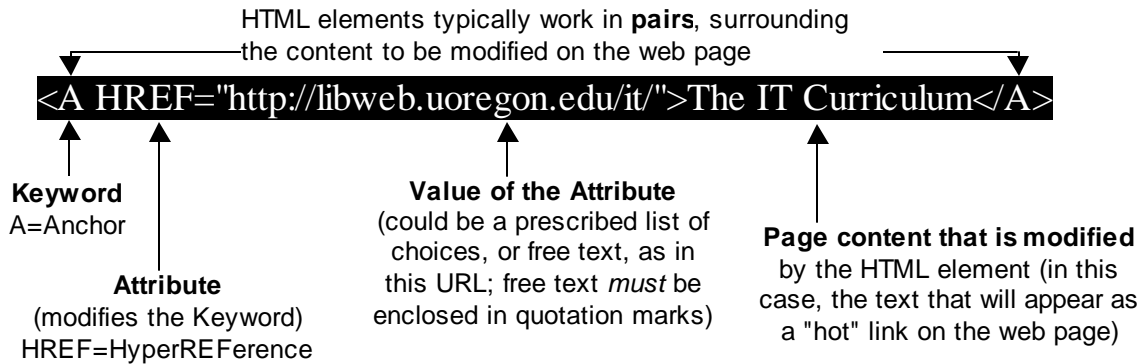


Web Publishing I & II: Reference Guide

IT Curriculum, UO Library

Anatomy of an HTML Element (Tag)



HTML Document Structure

Here is the structure of a very minimal web document. Note how the tags are nested within each other; each HTML element forms a container inside which you can place other containers.

```
<HTML>
  <HEAD>
    <TITLE> title goes here </TITLE>
  </HEAD>
  <BODY>
    <H1> major heading goes here </H1>
    text, links, images, etc. go here
    <ADDRESS> your email address and document revision date</ADDRESS>
  </BODY>
</HTML>
```

BEST PRACTICES TIP: Every web page should be signed and dated – it provides a sense of authority to your page, and shows that you stand behind your web page, whatever its purpose. The usual signature for web pages is an email address, so that visitors to your page can contact you. A document revision date is essential in cases where currency is important to your visitors.

HTML Language Summary

Structural Elements (Required)

<HTML>	</HTML>	Delimits the beginning and end of the entire HTML document
<HEAD>	</HEAD>	This tag defines a document header that encapsulates other tags defining the properties of a document (such as the TITLE)
<TITLE>	</TITLE>	Defines the document title and displays it in the window's title bar; titles are a component of HTML documents that are gathered by search engines and web "bots" to create searchable databases of web sites, so titles should be as descriptive as possible
<BODY>	</BODY>	Defines the content portion of an HTML document, which can include text, images, tables, etc.

Paragraph Formatting and Block Elements (partial list)

<H#>	</H#>	Formats the size of text used as a heading; # =a number from 1-6 (H1 is the largest text and H6 is the smallest text)
<P>	</P>	Defines a paragraph; the closing tag is optional but recommended
<ADDRESS>	</ADDRESS>	Formats address information. Typically includes page or site author and last date updated.
 		Inserts a line break
<HR>		Places a horizontal line across the page
		Starts/ends an unordered list of bulleted elements
		Starts/ends an ordered list containing numbered elements
		Within a list, each begins a new list item
<PRE>	</PRE>	Starts/ends preformatted (fixed-width with line breaks preserved) text
<BLOCKQUOTE>	</BLOCKQUOTE>	Surrounds indented text, e.g., for a quotation
<DIV>	</DIV>	Creates a block of text without adding specific formatting; often used with the ALIGN attribute (values: left, center, or right) to align text

Character Formatting Elements (partial list)

		Formats the enclosed text in boldface
<I>	</I>	Formats the enclosed text in <i>italic</i> typeface
<TT>	</TT>	Formats the enclosed text in a "teletype" fixed-width font.
		Specify character color, size, or typeface for enclosed text.

BEST PRACTICES TIP: Although HTML element keywords and attributes can be in either case, you will often see them written in uppercase. Good web coders use consistent case to make tags easily visible in an HTML document – this is especially helpful for troubleshooting and editing web pages. Good web coders may also incorporate the programming practice of indenting code for greater readability.

