

Two important considerations in determining the best file design for an organization are how quickly data must be processed and the manner in which data will be retrieved. An organization must consider these factors when determining whether to use batch file access or online file access.

With batch file access, all transactions to be processed are gathered for a certain period of time and then processed all at once. The length of time during which transactions are gathered before processing may be one work shift (eight hours), one calendar day (twenty-four hours), or any other logical time period dictated by the information needs of the user(s).

Batch file access is most useful when current information is needed only at set times, rather than at all times. For example, student grades can be processed at the end of a term or employee payrolls at the end of a pay period.

Online file access provides the ability to retrieve current information at any time. Each time a transaction occurs, the affected records are simultaneously updated. Online file access is often used for inventory control, airline reservations, and banking transactions.

A computer file can be arranged in a number of ways. Generally, file arrangement depends upon the method used to access the file. If the information in the file is retrieved by batch file access, then the best file design may be sequential. If the file will be accessed online, a direct-access file design or indexed-sequential file design must be used.