



HTML 3

Images, Links, and Basic Design Tools
Web Design Series - Session 3

CAL People and Computer Training
University of California, Berkeley

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Use this
space for notes

Introduction

Welcome to **HTML 3**. Today we'll focus on how to fine-tune your basic HTML and more effectively display your content. We'll also discuss images and links in more depth. The class will be split into two sections. The first will be dedicated to instruction, and the second will be a workshop question & answer session. Your instructor will give you a series of exercises to complete on your own. We will either work on the project(s) together or individually, depending on the consensus of class participants. The instructor and roamer will be available to answer any questions you may have throughout the workshop portion. At the end of this document there is an appendix with the code learned in this class, along with other information you will find useful as you create and maintain your websites.

Skills you need for this class

- Text editing & how to use the mouse
- Familiarity with the Windows or Mac operating systems & the Internet
- Experience using web browsers, such as Netscape Navigator and Microsoft Internet Explorer
- Solid understanding of the material covered in *HTML 1* and *HTML 2*

Skills and concepts you will learn in this class

- Backgrounds — using color and images
- Alignment — paragraphs, tables, and images
- Tables — as a design tool for creating layouts
- Advanced links (e.g., images as links, linking to e-mail, files, and anchors)
- Viewing source and its uses
- Commenting
- Using images from other sites (intellectual property issues)

Conventions used in this document

Menus and menu commands are separated by a vertical bar (|). In the document they will appear as **Menu|Command**. An example of this is: “Select **File|New...**”

Icons in the left margin

Occasionally, you will notice icons in the left margin. Their purpose is to highlight important information. Examples:



Backgrounds

The Background Color Attribute: **BGCOLOR="#nnnnnn"**

To change the background color of any of your web pages, use the BGCOLOR attribute. This attribute can be coupled with several different tags for a variety of effects. (You may remember this from *HTML 2* when we used it with tables.)

Coupled with: the BGCOLOR attribute changes the background color of:

<code><BODY></BODY></code>	the entire page
<code><TABLE></TABLE></code>	an entire table
<code><TR></TR></code>	an entire row within a table
<code><TD></TD></code>	a single table cell

For example: `<BODY bgcolor="yellow">text</BODY>` affects the entire web page.

The Background Images Attribute: **BACKGROUND="n"**

To use an image as the background of your site, use the BACKGROUND attribute. Just as with the BGCOLOR attribute, you may use the BACKGROUND attribute with a number of tags to achieve several types of effects.

Coupled with: the BACKGROUND attribute adds an image background to:

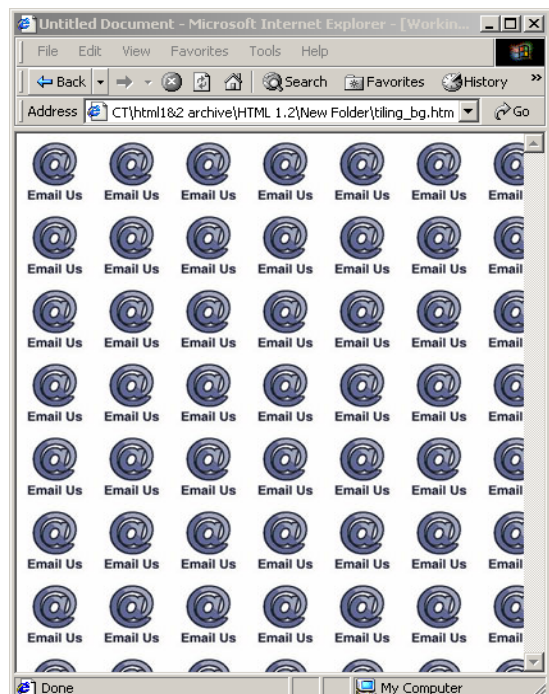
<code><BODY></BODY></code>	the entire page
<code><TABLE></TABLE></code>	a table
<code><TR></TR></code>	each cell of that row
<code><TD></TD></code>	a single table cell

When adding a background image to your web page, you need to be aware of its size relative to the space in which you are placing it. If the image is not large enough to fill the space completely, the image will "tile" or be repeatedly displayed left to right, top to bottom, until the space is filled. Keep in mind that the space we're talking about will change as a user resizes their browser window

The graphic to the right is an example of tiling.

The following is the source code:

```
<HTML>
<BODY background="email.jpg">
</BODY>
</HTML>
```



Note



When adding color or an image as a background it is important not to detract from the legibility of your text. Bright colors and busy images make your content difficult to read.

