

Backing up your data

Rosemary Hattersley and Lincoln Spector look at backups, a vital tool when preparing a laptop or PC for a major repair job or upgrade

Fail to prepare; prepare to fail. So goes one of the most facile mantras ever uttered. But if you're about to make some major changes to your PC, a certain amount of preparation is in order. This is particularly true if you're about to wipe the hard drive in the course of an upgrade or repair.

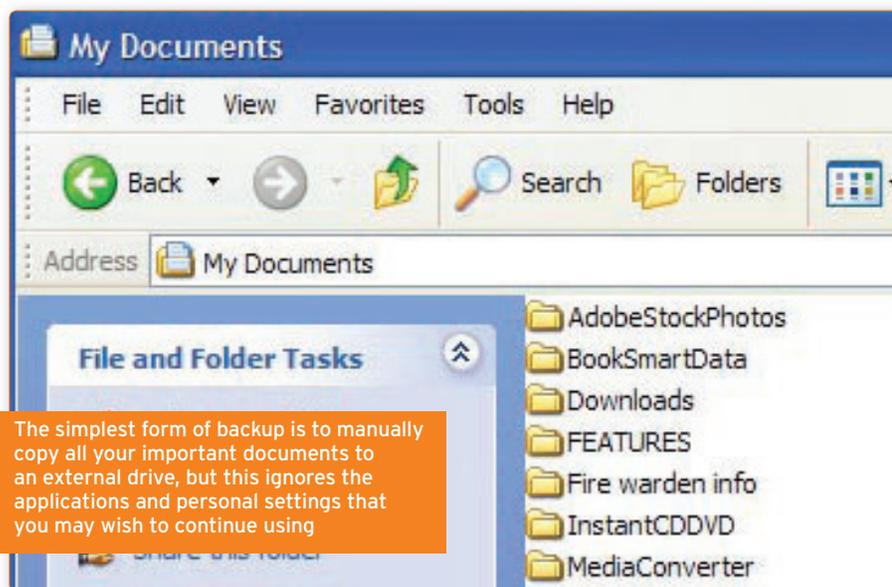
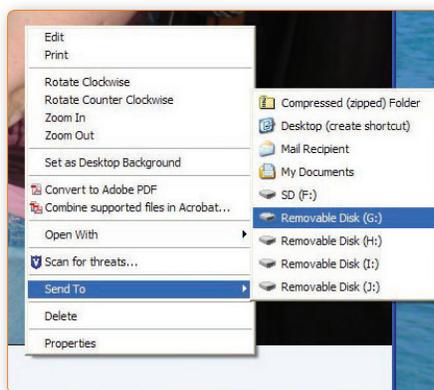
Backing up your whole PC can take an entire day, but it's worth doing so thoroughly. Here, we outline three scenarios in which you might want to back up your PC and suggest the best approach for each. We'll cover why it's important to maintain a backup, what to back up and how to manage your backups. We also explain how to create a drive image in preparation for porting everything over to a new PC, reinstalling Windows or reformatting the drive.

Backup basics

Backing up usually involves making duplicate copies of your files so you can call on them should the originals become damaged, deleted or otherwise inaccessible. Since the most common reason for recourse to a backup copy is that the drive on which the original has failed, it makes sense to store the duplicate elsewhere.

Windows has built-in tools to enable you to make backup copies of the most obvious items: documents, photos, music and video.

Windows has built-in tools to enable you to make backup copies of your files and send them to an external drive



Right-click on a file or photo and you get options to Copy it or 'Send To' an external device. Copying to an external drive is the best bet, particularly if you've got many gigabytes of files to back up.

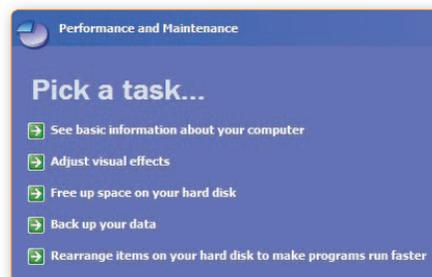
Don't forget to look in folders created by the program associated with your camcorder or for the music you've bought from iTunes and so on. If you need nothing but the actual files stored on your PC, you can get away with simply dragging-and-dropping everything in your username account folder to a backup drive. If you also need to back up settings for the programs you use, the applications themselves and the latest updates and licences, you need a more complex backup.

The easiest option is to use the Backup and Restore Wizard, which XP users will find under Control Panel, Performance and Maintenance; Vista and Windows 7 users can invoke it by typing **backup** into the Start, Search menu. Allow the wizard to run, choosing 'Backup' rather than 'Restore' and selecting a documents-only or full backup or opting to create a system restore disc. For the latter, you'll need a blank DVD to hand. Name the backup when prompted so you can find it easily later. As you'll have seen

at the start of the wizard, the same tool can be launched to restore files at a later date.

