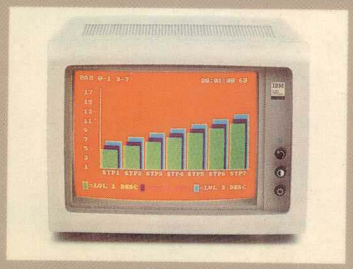
Terris B. Wolff

Revised Printing



Microcomputer Applications:
Using Small Systems Software

Microcomputer Applications: Using Small Systems Software

Revised Printing

Terris B. Wolff

University of Southern California

BOYD & FRASER PUBLISHING COMPANY
BOSTON

Cover design by Bill Agee.
Text design by Linda Robertson.

Special thanks to the people at Graphic Typesetting Service and the Anaheim Press crew for your efforts well beyond the call of duty!

Figure photographs were furnished courtesy of the following:

Chapter One opening: Compaq Computer Corporation; Figure 1.2: Racal-Milgo, Inc.; Figure 1.4: Digital Equipment Corporation; Figure 1.5: Protocol Computers, Inc., International Business Machines Corporation, Radio Shack, A Tandy Corporation; Figure 1.9: Western Electric, Wang Laboratories, Inc.; Figure 1.10: Blackhawk Computer System, Paradyne Corporation; Figure 1.12: Pertec Computer Corporation; Figure 1.13: Dysan Corporation, Cynthia Peripheral Corporation; Chapter Two opening: Management Science America, Inc.; Figure 2.4: Electronic Arts; Figure 2.5: Hewlett-Packard; Figure 2.6: International Business Machines Corporation; Figure 2.7: Hewlett-Packard; Figure 2.8: Computervision Corporation, Bedford, Mass.; Figure 2.9: International Business Machines Corporation; Figure 2.11: Lexidata Corporation; Figure 2.12: Lanier Business Products, Inc.; Figure 2.14: Raber Photography; Figure 2.15: SAS Institute, Inc.; Figure 2.16: Educational Testing Service of Princeton, N.J.; Figure 2.17: Computer Sciences Corporation; Figure 2.18: Raber Photography; Chapter Three opening: TeleVideo Systems, Inc.; Chapter Four opening: Xerox Corporation; Chapter Five opening: Apple Computer, Inc.; Chapter Six opening: Dataproducts Corp.; Chapter Seven opening: Radio Shack, A Division of Tandy Corp.; Chapter Eight opening: International Business Machines Corporation; Chapter Nine opening: Texas Instruments Incorporated; Chapter Ten opening: Bank of America; Chapter Eleven opening: Informatics General Corporation; Chapter Twelve opening: Storage Technology Corporation; Chapter Thirteen opening: Compaq Computer Corporation; Chapter Fourteen opening: Otrona Advanced Systems; Chapter Fifteen opening: Celtic Technology, Inc.; Chapter Sixteen opening: Apple Computer Inc.; Chapter Seventeen opening: Oak Industries, Inc.; Chapter Eighteen opening: Kaypro Corporation; Chapter Nineteen opening: Swanson Analysis Systems, Inc.; Chapter Twenty opening: Columbia Data Products, Inc.; Chapter Twenty-One opening: Radio Shack, A Division of Tandy Corp.

All references to dBASE II® and FRAMEWORK™ are used by permission:

Copyright© Ashton-Tate 1984
All Rights Reserved.
dBASE II is a registered trademark of Ashton-Tate.
Used by permission.
10150 W. Jefferson Boulevard
Culver City, CA 90230
(213) 204-5570

All references to Lotus 1-2-3® and Symphony™ are used by permission:

©Lotus Development Corporation 1984

©1985 by Boyd & Fraser Publishing Company. All rights reserved. No part of this work may be reproduced or used in any form or by any means—graphic, electronic, or mechanical including photocopying, recording, taping, or information and retrieval systems—without written permission from the publisher.

Library of Congress Cataloging in Publication Data

Wolff, Terris B., 1950-
Microcomputer applications.

