

Reformatting Hard Drive-Windows XP

Option One:

What you'll need:

1. A Windows XP machine in dire need of a fresh start
(Without any crucial, un-backedup data on it)
2. A Windows XP installation CD with a valid Product Key
(Preferably the disc that shipped with the computer originally, in which case the Product Key won't be obviously listed)
3. The CDs and serial numbers of all the software you need to install on your fresh "new" machine
4. Hardware driver discs that shipped with the PC and any components you added on
(Optional, but VERY strongly recommended)
5. Another 'net-connected computer of any OS persuasion with a CD burner, thumb drive, or other removable disk
(Optional, but strongly recommended, for looking up stuff and downloading drivers in case of emergency)
6. One full day to get your PC fully functioning again.

Step 1. Back up your data:

First, make sure absolutely NOTHING you cannot afford to lose is on the drive you're going to install Windows on (let's say the C: drive.) Move all your documents and settings off the machine. Back up your Firefox settings with [MozBackup](#), export your Quicken file, [SyncBack profiles](#), [Apache configuration](#) and absolutely anything else that you want restored after you're done. Just make sure it's off the machine that's going under the knife.

Step 2. Audit your current PC setup:

Today, Windows XP is eons ahead of 95 in terms of its amazing ability to detect all the hardware in your computer and install the right drivers for it. HOWEVER, it's still not perfect. PC's come with a whole wide range of video cards and network adaptors and Bluetooth thingamajiggers, and it's very possible you'll install XP and it won't know exactly what brand of TV tuner card you've got and how to find the driver for it.

So, before we do anything, we're going to take an inventory of all the hardware you've currently got installed. You can print a report from Device Manager for this purpose (Control Panel, System, Hardware, Device Manager, Action, Print) or use an utility called [Belarc Advisor](#) [via [Nicholas Roussos](#)], which does a nicer job than Device Manager. Belarc will create a report detailing your system, its installed hardware components, software applications and serial numbers. [Download the free Belarc](#), run a report and print it out. Keep it nearby for reference later.

Note: for those of you who do not have the driver discs for all your hardware - go ahead and print out the report from Device Manager in addition to the Belarc report. You'll need all the help you can get, you brave souls.

Step 3. Take a deep breath, and say goodbye to everything on your C: drive:

Seriously. it's all going away now. Revisit steps 1 & 2.

Step 4. Insert the Windows installation disk into your CD drive. Shut down your PC. Then, boot from CD:

This part is important: do NOT run the Windows installation from Windows itself. Shut down first, and then boot up the machine from CD. My Dell has a little message as it's booting up that says "Press F12 to boot from CD," so that's what I did. If you're not sure how to boot from CD, check your PC's user guide for more info.

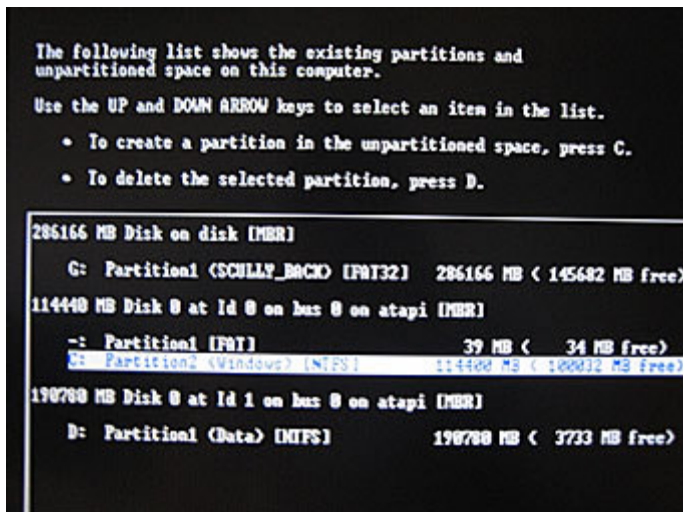
The reason why booting from CD is important is because we're going to delete the C: drive partition where Windows is installed and re-format it. You can't do this if Windows booted from C:, because it can't delete the partition from which it is running.

