

ADVANCED

NEW

PERSPECTIVES

SERIES

AGELOFF/HAYEN

Microsoft® **Excel** for Windows®



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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 keystroke, carefully checking for clarity and pointing out errors in logic and sequence. Together with our own technical reviewers, these testers help us ensure that everything that carries our name is error-free and easy to use.

We show both *how* and *why* technology is critical to solving problems in college and in whatever field you choose to teach or pursue. Our time-tested, step-by-step instructions provide unparalleled clarity. Examples and applications are chosen and crafted to motivate students.

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. Write us and let us know what you think. You can also e-mail us at info@course.com.

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Preface

The New Perspectives Series

What is the New Perspectives Series?

Course Technology's **New Perspectives Series** combines text and technology products that teach computer concepts and microcomputer applications. Users consistently praise this series for innovative pedagogy, creativity, supportive and engaging style, accuracy, and use of interactive technology. The first New Perspectives text was published in January of 1993. Since then, the series has grown to more than thirty titles and has become the best-selling series on computer concepts and microcomputer applications. Others have imitated the New Perspectives features, design, and technologies, but none have replicated its quality and its ability to consistently anticipate and meet the needs of instructors and students.

How is the New Perspectives Series different from other microcomputer applications series?

The **New Perspectives Series** distinguishes itself from other series in at least four substantial ways: sound instructional design, consistent quality, innovative technology, and proven pedagogy. The texts in this series consist of two or more tutorials, which are based on sound instructional design. Each tutorial is motivated by a realistic case that is meaningful to students. Rather than learn a laundry list of features, students learn the features in the context of solving a problem. This process motivates all concepts and skills by demonstrating to students why they would want to know them.

Instructors and students have come to rely on the high quality of the **New Perspectives Series** and to consistently praise its accuracy. This accuracy is a result of Course Technology's unique multi-step quality assurance process that incorporates student testing at three stages of development, using hardware and software configurations appropriate to the product. All solutions, test questions, and other Course Tools (see below) are tested using similar procedures. Instructors who adopt this series report that students can work through the tutorials independently, with a minimum of intervention or "damage control" by instructors or staff. This consistent quality has meant that if instructors are pleased with one product from the series, they can rely on the same quality with any other New Perspectives product.

The **New Perspectives Series** also distinguishes itself by its innovative technology. This series innovated Course Labs, truly *interactive* learning applications. These have set the standard for interactive learning.

How do I know that the New Perspectives Series will work?

Some instructors who use this series report a significant difference between how much their students learn and retain with this series as compared to other series. With other series, instructors often find that students can work through the book and do well on homework and tests, but still not demonstrate competency when asked to perform particular tasks outside the context of the text's sample case or project. With the **New Perspectives Series**, however, instructors report that students have a complete, integrative learning experience that stays with them. They credit this high retention and competency to the fact that this series incorporates critical thinking and problem solving with computer skills mastery.

How does this book I'm holding fit into the New Perspectives Series?

New Perspectives microcomputer applications books are available in the following categories:

Brief books are about 100 pages long and are intended to teach only the essentials of the particular-microcomputer application.

Introductory books are about 300 pages long and consist of 6 or 7 tutorials. An Introductory book is designed for a short course on a particular application or for a one-term course to be used in combination with other Introductory books.

Four-in-One books and **Five-in-One** books combine a Brief book on Windows with 3 or 4 Introductory books. An Essential Computer Concepts section is also included.








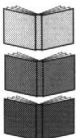
Comprehensive books consist of all of the tutorials in the Introductory book, plus 3 or 4 more tutorials on more advanced topics. They also include Brief Windows tutorials, 3 or 4 Additional Cases, and a Reference Section.

Intermediate books take the 3 or 4 tutorials at the end of 3 or 4 Comprehensive books and combine them. Additional Cases and Reference Sections are also included.

Advanced books begin by covering topics similar to those in the Comprehensive books, but cover them in more depth. Advanced books then go on to present the most high-level coverage in the series. Additional Cases and Reference Sections are also included.

Concepts and Applications books combine the *New Perspectives on Computer Concepts* book with various Brief and Introductory microcomputer applications books.