Includes index.
1. Microcomputers--Programming. 2. Computer programs. I. Title.
QA76.6.W645 1985 001.64'25 85-7895
ISBN 0-87835-813-7

Preface to the Instructor

This book introduces students to microcomputers and applications software. Emphasis is placed on gaining practical experience with the use of software, as opposed to discussing theoretical applications. The topical coverage includes the rudiments of information systems, word processing, electronic spreadsheets, database management systems, business graphics, integrated packages, systems selection, and an introduction to BASIC programming. It can be used with students majoring in business, social science or physical science. No previous experience with computers or programming is necessary.

Several major software packages are presented in each applications category. The packages covered are:

Word Processing	**Spreadsheets**	**Database**	**Integrated**
Wordstar	Lotus 1-2-3	dBASE II	Symphony
Easywriter II	VisiCalc	RBase 4000	Framework
PFS:Write	SuperCalc	PFS:File/ Report	PFS:Graph

During the past 3 years of teaching this course, I found it necessary to require that students purchase several books. Not only was it costly, most students used just a small portion of each book. Hence, I decided to write a single book which would overcome these problems, allow coverage of different combinations of packages, and treat each package with sufficient depth.

Even though multiple packages are covered for each application area, the design of the book is such that the student can concentrate on a particular software package without interference from another. This is accomplished by dividing facing pages into four large columns. The column on the extreme left is reserved for generic comments. Each column on the right contains instructions for the use of a specific package.

The presentation of concepts unfolds at a measured pace mixing conceptual material with reinforcement through hands-on sessions at the computer. Lasting learning correlates directly with the amount of time spent in the microcomputer lab. Consequently, each chapter is built around a project which serves as the vehicle for mastery. My experience has been that most students will find these projects quite time consuming. For students who move through this material quickly you may wish to assign exercises in addition to those contained in the chapter. The accompanying Instructor's materials augment these exercises.

I have written the book to allow maximum flexibility in terms of the order of presentation. You may wish to present application areas in a different sequence. For example, it may be more desirable to introduce database management systems before electronic spreadsheets. This can be done without loss of continuity. It will be

necessary to cover the chapters on integrated software after those on word processing, electronic spreadsheets, and database management systems.

Obtaining the desired software in sufficient quantities is one of the major hurdles to overcome in preparing this course. Fortunately, software vendors are beginning to realize that there are tangible benefits in cooperating with educators involved in this area. Some vendors are providing attractive special discounts to schools. Others are permitting replication of their software through on-site licensing agreements. The best way to find out a company's policies in this regard is by directly contacting them. Telephone numbers and addresses for the vendors represented in this book are listed in the accompanying Instructor's materials.

Writing this textbook has been a rewarding and challenging experience. It's not often that the opportunity comes along to be among the first authors to attempt to solve some of the problems associated with a new course. I drew upon my personal resources and those of my colleagues in the search for the best approach. While I am satisfied with the result of this effort, there is always room for improvement. As you use this book you undoubtedly will become aware of its strengths and weaknesses, please do not keep these observations to yourself. It would be greatly appreciated if you would write me with your experiences and send them to the address below:

Boyd and Fraser Publishing Company
286 Congress Street
Boston, Massachusetts 02210

Thank you for your help and I am looking forward to reading your comments.

Terris B. Wolff
Los Angeles
1985

Preface to the Student

The intent behind this book is to assist you in acquiring the knowledge and ability to put microcomputers to work. These skills will have immediate application in your school work and should be beneficial in the pursuit of your future goals.

If you are not familiar with computers and software, you should begin your study by reading chapters 1 and 2 which cover the rudiments of information systems in a non-technical fashion. Chapter 3 introduces the basics of how to operate a computer through hands-on sessions for the most popular systems. Those who have experience in using computers may opt to skip over these chapters without any loss of continuity in the subsequent material.

Several different software packages are presented for each application area. Most likely your instructor has selected a single package from each group. The design of this book allows you to concentrate on the desired software without being hampered by others. A benefit to this multiple package coverage is the added reference value. In the future you may use other computers with different software. Since the most widely used software appears for each application, it is likely the software will be one of the options in this book.

