

Redditch U3A Computer Users Group - File Compression

What is file compression?

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Why is it useful?

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How can we do it?

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* Encrypt the compressed file with a password, without which the original file cannot be recovered

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* Dealing with a complex collection of files and folders as a single object means the folder structure won't get disturbed / corrupted.

Parent folder

File 1, File 2

Sub folder 1

File 11, File 12

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File 21, File 22

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- * Some compression programs support 'source-file check-out' - an advanced topic relating to sharing the work of developing a file amongst a team of several workers.

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There are many ways to compress files, and a corresponding number of commercial programs (some free of charge to home users) to effect the compression. Resulting files usually have an associated file-name extension (e.g. compressed-file.zip) which indicates which type of compression has been done. Most compression programs will save the compressed file in only their own specific format, but many will de-compress and recover the original file from a variety of other compressed formats.

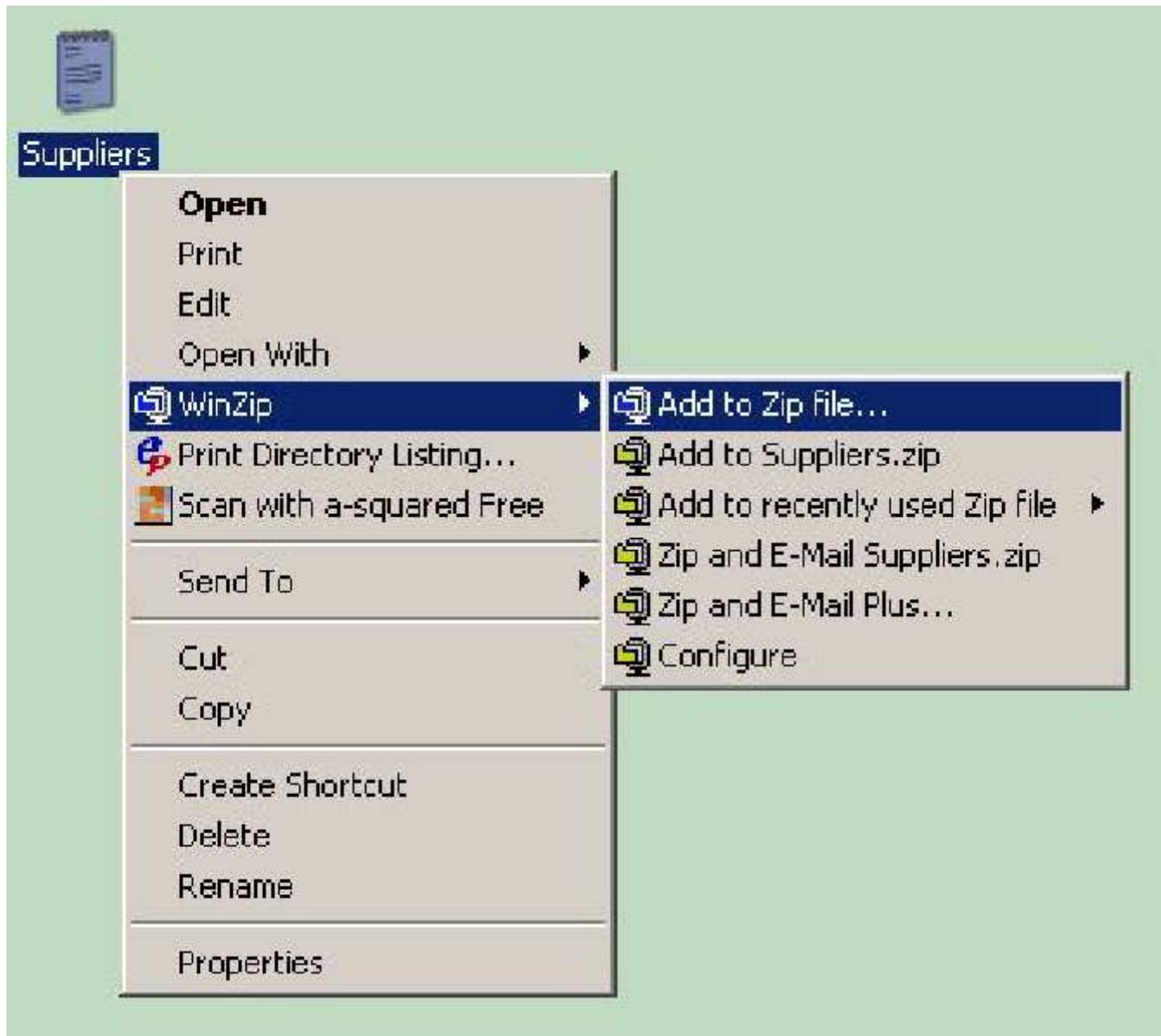
Note that computer and data files need to be compressed / decompressed losslessly, i.e. the recovered decompressed file is identical to the original file. Other types of file are frequently compressed and decompressed using lossy techniques - so the decompressed file is similar to but probably not identical to the original file. Examples of these are photos (.JPG) and music files (.MP3). In both these cases the compression / decompression programs allow you to specify the degree of compression - more compression means more data loss.

A commonly used compression program for Windows computers is WinZip, which can be obtained free-of-charge from the Internet (sometimes in trial version).