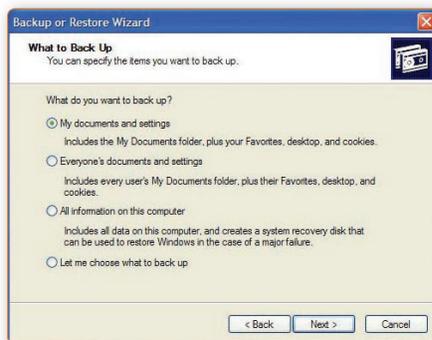
Automated backups

Although it's a great idea to have a backup of all your data, the exact contents of your PC are constantly changing. Even so, for most users it's enough to back up documents and folders on a weekly basis.



XP offers a wizard to help you back up your machine, available under Control Panel, Performance and Maintenance

Windows likes to schedule backups weekly anyway. If you're storing a lot of photos and other files on your PC and routinely download and install programs, we recommend this plan. You can set Windows to perform its backups when the computer



The Backup and Restore Wizard offers three types of backup, with the third option creating a system recovery disc

isn't being used. That way it won't interfere with your important iTunes download or BBC iPlayer enjoyment, but you'll have the reassurance of a regularly backed-up PC.

To schedule backups in Windows XP, head back to the Performance and Maintenance pane and choose Scheduled Tasks. In Vista and Windows 7, this option is offered in the Backup and Restore wizard.

For business users in particular, having a backup routine in place is critical. Automated backups via Windows are unlikely to suffice. Instead, we recommend using a networked hard drive or Raid device that backs up all the computers on the network at a set time each evening or overnight, and from which any necessary restores can be performed. Software such as EMC Retrospect often comes with external backup drives; other

drives may include encryption software or even hard-disk encryption to prevent rogue access to your files. At the consumer end, a locally attached external hard drive with backup-scheduling software will provide peace of mind. See *Top 5 Portable hard drives* (page 143) for recommendations.

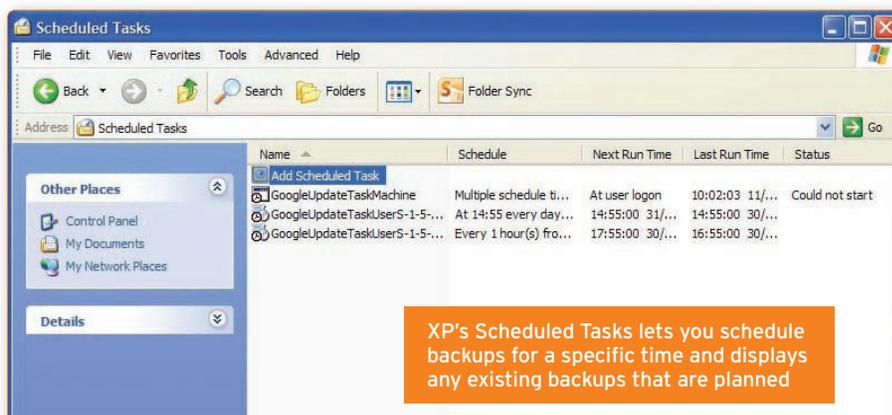
Online backups

A further option for ongoing backups is to use the cloud. This means that you back up your files over the web and store them on a remote server. Uploading happens over your broadband connection and is protected by the password and login credentials you set, plus encryption at the storage end.

You can usually log in and download the files you want on demand, which makes cloud or online storage ideal if you need to be able to access your work files (or music) from anywhere and everywhere.

Pricing scales for services such as Mozy (mozy.com), Carbonite (carbonite.com) and Humyo (humyo.com) vary, but are typically £3 per month for the first 5GB and 50p to £1 per gigabyte thereafter. You'll often get a modest amount of online storage as a supplementary archive when you buy a USB hard drive, too.

Note that online storage can become expensive and isn't recommended for full system backups. It's perfect, however, for ad-hoc backups of items you value, such as photos and important documents. ☒



MOVING DATA TO A NEW HARD DRIVE

When copying everything from an old hard drive to a new one, the process isn't as simple as dragging-and-dropping the files. This method will miss your boot sector, important parts of Windows and any hidden partitions – if your PC came with Windows installed, it's probably got a hidden partition that you'll need to copy over should you have to reinstall the operating system.

To ensure everything gets backed up, you can either create a disk image or clone the drive. Imaging backs up everything on your hard drive to a single, very large file. It's therefore usual to save the disk image to an external hard drive or DVD. Cloning directly copies the contents of one drive on to another.

CREATE A CLONE

Cloning is a better choice if you're moving everything from one drive to another. Two useful tools, EaseUs Disk Copy (easeus.com) and ISO Recorder (tinyurl.com/5p2m), will make the process as pain-free as possible.

When cloning a drive, your PC needs access to both hard drives simultaneously. If you have a desktop PC, you can install the new drive as a second internal drive (which will become the first one after you remove the older drive). If you have a laptop, or don't want to fiddle around with motherboard cables, try a USB 2.0-to-IDE/Sata drive adaptor to turn your internal drive into a temporary external one.