

## Disk Clean-up

### What is Disk Cleanup?

Disk Cleanup is a utility designed to help you clean up redundant data that is clogging up your computer's hard drive.

When your computer is used for tasks such as internet browsing, program installations and data creation it stores data on your hard drive space. This is normal and unavoidable - just the way that computers work. A lot of this data is not needed again, so it sits there taking up room on your hard disk drive.

Types of data that can be cleaned up by running Disk Clean-up include:

**Download Program Files** When you access websites on the internet, certain sites need particular programs installed to allow you to access them properly. Most of the time these programs are not needed again, but just sit there in your computer.

**Temporary Internet Files** When you access the internet your computer will start to store the websites you have viewed with images from those pages. This is done to allow the websites to download quicker in future because you have some of the information of that site on your computer.

**Temporary Files** Temporary files are created when new programs are installed on your computer and as you write documents, spreadsheets, etc. This happens for a number of reasons, for example creating back ups of files in case your computer is shutdown unexpectedly. These temporary files will stay on your computer even though they are not needed after you have saved your files properly.

**Recycling Bin** When you delete a file on your computer most people do not actually realise that the file is still stored on the computer in the Recycling Bin. This is done as a fail-safe in-case you accidentally delete the wrong file.

**Log Files** As your computer runs, in the background it is doing a lot that you are unaware of. As these programs start and shutdown and in some cases fail they create logs for computer technicians to help diagnose the problem.

There are some other different types of data that are stored for the purpose of performance gain and access efficiency.

As you read the list of items that are stored, you may be worried that if these items are removed your computer will not function properly anymore. If all the information on your computer has been saved correctly, and the computer has been shut down correctly previously, then there will be no problems with these files being deleted. Even though some are stored to help the performance of the computer, they do start to cause a hindrance as they take up more hard drive space.

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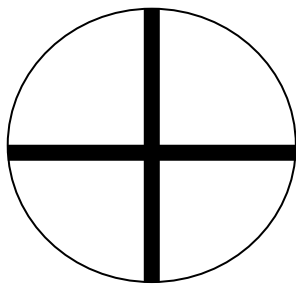
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## What happens if I don't run Disc Cleanup?

Computers need hard drive space not just for storing of data but to also help with the running of the computer. It can be quite confusing to explain what a hard drive is used for other than data storage, but put simply if you have for example 40Gb of hard drive space and 35Gb of that space is used, a computer will lose a lot of performance, and begin to run slowly. This affects the running of other utilities like Check Disk and Defrag that help to make your computer run more efficiently.

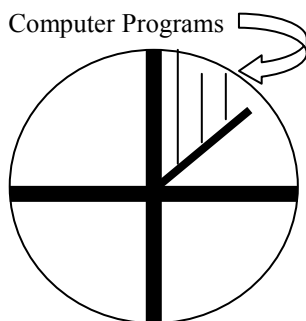
This redundant data is wasting hard drive space which could be used for actual work that needs to be saved and kept on your computer.

See below for a simple graphic representation of what happens to your hard drive over time.



Here is a 40Gb Hard Drive split into 10Gb sectors.

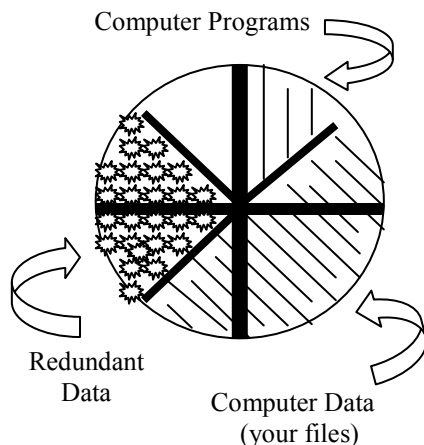
In this example there is nothing installed on the hard drive so it's blank.



When you install the operating system (e.g. Windows XP) and programs (e.g. Word, Excel) on your computer a certain amount of hard drive space is taken up. For example in this picture 5Gb of space has been used.

This means you still have over 35Gb of useable space on your 40 Gb hard drive for your work.

Utilities like Check Desk and Defrag will run quickly and your computer will also run more efficiently because you have so much free space.



After using your computer for a while your hard drive will begin to resemble the picture at left.

The first 5Gb is still taken up by the programs needed to run the computer.

The next 20Gb is taken up with data created by you, for example through word documents and spreadsheets.

