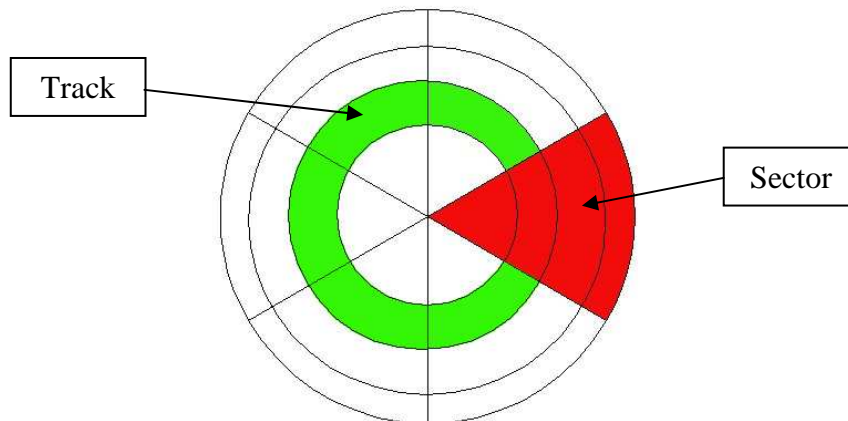


System Software Utilities

Formatting Disks

New disks cannot be used in a computer unless these are formatted. Formatting prepares a brand new disk for use (to accept data). During formatting the disk is divided into tracks and sectors as shown in the diagram below.

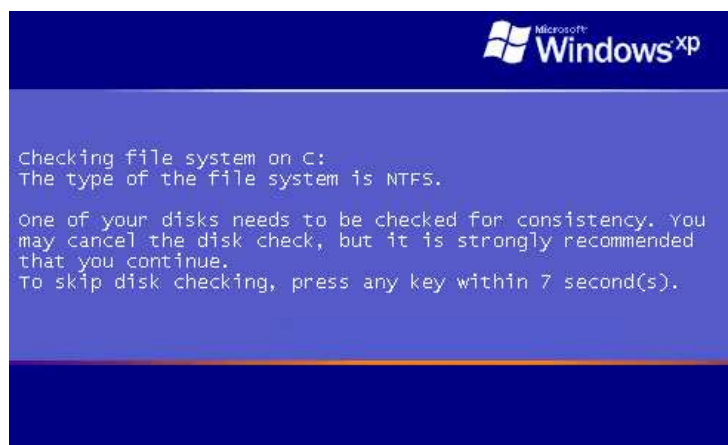


Normally, every disk has to be formatted before using it for the first time. Nowadays, preformatted disks are available i.e. disks which have been formatted by the disk manufacturer.

You can also format a disk more than once but be careful! Formatting a disk will also delete any data that may be present in the disk. It is important to check the disk before you perform any formatting.

Scandisk

This utility is useful to scan your disks for file-system errors and bad sectors. Since files on disks are used millions of times every time the computer is used, they tend to generate errors. Even some parts of the surface of the disk itself get corrupted and therefore bad sectors are generated. This utility scans the disk for file-system errors and corrects them if possible. It also searches for those parts of the disk that have become corrupted and marks them as bad sectors. In this way, no data is stored on that particular part of the disk.



Fragmentation/Defragmentation

Fragmentation refers to the scattering of parts of the same disk file over different areas of the disk. Fragmentation occurs as files on a disk are deleted and new files are added. It slows disk access and degrades the overall performance of disk operations, although usually not severely.

Defragmentation is a process that reduces the amount of fragmentation in file systems. It does this by physically organizing the contents of the disk to store the pieces of each file close together.

Antivirus

A computer virus is a piece of program designed and written to make additional copies of itself and spread from location to location, typically without user knowledge or permission. Viruses are written by programmers with malicious intent to annoy computer users. There are different categories of viruses – some of these may corrupt or destroy data files stored in the hard disk.

To protect your computer from viruses you have to install an antivirus program in your computer system. Antivirus programs are able to detect and in most cases remove viruses in the computer system. Typically antivirus software alerts you of viral infections. It is very important that you update the antivirus program regularly. Unfortunately, new viruses are being developed all the time. Thus, an antivirus program that is not updated frequently will not detect new viruses. Nowadays antivirus programs can be updated via the Internet.

Winzip

One of the major problems in computing is data storage and transfer. The amount of data we need to store and transfer is increasing rapidly and although we are trying to increase the storage space and the transfer rate, the problems seem to remain: data takes a lot of space. Therefore, one of the simplest solutions is to try to reduce data to the minimum.

Winzip is a piece of program designed to compress data as much as possible to take the least possible storage space and therefore the less time to transfer. Winzip groups a number of files into one Zip file called 'archive' and the files archived into a Zip file are compressed to save space. Zip files make it easy to group files and make transporting and copying these files faster.

