



**SHELLY & CASHMAN**

**LEARNING TO USE  
WORDPERFECT  
VP-PLANNER PLUS  
AND  
dBASE III PLUS**

# **Learning to Use WordPerfect, VP-Planner Plus, and dBASE III PLUS**

---

**GARY B. SHELLY**

**THOMAS J. CASHMAN**

---

Boyd & Fraser



The Shelly and Cashman Series  
Boyd & Fraser Publishing Company

## SHELLY AND CASHMAN TITLES FROM BOYD & FRASER

### Computer Concepts

#### Computer Concepts with BASIC

ClassNotes and Study Guide to Accompany Computer Concepts and Computer Concepts with BASIC

#### Computer Concepts with Microcomputer Applications (Lotus® version)

#### Computer Concepts with Microcomputer Applications (VP-Planner Plus® version)

ClassNotes and Study Guide to Accompany Computer Concepts with Microcomputer Applications (VP-Planner Plus® and Lotus® versions)

#### Learning to Use WordPerfect® Lotus 1-2-3® and dBASE III PLUS®

ClassNotes and Study Guide to Accompany Learning to Use WordPerfect® Lotus 1-2-3® and dBASE III PLUS®

#### Learning to Use WordPerfect® VP-Planner Plus® and dBASE III PLUS®

ClassNotes and Study Guide to Accompany Learning to Use WordPerfect® VP-Planner Plus® and dBASE III PLUS®

#### Learning to Use WordPerfect®

ClassNotes and Study Guide to Accompany Learning to Use WordPerfect®

#### Learning to Use VP-Planner Plus®

ClassNotes and Study Guide to Accompany Learning to Use VP-Planner Plus®

#### Learning to Use Lotus 1-2-3®

ClassNotes and Study Guide to Accompany Learning to Use Lotus 1-2-3®

#### Learning to Use dBASE III PLUS®

ClassNotes and Study Guide to Accompany Learning to Use dBASE III PLUS®

#### Computer Fundamentals with Application Software

Workbook and Study Guide to Accompany Computer Fundamentals with Application Software

#### Learning to Use SuperCalc®3 dBASE III® and WordStar® 3.3: An Introduction

#### Learning to Use SuperCalc®3: An Introduction

#### Learning to Use dBASE III®: An Introduction

#### Learning to Use WordStar® 3.3: An Introduction

#### BASIC Programming for the IBM Personal Computer

#### Turbo Pascal Programming

## FORTHCOMING SHELLY AND CASHMAN TITLES

RPG II and III      Systems Analysis and Design

© 1990 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 system—without written permission from the publisher.

Developed and produced by Solomon & Douglas  
Manufactured in the United States of America

WordPerfect® is a registered trademark of WordPerfect Corporation.  
VP-Planner Plus® is a registered trademark of Paperback Software International.  
dBASE III PLUS® is a registered trademark of Ashton-Tate.

Library of Congress Cataloging-in-Publication Data

Shelly, Gary B.

Learning to use WordPerfect, VP-Planner Plus & dBase III Plus /  
Gary B. Shelly & Thomas J. Cashman.

p. cm. -- (Shelly and Cashman series)

Includes index.

ISBN 0-87835-340-2

1. Computer software. 2. WordPerfect (Computer program) 3. VP-planner plus (Computer program) 4. dBase III plus (Computer program) I. Cashman, Thomas J. II. Title. III. Series: Shelly, Gary B. Shelly and Cashman series.

QA76.754.S526 1989

005.36--dc19

88-38231

CIP

4 5 6 7 8 9 10 W 6 5 4 3 2 1 0




---

## PREFACE

Today over 20 million microcomputers are used in businesses, schools, and homes throughout the world. A new generation of software, commonly called application software, has been developed to use the power of these computers. The most widely used software applications are word processing, spreadsheet, and database; thus, respectively, this textbook includes detailed instructions on WordPerfect, VP-Planner Plus, and dBASE III PLUS.

This textbook assumes no previous experience with computers and is written with continuity, simplicity, and practicality in mind. After completing this textbook, students will be able to implement a wide variety of tasks using these three software packages.

## ORGANIZATION OF THE TEXTBOOK

his textbook consists of two introductory chapters and six projects for *each* software package.

**An Introduction to Computers** This text begins with *Introduction to Computers*—coverage of computer hardware and software concepts important to first-time microcomputers users. These concepts include the functions of the computer and the components of a typical microcomputer system.

**An Introduction to DOS** To use a computer effectively, students need practical knowledge of operating systems. The second chapter in this text, therefore, is *Introduction to DOS*—an introduction to the most commonly used DOS commands—such as loading DOS, formatting a diskette, and copying files.

**Six Problem-Oriented Projects for Each Application** After presenting the basic microcomputer and DOS concepts, detailed instruction on each of the three software packages follows. This instruction is divided into six projects for each package. In each project students learn by way of the unique Shelly and Cashman problem-oriented approach, in which various problems are presented and then *thoroughly* explained in a step-by-step manner. Numerous, carefully labeled screens and keystroke sequences illustrate the exact sequence of operations necessary to solve the problems presented. Using this approach, students are visually guided as they enter the various commands and quickly learn how to use the software.

## FEATURES

**Companion Software** Free educational versions of WordPerfect, VP-Planner Plus, and dBASE III PLUS are available to adopters of this text. Note that these revisions are *not* tutorials but *actual* applications software packages in their commercial form. The software is available for IBM Personal Computers and PS/2 series, and for IBM compatibles. More information on how adopters may receive this free software appears on page xv.

