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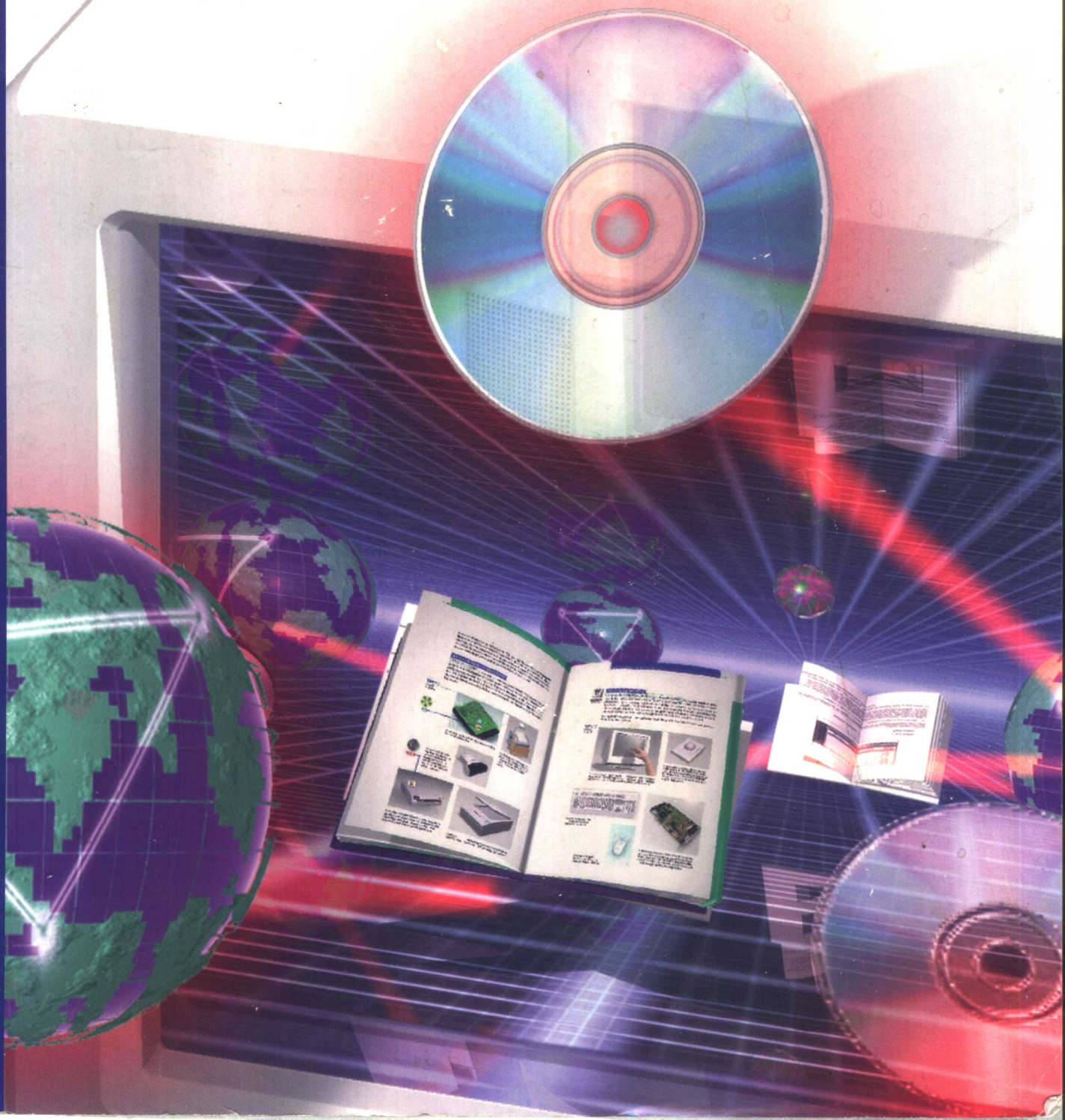

COURSE TECHNOLOGY

Computer Concepts 3rd Edition

COMPREHENSIVE

Includes CD-ROM with Videos, Animations, Labs, and More!

June Jamrich Parsons

Dan Oja

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At Course Technology we have one foot in education and the other in technology. We believe that technology is transforming the way people teach and learn, and we are excited about providing instructors and students with materials that use technology to teach about technology.

Our development process is unparalleled in the higher education publishing industry. Every product we create goes through an exacting process of design, development, review, and testing.