The hands-on sections contain many example display screens. These displays are intended to give you a general reference point. However, do not become dis-

此为试读,需要完整PDF请访问: www.ertongbook.com

tressed if your computer display is not identical in comparison to the example. Small errors often creep into the best efforts while working at the computer. Use these examples as a self check.

The best advice for success I can offer is to spend as much time getting to know the computer and its software as you can. Feel free to experiment. "Creative" play is the best way to become thoroughly familiar with potential of small computer systems.

As you work through the book, you will find things you like and don't like about the presentation. I invite you to write me with your experience. You may reach me in care of the publisher, at this address:

Boyd and Fraser Publishing Company
286 Congress Street
Boston, Massachusetts 02210

Good luck with your studies!

Terris B. Wolff
Los Angeles
1985

Acknowledgements

This book would not have been possible without the guidance and help of many other people.

To my colleagues Tom Dock, Dean Baroni, and David Mathews go thanks and heartfelt appreciation for their counsel and contributions. Thanks go to Tom Arnold for his work on the Instructor's Guide. LeRoy Kratzer (Foothill College), James Boyd (College of DuPage), Dominic Ciaccio (Kankakee College), John Cron (College of San Mateo), Tim Sylvester (College of Dupage), and Robert Norton (San Diego Mesa College) reviewed the manuscript and provided many useful criticisms; I am very thankful for their insights.

I wish to thank all my students at the University of Southern California and the people at Philip Morris who used all or parts of the manuscript during its development. Thanks to Nancy Crowell for her help with the art.

Thanks go to Debbie Dennis for early support of the idea. Cindy Terrazas enthusiastically pursued the project when it was just a mere idea and I am very grateful she did.

The following people comprise the team that put the idea into print. Jim Leisy served as acquisition and developmental editor; he succeeded in cajoling, guiding and inspiring me whenever I needed it. Production of the book was very ably overseen by Joan Parsons. Kathy Talley-Jones did a most merciful job of editing my prose. Joe Pastor enhanced the book's appearance with his illustrations. Thank you all for your very fine effort.

Joan Wolff, my very patient wife, deserves special thanks for her help throughout the project and for preparing the book's index. I could not have done it without her.

To all of these people I am forever indebted for their efforts on my behalf. However, I take full responsibility for contents and accuracy of the book.

To my wife, Joan, and my children, Rebecca and Michael.

The Boyd & Fraser Programming Language Series includes these fine titles:

BASIC Fundamentals and Style
Beginning Structured COBOL
Advanced Structured COBOL: Batch and Interactive
Comprehensive Structured COBOL
FORTRAN 77 Fundamentals and Style
Pascal

Other outstanding programming texts from Boyd & Fraser include:

BASIC Programming with Structure and Style
Complete BASIC: For the Short Course
Standard BASIC Programming: For Business and Management Applications
Structured FORTRAN 77 Programming
Structured FORTRAN 77 Programming: For Hewlett-Packard Computers

Also available from Boyd & Fraser are these quality texts:

Data Communications Software Design
Microcomputer Applications: Using Small Systems Software
Computers and Man