**WordPerfect** This educational version teaches the features of WordPerfect, but does not allow the production of usable academic or professional documents. Thus, certain changes that do not deter learning WordPerfect, but which guard against productive use, have been made to the free educational version:

- Documents on the screen can be as large as you desire, but saved documents must be 4K (about 4,000 characters).
- Data files created with the educational version can be imported to the commercial version and vice versa.
- Data files of any size can be printed through parallel printer port 1 without defining a printer.
- One font (excluding extended ASCII characters) can be supported.
- The characters \*WPC appear randomly throughout printed documents.
- The educational version of the speller and thesaurus permits training on all the functions of these tools; but these tools cannot be used with any of your own documents due to diskette memory limitations.
- The Help function of the educational version presents the function-key template; as with the speller and thesaurus, memory limitations do not allow the complete help menus to be included on the educational version.

Except for these changes this educational version has the same functionality as the commercial version of WordPerfect 4.2. (Note that WordPerfect Corporation does not publish an educational version of WordPerfect 5.0.)

**VP-Planner Plus** This educational version provides a worksheet of 64 columns by 256 rows and does not allow creation of multidimensional arrays, but otherwise has the same capabilities as the commercial version of VP-Planner Plus.

**dBASE III PLUS** This educational version is limited to 31 records per database file, but otherwise has the same capabilities as the commercial version of dBASE.

**End-of-Project Summaries** Two helpful learning and review tools are included at the end of each project—the Project Summary and the Keystroke Summary. The Project Summary lists the key concepts covered in the project. The Keystroke Summary is an exact listing of each keystroke used to solve the project's problem.

**Student Assignments** An important feature of this textbook is the numerous and wide variety of Student Assignments provided at the end of each project. These assignments include the following: true/false questions; multiple choice questions; assignments that require students to write and/or explain various commands; a series of realistic problems for students to analyze and solve by applying what they have learned in the project, and minicases for the dBASE projects.

## THE SUPPLEMENTS TO ACCOMPANY THIS TEXT

**I**n addition to the educational software eight teaching and learning materials supplement this textbook. They are the Instructor's Manual, Test Bank, ProTest, Transparency Masters, Data Diskette, HyperGraphics, *Instructor's Manual to Accompany HyperGraphics*, and *ClassNotes and Study Guide*.

**Instructor's Manual** This manual includes Lesson Plans and Answers and Solutions. The Lesson Plans begin with chapter or project behavioral objectives. Next an overview of each chapter or project is included to help the instructor quickly review the purpose and key concepts. Detailed outlines of each chapter and/or project follow. These outlines are annotated with the page number of the textbook on which the outlined material is covered; notes, teaching tips, and additional activities that the instructor might use to embellish the lesson; and a key for using the Transparency Masters. Complete answers and solutions for the Students Assignments are included to ease course administration.

**Test Bank** This is a hard copy version of the test questions. It is comprised of three types of questions—true/false, multiple choice, and fill-in. Each project has approximately 50 true/false, 25 multiple choice, and 35 fill-ins. Answers to all of these test questions are included.

**ProTest** This is Boyd & Fraser's computerized test generating system that is available free to adopters of this textbook. It includes all of the questions from the Test Bank included in the Instructor's Materials for this book. ProTest is an easy to use menu-driven package that provides instructor's testing flexibility and allows customizing of testing documents. For example, a user of ProTest can enter his or her own questions and can generate review sheets and answers keys. ProTest will run on any IBM PC, IBM PS/2, or IBM compatible systems with two diskette drives or a hard disk.

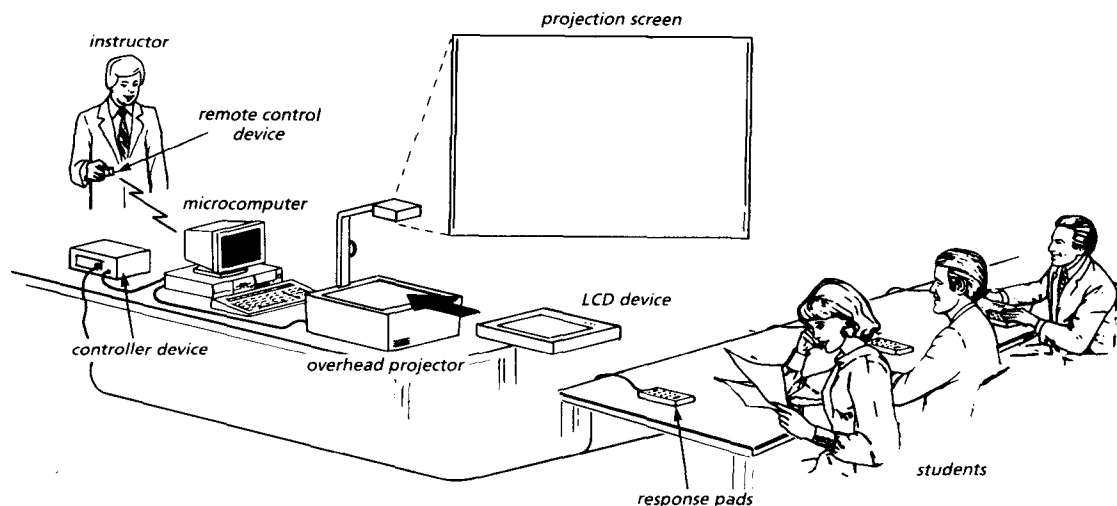
**Transparency Masters** A Transparency Master is included for *every* figure in the textbook.