See the obnoxious background image example below to see what we mean.

Caution



You *cannot* use HTML to set the size of a background image. You will need to use image editing software such as Photoshop or Fireworks to accomplish this.

Alignment

Positioning your Paragraphs with the <P> Tag (The Align Attribute: ALIGN="n" where n = left, center, or right)

A paragraph can be aligned to the left, to the right or at the center by adding the ALIGN attribute. In order to take advantage of more than one alignment style on a given page, you can simply create a new paragraph to align by adding another set of <P> tags. For example...

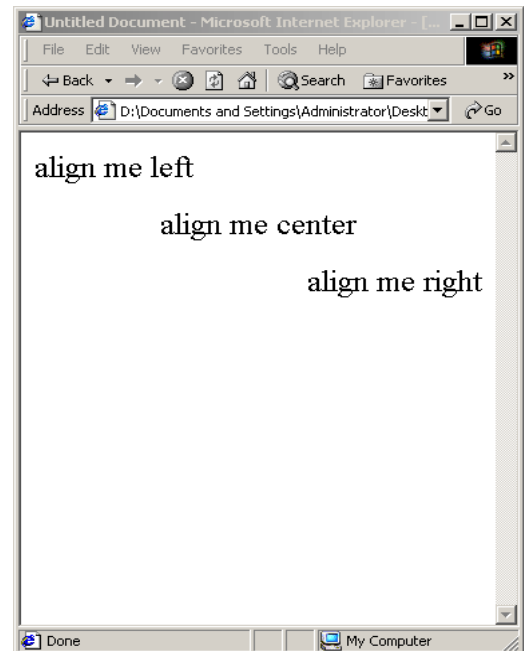
This code:

displays like so:

```
<P align="left">align me left</P>
```

```
<P align="center">align me center</P>
```

```
<P align="right">align me right</P>
```



Note



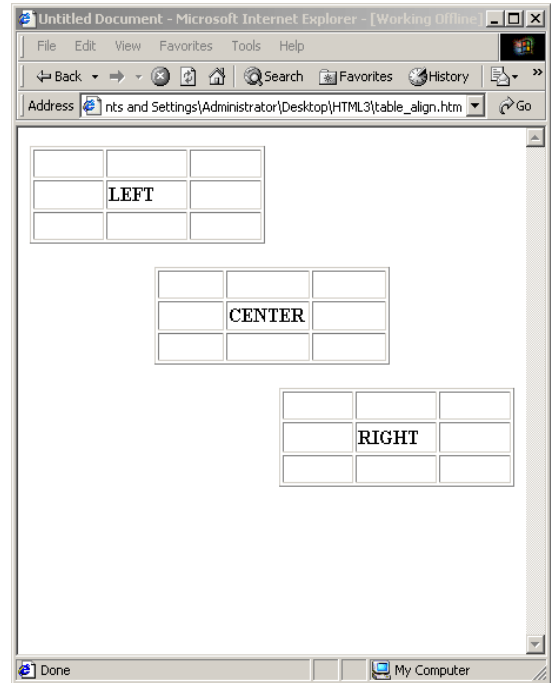
Keep in mind that these positions are relative to the size of the browser window. Center aligned paragraphs will move as the width of your window increases.

You can also align paragraphs, as well as apply a variety of other formatting to blocks of text using *Cascading Style Sheets*. In fact, this is the preferred way if you are authoring a large site with a significant number of pages. However, a discussion of this is beyond the scope of this simple introduction to HTML. We suggest you refer to a good HTML resource, whether it be on the Web or in book form, to learn more about cascading style sheets.

Positioning Tables with the <TABLE> Tag (The Align Attribute: **ALIGN="n"** where *n*=*left*, *center*, or *right*)

You can use the ALIGN attribute in conjunction with the <TABLE> tag to align content within a table, as shown here.

```
<TABLE align="left">
...</TABLE>
<BR>
<BR>
<TABLE align="center">
...</TABLE>
<BR>
<BR>
<TABLE align="right">
...</TABLE>
```



Tip



If you wanted to have each table appear side by side with different alignment values, you could nest each table within a single larger table with a size of 1 cell tall by 3 cells wide. You could then use the ALIGN attribute to position each nested table within its own cell in the large table.

Note: The code given above **IS NOT THE COMPLETE CODE** needed to create the example page displayed to the right.

