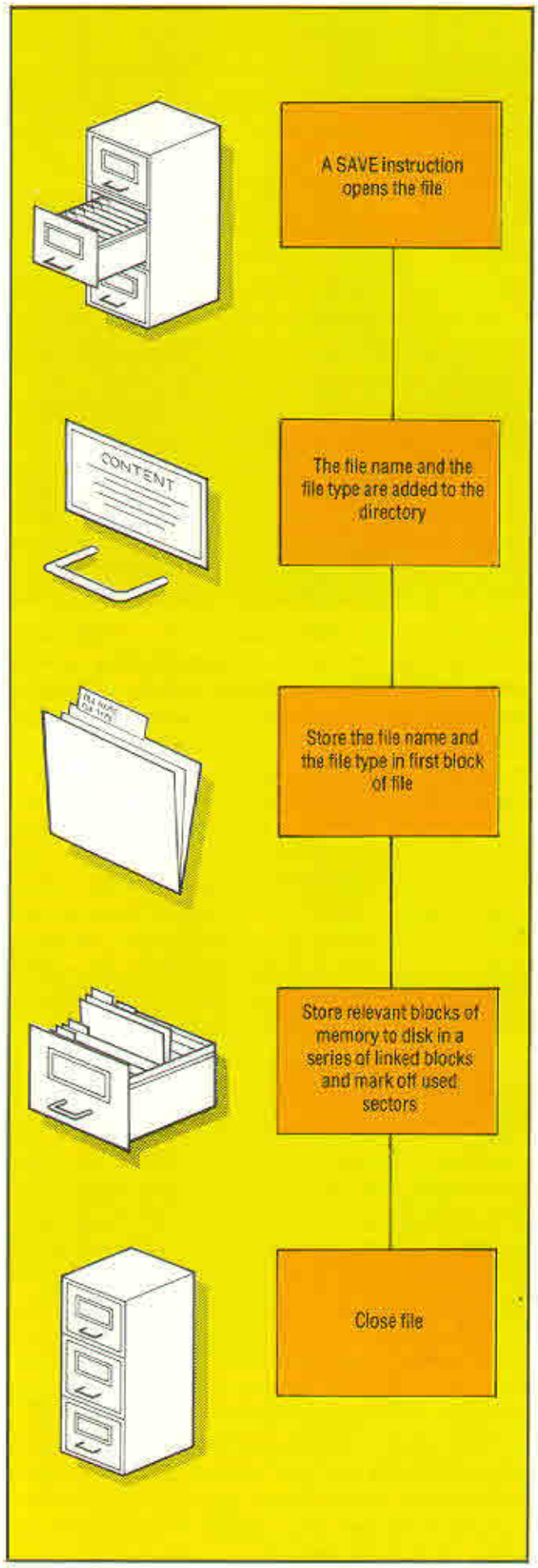
MEMORY MANAGERS

Saving A Binary File
A binary file is simply a copy of a portion of memory. This could consist of a program in memory, a screen image and so on. The filing process is straightforward; after an entry for the file has been made in the directory, the data is written as a linked series of sectors. The DOS will also keep a list of the sectors used, so that they are not overwritten when another file is created



We have already discussed the advantages of disk storage systems over tape systems (see page 4) and looked at the disk systems used by the more popular home computers. The series of articles we begin here examines the standard methods of file handling used by disk storage systems: binary, sequential and random access files.

File is a very apt word when used in reference to computer storage, since direct analogies can be drawn with the method of storing documents and records in a filing cabinet system. Bearing this in mind, we will first discuss why filing systems are necessary in home computers.

In order to efficiently 'manage' our day-to-day lives, it is necessary to maintain the most accurate record of our experiences, monetary transactions, social appointments and so on. Most people use a diary/address book and keep tabs on a bank account by filling out the cheque stubs. This need to store information and, more importantly, recall it simply and easily is amplified many times when dealing with the large amount of constantly changing information inherent in any business or project involving different people, places, objects and circumstances. As such enterprises grow, the management of information becomes increasingly complex, and most problems experienced by ventures of this type can be attributed to mismanagement and misinterpretation of information. A simple and efficient method of storing, indexing and retrieving data is the essence of good management. Capable administrators understand the need for good filing techniques, structuring their methods of storage according to the type, volume and rate-of-change of the information under their control.

These principles remain the same when applied to the fundamental ability of computer systems to manipulate and accurately store vast quantities of information at an incredibly high speed. At the centre of such a system is the computer's 'administrator' — the disk operating system (DOS) — which works perfectly well, provided it is given the correct information and asked the right questions by the 'manager' (i.e. you or your program). So, computer storage systems are only as efficient as the data structure (or filing system) adopted by the DOS, and the way in which the DOS is used.

The standard methods of file handling used by microcomputer systems were originally developed for mainframe and mini computers. They can be broken down into three systems: