Acknowledgments

Perspection, Inc.

Adobe Illustrator CS6 on Demand has been created by the professional trainers and writers at Perspection, Inc. to the standards you’ve come to expect from Que publishing. Together, we are pleased to present this training book.

Perspection, Inc. is a software training company committed to providing information and training to help people use software more effectively in order to communicate, make decisions, and solve problems. Perspection writes and produces software training books, and develops multimedia and web-based training. Since 1991, we have written more than 120 computer books, with several bestsellers to our credit, and sold over 5 million books.

This book incorporates Perspection’s training expertise to ensure that you’ll receive the maximum return on your time. You’ll focus on the tasks and skills that increase productivity while working at your own pace and convenience.

We invite you to visit the Perspection web site at:

www.perspection.com

Acknowledgments

The task of creating any book requires the talents of many hard-working people pulling together to meet impossible deadlines and untold stresses. We’d like to thank the outstanding team responsible for making this book possible: the writer, Steve Johnson; the technical editor, Toni Bennett; the production editors, James Teyler and Beth Teyler; proofreader, Beth Teyler; and the indexer, Sharon Shock. We’d also like to thank JP Johnson for his contribution of Illustrator artwork.

At Que publishing, we’d like to thank Greg Wiegand and Laura Norman for the opportunity to undertake this project, Cindy Teeters for administrative support, and Sandra Schroeder for your production expertise and support.

Perspection
About the Author

Steve Johnson has written more than 70 books on a variety of computer software, including Adobe Photoshop CS5, Adobe Dreamweaver CS5, Adobe InDesign CS5, Adobe Illustrator CS5, Adobe Flash Professional CS5, Microsoft Windows 7, Microsoft Office 2010 and 2007, Microsoft Office 2008 for the Macintosh, and Apple Mac OS X Lion. In 1991, after working for Apple Computer and Microsoft, Steve founded Perspection, Inc., which writes and produces software training. When he is not staying up late writing, he enjoys coaching baseball, playing golf, gardening, and spending time with his wife, Holly, and three children, JP, Brett, and Hannah. Steve and his family live in Northern California, but can also be found visiting family all over the western United States.
We Want to Hear from You!

As the reader of this book, you are our most important critic and commentator. We value your opinion and want to know what we’re doing right, what we could do better, what areas you’d like to see us publish in, and any other words of wisdom you’re willing to pass our way.

As an associate publisher for Que, I welcome your comments. You can email or write me directly to let me know what you did or didn’t like about this book—as well as what we can do to make our books better.

Please note that I cannot help you with technical problems related to the topic of this book. We do have a User Services group, however, where I will forward specific technical questions related to the book.

When you write, please be sure to include this book’s title and author as well as your name, email address, and phone number. I will carefully review your comments and share them with the author and editors who worked on the book.

Email:  feedback@quepublishing.com

Mail:  Greg Wiegand
      Que Publishing
      800 East 96th Street
      Indianapolis, IN 46240 USA

For more information about this book or another Que title, visit our web site at www.quepublishing.com. Type the ISBN (excluding hyphens) or the title of a book in the Search field to find the page you’re looking for.
# Contents

*Introduction*  
xxvii

## 1 Getting Started with Illustrator CS6

- Installing Illustrator  
- Getting Started  
- Viewing the Illustrator Window  
- Showing and Hiding Panels  
- Working with Panels  
- Using the Tools and Control Panel  
- Opening a Document  
- Opening a Document with Adobe Bridge  
- Inserting Images in a Document  
- Using the Status Bar  
- Working with Document Windows  
- Checking for Updates Online  
- Getting Help While You Work  
- Saving a Document  
- Finishing Up  

## 2 Creating and Viewing a Document

- Creating a New Document  
- Creating a New Document Using Presets  
- Creating a New Document from a Template  
- Setting Up a Document  
- Using Multiple Artboards  
- Working with Multiple Artboards  
- Changing the Display View  
- Changing the View with the Navigator Panel  
- Customizing the Navigator Panel  
- Changing the Screen Display Mode  
- Changing the View with the Zoom Tool  
- Viewing and Using Rulers  

New! indicates new features or changes in this version relative to previous versions.
Using the Guides 50
Using Smart Guides 52
Using the Grid 54
Moving Around with the Hand Tool 55
Using Crop Marks 56
Working with the Info Panel 58
Using Undo and Redo 59
Creating and Selecting Workspaces 60
New!

3 Working with Objects 63
Understanding Vector and Raster Graphics 64
Understanding Paths 65
Selecting a Drawing Mode 66
Creating Pixel Aligned Objects 67
Creating Rectangles and Ellipses 68 New!
Creating Polygons and Stars 70
Creating Line Segments 71
Creating Arcs and Spirals 72
Creating Grids 74
Using the Shape Builder Tool 76
Creating Perspective Objects 78
Working with Perspective Objects 80
Customizing a Perspective Grid 81
Understanding Selections 82
Using the Selection Tool 83
Using the Direct Selection Tool 84
Using the Lasso Tool 85
Using the Magic Wand Tool 86
Selecting and Grouping Objects 88
Selecting Similar Objects 90
Saving and Editing Selections 92
Moving Objects 93
Duplicating Objects 94
Aligning and Distributing Objects 96
Transforming Objects 97
Using the Free Transform Tool 98 New!
Rotating and Scaling Objects 100
Reflecting and Shearing Objects 101
Applying Multiple Transformations 102 New!
Reshaping Objects with Envelopes 104
4 Working with Color

- Changing Color Settings
- Changing Color Profiles
- Working with Color Modes
- Changing Color Modes
- Applying Colors
- Working with the Color Panel
- Working with the Swatches Panel
- Creating Groups in the Swatches Panel
- Working with Swatch Libraries
- Adding Colors Using the Kuler Panel
- Replacing Colors
- Inverting Colors
- Using the Color Guide Panel
- Applying Color with the Color Guide Panel
- Editing Colors with Live Color
- Proofing Colors on the Screen

5 Applying Fills, Strokes, and Gradients

- Applying Fill and Stroke Colors
- Changing Stroke Attributes
- Changing Stroke Style
- Creating Variable Stroke Widths
- Using the Eyedropper Tool
- Creating Patterns for Fills
- Editing Patterns
- Using Patterns as Fills
- Blending Fill Colors
- Creating Blends Automatically
- Applying Blend Options
- Creating Blends with the Blend Tool
- Modifying Blend Objects
- Setting Transparency Options
- Controlling Transparency Effects
- Creating Transparency Masks
- Flattening Object Transparency
- Using the Transparency Grid
- Applying Gradients
- Using Gradients Libraries
- Creating Gradients
6 Working with Points and Paths 169

- Drawing with the Pen Tools 170
- Setting Anchor Point Preferences 172
- Moving Points and Segments 173
- Converting Points 174
- Adding and Deleting Anchor Points 176
- Aligning and Joining Anchor Points 178
- Reshaping Paths 180
- Erasing to Reshape Paths 182
- Smoothing Paths 183
- Simplifying Paths 184
- Dividing Paths 185
- Splitting Paths 186
- Merging Paths 188
- Working with Shape Mode 190
- Working with Pathfinder 191
- Creating a Compound Path 192
- Creating a Clipping Set 194
- Editing a Clipping Set 196

7 Working with Layers 199

- Understanding the Layers Panel 200 New!
- Setting Layers Panel Options 201
- Creating Layers 202 New!
- Selecting Layers 204
- Deleting Layers 205
- Selecting Objects with Layers 206
- Arranging Layers and Objects 208
- Duplicating Layers and Objects 210
- Locking Layers and Objects 211
- Showing and Hiding Layers and Objects 212
- Merging Layers and Groups 213
- Moving Objects to a Layer 214 New!
- Flattening Layers 216
- Locating Objects in the Layers Panel 217 New!
- Creating a Template Layer 218
- Viewing Layers as Outlines 219
8 Working with Type

Using Type Tools 222
Creating Type 223
Creating Type in a Text Box 224
Creating Area Type 225
Creating Path Type 226
Modifying Type on a Path 228
Importing Text 229
Selecting Type 230
Copying or Moving Type 232
Working with Overflow Type 234
Changing Fonts 236
Changing Font Size 238
Leading Type 239
Kerning Type 240
Tracking Type 241
Scaling Type 242
Rotating Type 243
Formatting Type 244 New!
Anti-aliasing Type 245
Aligning Paragraphs 246
Indenting and Spacing Paragraphs 247
Setting Tabs 248
Working with Hyphenation 249
Working with Type Styles 250
Using Smart Punctuation 252
Working with Glyphs 253
Working with OpenType Fonts 254
Working with Justification 255
Wrapping Type Around an Object 256
Creating Type Outlines 257

9 Working with Graphics

Opening Graphics 260
Placing Graphics 261
Placing Graphics from Adobe Bridge 262
Linking Graphics 264
Managing Linked Graphics 266
Tracing Raster Graphics 268 New!
Adjusting Tracing Options 270 New!
10 Manipulating Artwork with Effects

Applying Illustrator Effects 282 New!
Applying the Convert to Shape Effect 284
Applying the Scribble Effect 285
Applying the Inner or Outer Glow Effect 286
Applying the Drop Shadow Effect 287
Applying 3D Effects 288
Applying Warp Effects 290
Applying Distort & Transform Effects 291
Changing Raster Effects Settings 292
Working with the Effect Gallery 294
Applying Multiple Effects 296
Controlling Effects Using Selections 297
Using Blur Effects 298 New!
Viewing Various Effects 300

11 Drawing and Painting

Using the Pencil Tool 304
Creating Live Paint Groups 306 New!
Setting Live Paint Bucket Tool Options 308
Using the Live Paint Bucket Tool 310
Using the Live Paint Selection Tool 312
Modifying Live Paint Groups 314
Selecting Gap Options 316
Using the Brushes Panel 317
Using the Paintbrush Tool 318
Creating and Editing Scatter Brushes 320
Creating and Editing Calligraphic Brushes 322
Creating and Editing Art Brushes 324
Creating and Editing Pattern Brushes 326
Creating and Editing Bristle Brushes 328
Working with Brushes 330
Working with Liquify Tools 332
12  Using Symbols

Using the Symbols Panel 334
Using Symbol Libraries 335
Working with Symbols 336 New!
Duplicating and Editing Symbols 338 New!
Breaking Symbol Links 340
Using the Symbol Sprayer Tool 342
Setting Symbolism Tools Options 343
Using the Symbol Shifter Tool 344
Using the Symbol Scruncher Tool 345
Using the Symbol Sizer Tool 346
Using the Symbol Spinner Tool 347
Using the Symbol Stainer Tool 348
Using the Symbol Stainer Tool 349
Using the Symbol Screener Tool 350
Using the Symbol Styler Tool 351
Expanding Symbol Instances 351
Using 9-Slice Scaling for Symbols 352
Aligning Symbols to the Pixel Grid 354
Setting the Symbol Registration Point 355

13  Automating the Way You Work 357

Examining the Actions Panel 358
Building a New Action 360
Controlling the Playback of a Command 361
Adding a Stop to an Action 362
Inserting a Non-Recordable Command into an Action 363
Adding a Command to an Action 364
Deleting a Command from an Action 365
Working with Batch File Processing 366
Opening and Using Scripts 368 New!
Defining and Editing Data Variables 370
Creating and Formatting a Data Graph 372
Adding Graph Designs to a Graph 374
Cleaning Up Unneeded Elements 375

14  Proofing and Printing Documents 377

Using Spell Check 378
Using Custom Dictionaries 379
Finding and Replacing Text and Elements 380
Finding and Changing Fonts 382
Printing a Document 384
Printing with Presets 385
Setting General Print Options 386
Setting Marks and Bleed Options 388
Setting Graphics Options 390
Previewing Color Separations 391
Setting Output Options 392
Setting Advanced Options 394  New!
Setting Color Management Options 396
Checking for Print Problems 397
Inserting File Information 398
Using the Document Info Panel 400

15 Exporting a Document 401
Exporting a Document 402
Understanding Export File Formats 403
Exporting as a Bitmap 404
Exporting as a TIFF 405
Exporting as a PNG or JPEG 406
Exporting to Photoshop 408
Exporting with Presets 409
Exporting as a Flash Movie 410
Saving as Adobe PDF 412
Saving as an EPS 414
Saving as a SVG 416  New!
Saving for HTML5 and CSS 418
Saving as Adobe FXG 420
Saving a Document for Microsoft Office 422
Saving as a Template 423

16 Designing for the Web and Devices 425
Saving for the Web 426
Working with Save For Web Options 428
Working with Web File Formats 430
Optimizing a JPEG Document 432
Optimizing a GIF Document 434
Optimizing a PNG-8 Document 436
Optimizing a PNG-24 Document 438
Optimizing an Image to File Size 439
Slicing Images the Easy Way 440
Working with Slices 442 New!
Adding HTML Text or an URL Link to a Slice 444
Arranging Slices 446 New!
Combining or Dividing Slices 448
Saving Slices for the Web 449
Saving Selected Slices 450
Previewing in a Browser 451 New!

