

# Dual-booting

## Ubuntu 9.04 and Windows

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As Linux and specifically Ubuntu become more popular people are slowly trying it out and some even fully migrating to Linux from Windows and other operating systems. We are going to look at installing Ubuntu 9.04 on the same hard drive as Windows Vista and Windows XP, some problems we might run into and how to solve them.

### Getting Started

Since most people do not have a second hard drive we are going to take a look at installing Ubuntu on the same physical disk as Windows. This poses a small problem, your hard drive will need to be resized in order to install Ubuntu. We suggest you try Ubuntu out by selecting the Wubi install or by booting the Ubuntu Live to make sure it's something you want to use before doing an advanced installation.

It's also important to make sure all your data is backed up and safe to ensure if any problems arise you have your data.

Before we start make sure you have the following items available or completed:

- Defragment your hard drive in Windows by going to *My Computer*, right click on the C:\ drive, select *Properties*, click the *Tools* tab and select *Defragment Now*.
- A copy of the latest version of Ubuntu 9.04, available on DVD attached to the magazine.
- Your data has been backed up.
- A copy of Super Grub Disk, which can be downloaded at <http://www.supergrubdisk.org/index.php?pid=5>, this tool will be used if you receive a GRUB error when rebooting your computer.

### Hard disk organization

Ubuntu has a built in tool to automatically resize the remaining space on your drive during installation which we'll look at later in the article. However, Windows Vista comes with the ability to resize or "shrink" your hard drive without having to use third party applications. To get started in Vista, click the *Start* menu, right click on *Computer* and select *Manage*. If you receive a User Account Control message here, click *Continue*. Located in the left side of the window select *Storage* and click on *Disk Management*, you will find your physical disks

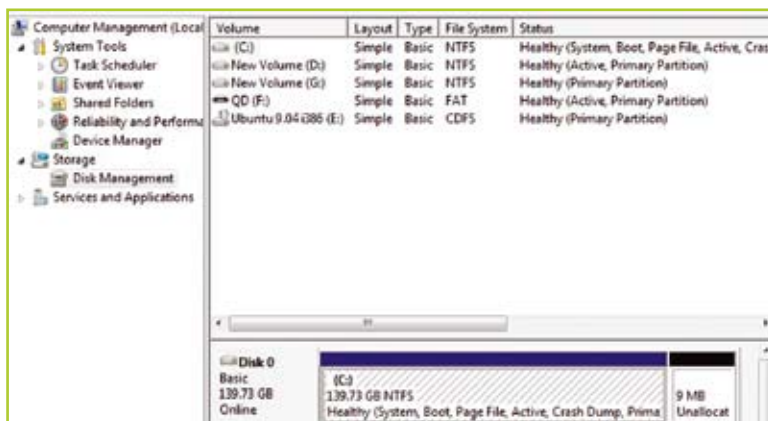


Figure 1. Showing disks in Windows Vista

and the partitions that exist on them (see Figure 1).

Select the partition you wish to modify, normally this will be your C:\ drive and then right click and select *Shrink Volume* to shrink the selected volume. A new window will appear, select the amount of disk space you wish to give your Ubuntu installation. If you have the available space to give you Ubuntu installation 10 GB - 20 GB that would be ideal, however if you are getting low on space 5 GB - 7 GB would be sufficient. Ubuntu has the ability to automatically resize your partition and install Ubuntu along side of Windows during installation. The Ubuntu installer will give your Windows partition a certain percentage of the disk space and then give the largest free space to Ubuntu as shown in Figure 2.

However, you can further customize the space for both operating systems by dragging the slider. It's important to make sure you keep enough disk space on both operating systems for future application installations.

## The installation itself

The next step is the Ubuntu installation, boot to the DVD and continue to answer the questions required until you get to the disk partitioning screen. If you are running Vista and decided to use the built-in shrink tool the Ubuntu installer will automatically find the free space and choose to use it. If you decided to have the Ubuntu installer automatically take care of your partitions you will see a screenshot similar to the one shown in Figure 2. You will want to choose the *Guided - resize disk* option (which should be checked by default) when installing. Depending on the size of your disk this could take a while, accept the warning that will appear and the installation will begin. From here just continue with the Ubuntu installation and follow the easy to use prompts, the Ubuntu installer will also ask you if you want to import settings and files from your Windows partition, you have the option to choose Internet Explorer

settings, My Documents, My Pictures, My Music and Wallpaper files. This is a really great help for first time people looking to move from Windows to Linux.

Once your installation has completed remove the DVD media and reboot, if all goes well you will be given a menu allowing you to choose between Ubuntu or Microsoft Windows.

Earlier we mentioned that you will want to have a copy of Super Grub Disk handy in case something goes terribly wrong with your installation leaving your system in an unbootable state. Common problems will be with the GRUB bootloader not correctly installing, this will leave your system with a GRUB error code upon reboot. Luckily, the Super Grub Disk will easily correct these issues without having to have deep technical knowledge.

Once you have booted to the Super Grub Disk you will be presented with a menu of options. These are just a few of the options on the Super Grub Disk menu that will help you solve problems if they arise.

- Super Grub Disk (WITH HELP :-)): allows you to show help options.

- Super Grub Disk (NO HELP :-|): for advanced users to hide help options.
- GRUB => MBR & !LINUX! (1) AUTO ;-): this option will install the bootloader to the MBR and look for an existing menu.lst file, you would probably want to try this option first.
- GRUB => MBR & !LINUX! (>=2) MANUAL |8-): same as the above option but if you have multiple Linux installations it will allow you to choose with one to boot.
- !WIN! :((( : Boots Windows

For detailed information on using the Super Grub Disk to repair GRUB problems, check out their website it has many examples and resources already available to help guide you: [http://www.supergrubdisk.org/wiki/Boot\\_Problems](http://www.supergrubdisk.org/wiki/Boot_Problems).

For more information on Dual Booting visit one of these great resources:

- <https://help.ubuntu.com/community/WindowsDualBoot>
- <https://help.ubuntu.com/9.04/switching/index.html>
- <http://www.ubuntuforums.org>



**Figure 2.** Showing Ubuntu Automatically partitioning your disk