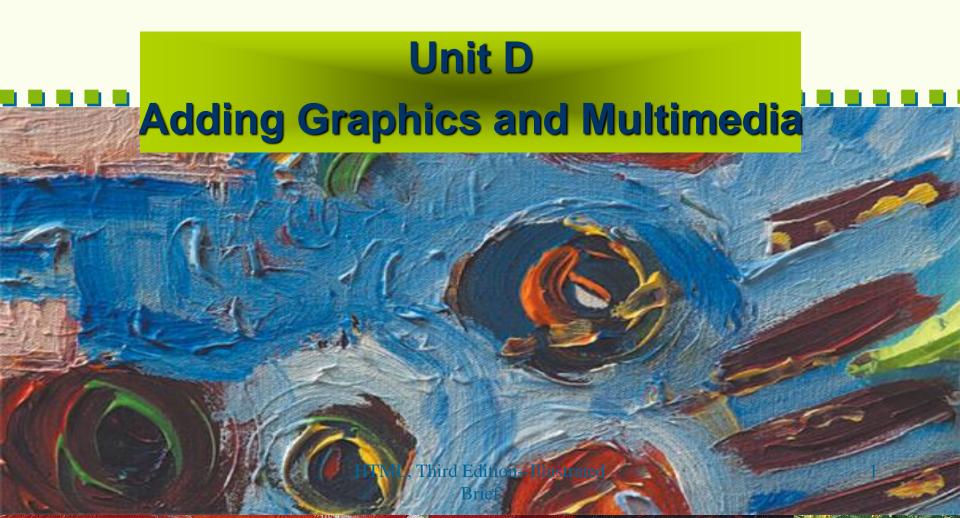# HTML, Third Edition Illustrated Brief

Unit D

Adding Graphics and Multimedia

Unit Objectives

- Plan graphics use

- Insert images

- Optimize images

- Specify image size

- Add a background image

Unit Objectives

- Link images

- Insert an image map

- Explore multimedia options

- Use multimedia

Planning Graphics Use

- Use supported file formats

- Add alternate text

- Keep file size small

- Use graphics wisely

Planning Graphics Use

format	best for	notes
GIF	Line art and animations; also supports 1-bit transparency, which sets a single color as the transparent color	A proprietary format by CompuServ/Unisys: No licensing or fees required for using, viewing, or selling GIF images; companies producing software programs that *create* GIF images must pay licensing fees to CompuServ/Unisys
JPG (or JPEG)	Photographs and other images with gradient color	Variable compression allows a trade-off between better image quality and smaller file size
PNG	Line art and photographs, also supports 32-bit (gradient) transparency	Recently developed format; browser support not as widespread; in many browsers 32-bit transparency does not appear as expected; file size might be significantly larger or smaller depending upon image content—test image in more than one format

Inserting Images

attribute	specifies	possible values	examples
src	Name and location of image file	Name, including extension and path of image file	src="filename.jpg" or src="filepath/filename.jpg"
alt	Alternate text for users who don't use graphics	Almost any text, including spacing and punctuation—but not double quotation marks	alt="Guests enjoy resort activities"
align	Image's alignment in relation to page text, not in relation to page margins	Left, right, top, texttop, middle, absmiddle, baseline, bottom, absbottom, and center	align="right"
height	Image's display height in pixels	Whole number representing image height—do not use to resize image	height="200"
width	Image's display width in pixels	Whole number representing image width—not for use in resizing image	width="275"
border	Image border size	Whole number representing border width in pixels	border="2"

Optimizing Images

- Use the proper Web image resolution

- Crop out unnecessary elements

- Resize the image

- Use the proper file format

- Control the color depth

Clues to Use

- Resizing Images
  - Image width and height properties change the image's appearance, but not the file size
  - Image-editing programs reduce the file dimensions as well as the file size

Linking Images

attribute	specifies	possible values	example
border	The width of an optional border placed around the image; by default, a blue border appears around a linked graphic	A number representing this width, in pixels; to remove default border from linked images, set value to 0	border="0"
vspace	The size of the space between the top and bottom of the graphic and the surrounding page elements; short for "vertical space"	A number representing this space, in pixels	vspace="5"
hspace	The size of the space between the left and right edges of the graphic, and the surrounding page elements; short for "horizontal space"	A number representing this space, in pixels	hspace="5"

Exploring Multimedia Options

- **Bandwidth** – the data transfer capacity of a Web user's Internet connection
  - ➢ **High-bandwidth Internet connections**

- **Improved compression** shrinks the size of video and audio files

- **Streaming multimedia technology** refers to the ability to configure multimedia files to begin playing before they are fully downloaded

Exploring Multimedia Options

- Animated GIF

- Macromedia Flash animation

- Streaming media

- Embedded audio and video

Exploring Multimedia Options

technology	creation tool(s)	how used	playback tool
Animated GIF	Software commonly available for free or at low cost, or professional graphic editing tools such as Adobe ImageReady	`<img />` tag; implemented exactly like standard images; requires src attribute	Web browser
Flash animation	Macromedia Flash software and other tools such as Adobe ImageReady, Techsmith Camtasia, or free Web-based tools	`<object >...</object>` tag with specified param elements, required object attributes: classid with Flash class value, codebase, width, height, and name or id; required param names, movie with value	Web browser with Flash Player plug-in
Traditional audio and video	Audio and/or video computer translation hardware with associated software	`<embed />` tag, requires src attribute	Web browser with player plug-ins, such as Windows Media Player, Apple QuickTime Player, or one of the Real media players
RealOne Streaming audio and video	Audio and/or video computer translation hardware with associated software and streaming server	`<object >...</object>` with specified param elements, requires object attributes—classid with RealOne class value, width, height, and id; required param names, src with .rpm value; additional files—rpm file, which tells browser how to stream video or audio file	Web browser and add-on such as RealOne Player, QuickTime, or Windows Media player

Clues to Use

- Finding free graphics and animation
  - Numerous Web sites allow you to create your own background graphics, text images, and animations
  - Use your favorite search engine to search for these files
  - The Student Online Companion contains links to some of these sites

Unit Summary

- Plan graphics use

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- Optimize images

- Specify image size

- Add a background image

Unit Summary

- Link images

- Insert an image map

- Explore multimedia options

- Use multimedia