A HANDBOOK OF SYSTEMS ANALYSIS

By the same authors

Planning for Data Communications

A HANDBOOK OF SYSTEMS ANALYSIS

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SECOND EDITION

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PREFACE TO THE SECOND EDITION

Since this book was first written, certain new techniques and shifts in emphasis have occurred in the field of systems analysis. The material has therefore been thoroughly reviewed and revised where appropriate for this second edition. The major changes are to be found in the technology of data processing and especially in the areas of data communications, data management and input methods. Changes have also occurred, however, in the field of systems methodology and analysis techniques and wherever appropriate these changes have been included in the texts. It is our objective that the updating of this text will enable it to continue to support our objective in writing it—to help upgrade the standards of systems analysis as a discipline.

1977

J.E.B.
G.W.P.D.

FOREWORD

Over a million persons in Europe and the United States are employed in the type of work broadly labelled as 'systems analysis'. Yet this new profession did not exist as a separate discipline until the late nineteen fifties. The major impetus for the remarkable growth in demand for this kind of knowledge came from the rapidly increasing use of computer systems in business applications. With this came a widespread recognition that business procedures could almost universally be substantially improved by taking a well-structured look at their basic functions. A good portion of such improvements is due to employment of the discipline rather than the instrument. To apply the approach successfully, however, required a combination of established analytical techniques and the new technology of data processing; it was to fulfil this requirement that the new discipline emerged.

Surprisingly, the rapid growth of systems analysis has been accomplished in spite of a severe shortage of practical literature on the subject. Considerable information exists about scientific applications of the computer and indeed about the theory of systems analysis itself. What has been lacking are practical guidelines for the systems analyst or trainee in the normal business environment, which after all accounts for around 90% of all computer installations.

It was therefore with pleasure that I accepted the invitation to write the foreword to this book, because it helps to fill that gap. Our whole progress in Western civilisation is in danger of clogging up through paper-work, inefficient procedures and escalating costs, because of our amazing ability to mis-use the computer. Only if we attack the problem of developing a sound approach to systems analysis with vigour and urgency will we overcome this deficiency. I particularly welcome the second edition to this book therefore as it again aims exactly at fulfilling that need, namely a practical handbook based on solid experience. That the material is widely appreciated by systems analysts is shown by the substantial success achieved by the first edition, which led to translation into other languages, too.

The pleasure is all the greater for me because of the close personal and professional relationship I have enjoyed with the authors over a number of years. Thus I can vouch for the thoroughness of their work and for the sound experience on which the book is based and which is evident in the text. Indeed, it represents a further milestone in the development of this important but hitherto ill-defined discipline we call 'systems analysis'.

May, 1977.

Henry F. Sherwood, President
H. F. Sherwood and Associates, Fribourg, Switzerland

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Publication of a book of this nature is in many respects a team effort and we would like to acknowledge all the assistance we have received in creating it. We would like to thank the Editor of *Business Systems* for permission to reproduce the substance of Chapter 21, which has already appeared as an article in that journal. We would also like to record our gratitude to our colleagues in our work for the many fruitful discussions we have had on subjects included in this book.

Our greatest debt is, however, to our wives who typed the entire manuscript in its several drafts and whose patience in accepting the long hours necessary for the writing of this work enabled it to reach completion.