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## Book Review

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## BOOK REVIEW

*A Guide to FORTRAN Programming* by DANIEL D. McCracken. New York: John Wiley & Sons, Inc., 1961, pp. 88, \$2.95.

Computer specialists, whose business it is to process and transmit information, have suffered from a weakness of communication about their art. This has been particularly evident in the literature on programming. Fortunately, McCracken has given us a well organized text free of the jargon that has alienated so many of our colleagues. It has been my pleasure to use the text for an introductory short course in FORTRAN programming, and I can report many favorable comments from students.

The text is well organized, moving in easy stages in the first eight chapters through all of the elements of the FORTRAN language. The frequent use of examples greatly facilitates the reader's progress and the large number of exercises included at the end of each chapter will serve to give the serious reader a firm grasp on the material. (There is an instructive error in the answer supplied for exercise 6 on page 22.) The most valuable part of the book is to be found in the eight extensive examples of the final chapter. These will serve to give the beginner a sense of the way in which programs are constructed out of the building blocks which have been presented in the previous chapters. Careful attention here will cut many weeks from the apprenticeship time of the aspiring programmer.

The text is completed by two appendices. One tersely lists the restrictions imposed by the several FORTRAN compilers for individual machines, and the second is a reference list of the FORTRAN statements, their punctuation and sequencing rules. There is an adequate index.

The text does not treat the problems which arise in the process of forcing a FORTRAN program through the compiler and also fails to mention the problems which arise in checking the resulting program to assure that it is logically correct. The reader who has read this text and the particular manual for his machine may be tempted to say, "It has to be right; I coded it myself." Let him be forewarned that there are still many restrictions and idiosyncrasies in the translators which can only be learned from the folk or by trial and error. (For example, equivalence statements may cause differing assignments of common storage, thus destroying links between subroutines.)

One will notice that all the examples are taken from engineering and the physical sciences. This choice, in part, is a reflection of the fact that FORTRAN is best adapted for these kinds of applications. Also, it leaves a place on the shelf for a parallel treatment of other kinds of applications which may soon be filled. Another text such as this one would be indeed welcome.

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## BOOKS RECEIVED

(Inclusion of books in this list does not preclude their subsequent review.)

- American Industrial Research Laboratories* by F. A. WHITE. Washington, D. C.: Public Affairs Press, 1961, 228 pp., \$6.00.
- Automation in the Office* by I. R. HOOS. Washington, D. C.: Public Affairs Press, 1961, 138 pp., \$4.50.
- The Decline of American Pluralism* by HENRY S. KARIEL. Stanford, California: Stanford University Press, 1961, 339 pp., \$6.75.
- Economic Analysis for Business Decisions* by A. S. MANNE. New York: McGraw-Hill, 1961, 177 pp., \$6.95.
- Electric Utilities-Costs and Performance* by WILLIAM IULO. Pullman, Washington: Washington State University, 1961, 181 pp., \$7.50.
- Full Employment, Inflation, and Common Stock* by M. L. GREENHUT. Washington, D. C.: Public Affairs Press, 1961, 88 pp., \$3.25.
- Graphic Charts Handbook* by A. C. ROGERS. Washington, D. C.: Public Affairs Press, 1961, 190 pp., \$6.00.
- Introduction to Business* by M. J. JUCIUS AND G. R. TERRY. Homewood, Illinois: Richard D. Irwin, Inc., 1961, 712 pp., \$7.50.
- Management of Industrial Enterprises* by R. N. OWENS. Homewood, Illinois: Richard D. Irwin, Inc., 1961, 724 pp., \$10.60.
- Management Models and Industrial Applications of Linear Programming, Vol. I* by A. CHARNES AND W. W. COOPER. New York and London: John Wiley and Sons, Inc., 1961, 467 pp., \$11.75.
- Mathematical Models and Methods in Marketing* by F. M. BASS, M. R. GREENE, EDGAR A. PESSEMIER, A. SHUCHMAN, R. D. BUZZELL, W. LAZER, D. L. SHAWVER, C. A. THEODORE AND G. W. WILSON (Eds). Homewood, Illinois: Richard D. Irwin, Inc., 1961, 545 pp., \$8.50.
- Manufacturing Management* by G. MOORE. Homewood, Illinois: Richard D. Irwin, Inc., 1961, \$7.95.
- Price-Level Adjustments of Financial Statements* by E. S. HENDRIKSEN. Pullman, Washington: Washington State University, 1961, 133 pp., \$4.00.
- Principles of Personnel Management* by EDWIN P. FLIPPO. New York: McGraw-Hill Book Co., 1961, 620 pp., \$7.95.
- Probability with Statistical Applications* by F. MOSTELLER, R. E. K. ROURKE, AND G. B. THOMAS, JR. Reading, Massachusetts: Addison-Wesley, 1961, 478 pp., \$6.50.
- Proceedings of the National Symposium on Machine Translation* by H. P. EDMUNDSON (Ed.). Englewood Cliffs, New Jersey: Prentice-Hall, 1961, 525 pp., \$7.95.
- Production Control* by WILLIAM VORIS. Homewood, Illinois: Richard D. Irwin, Inc., 1961, 423 pp., \$10.60.
- Statistical Decision Theory* by L. WEISS. New York: McGraw-Hill Book Co., 1961, 195 pp., \$7.50.

- Studies in Item Analysis and Prediction* by H. SOLOMON (Ed.). Stanford, California: Stanford University Press, 1961, 310 pp., \$8.75.
- Studies in Personnel and Industrial Psychology* by E. A. FLEISHMAN (Ed.). Homewood, Illinois: Dorsey Press, Inc., 1961, 633 pp., \$9.35.
- The Study of Administration* by E. S. WENGERT, D. S. HARWOOD, JR., L. MARQUIS, AND K. GOLDHAMMER. Eugene, Oregon: University of Oregon Press, 1961, 149 pp.
- Total Quality Control* by A. V. FEIGENBAUM. New York: McGraw-Hill Book Co., 1961, 627 pp., \$11.00.
- Toward a Science of Mankind* by LAURA THOMPSON. New York: McGraw-Hill Book Co., 1961, 261 pp., \$5.95.