Two Very Important HTML Elements

1. The Anchor Element: ...
The anchor element, <A>, indicates the start of a hypertext link; the HREF is an attribute that specifies the URL or target file for the link. Examples:
 - On to Page 2
 - Seattle Mariners
 - Send comments to cbell@darkwing.uoregon.edu
 - A really cool picture!
2. The Image Element:
The image element, , indicates an image to be displayed within the document (inline); SRC is a required attribute that specifies the source URL for that image. Other attributes include:
 - ALT (formerly optional): text description of the image
 - WIDTH and HEIGHT (optional but recommended): measured in pixels (note: to find the size of an image, right click on it, then select "View image..." – the dimensions will be displayed in the title bar of your browser window as *width x height*)
 - ALIGN (values left, right, middle, bottom, top): specified how text should be aligned in relation to the image; use "left" or "right" to wrap text around an imageFor browser compatibility, inline images must be in the GIF or JPG format.

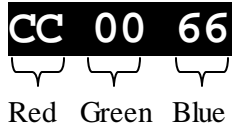
BEST PRACTICES TIP: All images are protected by copyright. Be sure you have permission from the author of an image before using it on your web page. If using images from a "public domain" archive, make sure you read the fine print regarding use of the image, and follow the requirements set forth by the author (providing a link back to the author's web page, etc.).

Adding Color

There are several ways to add color to your page. Among them:

1. Within the <BODY> tag, change the background of the entire document or the color of text and links:
<BODY BGCOLOR="#FFFFFF" TEXT="#000000" LINK="#CC0033" VLINK="#003366">
2. Change the text color of selected portions or your page using the tag:
Some text in color

Color on the web is expressed as triplets, corresponding to the **RGB** (red-green-blue) strengths mixed to make the color. Each value is a 2-character **hexadecimal** (base 16) number:



Example: #CC0066 is reddish purple (4/5 red, no green, 2/5 blue)

Hexadecimal	Decimal value	Percentage
00	0	0%
33	51	20%
66	102	40%
99	153	60%
CC	204	80%
FF	255	100%

BEST PRACTICES TIP: When selecting colors for web pages, use hexadecimal red, green, and blue values from the table above. The resulting 216 colors provide the most reliable results in all browsers and across platforms. See Lynda Weinman's *Browser-Safe Color Palette* (by hue), <http://www.lynda.com/hexh.html> for a color chart showing these 216 colors (with both hexadecimal and RGB decimal values). Most books on HTML or web design include a chart you can use as a reference, although the printed colors will not always correspond precisely to the colors on the screen.

Entities

Page content (text) normally consists of ASCII printable characters. In most contexts, blank space and empty lines are ignored, and "<" marks the beginning of a tag. Entities are special character sequences that allow you to produce symbols and diacritics in your web documents. Here are a few examples:

Entity Name	Numeric Code	Descriptive Code	Character
ampersand	&	&	&
less-than sign	<	<	<
copyright	©	©	©
fraction one-half	½	½	½
small e, acute accent	é	é	é
small u, dieresis or umlaut mark	ü	ü	ü

To display a less-than sign, replace the "<" in your HTML file with its entity value (<).

See *Special HTML Characters*, <http://www.owlnet.rice.edu/~jwmitch/iso8859-1.html>, for a (fairly) complete list of entities.

TIME-SAVING TIP: If you are creating web pages in languages that use the roman alphabet diacritics, you can create your document in a word processor, then use the word processor to save your document as an HTML file. For example, if you are creating documents for the web in Spanish, use Spanish-language word processor to create your document, then save it as an HTML document (usually an option in the "File" menu). Most word processors will convert all of the diacritics and non-English punctuation to their entity equivalents.

Font Faces

The tag allows specification of a list of font faces to be used to display enclosed text. The first font available to the particular browser is used. Face names are platform-specific, but a few generic names ("serif", "sans-serif", and "monospace") are uniformly available and should always be used as last-choice defaults.

