

世界著名大学核心教材（计算机类）

计算机专业英语

Charles S. Parker
(美) Deborah Morley 著
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内 容 简 介

计算机不仅是一门先进的科学技术,它甚至成为人类社会继19世纪产业革命之后的又一次变革。计算机正日益深刻地影响着我们行为和思维的方式。

本书以全新的技术及社会视角,对异彩纷呈的计算机世界作了详尽的描绘。内容包括:计算机基本操作、硬件(处理器、存储器、输入输出设备)、软件(系统软件、应用软件)、网络(网络和通信、Internet及万维网)、Internet应用(多媒体和网络、电子办公和电子商务)、计算机系统(信息系统、程序开发、数据库和数据库管理系统)以及与计算机相关的社会问题。除了对内容的铺陈,本书还提供了形式多样的示例、图表、习题,以帮助读者消化吸收书中的内容。

本书可作为大学计算机专业的专业英语教材,非计算机专业的计算机文化基础教材,也适合计算机爱好者阅读。

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PREFACE

The best way for students to learn about technology is to use it. ***Understanding Computers: Today and Tomorrow, 2002 Edition***, provides a truly interactive approach to learning about computers with a text that is fully integrated with a completely updated, multimedia-enhanced Web site. This nontechnical, introductory text explains in straightforward terms the importance of learning about computers, types of computer systems and their components, principles by which computer systems work, practical applications of computers and related technologies, and ways in which the world is being changed by computers. The goal of this text is to provide the reader with a solid knowledge of computer basics and with a framework for using this knowledge effectively in the workplace.

KEY FEATURES

Like previous editions, ***Understanding Computers: Today and Tomorrow, 2002 Edition*** is current and comprehensive. Flexible organization and an engaging presentation combine with learning tools in each chapter to help the reader master important concepts. Numerous marginal notations lead students to highly interactive multimedia tutorials and exercises on the ***Understanding Computers*** Web site. Boxed features on a variety of topics provide insight on current issues of interest.

Currency

The state-of-the-art content of this book and its multimedia support package reflect the latest technologies, trends and classroom needs. Throughout the writing and production stages, enhancements were continually being made to ensure that the final product would be as current as possible.

Comprehensiveness and Depth

Accommodating a wide range of teaching preferences, ***Understanding Computers: Today and Tomorrow, 2002 Edition*** provides comprehensive coverage of traditional topics while covering hot topics such as the Internet; portable PCs and mobile devices; wireless and mobile communications; Internet searching, online shopping, downloading music, and other online activities; multimedia technology and design; e-commerce and e-business; object-oriented programming; Web databases; global computing issues; and security, privacy, and other timely social issues.

Readability

We remember more about a subject if it is presented in a straightforward way and made interesting and exciting. This book is written in a conversational, down-to-earth style—one designed to be accurate without being intimidating. Concepts are explained clearly and simply, without the use of overly technical terminology. Where complex points are presented, they are made understandable with realistic examples from everyday life.

Chapter Learning Tools

- 1. Outline, Learning Objectives, and Overview:** For each chapter, an Outline of the major topics to be covered, a list of student Learning Objectives, and a chapter Overview helps instructors put the subject matter of the chapter in perspective and lets students know what they will be reading about.
- 2. Boldfaced Key Terms and Running Glossary:** Important terms appear in boldface type as they are introduced in the chapter. These terms are defined at the bottom of the page on which they appear and in the end-of-text glossary.
- 3. Chapter Boxes:** In each chapter, a **Trend box** provides students with a look at current and upcoming developments in the world of computers; an **Inside the Industry box** provides insight into some of the personalities and practices that have made the computer industry unique and fascinating; and a **How It Works box** explains how a technology or product works in more detail than covered in the chapter. Periodic **Campus Close-Up boxes** take a look at how computers and technology are being used at real-life colleges or other educational facilities.
- 4. Illustrations and Photographs:** Instructive, current full-color illustrations and photographs appear throughout the book to help illustrate important concepts. Figures and screen shots are carefully annotated to convey important information.
- 5. Summary and Key Terms:** This is a concise, section-by-section summary of the main points in the chapter. Every boldfaced key term in the chapter also appears in boldface type in the summary. A matching exercise of selected key terms helps students test their retention of the chapter material.
- 6. Review Activities and Projects:** End-of-chapter activities allow students to test themselves on what they have just read. A **Self-Quiz** (with the answers at the end of the text) consists of true-false and completion questions. Five additional easily graded matching and short-answer **Exercises** are included for instructors who would like to assign graded homework. End-of-chapter **Projects** require students to extend their knowledge by doing research beyond merely reading the book. Organized into five types of projects (Short Answer/Research, Hands On, Writing About Computers, Presentation/Demonstration, and Interactive Discussion), a special icon denotes projects that are written as group projects.
- 7. Web Tutors and Interactive Exercise:** Each chapter contains several multimedia-enhanced tutorials and concludes with a multimedia-rich capstone interactive exercise. These online activities allow students to interact with the concepts discussed in the text and test their knowledge of chapter materials.

