8 FILES AND DATABASES

Chapter Summary

To a user, the computer is a black box. Users input data and they, or a co-worker, extract information (see *Chapter 7*).

The computer system also holds data on secondary storage. Stored data can be divided into standing data, such as a list of employees, or transaction data, such as monthly payroll transactions. Stored data needs to be secure and access to that data needs to be efficient (the accuracy of stored data is determined by the data capture process). Data can be stored on separate (conventional) files – for example, program and word processing files. For an Information System, the main data storage will normally use a relational database. Access to the database is through the database management system (DBMS). Examples of DBMSs are Microsoft Access for PC systems and Oracle for large business systems.

File and database design is an essential part of the system analysis and design process; for commercial systems it is the principal determinant of run time and can make the difference between the success and failure of the system. File and database design is the responsibility of the IS specialist.