

make sure your devices are functioning properly and have the most up-to-date drivers.

You'll find Windows' most useful troubleshooting and maintenance tools in the Control Panel and Device Manager.

As its name implies, **Control Panel** is where you go to reconfigure all the Windows settings or hardware components in your computer. Control Panel is also the gateway to a number of Windows troubleshooting tools. Click **Start | Control Panel** and explore the different menu choices.

Windows Device Manager monitors and reports the status of your computer's hardware. If Windows is having a problem communicating with your hard drive, mouse, graphics card, or any of your computer's many devices, Device Manager will tell you. To open Device Manager, click **Start | Control Panel | Performance and Maintenance | System**. Then select the **Hardware** tab and click the **Device Manager** button.

You should see a screen like the one below (Fig. 1). Listed below the computer icon at the top of the screen you'll see all the categories of hardware devices installed in your computer.

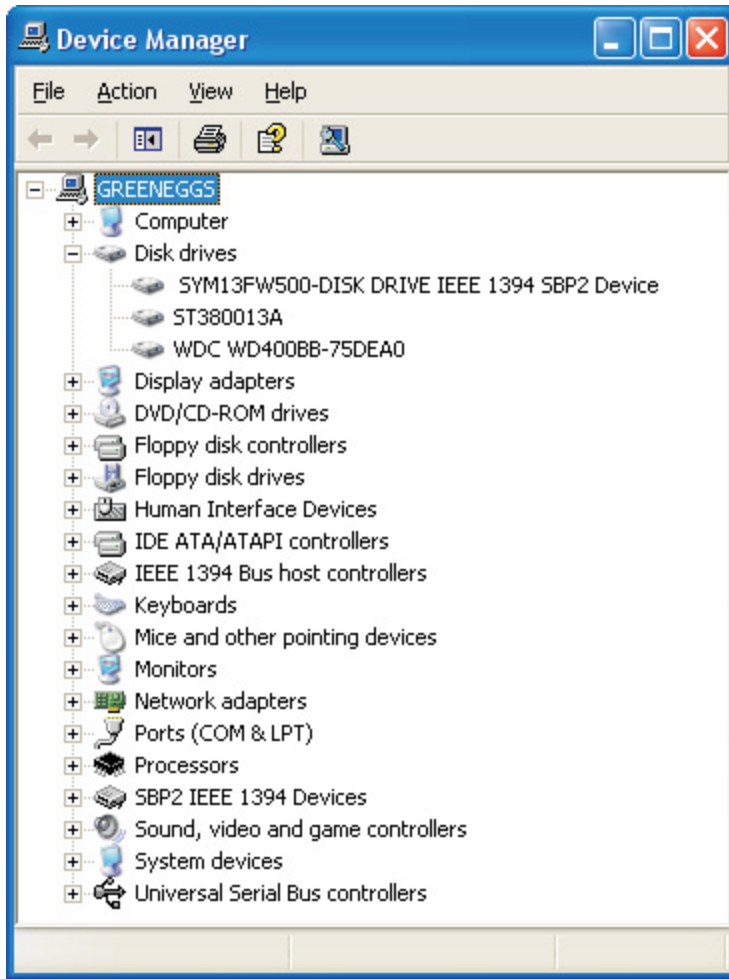


Fig. 1 Device Manager lists all the hardware components in your PC.

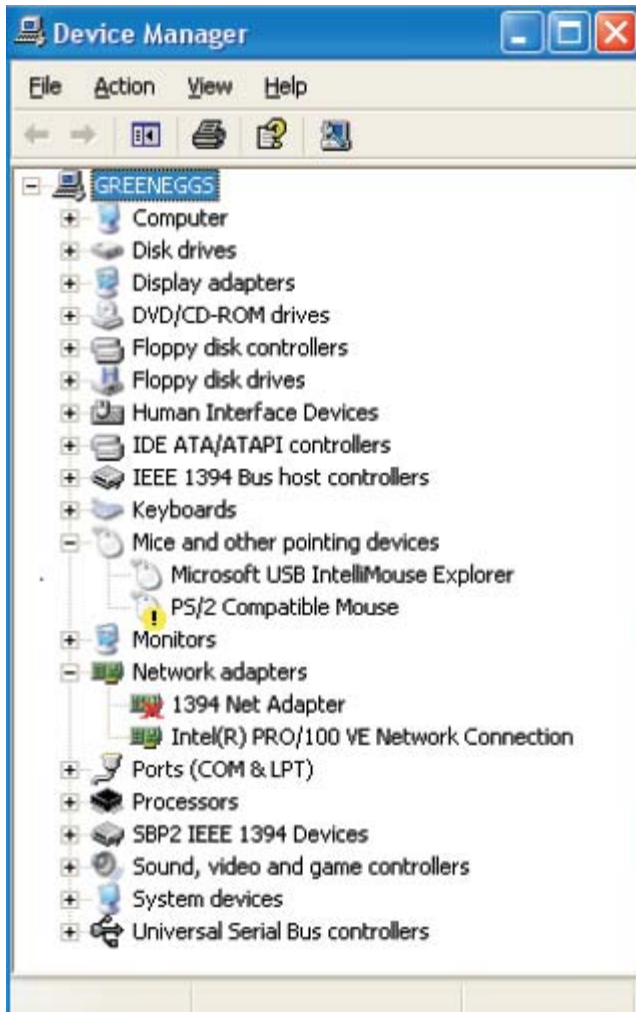


Fig. 2 The red X and yellow circle highlight devices that aren't functioning properly.

Click the plus box to the right of any device category and you'll see a listing of the specific device or devices in that category.

Device Manager will put a flag next to the listing for any device that's not functioning properly. In the image below (Fig. 2), the red "X" next to the listing for 1394 Net Adapter means the device has been completely disabled. Any printer attached to the port won't work. The yellow circle with an exclamation point next to the listing for PS/2 Compatible Mouse means the device is not functioning properly.

Double-click the device's listing and you'll see the properties for that device. The image below (Fig. 3) shows the properties for one of the hard drives listed in the Device Manager from above.

In the middle of the General tab is a box labeled **Device Status**. If Windows is having trouble communicating with this device, it will say so here. It may also give you an error message or other clue about the nature of the problem. At the bottom of the General tab is a pull-down menu that lets you disable the device, a useful tool for tracking down the source of PC problems.

Get the Latest Drivers

In order to work smoothly with each hardware device on your computer, Windows needs a small software program called a **driver**. A driver acts as a bridge between the device and Windows, allowing Windows to “drive” or control the device. The graphics card, network card, modem, and almost every other hardware component in your computer needs a customized software driver installed in Windows.

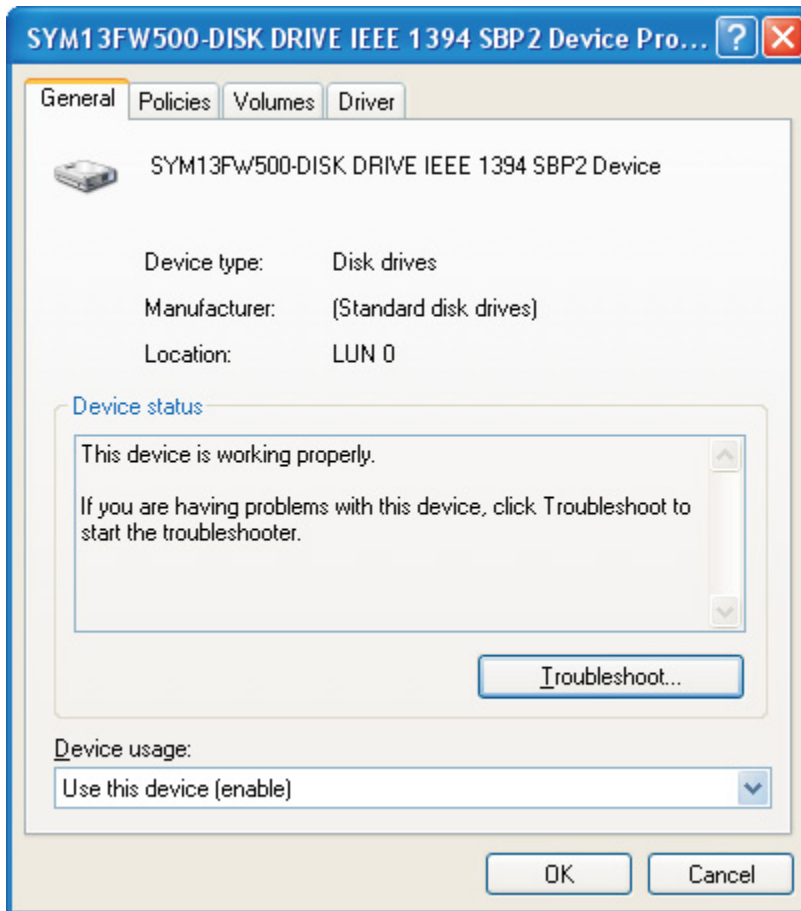


Fig. 3 Every hardware component in your PC has a Properties screen that can be accessed through Device Manager.

Windows comes with a large library of driver software, so when you add a new piece of hardware to your PC, Windows often recognizes it and automatically installs a compatible driver. However, the driver Windows installs may not be the best driver program available for that hardware device. Hardware manufacturers are constantly updating the driver programs and installing the latest version of a driver can fix annoying problems and even improve your computer's performance.

Here's how to find and install the latest driver:

1. Find the manufacturer and model number of the hardware device. Try using System Information. For printers, scanners, and other external devices, look in the device's user manual.
2. Next, find the version number of the driver you're using right now: go to **Device Manager**. Select the device in question and double-click it to open its properties. Click the **Drivers** tab and you'll see the driver's version number and creation date.
3. Go to the manufacturer's website and look for the updated driver. Often it's in the Downloads section. If you can't find it, go the site's home page, see if there's a Search box, and type in the model number. When you find it, compare version numbers and see if you need a driver update.
4. If you find a new driver, download the driver's file. Often it's a compressed Zip file that needs to be decompressed, or unzipped. The Zip file will deposit one or more files into a folder of your choosing on your hard drive.
5. If there are multiple files, look for a file called **setup.exe** or **install.exe** and double-click it. If there's only one file, click that file. That should start the automatic installation process.
6. If the downloaded file doesn't automatically install itself, you'll have to do the installation manually. On the Properties screen, click the **Upgrade Driver** button and Windows will launch a wizard that will walk you through the installation process.