Pearson New International Edition

Basics of Web Design:
HTML5 & CSS3
Terry Felke-Morris

Second Edition

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Exploring a Rectangular Image Map

We'll focus on a rectangular image map. For a rectangular image map, the value of the `shape` attribute is `rect`, and the coordinates indicate the pixel positions as follows:

◗ distance of the upper-left corner from the left side of the image

◗ distance of the upper-left corner from the top of the image

◗ distance of the lower-right corner from the left edge of the image

◗ distance to the lower-right corner from the top of the image.

Figure 21 shows an image of a fishing boat. This example is in the student files at chapter5/map.html.

◗ The dotted rectangle around the fishing boat indicates the location of the hotspot.

◗ The coordinates shown (24, 188) indicate that the top-left corner is 24 pixels from the left edge of the image and 188 pixels from the top of the image.

◗ The pair of coordinates in the lower-right corner (339, 283) indicates that this corner is 339 pixels from the left edge of the image and 283 pixels from the top of the image.

FIGURE 21 *A sample image map.*

The HTML code to create this image map follows:

```
<map name="boat" id="boat">
<area href="http://www.fishingdoorcounty.com"
  shape="rect" coords="24,188,339,283"
  alt="Door County Fishing Charter"
  title="Door County Fishing Charter">
</map>
<img src="fishingboat.jpg" usemap="#boat"
  alt="Door County" width="416" height="350">
```
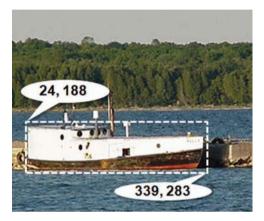
Note the use of the `alt` attribute on the area element in the previous code sample. Configure a descriptive `alt` attribute for each area element associated with an image map to provide for accessibility.

Most web developers do not hand-code image maps. Web authoring tools, such as Adobe Dreamweaver, have features that help you to generate image maps. There are also free online image map generators available at:

◗ www.maschek.hu/imagemap/imgmap

◗ http://image-maps.com

◗ http://mobilefish.com/services/image_map/image_map.php

Review and Apply

Review Questions

1. Which declaration configures an unordered list item with a square list marker?

   a. `list-bullet: none;`

   b. `list-style-type: square;`

   c. `list-style-image: square;`

   d. `list-marker: square;`

2. Which of the following creates an image link to the index.html page when the home.gif graphic is clicked?

   a. `<a href="index.html" src="home.gif" alt="Home"></a>`

   b. `<a href="index.html"><img src="home.gif" alt="Home"></a>`

   c. `<img src="home.gif" href="index.html" alt="Home">`

   d. `<a src="home.gif"><img src="home.gif" alt="Home"></a>`

3. Why should you include `height` and `width` attributes on an `<img>` tag?

   a. They are required attributes and must always be included.

   b. They help the browser reserve the appropriate space for the image.

   c. They help the browser display the image in its own window.

   d. none of the above

4. Which attribute specifies text that is available to browsers and other user agents that do not support graphics?

   a. `alt`

   b. `text`

   c. `src`

   d. none of the above

5. What is the term used to describe a square icon that is associated with a web page and is displayed in the browser address bar or tab?

   a. background

   b. bookmark icon

   c. favicon

   d. logo

6. Which of the following graphic types is best suited to photographs?

   a. GIF

   b. photo

   c. BMP

   d. JPEG

7. Which of the following configures a graphic to repeat vertically down the side of a web page?

   a. `background-repeat: repeat-x;`

   b. `background-repeat: repeat;`

   c. `valign="left"`

   d. `background-repeat: repeat-y;`

8. Which CSS property configures the background image of an element?

   a. `background-color`

   b. `bgcolor`

   c. `favicon`

   d. `background-image`

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9. What is the process of creating an image with the lowest file size that still renders a good-quality image—balancing image quality and file size?

a. progressive enhancement

b. optimization

c. usability

d. image validation

10. What is the process of ensuring that web pages that are coded with new or advanced techniques are still usable in browsers that do not support the new techniques?

a. validation

b. progressive enhancement

c. valid enhancement

d. optimization

Hands-On Exercises

1. Write the code to place an image called primelogo.gif on a web page. The image is 100 pixels high by 650 pixels wide.

2. Write the code to create an image hyperlink. The image is called schaumburgthumb.jpg. It is 100 pixels high by 150 pixels wide. The image should link to a larger image called schaumburg.jpg. There should be no border on the image.

3. Write the code to create a `<div>` containing three images used as navigation links. Table 5 provides information about the images and their associated links.

