SYMPHONY IN SOFTWARE

In the first instalment of this series we considered the principles behind integrated software design. Now we look at Lotus's 1-2-3 and Symphony, and Psion's Xchange, three packages that are designed for large business systems but whose techniques will soon be applied to lower-priced machines.

As we have already seen, integrated software requires an environment in which the user has instant access to all the different tasks that may be required, where operating procedures remain the same no matter which application is being used, and where information may be moved freely between different applications. There are many different ways of achieving these aims.

Lotus 1-2-3 uses the familiar spreadsheet format, in which figures and formulae are entered into a matrix of 'cells' and can be freely amended and instantly recalculated. However, 1-2-3 offers many extra facilities and can be used for much more than just financial forecasting and analysis. The spreadsheet cells may be used to store information such as names and telephone numbers as well as numeric data, so a specific area of the grid may be used as a table containing relevant details — for example, a list of clients and their associated account numbers. As 1-2-3 offers functions for searching for and reorganising such information, this grid area may in effect be used as a small database. It is also possible to take a set of cells containing numeric data and use 1-2-3 to display this information in the form of different types of graph, thus removing the need for a separate business graphics program. Finally, 1-2-3's text-handling capabilities mean that it can be used for memo writing, although memory limitations preclude its use as a true word processor.

This combination of different facilities means that 1-2-3 is the only program that many users ever need. Because all the information for different applications is contained in a single spreadsheet, it is easy to achieve results that would be impossible with traditional programs. For example, let's assume that a 1-2-3 user operates several different newsstands in different parts of a large city, and needs to record weekly, monthly, quarterly and annual sales figures for each location. This is best done by placing the location of each stand and its sales figures into a spreadsheet. Formulae are written in such a way that the only figures that must be changed by the