Book reviews

Computer Science and Technology and their Application, General Editors: N. Metropolis, E. Piore and S. Ulam, 1975; 310 pages.
Administrative Editors: Mark I. Halpern, William C. McGee; Contributing Editors: Louis Bollet, Andrei P. Ershov, J. P. Laski. (Pergamon Press, £15.00)

Contents
A Tutorial on Data-Base Organization, R. W. Engles.
General Concepts of the Simula 67 Programming Language, J. D. Ichbiah and S. P. Morse.
Incremental Compilation and Conversational Interpretation, M. Berthaud and M. Griffiths.
An Introduction to ALGOL 68, H. Bekic.
A General Purpose Conversational System for Graphical Programming, O. Lecarme.
Automatic Theorem Proving Based on Resolution, A. Pirotte.
A Survey of Extensible Programming Languages, N. Solinsef and A. Yeezers.
It appears immediately that this volume is not annual, nor is it a review; it is hardly automatic programming, and the contributing editors did not contribute. Nevertheless, it is a selection of articles on topics closely related to high-level programming languages. They might have contributed to a learned journal; instead they have been collected in a book. On the whole they deserve to be: the general standard of the papers is distinctly higher than the average, and they are likely to appeal more consistently to a reader interested in high-level programming languages.

But it would be a rash reviewer who would venture to pass comment on all the papers individually; and to do so within the space allotted would be even more foolhardy.

C. A. R. Hoare (Belfast)

Computer Science: Programming in FORTRAN IV with WATFOR WATIV, 210 pages. (John Wiley and Sons, £2.65)

The very successful Computer Science: A First Course has now been re-issued in a second, considerably expanded, edition which necessitates a similar revision of all the language supplements. This, the FORTRAN one, is the first that I have seen of the second editions. There are some changes in the set of authors and it is now in phototypescript rather than print, but the overall impression of workmanlike competence remains.

C. M. Reeves (Keele)

Environmental Data Handling, by G. B. Heaslip, 1975; 203 pages. (John Wiley, £12.25)

Environmental Data Handling is not a book about computing but about the way transducers and sensors work, how their outputs are generalized, coded, transmitted, recorded, analysed and presented. It is simple in its approach with many a homely (in the British sense) line illustration to carry home a point. Remote sensing as practised in Earth resources programmes provides much of the inspiration to the author's approach, befitting his background in the NASA Lunar Program and the Grumman Environmental Data Services. Practical experience is evident in every page and the approach is not analytic. Transducers are only very simply described; the frequency response of an accelerometer, for example, is not discussed. Again the filtering of data at the demodulation stage, an all-important and analytic matter for further research.

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The Computer Journal