Custom Books Course Technology offers you two ways to customize a text to fit your course exactly: **CourseKits™**, 2 or more texts packaged together in a box, and **Custom Editions®**, your choice of New Perspectives books bound together. Both options offer significant price discounts.

New Perspectives Series Applications Titles	Brief Titles		Introductory Titles		Essential Computer Concepts		Comprehensive Titles		Advanced Titles	
										
Brief	Introductory		Four-In-One	Five-In-One	Comprehensive	Intermediate	Advanced	Custom		
2 to 4 Tutorials	Brief + 4 or 5 more Tutorials		Essential Computer Concepts + Brief Windows + 3 Introductory	Essential Computer Concepts + Brief Windows + 4 Introductory	Brief Windows + 1 Introductory + 3 or 4 Comprehensive Tutorials + Additional Cases + Reference Sections	3 or 4 Tutorials from 3 or 4 books + Additional Cases + Reference Sections	Quick review of basics + in-depth, high-level coverage + Additional Cases + Reference Sections	Build your own books in Custom Editions or CourseKits		

What is unique about the Advanced New Perspectives books?

The Advanced New Perspectives books are designed to fit a need not addressed by other books in that they cover concepts and skills required of advanced students. Research indicates that students in upper-division courses need a higher level of coverage. In the past, professors have had to use trade books to attain this level of coverage, but these books do not provide the pedagogical foundations for advanced learning. For example, trade books typically do not have end of chapter questions and exercises by which students can test and measure their understanding of the material. The Advanced New Perspectives books combine the high level coverage with reinforcing pedagogical features.

In what kind of course could I use this book?

This book can be used in any course in which you want students to learn all the most important topics of Microsoft Excel for Windows. This book is written primarily for use with Excel Version 7 for Windows 95, but can also be used with Excel Version 5 for Windows 3.1. (For more information, see the *Excel 5 and 3.1 Notes* section later in this preface.)

In this book, students plan, create, format, and edit a spreadsheet. Students also create and run macros, perform what-if analyses, and create charts, tables, and lists. Students also are introduced to more advanced topics, such as using Excel to perform regression analysis, solve linear programming problems, and create custom applications using Visual Basic for Applications (VBA). This book assumes students have taken an introductory spreadsheet course, and learned basic Windows navigation and file management skills from Course Technology's *New Perspectives on Microsoft Windows 95 Brief*, *New Perspectives on Microsoft Windows 3.1 Brief*, or an *equivalent* book.

What features are contained in Advanced Windows 95 editions of the New Perspectives series?

Large Page Size If you've used a *New Perspectives* text before, you'll immediately notice that the book you are holding is larger than the Windows 3.1 series books. We've responded to user requests for a larger page, which allows for larger screen shots and associated callouts. Look on page ADVEX 18 for an example of how we've made the screen shots easy to read.

Design We have designed this book to help students easily differentiate between what they are to *do* and what they are to *read*. The steps are easily identified by their shaded background and numbered steps. Furthermore, this design presents steps and screen shots in a large, easy to read format. Some good examples of our design are pages ADVEX 20 and ADVEX 21, and ADVEX 166 and ADVEX 167.

"Read this Before You Begin" Page This page is consistent with Course Technology's unequalled commitment to helping instructors introduce technology into the classroom. Technical considerations and assumptions about hardware and software are listed in one place to help instructors save time and eliminate unnecessary aggravation. The "Read This Before You Begin" page for this book is on page 2.

CASE

1.
2.
3.

TROUBLE?

3.1 NOTE

EXCEL 5.0



HELP DESK

Tutorial Case Each tutorial begins with a problem presented in a running case that is meaningful to students. The problem turns the task of learning how to use an application into a problem-solving process. The problems increase in complexity with each tutorial. The running case touches on multicultural, international, and ethical issues—so important to today's business curriculum.

Step-by-Step Methodology This unique Course Technology methodology keeps students on track. They click or press keys always within the context of solving the problem posed in the tutorial case. The text constantly guides students, letting them know where they are in the course of solving the problem. In addition, the numerous screen shots include callouts that direct students' attention to what they should look at on the screen. On almost every page in this book, you can find an example of how steps, screen shots, and callouts work together.