Windows

Three modules contain a special foldout Window containing helpful information or a photo-essay. The Windows included with the full text include a “The History of Computers” timeline, a “Web Guide” containing links to useful Web site resources, and a “Ubiquitous Computing” window that takes a look at the ways computers affect our lives.

End of Text Glossary

The Glossary at the end of the book defines all boldfaced key terms in the text with a page reference indicating where the term is discussed.

NEW TO THIS EDITION

Updated Web Tutor and Further Exploration Activities: Throughout the text, students are directed to the *Understanding Computers* Web site for a set of completely updated multimedia-enhanced tutorials. The Further Exploration section of the Web site gives students easy access to a variety of Web resources containing more in-depth information on a given topic.

16 New Interactive Exercises: We have added more Interactive Exercises and now have one at the end of every chapter. These multimedia-rich capstone activities are available through the Understanding Computers Web site and give students the chance to practice the skills and knowledge obtained during the chapter.

Three New Chapters:

- ▼ **Chapter 2, *Using Your PC, Windows, and the Web*** enables students to get up and running on the computer and Internet faster, in order to use these tools for assignments, research, and the textbook's Web Tutors and Interactive Exercises.
- ▼ **Chapter 10, *Multimedia and the Web*** discusses multimedia concepts and applications, and the basics of creating multimedia presentations and Web sites.
- ▼ **Chapter 11, *E-Business and E-Commerce*** discusses timely topics of importance to virtually all businesses today.

To accommodate this new material, the three productivity software chapters from last edition have been consolidated into a single "Application Software" chapter. The key material from the "Fundamentals of Software Use" and "Developing Your Own Web Pages" chapters from the last edition has been incorporated into the new "Using Your PC, Windows, and the Web" and "Multimedia and the Web" chapters, respectively.

New and Updated Boxed Features: New to this edition are the **How It Works** and **Campus Close-Up** boxes. Most of the **Trend** and **Inside the Industry** boxes are new to this edition and cover leading-edge or late-breaking computer topics. Topics held over from the previous edition have been updated to reflect the latest information.

Emphasis on the Internet and World Wide Web: Continuing the trend from earlier editions, this book presents an increased emphasis on the Internet and World Wide Web.

Art and Photo Program: Both the art and photo programs have been extensively revised. Chapters include fully annotated illustrations integrated with the text material as well as numerous screen shots that showcase the latest applications. Many illustrations are rendered in a photorealistic style so that you can see the details of computer components close up. In addition, current full-color photographs appear throughout to help illustrate important concepts.

STUDENT AND INSTRUCTOR SUPPORT MATERIALS

Understanding Computers: Today and Tomorrow, 2002 Edition is available with a complete package of support materials for instructors and students. Included in the package are the comprehensive Understanding Computers Web site, an Instructor's Resource Kit on CD-ROM, and a full-content online course.

THE UNDERSTANDING COMPUTERS WEB SITE

The Understanding Computers Web site located at:

<http://www.course.com/parker2002>

provides media-rich support for students, including the following resources:

web tutor

further
exploration

- ▼ **Web Tutors**—a series of multimedia-enhanced tutorials that allow students to interact with the concepts discussed in the text.
- ▼ **Further Exploration**—links to Web sites with more in-depth information on a given topic from the text.
- ▼ **Interactive Exercises**—multimedia-rich capstone exercises that allow students to test their knowledge after completing each chapter.
- ▼ **Web Guide**—provides students with categorized and regularly updated links to the Web's most useful sites.

Instructor's Resource Kit CD-ROM

All of the teaching tools available with this book are provided to the instructor on a single CD-ROM. Please note that the Instructor's Manual and ExamView Testbank are also available online at www.course.com.