TABLE OF CONTENTS

BRIEF

PREFACE iii

CHAPTER ONE THE COMPUTER 1-1

CHAPTER TWO SOFTWARE: PUTTING THE COMPUTER TO WORK 2-1

CHAPTER THREE OPERATING SYSTEMS OVERVIEW 3-1

CHAPTER FOUR BEGINNING WORD PROCESSING CONCEPTS 4-1

CHAPTER FIVE INTERMEDIATE WORD PROCESSING CONCEPTS 5-1

CHAPTER SIX ADVANCED WORD PROCESSING CONCEPTS 6-1

CHAPTER SEVEN BEGINNING ELECTRONIC SPREADSHEETS CONCEPTS 7-1

CHAPTER EIGHT INTERMEDIATE ELECTRONIC SPREADSHEETS CONCEPTS 8-1

CHAPTER NINE ADVANCED ELECTRONIC SPREADSHEETS CONCEPTS 9-1

CHAPTER TEN BEGINNING DATA BASE MANAGEMENT SYSTEMS CONCEPTS 10-1

CHAPTER ELEVEN INTERMEDIATE DATA BASE MANAGEMENT SYSTEMS CONCEPTS 11-1

CHAPTER TWELVE ADVANCED DATA BASE MANAGEMENT SYSTEMS CONCEPTS 12-1

CHAPTER THIRTEEN BEGINNING BUSINESS GRAPHICS CONCEPTS 13-1

CHAPTER FOURTEEN ADVANCED BUSINESS GRAPHICS CONCEPTS 14-1

CHAPTER FIFTEEN BEGINNING INTEGRATED SOFTWARE SYSTEMS CONCEPTS 15-1

CHAPTER SIXTEEN AN INTRODUCTION TO FULLY INTEGRATED APPLICATION PACKAGES 16-1

CHAPTER SEVENTEEN SYSTEMS ANALYSIS: HOW TO BUY A COMPUTER 17-1

CHAPTER EIGHTEEN PROGRAMMING LANGUAGES 18-1

CHAPTER NINETEEN BEFORE YOU BEGIN PROGRAMMING 19-1

CHAPTER TWENTY A BASIC PRIMER PART ONE 20-1

CHAPTER TWENTY-ONE A BASIC PRIMER PART TWO 21-1

INDEX I-1

TABLE OF CONTENTS

DETAILED

CHAPTER ONE The Computer **1-1**

1.1	Objectives of Chapter 1	1-1
1.2	What Is a Computer?	1-1
1.3	The Input-Process-Output Model	1-2
1.4	Computing Power	1-2
1.5	Mainframe Computers	1-3
1.6	Minicomputers	1-4
1.7	Microcomputers	1-5
1.8	Local Area Networks	1-6
1.9	Input Devices	1-6
1.10	Punched Cards and Paper Tape	1-7
1.11	Terminals	1-8
1.12	Output Devices	1-9
1.13	Terminals	1-9
1.14	Printers	1-9
1.15	Mass Storage Devices	1-10
1.16	Mass Storage Units	1-10
1.17	Tape Storage	1-10
1.18	Disk Storage Devices	1-11
1.19	Exercises	1-13

CHAPTER TWO Software: Putting the Computer to Work **2-1**

2.1	Objectives of Chapter 2	2-1
2.2	Software	2-1
2.3	Systems Software	2-2
2.4	Development Software	2-3
2.5	Applications Software	2-3
2.6	Typical Applications Software Areas	2-4
2.7	Medical Uses of the Computer	2-4
2.8	Scientific Uses of the Computer	2-5
2.9	CAD/CAM	2-6

2.10 Education/Training Uses of the Computer 2-7
2.11 Other Applications 2-7
2.12 Business Applications 2-8
2.13 Word Processing 2-8
2.14 The Electronic Spreadsheet 2-9
2.15 Data Base Management Systems 2-10
2.16 Business Graphics 2-10
2.17 Business Accounting 2-12
2.18 Telecommunications and Electronic Mail 2-12
2.19 Exercises 2-13

