Can a computer have 2 operating system?

Yes! Why not? You can install more than two operating system on your computer.

Dual booting is a basic process that can be carried out on Windows, Mac OS X, and Linux hardware. Continue reading to learn how to dual boot your computer in just a few quick steps.

What does dual boot mean?

When it comes to computers, the terms "booting" and "starting" are often interchanged. However, when it comes to dual-booting, the term refers to a small program controlled by the motherboard known as the "boot manager."

When you turn on a computer, the power supply unit (PSU) first powers up the motherboard, which is responsible for managing and holding all of your other computing components together. This is the motherboard letting you know it is on if you see a black screen with text and potentially logos after you turn on your computer but before it gets to the Windows login screen.

The motherboard scans all of the associated components, including graphics cards, optical drives (CD or DVD), and hard drives. The motherboard recognizes that you will most likely want to boot into an operating system if it has determined the state of your hardware. The motherboard does this by passing the driving information to the boot manager.

How dual-booting works

The operating system of your computer is usually installed on its internal hard drive. The BIOS loads the boot loader from the hard drive when you turn on your computer, and the boot loader boots the installed operating system.

There is no limit to how many operating systems you can install — you aren't limited to just one. You should install an operating system on a second hard drive in your machine and choose which hard drive to boot from in your BIOS or boot menu. You will also use external storage media to boot an operating system, such as a live Linux system or a Windows To Go USB drive.

You can have different operating systems on a single hard disk, even though you only have one. You should have one partition for one operating system and another partition for another operating system by partitioning the drive into several partitions and dividing the drive between them. (Many operating systems, in fact, use various partitions. The point is that you're allocating a portion of your hard drive to one operating system and another to another).

The Grub boot loader is usually installed when you install a Linux distribution. If Windows is already installed, Grub loads instead of the Windows boot loader at boot time, allowing

you to choose which operating system to boot. If you have several versions of Windows installed, you can use the boot loader to choose between them.

Why bother dual-booting?

Different operating systems serve different purposes and provide different benefits. Installing several operating systems helps you to easily switch between them and use the most appropriate tool for the job. It also makes dabbling and experimenting with various operating systems much simpler.

You might, for example, install both Linux and Windows and use Linux for development work while booting into Windows when you need to use Windows-only software or play a PC game. If you like Windows 7 but want to try Windows 8.1, you can install both and choose between the two at boot time, knowing that you can still go back to Windows 7. If you have a Mac, you can install Windows alongside Mac OS X and boot into it if you need to run Windows-only programs.

Instead of setting up a dual-boot system, you may use virtual machine software, so a dual-boot system allows you to use both operating systems on your hardware at full, native speed. You won't have to deal with the overhead of a virtual machine, which is particularly inconvenient when working with 3D graphics. The disadvantage is that you can only use one of the operating systems you have installed at a time.

Switching between operating system

If each operating system is installed on a separate drive, you can switch between them by booting to a different drive each time. This is uncomfortable, and you'll almost certainly have two operating systems installed on the same drive, so a boot manager can help.

By rebooting your computer and choosing the installed operating system you want to use, you can switch between your installed operating systems. When you start your machine, you can see a menu if you have different operating systems installed.

Advantages and disadvantages of dual boot

Advantages of dual boot

Smartphones and tablets are fantastic these days. They combine a CPU, GPU, RAM, storage, high-speed modems, wireless connectivity, high-resolution displays, and power supplies into a single device that fits into a small backpack.

There are many operating systems from which to choose. Smartphones and tablets can only run a single operating system, unlike desktops and notebooks, which can run Unix, Linux, Windows, or Mac on the same hardware. If you want to move to a different operating system, you'll almost always need to upgrade your hardware.

Dual-booting, in theory, removes hardware redundancy and forces developers and customers to minimize the number of devices they own and maintain. This equates to at least a few hundred dollars in savings, and it can be much more.

Some applications, on the other hand, are only compatible with a specific operating system. Some applications aren't even available for one of the most widely used operating systems. You can fix this issue by dual-booting from one operating system to another and running the application in the most appropriate environment without having to buy extra hardware or software.

Disadvantages of dual boot

There are a number of reasons why you should avoid dual booting on your device. Dual booting, in fact, has some drawbacks. The first is physical space. Running another operating system necessitates the installation of that operating system (along with all of its drivers and files) on the device. The amount of storage available in the system is drastically reduced as a result of this.

Because applications are sometimes incompatible between the two operating systems, you may need to install separate versions of each. This would necessitate not only the purchase of two copies of each application, but also the provision of storage for each version. You'll also have to invest time and bandwidth to keep them up to date. Developers would now have to spend time correcting and maintaining two separate base code sets for their applications, slowing the release cycle greatly.

Storage systems are sometimes incompatible with two operating systems or are not mapped to the same location. This means that files created, downloaded, or edited in this operating system will not be available in other operating systems unless you manually switch between them, which most people do by submitting a copy of the file via email. Furthermore, the file formats used by one version of an application may not be compatible with others.

The last "downside" we'd like to note is the passage of time. Turning off one operating system and then restarting another takes time. It may only take a minute or so, but it is still a considerable amount of time. Some dual-boot systems can run both operating systems at the same time, allowing for quicker data transfer, but these configurations are uncommon and typically occur while sharing resources. What operating system can operate and use LTE modems? What is a global positioning system? What does it sound like?

Finally, dual booting may seem to be a good idea, but it can be costly and has more drawbacks than benefits. Not to mention the fact that Microsoft and Google are attempting to stop anyone from selling a device that can dual-boot into their respective operating systems.

When and why to perform dual boot

Dual-booting is popular since there is no one-size-fits-all solution for operating systems. While any modern OS would cover the average person's day-to-day computing needs, dual-booting provides a versatile solution for those who need to use specialized programs or want to experiment with more experimental operating systems without compromising computer usability.

Windows 10 is the most recent and best version of Windows, with excellent performance and a large number of programs and games to choose from. Not all older applications, though, have made the transition. Old games that haven't received any updates from their developers are particularly likely to perform badly in Windows 10. When a new version of Windows is released, the graphics tools and drivers are refreshed as well. If the apps don’t get updated by their developers, they may not work.

You would want to load Windows 7 alongside Windows 10 or another OS from the boot menu in this case (more on this below). MacOS is popular because of its ease of use and features, while Linux is preferred by those who want total control over their operating system. Dual-booting enables you to switch operating systems on the fly and get the most out of your machine, regardless of your preferences or needs.

It is critical that you back up your files and papers before trying any of the instructions in this guide. You can save them to an external drive, which you can then disconnect from your computer, or to the cloud, where you can use services like Google Drive or Dropbox. There's always the possibility of existing data being overwritten or deleted while installing new operating systems or repartitioning disk drives (dividing them into parts that can be used for different OSs), so it's best not to take the opportunity.