



# Adobe® Illustrator® CS4

The Professional Portfolio

**AGAINST THE CLOCK**  
mastering graphic technology

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# Acknowledgements

## ABOUT AGAINST THE CLOCK

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Against The Clock has been publishing graphic communications educational materials for more than 17 years, starting out as a Tampa, Florida-based systems integration firm whose primary focus was on skills development in high-volume, demanding commercial environments. Among the company's clients were LL Bean, The New England Journal of Medicine, the Smithsonian, and many others. Over the years, Against The Clock has developed a solid and widely-respected approach to teaching people how to effectively utilize graphics applications while maintaining a disciplined approach to real-world problems.

Against The Clock has been recognized as one of the nation's leaders in courseware development. Having developed the *Against The Clock* and the *Essentials for Design* series with Prentice Hall/Pearson Education, the firm works closely with all major software developers to ensure timely release of educational products aimed at new version releases.

## ABOUT THE AUTHORS

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**Erika Kendra** holds a BA in History and a BA in English Literature from the University of Pittsburgh. She began her career in the graphic communications industry as an editor at Graphic Arts Technical Foundation before moving to Los Angeles in 2000. Erika is the author or co-author of more than fifteen books about graphic design software, including QuarkXPress, Adobe Photoshop, Adobe InDesign, and Adobe PageMaker. She has also written several books about graphic design concepts such as color reproduction and preflighting, and dozens of articles for online and print journals in the graphics industry. Working with Against The Clock for more than seven years, Erika was a key partner in developing the new Portfolio Series of software training books.

**Gary Poysick**, co-owner of Against The Clock, is a well-known and often controversial speaker, writer, and industry consultant who has been involved in professional graphics and communications for more than twenty years. He wrote the highly popular *Workflow Reengineering* (Adobe Press), *Teams and the Graphic Arts Service Provider* (Prentice Hall), *Creative Techniques: Adobe Illustrator*, and *Creative Techniques: Adobe Photoshop* (Hayden Books), and was the author or co-author of many application-specific training books from Against The Clock.

## CONTRIBUTING AUTHORS, ARTISTS, AND EDITORS

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A big thank you to the people whose artwork, comments, and expertise contributed to the success of these books:

- **Ramon Llorens, Jr.**, International Academy of Design & Technology
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# Walk-Through

## Project 2

### Balloon Festival Artwork

Your client is the marketing director for the Tempe's Hot Air Balloon Festival, which attracts thousands of tourists to the desert community throughout the three-day event. You have been hired to create the primary artwork for this year's event, which will be used in a variety of different products (ads, souvenirs, etc.).

This project incorporates the following skills:

- Drawing complex, custom shapes with the Pen tool
- Drawing irregular shape outlines by painting with the Blob Brush tool
- Editing anchor points and handles to control precise position of vector paths
- Creating a custom color scheme using saved swatches
- Adjusting color, both globally and in specific selections
- Adding interest and depth with color gradients
- Saving multiple file versions for various print applications



## Project Goals

Each project begins with a clear description of the overall concepts that are explained in the project; these goals closely match the different “stages” of the project workflow.

## Project Meeting

**client comments**

We're ready to launch a big marketing push on Phase II of our housing development, and we want to include an illustrated map in marketing materials and newspaper advertisements. I sent a sketch of the property to your art director, and I already approved the icons she showed me when we first met about this project.

I want to be able to change the map every time we sell a home in Phase I and receive a lot or complete a building in Phase II. I forgot to bring the current sale information, but I will send it to you as soon as I get back to my home office next week.

We advertise in many places and we never know what formats will be required. We need you to create different types of files that can be used by anyone doing print design work.

**art director comments**

When I first met with the client, I showed him some ideas for icons we can use for the map. We also discussed the importance of creating a legend for the finished map so that potential buyers can make sense of the various icons. The client approved the icons I suggested, so I created the legend with those icons. I also created a library where you can pull the various elements, instead of reinvoking the proverbial wheel. I also created the artwork for the lot spaces because I needed to include "Standard Lot" and "Premium Lot" identifiers in the legend. That artwork is in the same library.

One of the most important aspects of this project for us is versatility. The client needs to be able to make changes frequently — as soon as a home is sold, a home site is reserved, or a new house is built in Phase II. As the client said, he didn't bring the current status report, so you can't mark the sold spaces right away. You can build the file, however, and mark the sales as soon as you have that information. Anything you can do to make revisions easier will be well worth the effort later.

