

HTML Images Guide

This document provides a comprehensive overview of using images in HTML, selecting the right formats, and optimizing them for the web, as extracted from “Wiley HTML and CSS, October 2011.”

1 Why Use Images?

Images enhance webpages by including logos, photographs, illustrations, diagrams, or charts, making sites more attractive and professional. They set the tone quickly and convey information effectively.

2 Choosing Images

Images should:

- Be relevant
- Convey information
- Convey the right mood
- Be instantly recognizable
- Fit the color palette

Images can be sourced from stock photography websites (e.g., istockphoto.com, gettyimages.com, veer.com, sxc.hu, fotolia.com), but all images are subject to copyright. Using a consistent background for multiple images (e.g., product photos or team portraits) improves visual coherence.

3 Storing Images

Organize images in a dedicated folder (e.g., images/) to maintain site structure. For larger sites, use subfolders like interface/, products/, or news/. Content management systems typically have built-in tools for uploading images to designated folders.

4 Adding Images

The `` element, an empty element, is used to add images. Required attributes:

- **src:** Specifies the image file’s relative URL (e.g., images/quokka.jpg).
- **alt:** Provides a text description for accessibility (e.g., screen readers) and search engines. Use empty quotes (`alt=""`) for decorative images.

Optional attribute:

- **title:** Displays additional information in a tooltip on hover.

Example:

```

```

5 Image Size

Specify image dimensions using:

- **width:** Sets width in pixels.
- **height:** Sets height in pixels.

This ensures browsers reserve space while images load, improving page rendering. Increasingly, CSS is used for sizing (pages 409–410).

Example:

```

```

6 Image Placement

Image placement affects display:

1. **Before a paragraph:** The paragraph starts on a new line after the image.
2. **Inside a paragraph's start:** Text aligns with the image's bottom.
3. **In the middle of a paragraph:** Text flows around the image.

Example:

```

<p>There are around 10,000 living species of birds...</p>
<hr />
<p>There
are around 10,000 living species of birds...</p>
<hr />
<p>There are around 10,000 living species of birds...  ...migrations...</p>
```

Images are inline elements, sitting within block elements (e.g., <p>). Block elements (e.g., <h1>, <p>) start on new lines (pages 185–186).

7 Deprecated Alignment Attributes

The align attribute (removed in HTML5) was used for horizontal and vertical alignment:

- **Horizontal:** left (text flows right), right (text flows left).
- **Vertical:** top, middle, bottom (aligns text with image's top, middle, or bottom).

Example:

```
<p>There are around 10,000 living species of birds...</p>
```

Use CSS instead (pages 285–286, 313–314, 370–372, 411–412) to add gaps or wrap text.

8 Image Creation Rules

1. Right Format:

- **JPEG:** For photographs with many colors.
- **GIF/PNG:** For images with flat colors (e.g., logos, diagrams). GIFs support simple animations; PNGs support transparency.

2. Right Size: Save images at their display size (e.g., 300x150 pixels) to avoid distortion or slow loading.

3. Correct Resolution: Use 72 ppi for web images, as higher resolutions (e.g., 300 dpi) increase file size without improving quality.

9 Image Editing Tools

- **Software:** Adobe Photoshop, Photoshop Elements, Fireworks, Pixelmator, PaintShop Pro, Paint.net.
- **Online Editors:** photoshop.com, pixlr.com, splashup.com, ipiccy.com.

10 Image Dimensions

- **Reducing Size:** Shrink images (e.g., 600x300 to 300x150) for faster loading.
- **Increasing Size:** Avoid enlarging small images (e.g., 100x50 to 300x150), as quality degrades.
- **Cropping:** Crop carefully to avoid losing information. Match image shape (portrait/landscape) to requirements.

11 Image Resolution

Web images should be 72 ppi, matching screen resolution. Higher resolutions (e.g., 300 dpi) create larger files, slowing page loads.

Example:

- JPEG at 300 dpi: 1,526 kb
- JPEG at 72 ppi: 368 kb

12 Vector Images

Vector images (e.g., created in Adobe Illustrator) are resolution-independent, ideal for logos or diagrams. They use points and lines, scaling without quality loss. For web use, convert to bitmap (JPEG/GIF/PNG) or use SVG (not widely supported in 2011).

13 Animated GIFs

GIFs can display sequential frames for simple animations (e.g., loading indicators). Each frame increases file size, and GIFs suit illustrations, not photos. Avoid overuse due to 1990s stigma.

14 Transparency

- **GIF:** For 100% transparent areas with straight edges.
- **PNG:** For semi-opaque or rounded-edge transparency, or drop shadows. PNGs may need JavaScript for Internet Explorer 6 compatibility.

15 Examining Images

- **Check Size:** Right-click (or Ctrl-click on Mac) and select options like “Open Image in New Tab” (Chrome/Safari), “View Image Info” (Firefox), or “Properties” (IE).
- **Download:** Use “Save Image As” from the same menu, respecting copyright.

16 HTML5 Figure and Caption

The <figure> and <figcaption> elements group images with captions.

Example:

```
<figure>
  
  <figcaption>This recipe for individual chocolate cakes is so simple and
    so delectable!</figcaption>
</figure>
```

17 Example

A recipe page with images:

```
<html>
<head>
  <title>Images</title>
</head>
<body>
  <h1></h1>
  <figure>
    
    <figcaption>This recipe for individual chocolate cakes is so simple and
      so delectable!</figcaption>
  </figure>
  <h4>More Recipes:</h4>
  <p>
    
    
    
  </p>
</body>
</html>
```

18 Summary

- Use `` with `src` and `alt` attributes.
- Save images at intended size and in JPEG (photos) or GIF/PNG (flat colors).
- Use 72 ppi resolution.
- Prefer CSS for sizing and alignment over deprecated attributes.
- Use `<figure>` and `<figcaption>` for captioned images.