

COMPUTER SCIENCE

Basics of Computers - Utility Software

Application software that assist OS in carrying out certain specialized tasks are called utility software. Let us look some of the most popular utility software.

Antivirus

A virus can be defined as a malicious program that attaches itself to a host program and makes multiple copies of itself, slowing down, corrupting or destroying the system. A software that assists the OS in providing virus free environment to the users is called **antivirus**. An anti-virus scans the system for any virus and if detected, gets rid of it by deleting or isolating it. It can detect many types of virus like **boot virus, Trojan, worm, spyware**, etc.

When any external storage device like USB drive is attached to the system, anti-virus software scans it and gives an alert if a virus is detected. You can set up your system for periodic scans or scan whenever you feel the need. A combination of both the

techniques is advisable to keep your system virus free.

File management tools

As you know, file management is an important function of operating systems as all data and instructions are stored in the computer in form of files. Utility software providing regular file management tasks like browse, search, update, preview, etc. are called file management tools. **Windows Explorer** in Windows OS, **Google desktop**, **Directory Opus**, **Double Commander**, etc. are examples of such tools.

Compression tools

Storage space is always at a premium in computer systems. So operating systems are always looking at ways to minimize amount of storage space taken by files. **Compression tools** are utilities that assist operating systems in shortening files so that they take less space. After compression files are stored in a different format and cannot be read or edited directly. It needs to be uncompressed before it can be accessed for further use. Some of the popular compression tools are **WinRAR**, **PeaZip**, **The Unarchiver**, etc.

Disk Cleanup

Disk cleanup tools assist users in freeing up disk space. The software scans hard disks to find files that are no longer used and frees up space by deleting them.

Disk Defragmenter

Disk defragmenter is a **disk management utility** that increases file access speeds by rearranging **fragmented files** on **contiguous locations**. Large files are broken down into fragments and may be stored in **non-contiguous** locations if contiguous ones are not available. When such files are accessed by the user, access speed is slow due to fragmentation. Disk defragmenter utility scans the hard disk and tries to assemble file fragments so that they may be stored in contiguous locations.

Backup

Backup utility enables backing up of files, folders, databases or complete disks. Backups are taken so that data may be restored in case of data loss. Backup is a service provided by all operating systems. In stand-alone systems backup may be taken in the same or different drive. In case of

networked systems backup may be done on backup servers.