WHAT IS THE ADOBE CERTIFIED EXPERT (ACE) PROGRAM?
The Adobe Certified Expert program is for graphic designers, Web designers, systems integrators, value-added resellers, developers, and business professionals seeking official recognition of their expertise on Adobe Products.

WHAT IS AN ACE?
An Adobe Certified Expert is an individual who has passed an Adobe Product Proficiency Exam for a specific Adobe software product. Adobe Certified Experts are eligible to promote themselves to clients or employers as highly skilled, expert-level users of Adobe software. ACE certification is a worldwide standard for excellence in Adobe software knowledge. To become an Adobe Certified Expert, you must pass a product-specific Adobe Product Proficiency Exam.

REVEALED TITLES FOR ADOBE CERTIFIED EXPERT STUDY MATERIALS
The Revealed Series offers a number of ACE courseware products that cover the objectives required to pass an Adobe Product Proficiency Exam. After studying with any of the books listed below, you should be prepared to take an Adobe Product Proficiency Exam.

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New to This Edition!
The latest edition of Adobe Flash CS5 Revealed includes many new and exciting features, some of which are listed below:

- Two chapters devoted to extensive ActionScript 3 coverage teach how to use ActionScript 3 to enhance the user experience.
- Coverage of Code Snippets, which are blocks of code that save the effort of typing ActionScript and coverage of Text Layout Framework, which provides text flowing, character coloring and column creation.
- Coverage of the improved video capabilities of Flash CS5 and coverage of features that have been enhanced in CS5, including Inverse Kinematics for character animation, and the Deco tool.
- New coverage of features including Motion Editor, and new coverage on designing for mobile devices.

Author’s Vision
Writing a textbook on a web application and animation program is quite challenging. How do you take such a feature-rich program like Adobe Flash Professional CS5 and put it in a context that helps users learn? My goal is to provide a comprehensive, yet manageable, introduction to Adobe Flash Professional CS5—just enough conceptual information to provide the needed context—and then move right into working with the application. My thought is that you’ll get so caught up in the hands-on activities and compelling projects that you’ll be pleasantly surprised at the level of Flash skills and knowledge you’ve acquired at the end of each chapter.

What a joy it has been to be a part of such a creative and energetic publishing team. The Revealed Series is a great format for teaching and learning Flash, and the Revealed Series team took the ball and ran with it. I would like to thank Nicole Pinard and Jim Gish, who provided the vision for the project, and Jane Hosie-Bounar for her management expertise, and everyone at Delmar and Cengage Learning for their professional guidance. A special thanks to Pam Conrad for her hard work, editorial expertise, and constant encouragement. I also want to give a heartfelt thanks to my wife, Barbara, for her patience and support. This book is dedicated to my loving mother, Roberta Gray Shuman.

—Jim Shuman
Introduction to Adobe Flash CS5

Welcome to Adobe Flash CS5—Revealed. This book offers creative projects, concise instructions, and complete coverage of basic to advanced Adobe Flash CS5 skills, helping you to create and publish Flash animations, websites, and applications. Use this book both while you learn and as your own reference guide.

This text is organized into 12 chapters. In these chapters, you will learn many skills to create interesting graphics-rich applications that include animation, sound, video, and interactivity. In addition, you will learn how to publish your own Flash applications.

Break Apart Bitmaps

Breaking Apart Bitmaps

Bitmap graphics, unlike vector graphics, are made up of groups of pixels. You can break apart a bitmap graphic and edit individual pixels. Breaking apart a bitmap graphic allows increased flexibility in how you can use it within a movie. If you break apart a bitmap graphic, you can select different areas of the graphic (with the Selection tool and the Lasso and Magic Wand tools) to manipulate them separately from the graphic as a whole, including deleting an area or changing its color. In addition, you can use the Eraser tool to delete parts of a bitmap graphic that has been broken apart available in the Options area of the Tools panel when the Lasso tool is selected, to select areas of similar color in a bitmap graphic you have broken apart. For example, if you have a graphic of a girl with a blue background and you decide to delete the blue background, you can use the magic wand to select the blue background and then delete the selection. If there are other shades of blue adjacent to the background, you can use the magic wand settings to specify a color similarity threshold number between 0 and 200. A higher number means more matching colors will be selected.

Quick Tip

There is no need to break apart a bitmap graphic that you do not plan to manipulate.

Using the Lasso Tool and the Magic Wand Tool

The Lasso tool lets you select an irregularly shaped part of a graphic, which you can then move, scale, rotate, reshape, or delete. You can use the Magic Wand tool, which is available in the Options area of the Tools panel when the Lasso tool is selected, to select areas of similar color in a bitmap graphic you have broken apart.

What You’ll Do

A What You’ll Do figure begins every lesson. This figure gives you an at-a-glance look at what you’ll do in the chapter, either by showing you a page or pages from the current project or a tool you’ll be using.