TROUBLE? Paragraphs TROUBLE? paragraphs anticipate the mistakes that students are likely to make and help them recover from these mistakes. By putting these paragraphs in the book, rather than in the instructor's manual, we facilitate independent learning and free the instructor to focus on substantive conceptual issues rather than on common procedural errors. Two representative examples of TROUBLE? are on pages ADVEX 38 and ADVEX 133.

Excel 5 Notes and 3.1 Notes Excel 5 Notes and 3.1 Notes provide information specific to those students using Excel 5 and Windows 3.1. For example, these notes appear whenever a task requires a particular action in Excel 5 or Windows 3.1, or when a screen element appears differently in these environments.

Reference Windows Reference Windows appear throughout the text. They are short, succinct summaries of the most important tasks covered in the tutorials. Reference Windows are specially designed and written so students can use them for their reference value when doing the Tutorial Exercises, Case Problems, and Comprehensive Applications, and after completing the course. Page ADVEX 27 contains the Reference Window for Building Formulas By Pointing.

Help Desks The Help Desk feature encourages students to use on-line Help to explore additional methods for completing a task. The more exposure the students have to the on-line Help system, the more comfortable they will be getting help for tasks that are new to them. Each Help Desk includes instructions for starting Help and accessing the correct Help tab. It provides the keyword they should enter, and then names the topic that contains the information. Although the Help Desks do not replace the Step by Step tutorial, students can explore the Help Desk topics while they are working through the tutorial, or they can come back to them later during review.

Task Reference The Task Reference is a summary of how to perform common tasks using the most efficient method, as well as helpful shortcuts. It appears as a table at the end of the book. In this book, the Task Reference is on pages ADVEX 625 through ADVEX 632.

Tutorial Exercises, Case Problems, and Comprehensive Applications Each tutorial concludes with Tutorial Exercises, which provide students with additional hands-on practice of the skills they learned in the tutorial. The Tutorial Exercises are followed by two Case Problems that have approximately the same scope as the tutorial case. Two Comprehensive Applications follow the Case Problems. These Comprehensive Applications require students' to solve a case problem from scratch by utilizing skills they have developed in the current and preceding tutorials. Some of the Comprehensive Applications continue through several tutorials, giving students the opportunity to plan and build a complete workbook in response to a complex business problem.

Additional Cases The Additional Cases are four to five cases problems that encompass all the skills and concepts related to full workbook development and analysis needed to solve intricate business problems. Each case is designed as a semester-long project to be completed by each student individually, or by a group of students working together.

What Course Tools are available with this Text?

Instructor's Manual The Instructor's Manual is written by the authors and is quality assurance tested. It contains answers and solutions to all of the Tutorial Exercises, Case Problems, Comprehensive Applications, and Additional Cases. This is available in hard copy and electronic form.

Student Disk Files Student Files disks contain all of the datafiles that students will use for the Tutorials, Tutorial Exercises, Case Problems, and Comprehensive Applications. A README file includes technical tips for lab management. These files are also available on-line. See the inside cover of this book and the "Read This Before You Begin" page before Tutorial 1 for more information on student files.

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Roger Hayen thanks his family. During this project, the book overshadowed many family activities, but their encouragement, support, and most of all, perseverance, enabled him to complete his work on this book.

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Read This Before You Begin

TO THE STUDENT

STUDENT DISKS

To complete the tutorials, Tutorial Exercises, Case Problems, and Comprehensive Applications in this book, you need ten Student Disks. Your instructor will either provide you with Student Disks or ask you to make your own.

