



## **THE STRUCTURE OF THE ECOLOGICAL INFORMATION PROCESSING DATABASE AND ITS ORGANIZATION**

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**Abstract:** *All data management functions based on the principle of centralized management of the database are transferred to a single management program - the database management system (DBMS). Based on the adherence to this principle, the effectiveness of the use of IS is that all processes are carried out through DBMS.*

*According to the principle of separation of the representation of the database of environmental information from their processing, the representation of the data is prepared outside the application and stored in the database. This in turn simplifies the programming process, reducing the amount of information needed for the program. Improves database management, etc.*

*Thus, the structure of the database was created on the basis of the principles discussed above, that is, the interrelationships between the logical, physical and programming elements of IS are developed.*

**Keywords:** *ecological information, information system, information security, data processing.*

### **Introduction**

The components [1-3] of an IS are determined by the nature of the tasks assigned to it and the nature of the problems to be solved. Therefore, the main tasks of the database are:

- storage and protection of information [4-7];
- constantly change information (update, add new data, delete redundant data, etc.)
- search and selection of data according to the requirements of user and application programs;
- processing of the identified data and output of the corresponding information in the corresponding way, etc.

As mentioned above, the information is stored [8-12] in a database. database - a set of data that are interconnected in a certain order, independent of applications.

Like any card file, the database is made up of records. Records, on the other hand, are formed from platforms in turn. While writing is the smallest unit [13-15] of process for exchanging data between random and external memory, field is the smallest unit of data processing.

Creating a database differs from creating simple files in two ways:

- representation of record fields is stored together with data;
- special methods are used to search for information.



### Main part

It is not possible to perform various operations with the database operating in the operating system environment. For this reason, a special set of applications based on the operating system has been created. This complex is called a database management system. A DBMS is a set of programs and language tools designed to create, maintain, and use a database.

The main part of DBMS is the management program. This program automates all the processes associated with establishing communication with the database. With the launch of DBMS, its management program is always in main memory and organizes the processing of requirements, ensures the order of their execution, establishes links between applications and the operating system. Controls the execution of relevant actions from the database, and so on. The main function of the management program is to organize the parallel execution of the requirements coming to the database.

Ecological information is divided into incoming and outgoing information according to the level of management.

Incoming information is information that is used in the primary flow for environmental and management functions and issues coming to the organization (structural units) from outside.

Outgoing information is information that is transmitted from one management system to another.

An information is both information coming in for users and information coming out for those who produce it. In this case, the information is represented in the following forms: alphanumeric (text) - consists of alphabets, numbers and special characters, and graphic - graphs, diagrams, pictures.

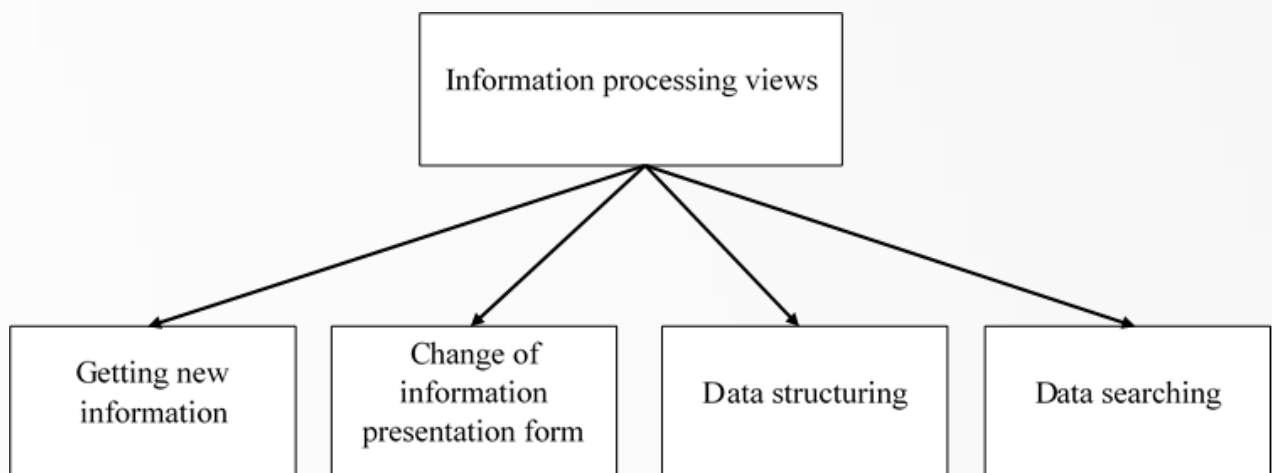


Fig 1. Information processing.

Physical media are paper, magnetic disks, and screen images.

Information systems consist of a communication system that collects, transmits and processes information about an object, allowing employees at different levels to perform and manage their functions.

Information systems are created for a specific object. An effective information system takes into account differences in levels of management, areas of action, as well as external circumstances, and provides each management level with only the information it needs to perform an effective management function.



## **Conclusion**

The automated information system of data processing in the process of research activity involves the introduction of certain digital technologies. This research is a set of technical, software and organizational measures aimed at automating information processes in ecological information systems. The aim of the research is to create an integrated information system based on the use of modern digital technologies to improve the efficiency and quality of ecological activities of the system of preparation, reception, processing, transmission and registration of ecological information.

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