Comprehensive Conceptual Lessons

Before jumping into instructions, in-depth conceptual information tells you “why” skills are applied. This book provides the “how” and “why” through the use of professional examples. Also included in the text are tips and sidebars to help you work more efficiently and creatively, or to teach you a bit about the history or design philosophy behind the skill you are using.
**Step-by-Step Instructions**

This book combines in-depth conceptual information with concise steps to help you learn Flash CS5. Each set of steps guides you through a lesson where you will create, modify, or enhance a Flash CS5 file. Step references to large colorful images and quick step summaries round out the lessons. The Data Files for the steps are provided on the CD at the back of this book.

**Projects**

This book contains a variety of end-of-chapter materials for additional practice and reinforcement. The Skills Review contains hands-on practice exercises that mirror the progressive nature of the lesson material. The chapter concludes with four projects: two Project Builders, one Design Project, and one Portfolio Project. The Project Builders and the Design Project require you to apply the skills you’ve learned in the chapter. Portfolio Projects encourage you to solve challenges based on the content explored in the chapter and then add the completed projects to your portfolio.
What Instructor Resources Are Available with This Book?

The Instructor Resources CD-ROM is Delmar’s way of putting the resources and information needed to teach and learn effectively into your hands. All the resources are available for both Macintosh and Windows operating systems.

Instructor’s Manual

Available as an electronic file, the Instructor’s Manual includes chapter overviews and detailed lecture topics for each chapter, with teaching tips. The Instructor’s Manual is available on the Instructor Resources CD-ROM.

Sample Syllabus

Available as an electronic file, the Sample Syllabus includes a suggested syllabus for any course that uses this book. The syllabus is available on the Instructor Resources CD-ROM.

PowerPoint Presentations

Each chapter has a corresponding PowerPoint presentation that you can use in lectures, distribute to your students, or customize to suit your course.

Data Files for Students

To complete most of the chapters in this book, your students will need Data Files. The Data Files are available on the CD at the back of this text book. Instruct students to use the Data Files List at the end of this book. This list gives instructions on organizing files.

Solutions to Exercises

Solution Files are Data Files completed with comprehensive sample answers. Use these files to evaluate your students’ work. Or distribute them electronically so students can verify their work. Sample solutions to all lessons and end-of-chapter material are provided with the exception of some of the portfolio projects.

Test Bank and Test Engine

ExamView is a powerful testing software package that allows instructors to create and administer printed and computer (LAN-based) exams. ExamView includes hundreds of 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 LAN-based/online testing component allows students to take exams using the EV Player, and also saves the instructor time by grading each exam automatically.

Certification

This book, plus the material included in the Online Companion, covers the objectives necessary for Adobe Flash ACE and ACA certification. Use the Certification Grids at the back of the book to find out where an objective is covered. For information about the Online Companion, see Read This Before You Begin.
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Intended Audience
This book is designed for the beginner or intermediate user who wants to learn how to use Adobe Flash CS5. The book is designed to provide basic and in-depth material that not only educates, but encourages you to explore the nuances of this exciting program.

Approach
The book allows you to work at your own pace through step-by-step tutorials. A concept is presented and the process is explained, followed by the actual steps. To learn the most from the use of the text, you should adopt the following habits:
- Proceed slowly: Accuracy and comprehension are more important than speed.
- Understand what is happening with each step before you continue to the next step.
- After finishing a process, ask yourself: Can I do the process on my own? If the answer is no, review the steps.

Icons, Buttons, and Pointers
Symbols for icons, buttons, and pointers are shown each time they are used.

Fonts
Data Files contain a variety of commonly used fonts, but there is no guarantee that these fonts will be available on your computer. Each font is identified in cases where fonts other than Arial or Times New Roman are used. If any of the fonts in use are not available on your computer, you can make a substitution, realizing that the results may vary from those in the book.

Windows and Macintosh
Adobe Flash CS5 works virtually the same on Windows and Macintosh operating systems. In those cases where there is a difference, the abbreviations (Win) and (Mac) are used.

Windows System Requirements
Adobe Flash CS5 requires the following:
- Intel® Pentium® 4 or AMD Athlon® 64 processor
- Microsoft® Windows® XP with Service Pack 2 (Service Pack 3 recommended); Windows Vista® Home Premium, Business, Ultimate, or Enterprise with Service Pack 1; or Windows 7
- 1GB of RAM

Macintosh System Requirements
Adobe Flash CS5 requires the following:
- Multicore Intel processor
- Mac OS X v10.5.7 or v10.6
- 1GB of RAM
- 4GB of available hard-disk space for installation; additional free space required during installation (cannot install on a volume that uses a case-sensitive file system or on removable flash-based storage devices)
- 1024x768 display (1280x800 recommended) with 16-bit video card
- DVD-ROM drive
- QuickTime 7.6.2 software required for multimedia features