The MICROCOMPUTER USERS HANDBOOK 1985

The MICROCOMPUTER USERS HANDBOOK 1985

The complete and up to date guide to
buying a business computer

**Dennis Longley
and Michael Shain**

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INTRODUCTION

The Microcomputer Users Handbook has been written for all business people and professionals who are current or potential users of microcomputer systems. This practical guide will help the reader to select or upgrade the right microcomputer as well as explain how to successfully operate the chosen system.

This *Handbook* will aid a wide range of business people: self-employed people running small businesses, accountants in larger companies, managers of company divisions, DP managers, university lecturers, architects, doctors, and many more. It will, of course, be immensely useful to microcomputer and peripheral computer manufacturers and dealers. Indeed, it is invaluable to all those involved in the computer business who require a comprehensive source of international information.

Many books have attempted to cover this topic but none have described as many makes of microcomputers and peripherals in such detail. The area of microcomputer technology is so rapidly changing that it is understandable why this has not been properly attempted before now. The authors realise that although machines and models will change, the information contained in this *Handbook* will still prove valuable. To help overcome the problem of providing up-to-date information, this *Handbook* will be revised and published every year. The authors welcome readers' and manufacturers' comments and suggestions for amendments and additions for the next edition. These should be sent to:

Dennis Longley and Michael Shain
The Microcomputer Users Handbook
Macmillan Reference Books
4 Little Essex Street
London WC2R 3LF

HOW TO USE THE HANDBOOK

The Handbook is divided into two parts:

The first part comprising Chapters 1 — 6 assesses and explains the user's needs in choosing the appropriate microcomputer system.

The second part including Chapters 7 — 8 is an in-depth review of over 160 business microcomputers. It also describes in similar detail the peripherals:

VDU's, disk drives, printers and monitors currently available.

The paragraphs below further explain which chapters will be of most use to different readers. As the reader can see from the detailed content pages, the chapters and sections within chapters have been largely designed to be self-contained. This will enable each reader to select the appropriate chapters, sections and sequence of reading for his or her own requirements.

The reader seeking a microcomputer within a specific price range should refer to Appendix I which provides a most comprehensive and practical listing of all the microcomputers according to price range. For each model the following information is provided: operating system(s), hard disk availability and whether multi-user or networking is supported.

The user with no knowledge of microcomputers should first read Chapter 1 and the appropriate subsections in Chapter 2 (see below), to set the scene. The sections in Chapter 3 describe important applications of business microcomputers and assumes a general understanding of the role and function of microcomputers as given in the previous two chapters. The reader who is concerned with the problems of installation, and implementation, of the computer system is directed to Chapter 4 where the technical, ergonomic and administrative problems associated with these phases are comprehensively covered. Chapter 5 provides an insight into particular developments in the microcomputer field and will be of most interest to users who already have some microcomputer experience. Chapter 6 gives an account of recent developments in integrated software and will enable the user to build a software library.

The actual details of equipment and manufacturers in Chapters 7 and 8 are preceded with further explanatory notes which provide hints on the relevance of technical aspects from a users' and purchasers' viewpoint. The recurring theme of this Handbook is that the user is primarily concerned with the operation of the total computer system; it is therefore important that those technical factors are kept in their proper perspective.

The appendices provide details of ancillary services and suppliers, a checklist for word processing applications, advice from H M Customs and Excise on VAT aspects, advice on contracts, an overview of microcomputers listed by price and a glossary.

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ABOUT THE CHAPTERS

1. HOW TO BUY A MICROCOMPUTER

by R Anderson, Brighton Polytechnic.

The role of the microcomputer in business is analysed and suggestions are made on the approach to be taken in acquiring a microcomputer, together with questions which should be asked at a demonstration. Due attention is given to the planning for growth, and the importance of maintenance and after-sales support is discussed. Supporting material is also contained in the appendices (see below) where specific advice is given on sources of help, maintenance, finance etc.

2. UNDERSTANDING MICROCOMPUTERS

by D Longley, Brighton Polytechnic.