TABLE 5

Image Name	Link Page Name	Image Height	Image Width
homebtn.gif	index.html	50	200
productsbtn.gif	products.html	50	200
orderbtn.gif	order.html	50	200

4. Experiment with background images.
   a. Locate the twocolor.gif file in the student files chapter5/starters folder. Design a web page that uses this file as a background image that repeats down the left side of the browser window. Save your file as bg1.html
   b. Locate the twocolor1.gif file in the student files chapter5/starters folder. Design a web page that uses this file as a background image that repeats across the top of the browser window. Save your file as bg2.html

5. Design a new web page about your favorite movie. Name the web page movie5.html. Configure a background color for the page and either background images or background colors for at least two sections of the page. Search the Web for a photo of a scene from the movie, an actress in the movie, or an actor in the movie. Include the following information on your web page:

• Title of the movie

• Director or producer

• Leading actor

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- Leading actress
- Rating (R, PG-13, PG, G, NR)
- A brief description of the movie
- An absolute link to a review about the movie

Focus on ETHICS It is unethical to steal an image from another website. Some websites have a link to their copyright policy. Most websites will give permission for you to use an image in a school assignment. If there is no available policy, e-mail the site's contact person and request permission to use the photo. If you are unable to obtain permission, you may substitute with clip art or an image from a free site instead.

Focus on Web Design

Providing access to the Web for all people is an important issue. Visit the W3C's Web Accessibility Initiative and explore their WCAG 2.0 Quick Reference at http://w3.org/WAI/WCAG20/quickref. View additional pages at the W3C's site as necessary. Explore the checkpoints that are related to the use of color and images on web pages. Create a web page that uses color, uses images, and includes the information that you discovered.

Answers to Review Questions

1. b	**2.** b	**3.** b
4. a	**5.** c	**6.** d
7. d	**8.** d	**9.** b
10. b		

Credits

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Web Graphics Styling Basics

More CSS Basics

You'll add to your CSS skill set in this chapter. In addition to configuring text with CSS, you'll be introduced to the CSS box model and configure margin, border, and padding. You'll also explore new CSS3 properties to round corners, apply shadow, adjust display of background images, and configure color and opacity.

You'll learn how to...

▸ Configure text typeface, size, weight, and style with CSS

▸ Align and indent text with CSS

▸ Describe and apply the CSS box model

▸ Configure width and height with CSS

▸ Configure margin, border, and padding with CSS

▸ Center web page content with CSS

▸ Apply shadows with CSS3

▸ Configure rounded corners with CSS3

▸ Apply CSS3 properties to background images

▸ Configure opacity, RGBA color, HSLA color, and gradients with CSS3

Fonts with CSS

The `font-family` Property

The **`font-family` property** configures font typefaces. A web browser displays text with the fonts that have been installed on the user's computer. When a font is specified that is not installed on your web visitor's computer, the default font is substituted. Times New Roman is the default font displayed by most web browsers. Figure 1 shows font family categories and some common font typefaces.

Font Family Category	Font Family Description	Font Typeface Examples
serif	Serif fonts have small embellishments on the end of letter strokes; often used for headings.	Times New Roman, Georgia, Palatino
sans-serif	Sans-serif fonts do not have serifs; often used for web page text.	Arial, Tahoma, Helvetica, Verdana
monospace	Fixed-width font; often used for code samples.	Courier New, Lucida Console
cursive	Hand-written style; use with caution; may be difficult to read on a web page.	Lucida Handwriting, Brush Script, Comic Sans MS
fantasy	Exaggerated style; use with caution; sometimes used for headings; may be difficult to read on a web page.	Jokerman, Impact, Papyrus

FIGURE 1 *Common fonts.*

The Verdana, Tahoma, and Georgia font typefaces were specifically designed to display well on computer monitors. A common practice is to use a serif font (such as Georgia or Times New Roman) for headings and a sans-serif font (such as Verdana or Arial) for detailed text content. Not every computer has the same fonts installed. See www.ampsoft.net/webdesign-l/WindowsMacFonts.html for a list of "web-safe" fonts. Create a built-in backup plan by listing multiple fonts and categories for the value of the `font-family` property. The browser will attempt to use the fonts in the order listed. The following CSS configures the p element selector to display text in Verdana (if installed) or Arial (if installed) or the default installed sans-serif font.

```
p { font-family: Verdana, Arial, sans-serif; }
```

Hands-On Practice 1

In this Hands-On Practice you will configure the `font-family` property. Create a new folder called trilliumch6. A starter version of the Trillium Media Design Home page is ready for you in the student files on the companion website at www.pearsonhighered.com/felke-morris. Copy the chapter6/starter.html file into your trilliumch6 folder. Launch a browser to display the starter.html web page—notice that the default browser font (typically Times New Roman) is used. When you are finished with this Hands-On Practice, your page will look similar to the one shown in Figure 2.

More CSS Basics