17 Customizing the Way You Work 453
Setting General Preferences 454
Changing Selection & Anchor Display Preferences 456
Setting Type Preferences 458
Changing Units Preferences 460
Setting Slices Preferences 461 New!
Setting Dictionary & Hyphenation Preferences 462 New!
Selecting Plug-ins 463
Selecting Scratch Disks 464
Setting User Interface Preferences 465 New!
Setting File Handling & Clipboard Preferences 466 New!
Working with Appearance of Black Preferences 468
Defining Keyboard Shortcuts 469 New!
Using Drawing Tablets 470

18 Working Together with Adobe Programs 471
Exploring Adobe Programs 472
Exploring Adobe Bridge 473
Getting Started with Adobe Bridge 474 New!
Getting Photos from a Digital Camera 475
Working with Raw Images from a Digital Camera 476 New!
Modifying Images in Camera Raw 478 New!
Working with Images Using Adobe Bridge 480
Setting Preferences in Adobe Bridge 482 New!
Applying Image Adjustments 484
Creating a Web Photo Gallery 485
Automating Tasks in Adobe Bridge 486
Using Mini Bridge 487 New!
Working with Adobe Media Encoder 488 New!
Working with Adobe Extension Manager 490 New!
Scripting with Adobe ExtendScript Toolkit 491 New!
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Features</td>
<td>493</td>
</tr>
<tr>
<td>Adobe Certification</td>
<td>497</td>
</tr>
<tr>
<td>Index</td>
<td>503</td>
</tr>
</tbody>
</table>
Introduction

Welcome to Adobe Illustrator CS6 on Demand, a visual quick reference book that shows you how to work efficiently with Illustrator. This book provides complete coverage of basic to advanced Illustrator skills.

How This Book Works

You don’t have to read this book in any particular order. We’ve designed the book so that you can jump in, get the information you need, and jump out. However, the book does follow a logical progression from simple tasks to more complex ones. Each task is presented on no more than two facing pages, which lets you focus on a single task without having to turn the page. To find the information that you need, just look up the task in the table of contents or index, and turn to the page listed. Read the task introduction, follow the step-by-step instructions in the left column along with screen illustrations in the right column, and you’re done.

What’s New

If you’re searching for what’s new in Illustrator CS6, just look for the icon: New!. The new icon appears in the table of contents and throughout this book so you can quickly and easily identify a new or improved feature in Illustrator. A complete description of each new feature appears in the New Features guide in the back of this book.

Keyboard Shortcuts

Most menu commands have a keyboard equivalent, such as Ctrl+P (Win) or ⌘+P (Mac), as a quicker alternative to using the mouse. A complete list of keyboard shortcuts is available on the web at www.perspection.com and in the back of this book.
Step-by-Step Instructions

This book provides concise step-by-step instructions that show you “how” to accomplish a task. Each set of instructions includes illustrations that directly correspond to the easy-to-read steps. Also included in the text are timesavers, tables, and sidebars to help you work more efficiently or to teach you more in-depth information. A “Did You Know?” provides tips and techniques to help you work smarter, while a “See Also” leads you to other parts of the book containing related information about the task.

Real World Examples

This book uses real world example files to give you a context in which to use the task. By using the example files, you won’t waste time looking for or creating sample files. You get a start file and a result file, so you can compare your work. Not every topic needs an example file, such as changing options, so we provide a complete list of the example files used throughout the book. The example files that you need for project tasks along with a complete file list are available on the web at www.perspection.com.
**Workshops**

This book shows you how to put together the individual step-by-step tasks into in-depth projects with the Workshop. You start each project with a sample file, work through the steps, and then compare your results with a project results file at the end. The Workshop projects and associated files are available on the web at www.perspection.com or at queondemand.com.

**Adobe Certification**

This book prepares you fully for the Adobe Certified Expert (ACE) exam for Adobe Illustrator CS6. Each Adobe Certified Expert certification level has a set of objectives, which are organized into broader skill sets. To prepare for the certification exam, you should review and perform each task identified with an ACE objective to confirm that you can meet the requirements for the exam. Information about the ACE program is available in the back of this book. The Adobe Certified Expert objectives and the specific pages that cover them are available on the web at www.perspection.com.
Get More on the Web

In addition to the information in this book, you can also get more information on the web to help you get up-to-speed faster with Illustrator CS6. Some of the information includes:

Transition Helpers

- Only New Features. Download and print the new feature tasks as a quick and easy guide.

Productivity Tools

- Keyboard Shortcuts. Download a list of keyboard shortcuts to learn faster ways to get the job done. Also available in the back of this book.

More Content

- Photographs. Download photographs and other graphics to use in your Illustrator documents.

- More Content. Download new content developed after publication.

You can access these additional resources on the web at www.perspection.com.
Applying Fills, Strokes, and Gradients

Introduction

The Stroke panel makes it easy to change stroke attributes, such as weight (width), position on the path, and its style. The weight of a stroke refers to the thickness of the line. The Eyedropper tool on the Tools panel is another way you can quickly pick up an object’s color and stroke attributes and apply them to another object. Instead of using a solid color as an object fill, you can create and use patterns. The process is very simple. In Illustrator, create a pattern using drawing tools, select and drag the object pattern to the Swatches panel, and then give it a name.

A blend uses two or more objects to create a transitional object in between. If you’re just getting start with blends, the Make command on the Blend submenu is an easy way to create a blend. All you need to do is select the objects that you want to use, and then choose the command. That’s it. If you want a little more control over the way a blend turns out, you can specify options in the Blend Options dialog box. If you want to specify the locations where the blend takes place, you can use the Blend tool. Transparency, or the opacity level of an object, is set in Illustrator by adjusting the Opacity option in the Transparency or Control panels. Along with the Opacity option is the blending mode, which blends colors together for objects in a group as well as all the objects below it.

A gradient is a smooth transition between two or more colors in an object. You can apply one of Illustrator’s built-in gradients or create one of your own by using the Gradient panel. There are two types of gradients: Radial (circular) and Linear (horizontal). With the Gradient tool, you can edit gradient colors applied to the object by adding or changing color stops, applying transparency, and changing gradient direction (linear) or angle (radial).

What You’ll Do

- Apply Fill and Stroke Colors
- Change Stroke Attributes and Style
- Create Variable Stroke Widths
- Use the Eyedropper Tool
- Create, Edit, and Use Patterns as Fills
- Blend Color Fills
- Create Blends Automatically
- Apply Blend Options
- Create Blends with the Blend Tool
- Modify Blend Objects
- Set Transparency Options
- Create Transparency Masks
- Flatten Object Transparency
- Control Transparency Effects
- Use the Transparency Grid
- Apply, Create, and Edit Gradients
- Use Gradient Libraries
- Use the Gradient Tool
- Create a Gradient Mesh
Applying Fill and Stroke Colors


color being applied to object from color panel

Apply Colors to an Object, Fill or Stroke

1. Select an object, fill, or stroke using the appropriate selection tool.
2. Click the Fill or Stroke color box on the Tools or Color panel to choose the color’s destination.
3. Click the Color icon on the Tools panel to apply a color or click the None icon to apply no color.
4. Use any of the following methods to change the active fill or stroke colors:
   - Select the Swatches panel, and then click a color swatch to change the color.
   - Select the Color panel, and then specify a color using the controls.
   - Select the Color Guide panel, and then click a color swatch to change the color.
   - Select the Eyedropper tool on the Tools panel, and then click anywhere in the active document to change the color.
   - Double-click the Fill or Stroke color box to open the Color Picker dialog box, select a color or enter color values, and then click OK.
Use Default and Switch the Fill and Stroke Colors

1. Click the Default Fill and Stroke Colors buttons to revert the fill and stroke colors to their default values of black and white.

2. Click the Swap Fill and Stroke Colors button to switch current colors.

TIMESAVER  Press D to change the fill and stroke colors to their default values of black and white, and press X to switch the current colors.

Did You Know?

You can add colors from the Color Picker to the Swatches panel. Open the Color Picker dialog box, select the color you want to add to the Swatches panel, click Add To Swatches, type a name for the color, and then click OK.
The Stroke panel makes it easy to change stroke attributes, such as weight (width), position on the path, and its style. The weight of a stroke represents the thickness of the line. A weight smaller than .25 may not print and a weight of 0 removes the stroke. In addition to the width of a stroke, you can also specify the position (known as alignment) of the stroke on the path (either center, inside, or outside) and change the caps or joins of a stroke to sharpen or round endpoints and corners. A cap is the end of an open line, while a join is a corner.

### Change the Weight of a Stroke

1. Select one or more objects.
2. Select the Stroke panel.
3. Specify or enter a weight in the Stroke or Control panel.
   - Click the up or down arrow, or Shift+click to change the weight by a larger interval.

### Change the Alignment of a Stroke on the Path

1. Select one or more closed objects.
2. Select the Stroke panel.
3. Click one of the following alignment buttons:
   - Align Stroke to Center.
   - Align Stroke to Inside.
   - Align Stroke to Outside.
Change Stroke Caps or Joins

1. Select one or more objects.
2. Select the Stroke panel.
3. To change the endpoints, click one of the following buttons:
   - **Butt Cap.** Creates a square-edged end.
   - **Round Cap.** Creates a rounded end.
   - **Projecting Cap.** Creates a square-edged end that extends past the endpoint.
4. To change the bends on corner points, click one of the following:
   - **Miter Join.** Creates a pointed join point.
     - Enter a miter limit between 1 and 500. When the length of the point reaches the limit (default 4) times the stroke weight, Illustrator switches from a miter join to a bevel join.
   - **Round Join.** Creates a rounded join point.
   - **Bevel Join.** Creates a beveled (cut off) join point.
Style is what stands out on the page. You can change the stroke style by applying dashes and arrowheads using the Stroke panel. When you create a dashed stroke, you can choose to align the dashes around corners and at the end of open paths or preserve the dashes and gaps in the stroke. In addition to dashes, you can also add and define an arrowhead to a stroke. After you add an arrowhead to a stroke, you can adjust its alignment and scale.

### Create a Dashed Stroke

1. Select one or more objects.
2. Select the Stroke panel.
3. Select the Dashed Line check box.
4. Click the Preserve Exact Dash and Gap Lengths or Aligns Dashes to Corners and Path Ends, Adjusting Lengths to Fit icon.
5. Enter a value in the first Dash box.
   - If you don’t enter any more values, the value in the first box is used for the rest of the boxes.
6. Enter a value in the first Gap box.
7. Fill in the remaining boxes.
   - To create a dotted line, click the Round Cap button, enter a dash value of 0, and then enter a gap value greater than or equal to the stroke weight.
8. Click one of the Cap buttons to sharpen or round endpoints.
Add Arrowheads

1. Select one or more objects.
2. Select the Stroke panel.
3. Click the Start Point Arrowhead or End Point Arrowhead list arrow, and then select an arrowhead.
   - To remove an arrowhead, select None from the list.
4. To swap the start and end arrowheads, click the Swap Start And End Arrowheads button.
5. Click the Start Arrowhead Scale or End Arrowhead Scale list arrow, and then drag a scale percentage for the arrowhead.
   - To link the start and end arrowhead scale, click the Link Start And End Arrowhead Scales button.
6. To change the arrowhead alignment, click the Extend Arrow Tip Beyond End Of Path or Place Arrow Tip At End Of Path button.

Did You Know?

