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File Handling on the BBC Microcomputer

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Preface

Many people who are responsible for the control of small organisations are aware of the fact that using a computer can make the difference between the success or failure of that organisation. Unfortunately, the introduction of a computer to carry out data processing activities does not guarantee the continued viability of that organisation.

This is because a large number of the programs that are supposed to carry out such tasks fail to do so in the way that is required by the user. Such programs are produced to satisfy the largest number of potential users, in order to sell as many programs as possible, and thus represent a solution to what is seen by their writers as a general problem. The continued existence of many small organisations is often due, however, to the special nature of the service provided, or the way in which it is provided, and thus its problems may be difficult or impossible to solve using a general-purpose program.

Even if a user feels confident enough to attempt a modification, such programs may have been written so as to prevent user-modification and the cost of modification by the writer may be prohibitive. An approach to organisations that have solved similar problems may be considered as unwise from the aspect of having to reveal sensitive information to a possible competitor. This book provides a means whereby such problems may be solved within the organisation.

It is not, however, necessary to be a computer programmer in order to use this book because readers are taken, in easy steps, through the development of a typical file-handling program. Self-test questions are provided to enable readers to check their understanding of each new concept and model solutions to those questions are provided. As each new user-requirement is identified, a routine is developed and tested on the computer and then the results are analysed in order to establish whether or not the routine is satisfactory.

The initial development is carried out on a basic system comprising a BBC microcomputer, an audio

cassette recorder/player and a TV receiver. As the development progresses, so readers will become aware of the limitations of the basic system for certain types of data processing activities. It is stressed, however, that this basic system can be used for a number of activities in which a printed output or a rapid response to a requirement is not important.

A method of creating records and files on the computer is developed and this is followed by routines for sorting, searching and updating files. As the production of a printed output is likely to be the next most important aspect, this is dealt with before considering how floppy discs can be used for the various aspects of file-handling. Finally, although the development has been carried out in a logical and sequential manner, the results need to be combined into a self-contained package of routines that can be selected by the user. Such a combination is described, developed, tested and analysed.

This package is not meant to be the answer to the file-handling requirements of an organisation but it provides the framework on which the development of an appropriate package can be based. Suggestions for incorporating possible user-requirements are made and the various types of printer and floppy disc equipment are analysed.

Thanks and appreciation are due to my wife Marian for her patience and encouragement during the writing of this book.

Brian Townsend
Stow Maries
November, 1984

Program Cassette

All of the program listings given in the book are available on a cassette, which will overcome the need to enter programs from the keyboard - and eliminate typing errors. The cassette is obtainable from major bookshops, but in case of difficulty order direct from

Globe Book Services
Houndmills, Basingstoke, Hampshire RG21 2XS

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Important Note

Readers are asked to note that users of data processing programs may be affected by the 1984 Data Protection Act.