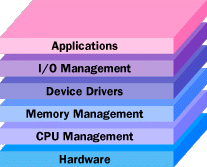
**Operating System Functions**



**The operating system controls every task your computer carries out and manages system resources.**

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At the simplest level, an operating system does two things:

1. It manages the hardware and software resources of the system. In a [desktop computer](https://computer.howstuffworks.com/pc.htm), these resources include such things as the [processor](https://computer.howstuffworks.com/microprocessor.htm), [memory](https://computer.howstuffworks.com/computer-memory.htm), disk space and more (On a [cell phone](https://electronics.howstuffworks.com/cell-phone.htm), they include the keypad, the screen, the address book, the phone dialer, the battery and the network connection).
2. It provides a stable, consistent way for applications to deal with the hardware without having to know all the details of the hardware.

The first task, managing the hardware and software resources, is very important, as various programs and input methods compete for the attention of the **central processing unit** (CPU) and demand memory, storage and input/output (I/O) bandwidth for their own purposes. In this capacity, the operating system plays the role of the good parent, making sure that each application gets the necessary resources while playing nicely with all the other applications, as well as husbanding the limited capacity of the system to the greatest good of all the users and applications.

The second task, providing a consistent application interface, is especially important if there is to be more than one of a particular type of computer using the operating system, or if the hardware making up the computer is ever open to change. A consistent **application program interface** (API) allows a software developer to write an application on one computer and have a high level of confidence that it will run on another computer of the same type, even if the amount of memory or the quantity of storage is different on the two machines.