You can customize arrowheads. To define custom arrowheads, open the Arrowheads.ai file, follow the directions in the file, and then place the updated Arrowheads.ai file in the <Illustrator home>\plug-ins\.

The Arrowheads.ai file is located under ShowPackageContent\Required\Resources\<locale>\Mac) or \Support Files\Required\Resources\<locale>\(Win).
Creating Variable Stroke Widths

Create or Adjust a Variable Stroke Width

1. Select the Width tool on the Tools panel.

2. Use any of the following methods to create and adjust a variable width stroke:

- **Create a Variable Width Point.** Point to the path, and then click on the path and drag to size it.

- **Change a Variable Width Point Position.** Point to the path, point to a width point, and then drag it along the path.

- **Change a Variable Width Point Size.** Point to the path, point to a width point, and then drag the inward/outward handle.

- **Set Exact Variable Width Point Sizes and Options.** Point to the path, double-click the width point, specify the sizes you want, select the Adjust Adjoining Width Points check box to adjust neighboring width points, and then click OK.

- **Delete a Variable Width Point.** Point to the path, click the width point, and then press Delete.

- **Select Multiple Width Points.** Point to the path, press Shift and click width points.

The Width tool allows you to create a variable width stroke and save your settings as a profile that you can apply to other strokes. When you point to a stroke with the Width tool, a small circle appears on the path, where you can drag to create a variable width. After you create a variable width, you can move, duplicate, or delete a width point on the path. Each width point contains an inward/outward handle, which you can drag on the path to adjust the width. If you want to create a variable width with exact measurements, you can use the Width Point Edit dialog box. After you create a variable width point, you can save it as a profile from the Stroke or Control panel.
Create and Apply a Stroke Width Profile

1. Select the **Width** tool on the Tools panel.
2. Select the **Stroke** panel.
3. Use any of the following methods to create or adjust a variable width stroke:
   - **Create a Width Profile.** Create or select a variable stroke width, click the **Profile** list arrow on the Stroke panel, click the **Add To Profiles** button, type a name, and then click **OK**.
   - **Apply a Width Profile.** Select a path, click the **Profile** list arrow on the Stroke panel, and then select the width profile you want.
   - **Remove a Width Profile.** Select the variable stroke width you want to remove, click the **Profile** list arrow on the Stroke panel, and then click **Uniform**.
   - **Flip a Width Profile.** Click the **Profile** list arrow on the Stroke panel, select the profile you want to flip, and then click the **Flip Along** or **Flip Across** button.
   - **Delete a Width Profile.** Click the **Profile** list arrow on the Stroke panel, select the profile you want to delete, and then click the **Delete Profile** button, and then click **Yes**.
   - **Restore the Default Width Profile Set.** Click the **Profile** list arrow on the Stroke panel, click the **Reset Profiles** button, and then click **OK**. This removes any custom saved profiles.

### Width Tool Shortcuts

<table>
<thead>
<tr>
<th>Width Control</th>
<th>Keyboard Shortcuts (Win/Mac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create non-uniform widths</td>
<td>Alt/Option+drag</td>
</tr>
<tr>
<td>Create a copy of a width point</td>
<td>Alt/Option+drag</td>
</tr>
<tr>
<td>Copy/move all points along the path</td>
<td>Alt/Option+Shift+drag</td>
</tr>
<tr>
<td>Move multiple width points</td>
<td>Shift+drag</td>
</tr>
<tr>
<td>Select multiple width points</td>
<td>Shift+click</td>
</tr>
<tr>
<td>Delete selected width points</td>
<td>Delete</td>
</tr>
<tr>
<td>Deselect a width point</td>
<td>Esc</td>
</tr>
</tbody>
</table>
Using the Eyedropper Tool

Apply Colors and Attributes with the Eyedropper Tool

1. If you want to apply the pick up color and attributes to one or more objects, then select them.

2. Select the Eyedropper tool on the Tools panel.

3. Click an object in any window that contains the color and attributes that you want to pick up and apply.

   - If you want to apply color attributes from the currently selected object and apply them to another object you select, Alt+click (Win) or Option+click (Mac) the objects.

   - To have the Eyedropper tool only pick up an object’s color and not other attributes, click the Fill or Stroke box on the Tools or Color panel, and then Shift+click the color to be picked up.

The Eyedropper tool on the Tools panel makes it easy to quickly pick up a color from one area of your artwork and apply it to another area. When you click an object with the Eyedropper tool, it picks up the object’s color and stroke attributes and displays them in the Tools, Color, and Stroke panels. You can pick up attributes from any type of object, even a graphic image and the object doesn’t need to be selected. If an object is selected, the color and stroke attributes are applied to the selected object. The Eyedropper tool also provides options for you to customize the attributes—such as Appearance, Transparency, Focal Fill and Focal Stroke, Character Style and Paragraph Style—that you want to pick up with the tool.
Change Eyedropper Options

1. Double-click the Eyedropper tool on the Tools panel.

2. In the left column, select the check boxes for the options that you want the Eyedropper to pick up and deselect the ones you don’t.

3. In the right column, select the check boxes for the options that you want the Eyedropper to apply and deselect the ones you don’t.

4. Click the Raster Sample Size list arrow, and then select a sample size for the pick up color and attributes.

5. Click OK.
Instead of using solid color or gradients as object fills, you can create and use patterns. The process is very simple. In Illustrator, use existing artwork (nothing with a painted pattern) or create a pattern using tools—such as Rectangle, Ellipse, Polygon, Arc, Spiral, Star, or Flare—on the Tools panel, and then drag it to the Swatches panel. If you want to create a more complex pattern, you can make and edit patterns using the Pattern Options panel (New!). The pattern consists of a group of objects, which you can also edit using Isolation Mode.

Create a Pattern for Fills

1. Use existing or draw objects to be used as a pattern.
2. Select the Selection tool on the Tools panel.
3. Select all the objects.
4. Click the Object menu, point to Pattern, and then click Make.
5. If prompted with an alert dialog box, click OK.

The object is added to the Swatches panel, the Pattern Options panel opens, and the pattern appears in Isolation Mode.
6. Type a name for the pattern.
7. Click the Tile Type list arrow, and then select a layout: Grid, Brick by Row, Brick by Column, Hex by Column, or Hex by Row.
   - Brick Offset. If you select one of the brick title types, click the Brick Offset list arrow, and then select an offset.
8. To adjust tiling manually, click the Pattern Tile Tool button, and then drag a white square handle to resize it.
9. Specify any of the following options:
   - Width and Height. If you want an exact width and height, specify the values you want.
◆ **Size Tile to Art.** Select to size the pattern tile to the applied object. If you select this option, specify horizontal (H) and vertical (V) spacing.

◆ **Move Tile with Art.** Select to move the pattern tile with the applied object.

◆ **Overlap.** Select Left in Front or Right in Front and Top in Front or Bottom in Front.

10 Specify any of the following options:

◆ **Copies.** Specify the number of patterns you want in the grid.

◆ **Dim Copies to a Percentage.** Select to dim the pattern copies by an opacity percentage.

◆ **Show Tile Edge.** Select to show the edge of the pattern tile.

◆ **Show Swatch Bounds.** Select to show the bounding edge of the pattern swatch.

11 When you’re done modifying the pattern, click **Done** on the gray bar to exit Isolation Mode.

◆ **Cancel.** Click **Cancel** to exit Isolation Mode without creating an pattern.

◆ **Save a Copy.** Click **Save a Copy** to create a copy of the pattern; Enter a name, and then click **OK.**

---

**Did You Know?**

*You can add an object to the Swatches panel as pattern.* Drag the object selection to a blank area in the Swatches panel.
After you create a pattern using the Pattern Options panel (New!), you can use the Edit Pattern command (New!) on the Pattern submenu on the Object menu to edit the pattern. When you edit a pattern from the Swatches panel, the Pattern Options panel opens and the pattern appears in Isolation Mode. With the Direction Selection tool, you can edit individual objects in the pattern. With the Pattern Options panel, you can edit how the pattern appears as a fill.

**Edit a Pattern**

1. Select the Swatches panel.
2. Select the pattern you want to edit.
3. Click the Object menu, point to Pattern, and then click Edit Pattern.

   The Pattern Options panel opens and the pattern appears in Isolation Mode.

4. With the Direct Selection tool, edit individual objects in the pattern.
5. In the Pattern Options panel, make the changes you want to pattern; see the previous page for option specifics.
6. To adjust tiling manually, click the Pattern Tile Tool button, and then drag a white square handle to resize it in Isolation Mode.
7. When you’re done modifying the pattern, click Done on the gray bar to exit Isolation Mode.
   - **Cancel.** Click Cancel to exit Isolation Mode with creating a pattern.
   - **Save a Copy.** Click Save a Copy to create a copy of the pattern; enter a name, and then click OK.
After you create a pattern, you can apply the pattern from the Swatches panel to an object’s fill or stroke. You can apply a pattern just as you would apply a solid or gradient color. Simply, select the object, select the Fill or Stroke color box on the Tools panel, and then click the pattern you want to use from the Swatches panel.

### Did You Know?

*You can reposition a pattern fill.* To reposition the pattern fill or stroke in an object without moving the object, select the Selection tool, hold down ~ (tilde) and drag inside the object.

*You can expand a pattern into individual objects.* Select the object with the pattern, click the Object menu, click Expand, select the Fill check box and/or the Stroke check box, and then click OK.
The Edit Color submenu allows you to blend fill colors for three or more objects. The more objects that you select, the more gradual the color blend. Stroke colors and attributes remain the same. Illustrator takes the objects on the edges (front and back, left and right, and top and bottom) as the starting and ending colors in the blend. All objects in between the starting and ending ones are intermediate blends.

**Blend Fill Colors**

1. **Select three or more objects that contain fill colors.**
   - The objects cannot contain global process colors, patterns, or gradients.
2. **Click the Edit menu, and then point to Edit Colors.**
3. **Select any of the following commands:**
   - **Blend Front to Back.** Uses the fill color of the front and back objects in the selection as the starting and ending colors in the blend.
   - **Blend Horizontally.** Uses the fill color of the left side and right side objects as the starting and ending colors in the blend.
   - **Blend Vertically.** Uses the fill color of the top and bottom objects as the starting and ending colors in the blend.
If you’re just getting started with blends, the Make command on the Blend submenu is an easy way to create a blend. All you need to do is select the objects that you want to use in the blend, and then choose the Make command. That’s it. Illustrator creates all the transitional objects in between. If you don’t like the results, you can undo the blend and try something else. If you no longer want the blend, you can release it, which removes the transitional objects and leaves the original objects and the path.

Creating Blends Automatically

Make and Release Blend Objects

1. Select two or more objects or groups (with space in between them) that you want to blend.
2. Click the Object menu, point to Blend, and then click Make.
   - To undo the creation of the blend objects, click the Edit menu, and then click Undo.
3. Select the blend objects.
4. To release the blend objects, click the Object menu, point to Blend, and then click Release.

The transitional objects between the original objects are removed, while the original objects and path remain intact.
If you want a little more control over the way a blend turns out, you can specify options in the Blend Options dialog box. The settings automatically apply to any selected objects and future blends. The settings include Smooth Color, Specified Steps (number of transitional steps), Specified Distance, Align to Page, and Align to Path. The Preview option allows you to view your changes on the screen as you make them.

**Change and Apply Blend Options**

1. Select an existing blend object.
2. Click the Object menu, point to Blend, and then click Blend Options.
3. Select the Preview check box to view your changes.
4. Click the Spacing list arrow, and then select one of the following:
   - **Smooth Color.** Select to automatically create a smooth color blend based on the number of transitional steps needed.
   - **Specified Steps.** Enter the number of transitional steps (1-1000) that you want.
   - **Specified Distance.** Enter the distance (.1-1000 pixels) between the transition objects in the blend.
5. Select one of the following orientation buttons:
   - **Align to Page.** Click to align the blend objects perpendicular to the horizontal axes.
   - **Align to Path.** Click to align the blend objects perpendicular to the path.
6. Click OK.
Creating Blends with the Blend Tool

Create a Blend with the Blend Tool

1. Select two or more objects or groups (with space in between them) that you want to blend.
2. Select the **Blend** tool on the Tools panel.
3. Click the fill of the first object (not the center point) to let Illustrator determine an anchor point to use, or click the anchor point that you want to use.
4. Click the fill or an anchor point on the next object. If the path is open, click an endpoint.

