

Using partitions to make Windows more reliable

Partitioning your drives is a way to make your computer more stable, efficient and is a good way to protect your data. Most people only partition when installing Linux or preparing the drive for multiple operating systems. What is partitioning? Partitioning is a method of dividing your harddrive into sections. If you think of your harddrive as a building with one big room, partitioning is like adding walls to divide the one big room into multiple smaller ones. Each of these partitions or sections will be seen and treated like totally separate and independent drives by your computer. For instance; if you divide your drive into two partitions, instead of seeing just C and D drives (D being the CD/DVD drive) when you open explorer, you will now see C, D and E drives. What are the advantages of partitioning? The advantages to creating multiple partitions on your harddrive are many but I will list the two most important. 1. It makes your operating system more robust and stable. Every time you write data to your harddrive errors are created. Most times, these errors are small and are overlooked or corrected by your operating system. Over time they can build up, slowing down and corrupting the system to the point of failure. This is the reason a lot of people find they have to reformat and reinstall every so often to keep their computer running smoothly. By confining most of the write operations to a separate partition (drive) you are helping to protect your operating system by keeping write errors on the system disk to a minimum. 2. Partitioning helps protect your data. As stated above sometimes operating systems fail and it becomes necessary to reformat and reinstall the operating system. When you do this you will lose saved data. How much depends on how often you do backups, but even losing a single file can be disastrous. By having your saved data on a separate partition (drive) you can reformat and reinstall the operating system without affecting or losing the saved data. Note: You should still create backups every so often. How do I partition? There are many ways to partition your disks but the easiest and safest (especially for beginners) way is using a program called [Partition Magic](#). The program is straightforward and very easy to use so no tutorial is needed. It will enable you to free up disk space, create partitions, resize partitions, merge partitions and create rescue disks. When you use the program be sure and create a rescue disk before making any changes. How many partitions should I make? The number of partitions that you make is a matter of preference and depends on how you use your computer. At the minimum you should have three partitions. One for your operating system, one for writing temporary data to and one for storage of your saved data. A good basic configuration that will work well for most people is to split your drive into four partitions and configure them as follows: Partition 1. Label: Operating system. This partition is where your operating system will reside Partition 2. Label: Swap. You want to use this partition for your Windows swap file. By having the swap file on a separate partition you speed up and protect the operating system. The swap file does a lot of write operations. You can either have a fixed size for your swap file or you can oversize the partition and let windows manage your swap file. A good rule of thumb for swap file size is 3 times the amount of physical memory. For example if you have 2 gigs of memory then create a swap file with 6 gigs of room. In XP to change the location of your swap file to the partition you have created for it, Click Start/Control Panel/System, then click on the advance tab and click the settings button under performance. Click the advance tab and click the change button under Virtual Memory. First click on the C drive listed at the top and select the radio button that says "no paging file" and click the set button then select the partition listed at the top that you want to use, click set and the ok button, restart and your done. Partition 3. Label: Temp. This is a partition for saving temporary data to such as downloaded files. I also like to use this for programs that let you set their temporary file location or cache files. Partition 4. Label: Storage. This is the partition where you want to save files for long term storage. I set all my programs to save to this partition. You can also create a partition for installing your programs to; there is really no limit on how many partitions you can make. I have on my system 3 drives split into a total of 11 partitions as follows: 1. XP, Operating system 1 2. Vista, Operating system 2 3. Ubuntu, Operating system 3 4. Swap XP, this is the swap for XP 5. Swap Vista, this is the swap for Vista (note: there is no swap listed for Ubuntu because it creates its own swap partition). 6. Programs, this is where I install all my programs. 7. Temp, this is the partition for temporary storage. 8. Storage, this is where I keep files I want to save such as programs I have collected 9. Pictures, I keep my pictures here 10. Music, I keep my mp3's here 11. Documents, this is where I save all my word docs and text files. By creating partitions not only do you make your computer more stable, but if something goes wrong and have to reinstall the operating system, you won't lose your data. Paul

About the Author

I am a member of Usingyouros and consider myself fairly knowledgeable on various subjects relating to computers. That doesn't mean that I consider mine the only opinion or even the right one so I welcome opposing views.

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