**project objectives**

To complete this project, you will:

- Open and use built-in swatch libraries
- Define custom gradient swatches
- Create a new pattern swatch based on a built-in pattern
- Define custom art brushes to paint roads and paths
- Define a pattern brush to paint roads with cell tile art endings
- Save a custom brush library so that it can be accessed again later
- Open an use an external symbol library
- Place and control symbol instances
- Edit symbols to change all placed instances
- Break the link from placed instances to the original symbols
- Swap symbols in placed instances
- Create a clipping mask to hide unwanted parts of the artwork



## The Project Meeting

Each project includes the client's initial comments, which provide valuable information about the job. The Project Art Director, a vital part of any design workflow, also provides fundamental advice and production requirements.

## Project Objectives

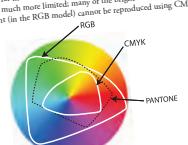
Each Project Meeting includes a summary of the specific skills required to complete the project.

## Stage 2 Coloring and Painting Artwork

The CMYK color model, also called "process color," recreates the range of printable colors by the overlapping layers of cyan, magenta, yellow, and black (also referred to as separated) into individual printing plates. Each color (CMYK) — are imaged (also referred to as separated) into individual printing plates. Each color separation is printed on a separate unit of a printing press. When printed on top of each other in varying percentages, the semi-transparent inks produce the range of colors in the CMYK gamut. Special (spot) colors are printed using specifically formulated inks as additional color separations.

In process-color printing, the four process colors — cyan, magenta, yellow, and black — are imaged (also referred to as separated) into individual printing plates. Each color (CMYK) — are imaged (also referred to as separated) into individual printing plates. Each color separation is printed on a separate unit of a printing press. When printed on top of each other in varying percentages, the semi-transparent inks produce the range of colors in the CMYK gamut. Special (spot) colors are printed using specifically formulated inks as additional color separations.

Different color models have different ranges or **gamuts** of possible colors. A normal human visual system is capable of distinguishing approximately 16.7 million different colors; color reproduction systems, however, are far more limited. The RGB model has the largest gamut of the output models, but the CMYK gamut is much more limited. Most of the brightest and most saturated colors that can be reproduced using light (in the RGB model) cannot be reproduced using CMYK inks.



## Real-World Workflow

Projects are broken into logical lessons or “stages” of the workflow. Brief introductions at the beginning of each stage provide vital foundational material required to complete the task.

## CREATE A GRADIENT MESH

A gradient mesh is basically a special type of fill. Each point in the mesh can have a different color value; the colors of adjacent mesh points determine the colors in the gradient between the two points. When you paint objects with a mesh, it's similar to painting with ink or watercolor. It takes considerable practice to become proficient with gradient meshes.

Each point in the mesh can have a different color.

Connecting lines between mesh points control the shape of related gradients.

Areas between mesh lines are gradients of the surrounding point colors.

One of the techniques you apply in this project is Illustrator's Outline mode. Outline mode allows you to see the points and paths of an object without the colors and fills. This viewing mode can be very useful when you need to adjust anchor points of one shape while viewing the underlying objects.

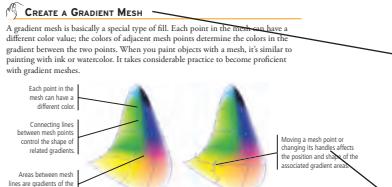
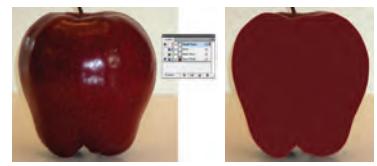
**1. With Apple AI open, lock and hide the Apple Back and Stem layers, and then select the Apple Front layer.**

**2. Using the Selection tool, select the outline shape on the Apple Front layer.**

**3. Using the Eyedropper tool, click a medium-red color in the apple image to fill the selected apple shape with the sampled color.**

You can add a gradient mesh to a path without filling it with color first; but if you don't choose a color, the mesh will automatically fill with white. It's easier to create a good mesh if you start with a fill that colors most of the object.

**Note:** When you convert a path to a mesh, the shape is no longer a path. You cannot apply a stroke attribute to a gradient mesh object.

## Step-By-Step Exercises

Every stage of the workflow is broken into multiple hands-on, step-by-step exercises.

## Visual Explanations

Wherever possible, screen shots are annotated so students can quickly identify important information.