**Data Diskette** This free supplement contains the letters and memos used to teach the WordPerfect projects, the project worksheets and Student Assignment worksheet solutions for WordPerfect, Lotus 1-2-3, and VP Planner PLUS, the databases that students will create and use in the dBASE minicases, and the data for the dBASE employee database example.

**HyperGraphics®** How instructors teach has changed very little in the last few decades. After all the flag waving about computer tutorials, CAI, and the like, we have learned that the human instructor is neither replaceable by a machine nor by someone who is untrained. HyperGraphics is a tool that acknowledges these facts.

**What Is HyperGraphics?** HyperGraphics is an instructional delivery system; it is a piece of software that presents all of the Shelly and Cashman textbook content with the use of graphics, color, animation, and interactivity. It is a powerful software tool that enhances classroom instruction. It is a state-of-the-art, computer-based teaching and learning environment that promotes interactive learning and self-study.

**What Hardware Do You Need for HyperGraphics?** You need three pieces of hardware to run HyperGraphics; two additional pieces are optional.



1. An IBM Personal Computer or PS/2 Series computer (or compatible) with a standard CGA graphics card.
2. A standard overhead projector and projection screen.
3. A standard projection device, such as a color projector or a liquid crystal display (LCD), that fits on the projection area of the overhead projector. The projection device is connected to the personal computer, resulting in the projection of the computer's screen.
4. A hand-held remote control device (*optional*), that allows the instructor to navigate throughout the presentation materials and still move freely around the classroom.
5. A set of at least eight response pads (*optional*), small pads consisting of 10 digit keys, that can be pressed to indicate a student's response. (These pads are linked to the microcomputer by a controller device.)



**How Does the Instructor Use HyperGraphics?** HyperGraphics is very easy to use. The instructor presses the appropriate keys on the hand-held remote control device or the keyboard and thereby controls the screen display. This display is projected through the LCD to the overhead projector. The instructor has complete control over the order and pacing of how the lessons are taught. By pushing one or more keys he or she can do such things as:

- View and select from the lesson menu
- Deliver the lesson's instructional materials in sequence
- Repeat any portion of a lesson to reinforce or review material
- Move ahead to specific portions of the lesson
- View the chapter objectives at any time
- View one or more questions about the lesson at any time
- Have students respond to one or more questions via the response pads
- Log students' responses to questions
- Randomly select students to respond to a question
- End a lesson
- Return directly to that point in the lesson where he or she stopped in the previous class meeting

**What Are the Benefits of Using the Student Response Pads?** Instructors have never before had the opportunity to assess student comprehension and retention of class instruction immediately and accurately. They can now do so if they use HyperGraphics with the student response pads.

For example, suppose the instructor presents a multiple choice question on the screen at the end of a segment of a lesson. Students will see an indication light illuminate on their response pads, and they'll have a period of time (controlled by the instructor) to press the button corresponding to the answer of their choice. The answers are tabulated by the microcomputer, and an optional aggregate bar chart of the answers selected is immediately available for viewing by the entire class. Each student's answer is also available on disk for later analysis or review. Thus, the progress of the entire class as well as each student can be tracked throughout the course.

Using these response pads results in substantial and *measurable* benefits to instructors as well as to students. The pads provide a rich teaching and learning experience and actively promote student participation.

**What Does HyperGraphics Cost?** HyperGraphics is *free* to adopters of this textbook. The only cost is for the computer and the projection device and screen, equipment that most educational institutions already possess. (Student response pads and the controller device are available at an extra charge.) HyperGraphics revolutionizes classroom instruction. It brings classroom instruction alive through graphic imagery and interactivity, and it can provide immediate and direct feedback to students and instructors.

**Instructor's Manual to Accompany HyperGraphics** This manual contains teaching tips and guidelines for enhancing your classroom instruction using HyperGraphics. Easy-to-follow installation instructions are also included.

**ClassNotes and Study Guide** The active learning experience of HyperGraphics can also be promoted if students purchase this supplement. As its title suggests, the *ClassNotes and Study Guide* serves three purposes. First, it relieves students from laborious and tedious notetaking responsibilities, freeing them to concentrate on the instruction. Second, if used with HyperGraphics, it provides an active learning experience for students to fill in key terms and key concepts during classroom instruction. Third, used without HyperGraphics this supplement provides a chance for students to review and study independently, as they can with traditional study guides.

## ACKNOWLEDGMENTS

---

**L**earning to Use WordPerfect, VP-Planner Plus, and dBASE III PLUS would not be the quality textbook it is without the help of many people. We would like to express our appreciation to the following people, who worked diligently to assure a quality publication: Jeanne Huntington, typesetter; Michael Broussard and Ken Russo, artists; Becky Herrington, production and art coordinator; Sheryl Rose, manuscript editor; Scott Alkire and Martha Simmons, production assistants; Mary Douglas, director of production; Susan Solomon, director of development; and Tom Walker, Publisher and Vice President of Boyd & Fraser.