CHAPTER THREE Operating Systems Overview **3-1**

3.1 Objectives of Chapter 3 3-1
3.2 What Is an Operating System? 3-1
3.3 Microcomputer Operating Systems 3-2
3.4 How to Start Your Computer 3-3
Starting Your IBM PC or IBM PC Compatible Computer Using PC-DOS or MS-DOS • Starting Your CP/M Computer • Starting Your Apple DOS 3.3 System • Starting Your Apple ProDOS System
3.5 Preparing a Data/File Storage Disk 3-6
3.6 Selecting a Diskette for Your Computer 3-6
Formatting a Storage Disk on the IBM PC or Compatible Computer • Formatting a Storage Disk on a CP/M Computer System • Initializing a Storage Disk on an Apple II DOS 3.3 System • Initializing a Storage Disk on an Apple ProDOS System
3.7 Making Copies of Your Files 3-10
Copying Files With Your IBM PC or Compatible Computer • Copying Files With Your CP/M Computer • Copying Files With Your Apple DOS 3.3 System • Copying Files With Your Apple ProDOS System
3.8 Finding Out What is on a Diskette
Displaying the Directory on Your IBM PC or Compatible Computer • Displaying the Directory of Your CP/M Computer System • Displaying the Catalog of Your Apple DOS 3.3 Computer System • Displaying the Catalog of Your Apple ProDOS Computer System
3.9 Determining the Available Space on Your Diskette 3-14
Determining Free Disk Space on the IBM PC or Compatible Computer • Determining Free Space on Your CP/M Computer System • Determining the Amount of Free Space on Your Apple DOS 3.3 System • Determining the Amount of Space on Your Apple ProDOS System
3.10 Removing Files and Programs From Your Diskettes 3-16
Erasing Files From Your IBM PC or Compatible Computer • Erasing Files on Your CP/M Computer System • Deleting Files on Your Apple DOS 3.3 Computer System • Deleting Files on Your Apple ProDOS System
3.11 Exercises 3-19

CHAPTER FOUR Beginning Word Processing Concepts **4-1**

4.1 Objectives for Chapter 4 4-1
4.2 What Is Word Processing? 4-1

此为试读,需要完整PDF请访问: www.ertongbook.com

4.3 The Writing Tool for the Beginner 4-1
4.4 The Writing Tool for the Expert 4-2
4.5 The Printer 4-3
4.6 Spelling Verification 4-3
4.7 Form Letters 4-4
4.8 Types of Word Processing Programs 4-4
4.9 The What You See Is What You Get Program 4-4
4.10 The Text Editor/Text Formatter Program 4-5
4.11 Memory or Disk Temporary Text Storage 4-6
4.12 Text Entry 4-6
4.13 The Cursor 4-6
4.14 Opening a File 4-7
4.15 Before You Begin 4-7
Starting WordStar • Starting EasyWriter • Starting PFS:Write
4.16 Ruler Line 4-12
4.17 Word Wrap 4-12
The Ruler Line and Word Wrap with WordStar • The Ruler Line and Word Wrap with EasyWriter • The Ruler Line and Word Wrap with PFS:Write
4.18 Cursor Movement 4-14
Cursor Movement with WordStar • Cursor Movement with EasyWriter • Cursor Movement with PFS:Write
4.19 Inserting Text Versus Replacing Text 4-16
Inserting and Replacing Text with WordStar • Inserting and Replacing Text with EasyWriter • Inserting and Replacing Text with PFS:Write
4.20 Deleting Text 4-18
Deleting Text with WordStar • Deleting Text with EasyWriter • Deleting Text with PFS:Write
4.21 Saving Text 4-20
Saving Your Text with WordStar • Saving Your Text with EasyWriter • Saving Your Text with PFS:Write
4.22 Printing Text 4-22
Printing Your Document with WordStar • Print Your Document with Easywriter • Printing Your Document with PFS:Write
4.23 Quitting the Word Processor 4-24
Exiting WordStar • Exiting EasyWriter • Exiting PFS: Write
4.24 Exercises 4-26

CHAPTER FIVE Intermediate Word Processing Concepts **5-1**

5.1 Objectives for Chapter 5 5-1
5.2 Intermediate Concepts 5-1
5.3 The Text Window Revisited 5-1
5.4 Cursor Movement Commands Versus Text Scrolling 5-2
Text Scrolling with WordStar • Text Scrolling with EasyWriter • Text Scrolling with PFS:Write
5.5 More Cursor Moves 5-6
Page Top and Bottom with WordStar • Beginning and End of Text with WordStar • Page Top and Bottom with EasyWriter • Beginning and End of Text with EasyWriter • Page Top and Bottom with PFS:Write • Beginning and End of Text with PFS:Write

