

The procedure uses the following standard compiler procedures :

*fenêtré* (S : set-of-terminal) : boolean

verifies if the value of the variable *fenêtre*, i.e. the window, is contained in the set given as parameter.

*lexical*

is the scanner which places into the window the internal representation of the next syntactic symbol of the program text.

*pastrouvé* (Sym : terminal ; recovery : set-of-terminal),

i.e. 'terminal symbol not found', or

*nondans* (Sym, recovery : set-of-terminal),

i.e. 'window not contained in . . .', are called in the case of syntax errors. They print a message indicating that the window is not equal to, or respectively contained in the first parameter. The second parameter is used for the error recovery, which consists of possibly skipping text until the syntactic symbol of the window is an element of the recovery set.

## References

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## Book review

*Computational Analysis with the HP-25 Pocket Calculator*, by P. Henrici, 1977; 280 pages. (John Wiley, £7.75)

First, what is the HP-25? It is a pocket calculator with approximately 25 function keys, eight registers, is programmable to 49 steps, costs around £100 (mid-1977) and comes with a comprehensive manual containing handy dandy programs. Model HP-25C, with a continuous memory, can be switched off and on yet not forget anything.

Second, what about the author? He is Professor of Mathematics at the Eidgenössische Technische Hochschule, Zurich and the author of several well known books on numerical analysis.

Third, what is the book all about? It contains 35 program descriptions with their purpose, method, flow chart, storage and program, operating instructions, together with examples and timing. Although the programs are machine and language dependent, with thought they can be adapted on any similar or more powerful computer. They are grouped into number theory, iteration, polynomials, power series, numerical integration and special functions (e.g. Gamma, Bessel). The library of programs covers well the gamut of the numerical aspects of a university degree course in mathematics except for statistics, which are covered in the complementary *Scientific Analysis on the Pocket Calculator* by J. M. Smith. There is a curious deficiency in omitting the Monte Carlo technique, because in my opinion it is the most practical method to perform integration; however this method certainly works best on fast and big computers. This last statement is true for everything described, however the tremendous feature of this book is that technology has at last (or very soon will) produced for us a cheap, portable microcomputer so that students can quickly learn for themselves relative accuracy and timing of calculations. Indeed this area of mathematics can be made very exciting with the ideas presented in this book.

I. R. WILLIAMS (London)

*Multi-Coordinate Data Presentation*, by V. Z. Priel, 1977; 150 pages. (Business Books, £12.00)

The object of this book is to provide a technique for converting data into information. Mr Priel defines the difference between the two by stating

'Data can be regarded as building blocks, as part of a jigsaw puzzle or as daubs of paint on a canvas. The various components only make sense—convey a message—if the arrangement is right, i.e. if it forms a complete whole.'

The book is divided into four parts. The first part provides the argument that what managers are receiving is data when it ought to be information. The second part defines the types of and relationships between data and the uses to which it is put. The author states seven postulates which he uses to support the use of the MCDP technique. In part three he defines the coordinates against which data must be viewed to ensure meaning. The fourth and final part introduces MCDP proper and by means of worked examples shows the technique in use. There are three further examples in the appendix which compare the conventional layout with the equivalent MCDP layout.

There are a number of unfortunate typographical errors, which in at least two cases reverse the meaning of the sentences in which they appear. The values in table 4 in part 2 are incorrect, but the correct values can be easily established. The criticism must also be made that the worked examples, which should be the easiest parts of the book to follow, are in fact the most difficult. This should not deter anyone who is interested in providing management with information as opposed to data, it just makes these parts of the book take longer to understand. The technique is designed to reduce the time managers spend studying large volumes of paper, if this can be achieved it is worth attempting.

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