

## **What is a zip file and how does it work?**

A zip file is a compressed file. It can contain both files and folders. Generally files have to be unzipped (decompressed) before they can be used. Smaller files mean that less space is needed on disks/magnetic tapes and copying times are shorter for backups. Internet download times are also shorter. <sup>(1)</sup>

The files and folders are compressed using specially designed algorithms which eliminate data redundancy. Recurring sequences of characters in the file are replaced by shorter coded versions. This makes the zip file smaller than the files it contains. <sup>(1)</sup>

Zip files are the most common type of compressed file under the Microsoft Windows operating system, and are also used on Mackintosh and Unix computers. "Rar" format files are becoming more common and "Tar" files are also common under Unix. <sup>(2)</sup>

## **What are the advantages and disadvantages of floppy disks and hard disks?**

Hard disks and floppy disks are two different magnetic storage media. They differ in size, speed, cost, reliability and transportability.

An advantage of hard disks is that they can hold much more data than floppy disks. A floppy disk can hold 1.4 Mb, but some hard disks can hold terabytes of data. This makes hard disks good for storing large databases or lots of video for example.

A disadvantage of hard disks is that the amount of data they can hold means that, though they are more reliable, if hard disks breaks a lot of data can be lost. They need to be backed up frequently, which is time consuming .

An advantage of floppy disks is that they make it easy to transfer data from one PC to another. <sup>(3)</sup> A floppy disk fits easily in a person's bag or pocket. Hard disks are fixed inside hard drives and many are inside computers and cannot be moved.

A disadvantage is that floppy disk access is slow ... much slower than hard disks, so if you need to access data frequently, for example for a database, or for data used in a computer game, they can be slow to use.

## **References**

- (1) "What is a ZIP file anyway?", [www.bitzipper.com/what-is-a-zip-file.html](http://www.bitzipper.com/what-is-a-zip-file.html)
- (2) "List of archive formats", [en.wikipedia.org/wiki/List\\_of\\_archive\\_formats](http://en.wikipedia.org/wiki/List_of_archive_formats)
- (3) Encyclopedia of Microcomputers: Volume 3, Allen Kent, James G. Williams (Editors), CRC, 1989, p 122