You CAN install Windows without deleting the partition and formatting, but that means all your program files and other riff-raff that's collected on your C: drive will still be there when you're done, just taking up unnecessary space. That's not the point of all this. Be sure to boot from CD.

Step 5. Step through the Windows installation:

You'll be greeted by WordPerfect 5.1-like blue screens with white text on them, which seem scary, but aren't. All the directions are clearly spelled out on each of them. Here's what to do:

At the Welcome to Setup page, press Enter. Press F8 to accept the Windows XP Licensing Agreement. You'll be asked if you want to repair your existing Windows XP installation. Press ESC to bypass the repair and install a fresh copy. All your existing disk partitions will be listed, like this.

A screenshot of the Windows XP Setup disk partitioning screen. The background is black with white text. At the top, it says "The following list shows the existing partitions and unpartitioned space on this computer." Below that, it says "Use the UP and DOWN ARROW keys to select an item in the list." There are two bullet points: "• To create a partition in the unpartitioned space, press C." and "• To delete the selected partition, press D." A horizontal line separates the instructions from the list of partitions. The list shows three disks: 286166 MB Disk on disk [MBR], 114440 MB Disk 0 at Id 0 on bus 0 on atapi [MBR], and 190700 MB Disk 0 at Id 1 on bus 0 on atapi [MBR]. Under each disk, there are partitions listed. For the 114440 MB disk, there are two partitions: Partition1 [FAT] (39 MB, 34 MB free) and Partition2 (Windows) [NTFS] (114400 MB, 100032 MB free). The Partition2 entry is highlighted with a blue background. For the 190700 MB disk, there is one partition: Partition1 (Data) [NTFS] (190700 MB, 3733 MB free).

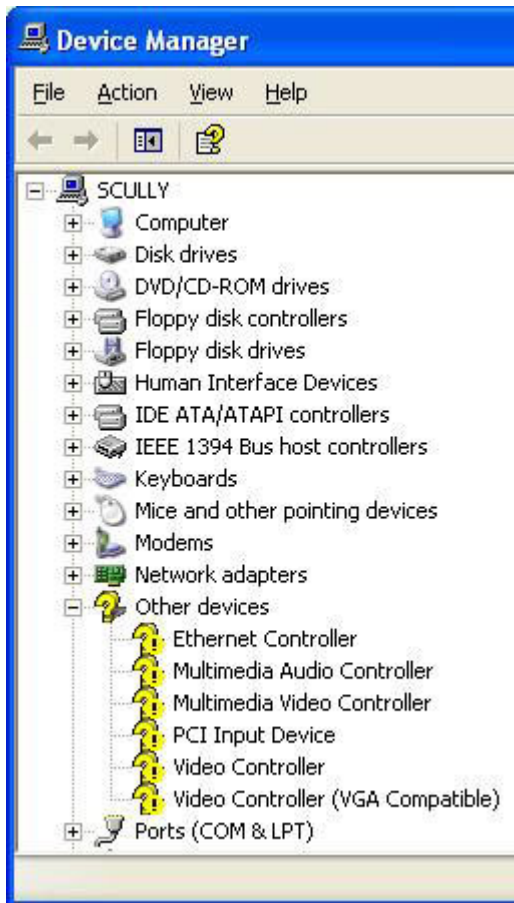
You want to delete the current partition where Windows is installed. Use the arrow key to select it, and press D to delete it. Press L to confirm. Then, to create a new partition, select the unpartitioned space and press C. To create a new partition with the maximum amount of space allotted to it, press Enter.

Now select the brand spanking new partition you've just created to install Windows on. Format the drive as NTFS (Quick if you want, but I went thorough just to be sure.) Depending on the size of the drive and how fast your computer is, this will take some time. Get a sandwich. Then, follow Windows Setup's steps, set your area code and name and password and let it reboot as many times as necessary until it asks you to log in for the first time. Congratulations! Welcome to your fresh new Windows installation.

