



Topic: 1.5.2 Utility programs

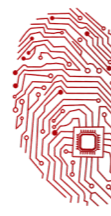
Utility software is a type of system software designed to help analyze, configure, optimize and maintain the computer. A single piece of utility software is usually called a utility or a tool.

Utility software should be contrasted with application software, which allows users to do things like creating text documents, playing games, listening to music or surfing the web. Rather than providing these kinds of user-oriented or output-oriented functionality, utility software usually focuses on how the computer infrastructure (including the computer hardware, operating system, application software and data storage) operates. Due to this focus, utilities are often rather technical and targeted at people with an advanced level of computer knowledge. There are many examples of utility software but we shall limit ourselves to just a few:

1. The surface of a disk can store so much data that the computer cannot handle it all at once so it needs to be split up so that data stored on it can be found again. When it is new a disk surface is blank so the computer "draws lines" on the surface to split it into small areas. The process is called formatting and it is carried out by a utility program called a **disk formatter**.
2. Some files are very large. In most files it is possible to find simple ways of reducing the size of the file while keeping all its meaning. This can be very important when files are being sent from one computer to another as the communication is speeded up. The programs that reduce the size of files are called **file compressors**.
3. When files are being sent from one computer to another it is possible that they may contain a virus which will infect the receiving computer. A **virus checker** (scanner, killer...) is a utility program which keeps a constant check on files searching for viruses and deletes it if found.
4. A **disk defragmenter software** is a utility that reorganizes the files and unused space on a computer's hard disk so that the operating system accesses data more quickly and programs run faster. When an operating system stores data on a disk, it places the data in the first available sector on the disk. It attempts to place data in sectors that are contiguous (next to each other), but this is not always possible. When the contents of a file are scattered across two or more noncontiguous sectors, the file is fragmented.

Fragmentation slows down disk access and thus the performance of the entire computer. **Defragmenting** the disk, or reorganizing it so that the files are stored in contiguous sectors, solves this problem. Operating systems usually include a disk defragmenter. Windows disk defragmenter is available in the System Tools list.









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5. A **Disk Check** is a free utility that can help you scan your disk drives for errors and fix them. It can also scan entire disk for bad sectors and try to recover them.

Main Features:

-  Scan and Fix multiple drives with one click.
-  Schedule Disk Check on next boot if a drive cannot be locked.
-  Boot Time Disk check can be performed on multiple drives in a click.
-  Use of checkdisk makes it highly safe to use.

6. A **backup software utility** allows users to copy, or *back up*, selected files or an entire hard disk to another storage medium such as an external hard disk, optical disc, USB flash drive, or tape.

During the backup process, the utility monitors progress and alerts you if it needs additional media, such as another disc. Many backup programs *compress*, or shrink the size of, files during the backup process. By compressing the files, the backup program requires less storage space for the backup files than for the original files.

Because they are compressed, you usually cannot use backup files in their backed up form. In the event you need to use a backup file, a **restore utility** reverses the process and returns backed up files to their original form. Backup utilities work with a restore utility.

