

# Should you choose Dual Boot or Virtual Machine?

Suppose for some reason you want to run two operating systems on your computer. There are two ways to run multiple operating systems on one computer: dual boot and virtual machine. If you're wondering whether to choose dual boot or virtual machine, please refer to the article below from TipsMake.

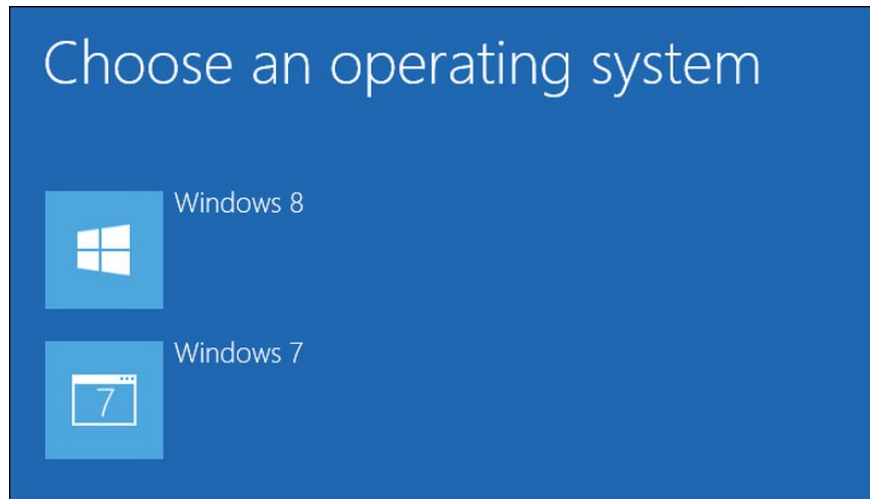
Both Dual Boot and Virtual Machine allow you to install multiple operating systems on a single computer. However, each method has its own advantages and disadvantages. So, if you're unsure whether to choose Dual Boot or Virtual Machine, continue reading this article from TipsMake to find the answer.



## 1. Dual Boot

Essentially, dual booting is the process of installing a different operating system on the same hard drive or external hard drive connected to the same computer. Since two operating systems cannot work on the same partition, we first need to create a new partition. Then, we use a bootable USB drive to install the new operating system.

The two operating systems cannot work simultaneously. To boot into the other operating system, we must restart the computer and select the operating system from the OS menu.



### *Advantages of Dual Boot*

The biggest advantage of Dual Boot is that it allows access to all computer resources. Whichever operating system we boot into has access to all active computer resources because no other operating system is running.

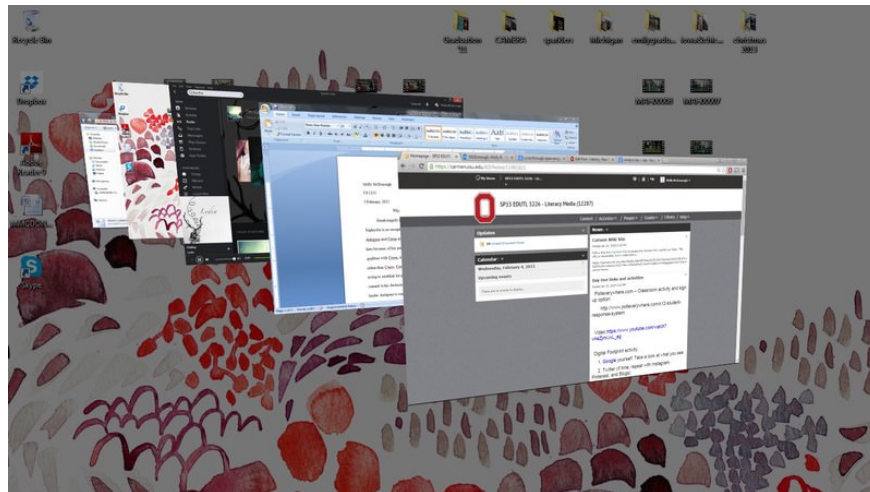
This implicitly makes Dual Boot the perfect choice for running resource-intensive programs such as games or video editing software.