### Understanding Color Terms

Many vague and technical-sounding terms are mentioned when discussing color. Is hue the same as color? The same as value? As best you can, what's the difference between lightness and brightness? What is chroma? And where does saturation fit in? This problem has resulted in several attempts to normalize color communication. A number of systems have been developed to define color according to specific criteria, including Hue, Saturation, and Brightness (HSB), Hue, Saturation, and Lightness (HSL), Hue, Saturation, and Value (HSV), and Lightness, Chroma, and Hue (LCH). Each of these models, or systems plus color as a three-dimensional diagram, based on the elements of human color perception — hue, colorfulness, and brightness.

**Hue** is what most people think of as color — red, green, purple, and so on. Hue is defined according to a color's position on a color wheel, beginning from red (0°) and traveling counterclockwise around the wheel.

**Chroma** is similar to saturation, but chroma factor is a reference white. In any viewing situation, colors appear less vivid as the light source dims. The process of chromatic adaptation, however, allows the human visual system to adjust to changes in light and still differentiate colors according to the relative saturation.

**Brightness** is the amount of light reflected off an object. As an element of color reproduction, brightness is typically judged by comparing the color to the lightest nearby object (such as an unprinted area of white paper).

**Lightness** is the amount of white or black added to the pure color. Lightness color often "burning" or "value" pure color. Lightness based purely on the black-white axis is the relative brightness based purely on the black-white axis of a color. A lightness value of 0 means there is no value of a color. A lightness value of 100 means there is no addition of white or black. Lightness of +100 is pure white; lightness of -100 is pure black.

All hues are affected equally by change.

**Saturation** (also called "intensity") refers to the color's difference from neutral gray. Highly saturated colors are more vivid than those with low saturation. Saturation is gauged from the center of the color wheel. Color at the center is neutral gray and has a saturation value of 0; color at the edge of the wheel is the most intense value of the corresponding hue and has a saturation value of 100.

If you bisect the color wheel with a straight line, the line creates a saturation axis for two complementary colors. A color is dulled by the introduction of its complement. Red, color is dulled by the addition of cyan (blue and green). Near the center of the axis, the result is neutral gray.

Project 2: Balloon Festival Artwork

## Illustrator Foundations

Additional functionality, related tools, and underlying graphic design concepts are included throughout the book.

3. With the mesh object selected, click the Add New Stroke button at the bottom of the Appearance panel.

The Appearance panel shows that the mesh object has a defined stroke, using the default stroke color and weight.

Make sure you are working on the Two Color layer.

The mesh object now has a 1 pt black stroke, which you will use more clearly in a moment.

Add New Effect  
Add New Fill  
Add New Stroke

Note: In addition to changing the existing attributes of an object, you can also use the Appearance panel to compound effects and attributes. In other words, you can add a new stroke to any object, including an object that already has a defined stroke.

## Advice and Warnings

Where appropriate, sidebars provide shortcuts, warnings, or tips about the topic at hand.

### Project Review

fill in the blank

- The \_\_\_\_\_ tool is used to place anchor points that are connected by line segments.
- The \_\_\_\_\_ tool is used to change a smooth anchor point to a corner anchor point (and vice versa).
- The \_\_\_\_\_ tool is used to edit individual anchor points (and their related handles) on a vector path.
- \_\_\_\_\_ is the range of possible colors within a specific color model.
- \_\_\_\_\_ are the four component colors in process-color output.

short answer

- Briefly explain three ways to deselect the current selection on the Artboard.
- Briefly explain the difference between the Selection tool and the Direct Selection tool.
- Briefly explain the significance of "process color" related to Illustrator artwork.

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## Project Review

After completing each project, students can complete these fill-in-the-blank and short-answer questions to test their understanding of the concepts in the project.

### Portfolio Builder Project

Use what you learned in this project to complete the following transform exercise. Carefully read the art director and client comments; then create your own design to meet the needs of the project. Use the space below to sketch ideas; when finished, write a brief explanation of your reasoning behind your final design.

**art director comments**

The former marketing director for the Tenenaca Balloon Festival recently moved to Florida to be the director of the annual Miami Jazzfest. She was pleased with your work on the balloon festival project, and would like to hire you to create the advertising for next year's jazz festival event.

To complete this project, you should:

- Develop artwork that will be the primary image for posters, print advertisements, as well as shirts and other souvenirs.
- Create the primary artwork to fit onto the festival program cover, which is 8x10".

**client comments**

Jazzfest is one of the longest running and well-known music festivals in the southeastern part of the United States. In addition to the music, the festival also features food from prominent restaurants; the food is almost as big of an attraction draw as the music — maybe even more so for some people.

We want artwork that appeals to a 40-something, middle- and upper-class audience; tickets to this event are fairly expensive, but we always have some very well-know acts that make it worth the price.