Reviewers give us direction and insight that shape our manuscripts and bring them up to the latest standards. Every manuscript is quality tested. Students whose backgrounds match the intended audience work through every page and assignment. Together with academic and our own technical reviewers, these students help us ensure that everything that carries our name is error-free and easy to use.

As the New Perspectives Series team at Course Technology, our goal is to produce the most timely, accurate, creative, and technologically sound product in the entire college publishing industry. We strive for consistent high quality. This takes a lot of communication, coordination, and hard work. But we love what we do. We are determined to be the best. And look how far we've come. Just four short years ago, our team numbered six people! Write to us and let us know what you think. You can also e-mail us at NewPerspectives@course.com.

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NEW PERSPECTIVES SERIES

Preface to Students and Instructors

"I have just two things to say about NP 3rd Edition. First, it's way cool. And second, I wish I'd had a book and CD like this when I took my intro to computers course!"

Jessica Sisak, student tester

Presenting NP3

We are pleased to present the jewel in the crown of the New Perspectives Series—*Computer Concepts 3rd Edition*, as we call it, NP3. It's a book. It's a CD-ROM. It's either or it's both. If you've used a New Perspectives book before, you've come to expect the best in content accuracy, timeliness, and the latest technology to teach technology. And NP3 will not disappoint you. If you've never used a New Perspectives book before, you're in for a treat.

What's the Same?

NP3 is available in three versions: *Brief*–Chapters 1 through 6, *Introductory*–Chapters 1 through 9, and *Comprehensive*–Chapters 1 through 15. The content has been thoroughly updated, including a brand new chapter on software applications (Chapter 3) and new art and photographs. We've retained the hallmark features that contributed to the great success of NP2: the ability to "read the pictures," in other words large, clear illustrations with many helpful, detailed labels; Focus Questions attached to the major headings that are designed to engage, pique interest, and motivate the relevance of the material that follows; and a rich collection of interesting and entertaining Review Questions and Projects, including Internet Assignments.

What's New?

Every book now includes a CD, which contains the *entire* book as well as animations, videos, links to the Web, Labs, and three ways for interactive self-assessment.

Quick Checks

At the end of each section you will find a Quick Check designed to help make sure key concepts have been grasped. Answers to the Quick Checks are at the end of the book, or, if you are using the CD, you can click the "Check Answers" button.

Key Word Practice and Practice Test

Both the Key Word Practice and Practice Test are available if you are using the CD. Both have tracking disk capability for student/instructor feedback, printing capability, and study guide generation to guide the re-study of incorrect answers.

InfoWebs

The InfoWeb icon connects you to Web links, film, video, TV, print, and electronic resources. InfoWebs keep you up-to-date and solve the problem of constantly changing URLs. If you're using the CD and have Internet access, you can click the InfoWeb icon and be linked directly to resources on the Internet using your browser of choice. If you are using the CD and do not have Internet access, you will be linked to the *InfoWeb* section at the end of the chapter. Otherwise refer to the number of the InfoWeb in the *InfoWeb* section at the end of each chapter.

CD Connections

If you are the using the CD-ROM, you'll love clicking these icons. They reveal videos, animations, screen tours, and other treasures to enhance learning and retention of key concepts.

Labs

Concepts come to life with the Labs—27 highly interactive tutorials that combine illustrations, animations, digital images, and simulations. The Labs guide you step-by-step through a topic, present you with Quick Checks, let you explore on your own, test comprehension, and provide printed feedback. Lab icons at the beginning of the chapters and in the text's margins indicate when a topic has a corresponding Lab. Lab Assignments are included at the end of each relevant chapter. If you are using the CD, you can launch a Lab from any Lab icon.

CyberClass

Course Technology is pleased to bring you CyberClass from HyperGraphics Corporation. CyberClass is a totally new Web-based tool for distance and on-campus settings. It is available in three levels:

Level 1

- CyberClass Stories: Stories about real corporations and their use of computers with links to their sites
- Practice Tests: Randomly generated 20 test questions covering the key concepts of each chapter that can be taken repeatedly to test understanding of each chapter's content
- Link to InfoWebs
- Electronic FlashCards: A self study aid for students to test their understanding of key concepts and terminology