Step 6. Install any missing drivers:

Once you get Windows XP up and running, chances are everything on your computer won't be working perfectly. Are you connected to the internet? Can you play music? Is your screen resolution unusually large? The answer is probably no to all those questions, except the last one. Do not panic. This is the part where you install the right drivers for your hardware.

First, get a list of what Windows doesn't have installed correctly. From Control Panel, go to System, then Hardware, and click on the Device Manager. Chances are it'll look something like mine did after my fresh installation:



Those yellow question marks/exclamation points are Windows' way of saying "I know this hardware is here, but I don't know what it is or how to control it." Insert each driver CD you've got stacked up beside you and install the software needed for all your computer's components. If you don't have a driver disk, get on that other machine you've got next to you, and Google up the brand and model of each of the components for which you need a driver, download, burn to disk and install on your fresh Windows machine. Those two handy hardware audits you printed out in Step 2 will be your friend, but without the discs that came with your machine, it will be a bit of a guessing game, matching up the yellow question marks with the items on your reports. Take educated guesses.

Step 7. Update Windows:

If you used the Windows installation CD that shipped with your computer three years ago, you've got an old version of Windows that came out 7 service packs ago. As soon as you're online (got that ethernet card/wifi card driver installed?) go directly to [Windows Update](#) and patch up Windows nice and tight and secure. Do not wait to do this as there are probably lots of computer baddies just beyond your network card waiting to ravage your virginal machine the minute it's out there alone in the wild internet. Yes, that sounded dirty on purpose.

Step 8. Install all needed software applications and tweak Windows to taste:

Copy over your backed up data to C: (if necessary).

After upgrading a PC and reinstalling Windows, the amount of used space on the C: drive should be about half the size it was before you started, as should be the size of the Windows registry. But most importantly, a few really annoying inexplicable problems disappeared - like no native Windows wifi network detection, a constant missing DLL popup when launching one program, the refusal of one piece of software to install at all.

Related hyperlinkage:

- [Reveal product keys and ID's with ProduKey](#)
Just in case you misplaced your Windows or MS Office Product Keys
- [How to Reinstall Windows Without Losing Your Data](#)
For the format scaredy-cats
- [Create a Windows XP image](#)
Never have to go through all this hell again!

Option Two:

Reformat the Hard Drive and Re-install the Operating System:

- Reformatting a disk prepares it to accept a new operating system.
- It also wipes out everything on the hard drive.
- That's your goal.

Past versions of Windows (through Windows ME) allow you to create a **start-up disk**.

You'll need one to reformat your hard drive:

Click Start

Settings

Control Panel

Double-click Add/Remove Programs

Click Start-up Disk

Click Create Disk.

On Windows XP, you'll need to download the **disk information**.

Go to BootDisk.com and click "DOS — Windows 9X/NT4/2000/XP Excellent Bootdisks."

Download the Windows XP Custom Install Disk and save it to a floppy.

On all systems, shut down all open programs.

Restart the computer with the floppy in the A: drive.

At the A: prompt, type Format: C.

Answer "yes" to the warning; you want to wipe out all the data.

When the reformat finishes, put the Windows installation CD in the CD drive and remove the floppy.

Restart and re-install Windows.

Option Three:

Do you really have to wipe the hard drive and reinstall Windows? There are a few options:

- First try scanning your system for bugs with PC Bug Doctor. It'll find stuff that makes your system crash and clean it out (caution: the scan is free, the fix is not, but it's a useful diagnostic tool at least). [Click to download the free scanner](#)
- It is highly recommended to clean your Windows registry as this is the filing cabinet that keeps track of what's in Windows and when it gets messy, your computer crashes and becomes unstable -- [Click here to scan your registry for free](#) (the scanner is free, the fix is not on this one too, but also a useful diagnostic tool).
- Try cleaning up your Windows startup process -- it will immediately speed up your PC.
- Finally, try [SpeedUpMyPC](#). It has a variety of great utilities to speed up Windows, make the Internet load faster, cleanse memory and generally enhance the performance of your desktop.