Electronic Instructor's Manual

The Instructor's Manual is written to provide instructors with practical suggestions for enhancing classroom presentations. For each of the 16 chapters of the text, the Instructor's Manual provides the following components:

- ▼ A complete, three-level **Chapter Outline**.
- ▼ A list of **Learning Objectives**.
- ▼ **Summary**, oriented to the instructor, with teaching suggestions.
- ▼ A list of the **Key Terms** in the chapter and their definitions.
- ▼ **Teaching Tips**, with recommended topics for class discussion, important points to cover in class, and mention of additional instructor resources.
- ▼ A **Teaching Outline** that gives a detailed breakdown of the chapter, with all major headings and subheadings, as well as points to cover under each. References to all textbook figures are also included in this outline.
- ▼ **Lecture Anecdotes** providing additional stories, news items, and information specific to chapter content to liven up lectures.
- ▼ **Answers to Exercises** that appear at the end of the chapter.
- ▼ **Suggestions for Projects** that appear at the end of the chapter.

ExamView

This textbook is accompanied by ExamView, a powerful testing software package that allows instructors to create and administer printed, computer (LAN-based), and Internet exams. ExamView includes over 2,400 questions that correspond to the topics covered in this text, enabling students to generate detailed study guides that include page references for further review. The computer-based and Internet testing components allow students to take exams at their computers, and also save the instructor time by grading each exam automatically.

PowerPoint Presentations

This book comes with Microsoft PowerPoint slides for each chapter. These are included as a teaching aid for classroom presentation, to make available to students on the network for chapter review, or to be printed for classroom distribution. Instructors can customize these presentations to cover any additional topics they introduce to the class.

Tabbing Guide

The tabbing guide can be used to show how and where this textbook has been updated for this edition. Page references are included to make planning a class easier for the instructor.

UNDERSTANDING COMPUTERS TODAY AND TOMORROW ONLINE COURSE

For instructors who want to add a richer online component to their courses, Course Technology is proud to present the *Understanding Computers: Today and Tomorrow* Online Course in WebCT and BlackBoard. This new, full-content online course correlates with the text and can be used in a variety of ways: to supplement the text in a traditional classroom setting or as a virtual classroom for distance learning students. Students learn technology by interacting with the content in this dynamic, interactive multimedia environment. Each chapter of the course is filled with interactive activities such as the Web Tutors and Interactive Exercises, links, animations, demonstrations, collaborative classroom activities, critical thinking exercises, and self-tests. For more information on how to bring online content to your course, contact your local Course Technology sales representative.

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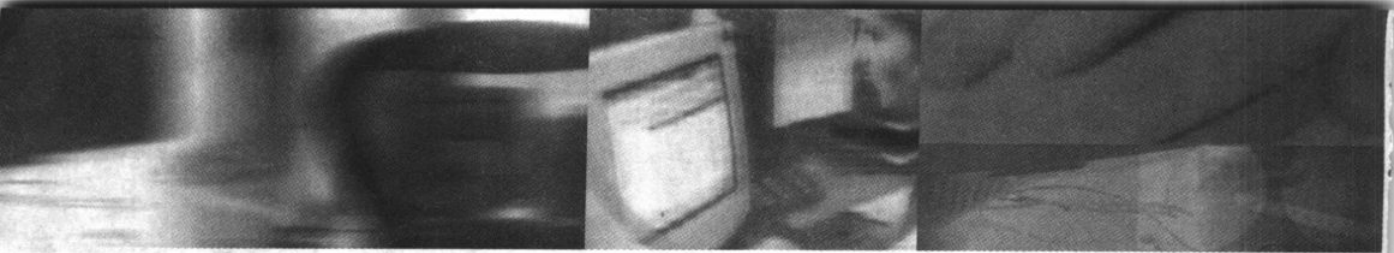
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MODULE INT



INTRODUCTION

We live in an age of computers. Businesses, government agencies, and other organizations use computers and related technologies to handle tedious paperwork, provide better service to customers, and assist managers in making good decisions. Individuals use computers for such activities as paying bills, shopping, managing investments, preparing their taxes, playing games, researching products, communicating with others, and exchanging electronic photos and greeting cards. Because of their growing prominence in our society, it is essential to know something about computers and how they are used today.

This module introduces you to computers and some of their uses. Chapter 1 helps you understand what computer systems are, how they work, how people use them, and presents key terminology that you will encounter repeatedly throughout the text. Chapter 2 delves into how to turn a computer on and use it to access resources on the Internet and World Wide Web. Though the Internet and World Wide Web are covered in more detail in Chapter 9, Chapter 2 is intended to give you the knowledge, skills, and tools necessary to access the World Wide Web for research purposes and to complete the online exercises and activities that accompany this textbook.



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