---

# CONTENTS

## Introduction to Computers

### OBJECTIVES

**WHAT IS A COMPUTER? COM 3**  
**WHAT IS DATA AND INFORMATION? COM 3**  
**WHAT ARE THE COMPONENTS OF A COMPUTER? COM 3**

Input Devices COM 4  
The Processor COM 6  
Output Devices COM 6  
Computer Screens COM 8  
Auxiliary Storage COM 8

### SUMMARY OF THE COMPONENTS OF A COMPUTER COM 12

**WHAT IS COMPUTER SOFTWARE? COM 12**  
Application Software COM 13  
System Software COM 13

### SUMMARY OF INTRODUCTION TO COMPUTERS COM 14

### SUMMARY COM 14

Questions and Projects COM 14

### INTRODUCTION TO COMPUTERS INDEX COM 16

## Introduction to DOS

### OBJECTIVES

### INTRODUCTION DOS 2

Operating Systems for IBM PCs DOS 2  
DOS Versions DOS 3

### USING THE DISK OPERATING SYSTEM (DOS) DOS 3

Starting the Computer DOS 3  
Setting the Date and Time DOS 4  
The DOS Prompt DOS 5  
The Default Drive DOS 5

### ENTERING DISK OPERATING SYSTEM (DOS) COMMANDS DOS 6

Internal and External Commands DOS 6

### DIRECTORY COMMAND (DIR) DOS 7

Displaying Directories of Other Disks DOS 7  
Pausing Directory Listings DOS 8  
Canceling a Command (Break) DOS 9

### FORMATTING A DISKETTE DOS 9

The FORMAT Command DOS 10  
Formatting a System Disk (/S Option) DOS 12  
Assigning a Volume Label (/V Option) DOS 12