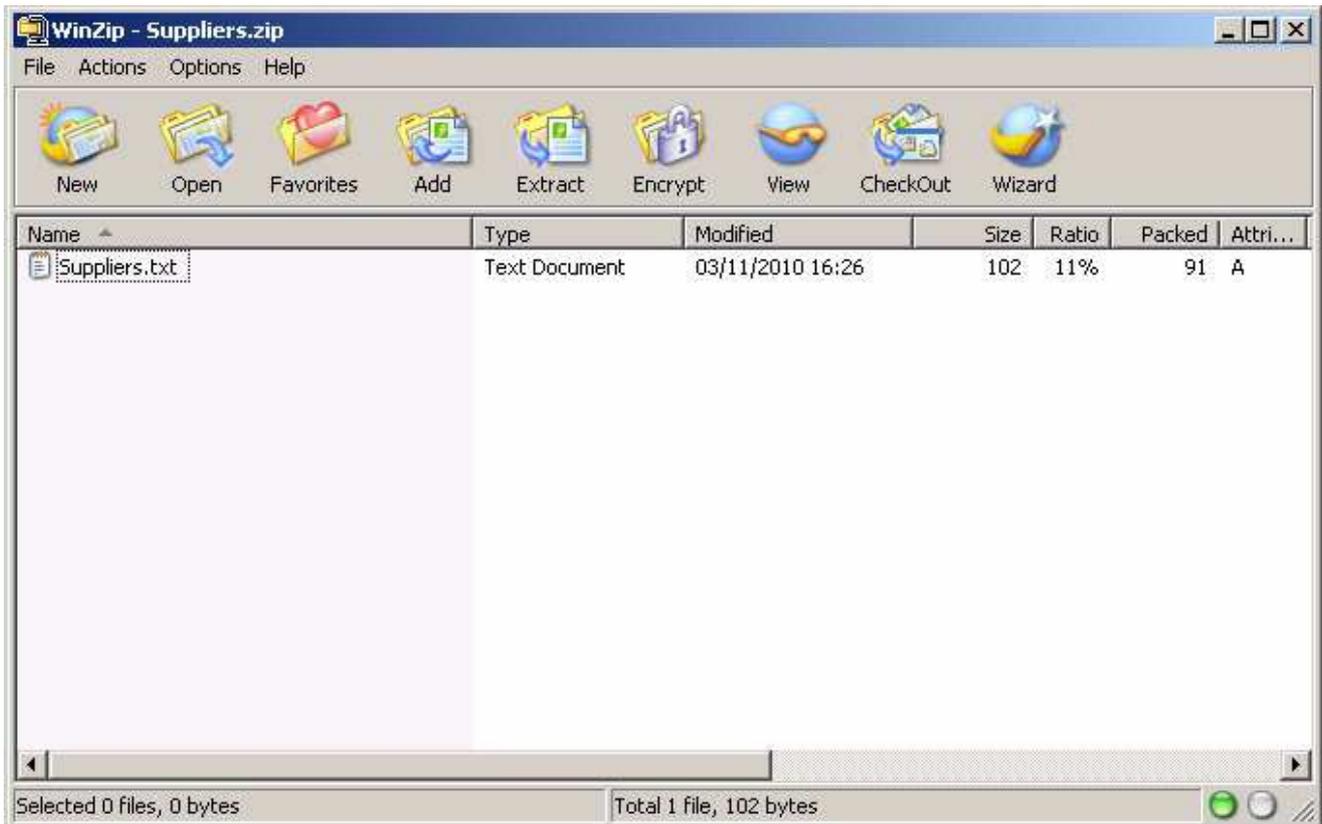
With the compression program installed, compressing a file or folder is usually achieved by either:-

- 1) Right-clicking the item for compression, then selecting the compression program entry in the 'context menu' which will drop down.
- 2) Open an existing compressed file and drop the new file into the program window.

Here's an example of using WinZip to compress a file 'Suppliers'.



The resulting file, which I've called 'Suppliers.zip', can be opened to show its compressed contents, by double-clicking the zip-file icon. Here's the result. You see that this particular file has been compressed by 11%. Other files can compress between 0% and 99% dependent on type and content.



With the zip file open, you can add more files to the zip (suppliers.zip) by dragging and dropping the new files into the zip window.

Or you can drag an item from the window onto (say) the desktop. The program will save the decompressed file where you 'drop' it.

Or you can double-click the compressed file. The program will decompress it and execute it (for .txt files, this might mean 'open in Notepad.exe').

You're not restricted to just adding files to the zip. You can also drop a folder into the window (or right-click / add to zip). The folder and its contents, which can include other folders, files and zip files) will all be added to the compressed file. On extraction (decompression) all the components will be recovered in the correct relationship to each other - subfolders in their proper parent folders, files in the correct subfolder etc.

A very useful feature of many compression programs is the 'encrypt' facility. This saves the compressed file in conjunction with a password you specify. It's a good idea to remember the password, since without it the program will not allow the decompression, and you cannot recover the original file.

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In the following snapshot, I have selected 'Suppliers.txt' in the zip file and requested 'encrypt'. The program asks me for my chosen password - and repeats the request for security purposes.