No Windows XP CD anymore can I still reinstall and reformat?

- You cannot completely wipe your hard drive and install a fresh version of Windows unless you have an installation CD either from your computer maker or bought from a retail store.

Steps for reformatting:

- 1) With Windows XP, you need to figure out which file system you have on your hard drive - either NTFS or FAT32. (A file system is a sorting method for computer files on a computer's hard drive).
 - a. On Windows computers there have been several flavors as follows.

Windows 95 - FAT, sometimes called FAT16

Windows 98 - FAT or the newer FAT32

Windows Me - FAT or FAT32

Windows NT/2000 - NTFS

Windows XP - Uses NTFS by default, but can also use FAT32

Under Windows XP there are two possibilities. NTFS and FAT32. NTFS is a system from the old Windows NT (and Windows 2000) operating system which was Microsoft's old Windows for business line. FAT32 was used on Windows Me and 98 was an evolution of the FAT system used on Windows 95.

- 2) To figure out which one you have, double click the My Computer icon on the desktop and right click on your C drive and choose Properties. Look for the "File system" entry. It'll either say NTFS or FAT32.
 - a. If you have NTFS, you need to wipe the drive with a special technique. Here's how to wipe a hard drive that uses NTFS as a file allocation system.
 1. You can do this one of two ways by using the Windows XP startup disks.
 2. If your computer supports a bootable CD-ROM use the Recovery Console tool on the Windows XP CD-ROM.
 - i. First, remember that reformatting a hard disk deletes **all of the data** that is on it, so make sure that you back up your data before you reformat the disk. That data is unrecoverable afterwards. It's gone forever.
 - ii. To use the Windows XP Recovery Console to reformat a drive, follow these steps:
 1. Start the computer by using the Windows XP CD-ROM (in the CDROM drive) or the start-up disks (in the floppy drive).
 2. You need to go into your BIOS to change the boot sequence to do this making your CD-ROM drive your primary boot device. The BIOS can normally be accessed when you start your computer. You may see a reference to "Setup" when you turn your computer on. That's your opportunity to get into the BIOS. It usually requires the push of a function key, such as F8, to get access to it. That "F" key varies between computers.
 3. Once the computer has booted from the CD you'll see a "Welcome to Windows Setup" screen appear and after all the drivers have loaded (shown along the bottom), press F10 (might be F8) or wait and choose to use the recovery console (choose item #2).

4. In the "Recovery Console" (learn more about what that is at Microsoft.com [click here](#)), specify the appropriate Windows installation. It will be listed. It's probably #1. Then log on by using your Windows XP Administrator password. You are probably the administrator and the password if you have never assigned is probably blank, so just hit the Enter key.
5. Next, type: map and hit the ENTER key.
Note the drive that you want to reformat. The drive letters may be different in the Recovery Console from what they are in Windows XP, but if you want to reformat the C: drive then it's likely the largest.
6. Next, type: format C: /fs:ntfs
7. Or if you don't want to format C, use the drive letter of the hard drive that you want to format.
8. Hit your ENTER key.
9. Next, type: y
10. Then press ENTER to continue.
11. When the formatting process is finished, type exit and then press the ENTER key to restart the computer.