### CLS COMMAND DOS 13

### MANAGING DATA AND PROGRAM FILES ON DISKS DOS 13

Assigning File Specifications DOS 13

### COPY COMMAND DOS 14

Using the COPY Command DOS 14

Copying Files from One Diskette to Another DOS 15

Copying to the Default Disk DOS 16

Copying a File to the Same Diskette DOS 16

Global Filename Characters ("Wildcards") DOS 17

Using Wildcards with DOS Commands DOS 19

### RENAME COMMAND DOS 19

### ERASE AND DEL COMMANDS DOS 21

Removing Files DOS 21

### USING DIRECTORIES AND

### SUBDIRECTORIES DOS 21

Directory Entries and Subdirectories DOS 21

The PROMPT Command DOS 22

Making Subdirectories DOS 22

Changing Directories DOS 24

Specifying a Path to Subdirectories and Files DOS 25

Managing Files Within Subdirectories DOS 25

Removing Subdirectories DOS 25

### LOADING A PROGRAM DOS 26

### SUMMARY DOS 27

### STUDENT ASSIGNMENTS DOS 28

### INTRODUCTION TO DOS INDEX DOS 32



# Word Processing Using WordPerfect

## PROJECT 1 TYPING, SAVING, AND PRINTING A SIMPLE LETTER WP 2

### OBJECTIVES

Using the Training Version of WordPerfect WP 2

### THE KEYBOARD WP 3

The Typewriter Section WP 4

The Numeric Keypad WP 5

The Function Keys WP 5

### THE WORDPERFECT TEMPLATE WP 6

### DEFAULTS WP 6

### LOADING WORDPERFECT WP 7

### THE SCREEN (OR WINDOW) WP 9

### THE HELP FUNCTION WP 9

### CREATING A DOCUMENT WP 10

### REVEAL CODES WP 12

Learning How to Read the Reveal Codes WP 12

### SAVING A DOCUMENT WP 14

### PRINTING A DOCUMENT WP 15

### MOVING THE CURSOR ON A BLANK

### SCREEN WP 17

### EXITING WORDPERFECT WP 19

### PROJECT SUMMARY WP 21

### STUDENT ASSIGNMENTS 1-11 WP 22

## PROJECT 2 CREATING A DOCUMENT WITH WORD WRAP WP 28

### OBJECTIVES

Loading the WordPerfect Program WP 28

### LEARNING ABOUT WORD WRAP WP 28

### Typing a Letter WP 29

Checking the Reveal Codes WP 30

Saving a Document WP 33

Printing a Document WP 34

### MOVING THE CURSOR WP 35

Arrow Keys WP 35

Home Key Used with Arrow Keys WP 36

Control Key Used with Arrow Keys WP 38

End Key WP 40

More Home Key, Arrow Key Sequences WP 40

Plus and Minus Keys on the Numeric

Keypad WP 42

Page Down and Page Up Keys WP 44

"Go to" Cursor Function WP 46

Esc Key WP 48

### DELETING TEXT WP 50

Using the Backspace Key and Restoring Deleted Text WP 50

Using the Delete Key and Restoring Deleted Text WP 51

Deleting One Line at a Time WP 52

Deleting One Page at a Time WP 52

Deleting One Word at a Time WP 54

Deleting One Block at a Time WP 55

### EXITING PROJECT 2 WP 56

### PROJECT SUMMARY WP 58

### STUDENT ASSIGNMENTS 1-10 WP 59

## PROJECT 3 LEARNING SPECIAL FEATURES WP 66

### OBJECTIVES

### MOVING TEXT FLUSH RIGHT WP 67

### CENTERING TEXT WP 68

### BOLDFACING TEXT WP 70

### UNDERLINING TEXT WP 72

### INSERTING TEXT WP 75

### USING THE BACKSPACE KEY TO CORRECT ERRORS WP 76

### USING THE TYPEOVER COMMAND WP 77

### USING THE INDENT KEY WP 78

### BOLDFACING AND UNDERLINING AT THE SAME TIME WP 82

### USING THE LEFT/RIGHT INDENT KEY WP 83

### SAVING A FILE TO THE DISK WP 84

### UNDERLINING AND BOLDFACING EXISTING TEXT WP 84

### SAVING AND REPLACING A DOCUMENT WP 88

### PRINTING A DOCUMENT WP 88

### EXITING PROJECT 3 WP 90

### PROJECT SUMMARY WP 91

### STUDENT ASSIGNMENTS 1-10 WP 93

## **PROJECT 4 MODIFYING A WORDPERFECT DOCUMENT WP 99**

### **OBJECTIVES**

**RETRIEVING A DOCUMENT WP 99**  
**INSERTING CHANGES INTO TEXT WP 100**  
**DEFAULT SETTINGS WP 102**  
**LEFT AND RIGHT MARGINS WP 102**  
**TOP AND BOTTOM MARGINS WP 103**  
**FORMATTING WP 104**  
**LINE FORMATTING WP 104**  
 Changing Margin Settings WP 104  
 Changing Tab Settings WP 107  
 Changing the Line Spacing WP 108  
**PREVIEWING WP 110**  
**PRINT FORMATTING WP 111**