This chapter comprises eleven sections dealing with the hardware and software of microcomputers. The Chapter may be read in its entirety as a general introduction to the subject but it is also organised to facilitate selection of topics in isolation. Each section is preceded with a few explanatory paragraphs which attempt to place the material in context and most sections provide both an overview, and a detailed account, of the topics. In appropriate cases the concluding paragraphs indicate the inter-relationship of other sections in the chapter.

3. IMPORTANT APPLICATIONS

This chapter is mainly concerned with those software packages likely to be of importance to the business user. There is a degree of cross reference between its sections but it has been largely designed so that the reader may select the most relevant application area.

Word Processing by A Warburton, Brighton Polytechnic. This gives a full account of the more important facilities that a word processing package should contain and considers the WORDSTAR package in detail.

Financial Planning by B Elliot, Brighton Polytechnic. The growth of financial modelling on microcomputers is discussed and the more important spreadsheet packages analysed and compared. A full account is presented of VISICALC and its areas of application reviewed.

Scheduling by M Cotterell, Brighton Polytechnic. Scheduling, like Financial Planning, can be used both to formulate a business plan and to monitor subsequent progress. This application covers both critical path analysis, work-in-progress and production control. The asking of 'what if?' questions enables the user to interact with the microcomputer.

Sales Ledger by D Longley, Brighton Polytechnic. Sales Ledger packages have a widespread appeal in the business microcomputer field since they can both reduce the manual effort of a common

bookkeeping task and improve the information available on sales and creditors. The main features of such packages are described in this section.

Integrated Accounting Packages by M Shain, NCC. The benefit of a fully integrated accounting system is that a single keyboard entry will automatically update all the relevant ledgers. Budgetary information, variance analysis and trial balances can be produced on a demand basis.

Incomplete Records by B Elliot, Brighton Polytechnic. Incomplete Records is a technique used by accountants in practice to produce year end tax returns for the Revenue. It is a good example of the application of microcomputing in a professional area.

Database Packages by S Fall, Brighton Polytechnic. A database system provides a well defined structure for information, stored on a computer, which both facilitates processing by a variety of application programs and supports a fast response for *ad hoc* enquiries. This important topic is discussed in detail and two microcomputer database management packages are described.

Communications and Networking by A Warburton, Brighton Polytechnic. The various methods by which microcomputers can be linked to share common resources such as disk and printers is reviewed. An account is also given on several proprietary systems.

4. EFFECTIVE USE OF YOUR COMPUTER

by A Warburton, Brighton Polytechnic.

The microcomputer cannot be considered in isolation of the office environment where it is to operate. The correct siting and positioning of the microcomputer, lighting and desktop layout all need to be considered. This chapter reviews the ergonomic and human factor elements involved in the successful integration of the microcomputer into the day-to-day operation of a business. Security procedures, particularly for auditing and file backup purposes, are fully reviewed and codes of practice suggested.

5. CURRENT TRENDS IN MICROCOMPUTING

This chapter reviews recent developments in the design of hardware, software and communication interfaces for the modern microcomputer. These sections will be useful to the reader in establishing the relationship between the microcomputer and the more traditional elements of computing.

MACINTOSH by I Scales, Greenleaf Publishing. The first time user can operate the Macintosh in under 20 minutes. It has a remarkable user interface, but not without some limitations.

GRiD Portable Computer by H Mooney, GRiD Inc. The GRiD is a lightweight (10 lbs), powerful 16

bit machine with bubble memory, plasma display and integral modem. It is representative of the new generation of portables which now account for one third of all microcomputer sales.

Advances in Integrated Spreadsheets by D Longley, Brighton Polytechnic. Packages such as Lotus 1-2-3 and Symphony are powerful productivity tools. In effect, they are programming languages and this section explains why they need to be handled with caution.

Interactive Video Disk by C Jackson, Brighton Polytechnic. Controllers now available for the video disk machine enable it to be used as an interactive peripheral on a microcomputer. The video disk, with its high definition graphics and large storage capacity, has immediate applications in computer based training.

Operating Systems by A King, Microsoft and M Shain, NCC. UNIX, MS-DOS and Concurrent DOS are reviewed and their respective merits compared. Networking and Windowing requirements will influence the choice of an operating system.