### *Disadvantages of Dual Boot*

Besides its advantages, Dual Boot also has several disadvantages and limitations, including:

**- Restart your computer to access the other operating system.**

Each time users want to switch between operating systems, they have to restart their computer, which can be inconvenient. However, this can fix some problems such as applications or the system freezing or crashing.



**- The setup process is complex.**

Compared to using a virtual machine, the setup process for Dual Boot is much more complex. First, we have to create partitions and install the operating system using a bootable USB drive.

Not to mention the errors or conflicts that can occur during the installation of a new operating system. Overall, the dual boot setup process is complex and tends to be more prone to errors.

### **- Not safe**

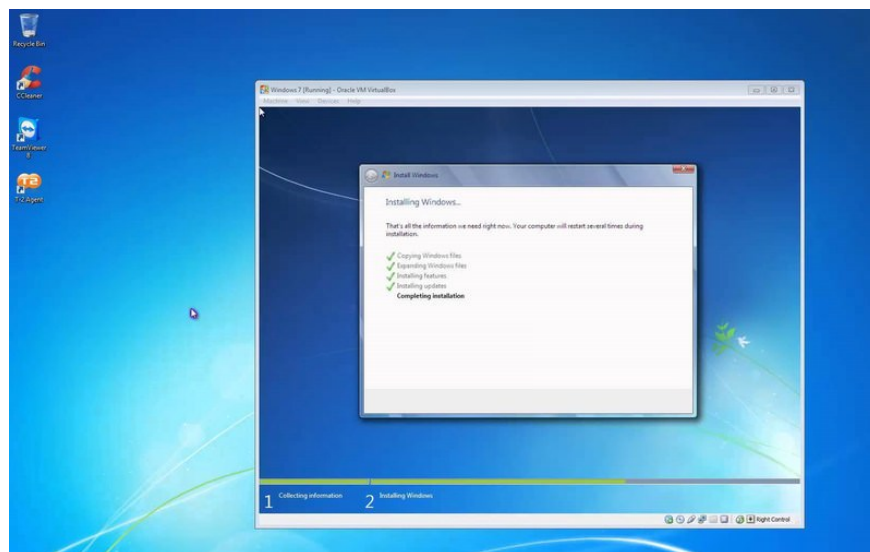
In a dual boot setup, if a problem occurs, it can affect the entire system. This is especially true if we dual boot the same operating system, which can lead to mixed data access, such as Windows 7 and Windows 10.

Furthermore, viruses can corrupt all the data inside the computer, including the operating system data. Therefore, we should not use Dual Boot to test new operating systems.

## **2. Virtual Machine**

A virtual machine creates a dedicated virtual environment within an operating system to run another operating system. This allows users to run two (or more) operating systems simultaneously without causing any conflicts.

