

CALCULATING MACHINE

Executives and accountants, using expensive 'business' machines, are not the only people who can benefit from a spreadsheet modelling package. This series is designed to provide a practical guide to using cassette-based spreadsheets on home computers.

There are several cheap cassette-based financial modelling packages on the market for popular home computers like the Sinclair Spectrum, Commodore 64 and BBC Model B. This series of articles aims to provide a practical, step-by-step guide to using such spreadsheet packages for a variety of everyday applications – including home budgeting, working out the impact any changes in interest rates might have on mortgage repayments, and comparing the relative merits of leasing and buying major household items.

The heart of any spreadsheet package is an electronic 'worksheet', which is divided into columns and rows (similar to a large ruled sheet of modelling or graph paper). The television screen (or monitor) acts as a movable window that can display any part of this sheet (which is, of course, bigger than the four or five columns and 10 to 15 rows that are shown on the screen at any one time).

An intersection of a column and row is called a *cell*: each cell can contain numbers, text or formulae. The spreadsheet uses a cursor – normally a highlighted block – that may be moved around it by using the cursor control keys. Any entry of data from the keyboard is assumed by the program to be intended for the cell that is currently occupied by the cursor.

This, then, is a rough outline of the basic design of a spreadsheet. For this first article, we will concentrate on a package called Vu-Calc; this is marketed by Psion and is available for both the Spectrum and the BBC Model B. Here we consider the BBC version, which is almost identical (except for certain minor, but irritating, differences in the names of some commands) to the version for the Spectrum.

Vu-Calc demonstrates just how flexible and useful a very simple spreadsheet can be. It doesn't have any of the more sophisticated features of modelling packages like Lotus 1-2-3 (see page 644). You can't split the screen vertically or horizontally to show different parts of the worksheet at the same time (a facility supplied on the more 'serious' modelling packages), and you don't have anything like the number of features offered by spreadsheets designed for business use. But you can use Vu-Calc to construct some very useful models, which may be saved on cassette, together with your data, for later reference.

The version of Vu-Calc for the BBC Micro has a maximum of 28 columns (numbered from 1 upwards) and 52 rows (labelled alphabetically, with rows after 'Z' allocated double letters – 'AA', 'BB', etc.). This is not very large by spreadsheet standards, but the limit is set by the BBC Micro's rather meagre 32 Kbyte memory.

One of the most useful applications for a home computer spreadsheet is the annual household budget, which also has the merit of being a relatively simple model to build. Once constructed, such a model enables you to see at a glance what the impact of any increased expenditure – an unduly heavy telephone bill,