Right Justified Text WP 111

### **PAGE FORMATTING WP 112**

Centering Page Top to Bottom WP 112

### **SAVING REPLACING, AND PRINTING THE DOCUMENT WP 113**

### **OTHER PRINT FORMAT FEATURES WP 113**

Pitch WP 114

Lines per Inch WP 114

Underline Style WP 114

### **ADVANCE TAB SETTINGS WP 115**

### **EXITING PROJECT 4 WP 118**

### **PROJECT SUMMARY WP 118**

### **STUDENT ASSIGNMENTS 1-10 WP 120**

## **PROJECT 5 FORMATTING FUNCTIONS, FILE MANAGEMENT, AND MACROS WP 125**

### **OBJECTIVES**

### **FILE MANAGEMENT WP 125**

Look Function WP 128

Retrieving a Document WP 129

### **MORE FORMATTING FEATURES WP 129**

Changing the Page Length WP 130

Hard Page Break WP 131

Conditional End of Page WP 133

### **HEADERS AND FOOTERS WP 134**

Headers WP 134

Footers WP 136

Suppress for Current Page Only WP 136

### **SAVING AND REPLACING A**

### **DOCUMENT WP 137**

### **PRINTING A DOCUMENT WP 138**

### **EXITING A DOCUMENT WP 138**

### **DATE FORMAT FUNCTION WP 139**

### **MACROS WP 140**

### **EXITING WORDPERFECT WP 142**

### **PROJECT SUMMARY WP 142**

### **STUDENT ASSIGNMENTS 1-10 WP 144**

## **PROJECT 6 ADVANCED WORDPERFECT FUNCTIONS WP 150**

### **OBJECTIVES**

### **SEARCH FUNCTIONS WP 151**

Searching for Codes WP 151

Forward Search WP 153

Reverse Search WP 154

Search and Replace WP 155

### **MOVING TEXT WITHIN A DOCUMENT WP 156**

Cut and Paste a Paragraph WP 156

Cut and Paste a Block WP 158

### **SAVING THE DOCUMENT UNDER A NEW NAME WP 160**

### **PRINTING A DOCUMENT WP 160**

### **EXITING A DOCUMENT WP 161**

### **THESAURUS/SPELLER USING THE README.WP FILE WP 161**

Thesaurus WP 161

Speller WP 164

Exiting the Thesaurus/Speller WP 168

### **PROJECT SUMMARY WP 168**

### **STUDENT ASSIGNMENTS 1-8 WP 170**

# Spreadsheets Using VP-Planner Plus

## PROJECT 1 BUILDING A WORKSHEET VP 2

### OBJECTIVES

#### STARTING VP-PLANNER PLUS VP 2

Computer with One or Two Floppy Disks and No Fixed Disk VP 3

Computer with a Fixed Disk VP 3

#### THE WORKSHEET VP 4

Cell, Cell Cursor, and Window VP 4

The Control Panel and the Current-Mode Line VP 5

#### MOVING THE CELL CURSOR ONE CELL AT A TIME VP 6

#### ENTERING LABELS VP 6

Labels That Begin with a Letter VP 7

Labels Preceded by a Special Character VP 10

#### ENTERING NUMBERS VP 13

Whole Numbers VP 13

Decimal Numbers VP 15

#### MOVING THE CELL CURSOR MORE THAN ONE CELL AT A TIME VP 15

The GOTO Command VP 15

Summary of Ways to Move the Cell Cursor VP 17

#### ENTERING FORMULAS VP 17

Assigning Formulas to Cells VP 18

Order of Operations VP 21

#### SAVING A WORKSHEET VP 21

The Command Mode VP 22

Backing Out of the Command Mode VP 23

The File Save Command (/FS) VP 23

Saving Worksheets to a Different Disk Drive VP 26

#### PRINTING A SCREEN IMAGE OF THE WORKSHEET VP 26

#### CORRECTING ERRORS VP 27

Correcting Errors While the Data Is on the Input Line VP 27

Editing Data in a Cell VP 28

Erasing the Contents of a Cell (/RE) VP 32

Erasing the Entire Worksheet (/WE) VP 32

#### ONLINE HELP FACILITY VP 32

#### QUITTING VP-PLANNER PLUS (/Q) VP 33

#### PROJECT SUMMARY VP 34

#### STUDENT ASSIGNMENTS 1-12 VP 36

## PROJECT 2 FORMATTING AND PRINTING A WORKSHEET VP 46

### OBJECTIVES

#### RETRIEVING A WORKSHEET (/FR) VP 47

#### CHANGING THE WIDTH OF THE COLUMNS VP 49

Changing the Width of All the Columns (/WGC) VP 50

Changing the Width of One Column at a Time (/WCS) VP 52

#### DEFINING A RANGE VP 53

#### FORMATTING NUMERIC VALUES VP 54

Invoking the Format Command (/RF or /WGF) VP 54

Selecting a Range by Pointing VP 56

Summary of Format Commands VP 58

Determining the Format Assigned to a Cell VP 59

#### REPEATING CHARACTERS IN A CELL VP 60

#### REPLICATION—THE COPY COMMAND (/C) VP 61

Source Range VP 62

Destination Range VP 62

#### SAVING AN INTERMEDIATE COPY OF THE WORKSHEET VP 65

#### USING BUILT-IN FUNCTIONS VP 66

The SUM Function VP 66

Copying Functions VP 67

Alternative Ways to Sum Cells VP 70

#### DETERMINING A PERCENT VALUE VP 71

#### FORMATTING TO PERCENT AND CURRENCY VP 72

The Percentage Format (/RFP) VP 72

The Currency Format (/RFC) VP 74

#### SAVING THE WORKSHEET A SECOND TIME VP 76

#### PRINTING THE WORKSHEET VP 77

The Print Printer Command (/PP) VP 78

Quitting the Print Command VP 80

Printing a Section of the Worksheet VP 80



Printing the Cell-Formulas Version of the  
Worksheet (/PPOOCQAC) VP 82  
Printing a Worksheet to a File (/PF) VP 83  
Summary of Commands in the Print Menu  
VP 83

**DEBUGGING THE FORMULAS IN A WORKSHEET  
USING THE TEXT FORMAT VP 84**  
**PROJECT SUMMARY VP 85**  
**STUDENT ASSIGNMENTS 1–12 VP 87**