Example: This text might be displayed in Helvetica (Mac) or Arial (PC)

BEST PRACTICES TIP: The use of the tag is no longer a part of the HTML specification, although most browsers still support it. The W3 Consortium recommends style sheets as the preferred method for specifying inline colors, font faces, and font sizes. See <http://www.w3.org> for more information on style sheets.

Tables

<TABLE>	</TABLE>	Defines the table; its attributes include: <ul style="list-style-type: none">- BGCOLOR: defines the background color- CELLPACING: defines the amount of space bordering the content of each cell (in pixels)- CELLPADDING: defines the amount of space between cells (in pixels)- BORDER: defines the size of the border (in pixels)- WIDTH: suggests the minimum width of the table (in pixels or percentage of window)
<TR>	</TR>	Defines each table row
<TD>	</TD>	Defines each table cell within a table row; its attributes include: <ul style="list-style-type: none">- ALIGN: alignment of the cell content (left, right, center)- COLSPAN: content spans the number of columns/cells specified- ROWSPAN: content spans the number of rows specified- WIDTH: suggests the minimum width of a cell (in pixels or percentage of table)- BGCOLOR: defines the background color of a cell (use sparingly!)
<TH>	</TH>	Like the <TD> tag, but formats text as a heading (centered and bold)

Example: A Simple Table:

```
<TABLE>
<TR>
  <TH>Cell 1</TH>
  <TH>Cell 2</TH>
  <TH>Cell 3</TH>
</TR>
<TR>
  <TD COLSPAN=2 ALIGN=center>Cell 4</TD>
  <TD ROWSPAN=2 VALIGN=middle>Cell 5</TD>
</TR>
<TR>
  <TD>Cell 6</TD>
  <TD>Cell 7</TD>
</TR>
</TABLE>
```

This table would be rendered in your browser as:

Cell 1	Cell 2	Cell 3
Cell 4		Cell 5
Cell 6	Cell 7	

Note, however, that tables display differently in different browser applications and versions. Also note that the tag has no effect on your table *unless* it appears inside a <TD>...</TD> or <TH>...</TH> tag.

Troubleshooting Your HTML

Watch out for ...

1. **Typos.** One small typing mistake on an HTML tag, and the rest of your page can become garbled; make sure to include all your angle brackets and other punctuation. Note that quotations marks are required on all values consisting of free text.
2. **Missing closing tags.** If you don't put the closing tag for a formatting element, the browser doesn't know when to stop applying it. This can also lead to ...
3. **Nesting errors.** If you start one tag inside another, you must close it before you close the first. For example:
<I>This text is bold and italicized.</I> is correct;
<I>This text is bold and italicized.</I> is not.

BEST PRACTICES TIP: Good HTML that works consistently across platforms and browsers adheres to one of the accepted specifications (currently HTML 3.2 or HTML 4.0). There are several web sites you can use to check your web pages for errors; here are three:

- Weblint: <http://darkwing.uoregon.edu/~jqj/cgi-bin/weblint.cgi>
- Doctor HTML: <http://www2.imagiware.com/RxHTML/>
- Dr. Watson: <http://watson.addy.com/>

However, no amount of verification can replace actually testing your pages with the browsers and hardware you expect your visitors to use.

Publishing your WWW pages on GLADSTONE or DARKWING

"Publishing" means making your web pages available on a web server. Most users edit their web pages on a PC or Mac, then upload them to the server (usually darkwing or gladstone in your `public_html` subdirectory).

The first time you publish a page it's a two-step process. **Do these steps only once:**

PC Users

1. Open the WS_FTP program.
2. Complete the "Session Properties" dialog box (make sure the "Anonymous Login" box is not checked).
3. Click the Mkdir button on the remote (right) side.
4. Type `public_html` in the box and click on "OK"

Mac Users

1. Open the Fetch program.
 2. Complete the "New Connection" dialog box.
 3. From the "Directories" menu select "Create New Directory".
- Type `public_html` in the box and click on "OK".