Positioning Your Images with the Tag (The Align Attribute: **ALIGN="n"** where *n* = *top*, *middle*, *bottom*, *left*, or *right*)

The ALIGN attribute is used with the tag to position an image on a line of text, using the values **top**, **middle**, and **bottom**. (The values *texttop*, *absmiddle* and *absbottom* are also available, but are not discussed here). Even more useful is the ability to wrap text around an image by using the values **left** and **right**. The example below shows where an image would be placed in relation to the text on a line for the values indicated. This tag is deprecated, but we discuss it here as an example of how to quickly position images in relation to text, especially text wrapping.

Individual blocks of code to position text around the image shown here:

```
TOP<IMG src="frog.gif"
align="top">TOP
```


```
MIDDLE<IMG src="frog.gif"
align="middle">MIDDLE
```

```
BOTTOM<IMG src="frog.gif"
align="bottom">BOTTOM
```



Two examples of wrapping text, one with the image aligned to the left, one with the image aligned to the right:


HTML CODE (see Note 1 below)

Jack Sprat could eat no fat; his wife
 could eat no lean.
 Jack Sprat could
 eat no fat; his wife
 could eat no lean.
 Jack Sprat could
 eat no fat; his
 wife could eat no lean. Jack Sprat
 could eat no fat; his...

```
<P align="left">
Jack Sprat could eat no fat; his
wife<BR>
<IMG src="frog.gif" align="left"> could
eat no lean.<BR>
Jack Sprat could<BR>
eat no fat; his wife could eat not
lean.<BR>...
</P>
```

HTML CODE

```
<P align="right">
Jack Sprat could eat no fat; his wife
could<IMG src="frog.gif"
align="right">eat no lean. Jack
Sprat could...
</P>
```

Jack Sprat could eat no fat; his wife could
 eat no lean. Jack Sprat
 could eat no fat; his wife
 could eat no lean. Jack
 Sprat could eat no fat;
 his wife could eat no
 lean. Jack Sprat could
 eat no fat; his wife could eat no lean. Jack...

Note 1: You may notice that the first example ends each line with the
 tag. It is used here to end the current line and begin a new one. It allows you to wrap text more closely to the image.

Image Tag Attributes—Giving Your Images Room to Breathe (The Horizontal Space and Vertical Space Attributes: HSPACE="n" VSPACE="n")

The HSPACE, or horizontal space attribute, creates a cushion of space defined in pixels, *both* to the **left** and to the **right** of your image. The VSPACE, or vertical space attribute, creates a cushion of space defined in pixels, *both* **above** and **below** your image. This allows you to avoid having wrapped text crowd an image.

There is no way to define separate values for the left and right (or the top and bottom) of your image, using the HSPACE and VSPACE attributes.

Note

By default, a border is placed around an image which has been made into a link. You can remove this border by adding the `BORDER="0"` attribute to the `` tag.

Before removing the colored border, make sure the graphic is clearly labelled as a link. It should be obvious that it leads the user somewhere specific.

Note

It is good practice to clearly label images used as links. This can be done by words that are part of the image or by placing descriptive text near the image.

Links

Creating a Hypertext Link Using an Image

As you remember, a plain hypertext link appears in your code as follows:

```
<A href="http://www.berkeley.edu">TEXT GOES HERE</A>
```

To create a link using an image, we need to replace the link text (i.e., "TEXT GOES HERE") with an `` tag. Here's an example of the code:

```
<A href="http://www.berkeley.edu"><IMG src="filename.jpg"></A>
```

The image will now be displayed, with a colored border, indicating it is a link. (The boldface in the code example above is for use in highlighting only).

Linking to an E-Mail Address

Linking to an e-mail address is very similar to a standard hypertext link. In place of an web address, however, we use an e-mail address in conjunction with the `mailto:` command. For example:

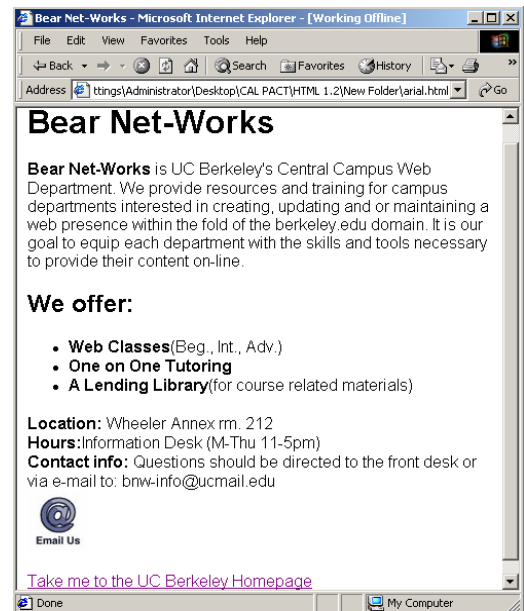
```
<A href="mailto:username@domain name">TEXT GOES HERE</A>
```

When displayed in a web browser, the link above will look identical to a hypertext link. Clicking on it will automatically start a visitor's pre-defined e-mail program, placing the identified e-mail address in the "TO:" field. Note, however, the visitor's browser must be appropriately configured in order for this to work. If it is not properly configured (for instance, their browser has not been linked to their e-mail application), they will receive an error message.