5.6 Locating Specific Text in Your File 5-8
Find Text with WordStar • Search for Text with EasyWriter • Search for Text with PFS:Write
5.7 Reformatting the Text 5-10
5.8 Margin Changes 5-10
Changing the Margins with WordStar • Changing the Margins with EasyWriter • Changing the Margins with PFS:Write
5.9 Line Spacing 5-12
Changing Line Spacing with WordStar • Changing Line Spacing with EasyWriter • Changing Line Spacing with PFS:Write
5.10 Justification of Text 5-14
Justifying and Unjustifying Your Text with WordStar • Justifying and Unjustifying Your Text with EasyWriter • Justifying and Unjustifying Your Text with PFS:Write
5.11 Exercises 5-16

CHAPTER SIX Advanced Word Processing Concepts **6-1**

6.1 Objectives for Chapter 6 6-1
6.2 Advanced Concepts 6-1
6.3 Find Revisited 6-1
6.4 Find and Replace 6-2
Find and Replace with WordStar • Search and Replace with EasyWriter • Search and Replace with PFS:Write
6.5 What is a Block? 6-4
6.6 What is a Block Good For? 6-5
6.7 How to Define a Block 6-6
Defining a Block with WordStar • Defining a Block with EasyWriter • Defining a Block with PFS:Write
6.8 Moving Blocks 6-8
Moving Blocks with WordStar • Moving Blocks with EasyWriter • Moving Blocks with PFS:Write
6.9 Copying Blocks 6-10
Copying Blocks with WordStar • Copying Blocks with EasyWriter • Copying Blocks with PFS:Write
6.10 Saving Blocks to Disk 6-12
Saving and Retrieving Blocks with WordStar • Saving and Retrieving Blocks with EasyWriter • Saving and Retrieving Blocks with PFS:Write
6.11 Deleting Blocks 6-14
Deleting Blocks with WordStar • Deleting Blocks with EasyWriter • Deleting Blocks with PFS:Write
6.12 Print Enhancements 6-16
Print Enhancements in WordStar • Print Enhancements in EasyWriter • Print Enhancements in PFS:Write
6.13 Exercises 6-20

CHAPTER SEVEN Beginning Electronic Spreadsheets Concepts **7-1**

7.1 Objectives for Chapter 7 7-1
7.2 What Is an Electronic Spreadsheet? 7-1

7.3 Why Use an Electronic Spreadsheet? Playing "What If" 7-3
7.4 Budgeting 7-3
7.5 Manipulating Numbers 7-4
7.6 The Complete Spreadsheet 7-5
Starting Lotus 1-2-3 • Starting SuperCalc3 • Starting VisiCalc
7.7 Naming Cells 7-7
7.8 Current Cell Location 7-8
7.9 Moving the Cursor 7-8
Cell Location and Cursor Moves with Lotus 1-2-3 • Cell Location and Cursor Moves with SuperCalc3 • Cell Location and Cursor Moves with VisiCalc
7.10 What to Put Into Cells 7-12
7.11 Text or Label Cells 7-12
Entering Text Cells with Lotus 1-2-3 • Entering Text Cells with SuperCalc3 • Entering Text Cells with VisiCalc
7.12 Numeric Constant Cells 7-14
Entering Numeric Constants with Lotus 1-2-3 • Entering Numeric Constants with Super Calc3 • Entering Numeric Constants with Visicalc
7.13 Your First Model 7-16
7.14 Formula Cells 7-16
Formula Cells with Lotus 1-2-3 • Formula Cells with SuperCalc3 • Formula Cells with VisiCalc
7.15 A Real Model 7-18
7.16 Saving Your Model 7-18
Saving Your Lotus 1-2-3 Model • Saving Your SuperCalc3 Model • Saving Your VisiCalc Model
7.17 Quitting the Spreadsheet 7-20
Quitting Lotus 1-2-3 • Quitting SuperCalc3 • Quitting VisiCalc
7.18 Exercises 7-21