If you are suppose to make your own Student Disks, you will need ten blank, formatted disks. You will need to copy a set of folders from a file server or standalone computer onto your disks. Your instructor will tell you which computer, drive letter, and folders contain the folders you need. The following table shows you which folders go on each of your disks, so that you will have enough disk space to complete all the tutorials, Tutorial Exercises, Case Problems, and Comprehensive Applications:

Disk	Write on this disk label	Put these folders on the disk
1	Student Disk 1: Tutorials 1 & 2	Tut01, Tut02
2	Student Disk 2: Tutorial 3	Tut03
3	Student Disk 3: Tutorial 4	Tut04
4	Student Disk 4: Tutorial 5	Tut05
5	Student Disk 5: Tutorial 6	Tut06
6	Student Disk 6: Tutorial 7	Tut07
7	Student Disk 7: Tutorial 8	Tut08
8	Student Disk 8: Tutorial 9	Tut09
9	Student Disk 9: Tutorials 10 & 11	Tut10, Tut11
10	Student Disk 10: Additional Cases	X_Case1, X_Case2, X_Case3, X_Case4, X_Case5

When you begin each tutorial, be sure you are using the correct Student Disk. See the inside front or inside back cover of this book for more information on Student Disks, or ask your instructor or technical support person for assistance.

USING YOUR OWN COMPUTER

If you are going to work through this book using your own computer, you need:

■ **Computer System** Microsoft Windows 95 and Microsoft Excel 7 for Windows 95; or Microsoft Windows 3.1 and Microsoft Excel 5 for Windows 3.1; or Microsoft Windows 95 and Microsoft Excel 5 for Windows 3.1 must be installed on your computer. This book assumes a complete installation of Excel.

■ **Student Disks** Ask your instructor or technical support person for details on how to get the Student Disks. You will not be able to complete the tutorials or exercises in this book using your won computer until you have Student Disks.

TO THE INSTRUCTOR

To complete the tutorials in this book, your students must use a set of Student Files. These files are stored on the Student Files Disk(s) that is included with the Instructor's Manual. Follow the instructions on the disk label(s) and the Readme.doc file to copy them to your server or standalone computer. You can view the Readme.doc file using WordPad or Write.

Once the files are copied, you can make Student Disks for the students yourself, or tell students where to find the files so they can make their own Student Disks. Make sure the files get correctly copied by following the instructions in the Student Disks section above, which will ensure that students have enough disk space to complete all the tutorials, Tutorial Exercises, Case Problems, and Comprehensive Applications.

CTI DATA FILES

You are granted a license to copy the Student Files to any computer or computer network used by students who have purchased this book. The files are included with the Instructor's Manual and may also be obtained electronically over the Internet. See the inside front or inside back cover of this book for more details.

Creating Worksheets Using Excel for Windows

Preparing an Operating Budget

OBJECTIVES

In this tutorial you will learn how to:

- Launch and exit Excel
- Examine the Excel program window
- Plan, design, build, and review a worksheet
- Enter and edit text labels, values, formulas, and functions
- Build formulas by pointing
- Check the spelling in a worksheet
- Save, preview, and print a worksheet
- Use on-line Help
- Specify a cell range
- Format the data in a worksheet
- Perform a what-if analysis

CASE

Sunny Morning Products

Sunny Morning Products is an international bottler and distributor of the Olympic Gold brand of fresh orange juice and sports Thirst Quencher. While orange juice is the mainstay of the breakfast of many champions, the Olympic Gold Thirst Quencher delivers the fluids, electrolytes, and carbohydrate energy that the human body needs for peak performance in athletic competition. Olympic Gold has provided the company with significant growth and increased profitability during the past ten years. Sunny Morning Products, located in Garden Grove, California, was established in 1909 by Edwin Towle. The business remains family owned and operated. Edwin's grandson, Matthew Towle, now serves as the chairman of the board of Sunny Morning Products, while his granddaughter, Kimberly Scott-Martin, is the president and chief executive officer (CEO). In addition to Matt and Kim, other officers of Sunny Morning Products include Travis Towle as the vice president and general manager, Carmen Martin-Rivera as the chief financial officer (CFO), and Kristin Towle-Hertz as the secretary.

Ann Trego has been working for Sunny Morning Products for almost two years as a budget analyst. Last month Ann was promoted to assistant budget manager. In her new job she assists Carmen, the CFO. One of Ann's first responsibilities is working with Carmen to create next year's operating budget. They estimated first-quarter sales of \$898,300 (that is, 276,400 bottles of Olympic Gold at \$3.25 per bottle) and Travis provided the other assumptions included in the initial operating budget shown in Figure 1-1. You will work along with the staff at Sunny Morning Products throughout these tutorials as you learn how to use Excel to solve the business problems they encounter.