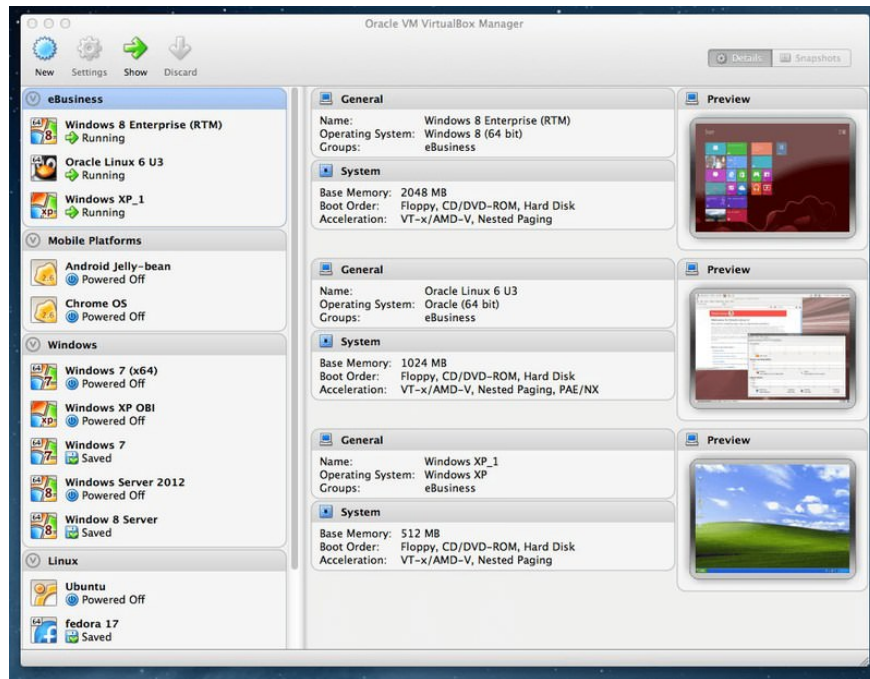
First, download and install effective virtualization software such as VirtualBox or Parallels and the ISO file of the operating system you want to install. The new operating system data can be stored on the same partition in a separate file.



### ***Advantages of virtual machines***

#### **- Easily switch between operating systems**

Because virtual machines are simply windows opened on the default operating system, we can easily switch between operating systems. This makes virtual machines the perfect choice for running multiple operating systems simultaneously.



### - Easy to set up

As mentioned above, we only need a virtual machine tool and an operating system ISO file to get started.

### - A safer environment

If an error occurs, it does not affect the entire system or the default operating system, even if the operating system inside the virtual machine is corrupted or infected with a virus.

### - Easy to start over

Deleting your profile or reverting to a previous snapshot is all you need to do to start over if the system crashes.

### - Move to a different computer

Because virtual machines store data and operating system settings in a single file, they can be easily migrated to other computers or operating systems. Almost all virtual machine programs provide an operating system migration tool.

### *Disadvantages of virtual machines*

The operating system running in the virtual machine does not have full access to available system resources. Because the virtual machine runs inside the host operating system, both must share system resources. Furthermore, running multiple operating systems in a single virtual machine can cause other problems and errors.

If you want to run multiple operating systems to be compatible with games or other large programs, virtual machines may be a letdown.

### *Should you choose Dual Boot or Virtual Machine?*

As mentioned at the beginning, each method has its own advantages and disadvantages, so we cannot find a definitive answer to this question.

### **When should you choose Dual Boot?**

- Choose Dual Boot if you want to use a secondary operating system for an extended period.
- If the file system for both operating systems is the same, all your data will be available for both. If the data is combined, it will be difficult to manage the separate data for each operating system.
- If you want to run resource-intensive programs in a secondary operating system, dual boot is the ideal choice.

### **When should you choose a virtual machine?**

- Virtual machines are suitable for testing and short-term use.
- Since both the host operating system and the virtual machine operating system can run simultaneously, virtual machines are a suitable choice if you want to work on both operating systems at the same time. In addition to working with separate applications in each operating system, you can also move data between the operating systems using the shared clipboard of both the host and virtual machines.

If you want to install and use multiple different operating systems, a virtual machine is the best choice for you.

- If you don't want to run 3D graphics programs, or large-sized programs and games, a virtual machine would be ideal.

The article above from TipsMake has introduced you to the advantages and disadvantages of Dual Boot and Virtual Machine . Hopefully, after reading this article, you will find the answer to whether you should choose Dual Boot or Virtual Machine.

There are many ways to create virtual drives to install multiple Windows operating systems on your computer, and creating a virtual drive using UltraISO is one of the most popular methods. Learn how to **create a virtual drive using UltraISO** if you don't already know how.

You finished reading the article "**Should you choose Dual Boot or Virtual Machine?**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.