## **PROJECT 3 ENHANCING YOUR WORKSHEET VP 96**

### **OBJECTIVES**

**VARYING THE WIDTH OF THE COLUMNS  
VP 97**

**FORMATTING THE WORKSHEET GLOBALLY  
(/WGF) VP 99**

**DISPLAYING THE DATE AND TIME VP 100**

The NOW Function VP 100

Formatting the Date (/RFD) VP 102

Formatting the Time (/RFD) VP 102

Updating the Time—Recalculation VP 103

Date and Time Formats VP 103

**ENTERING THE QUARTERLY BUDGET  
LABELS VP 104**

**INSERTING AND DELETING ROWS AND  
COLUMNS VP 105**

The Insert Command (/WI) VP 105

The Delete Command (/WD) VP 108

**COPYING CELLS WITH EQUAL SOURCE AND  
DESTINATION RANGES VP 108**

**ENTERING NUMBERS WITH A PERCENT  
SIGN VP 110**

**FREEZING THE TITLES VP 110**

The Titles Command (/WT) VP 111

Unfreezing the Titles (/WTC) VP 112

**MOVING THE CONTENTS OF CELLS  
(/M) VP 112**

**DISPLAYING FORMULAS AND FUNCTIONS IN  
THE CELLS (/RFT) VP 114**

**ABSOLUTE VERSUS RELATIVE  
ADDRESSING VP 116**

Relative Addressing VP 116

Absolute and Mixed Cell Addressing VP 117

Copying Formulas with Mixed Cell Addresses  
VP 117

Switching from Text Format to the Comma  
Format VP 119

**POINTING TO A RANGE OF CELLS TO  
SUM VP 119**

Pointing versus Entering a Range of Cells  
VP 121

Copying the Total Expenses and Net Income for  
Each Month VP 121

Summing Empty Cells and Labels VP 121

**SAVING AND PRINTING THE WORKSHEET  
VP 123**

Printing the Worksheet (/PP) VP 124

Changing the Printer Margin Settings  
(/PPOM) VP 125

Printing the Worksheet in Condensed Mode  
(/PPOS) VP 126

Other Printer Options (/PPO) VP 127

**WHAT-IF QUESTIONS VP 127**

Manual versus Automatic Recalculation  
(/WGR) VP 129

**CHANGING THE WORKSHEET DEFAULT  
SETTINGS (/WGD) VP 130**

**CHANGING THE SCREEN SO THAT IT LOOKS  
LIKE THE LOTUS 1-2-3 SCREEN VP 131**

**THE UNDO AND REDO KEYS VP 133**

**INTERACTING WITH DOS VP 133**

**PROJECT SUMMARY VP 134**

**STUDENT ASSIGNMENTS 1–12 VP 136**

## **PROJECT 4 BUILDING WORKSHEETS WITH FUNCTIONS AND MACROS VP 146**

### **OBJECTIVES**

**PROJECT 4A—ANALYZING STUDENT TEST  
SCORES VP 148**

Assigning a Name to a Range of Cells (/RNC)  
VP 150

Statistical Functions—AVG, COUNT, MIN, MAX,  
STD, and VAR VP 152

Saving and Printing the Worksheet VP 154

Erasing the Worksheet from Main Computer  
Memory (/WE) VP 154

**PROJECT 4B—DETERMINING THE MONTHLY  
PAYMENT FOR A CAR LOAN VP 154**

Assigning a Label Name to an Adjacent Cell  
(/RNL) VP 155

Determining the Loan Payment—PMT VP 157

The Data Fill Feature (/DF) VP 157

Determining the Yearly Ending Balance—PV  
VP 159

Making Decisions—The IF Function VP 159

Saving the Worksheet VP 162

Using a Data Table to Answer What-If Questions  
(/DT) VP 162

**MACROS VP 165**

Designing a Sample Macro VP 165

Documenting Macros VP 165

Entering and Naming a Macro VP 165

Invoking a Macro VP 166

Adding More Macros to the Worksheet VP 166

Guarding Against Macro Catastrophes VP 167

/X Macro Commands and Macro Words VP 168

Interactive Macros VP 169

**WINDOWS (/WW) VP 169**

Synchronizing Windows (/WWS) VP 171

Clearing the Windows (/WWC) VP 171

CELL PROTECTION (/WGPE) VP 171

Saving and Printing the Worksheet VP 171

**OBTAINING A SUMMARY OF ALL THE  
VP-PLANNER PLUS FUNCTIONS VP 172****PROJECT SUMMARY VP 172****STUDENT ASSIGNMENTS 1–11 VP 175****PROJECT 5 GRAPHING WITH VP-PLANNER PLUS VP 184****OBJECTIVES****THE GRAPH COMMAND (/G) VP 185****PIE CHARTS (/GTP) VP 186**

Selecting the A Range VP 187

Selecting the X Range VP 187

Selecting the B Range VP 188

Adding a Title to the Pie Chart VP 188

Naming the Pie Chart VP 189

Saving and Printing the Pie Chart VP 190

The Effect of What-If Analyses on the Pie  
Chart VP 190

PIC Files VP 191

**LINE GRAPHS (/GTL) VP 191**

Selecting the X Range VP 192

Selecting the A Range VP 193

Adding Titles to the Line Graph VP 193

Viewing the Line Graph VP 193

Naming the Line Graph VP 194

Saving and Printing the Line Graph VP 194

Multiple-Line Graphs VP 194

Assigning Legends to the Data Ranges VP 196

Viewing the Multiple-Line Graph VP 196

Naming the Multiple-Line Graph VP 196

Saving and Printing the Multiple-Line Graph  
VP 196

Scatter Graphs VP 196

**BAR GRAPHS (/GTB) or (/GTS) VP 197**

Simple Bar Graphs (/GTB) VP 198

Side-by-Side Bar Graphs (/GTB) VP 199

Stacked-Bar Graphs (/GTS) VP 200

**ADDITIONAL GRAPH OPTIONS (/GO) VP 201**

Data-Labels (/GOD) VP 201

Scale Command (/GOS) VP 202

Color/B&W Commands (/GOC or /GOB) VP 203

**XY GRAPHS (/GTX) VP 203****PROJECT SUMMARY VP 204****STUDENT ASSIGNMENTS 1–8 VP 207****PROJECT 6 SORTING AND QUERYING A WORKSHEET DATABASE VP 213****OBJECTIVES****SORTING A DATABASE VP 214**

The Sort Menu (/DS) VP 215

Sorting the Records by Employee Name VP 216

Sorting the Records by Years of Seniority within  
Sex Code VP 217

**QUERYING A DATABASE VP 219**

The Query Menu (/DQ) VP 220

The Find Command (/DQF) VP 221

More About the Criterion Range VP 223

The Extract Command (/DQE) VP 226

**THE DATABASE FUNCTIONS VP 229****THE LOOKUP FUNCTIONS VP 230**

The CHOOSE Function VP 231

The VLOOKUP and HLOOKUP Functions VP 231

**PROJECT SUMMARY VP 232****STUDENT ASSIGNMENTS 1–9 VP 235****VP-Planner Plus INDEX VP 239**

# Database Management Using dBASE III PLUS

## PROJECT 1 CREATING AND DISPLAYING A DATABASE dB 5

### OBJECTIVES

#### PLANNING A DATABASE FILE dB 7

- Naming a Database File dB 7
- Defining the Structure of a Database File dB 7
- Naming the Fields dB 7
- Defining Field Types dB 8
- Indicating Width and Decimal Position dB 9

#### USING dBASE dB 9

- Loading dBASE dB 9
- The ASSISTANT dB 11
- The Dot Prompt dB 12
- Escaping from Problems dB 13
- Quitting dB 14
- Getting Help dB 14
- Practicing dB 14

#### CREATING THE DATABASE dB 16

#### ENTERING DATA dB 20

- Adding Data dB 20
- Correcting Errors During Data Entry dB 22
- Resuming Normal Data Entry dB 25
- Activating a Database File dB 26
- Changing Existing Records dB 28
- Adding Additional Records dB 28

#### DISPLAYING DATA dB 28

#### BACKING UP YOUR DATABASE FILES dB 30

#### PROJECT SUMMARY dB 32

#### STUDENT ASSIGNMENTS 1-5 dB 33

#### MINICASES 1-4: CREATING AND DISPLAYING A DATABASE dB 37

## PROJECT 2 DISPLAYING RECORDS IN A DATABASE dB 41

### OBJECTIVES

#### ACTIVATING THE DATABASE dB 42

#### DISPLAYING THE DATABASE STRUCTURE dB 43

#### DISPLAY dB 44

- Changing the Current Active Record dB 44
- Displaying a Single Record dB 46
- Displaying All Records dB 47
- Displaying Selected Fields dB 49
- Using Conditions dB 52
- Using Logical Fields in Conditions dB 57

