SOFTWARE AND ITS TYPES, STRUCTURE, STRUCTURE. MODERN PROGRAMMING LANGUAGES.

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Abstract: Software is the second most important part of a computer, which includes a set of data processing programs and documents necessary for the use of a computer. In this article, software and its types and modern programming languages are discussed. information is provided**.**

Key words: Software, computer, software interface, System software, Application program package.

Software is a tool designed to perform a specific task on a computer. it is a collection of software and documentary tools for creating and using data processing tools. It is this software that destroyed the term "dry iron". Software is a collection of all programs used by a computer. In English, this term means software, i.e. "soft" - soft, "ware" - "product".

Interconnection between various technical parts of a computer is called a hardware interface, and interconnection between programs is called a software interface, and interconnection between hardware parts and programs is called a hardware-software interface. When talking about personal computers, it is necessary to consider the third participant in working with the computer system, that is, the person (user). Human computing interacts with both hardware and software tools. The interaction of a person with a program and a program with a person is called a user interface. Now let's get acquainted with computer software. All software can be classified into three categories; — system software; — application software; — hardware tools of programming technology.

System software is a set of programs that ensure the operation of computing and computer networks.

Application software (Application program package) is a set of programs designed to solve a certain class of problems in a specific subject area.

Hardware tools of programming technology are tools consisting of a set of special programs used in the process of developing new programs. These tools serve as the developer's hardware tools, that is, they are designed to develop (including automatically), maintain and deploy software.

The main software is supported by a set of additional installed service programs. Such programs are often called utilities. Utilities are programs designed to perform additional data processing

operations or provide computer services (diagnostics, hardware and software testing, disk usage optimization, etc.). The most commonly used computing software is application software . The main reason for this is the widespread use of computers in all areas of human activity, the creation and use of automated systems in various subject areas. Application software can be classified as follows.

Composition of computing system (computer and networks). The composition of the computing system is called configuration. Computer hardware and software are usually studied separately. Therefore, hardware configuration and software configuration of computing systems are studied separately. Such a division is important for information technologies, because in many cases the solution of a problem taken separately can be provided with the help of both hardware and software tools. Hardware support. Hardware support of computing systems includes devices and tools that make up the hardware configuration. Modern computers and computing complexes (complexes) consist of a block-module construction (structure). The hardware configuration necessary to perform certain tasks can be assembled from ready-made blocks and parts. Depending on the location of the devices relative to the central processor (Central Processing Unit, CPU), we divide them into external and internal devices. External devices, as a rule, are data input and output devices, which are usually called peripheral devices. In addition, devices designed for long-term storage of data are included in external devices. Consistency between individual blocks and parts, adaptability in working together, is performed with the help of transition hardware-logic devices called hardware interface. The standards defined for the hardware interface in computing are called protocols. Thus, a protocol is a set of specifications developed by the device's creators for the successful and coordinated operation of the device with other devices. Software A program is an ordered sequence of instructions. The task of every program created for a computer is to control hardware. At first glance, it seems that the program has nothing to do with the devices, that is, for example, although the program does not require input from input devices and output to output devices, its work is still based on controlling the computer's hardware devices.

With the advent of electronic communication and computer networks, these classroom programs became very important. They communicate with computers over long distances, facilitate e-mail transmission, teleconferencing, facsimile transmission, and perform many tasks on computer networks. Computer security tools. This broad category includes protection against data breaches, as well as protection against unauthorized access, viewing and modification of data. These programs include, for example, antivirus software.

The rapid development of computing technology has led to the creation of "rapidly developed" software. Examples of these include Borland Delphi and Microsoft Visual Basic programming languages. The main task of the Rapid Application Development (RAD system) environment is that the complex code sequence used in programming is not developed by the programmer, but rather by the program itself, the user can only change the object. intended. Creating a program with this system is very convenient and easy. Let's take a look at one such programming language, Borland Delphi. Pascal is the basis of the Delphi programming language. The Pascal language was created by N. Wirth in 1969 and was later modified by the American company Borland and named Turbo Pascal. As a result of the development of Turbo Pascal, object-oriented programming was introduced and it became known as Object Pascal.

As a result of the development of computing techniques and technology, a new Delphi programming language was created by the Borland company. Here, one more thing should be emphasized. Object-oriented programming means programs created by sorting them, creating a

sequence, and sequentially writing the appropriate code using various tools of programming tools (components, objects).

The Delphi 7 programming language is a program processing environment that runs on the 32-bit Windows operating system. It includes Object Pascal, an object-oriented programming language. Delphi includes visual projects, processing of various state procedures, and time management in program processing. To start Delphi, the Pusk (Start) — Program — Borland Delphi 7 commands are executed. When we start the Delphi programming language, we see its working screen view. From the program environment, there is a menu of commands, command buttons, a palette of components, an object inspector, a form, and editor windows behind it. almost covers the screen.

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