

GENERAL INFORMATION ABOUT OPERATING SYSTEMS

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Abstract: This article provides an overview of operating systems. They refer to a set of programs that use CLI (text interface) and GUI (visual interface) methods. The main tasks of the operating system, such as disk management, information sharing, and providing a user interface, are listed. Details are provided on popular operating systems such as MS-DOS, UNIX, Windows, Linux, Mac OS, Android, and iOS. From this article, you can get a general understanding of the origin, principles of operation, and features of these systems.

Keywords: Operating systems, CLI (text interface), GUI (visual interface), Disk management, Information sharing, User interface, MS-DOS, UNIX, Windows, Linux, Mac OS, Android, Computers, Smartphones, Tablets



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INTRODUCTION

In this work, general information about operating systems is given, their types, origin, and their main tasks are emphasized. At the same time, information is given on several popular operating systems, their structure, principles of operation and what devices they are designed for. Information such as the operating systems described, their description, and their production is included.

The operating system is a set of programs that allow the user to communicate with the computer, manage information and programs stored in the computer's memory, and control computer devices.

CLI (command line interface) is a text-based way for users to work with computers.

GUI (graphical user interface) is a visual way for users to interact with a computer (including windows, buttons, menus, images and texts).

Operating system tasks

- controls actions performed with disks installed on the computer. For example, it partitions, formats, labels disks.
- receives information from the input device, sends it to the output device to present ready information.
- controls the interaction between the device and the software, as well as between the devices
- provides and controls the user interface consisting of graphic and visual organizers on the computer.
- manages various applications and resources with the help of application programs on the computer.
- controls the storage of files and folders on the memory device, detects free space [1-8].

Operating system environments for PCs and laptops

MS DOS is a disk operating system (DOS) developed by Microsoft in the 1980s for personal computers. This single-issue operating system runs on a CLI interface.

UNIX is a multi-problem and multi-user operating system, in the UNIX operating system each problem is solved using a separate utility. The operating system was developed by Ken Thompson and Denis Ritchie at Bell Labs in the 1970s.

Windows is a family of operating systems developed by Microsoft for personal computers that provide multi-tasking and multi-user GUI capabilities. Currently, this operating system is also installed on monoblocks, laptops, some tablets and mobile devices.

A network operating system based on the Linux-Unix operating system. Linux was first developed in 1991 by Linus Torvalds. One of the important features of Linux is that it is freely distributed under the GNU Public License under the Free Software Foundation. It is mainly used to create servers.

Mac OS (Macintosh operating system) is a family of operating systems with a graphical interface. Developed by Apple for the Macintosh line of computers. The release of the graphical interface version of Mac OS led to its popularity.

An open source operating system based on the Android-Linux operating system. In addition to smartphones and tablets, the Android operating system is also installed on electronic books, smart watches, fitness bracelets, laptops, netbooks, smart glasses, smart TVs, and projectors [8-16].

IOS mobile operating system has been produced by Apple since 2007 for a number of devices such as smartphones and tablets. The operating system, the first versions of which were installed on iPhone and iPod touch devices under the name of iPhone OS, has been managed under the name of IOS since 2010 [1-16].

Summary: The article provides an overview of operating systems and their various features. This information provides a broader understanding of operating systems designed for computers, smartphones, tablets, and other devices. This summary is a good starting point for learning about operating systems and can be useful for teachers, students, and general users.

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