

## Directory Assistance, Please? Directories in the Computer World

Directories, in computer science parlance, are the listings of files, documents, and other directories within a file system. Most people think of directories as electronic folders that contain various files. A directory is one of the first concepts anyone learning computers encounters aside from files. He or she soon learns that these files are all contained in a listing called the directory. Who could forget the early DOS days when the command of choice was "dir c:"? A directory contained inside another directory is called a subdirectory of that directory. Together, the directories form a hierarchy, or tree structure. Organization of file systems into such makes for a more organized hierarchy. It allows the files to be grouped according to the owner's desire, and presents a more organized alternative to just having all the files dumped into one listing. Microsoft Windows and the Mac OS use folders to represent directories. This helps the user to visualize the directory as a folder that contains many papers and documents. The papers and documents represent files in the system. With this tree hierarchy Windows and MacOS supports, one cannot just simply access a file from any point. He or she must access the file using a path. For example, if the user is currently browsing folder x, the only files he or she can access are the files listed in that folder. To access files found in folder y, the user must traverse the path from one directory to its subdirectory until he or she finally accesses the folder or directory that contains the file needed. Historically, and even on some modern embedded devices, the file systems either do not support directories at all or only have a flat directory structure. This means subdirectories are not allowed. There is only a group of top-level directories that containing files. This is similar to just having one directory for all your files. The topmost directory in a file system is called the root directory. These directories contain other directories that are fittingly called subdirectories. The subdirectories may also contain subdirectories. This can go on and on indefinitely. Depending on how an operating system supports directories, filenames in a directory can be viewed and ordered in various ways. They can be viewed and sorted alphabetically, by date, by size, or as icons in a graphical user interface. The word directory is also used in computing and telephony with a different sense: a central repository of information related to management of a computer or a network of computers. This includes data on applications, hosts, users, network devices, security credentials and more. This kind of directory, as opposed to a conventional database, is heavily optimized for easy reading. Everybody who uses computers uses directories. Only, he or she may not notice it, or may not be aware of how this concept works. Most people make the most out of the directory concept by using it to organize their files. If all their files were just dumped in a root directory, they would waste much time just trying to sort out the files that they need. The concept of directories is constantly evolving. Even now, software developers and researchers are constantly devising ways to make organizing and sorting their files and directories easier. And as this researching continues, users can only gain from the tools directory management brings.

### About the Author

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