Level 2

- All of Level 1 features plus a customizable and secure Web site for instructors to use for their class(es)
- Syllabus Posting
- Assignments Posting
- Submit Assignments: A template designed to efficiently have students submit assignments to the instructor via e-mail
- Hot Links: Links that the instructor can post for students
- Student Bulletin Board
- Send and View Messages: Messaging among class members and instructor
- Class Roster: Can be secured by the instructor. Students can enter their personal data into the roster (including name, phone number, email address, and so on)

- CyberChallenge: An online real-time game testing knowledge of computer concepts
- Instructor-supervised Text Chat: For such things as online real-time office hours, mini-lectures, group work, discussion groups, and so on
- Administration Utilities: Accessible by instructors only, such as editing the roster and editing user information

Level 3
- All of Level 1 and Level 2 features
- Audio Class Conferencing: Servers can run off of instructor's Windows 95 Pentium computer (up to 30 students), the school's network (up to 200 students), or HyperGraphics's servers (upon sign-up with HyperGraphics). Instructor controlled and monitored.
- Synchronous Assessment over the Web: Using Course Technology's Course Test Manager as the backbone

At the CyberClass site—**www.cyber-class.com**—we will be continually updating and improving the site based on student and instructor feedback.

Supplements

Online Companions: Dedicated to Keeping You Up-To-Date at www.course.com As with NP2, we will continue to offer you a dedicated Web site for NP3. Instructors can browse the password-protected Faculty Online Companion to obtain an online Instructor's Manual, Solution Files, Student Files, and more. Students can access this text's Student Online Companion, which contains the InfoWebs, Internet Assignments and other useful materials.

Course Presenter Course Presenter is a lecture presentation tool providing instructors a replacement for overhead transparencies. It includes a predesigned presentation for each chapter of the textbook, including the video clips, animations, and Labs. But instructors can also customize this presentation to their own preferences.

Course Test Manager: Testing and Practice at the Computer or on Paper Course Test Manager is cutting-edge, Windows-based testing software that helps instructors design and administer practice tests and actual examinations. With Test Manager students can randomly generate practice tests that provide immediate on-screen feedback and detailed study guides. Instructors can also use Course Test Manager to produce printed tests. Course Test Manager can automatically grade the tests students take at the computer and can generate statistical information on individual as well as group performance.

Instructor's Manual This all new enhanced Instructor's Manual offers an outline for each chapter; suggestion for instruction on chapter content, including how to effectively use and integrate the InfoWebs, the CD connections, and the Labs; answers to all end of chapter materials; and numerous teaching tips.

Application Software Instruction NP3 is part of the New Perspectives Series, which includes microcomputer applications textbooks. These applications textbooks include Quick Checks, Labs and Lab Assignments, Student and Faculty Online Companions, Course Presenter, Course Test Manager, and more. Or you might try a new alternative, computer-based application software instruction with the e-Course Series. You'll find that either the text-based or the computer-based instructional materials fit perfectly with NP3.

Custom Books The New Perspectives Series offers instructors two ways to customize a New Perspectives text to fit their courses exactly: CourseKits®, two or more texts packaged together in a box, and Custom Editions™, your choice of books bound together. Custom Editions offer unparalleled flexibility in designing concepts and applications courses. Instructors can build their own book by ordering a combination of titles bound together to cover only the topics they want. Students save because they buy only the materials they need. There is no minimum order, and books are spiral bound. Both CourseKits and Custom Editions offer significant price discounts.

Acknowledgments

This edition was a major undertaking for all the people who worked on it. Everyone made sacrifices, offered their creative talents, stayed on schedule, and was dedicated to making this book and CD the best it could be. The dedication and commitment they exhibited made us proud to be a part of the New Perspectives team. So, our thanks and deep appreciation go to the entire staff at GEX Inc., Planet Interactive, the many student testers and beta testers, Donna Schuch, Jeremy Gaboury, Sue Oja, John Reynolds, John Zeanchock, Ann Turley, Doug Goodman, Susanne Walker, Abby Reip, Jeanne Busemeyer, Joe Myers, Marilyn Freedman, Rachel Crapser, Scott MacDonald, Fatima Nicholls, Mac Mendelsohn, and especially to the triumvirate of Debbie Masi, Donna Gridley, and Susan Solomon.

June Jamrich Parsons
Dan Oja

COURSE LABS

27 Course Labs offer the absolute best when it comes to interactive learning reinforcement. The Labs offer:

- Steps, which guide students step-by-step as they learn/review basic concepts.
- Quick Checks, which appear as students work through the Steps and which draw attention to key points.
- Quick Check Summary Reports, which can be printed as homework and as validation that students have completed the Steps.
- Explore, in which students can experiment, practice skills, and complete the Lab Assignments at the end of each chapter.

