

TRAN, is followed by two chapters on FORTRAN Terminology and Ground Rules and Essential FORTRAN Statements. In Chapter IV several programs are discussed, which use only these essential FORTRAN statements. Chapter V is concerned with error analysis and control and Chapter VI with additional FORTRAN statements. Chapters VII-IX are devoted to Computing with Polynomials, Interpolation, and Quadrature. Chapter X reverts to programming and treats the Manipulation of Alphameric Information, the Use of Magnetic Tapes, and Sorting. Chapters on the Solution of Equations and the Integration of Ordinary Differential Equations and an Appendix on the organization of a Monitor conclude the book. Graduated exercises at the end of each chapter enable the reader to practice what he has learned and to check his progress."

This book is not a book for the research student in numerical analysis: vast areas of the subject are left untouched (eigenvalue problems, the numerical solution of partial differential equations, and many other topics are not dealt with). But as a textbook for a one-semester course it is quite outstanding. Given teaching staff of sufficient competence and student material of a suitable calibre it seems probable that this book will serve to introduce to numerous young applied mathematicians, physicists, engineers and many others, the theory, practice, limitations, and possibilities of digital computation.

The book is pleasantly produced: the writing is invested with that degree of formal elegance and clarity in exposition which distinguishes the works of Professor Prager.

PETER WYNN

University of Wisconsin
Madison, Wisconsin

139[Z].—LILIAN TROLLHANN & ALFRED WITTMANN, *Dictionary of Data Processing*, Elsevier Publishing Company, Inc., New York, 1965, 300 pp., 23 cm. Price \$17.00.

There are no definitions of words here. The book contains translations of data-processing terms between English/American and German and French. The first section (214 pages long) contains numbered, categorized English/American terms and their translations into German and French. Thus: "O134 output unit (dig)" is followed by "Ausgabeeinheit f " and "unité f de sortie". The category here, (dig), refers to "digital computers". There are 11 other categories: (anal), (math), (tron) = electronics, (datatr) = data transmission, etc. The subsequent German and French lists contain only the term's number, e.g. O134, so that one translates between German and French, say, by utilizing the main, English/American listing.

The listings are heavily orientated toward hardware and contain, for example, **relaxation oscillator** (tron) but not **relaxation method** (math). The authors have both worked in the Translation Dept. of Siemens & Halske AG. Although ostensibly English/American is given the central position, it appears likely, from some of the translations, that the authors often began with the German terms. Some of the English/American has a Germanic flavor. On occasion, the definitions do not quite touch bottom. Thus "F7 factoring (math) (e.g. an equation containing fractions)" is erroneously translated as "durchmultiplizieren (z.B. eine Bruche enthaltende Gleichung)" while the French translation is given as "_____". Whether the latter

implies that the French do not have a word for it, or that it is unprintable in French, is not made clear.

All together there are about 5000 terms. The book is very nicely printed and bound, but quite expensive.

D. S.

140[Z].—W. W. YOU DEN, *Computer Literature Bibliography 1946–1963*, National Bureau of Standards Miscellaneous Publication 266, March 31, 1965, iv + 463 pp., 29 cm. Price \$3.75. (Available from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402, or from local U. S. Department of Commerce Field Offices.)

There is indexed here the “computer literature” that has appeared during the stated years in *Communications ACM*, *Journal ACM*, *BIT*, *IBM Systems Journal*, *The Computer Journal*, and several other journals; in 21 books; and in over 100 proceedings of computer conferences such as the Joint Computer conferences and IFIP 62. The three indices are by journal (or proceedings), by author, and by every important word in the title. For example, in the last-mentioned index, one finds two pages listing articles containing the word “method” in the title. All together, over 6100 articles are referenced.

This bibliography is, of course, not complete. Articles appearing elsewhere, such as in this journal, are not listed. While all numerical analysis, say, appearing in the aforesaid sources has been indexed, related articles appearing here, in *Numerische Math.*, in the SIAM journals, etc., are not covered.

Nonetheless, the volume is highly useful and instructive, and also has a high browsing-interest quotient. (The latter is the number of pages that catch our attention divided by the total number of pages.) The printing is not always perfect, but usually the invisible information can be restored through redundancy. The price is very reasonable, as is usually the case with this publisher.

D. S.