

THIRD EDITION

Microcomputers and Applications

John C. Day • Thomas H. Athey



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John C. Day

Ohio University

Thomas H. Athey

California State Polytechnic University, Pomona

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Sponsoring Editor: Rick Williamson
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Microcomputers and Applications

Preface



Demand for Microcomputer Knowledge

Students today are increasingly aware of the importance of microcomputers in their education, in their careers, and even in their leisure-time activities. The need for knowledge of the microcomputer and its applications is growing as fast as the number of computer hardware and software products. *Microcomputers and Applications* is our response to the demand for a practical, application-oriented course for students who want to learn to use the microcomputer in various ways to improve their lives.



Goals of the Revision

Two of our other books, *Introduction to Computers and Information Systems* and *Computers and End-User Software*, are aimed at students who wish to become intelligent consumers of computer technology and information systems. Our goal with this textbook is similar—helping students achieve computing literacy—but is more focused on the needs of those who plan to work with microcomputers rather than with larger computer systems. We have thus concentrated on the microcomputer and its uses:

1. *The microcomputer.* Microcomputers and their applications are the basis of discussion and illustration in every chapter. We also provide practical advice for students planning to buy a microcomputer in "A Systems Approach to Selecting a Microcomputer System" (Appendix B).
2. *End-user computing.* The person interacting directly with the microcomputer through software, the end-user, is the crucial element in effective use of the microcomputer. This key interaction is covered in seven chapters, which are devoted to software packages designed for end-users and to ways end-users can develop their own computerized applications.

Each topic in this textbook is presented in understandable language and appropriate depth. We have made every effort to concentrate on the information students need to be able to simplify and improve their lives with microcomputers.



New to the Third Edition

In a field that is changing as rapidly as computer information systems, keeping abreast of current developments is critically important. Thus, discussions of technology are completely updated in the third edition. While 30 to 40 percent of the book has been updated or changed, it still contains the technical accuracy, clarity of explanation, and the helpfulness of exhibits that were so well received in the first two editions. Further, the level of discussion has been simplified somewhat without sacrificing the quality of the discussion.

1. A "Computers at Work" feature has been added at the close of each chapter. Each Computers at Work excerpts an article from a business or computer magazine that shows the varied, real-world uses of computers or presents an advanced issue related to the content of the chapter.
2. A section on expert systems has been added to Chapter 11 on decision support systems.
3. Coverage in Part III, "End-User Software," has been expanded to include discussions of the Macintosh computer and related software.
4. Part IV, "Opportunities and Concerns," has been added to broaden the text. The first chapter in Part IV, "The Information Age Society," discusses developments in both office and home computer systems. The other chapter in Part IV, "Issues and Concerns," discusses the impact of computerization on society and the potential problems associated with privacy of information and computer crime.



Pedagogy

1. Numerous study aids emphasize and reinforce important concepts: chapter outlines, boldfaced key terms, chapter summaries with key terms, and end-of-chapter review questions.
2. A generous illustration program is interwoven with the text to explain and clarify every topic.



Supplements

The introductory computer course in a business program is no longer a theory course. Most schools have microcomputer laboratories in which students can gain hands-on experience through computer exercises that use practical applications. *Microcomputers and Applications* is accompanied by a

full range of supplements to meet the needs of both instructors and students. These ancillary materials include both innovative software teaching aids and outstanding text-related materials.

A full complement of traditional supplements accompany this book.

For the Instructor

- The Instructor's Manual provides an overview and summary of each text chapter, lecture outlines, ideas for lecture and discussion, and answers to in-text review questions.
- The Test Bank contains approximately one hundred true/false and multiple-choice items for each chapter. These same questions are available on the Test Master computerized test bank.
- The Test Master program is a computerized test generator that allows instructors to create and edit exams flexibly and easily. Test Master operates on any IBM PC or compatible microcomputer with 512k of memory. It features an extensive Item Bank of test questions keyed to the text. Questions from the Item Bank may be fully edited using the program, or instructors may create their own Item Bank of test questions.
- Grades. HarperCollins offers adopters a computerized grade-keeping and classroom management package, for use on IBM PC or compatibles, that maintains data for up to 200 students.

For the Student

- *PFS: First Choice* is an integrated software package including wordprocessing, spreadsheet, database, graphics and electronic communications programs. The full and latest version of this software package is available for packaging with the textbook.
- *Up and Running: PC Applications for DOS, WordPerfect, Lotus 1-2-3, and dBASE III PLUS* and *Up and Running: PC Applications for DOS, WordPerfect, Lotus 1-2-3, and dBASE IV* by Thomas W. Warrner and D. Michael Werner of InfoSource, Inc., are step-by-step, hands-on guides to these four software packages which provide the basic commands, functions, and menu procedures to enable students to use the software quickly and with a minimum of frustration. These software guides can be packaged with the text for students who need an overview of these software packages.
- *Using DOS*, by Thomas W. Warrner and D. Michael Werner, features step-by-step command procedures for introductory and advanced users of DOS. This guide can be packaged with the text for students who need an in-depth knowledge of DOS commands and structures. A demonstration diskette is available with the guide.
- *Using Lotus 1-2-3*, by D. Michael Werner and Thomas W. Warrner, contains introductory and advanced material on Lotus 1-2-3. A demonstration

diskette that illustrates the key features and functions of the program, as well as prebuilt student work files, is available to users of the guide.

- *Using WordPerfect*, by Thomas W. Warrner and D. Michael Werner, is a detailed guide to this word processing package. This text is also offered with a demonstration diskette and prebuilt student work files, so that the student does not have to master keyboarding before understanding the software.
- *Using dBASE IV*, by D. Michael Werner and Thomas W. Warrner, contains introductory and advanced material on the latest version of this powerful database package. It comes with a demonstration diskette and can be packaged with the textbook.
- *Up and Running with Microsoft Works*, by D. Michael Werner and Thomas W. Warrner, provides the basic commands, functions, and menu procedures to enable students to use the software quickly and with a minimum of frustration. It comes with a work files diskette and can be packaged with the textbook.
- *Up and Running with Lotus Works*, by D. Michael Werner and Thomas W. Warrner, provides the basic commands, functions, and menu procedures to enable students to use the software quickly and with a minimum of frustration. It also comes with a work files diskette and can be packaged with the textbook.



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John Day
Thomas H. Athey

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