Chapter 1

Using a Mouse
This Lab guides students through basic mouse functions and operations, Interactive exercises using dialog boxes allow students to practice mouse skills by creating posters.

Using a Keyboard
Students learn the parts of the keyboard and basic keyboard operations. They practice basic keyboarding with interactive typing exercises, including a self-paced typing tutor that helps improve speed and accuracy.

User Interface
Students are presented with user interfaces on a general/conceptual level, and then have the opportunity to interact with menu driven, prompted dialog, command line, graphical, and combination interfaces.

DOS Command-Line Interface
This Lab presents students with concepts and basic skills associated with the DOS command line, and provides hands-on practice entering commands at a live DOS prompt.

Peripheral Devices
Descriptions, drawings, and animations explain the functions of many popular peripheral devices.

Chapter 2

Computer History Hypermedia
This dynamic Lab has been updated for the 3rd edition and contains descriptions, drawings and photos related to the history and development of computing devices. Students learn to use hypertext links to research historical events and trends.

Multimedia
This Lab shows students what it's like to work with multimedia and see what it might be like to design some aspects of multimedia projects.

Chapter 3

Word Processing
This Lab guides students through essential word processing skills, such as typing and editing text, formatting, saving, and opening a document. They interact with a word processing program, specially designed for this Lab, that offers a hands-on introduction to word processors.

Spreadsheets
Students are introduced to essential spreadsheet skills. A spreadsheet program, specially designed for this Lab, allows students to practice and explore these skills on their own.

Database
After learning essential database concepts, students learn to use query by example to search a visual database for specific records.

Chapter 4

Using Files
Students see what happens on the screen, in RAM, and on the disk when they save, open, revise, and delete files.

Defragmentation and Disk Operation
In this Lab, students interact with simulated disks, files, and FATs to discover how the computer physically stores files. This Lab demonstrates how files become fragmented and how defragmentation utilities work.

Windows Directories, Folders, and Files
Students work with a directory tree to learn basic concepts of directory hierarchies and file types.

DOS Directories and File Management
Students learn the basics of DOS file management, including subdirectories, copying, and moving files.

Chapter 5

Troubleshooting
Students use a simulated computer to step through the boot process. They learn to identify and troubleshoot the most common boot-related problems.

Binary Numbers
This Lab introduces students to binary numbers, demonstrates how data is stored electronically using 1s and 0s, and provides practice converting between binary and decimal.

CPU Simulator
Students use a microprocessor simulation to see what happens in the ALU, control unit, and register during execution of simple assembly language programs. They can run prepared programs or write their own to see how a microprocessor actually works.

Chapter 6

Buying a Computer
Completely updated for this edition, this Lab is ever more helpful to students. An online glossary helps students interpret the technical specifications and advertisements to compare features and make purchase decisions.

Chapter 7

E-mail
Students use a simple e-mail simulation to learn essential e-mail skills including creating, sending, forwarding, replying, printing and saving mail.

Chapter 8

The Internet: World Wide Web
Students interact with a simulated Web browser to explore home pages, URLs, linking, and hypertext. You can assign this Lab even if an Internet connection is not available.

Web Pages & HTML
This Lab is a primer on HTML basics and shows how HTML is used to create pages. Students then see how they can modify these pages and view them in a browser.

Chapter 9

Data Backup
Using a simulated business environment, this Lab teaches basic backup procedures. Students experience data loss, attempt to restore lost data, and learn first-hand the value of regular backup procedures.

Chapter 10

Data Representation
This Lab consists of multiple sections that build upon student's understanding of binary numbers. It demonstrates how 0's and 1's are used to represent all types of data, including text, numbers, graphics and animations. This Lab also explains the concepts of data compression.

Chapter 11

Building a Network
This Lab begins with a basic network consisting of a file server and two workstations. Students, playing the part of the Network Manager, are guided through a hands-on process of adding devices and modifying the network.

Chapter 13

System Testing
Students play the role of a beta tester who must systematically test an information system to determine if it processed data correctly.

Chapter 14

SQL Queries
Students learn how to use relational and logical operators and how to locate specific records or groups of records in a database.

Chapter 15

Visual Programming
Students use a simple visual programming environment to write elementary programs. This Lab introduces programming and event-driven visual programming in a Visual Basic style environment.

Credits

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