**The IMG (Image) Tag**

As we discussed in an earlier module, HTML is text-only. Therefore, you can't actually paste images themselves into an HTML page. You need to use a piece of HTML code called the IMG (image) tag to mark where you want your picture to be inserted; you'll use one IMG tag for each picture you want to insert. The IMG tag, then, contains a URL (either absolute or relative) which points to the location on the Internet where the actual picture (image resource) is stored. When a web browser loads an HTML page into a browser window, it reads the HTML code, finds the image resources marked by the IMG tags, and downloads them; it then assembles the text and pictures together and displays them in the browser window. Wherever you place an IMG tag in the flow of HTML text, a picture will be inserted.

Again, wherever you want to place a picture into your HTML page, you need to type in an IMG tag to mark where it goes.

Tag: **IMG**  
Description: Use the IMG tag to indicate where you want to place a picture in an HTML page. The IMG tag must close in XHTML, as displayed below

Example:

<img src="capitalA.gif" width="54" height="54" />

Note that the above statement is also valid for HTML5, although the ending slash is not required.

Obviously, the IMG tag alone is not enough to do the job; you need to use the SRC attribute of the IMG tag to assign an actual picture to the tag.

Tag: **IMG**  
Attribute: **SRC**  
Value: a URL (relative or absolute) which gives the location of the image resource.  
Description: The SRC attribute of the IMG tag states exactly where the desired picture resource is located on the Internet.

Examples:

<img src="./graphics/capitalY.gif" /> (relative URL)

<img src="./capitalY.gif" /> (relative URL)

<img src="capitalY.gif" /> (relative URL)

<img src="http:/fog.ccsf.org/capitalA.gif" /> (absolute URL)

NOTE: Examples 2 and 3 above are identical. Many web designers place all of their image files in a folder (see example 1 above), called graphics, on their web server.

The IMG tag has two additional attributes which should ALWAYS be used: WIDTH and HEIGHT. These attributes state the width (in pixels) and the height (in pixels) of the digital image in question.

Tag: **IMG**  
Attributes: **WIDTH**, **HEIGHT**  
Value: integers representing the width/height of the image in pixels.  
Description: The WIDTH and HEIGHT attributes tell the browser how wide and tall the picture is; this allows the browser to reserve the correct space on the page for the picture. An IMG tag will operate without WIDTH and HEIGHT attributes, but not efficiently. If you forget to put WIDTH and HEIGHT into your IMG tag, the web browser may prevent the display of anything on the HTML page following that IMG tag until the entire picture is finished downloading.

Example:

<img src="myGif.gif" width="54" height="110" />

(the above code says that myGif.gif is 54 pixels wide and 110 pixels tall)

You may resize an image in the browser window, on the fly, by setting the WIDTH and HEIGHT attributes of the IMG tag to values other than the actual width and height of the image. This is not recommended for most pictures, however, as browsers are extremely poor at resizing images on the fly, introducing ugly pixelations, distortions, empty gaps, or other visual flaws into the picture. The only time you'll resize pictures in this manner is when you are putting what are called "spacer" GIFs into an HTML page; because these "spacer" GIFs are just one color (white, black, some other color, or transparent), the browser can resize these flat-color images beautifully whenever and wherever you like. We'll talk about spacer GIFs when we discuss professional tables in a later module. In the meantime, always make sure you know the exact width and height (in pixels) of your image, and set the WIDTH and HEIGHT attributes of your IMG tag accordingly.

Here are some examples of on-the-fly image resizing (all examples use the same GIF file):

Normal:

<img src="capitalY.gif" width="54" height="54" />

Normal Displayed:

Expanded:

<img src="capitalY.gif" width="200" height="200" />

Expanded Displayed:

As you can see, browsers do not resize images very gracefully, and, believe it or not, it used to be much MUCH worse! So always state the image's ACTUAL dimensions for WIDTH and HEIGHT in your IMG tag (unless you are using "spacer" GIFs, as mentioned above).

**Note:** Most image editing programs can tell you the width and height dimensions of your image in pixels.

In conclusion, the minimum complement of attributes for the IMG tag must include SRC, WIDTH, and HEIGHT.

**What is a pixel?**

A pixel is a square or rectangular dot of colored light. Computers use pixels to display visual content to a user; you put enough pixels together, and you have a picture. Pixels are always formed in a square grid, just like graph paper, in rows and columns.

If you look very closely at these words you're reading, this very text on your computer monitor, you can probably see how it's composed of little square pixels (if your eyesight is very sharp). Your Mac or Windows user interface is really a constantly changing digital picture which uses thousands upon thousands of pixels in its display.

For the Web, digital images must be created with a resolution of 72 pixels per inch. Remember this when making images in Photoshop for web-based delivery. For print, of course, 300 pixels per inch, 600 pixels per inch, and even 1200 pixels per inch resolutions are not uncommon, but images for the Web are always 72 pixels per inch.

72 pixels per inch used to be the standard resolution for computer monitor displays. It was once the case that if you measured one inch of any digital picture on your computer screen with a ruler, you would see (if you had very sharp eyes) 72 pixels strung end-to-end. With changes in monitor technology, however, there is no longer a physical correlation between what you see on your screen and an actual ruler measurement, since pixels can now be any size (just look at your own monitor, where you should be easily able to reset the screen resolution from being 1024 or 800 pixels wide to being only 640 pixels wide, which will change the size of the actual pixels being displayed).

Despite this development, the computer itself understands the correlation between pixels and inches, and if you printed out your web picture with its 72 pixels per inch resolution, you would discover exactly 72 pixels per inch on the printout (if you bothered to count).

Note: the rest of this page is continued [here](http://fog.ccsf.edu/~srubin/mooimg.html).