The following steps are the ones you can use each time you want to publish a web page:

PC Users

1. Open the WS_FTP program.
2. Complete the "Session Properties" dialog box.
3. On the remote (right) side, double-click on the `public_html` folder.
4. On the local (left) side, find the directory or folder containing your web files.
5. Select the files to transfer (use the Shift or Ctrl key to select multiple files) and click on the right arrow (→) to move the files over to the server. (Note: HTML files should be transferred in ASCII mode; image files *must* be transferred in binary mode – if you're unsure, use binary mode.)
5. Click "Close" to disconnect.

Mac Users

1. Open the Fetch program.
2. Complete the "New Connection" dialog box.
3. Double-click on the `public_html` folder.
4. Using the Finder, locate the folder containing your web files.
5. Drag your files into the `public_html` folder.
6. The connection will stay open until you close it or exit the program. (Note: if you are using a public computer, don't forget to exit Fetch before leaving!).

Now test your page by pulling it up in your browser. The URL for your page will be in the form:

<http://darkwing.uoregon.edu/~yourid/filename.html> or <http://gladstone.uoregon.edu/~yourid/filename.html>
where *yourid* is your username and *filename.html* is the name you gave to the HTML file.

Glossary of Key Terms

- **Browser:** A software program, such as Netscape or Internet Explorer, that retrieves documents containing text, sound, and images from the World Wide Web.
- **FTP:** File Transfer Protocol. A basic Internet application that allows files to be transferred from one computer to another (e.g., from your local hard drive to your remote GLADSTONE or DARKWING account).
- **HTML:** HyperText Markup Language. A coding language used to create WWW documents for display by browsers, consisting of:
 - **tags (or elements):** The actual HTML codes embedded in a document that tells other computers how to display the document in your browser.
 - **attributes:** Additional coding for individual HTML tags that provides more design and formatting options.
- **Hypertext:** Text, or images, that have been coded with HTML and will automatically display the connected files when selected.
- **Server:** A computer configured to provide, or "serve," the files that are stored on it when it receives requests from other computers (also known as clients). GLADSTONE and DARKWING are some of the computers that act as servers for the university's web pages.
- **URL:** Uniform Resource Locator. This is the Internet standard for computer addresses. URLs for web pages generally start with *http* (hypertext transfer protocol), and indicate the name of the server plus the particular file on that server. For example, to access the web site for the Oregon Ducks, the URL is *http://www.goducks.com/*.
- **World Wide Web:** Also known as WWW or the Web. A hypertext-based, distributed information system that accesses web servers and files via the Internet.

Where To Go for More Information on HTML

- **The IT Curriculum**, <http://libweb.uoregon.edu/it/>
The UO Library offers many workshops on various aspects of web publishing.
- **Builder.com**, <http://www.builder.com/>
One of the C/Net sites, Builder.com has tons of goodies for the web developer; check out their Cool Tools, Stupid Web Tricks, and Site Critiques, or start with their Basics.
- **The Compendium of HTML Elements**, <http://www.htmlcompendium.org/>
Provides a list of all HTML elements and attributes and explanations of their proper use.
- **The Non-Designer's Web Book** by Robin Williams and John Tollet (Peachpit Press, 1998; list price \$29.95)
There are literally hundreds (possibly even thousands) of books on HTML, but this is one favorite. It's entertaining, it's easy to read, and it has lots of examples.
- **Webmonkey**, <http://www.hotwired.com/webmonkey/>
This site from Wired Magazine has several very good tutorials on all aspects of web development.
- **World Wide Web Consortium**, <http://www.w3.org/>
The ultimate authority on all things HTML and beyond.
- **ZDNet <devhead>**, <http://www.zdnet.com/devhead/>
A commercial site from Ziff-Davis (a major publisher of computer magazines) that has a number of free tutorials for learning various techniques.

BEST PRACTICES TIP:

Know your message. Figure out what you want to say before you start coding your web page.

Know your audience. Who are they? A page designed to advertise to consumers will look very different from a page designed to provide technical information to students. And what sort of computer hardware (and browser version) do they have? Web pages look different when viewed with different hardware and software.

Know your resources. Good web pages take time, both to produce and to maintain. And there's always more to learn about web page coding and design.

This guide has been compiled over time by JQ Johnson, Ted Smith, and Colleen Bell (last revised July 16, 1999)