The next 10Gb is taken up by redundant data that is not being used, only giving you 5Gb left of hard drive space.

If you don't use the Disk Cleanup utility to clean the redundant data you are losing an extra 10Gb of extra hard drive space for data storage, and your computer will struggle to perform optimally.

# How do I run Disk Cleanup?

*These steps are written for Windows XP users*

To run a Disk Cleanup, follow the basic steps:

1. On your desktop click the 'Start' button on the bottom left of your screen. The Start Menu will now load up.
2. Find the button called 'All Programs' (usually located near the 'Start' button) and click on it. The programs menu will now open.
3. Find the menu option called 'Accessories' and place your mouse cursor on it. The accessories menu will now open.
4. Find the 'System Tools' menu and place your mouse cursor on it. The system tools menu will now open.
5. Find the 'Disk Cleanup' button and click on it. A Disk Cleanup window will now open stating that it must calculate how much space you will be able to free up on your hard drive. This can take a couple of minutes so just let it run. \*You can press the 'Cancel' button at anytime if you do not wish to wait any longer.\*
6. Once the calculating has been finished a new window will now open called 'Disk Cleanup for (C:)'. See an example (at right).

*The (C:) means you are running the Disk Cleanup on the hard drive with the letter C. If you have more than one hard drive Disk Cleanup can be used on them also.*

You will now be given a list of different files that can be deleted safely to increase disk space. The different files are as follows:

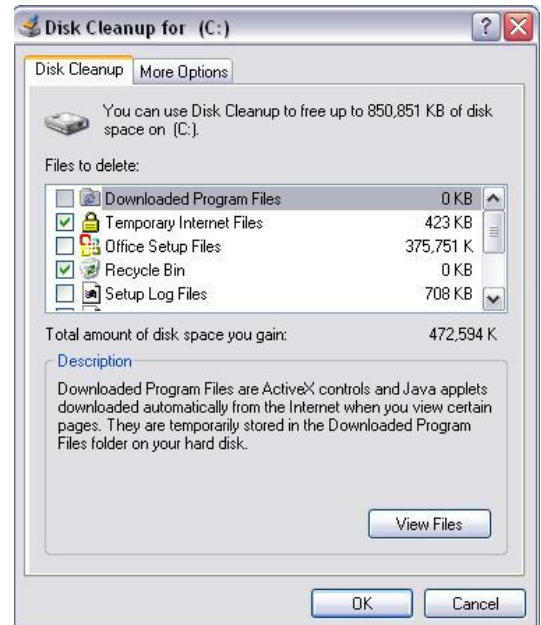
- Downloaded Program Files
- Temporary Internet Files
- Office Setup Files (*only delete if you still have the original office installation disks*)
- Recycle Bin
- Setup Log Files
- Temporary Files
- WebClient / Publisher Temporary Files
- Compress Old Files (*does not delete files, but compresses them to increase disk space*)
- Catalog Files for the Content Indexer

To select which sort of files should be deleted, click the white boxes next to each item in the 'Files to Delete' list so that a tick appears in the box.

The files that should always be selected for deletion are:

- Downloaded Program Files
- Temporary Internet files
- Recycle Bin (to permanently delete contents of Recycle Bin)
- Temporary Files

The others can be selected without worry, but these four should be selected.



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Below the 'Files to Delete' list you will see a figure showing how much space you will free up.

*(To understand the value a little better, a computer floppy disk will hold around 1.44Mb = 1,464Kb. From the above example this user will free up around 472Mb, or around 328 floppy disks).*

Once you have selected which files you want to delete, press the 'OK' button.

A new window called 'Disk Cleanup for (C:)' will appear, asking "Are you sure you want to perform these actions?".

Click the 'YES' button to continue. If you do not want to continue just press the 'NO' button.

A new window called 'Disk Cleanup' will now open. It will have a status bar showing its progress as it goes through the ticked items for deletion. Once the Disk Cleanup utility has finished, the 'Disk Cleanup' window will close and you have now finished the computer cleanup.

Disk Cleanup should not take more than a couple of minutes to run to clean up the computer, but it can take longer. This depends on how big the hard drive is and how much redundant data there is to clean up. If it is going longer than 15 minutes and the computer appears locked up, it is best to restart the computer.

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See also:

Network SA Resource Paper 3/itc March 2007    *Defrag Your Computer*  
Network SA Resource Paper 4/itc May 2007    *Using Check Disk.*

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