- Using Compound Conditions dB 58

#### CALCULATIONS dB 60

- "Count" dB 60
- "Sum" dB 61
- "Average" dB 62

#### PROJECT SUMMARY dB 62

#### STUDENT ASSIGNMENTS 1-5 dB 63

#### MINICASES 1-4: DISPLAYING RECORDS IN A DATABASE dB 67

## PROJECT 3 SORTING AND REPORT PREPARATION dB 78

### OBJECTIVES

#### SORTING dB 82

- The "Sort" Option dB 82
- Displaying a Sorted File dB 84

#### REPORTS dB 87

- Designing the Output dB 87
- Beginning the Report Creation Process dB 89
- Entering Basic Report Information dB 90
- Entering Column Information dB 94

- Saving the Report dB 100

- Printing a Report dB 101

- Reporting Only Selected Records dB 102

- Reports with Subtotals dB 103

#### PROJECT SUMMARY dB 107

#### STUDENT ASSIGNMENTS 1-5 dB 108

#### MINICASES 1-4: SORTING RECORDS AND REPORT PREPARATION dB 112

## PROJECT 4 ADDING, CHANGING, AND DELETING dB 116

### OBJECTIVES

#### ADDING RECORDS dB 117

#### CHANGING RECORDS dB 119

- Using "Edit" dB 120
- More on Positioning the Record Pointer dB 121

- Using "Replace" dB 123

- Using "Browse" dB 125

#### DELETING RECORDS dB 128

- Deleting Records with "Edit" dB 128



Deleting Records with "Browse" dB 128  
Deleting Records with "Delete" dB 128  
Using "Recall" dB 130  
Using "Pack" dB 131

**PROJECT SUMMARY** dB 131  
**STUDENT ASSIGNMENTS 1-5** dB 132  
**MINICASES 1-4: ADDING, DELETING, AND  
CHANGING RECORDS** dB 135

## **PROJECT 5 ADDITIONAL TOPICS dB 142**

### **OBJECTIVES**

#### **CHANGING THE DATABASE**

##### **STRUCTURE dB 143**

Why Change the Structure? dB 143  
Creating Additional Files dB 146  
Activating the Database File To Be  
Changed dB 147  
Changing the Characteristics of Fields dB 147  
Adding New Fields dB 148  
Making Entries for New Fields dB 149  
Making Other Corrections dB 150  
Deleting Fields dB 151

##### **INDEXES dB 152**

What Is an Index? dB 152  
Creating Indexes dB 154  
Using Indexes dB 156

##### **VIEWS dB 158**

What Is a View? dB 158  
Creating Views dB 161  
Using Views dB 165  
Special Considerations dB 167

##### **PROJECT SUMMARY dB 168**

##### **STUDENT ASSIGNMENTS 1-5 dB 169**

##### **MINICASES 1-4: CHANGING THE STRUCTURE OF A DATABASE dB 173**

## **PROJECT 6 THE DOT PROMPT dB 178**

### **OBJECTIVES**

#### **USEFUL TIPS dB 179**

Clearing the Screen dB 179  
Correcting Errors in Commands dB 179

#### **DISPLAY COMMAND dB 181**

Sending the Results to the Printer dB 181  
Displaying the Current Active Record dB 181  
Displaying All Records dB 181  
Omitting Record Numbers dB 181  
Displaying Selected Fields dB 182  
Making Computations dB 182  
Displaying a Specific Record dB 183  
Using Conditions dB 183  
Searching for a Name dB 185  
Using Logical Fields in Conditions dB 186  
Using Dates in Conditions dB 187

Using Compound Conditions dB 188

#### **CALCULATIONS dB 189**

Count dB 189  
Sum dB 190  
Average dB 191

#### **ENTERING LONG COMMANDS dB 192**

##### **SORT dB 193**

##### **USING VIEWS dB 194**

Activating a View dB 194  
Displaying Data in a View dB 194

##### **PROGRAMMING dB 195**

##### **PROJECT SUMMARY dB 197**

##### **STUDENT ASSIGNMENTS 1-5 dB 198**

##### **MINICASES 1-4: WORKING FROM THE DOT PROMPT dB 201**

### **dBASE III PLUS INDEX dB 208**

# Introduction to Computers





# Introduction to Computers

## OBJECTIVES

- Define computer and discuss the four basic computer operations: input, processing, output and storage.
- Define data and information.
- Explain the principal components of the computer and their use.
- Describe the use and handling of diskettes and hard disks.
- Discuss computer software and explain the difference between application software and system software.

**T**he computer is an integral part of the daily lives of most individuals. Small computers, called microcomputers or personal computers (Figure 1), have made computing available to almost everyone. Thus, your ability to understand and use a computer is rapidly becoming an important skill. This book teaches you how to use a computer by teaching you how to use software applications. Before you learn about the application software, however, you must understand what a computer is, the components of a computer, and the types of software used on computers. These topics are explained in this Introduction.

**FIGURE 1**  
Microcomputers: The IBM PS/2 Model 30 (left) and Compaq Deskpro 386S (right) are two examples of popular microcomputer systems.