On Your Own: Practice Exercise

Your instructor will now show you how to access our HTML document template. It contains the HTML code we have end with upon completion of *HTML 2*. Save a copy of the file to the desktop. Then open it in a text editor. Next, open that same document on the desktop in Internet Explorer.

1. Take a look at the code for our page. In the "Contact-Info" line, turn our email address text (bnw-info@ucmail.com) into a link to our email address.
2. Next, change our email graphic into a link to our email address.



Anchors: Linking to a Specific Point in a Web Page

A link as we have learned up to this point will simply take a viewer to the top of another web page. However, at some point, you may wish to create a link to a specific point within a page. You use an **anchor** to accomplish this. The first step is to find the point in the document where you want to take the person with the link. Next, a keyword is placed at that point as a reference for the link. Then it's time to create the link itself.

Imagine you would like to add the entire Class schedule, for both Fall and Spring, at the bottom of our Bear Net-Works homepage. To spare visitors the trouble of scrolling down to find the Spring Class Schedule each time they visit that page, we'll create a link at the top the homepage leading directly to it. To do this, we use the `<A>` tag in conjunction with the **NAME** attribute.

For example, at the line just above our Spring Class Schedule, we'll add the following code:

```
<A name="keyword"><FONT size="4">Spring Courses</FONT></A>
```

The content you place between the opening and closing `<A>` tag will become the anchor point. The keyword you specify will be used to reference it. The text "keyword" in the example above can be any word you choose. However, if you create more than one anchor, you will need to use different keywords for each.

Next, to create the link to our anchor point, decide where on the page you would like the link to be placed (somewhere at the top in this case), and type the following code:

```
<A href="#keyword">LINK TEXT GOES HERE</A>
```

Important Note: Your keywords *must* match in order for the link to work.

Clicking on your link should now take you directly to the Spring Courses.

Linking to an Anchor in Another Document (Page) in our Site

If our Spring Courses were listed in a separate document called *classes.html*, we would create an anchor in that web page document in the same manner as before. When linking to that anchor, however, we would need to specify the name of the HTML document the anchor was located in, as well as the anchor. For example:

```
<A href="classes.html#keyword">LINK TEXT GOES HERE</A>
```

Note



In some cases, viewing the source code for a web page may not display all the code used to create it. Many commercial sites protect their designs from the kind of "borrowing" that can be done by accessing the source code.

Viewing HTML Source Code

While surfing the web, you may notice certain aspects of web pages you'd like to include in your own site. By selecting **View|Source** in your Internet Explorer browser window menu bar (**View|Page Source** in Netscape Navigator), you'll get to peek at the code used to create that page. It's a great way to learn new techniques and tricks, and to learn how others have written their HTML code.

Commenting Your Code

HTML allows you to include “hidden” text anywhere within a HTML document. This is called *commenting*. Comments might describe what you hoped to achieve by using a certain tag or to indicate what kind of content should be placed in a particular area. You might also use comments to show when and how to update, include, or remove specific content. If your site is a group project, you might use commenting to include editorial information.

While this text is hidden when the page is displayed in a web browser, people will still be able to see it if they choose to view the source code of your HTML document. Therefore, you should not include any private or sensitive information (passwords, etc.) in your comments.

To include comments, type your text between `<!--` and `-->`. This is a single tag, but may be as long as needed. Here’s an example:

```
<HTML>
...
<!-- The following is a listing of all Bear Net-Works staff including
campus phone numbers and email addresses. Update monthly. -->
<TABLE width="100%" border="1" cellpadding="3" cellspacing="2">
...
<TR>
  <TD>Ned Flanders</TD>
  <TD>Clerk</TD>
  <TD>5-1212</TD>
  <TD>clerk@ucmail</TD>
</TR>
...
</TABLE>
...
</HTML>
```

Copying and Using Images from the Web

You can copy images from most websites by right-clicking on the image (or clicking and holding on a Mac) and then selecting **Save Picture As...** in Internet Explorer or **Save Image As...** in Netscape Navigator.