CHAPTER EIGHT Intermediate Electronic Spreadsheets Concepts 8-1

8.1 Objectives for Chapter 8 8-1
8.2 Using the Electronic Spreadsheet 8-1
8.3 Retrieving a Model 8-2
8.4 The Display Window 8-4
8.5 Moving the Window 8-4
Window Scrolling with Lotus 1-2-3 • Window Scrolling with SuperCalc3 • Window Scrolling with VisiCalc
8.6 Replicating/Copying Cells 8-8
Copying Cells with Lotus 1-2-3 • Replicating Cells with SuperCalc3 • Replicating Cells with VisiCalc
8.7 Built-In Functions 8-12
8.8 Summing Ranges of Cells 8-12
Summing a Range of Cells with Lotus 1-2-3 • Summing a Range of Cells with SuperCalc3 • Summing a Range of Cells with VisiCalc
8.9 Averaging a Range of Cells 8-14
Averaging Cells with Lotus 1-2-3 • Averaging Cells with SuperCalc3 • Averaging Cells with VisiCalc
8.10 Printing Your Spreadsheet Model 8-16
Printing Your Spreadsheet with Lotus 1-2-3 • Printing Your Spreadsheet with SuperCalc3 • Printing Your Spreadsheet with VisiCalc
8.11 Exercises 8-18

CHAPTER NINE Advanced Electronic Spreadsheets Concepts **9-1**

9.1 Objectives for chapter 9 9-1
9.2 The Electronic Spreadsheet Expert 9-1
9.3 Splitting the Window 9-1
9.4 Synchronized and Unsynchronized Window Scrolling 9-2
Splitting the Window with Lotus 1-2-3 • Splitting the Window with SuperCalc3 • Splitting the Window with VisiCalc
9.5 Formatting the Information on the Spreadsheet 9-6
Global Formats with Lotus 1-2-3 • Global Formats with SuperCalc3 • Global Formats with VisiCalc • Local/Range Formats with Lotus 1-2-3 • Local/Range Formats with SuperCalc3 • Local/Range Formats with VisiCalc
9.6 Inserting Blank Rows Into Your Spreadsheet 9-12
Inserting Rows with Lotus 1-2-3 • Inserting Rows with SuperCalc3 • Inserting Rows with VisiCalc
9.7 Putting Lines Across the Spreadsheet 9-14
A Line in Lotus 1-2-3 • A Line in SuperCalc3 • A Line in VisiCalc
9.8 Automatic Versus Manual Spreadsheet Recalculation 9-16
Changing the Recalculation Status with Lotus 1-2-3 • Changing the Recalculation Status with SuperCalc3 • Changing the Recalculation Status with VisiCalc
9.9 A Word of Caution—Recalculation Order 9-18
9.10 Exercises 9-19

CHAPTER TEN Beginning Data Base Management Systems Concepts **10-1**

10.1 Objectives for Chapter 10 10-1
10.2 What is a Data Base? 10-1
10.3 What is a Data Base Management System? 10-3
10.4 Why Use a Data Base Management System? 10-3
10.5 Types of Data Base Management Systems 10-4
10.6 Menu-Driven Systems 10-4
10.7 Data Base Programming Languages 10-5
10.8 Command Languages 10-5
10.9 File Organization 10-5
10.10 Some Basic Data Base Concepts: Files, Records, and Fields 10-7
10.10 Key Fields 10-9
10.12 Data Types 10-9
How to Start dBase II • How to Start R:Base 4000 • How to Create a File with PFS:File
10.13 Preparing to Create a Data Base 10-12
How to Create a File with dBase II • How to Create a File with R:Base 4000 • How to Create a File with PFS:File
10.14 Putting Information into the Data Base 10-16
Entering Data with dBase II • Entering Data with R:Base 4000 • Entering Data with PFS:File
10.15 Looking at Your File 10-22
Listing the Data Base with dBase II • Listing the Data Base with R:Base 4000 • Listing the Data Base with PFS:File
10.16 Printing Your Data Base File 10-24
Printing Your Data with dBase II • Printing Your Data with R:Base 4000 • Printing Your Data with PFS:File

10.17 Quitting the Data Base Management Program 10-28
Quitting dBase II • Quitting R:Base 4000 • Quitting PFS:File
10.18 Exercises 10-29