For the best results and smoothest transitions, click anchor points on corresponding locations on the objects.

5. Continue to click corresponding anchor points on the selected objects.
6. To release the blend objects, select the blend, click the **Object** menu, point to **Blend**, and then click **Release**.

If you want to specify the locations where the blend takes place, you can use the Blend tool on the Tools panel. The Blend tool allows you to select the anchor points on the objects to determine the direction of the blend. For the best results and smoothest transitions, click anchor points on corresponding locations on the objects. If you’re not sure which anchor points to use, you can also select an object’s fill to let Illustrator select the anchor point for you. Experiment with it to determine what works best for you.
Modifying Blend Objects

Modify Blend Objects

- **Reverse Stacking Order.** Changes the stacking order (front to back) without changing the x/y location. Select a blend object, click the Object menu, point to Blend, and then click Reverse Front to Back.

- **Reverse Spine.** Changes the x/y location of the blend objects without changing the stacking order. Select a blend object, click the Object menu, point to Blend, and then click Reverse Spine.

- **Replace Spine.** Replaces the current spine in a blend with a new path. Create a new path for the spine, select a blend object and the new path, click the Object menu, point to Blend, and then click Replace Spine.

- **Recolor.** Select all the objects in the blend that you want to recolor, click the Recolor Artwork button on the Control panel, specify the color changes you want, and then click OK.

- **Transform.** Select all the objects in the blend, and then use the object’s bounding box, the Free Transform tool, or other transformation tools.

- **Reshape Path.** Move one of the original blend objects with the Direct Selection tool or use any of the reshaping path tools.

After you create a blend, you can use commands on the Blend submenu to reverse stacking order, reverse spine location, and replace the spine. These commands allow you to quickly change the look of the blend. If you want to modify a blend, you can change blend objects using other Illustrator features, such as recoloring, reshaping, or transforming. Experiment to determine what works best for you.
Setting Transparency Options

Change the Opacity or Blending Mode of an Object

1. Select an object, group, or layer.
   - For a layer, click the target circle on the Layers panel.
   - For type, select individual characters or the entire object.
   - For an object’s fill or stroke, click the target circle on the Layers panel, and then click Fill or Stroke on the Appearance panel.

2. Select the Transparency panel.

3. To change opacity, click the Opacity list arrow, and then specify a percentage.

4. To change the blending mode, click the Blending Mode list arrow, and then select a blending mode.

Transparency, or the opacity of an object (to what degree you can see through the object), is set in Illustrator by adjusting the Opacity option in the Transparency, Control, or Appearance panels. The Opacity option allows you to specify a percentage to set the transparency level. Along with opacity, you can also change the blending mode, which controls how object colors blend with other object colors below it. You can apply transparency options to an object, group, or layer. This includes an object’s fill or stroke, and type.
Controlling Transparency Effects

Isolate a Blending Mode to Certain Objects

1. Click the target circle for a group or layer on the Layers panel that contains nested objects with a blending mode.
2. Select the Transparency panel.
3. Click the Options menu, and then click Page Isolated Blending.

Use the Knockout Group Option

1. Click the target circle for a group or layer on the Layers panel that contains nested objects.
2. Select the Transparency panel.
3. Click the Options menu, and then click Page Knockout Group to knock out the objects so that you can't see through them. However, you'll still see through any semi-transparent objects. Deselect this option to allow objects to be seen through each other.

When you apply a blending mode to a group, the blend is applied to all the objects in the group as well as all the objects below it. If you want to isolate the blend to only the objects nested in the group, you can use the Isolate Blending option in the Transparency panel. You can also use the option on individual objects with overlapping strokes and fills. If objects in a group overlap, you can use the Knockout Group option to control whether objects will show through each other (except for semi-transparent objects) or be knocked out.
Creating Transparency Masks

Use Opacity Masks to Create Transparency

1. Select two or more objects or groups.
2. Select the Transparency panel.
3. Click Make Mask on the Transparency panel.

The Clip check box becomes selected. The Clip option sets the mask background to black. If you have black objects, they will be hidden, unless you use a different color or deselect the Clip check box.

4. To reverse the opacity of the masked artwork (80% transparent becomes 20% transparent), select the Invert Mask check box.
   - You can also change opacity with the Opacity list arrow.

5. To edit a masking object, click the thumbnail (on right), edit the mask, and then click the masked artwork thumbnail (on left) to exit.
   - Alt-click (Win) or Option-click (Mac) the thumbnail to hide all other artwork in the document.

6. To unlink or relink an opacity mask, click the Link icon between the thumbnails.

7. To remove an opacity mask, click Release on the Transparency panel.

You can use an opacity mask and a masking object to change transparency. The opacity mask is an object whose shape masks out everything except the contents behind the shape. The masking object is the area that becomes transparent. You can use any colored object or raster image as the masking object. When the opacity mask is white, the artwork is fully visible. When the opacity mask is black, the artwork is hidden. Using shades of gray in the mask provides the varying opacity levels of transparency in the artwork. You can create an opacity mask in the Transparency panel.
Flattening Object Transparency

If you have problems printing or saving artwork with transparent objects, you can use the Flatten Transparency command on the Object menu to flatten the object. In most cases when you’re working with legacy artwork, this will fix the problem. The best way to flatten the transparency within an object is to try one of the presets. Otherwise, you can specify your own settings. If you plan to use the settings in the future, you can save them as a custom preset.

Flatten Object Transparency

1. Select the objects you want to change.
2. Click the Object menu, and then click Flatten Transparency.
3. Click the Preset list arrow, and then select a preset.
4. Click OK to use the preset, or specify the custom settings:
   - Raster/Vector Balance. Preserves vector information.
   - Line Art and Text Resolution. Rasterizes art and text objects; typically set to 600-1200.
   - Gradient and Mesh Resolution. Rasterizes gradient and mesh objects; typically set to 72-2400.
   - Convert All Text to Outlines. Select to convert to outlines; discards all type glyph info.
   - Convert All Strokes to Outlines. Select to convert strokes to filled paths.
   - Clip Complex Regions. Select to reduce stitching where rasters and vectors meet.
   - Anti-alias Rasters. Select to smooth raster images (New!).
   - Preserve Alpha Transparency. Select to retain appearance and transparency.
   - Preserve Overprints and Spot Colors. Select when printing separations.
5. To save the custom settings, click Save Preset, enter a name, and then click OK.
The Transparency grid makes it easier to work with semi-transparent objects. The gray and white checkerboard background allows you to distinguish between different levels of transparencies. You can quickly show or hide the transparency grid by using the Show Transparency Grid command on the View menu. Before you use the command, you can customize the look of the grid in the Document Setup dialog box.

**Select Transparency Grid Preferences**

1. Click the File menu, and then click Document Setup.
2. Click the Grid Size list arrow, and then select a size: Small, Medium, or Large.
3. Click the Grid Colors list arrow, and then select a color: Light, Medium, Dark, or a specific color.
4. Select the Simulate Colored Paper check box to simulate the use of colored paper, which blends with objects.
5. Click the Preset list arrow, and then select a resolution.
6. Click OK.

**Did You Know?**

You can show and hide the transparency grid. Click the view menu, and then click Show Transparency Grid or Hide Transparency Grid.
A gradient is a smooth transition between two or more colors in an object. You can apply one of Illustrator’s built-in gradients or create one of your own by using the Gradient panel. The built-in gradients are available from gradient libraries. You can apply a gradient to an object’s fill or stroke (New!). After you apply a gradient, you can change the direction or smoothness of the color transition.

Apply a Gradient Fill to an Object

1. Select an object with the fill you want to change.
   - For type, convert it to outlines (click the Type menu, and then click Create Outlines), or select the type, and then select Add New Fill from the Appearance panel menu.

2. Select the Swatches and Gradient panels.
   - To use gradients from a gradient library, click the Swatch Libraries menu on the Swatches panel, point to Gradient, select a gradient library, and then click a gradient.

3. Click the Fill color box on the Gradient (New!) or Tools panel.

4. Click a gradient swatch on the Swatches panel or use the Gradient Fill box list arrow on the Gradient panel to apply any of the gradients on the Swatches panel.

5. To change the direction of the gradient, click the Reverse Gradient button.
Apply a Gradient to a Stroke

1. Select an object with the stroke you want to change.
2. Select the Swatches and Gradient panels.
   - To use gradients from a gradient library, click the Swatch Libraries menu on the Swatches panel, point to Gradient, select a gradient library, and then click a gradient.
3. Click the Stroke color box on the Gradient (New!) or Tools panel.
4. Click a gradient swatch on the Swatches panel or use the Gradient Fill box list arrow on the Gradient panel to apply any of the gradients on the Swatches panel.
5. Click a stroke button (New!) to specify where to apply the gradient:
   - Within Stroke.
   - Along Stroke.
   - Across Stroke.
6. To change the direction of the gradient, click the Reverse Gradient button.

Did You Know?

You can expand a gradient fill to create an effect. Select an object with a gradient fill, click the Object menu, click Expand, click the Specify option in the Expand Gradient To area, and then enter the number of objects that you want to create. For a smooth color transition, enter a large number (100), and then click OK.
You can apply one of Illustrator’s built-in gradients or create one of your own by using the Gradient panel. The built-in gradients are available from gradient libraries, which you can access from the Swatches panel. The gradient libraries open in a panel, displaying individual gradients. When you select a swatch from a gradient library, it’s automatically added to the Swatches panel. You can apply a gradient to an object’s fill or stroke using the Swatches, gradient library, or Gradient panels.

Add Library Gradients to the Swatches Panel

1. Select the Swatches panel.
2. Click the Swatch Libraries menu on the Swatches panel, point to Gradient, and then select a gradient library.
3. Click a gradient swatch on the gradient library panel.

The swatch from a gradient library is automatically added to the Swatches panel, where you can apply it to fills and strokes.
Creating Gradients

Create a Gradient Fill for an Object

1. Select an object.
2. Select the Gradient panel.
3. Click the Gradient Fill box on the Gradient panel.
4. Click the left color stop and use the Color panel to create the color you want, or Alt+click (Win) or Option+click (Mac) a color swatch on the Swatches panel.
5. Repeat the previous step for the right color stop.
6. Click the Type list arrow, and then select a gradient type: Radial or Linear.
7. To add color stops, click below the gradient spectrum in a blank area. To remove a color stop, drag it down and away from the gradient spectrum.
8. To adjust the amount of each color in the gradient, drag the diamond above the gradient spectrum.
9. To add transparency, select a color stop, and then specify an Opacity value.
10. To save the gradient, drag the Gradient Fill box from the Gradient panel to the Swatches panel.

To save and name the gradient, click the Gradient Fill box on the Gradient panel, click the New Swatch button on the Swatches panel, enter a name, and then click OK.

Instead of using one of Illustrator’s built-in gradients, you can create your own by using the Gradient panel. It’s easy and you can be creative in the process. You can create a gradient with two or more colors and add transparency. There are two types of gradients: Radial (circular) and Linear (horizontal). After you create a gradient, you need to save it in the Swatches panel in order to use it again later.
After you apply a built-in gradient or use one of your own, you can edit it. You can edit a gradient in an object and keep the gradient in the Swatches panel unchanged or you can edit the gradient in the Swatches panel and keep the gradient in an object unchanged. Editing a gradient is similar to creating one. The techniques are the same. All you need to do is select the element that you want to edit.

### Edit a Gradient

1. Select an object with a gradient, or click the gradient swatch on the Swatches panel you want to edit.
2. Select the Gradient panel.
3. Click the Gradient Fill box on the Gradient panel, or click the Gradient Fill box list arrow, and then select one of the saved gradients (from Swatches panel).
4. To change the gradient type, click the Type list arrow, and then select a gradient type: Radial or Linear.
5. Do any of the following:
   - **Add color stops.** Click below the gradient spectrum in a blank area.
   - **Remove color stops.** Drag the color stop down and away from the gradient spectrum.
   - **Move color stops.** Drag the color stop or enter a Location value.
   - **Duplicate color stops.** Alt+drag (Win) or Option+drag (Mac) a color stop.
   - **Adjust color amount.** Drag the diamond above the gradient spectrum.
   - **Change Transparency.** Select a color stop, and then specify an Opacity value.
6. To save the gradient, Alt-drag (Win) or Option-drag (Mac) the Gradient Fill box from the Gradient panel over the old gradient on the Swatches panel.
The Gradient tool on the Tools panel allows you to change how a gradient appears for an object. You can change how gradient colors blend, the angle of a linear gradient, and the location of the center for a radial gradient with a drag of the mouse over the gradient fill. You can also edit gradient colors on the object by adding or changing color stops, applying transparency to color stops, and changing gradient direction (linear) or angle (radial) using the Gradient Annotator, which you can show and hide from the View menu.