Personal Computer Networking by C Oswald, Reuters Ltd. A local area network is required if two or more users need to share the same files. The criteria for network selection are reviewed and leading networking products are compared.

6. INTEGRATED SOFTWARE

by M Shain, NCC, I Scale and G Wheelwright, Greenleaf Publications, C Barker, Which Computer.

This chapter has two objectives: to examine the rising trend in integrated software and act as a purchasing guide to that software. The principle characteristic of integrated software is the ability to transfer data from one application to another, e.g. from communications to spreadsheet to word processing. Most integrated software packages include windowing, help facilities, pointing devices and command simplicity.

Integrated software can be classified into four main families and the packages available within each category are reviewed. All will feature database, word processing, spreadsheet, graphics and communications facilities. The four classes of integrated software are:

- (i) Families of Applications, e.g. Perfect series from Perfect Software, Star series from Micro-Pro.
- (ii) Multiple Application Packages, e.g. Lotus 1-2-3 and Symphony.
- (iii) Standard Operating Environments, e.g. Concept VP from Scienta, Desq from Quarterdeck.
- (iv) Modified Applications Environments, e.g. Apple's Lisa and Macintosh, VisiON from VisiCorp and Microsoft's Windows.

7. COMPUTER SURVEY

by S Fineberg and M Shain, NCC

This survey contains details of over 160 microcomputers which can be employed in a business environ-

ment. They range from the inexpensive home computers which may be adapted to business applications through the purpose designed Personal Computer to machines capable of hosting networks with power and facilities close to the minicomputer range.

The ultimate selection of a particular microcomputer system demands an interactive approach and the reader will not be able to select the most appropriate hardware by a perusal of this chapter alone. A discussion with a reputable dealer, together with demonstrations, will focus attention on one or two appropriate systems. A study of Appendix I will then provide details of other microcomputers in a similar price range. Chapter 6 will enable the reader to extend consideration to other manufacturers' models which may be equally suitable, probably leading to further discussions and demonstrations. Thus at the point of final decision the purchaser can be reasonably assured that a sensible range of alternatives has been evaluated.

The machines are described in a common format and the abbreviated nature of this survey necessitates the use of technical terms. However the glossary and Chapter 2 will provide some clarification of these technical aspects within the context of the Handbook.

The information in this chapter has been gleaned from a variety of sources, including manufacturers' literature, and every reasonable attempt has been made to confirm the accuracy of its contents. However it must be emphasised that this data is subject to rapid market and technological developments and details must be checked with the appropriate dealer before any final decision on system acquisition is made.

8. PERIPHERAL SURVEY

by M Shain, NCC.

The peripherals represent both the interface between the user and the processor and also the means of storing data and software between computer runs. The first time purchaser is advised, in Chapter 1, to acquire a total system geared to his business requirements and warned of the dangers inherent in the isolated purchase of the individual components. Nevertheless the user must pay careful attention to the performance of peripherals both on first purchase and on subsequent expansion of the system. The user will therefore be very concerned with the ergonomics of the input output devices and the reliability and capacity of backing store. The sections in this chapter provide a discussion on the relevant technical factors, from a user and purchaser viewpoint, of four types of peripheral- printers, monitors, disk storage and terminals plus information on a range of manufacturers' models.

9. APPENDICES

There are many aspects of microcomputer purchase, installation and maintenance that are of crucial importance to the user but are, all too often, unavailable to the newcomer. These appendices attempt to remedy this deficiency; they provide useful details of advice and ancillary services in

addition to a glossary and an overview of the microcomputer market.

Appendix A: Checklist for Word Processing.

Appendix B: Checklist for Microcomputer Consumables.

Appendix C: Sources of Advice.

Appendix D: Checklist for Computer Contracts.

Appendix E: VAT—Customs and Excise Requirements.

Appendix F: Financial Services.

Appendix G: Insurance Services.

Appendix H: Maintenance Services.

Appendix I: Microcomputer Prices.

Appendix J: Glossary of Terms.

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