## Short Report

## THE GEOINFORMATION APPROACH

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The geoInformatics has much in common with computer science, the geoinformation approach is close to the information approach.

The information approach includes use: information technologies, information systems, information units, information models, information monitoring, information modeling, information flows - as means for the decision of practical tasks, reception and accumulation of knowledge.

The feature of the geoinformation approach is caused by a line of the factors, among which we shall note the following. The ideology of geocomputer science is ambiguous. The integration of the information is based on the spatial data. The integration of technologies is based on technologies of systems of the automated designing with addition to them of cartographical transformations.

To processing in geoInformatics apply the specific data and models: the geodata, digital models and digital maps.

The digital models and digital maps have integrating function, uniting the references diverse information resources.

The integrating function enables creations гипертекстовой of gipertextual structure hiding behind the graphic and cartographical image extensive information space. This space includes set of the relations between objects of the real world and their attributes

Some kinds of the geoinformation have not analogues in computer science.

They require application of the special information systems (GIS), special methods of processing, special methods of modeling.

The processing of the information received in the different periods of time is characteristic for geocomputer science.

The volumes both complexity of the geodata are great also traditional methods of the analysis of the information become unacceptable.

The reduction of information loading on the user is reached by use of visual means of representation and analysis.

In geoInformatics the certain task of revealing and use of the spatial relations is put. All this defines specifity of the geoinformation approach.

At processing the spatial information is great of weight of interactive modeling.

The geoinformation approach includes application of common information and special

geoinformation methods, but in different combinations. At first we shall stop on the common or combined methods and technologies:

Use both information, and geoinformation technologies. Use of information and geoinformation systems. Use of logic information units for the description of processes of processing and storage both usual information, and geoinformation.

Use of technologies of designing within the framework of systems of the automated designing and in frameworks GIS. Use of the interface of communication(connection) between databases for communication(connection) between GIS and other information system.

Application as a specification - geodata. The tax of the information with prevalence of technologies of the tax from area of sciences about the Earth.

Use of databases both in a usual mode, and in a mode of associative communication(connection) with графикой. Visualization of the information with wide use of cartographical images. Use of integration of the data and integration of technologies. Use of satellite technologies as tool of monitoring and management of real objects.

Adaptation of telecommunication technologies for a storage and transfer of the geodata. Combination of technologies of the automated designing and mapping. Reception of cards, decision of practical tasks and reception of new knowledge.

Revealing of spatial heterogeneity at the expense of a finding of the spatial relations between real objects and territories.

The discrepancy of the geoinformation approach consists in, following

Integration of the data on the basis of a cartographical basis, and integration of technologies on the basis of systems of the automated designing.

The information approach is directed on processing of the information in general and decision of any tasks. The geoinformation approach is directed on processing of the spatial information, geodata and decision of tasks connected to a situation by accommodation and moving of objects on a terrestrial surface.

It is directed on the decision of tasks connected with by occurrence, course both disappearance of various processes and phenomena on a surface of the Earth

The information approach plays a role of the intermediary in processing initial yes collected by the user and decision of tasks by the put user.

The geoinformation approach plays a role of the applied tool at the decision of tasks of the user.

The information approach in the greater degree is focused on processing, regardless to the appendices. It determines its tool character and allows to consider as the tool of the intermediary (programmer).

The geoinformation approach is focused not only on processing, but also on generalization and analysis of the information with a target output - reception of the administrative information or information for support of acceptance of the decisions.

It defines its close communication with the appendices and allows to consider as the tool of the user.

Historically geoinformation approach has appeared later and in itthe lacks of the information approach are taken into account and on the contrary the specifity allowing to find and to use of the spatial relation, for the decision of a complex of tasks is added.

The factor of coordinate environment in the information approach is absent also its account demands adjustment of application of special, rrather difficult algorithms

The factor of coordinate environment is present in the geoinformation approach. In it the tasks combining local cartesian coordinates with криволинейными геоцентрическими in coordinates are solved.

The information approach is directed on revealing and modeling of communications. The geoinformation approach is directed on revealing and use of the relations, among which a conducting role play spatial.

In the information approach the binding aspect is characteristic. In the geoinformation approach is characteristic интеграционный aspect.

Thus, the geoinformation approach has the specifity and orientation. From here it is necessary to choose in what cases more effective geoinformation approach, in what cases it is necessary to apply the information approach.