Using the Gradient Tool

Use the Gradient Tool to Change a Gradient

1. Select an object with a gradient that you want to change.
2. Click the Gradient tool on the Tools panel.
3. Click the View menu, and then click Show Gradient Annotator.
4. Do any of the following:
   - Short Color Transitions. Drag the diamond icon on the object a short distance.
   - Gradual Color Transitions. Drag the diamond icon on the object a long distance.
   - Change Position. Drag the larger circle on the object.
   - Reverse Color Direction. Drag the diamond icon on the object in the opposite direction.
   - Change Radial Center. Drag the small circle attached to the larger circle on the object.
   - Change Linear Angle. Alt+drag (Win) or Option+drag (Mac) the diamond icon to another angle.
   - Change Color Stops. Click below the spectrum line to add, drag to move, and drag away to remove color stops.
   - Change Transparency. Double-click a color stop on the object, and then specify an Opacity value in the Gradient panel.
A mesh object is a multicolored gradient type object that allows colors to flow in different directions and transitions from one point to another. A mesh object uses mesh lines (like a grid) to make it easier for you to modify color flow, transitions, intensity, and opacity. The points in the grid are called mesh points (diamonds). Mesh points are like anchor points, except you can assign color and transparency to them. The area between four mesh points is a mesh patch for which you can modify the color and transparency. You can create two types of mesh objects: one with an irregular pattern of mesh points or one with a regular pattern of mesh points.

Create a Gradient Mesh

1. Select an object.
2. Do one of the following:
   - **Irregular Pattern.** Select the Mesh tool on the Tools panel, select a fill color for mesh points, click to place the first mesh point, and then continue to click to place other mesh points.
   - **Regular Pattern.** Click the Object menu, and then click Create Gradient Mesh. Set the number of rows and columns, select the highlight direction, enter a percentage of white highlight (100% = white, 0% = no white), and then click OK.

3. To edit a mesh object, select the Mesh tool on the Tools panel, and then do any of the following:
   - **Delete Mesh Point.** Alt-click (Win) or Option-click (Mac) a mesh point to delete it.
   - **Move Mesh Point.** Drag to move a mesh point. Shift-drag to keep the mesh point on a mesh line.
   - **Add Mesh Point.** Select a color for the new mesh point, and then click to add a mesh point.
Set Color and Transparency for a Gradient Mesh

1. Select the **Mesh** tool on the Tools panel.
2. Select one or more mesh points or patches on the object.
3. To change the color of a mesh point or path, drag a color from the Color or Swatches panel onto the point or patch.
   - You can also deselect all objects, select a fill color, and then select the mesh object and use the Eyedropper tool to apply the full color.
4. Select the **Transparency** panel.
5. Click the **Opacity** list arrow, and then specify a percentage.

**IMPORTANT** If you save the object to the CS5 format, or EPS or PDF, the transparency on the mesh object is retained by creating a opacity mask.

**Did You Know?**

*You can convert a gradient to a mesh object.* Select an object with a gradient fill, click the Object menu, click Expand, click the Gradient Mesh option, and then click OK.

*You can convert a mesh object back to a path object.* Select the mesh object, click the Object menu, point to Path, click Offset Path, enter zero for the offset value, and then click OK.
This page intentionally left blank
Index

A

accented edges effects, 301
actions
  Actions panel, 358–359
  adding commands to, 364
  adding stops to, 362
  batch file processing, 366–367
  building new, 360
  built-in scripts, 368
  controlling playback of, 361
  deleting commands from, 365
  inserting a non-recordable command in an Action, 363
  order of commands in, changing, 364
  recording, 360
  running actions within actions, 360
  saving
    as files, 359
    into sets, 359
  scripts, 368–369
activation, 2
active documents, 21
active windows, 20
Adobe.com, 450
Adobe Bridge
  automating tasks in, 486
  browsing documents with, 16
  Camera Raw feature, 476–479
  color settings, 109
  components of, 473
  description of, 472
  editing images in, 484
  Get Photos from Camera command, 475
  opening documents with, 16–17, 474
  placing graphics from, 262–263
  preferences, setting, 482–483
  revealing documents in, 16
  Web Photo Gallery creation, 485
    working with images using, 17, 480–481
Adobe Creative Cloud, 15
Adobe Dreamweaver, 418
Adobe ExtendScript Toolkit, 472, 491
Adobe Extension Manager, 472, 490
Adobe Flash Builder, 31
Adobe Flex File, saving documents as, 420–421
Adobe Idea File (IDEA), 14–15
Adobe Media Encoder, 488–489
Adobe Mini Bridge, 487
Adobe PDF Presets command (Edit menu), 409
Adobe Product Improvement Program, 25
Adobe Studio Exchange, 2
Adobe SVG Viewer, 418–419
Adobe Updater, 23
Adobe Web site
  Adobe Studio Exchange, 2
  Community Help, 24
advanced print options, 394–395
Advanced tab (File Info dialog box), 399
alignment
  anchor points, 178–179
  objects, 96
  paragraphs, 246
  pixel grid, 67
  slices, 447
  stroke, 138
All Objects command (Select menu), 90
All Objects in Active Artboard command (Select menu), 90
anchor points
  adding new, 176–177
  alignment, 178–179
  average, 173
  Convert Anchor Point tool, 175
anchor points (continued)
  converting, 174–175
  deleting, 177
  direction lines, 172
  endpoints, 179
  highlighting, 172
  moving, 172–173
  paths and, 65
  preferences, 172
  selecting with Direct Selection tool, 84
  showing and hiding, 65
  smooth points, converting to corner points, 174
anchors, 457
Android (Media Encoder), 488-489
anti-aliasing, 245, 454
Appearance of Black preferences, 468
Appearance panel, 278–279
  exporting as CSS3 file, 418-419
Apple devices (Media Encoder), 488-489
Arc tool, 72
arcs, drawing, 72
area graphs, 372-373
Area Type tool, 222, 225
arranging
  documents, 20
  layers, 208–209
  slices, 446–447
arrowheads, stroke, 140-141
art brushes, 324–325
Artboard tool
  artboard creation, 36
  Artboard Options button, 37
  multiple artboards, 38
artboards
  within artboards, 36
  aspect ratio, 37
  centerpoints, 37
  deleting, 38
  display options, 39
  duplicating, 36
  exiting editing mode, 36
  landscape/portrait orientation, 37
  moving, 38
  multiple, working with, 38
  navigating within, 36
  presets, 36
  previewing, 38
  resizing, 38
  rotating, 38
  size, 37
  switching between, 19, 39
  video safe areas, 37
  X and Y positioning, 37
artwork, inserting in documents, 18
Assign Profile command (Edit menu), 110
attributes
  appearance, 278–279
  stroke, 138–141
Audio Data tab (File Info dialog box), 398
auto slices, 440
AutoCAD File format, 403
B
bar graphs, 372-373
batch file processing, 366–367
Batch Rename command, 486
bend styles, 95
bevel bend style, 95
bevel joins, 139
bitmap, exporting documents as, 404
black appearance options, 468
bleed
  bleed print option, 389
  document creation, 34
Blend command (Objects menu), 151–152
Blend tool, 153
blends
  blending fill colors, 150
  changing and applying blend options, 152
  creating automatically, 151
  creating with Blend tool, 153
  making and releasing blend objects, 151
  opacity, 155
  transformation, 154
  transparency settings, 156
Bloat tool, 332
Blob Brush tool
  brush options, setting, 189
  merging paths with, 188
blur effects, 298-299
BMP format, 403
bold font, 236
Bounding Box command (View menu), 314–315
Bridge (Adobe)
  automating tasks in, 486
  browsing documents with, 16
  Camera Raw feature, 476–479
  color settings, 109
  components of, 473
  description of, 472
  editing images in, 484
  Get Photos from Camera command, 475
  Mini Bridge, 487
  opening documents with, 16–17, 474
  placing graphics from, 262–263
  preferences, setting, 482–483
  revealing documents in, 16
  Web Photo Gallery creation, 485
  working with images using, 17, 480–481
Bristle brushes, 328–329
  creating and editing, 328–329
Browse in Bridge command (File menu), 16–17, 262–263
browser
  preview in (Save for Web), 451
brushes
  art, 324–325
  Blob Brush tool, 189
  Bristle, 328–329
  Brushes panel, 317
  calligraphic, 322–323
  deleting, 330
  library, saving, 331
  Paintbrush tool, 318–319
  pattern, 326–327
  scatter, 320–321
  strokes, removing, 330
Brushes panel, 317
built-in scripts, actions, 368

C
calligraphic brushes, 322–323
Camera Data tab (File Info dialog box), 398
Camera Raw feature, 472, 476–479
canvas (user interface), 465
canvas (Object menu)
  HTML5 Canvas (HTML5 Pack), 418
caps, 139
case, text, 383
Categories tab (File Info dialog box), 398
center mark, 39
centerpoints, 37
Character panel, 238-245
  formatting type, 244
Character Styles panel, 250-251
Check Spelling command (Edit menu), 378
circles, drawing, 68
clean up unneeded elements, 375
clearing
  guides, 51
  objects, 93
clipping masks
  creating, 194
  creating for groups or layers, 195
  editing, 196
  masked object, editing in Isolation Mode, 197
  release objects from, 195
clipping sets, 197
Close button, 28
Close command (File menu), 28
closed paths, 65
closing
  documents, 28
  Illustrator, 28
  panels, 8–9
CMYK (Cyan, Magenta, Yellow and Black)
  color mode, 30, 111, 115
collapsing panels, 8–9
Color Guide panel
  applying color with, 128–129
  color groups, 129
  harmony rules, variations based on, 129
  variation options, selecting, 127
  variation types, displaying, 127
color management print options, 396
color modes. See also colors
  changing, 112
  CMYK, 30, 111, 115
document creation, 30
Grayscale, 30, 114
RGB, 30, 111, 114
switching between, 111
working with, 111
Color panel
  Color sliders, 114
  working with, 114–115
colored paper simulation, 35
colors. See also Color Guide panel; color modes; Swatches panel
  applying to objects, fills, or stroke, 113, 136–137
  applying with Eyedropper tool, 144–145
Color Guide Panel, 127–129
Color panel, 114–115
color profiles, changing or removing, 109
color settings, changing, 108–109
converting to grayscale, 125
crop mark registration color, 56-57
gamut warning icon, 115
global, 124–126
gray scale images, 125
grid colors transparency settings, 35
grids, 54
group, creating, 118–119
guides, 50, 53
hue, 115
inverting, 126
Kuler panel, 122–123
Live Color feature, 130–131
luminosity, 115
nonglobal, 124–126
proofing, 132–133
replacing, 124–125
saturation, 115
selecting, 115
soft proof, 132–133
Swatches panel, 116–121
themes, 122–123
ungroup, 119
view box color, 44
Web-safe, 115
column graphs, 372-373
combining
  slices, 448
commands
  adding to actions, 364
  basic description of, 6-7
  deleting from actions, 365
Panel Options menu, 11
Community Help site, 24
compound paths
  creating, 192
  releasing, 193
  reversing object’s fill in, 193
condensed font, 236
Constrain Angle general preference, 454
Control panel
  anchor points, converting, 175
  basic description of, 13
  splitting paths using, 186-187
  tools in, 6-7
Convert Anchor Point tool, 175
Convert to Shape command (Effect menu), 284
convert to shape effects, 284
converting anchor points, 174–175
Copy command (Edit menu), 233
copying text, 232–233
corner points, 174
Corner Radius general preference, 454
Create New Action button (Actions panel), 359
Create New Set button (Actions panel), 359
crop marks
  creating, 56-57
  deleting, 56
  general preferences, 455
  registration color, 56
  trim marks, editable, 57
cross hairs, 39
Crystallize tool, 332
CSS (Cascading Style Sheets)
  exporting as CSS3 file, 418-419
  setting properties, for SVG, 417
cursor preferences, 454
curved segments, 173
curves, drawing, 171
custom dictionaries, spell checking, 379
Cut command (Edit menu), 233
cutout effects, 300

