method. In this discipline, GIS is considered to be a set of hardware and software tools that can store, process, and describe the results of geographic data, including human activities.

3. CONCLUSION

In the geography of foreign countries, the process of collecting information of different characteristics and languages of different countries, linking them to each other, comparing them with existing sources. This requires the creation of a systematic automated "knowledge bank". In the field of science, GIS is considered to be a human-machine complex with hardware and software, which can be used effectively in solving scientific and practical geographical problems related to data collection, processing, imaging and distribution, modeling and forecasting. understood as a mining system.

4. REFERENCES

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