CHAPTER ELEVEN Intermediate Data Base Management System Concepts **11-1**

11.1 Objectives for Chapter 11 11-1
11.2 Why Use a Data Base Management System—Revisited 11-1
11.3 Rearranging the Records of the Data Base 11-2
11.4 Sorting the Data Base 11-2
11.5 Indexing the Data Base 11-2
Indexing and Sorting Files with dBase II • Indexing and Sorting Files with R:Base 4000 • Indexing and Sorting Files with PFS:File
11.6 Looking at Subsets of Your File 11-8
Selecting Records with dBase II • Selecting Records with R:Base 4000 • Selecting Records with PFS:File
11.7 Removing Records From Your Data Base 11-12
Deleting Records from the Data Base with dBase II • Deleting Records from the Data Base with R:Base 4000 • Deleting Records from the Data Base with PFS:File
11.8 Exercises 11-15

CHAPTER TWELVE Advanced Data Base Management System Concepts **12-1**

12.1 Objectives for Chapter 12 12-1
12.2 Wording with Your Data Base Management System 12-1
Finding Facts with dBase II • Finding Facts with R:Base 4000 • Finding Facts with PFS:File
12.3 Maintaining the Data Base 12-6
Editing Records with dBase II • Editing Records with R:Base 4000 • Editing Records with PFS:File
12.4 Formatting the Output 12-8
Report Formats with dBase II • Report Formats with R:Base 4000 • Report Formats with PFS:Report
12.5 Data Base Management System Command Language 12-26
12.6 Data Base Programming Language 12-26
12.7 Planning a Data Base Program 12-27
12.8 A Sample Data Base Program 12-28
dBase II Check Register System • R:Base 4000 Check Register System • PFS:File/PFS:Report Check Register System
12.9 Exercises 12-35

CHAPTER THIRTEEN Beginning Business Graphics Concepts **13-1**

13.1 Objectives for Chapter 13 13-1
13.2 What is a Graphic? 13-1
13.3 What are the Basic Business Graphics? 13-3

13.4 Slideshow Graphics 13-4
13.5 Why Use Graphics? 13-4
13.6 Creating Graphics 13-6
How to Graph with 1-2-3 • How to Graph with SuperCalc3 • How to Graph with PFS:Graph
13.7 Exercises 13-7

CHAPTER FOURTEEN Advanced Business Graphics Concepts **14-1**

14.1 Objectives for Chapter 14 14-1
14.2 Why do You Need More Complex Graphics? 14-1
14.3 Multiline/Multibar Graphs 14-1
How to Make Multiline/Miltibar Graphs with 1-2-3 • How to Make Multiline/Multibar Graphs with SuperCalc3 • How to Make Multiline/Multibar Graphs with PFS:Graph
14.4 Stacked Bar and Area Fill Graphs 14-10
How to Make a Stacked Bar Chart with Lotus 1-2-3 • How to Make a Stacked Bar Chart with SuperCalc3 • How to Make a Stacked Bar Chart with PFS:Graph
14.5 Methods of Presentation 14-14
14.6 Computer Display 14-15
14.7 Photographic Techniques 14-16
14.8 Hardcopy Graphics Output 14-17
How to Print/Plot Your 1-2-3 Graphics • How to Print/Plot Your SuperCalc3 Graphics • How to Print/Plot Your PFS:Graph Graphics
14.9 Exercises 14-25

CHAPTER FIFTEEN Beginning Integrated Software Systems Concepts **15-1**

15.1 Objectives for Chapter 15 15-1
15.2 What is an Integrated Software System? 15-1
15.3 What is an Integrated Software Package? 15-2
15.4 Advantages of Integrated Software Packages 15-3
15.5 Advantages of Single-Function Applications 15-4
15.6 Using Integrated Packages 15-4
1-2-3 Data Base Functions • SuperCalc3 Data Base Functions
15.7 Further Use of the Integrated Program 15-12
15.8 Exercises 15-12

CHAPTER SIXTEEN An Introduction to Fully Integrated Application Packages **16-1**

16.1 Objectives for Chapter 16 16-1
16.2 A Quick Introduction to Symphony 16-2
16.3 A Quick Introduction to Framework 16-3
16.4 Exercises 16-25

此为试读,需要完整PDF请访问: www.ertongbook.com