D
dashed stroke, 140
data graphs, 372-373
data sets
  creating, 370–371
  deleting, 370–371
  renaming, 371
data variables, 370–371
deactivate Illustrator, 22
Delete button (Actions panel), 359
deleting
  anchor points, 177
  artboards, 38
  brushes, 330
  commands from actions, 365
crop marks, 56–57
data sets, 370–371
files, 14
graphic styles, 277
layers, 205
objects, 93
selections, 92
slices, 442
symbols, 337
workspaces, 61
Description tab (File Info dialog box), 398
Deselect command (Select menu), 90
dialogs
  Reset All Warning Dialogs, 455
DICOM tab (File Info dialog box), 399
dictionary preferences, 462
dictionaries, spell checking, 379
diffuse glow effects, 301
Direct Selection tool
  anchor points, adding new, 176
  anchor points or segments, moving, 173
deleting anchor points using, 177
  end points, connecting, 179
  selecting anchor points and segments with, 84
  showing/hiding direction lines, 65
  understanding selections, 82
direction lines
  anchor points, 172
  showing and hiding, 65
Distort & Transform command (Effect menu), 102, 291
distributing
  objects, 96
  slices, 447
dithering, 435
dividing
  paths, 185
  slices, 448
drawing mode, 66
  behind, 66
  normal, 66
  inside, 66
DOC format, 229
docking
  documents, 21
  panels, 10
Document Color Mode command (File menu), 112, 384
Document Info panel, 400
Document Setup command (File menu), 34, 159
Document window, 6–7
documents
  active, 21
  arranging, 20
  bleed and view options settings, 34
  browsing with Adobe Bridge, 16
  closing, 28
  color modes, 30
  creating
    from scratch, 30
    from templates, 32–33
    using presets, 31
docking/undocking, 21
exporting
  as bitmap, 404
  Export command, 402
  export file formats, 403
  as Flash Movie, 410–411
  to Photoshop, 408
  with presets, 409
  as TIFF format, 405
file information, inserting, 398–399
finding and replacing text and elements in, 380–381
grid pattern, 21
inserting images in, 18
language settings, 35
linking, 18
measurement units, 34
opening
  with Adobe Bridge, 16–17
  existing documents, 14
  recently opened, 15
printing, 384
revealing in Adobe Bridge, 16
rulers, 48–49
documents (continued)
saving, 26–27
  as Adobe Flex File, 420–421
  as EPS format, 414–415
  as FXG format, 420–421
  as Microsoft Office, 422
  as PDF format, 412–413
  as SVG format, 416–418
  as template, 423
  for the Web, 426–427
setting up, 34–35
spell checking, 378–379
switching between, 20
tabbed, 20
templates, 18
transparency settings, 34–35
type options settings, 35
view size, 19
viewing information in, 19
views, 40–43
windows, 20–21
working with multiple, 20–21
DOCX format, 229
double quotes, 35
drawing
  arcs, 72
circles, 68
curves, 171
ellipses, 68
line segments, 71
with Pencil tool, 304–305
polygons, 70, 170
rectangle grids, 74
rectangles, 69
spirals, 72–73
stars, 70
drawing tablets, 470
drop shadow effects, 287
duplicating
  artboards, 36
  color in Swatches panel, 117
graphic styles, 275
layers, 210
objects, 94–95
slices, 442, 448
symbols, 338
E
Edit Colors command (Edit menu), 126, 150
Edit Custom Dictionary command (Edit menu), 379
Edit menu commands
  Adobe PDF Presets, 409
  Assign Profile, 110
  Check Spelling, 378
  Color Settings, 108
  Copy, 233
  Cut, 233
  Edit Colors, 126, 150
  Edit Custom Dictionary, 379
  Find and Replace, 380–381
  Paste, 232–233
  Paste in Back, 233
  Paste in Front, 233
  Print Presets, 385
  Redo, 59
  Transparency Flattener Presets, 395
  Undo, 59
Edit Selection command (Select menu), 92
Edit View command (View menu), 40
editing
  blend objects, 154
  clipping masks, 196
  color in Swatches panel, 117
  colors with Live Color, 130–131
  gradients, 164
  graphic styles, 276
  images in Adobe Bridge, 484
  paths within clipping sets, 197
  patterns, 148
  selections, 92
  symbols, 339
Effect menu commands
  Convert to Shape, 284
  Crop Marks, 56
  Distort &Transform, 102
  Effect Gallery, 294–297
  Stylize, 285
effects
  accented edges, 301
  applying multiple, 296
  blur, 298-299
  controlling with selections, 297
  convert to shape, 284
cutout, 300
diffuse glow, 301
distort, 291
drop shadow, 287
dry brush, 300
Fresco, 300
gaussian blur, 298-299
glass, 301
glowing edges, 301
grain, 302
graphic pen, 302
Illustrator, 282–283
inner glow, 286–287
mosaic tiles, 302
note paper, 301
outer glow, 286–287
panel knife, 300
Photoshop Effect Gallery, 294–295
plastic wrap, 302
previewing, 282
raster graphics, 292
scribble, 285
spatter, 302
stained glass, 302
stamp, 301
text, 228
transform, 291
3D, 288–289
vector objects, 293
warp, 290
Ellipse tool, 68
ellipses, drawing, 68
embedded graphics, 266–267
endpoints, 179
Enhanced Metafile format, 403
Envelopes, reshaping with, 104-105
EPS format, 27, 399, 414–415
Eraser tool, 182
erasing path parts, 182
exiting Illustrator, 28
Expand button (Pathfinder panel), 190
Expand command (Objects menu), 160-161
expanding
  gradients, 160-161
  panels, 8-9
  patterns, 149
ExportDocsAsFlash, script, 368–369
exporting
documents
  as bitmap, 404
  as CSS3, 418-419
  Export command, 402
  as Flash Movie, 410–411
  as JPEG, 406-407
  to Photoshop, 408
  as PNG, 406-407
  with presets, 409
  as TIFF format, 405
  export file formats, 403
ExtendScript Toolkit, 472, 491
Extension Manager (Adobe), 472, 490
Extensions command (Window menu), 122–123
Eyedropper tool
  applying colors and attributes with, 144–145
  color attributes, changing, 145
  Save for Web tool, 428-429
families, font, 236
File Handling & Clipboard preferences, 466-467
File Info command (File menu), 398
file information, inserting into documents, 398–399
File menu commands
  Browse in Bridge, 16–17, 262–263
  Close command, 28
  Device Center, 41
  Document Color Mode, 112, 384
  Document Setup, 34, 159
  File Info, 398
  New, 30–31
  New From Template, 32
  Open, 14, 260
  Open Recent, 15
  Open With, 262
  Place, 18, 261, 264, 266
  Print, 384, 386
  Return to Adobe Illustrator, 16
  Revert, 26
  Save, 26
  Save a Copy, 27
  Save As, 27, 33
File menu commands (continued)

- Save for Web, 426–429, 430-431
- Scripts, 368–369
- files
  - deleting, 14
  - formats (Save for Web), 426-431
  - images, optimizing to file size (Save for Web), 439
  - saving actions as, 359
- fills
  - applying color to, 113, 128, 136-137
  - blending fill colors, 150
  - patterns as, 146-149
- Find and Replace command (Edit menu), 380–381
- Find Font command, 382
- Fire/Nook device, 31
- Fit All In Window command (View menu), 46
- Fit Artboard In Window command (View menu), 46
- Flare tool, 69
- Flash Builder, 31
- Flash format, SWF, 403, 410-411
- Flash Movie, exporting documents as, 410–411
- Flash (Media Encoder), 488-489
- Flattener Preview command (Window menu), 41, 395
- flattening layers, 216
- flattening object transparency, 158
- fonts
  - bold, 236
  - condensed, 236
  - families and styles, 236
- Find Font command, 382
- finding, 237
- italic, 236
- OpenType fonts, 254
- replacing, 237
- reusing recent, 236
- size, 238
- formatting type, 244
- Freehand format, 14
- Free Transform tool, 98–99
- Fresco effects, 300
- full screen mode, 45
- FXG format, 27, 420-421

G

- gamut warning icon, 115
- Galaxy S device, 31
- Gap options, 316
- gaussian blur effects, 298-299
- General preferences, 454
- Get Photos from Camera command (Adobe), 475
- GIF documents, optimizing, 434-435
- GIF format, 399
- glass effects, 301
- global colors, 124–126
- glowing edges effects, 301
- glyphs, 253
- Go to Bridge button, 16–17
- GPS Data tab (File Info dialog box), 398
- Gradient tool, 165
- gradients
  - applying to objects, 160-161
  - creating, 163
  - editing, 164
  - expanding, 160-161
  - fill, 160
  - Gradient Annotator, 165
  - Gradient tool, 165
  - libraries, using, 162
  - linear type, 163
  - mesh, 104-105, 166-167
  - radial type, 163
  - stroke, 161
- grain effects, 302
- graphic pen effects, 302
- graphics
  - embedded, 266–267
  - linked, 266–267
  - linking, 264–265
  - mosaic, 280
  - opening graphic images, 260
  - placing, 261–263
  - print options, 390
- raster
  - interpolation and, 64
  - tracing, 268–272
  - understanding raster graphics, 64
- styles
  - applying, 273
  - breaking links to, 277
creating, 274
deleting, 277
duplicating, 275
editing, 276
graphs, 372-373
add designs, 374
create and format, 372-373
Grayscale color mode, 30, 114
gray scale images, 125
grid colors transparency settings, 35
grid patterns, 21
Grid, Perspective
adjusting, 79
copying, 80
customizing, 81
drawing, 78
moving, 80
objects, adding, 80
resizing, 80
text, adding, 80
grid, pixel aligned, 67
grid size transparency setting, 34
grids. See also guides
color, 54
displaying in back of artwork, 54
Polar Grid tool, 75
preferences, 54
Rectangle Grid tool, 74
showing and hiding, 54
Snap to Grid command, 54
styles, 54
subdivisions, 54
Transparency, 159
Group command (Objects menu), 88
Group Selection tool, 82
grouping objects, 88–89
groups
creating clipping masks for, 195
colors, creating in the Swatches panel, 118-119
Guides. See also grids
clearing, 51
color, 50
converting vector objects to, 51
creating, 51
locking, 50
preferences, 50
ruler, 49
showing and hiding, 50
smart guides
object transformation, 99
preferences, 53
turning on/off, 52
working with, 52–53
snap to point, 50
style, 50
switching, 51
H
Hand tool
moving elements around with, 55
quick access to, 55
Save for Web tool, 428-429
handles, 457
hanging indents, 247
hardware, Illustrator system
requirements, 3
Help menu commands
Adobe Product Improvement Program, 25
Illustrator Help, 24–25
Updates, 23
help options
Community Help site, 24
searching topics, 25
Hide Edges command (View menu), 65
Hide Panels command (Window menu), 20
hiding
anchor points, 65
direction lines, 65
grids, 54
guides, 50
layers, 212
panels, 10, 45
rulers, 49
slices, 442–443
Transparency grid, 159
highlighting anchor points, 172
histograms, 479
History tab (File Info dialog box), 399
HSB color slider (Color panel), 114
HTML text, adding to slices, 444
HTML5 Pack, 418-419
exporting as CSS3, 419
saving as SVG, 418
hue, 115
hyphenation, 249, 462
hyphenation preferences, 462

I
icons, collapsing and expanding panel sets between icons and panels, 11
Illustrator Help command (Help menu), 24–25
Illustrator tab (File Info dialog box), 399
images
inserting in documents, 18
replacing, 18
working with images using Bridge, 17
Image Trace panel, 268–271
importing text, 229
indentation
hanging indents, 247
paragraphs, 247
Info panel
color fill and stroke information, 58
uses for, 58
inner glow effects, 286–287
iPad device, 31
Media Encoder, 488–489
IPTC tab (File Info dialog box), 398
IPTC Extension tab (File Info dialog box), 398
iPhone device, 31
Media Encoder, 488–489
installing Illustrator
in Macintosh, 3
in Windows, 2
Internet, checking for updates from, 22
interpolation, 64
Inverse command (Select menu), 90
inverting colors, 126
IPTC tab (File Info dialog box), 398
Isolation Mode, 197
italic font, 236

