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A Practical Introduction to Pascal —with BS 6192

Second Edition

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First edition 1978

Reprinted 1979 (twice), 1980 (twice), 1981

Second edition 1982

Reprinted 1983 (with minor corrections), 1984 (twice), 1985, 1987, 1990

Published by

MACMILLAN EDUCATION LTD

Houndmills, Basingstoke, Hampshire RG21 2XS

and London

Companies and representatives

throughout the world

Typeset in 10/12 Press Roman by

Thames Typesetting, Abingdon

ISBN 978-0-333-33340-2

DOI 10.1007/978-1-349-06364-2

ISBN 978-1-349-06364-2 (eBook)

to

Alleyn, Fiona, Jamie, Kirstie

Hilary, Rebecca, Sarah, Helen and Amy

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Preface

Since the first edition of this book was written in 1977, there has been a tremendous increase in the use of Pascal. This increased use has had two significant effects.

- (1) It has produced a better understanding of the facilities of Pascal and their use.
- (2) It has fostered the production of the ISO standard for Pascal.

This second edition reflects both this better understanding and the clarifications and changes to Pascal which have resulted from the production of the BSI/ISO Pascal standard. The standard (BS 6192, which supplies the technical content for ISO 7185) is the definitive document on Pascal; it is reproduced in its entirety from page 163 of the book. My work on the Pascal Standard has convinced me that the description of a programming language may be tutorial, or it may be definitive, or it may be neither! The chapters of this book do not constitute a definitive description of Pascal. They are essentially tutorial.

The book is based on an introductory lecture course given at Manchester. In addition to lectures, the course consists of two kinds of practical work. The first is based on the solution of short pencil-and-paper exercises. The second requires the student to write complete programs and run them using interactive computer terminals. Each chapter of the book concludes with exercises and problems suitable for these purposes. Although solutions to all of these are not presented in the book, teaching staff may obtain them by application to the authors.

The full Pascal language is presented in a practical manner, with reference to example applications. The importance of the design of data structures in the solution of a problem is recognised by devoting seven chapters to this topic. It is intended that the book will be of use to first-time students and to more experienced programmers not yet familiar with Pascal.

Finally, I would like to thank all those people from many countries who have helped me fulfil my ambition of creating an ISO Pascal standard and who at the same time have improved my understanding of Pascal. Space prevents me from naming them all, but special mention should be made of Bill Findlay, Chris Kirkham, Jim Miner, Bill Price, Arthur Sale, David Watt and Jim Welsh.

The program examples were printed on a Sanders Media 12/7 printer attached to a Research Machines 380Z microcomputer – the same two machines which printed the Pascal Standard.

University of Manchester

March 1982

A.M. ADDYMAN