Finally, we want the artwork to be an appealing aspect of our ad campaign, but we want it to be artwork in its own right. The artwork gets printed as posters that are hung in some very exclusive establishments around the Miami area, and they weren't happy with the cartoon style of art from previous years.

project justification

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## Portfolio Builder Projects

Each step-by-step project is accompanied by a freeform project, allowing students to practice skills and creativity, resulting in an extensive and diverse portfolio of work.

### Visual Summary

Build on the skills you learned in Project 1, incorporating more advanced drawing to allow you to exercise precise control over every point and path in a file. The Pen tool is the most important tool you will use throughout your career as an illustrator. If half of this project explored color in Illustrator, applying colors, saving global colors, and making changes through a selection.

explored two different file formats that are commonly used to share Illustrator files: application, EPS and PDF formats are invaluable pieces of design workflows using files that can't import native Illustrator files.

Use the Factor menu in the Properties panel to change specific colors in selected objects.

Use global swatches to allow universal changes to objects, using that color.

Use the Gradient Assistant to control the position and direction of gradients within specific objects.

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## Visual Summary

Using an annotated version of the finished project, students can quickly identify the skills used to complete different aspects of the job.

# Projects at a Glance

The *Against The Clock Portfolio Series* teaches graphic design software tools and techniques entirely within the framework of real-world projects; we introduce and explain skills where they would naturally fall into a real project workflow. For example, rather than including an entire chapter about printing (which most students find boring), we teach printing where you naturally need to do so — when you complete a print-based project.

The project-based approach in the *Portfolio Series* allows you to get in depth with the software beginning in Project 1 — you don't have to read several chapters of introductory material before you can start creating finished artwork.

The project-based approach of the *Portfolio Series* also prevents “topic tedium” — in other words, we don't require you to read pages and pages of information about text (for example); instead, we explain text tools and options as part of larger project (e.g., creating a logotype, building a folding brochure).

Clear, easy-to-read, step-by-step instructions walk you through every phase of each job, from creating a new file to saving the finished piece. Wherever logical, we also offer practical advice and tips about underlying concepts and graphic design practices that will benefit students as they enter the job market.

The projects in this book reflect a range of different types of Illustrator jobs, from creating a series of icons to designing a corporate identity to building a Web page. When you finish the eight projects in this book (and the accompanying Portfolio Builder exercises), you will have a substantial body of work that should impress any potential employer.

The eight Illustrator CS4 projects are described briefly here; more detail is provided in the full table of contents (beginning on Page viii).

## project 1

### *International Symbols*

- Digital Drawing Basics
- Drawing Basics



## project 2

### *Balloon Festival Artwork*

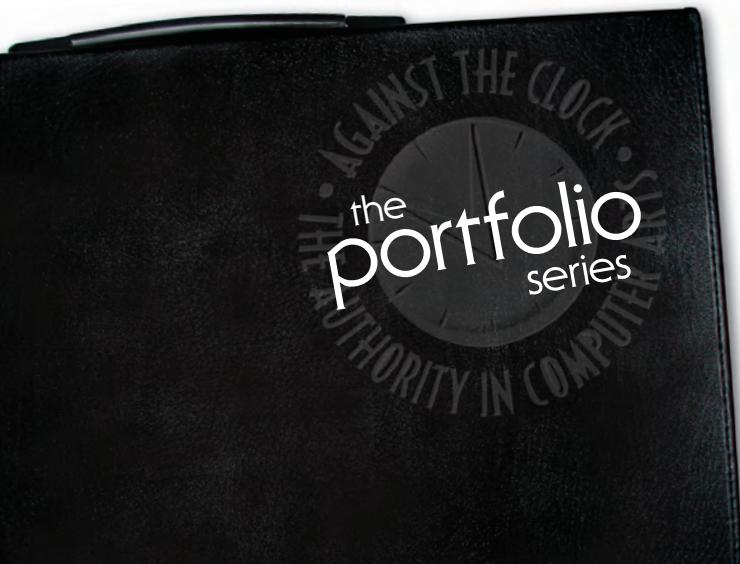
- Drawing Complex Artwork
- Coloring and Painting Artwork
- Exporting EPS and PDF Files



## project 3

### *Identity Package*

- Working with Gradient Meshes
- Working with Type
- Working with Multiple Artboards
- Combining Text and Graphics