J
JavaScript, 416–418
joining anchor endpoints, 179
joins, 139
JPEG documents, optimizing, 432–433
JPEG format, 399, 403
exporting as, 406–407
justification options, 255

K
kerning type, 240
Keyboard Increment general preference, 454
keyboard shortcuts, 469
Knife tool, 185
Knockout Group option, 156
Kuler panel, 122–123

L
landscape/portrait orientation, 37
language settings, document creation, 35
Lasso tool
selecting objects with, 85
understanding selections, 82
layers. See also Layers panel
arranging, 208–209
creating clipping masks for, 195
creating top level layers, 202–203
deleting, 205
deselecting, 204
duplicating, 210
flattening, 216
hiding, 212
locking, 211
merging, 213
moving, 208–209
moving objects to, 214–215
naming, 203
outlines, viewing, 219
Paste Remembers Layers, 214
releasing objects to, 215
reverse order, 208
selecting, 204
selecting objects with, 206–207
showing and hiding, 212
sublayers, 202–203
template, creating, 218
Layers panel. See also layers
accessing, 200
components of, 200
locating objects in, 217
options, setting, 201
layouts, workspace, 60
leading text, 239
libraries
  brushes, saving, 331
  gradients, 162
ligature, 255
line graphs, 372-373
Line Segment tool, 71
line segments, drawing, 71
linear gradient type, 163
linked graphics, 266–267
linking
  documents, 18
  graphics, 264–265
  slices, 443
Liquify tools, 335
Live Color feature
  applying color groups to objects with, 130–131
  editing colors with, 130–131
Live Paint Bucket tool
  paint fills, 310
  preferences, setting, 309
  selecting options to paint fills or strokes with, 308
  stroke edges, changing, 311
Live Paint Groups
  adding paths to, 315
  converting traced objects to, 307
  creating, 306–307
  Gap options, 316
  reshaping or moving paths in, 314–315
Live Paint Selection tool, 312–313
  locking, 211
  guides, 50
  layers, 213
lossy compression, 435
lowercase text, 383
luminosity, 115

M
Macintosh
  Illustrator system requirements, 3
  installing Illustrator in, 3
  starting Illustrator in, 5
Macintosh PICT format, 403
Magic Wand tool
  selecting objects with, 86–87
  understanding selections, 82
marks print options, 388–389
Measure tool, 58
measurement
  distance between objects, measuring, 58
  measurement units, document creation, 34
Media Encoder, 488-489
menus, 6-7
merging
  layers, 213
  paths, 188–189
mesh, 104-105, 166-167
metadata, 398-399
Microsoft Office, saving documents as, 422
Mini Bridge, 487
miter bend style, 95
miter joins, 139
Mobile SWF tab (File Info dialog box), 398
mode, drawing, 66
mosaic tiles effects, 280, 302
Move tool, 52
moving
  anchor points, 172–173
  artboards, 38
  document elements with Hand tool, 55
  layers, 208–209
  objects, 93
  objects to layers, 214–215
  segments, 172–173
  slices, 446
  text, 227, 232–233
  between tools, 55

N
naming
  layers, 203
  selections, 92
  workspaces, 60
navigation
  artboards, 39
  within artboards, 36
Navigator panel
  customizing, 44
  view area, 43
Navigator panel (continued)

- view box color, 44
- view size, 42
- New command (File menu), 30–31
- New From Template command (File menu), 32
- New View command (View menu), 40
- Next Object Above command (Select menu), 90
- Next Object Below command (Select menu), 90
- 9-slice scaling, 352–353
- nonglobal colors, 124–126
- non-recordable command in an Action, 363
- normal screen mode, 45
- note paper effects, 301

O

- objects
  - alignment, 96
  - applying color to, 113, 128, 136-137
  - clearing, 93
  - deleting, 93
  - distributing, 96
  - duplicating, 94–95
  - grouping, 88–89
  - measuring distance between, 58
  - moving, 93
  - moving to layers, 214–215
- Perspective Grid
  - adjusting, 79
  - copying, 80
  - customizing, 81
  - drawing, 78
  - moving, 80
  - objects, adding, 80
  - resizing, 80
  - text, adding, 80
- pixel grid, aligned, 67
- reflecting, 97, 101
- rotating, 97–98, 100
- scaling, 97, 100
- selecting
  - with Lasso tool, 85
  - with Magic Wand tool, 86–87
  - similar objects, 90–91
  - using Direction Selection tool, 84
- using Select menu, 90–91
- using Selection tool, 83
- Shape Builder tool, 76-77
- transforming, 97–99

Objects menu commands

- Blend, 151–152
- Clipping Mask, 194
- Compound Path, 192
- Expand, 160-161
- Group, 88
- Text Wrap, 256
- Transform, 102
- Ungroup, 88
- offsetting paths, 95, 187
- opacity, blends, 155
- opacity mask, transparency, 157
- Open command (File menu), 14, 260
- open paths, 65, 177
- Open Recent command (File menu), 15
- OpenType fonts, 254
- Open With command (File menu), 262
- opening
  - documents
    - with Adobe Bridge, 16–17
    - existing documents, 14
    - recently opened, 15
  - graphic images, 260
  - panels, 8-9
- optimizing
  - images to file size (Save for Web), 439
- Origin tab (File Info dialog box), 399
- outer flow effects, 286–287
- Outline view, 40–41
- outlines, 257
- outlines, viewing layers as, 219
- output print options, 392–393
- overflow, text, 234–235
- Overprint Preview command (View menu), 41, 391

P

- Paintbrush tool, 181
- painting
  - art brushes, 324–325
  - Brushes panel, 317
  - calligraphic brushes, 322–323
  - Live Paint Bucket tool, 308–311
Live Paint Groups
adding paths to, 315
converting traced objects to, 307
creating, 306–307
Gap options, 316
reshaping or moving paths in, 314–315
Live Paint Selection tool, 312–313
Paintbrush tool, 318–319
pattern brushes, 326–327
scatter brushes, 320–321
panel knife effects, 300
Panel Options menu, 8-11
panels
adding, 10
closing, 8-9
collapsing, 8-9, 11
displaying hidden, 45
docking/undocking, 10
expanding, 8-9, 11
hiding, 10, 45
opening, 8-9
Panel Options menu, 11
resizing, 8-9
sets, collapsing and expanding between icons and panels, 11
subtracting, 10
paragraphs
alignment, 246
indentation, 247
spacing, 247
Paragraph panel, 246-247, 249
Paragraph Styles panel, 250-251
Paste command (Edit menu), 232–233
Paste in Back command (Edit menu), 233
Paste in Front command (Edit menu), 233
Pathfinder commands, 191
Pathfinder panel, 190-191
paths
anchor points and, 65
clean up unneeded elements, 375
clipping mask, 194–197
closed, 65
compound, 192–193
convert mesh object to, 174
convert strokes to compound, 192
dividing, 185
erasing parts of, 182, 304
join, 179
merging, 188–189
offsetting, 95, 187
open, 65, 177
outline stroke, 181
reshaping, 180–181
segments and, 65
Shape Mode command, 190
shape of, changing, 65
simplify, 184
smoothing, 183
splitting, 186–187
splitting into grid, 187

patterns
applying to objects, 149
creating, 146-147
editing, 148
expanding, 149
as fills, 149
as strokes, 149
PDF format, 27
saving as, 399, 412–413
SaveDocsAsPDF , script, 368–369
Pen tool
anchor points, adding, 177
drawing curves with, 171
drawing polygons with, 170
Pencil tool
preferences, 305
reshaping paths with, 181
working with, 304–305
Perspective Grid
adjusting, 79
copying, 80
customizing, 81
drawing, 78
moving, 80
objects, adding, 80
resizing, 80
text, adding, 80
Photoshop Effect Gallery, 294–295
Photoshop, exporting to, 408
Photoshop format, 403
pie graphs, 372-373
pixel grid, align, 30, 67, 354
Pixel Preview command (View menu), 41
pixels, 37
Place command (File menu), 18, 261, 264, 266
planning graphics, 261–263
plastic wrap effects, 302
Play button (Actions panel), 359
playback, action, 361
plug-in preferences, 463
PNG format, 399, 403
exporting as, 406–407
PNG-8 document, 436–437
PNG-24 document, 438
point type, 223
point/pica size, 48
points, anchor
adding new, 176–177
alignment, 178–179
average, 173
Convert Anchor Point tool, 175
converting, 174–175
deleting, 177
direction lines, 172
endpoints, 179
highlighting, 172
moving, 172–173
paths and, 65
preferences, 172
selecting with Direct Selection tool, 84
showing and hiding, 65
smooth points, converting to corner points, 174
Polar Grid tool, 75
Polygon tool, 70
polygons, drawing, 70, 170
portrait/landscape orientation, 37
preferences
Adobe Bridge, 482–483
anchor points, 172
Appearance of Black, 468
cursor, 454
dictionary, 462
File Handling & Clipboard, 466–467
General, 454
grids, 54
guide, 50
hyphenation, 462
keyboard shortcut, 469
Live Paint Bucket tool, 309
Pencil tool, 305
plug-in, 463
ruler, 48
Scratch Disk, 464
Selection & Anchor Display, 456–457
slices, 461
smart guides, 53
text, 458–459
Transparency grid, 159
type, 458–459
Units Performance, 460
updates, 22
user interface, 465
presets
artboard, 36
creating new documents using, 31
eXporting with, 409
list of, 31
printing with, 385, 394
Preview in browser (Save for Web), 451
Preview view, 40–41
Preview View command (View menu), 304
previewing
artboards, 38
color separations, 391
effects, 282
Save for Web, 451
Print command (File menu), 384, 386
Print Presets command (Edit menu), 385
printing
advanced print options, 394–395
bleed options, 389
color management settings, 396
color separations, previewing, 391
documents, 384
general print options, 386–387
graphics print options, 390
marks options, 388–389
number of copies, specifying, 387
output options, setting, 392–393
Overprint preview, 391
overprints, 394
presets, 394
with presets, 385
Print command, 384
print problems, checking for, 397
print tiling, 387
reverse order, 386
Separations preview, 391
summary print options, 397
Product Improvement Program (Adobe), 25
Proof Colors command (View menu), 132–133
Proof Setup command (View menu), 41
proofing colors, 132–133
PSD format, 399
Pucker tool, 332
punctuation, 252

Q
Quit Illustrator command (Illustrator menu), 28
quotes, 35

R
radar graphs, 372–373
Radial Blur, 298–299
radial gradient type, 163
raster graphics
effects, 283, 292
interpolation and, 64
Resolution Independent Effects (RIE), 283
tracing, 268–272
understanding raster graphics, 64
Record button (Actions panel), 359
recording actions, 360
Rectangle Grid tool, 74
Rectangle tool, 69
Redo command (Edit menu), 59
Reflect tool, 101
reflecting objects, 97, 101
registration, 4–5
registration point, 355
releasing
compound paths, 193
objects from clipping masks, 195
objects to layers, 215
renaming
data sets, 371
selections, 92
workspaces, 61
rendering intent color management print option, 396
replacing
colors, 124–125
fonts, 237
images, 18
Reselect command (Select menu), 90
Reset All Warning Dialogs, 455
Reshape tool, 180
reshaping objects, with Envelopes, 104–105
reshaping paths, 180–181
resizing
artboards, 38
slices, 446
Resolution Independent Effects (RIE), 283
resolution preset transparency setting, 35
Return to Adobe Illustrator command (File menu), 16
reverse order printing, 386
Revert command (File menu), 26
revolving 3D effects, 289
RGB (Red, Green, Blue) color mode, 30, 111, 114
Rotate tool, 100
rotating
artboards, 38
objects, 97–98, 100
text, 243
round bend style, 95
round joins, 139
Rounded Rectangle tool, 69
RTF format, 229
rulers
artboard display options, 39, 49
displaying, 48–49
document, 48–49
guides
alignment, 53
changing, 49
clearing, 51
color, 50
converting vector objects to, 51
creating, 51
locking, 50
preferences, 50
ruler, 49
showing and hiding, 50
smart guides, 52–53
snap to point, 50
style, 50
switching, 51
hiding, 49
rulers (continued)
  origin, changing, 49
  preferences, 48