- b. If you have FAT32, you need to wipe the drive with a special technique. Here's how to wipe a hard drive that uses FAT32 as a file allocation system.
 1. You can do this one of two ways by using the Windows XP startup disks.
 2. If your computer supports a bootable CD-ROM use the Recovery Console tool on the Windows XP CD-ROM. More on that shortly.
- i. First, remember that reformatting a hard disk deletes **all of the data** that is on it, so make sure that you back up your data before you reformat the disk. That data is unrecoverable afterwards. It's gone forever.
- ii. To use the Windows XP Recovery Console to reformat a drive, follow these steps:
 1. Start the computer by using the Windows XP CD-ROM (in the CDROM drive) or the start-up disks (in the floppy drive).
 2. You need to go into your BIOS to change the boot sequence to do this making your CD-ROM drive your primary boot device.
 3. Once the computer has booted from the CD you'll see a "Welcome to Windows Setup" screen appear and after all the drivers have loaded (shown along the bottom), press F10 (F8) or wait and choose to use the recovery console (choose item #2).
 4. In the "Recovery Console" (learn more about that that is at Microsoft.com [click here](#)), specify the appropriate Windows installation. It will be listed. It's probably #1. Then log on by using your Windows XP Administrator password. You are probably the administrator and the password if you have never assigned is probably blank, so just hit the Enter key. If you run Windows XP Pro and want to turn off the password prompt then
 5. Next, type: map and hit the ENTER key.
Note the drive that you want to reformat. The drive letters may be different in the Recovery Console from what they are in Windows XP, but if you want to reformat the C: drive then it's the largest.
 6. Next, type: format C:
 7. Or if you don't want to format C, type the drive letter of the hard drive that you want to format instead. Hit your ENTER key.
 8. Next, type: y
 9. Then press ENTER to continue.
 10. When the formatting process is finished, type exit
 11. Then press the ENTER key to restart the computer.

3) Next you need to reinstall Windows XP. Reboot your computer with the Windows XP setup CD in the CDROM and let it boot into the Windows Setup screen. Let it load all the drivers. Then choose option 1 and start the clean installation. When it is done, reboot the computer.

If Option #3 for reformatting and reinstalling Windows XP does not work for you, try this instead:

1. Insert the Windows XP CD-ROM into your CD-ROM drive or DVD-ROM drive, or insert the first Windows XP Setup boot disk into the floppy disk drive if you are starting from Setup boot disks, and then restart the computer.

NOTE: To start your computer from the Windows XP CD-ROM or from the Setup boot disk, your computer must be configured to start from the CD-ROM drive or DVD-ROM drive or the floppy disk drive.

2. In some cases, you may have to modify your computer's BIOS settings to do this.
(If you are starting from the Windows XP Setup boot disks, insert each of the additional disks when you are prompted, and then press ENTER to continue after inserting each disk.)
3. At the Welcome to Setup page, press ENTER to continue.
4. Press F8 to accept the Windows XP Licensing Agreement.
5. If an existing Windows XP installation is detected, you are prompted to repair it. Press ESC (do not repair).
6. All existing partitions and unpartitioned spaces are listed for each physical hard disk. Use the arrow keys to select the partition or unpartitioned space where you want to create a new partition, and then press D to delete an existing partition or press C to create a new partition using unpartitioned space.
7. If you press D to delete an existing partition, you must then press L (or press ENTER, and then press L if it is the System partition) to confirm that you want to delete the partition.
8. Repeat this process for each of the existing partitions that you want to use for the new partition.
9. When all the partitions are deleted, you can then select the resulting unpartitioned space and then press C to create the new partition.
10. Type the size (in megabytes, or MB) that you want to use for the new partition, and then press ENTER, or just press ENTER to create the partition using the maximum size.
11. If you want to install Windows XP, use the arrow keys to select the partition you want to install Windows XP on, and then press ENTER.
12. Select the format option that you want to use for the partition, and then press ENTER. The options are:
 - * Format the partition by using the NTFS file system (Quick)
 - * Format the partition by using the FAT file system (Quick)
 - * Format the partition by using the NTFS file system
 - * Format the partition by using the FAT file system
13. You may also see:
 - * Leave the current file system intact (no changes)
 - * Most people will want to choose: "Format the partition by using the NTFS file system".
14. After Setup formats the partition, follow the on-screen instructions to continue Setup until Windows XP fully installs.