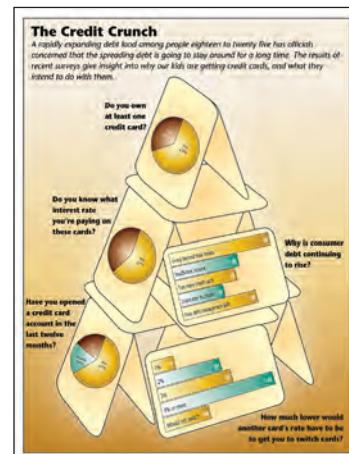
## Realty Development Map

- ❑ Swatches, Gradients, and Patterns
- ❑ Using Brushes and Brush Libraries
- ❑ Using Symbols



## Financial Infographics

- ❑ Creating Charts and Graphs
- ❑ Drawing in Perspective



## Letterfold Brochure

- ❑ Creating Documents that Fold
- ❑ Managing Imported Text
- ❑ Fine-Tuning Text



## Web Site Interface

- ❑ Using Live Trace and Live Color
- ❑ Creating Web Site Graphics



## Cereal Box

- ❑ Building the File Structure
- ❑ Understanding Package Requirements
- ❑ Working with Effects
- ❑ Preparing Art for Output
- ❑ Previewing the Box Design in 3D



Some experts claim most people use only a small fraction — maybe 10% — of their software’s capabilities; this is likely because many people don’t know what is available. As you complete the projects in this book, our goal is to familiarize you with the entire tool set so you can be more productive and more marketable in your career as a graphic designer.

It is important to keep in mind that Illustrator is an extremely versatile and powerful application. The sheer volume of available tools, panels, and features can seem intimidating when you first look at the software interface. Most of these tools, however, are fairly simple to use with a bit of background information and a little practice.

Wherever necessary, we explain the underlying concepts and terms that are required for understanding the software. And we’re confident that these projects provide the practice you need to be able to create sophisticated artwork by the end of the very first project.

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# Getting Started

## PREREQUISITES

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The entire Portfolio Series is based on the assumption that you have a basic understanding of how to use your computer. You should know how to use your mouse to point, click, and drag items around the screen. You should be able to resize and arrange windows on your desktop to maximize your available space. You should know how to access drop-down menus, and understand how check boxes and radio buttons work. It also doesn't hurt to have a good understanding of how your operating system organizes files and folders, and how to navigate your way around them. If you're familiar with these fundamental skills, then you know all that's necessary to use the Portfolio Series.

## RESOURCE FILES

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All of the files that you need to complete the projects in this book are on the provided Resource CD in the **RF\_Illustrator** folder. This folder contains nine subfolders, one for each project in the book (including the Interface); you will be directed to the appropriate folder whenever you need to access a specific file. Files required for the related Portfolio Builder exercises are in the **RF\_Builders** folder.

The Resource CD also includes a **WIP** folder, which also contains (mostly empty) subfolders for each project in the book. This is where you will save your work as you complete the various projects. In some cases, the location of a file will be extremely important for later steps in a project to work properly; that's why we've provided a specific set of folders with known file names.

Before you begin working on the projects in this book, you should copy the entire WIP folder to your hard drive or some other recordable media such as a flash drive; when we tell you to save a file, you should save it to the appropriate folder on the drive where you put that WIP folder.

## ATC FONTS

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You must install the ATC fonts from the Resource CD to ensure that your exercises and projects will work as described in the book; these fonts are provided on the Resource CD in the **ATC Fonts** folder. Specific instructions for installing fonts are provided in the documentation that came with your computer. You should replace older (pre-2004) ATC fonts with the ones on your Resource CD.

## SYSTEM REQUIREMENTS

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As software technology continues to mature, the differences in functionality from one platform to another continue to diminish. The Portfolio Series was designed to work on both Macintosh or Windows computers; where differences exist from one platform to another, we include specific instructions relative to each platform.

One issue that remains different from Macintosh to Windows is the use of different modifier keys (Control, Shift, etc.) to accomplish the same task. When we present key commands, we always follow the same Macintosh/Windows format — Macintosh keys are listed first, then a slash, followed by the Windows key command.

### *Minimum System Requirements for Adobe Illustrator CS4:*

#### Windows

- 2 GHz or faster processor
- Microsoft® Windows® XP with Service Pack 2 or Windows Vista® with Service Pack 1
- 512 MB of RAM (1 GB recommended)
- 2 GB of available hard-disk space for installation
- 1,024×768 display with 16-bit video card
- DVD-ROM drive

#### Macintosh

- PowerPC® G4 or G5 or Intel® processor
- Mac OS X v10.4.11–10.5.4
- 512 MB of RAM (1 GB recommended)
- 2 GB of available hard-disk space for installation
- 1,024×768 display with 16-bit video card
- DVD-ROM drive
- QuickTime 7.2 required for multimedia features