S
safe area, artboard display options, 39
Same command (Select menu), 91
saturation, color, 115
Save a Copy command (File menu), 27
Save As command (File menu), 27, 33
Save command (File menu), 26
SaveDocsAsPDF, script, 368–369
SaveDocsAsSVG, script, 368–369
Save for Web command (File menu), 426–429
  as GIF format, 426-427, 434-435
  as JPEG format, 426-427, 432-433
  as PNG-8 format, 426-427, 436-437
  as PNG-24 format, 426-427, 438
Save Selection command (Select menu), 82
Save Workspace command (Workspace menu), 60
saving
actions
  as files, 359
  into sets, 359
brush library, 331
documents, 26–27
  as Adobe Flex File, 420-421
  as EPS format, 414–415
  as FXG format, 420-421
  as Microsoft Office, 422
  as PDF format, 412–413
  as SVG format, 416-418
  as template, 423
  for the Web, 426–427
selections, 82
slices for Web, 449
slices (from selection) for Web, 450
symbols, 337
Scale Strokes & Effects option, 455
Scale tool, 100
scaling
  9-slice scaling, 352-353
  objects, 97, 100
  type, 242
Scallop tool, 332
scatter brushes, 320–321
scatter graphs, 372-373
Scissor tool, 186
Scratch Disk preferences, 464
screen modes, 45
scribble effects, 285
scripts, actions, 368–369
searching
  fonts, 237
  for help information, 25
segments
  curve, 173
  moving, 172–173
  paths and, 65
  selecting with Direct Selection tool, 84
Select menu commands, 90–91
  Edit Selection, 82
  Same command, 91
  Save Selection, 82
Selection & Anchor Display preferences, 456–457
Selection tool. See also selections
  aligning and distributing objects using, 96
  duplicating objects with, 94–95
  moving objects with, 93
  reflecting or shearing objects, 101
  rotating and scale objects with, 100
  selecting objects with, 83
  transforming objects with, 97
  understanding selections, 82
selections. See also Selection tool
  anchor points, 84
  controlling effects using, 297
  deleting, 82
  editing, 82
  examples of, 82
  inverting color of, 90
  layers, 204
  naming, 82
  renaming, 82
  reselecting, 90
  saving, 82
  selecting next object above/below current, 90
  slices, 442–443
  type, 230–231
  understanding selections, 82
sentence case, 383
Separations Preview command (Window menu), 41
Shape Mode command (Pathfinder panel), 190
Shape Builder tool, 76-77
Shear tool, 101
shortcuts
starting Illustrator, 4–5
tool, 13
Show Bounding Box command (View menu), 97
Show Edges command (View menu), 65
Show Panels command (Window menu), 20
Show Print Tiling command (View menu), 40
Show Text Threads command (View menu), 234
Show Transparency Grid command (View menu), 159
simplify paths, 184
single quotes, 35
size
artboard, 37
font, 238
views, 42
Slice tool, 440
Slice Selection tool, 442
Slice Select tool (Save for Web), 428-429, 443
slices
alignment, 447
arranging, 446–447
auto, 440
combining, 448
deleting, 442
distributing, 447
dividing, 448
duplicating, 442, 448
hiding, 442–443
HTML text, adding, 444
images, optimizing to file size, 439
linking, 443
moving, 446
preferences, 461
resizing, 446
saving for Web, 449, 450
selecting, 442–443
showing, 442–443
stacking, 447
subslashes, 441
unlinking, 443
URL links, adding, 445
user, 440
viewing slice options, 442–443
working with, 443
Smart Blur, 298-299
smart guides
object transformation, 99
preferences, 53
turning on/off, 52
working with, 52–53
Smart Punctuation, 252
smooth paths, 183
smooth points, converting to corner points, 174
Snap to Grid command, 54
Snap to Point command, 50, 456
soft proof colors, 132-133
software, Illustrator system requirements, 3
spacing paragraphs, 247
spatter effects, 302
spell checking, 378–379
Spiral tool, 72–73
spirals, drawing, 72–73
splitting paths, 186–187
stacked bar graphs, 372-373
stacked column graphs, 372-373
stacking slices, 447
stained glass effects, 302
stamp effects, 301
Star tool, 70
stars, drawing, 70
Start menu, opening documents using, 15
starting Illustrator
in Macintosh, 5
shortcuts, 4–5
in Windows, 4
status bar, 19
Stop button (Actions panel), 359
stops, adding to actions, 362
stroke
alignment, 138
applying color to, 113, 128, 136-137
arrowheads, 140-141
attributes, changing, 138–141
caps or joins, changing, 139
stroke (continued)
dashed, 140
patterns as, 146–149
weight of, changing, 138
widths, variable, 142–143
styles
font, 236
graphic
applying, 273
breaking links to, 277
creating, 274
deleting, 277
duplicating, 275
editing, 276
grids, 54
guides, 50
type, 250–251
Stylize command (Effect menu), 285
sublayers, 202–203
subscript text, 35
subslices, 441
subtracting panels, 10
summary print options, 397
superscript text, 35
SVG format, 27
  HTML5 Pack, 418
  saving as, 416-417
  SaveDocsAsSVG, script, 368–369
Swatches Library
  copying swatches between libraries, 120
  customized swatch panels, saving, 121
  displaying, 120
  gradient library, 160, 162
Swatches panel
  creating color groups in, 117
  deleting colors from, 116
  display of, changing, 116
  editing or duplicating color in, 117
  groups, creating, 118-119
  sorting colors in, 116
  swatches, displaying by type, 116
  Swatches Library, 120–121
SWF format, Flash, 403, 410-411
symbols
  9-slice scaling, 352-353
  creating, 336
  deleting, 337
duplicating, 338
editing, 339
links, breaking, 340–341
pixel grid, align, 354
registration point, 355
saving, 337
sets, expanding instances of, 351
Symbol Libraries, 335
Symbol Screener tool, 349
Symbol Scruncher tool, 345
Symbol Shifter tool, 344
Symbol Sizer tool, 346
Symbol Spinner tool, 347
Symbol Sprayer tool, 342
Symbol Strainer tool, 348
Symbol Styler tool, 350
symbolism tool options, setting, 343
Symbols panel, 334
Symbol Libraries, 335
Symbol Screener tool, 349
Symbol Scruncher tool, 345
Symbol Shifter tool, 344
Symbol Sizer tool, 346
Symbol Spinner tool, 347
Symbol Sprayer tool, 342
Symbol Strainer tool, 348
Symbol Styler tool, 350
system requirements, 3
T
tab stops, 248
tabbed documents, 20
tabs, 248
Tabs panel, 248
Targa format, 403
templates
  creating documents from, 32–33
document, 18, 32–33
  saving documents as, 423
template layer, creating, 218
text
  anti-aliasing, 236, 245
case, 383
clean up unneeded elements, 375
copying, 232–233
effects, 228
fonts, 236–238
glyphs, 253
hyphenation, 249
importing, 229
justification, 255
kerning, 240
leading, 239
moving, 227, 232–233
outlines, 257
overflow, 234–235
paragraphs, 246–247
preferences, 458–459
rotating, 243
scaling, 242
selecting, 230–231
spacing, 255
styles, 250–251
subscript, 35
superscript, 35
tabs, 248
threads, 234–235
tracking, 241
typing new, 223–224
wrapping, 256
Text Format, 403
Text Wrap command (Objects menu), 256
themes, color, 122–123
threads, text, 234–235
3D effects, 288–289
thumbnail views, 43
TIFF format, 399, 403, 405
Tolerance selection option, 456
tool tips, 455
tools
  accessing in Tools panel, 12
  accessing multiple, 12
  Control panel, 6-7
  moving between, 55
  shortcuts to, 13
Tools panel
  accessing tools in, 12
  contents of, 6-7
tracing raster graphics, 268–270
tracking type, 241
transformations
  applying multiple, 102–103
  blends, 154
  Distort & Transform command, 102
repeating, 102
  Transform Each command, 102
transforming objects, 97–99
Transparency Flattener Presets command
  (Edit menu), 395
Transparency grid, 159
transparency settings
  blends, 156
  colored paper simulation, 35
  controlling transparency effects, 156
  document creation, 34–35
  flattening object transparency, 158
  grid colors, 35
  grid size, 34
  opacity mask, 157
  resolution preset, 35
trim marks, editable, 57
turning on/off smart guides, 52
type
  anti-aliasing, 236, 245
  Area Type tool, 225
copying, 232–233
deleting empty text paths, 232
fonts, 236–238
justification, 255
kerning, 240
leading, 239
moving, 232–233
OpenType fonts, 254
outlines, 257
overflow, 234–235
paragraphs, 246–247
preferences, 458–459
rotating, 243
scaling, 242
selecting, 230–231
spacing, 255
styles, 250–251
threads, 234–235
tracking value, 241
Type on a Path tool, 226
Vertical Area Type tool, 225
Vertical Type on a Path tool, 226
Vertical Type tool, 223
wrapping, 256
Type on a Path tool, 222, 226
Type tool, 222-223
typographer’s quotes, 35
Twirl tool, 332

U
Undo command (Edit menu), 59
undocking
documents, 21
panels, 10
Ungroup command (Objects menu), 88
ungroup, color group, 119
Units Performance preferences, 460
Updater (Adobe), 23
updates
checking for, 22–23
preferences, 22
Updates command (Help menu), 23
updating, from previous versions, 2
uppercase text, 383
URL links, adding to slices, 445
user interface
changing, 6–7
preferences, 6–7, 465
user slices, 440

V
variables, data
creating, 370–371
deleting, 370–371
renaming, 371
variable stroke widths, 142–143
vector objects
converting to guide, 51
effects, 293
understanding vector graphics, 64
Vertical Area Type tool, 222, 225
Vertical Type on a Path tool, 222, 226
Vertical Type tool, 222, 223
Video Data tab (File Info dialog box), 398
video safe areas, artboards, 37
View menu commands
Bounding Box, 314–315
Edit View, 40
Fit All In Window, 46
Fit Artboard In Window, 46
Hide Edges, 65
New View, 40
Overprint Preview, 41
Pixel Preview, 41
Preview View, 304
Proof Colors, 132–133
Proof Setup, 41
Rulers, 48
Show Bounding Box, 97
Show Edges, 65
Show Print Tiling, 40
Show Text Threads, 234
Show Transparency Grid, 159
Smart Guides, 52
Soft Proof, 132–133
view size, documents, 19
views
box color, 44
changing, with Zoom tool, 46–47
display view, changing, 40–41
document, 40–43
fit in window, 46
Outline, 40–41
Preview, 40–41
ruler options, 48
size, 42
thumbnail, 43
Vimeo (Media Encoder), 488–489

W
Warp effect, 290
Warp tool, 332
Web
browser preview in (Save for Web), 451
file formats, 430–431
GIF files, optimizing, 426–427, 434–435
images, optimizing to file size, 439
JPEG files, optimizing, 426–427, 432–433
PNG-8 files, optimizing, 426–427, 436–437
PNG-24 files, optimizing, 426–427, 438
saving documents for, 426–427
saving slices for, 449
Web-safe color, 115
Window menu
Extensions, 122–123
Flattener Preview, 41
panel display, 8–10
Window menu commands
Flattener Preview, 395
Hide Panels, 20
Separations preview, 41
Show Panels, 20
Windows
Illustrator system requirements, 3
installing Illustrator in, 2
starting Illustrator in, 4
windows
active, 20
document, 20–21
Windows Metafile format, 403
Workspace menu commands, 60
workspaces
creating, 60
deleting, 61
displaying, 60
layouts, 60
naming, 60
renaming, 61
wrapping text, 256
Wrinkle tool, 332

X
X andY positioning, 37
XMP metadata, 398-399
XMP Software Development Kit, 399
Xoom device, 31

Y
YouTube (Media Encoder), 488-489

Z
zoom
in/out, 47
using Navigator thumbnail, 43
view size, 42
Zoom tool
changing view with, 46–47
Save For Web tool, 394