Important Note: Please see the **Appendix** for a brief discussion of legal issues concerning use of images on the Web.

Class Workshop Exercises

1. Create a second HTML document using content from the *Bear Net-Works Information Sheet*. Then create a link to it from your homepage. Add a background image of your choosing (it can be any image from any source).
2. Look at the Bear Net-Works Information Sheet. Try placing the *One on One Tutoring* section in a table (don't worry about the images).
 - a. Change the background color for the table.
 - b. Add a background image to one of the cells in the table.
 - c. Create a link to your e-mail address using your own name as the link text.
3. Find an image on the web that you like. Save it to your desktop and then create another simple HTML document containing a large paragraph of text. Place the image in your document. Then, using the ALIGN attribute, wrap the text of the paragraph around the image.
 - a. Use the HSPACE and VSPACE attributes to create space between the wrapped text and your image.
4. Create a table to use as a layout template for the various pages of your website. You must span at least one row or one column for this exercise. As part of this, create a navigation section, complete with links (even if they don't go to any existing page or file), and decide what kind of content will be placed in each part of the table.

Depending on the class consensus, we will either do any of the above exercises as a group or give you time to work on them individually. If the class decides to work on the exercises individually, some questions and issues may be dealt with on the large screen so that all participants may benefit. Your instructor and roamer will be available to answer specific questions. Have fun coding!

See you next time in *Photoshop for the Web!*

APPENDIX

Code Used in this Class

Background Attributes

BGCOLOR="*color*" or "#*nnnnnn*"
specifies the background color

BACKGROUND="*n*"
specifies a background image

Alignment Attributes

ALIGN="*n*" where *n*=*left*, or *center*, or *right*
aligns paragraphs

Image Attributes

ALIGN="*n*" where *n*=*top*, or *middle*, or *bottom*
aligns images in relation to a line of text

ALIGN="*n*" where *n*=*left* or *right*
wraps text around images

HSPACE="*n*"
specifies the amount of space above and below an image

VSPACE="*n*"
specifies the amount of space to the sides of an image

Links

TEXT GOES HERE
creates a hypertext link from an image

TEXT GOES HERE
links to an email address

LINK TEXT GOES HERE
creates an anchor that links to a specific point in a web page

LINK TEXT GOES HERE
links to an anchor in another HTML document

Legal Issues with Using Images

There is still no generally accepted legal standard for the Internet. Besides the fact that the law usually lags behind technological trends, there are several issues specific to computer technology that are difficult to mesh with current methods of legal analysis. Theft and fraud are obviously against the law regardless of the means of committing the crime. Where things get fuzzy is how traditional legal concepts apply to new technology, if they do at all. Is using an image from someone else's website against the law? Maybe, maybe not. We can speak only in terms of general principles because the law is still developing in this rapidly-changing area of intellectual property rights. Moreover, giving you specific advice would be practicing law without a license. So, in general, here are some guidelines:

- If you see the copyright or trademark symbols on an image or a copyright warning, it is against the law to use the image without permission from the copyright or trademark holder.
- An image need not bear the copyright or trademark symbol to be copyrighted or trademarked. If it is a company or organizational logo, or clearly something belonging to the company or organization, you probably can't use it.
- Simply modifying an image (through Photoshop, for instance) will not protect you from the risk of legal action against you. It may actually make things worse.
- Ask for permission to use images you have doubts about.
- Remember that there are many intellectual property principles that apply to technology and its use. If you have a question, consult an attorney who specializes in the areas of intellectual property or technology.
- It's often better to create your own images for use on your website, since this will give your site its own unique look and feel. So "borrowing" images may not be the way to go in many cases.

Keep in mind that these guidelines apply to nearly all web content, not just images. There are many ways the use of web content is addressed. There is not always applicable law to fall back on, so companies and web designers tend to rely on "Terms of Use" or similar statements governing the use of material on their websites. The following is the text from the *startrek.com* website regarding the use of images, sounds, and similar content. Similar to the way the law deals with software, the Paramount corporation, the owner of the images, etc., grants a license to those who visit the *startrek.com* website that allows people to use that material only for viewing online and nothing more.

Can I use Star Trek characters, ships and sounds from STARTREK.COM on my personal/fan Web site?

No. All materials on STARTREK.COM such as images of characters and ships, or sounds (“Star Trek Materials”) are protected by copyrights and trademarks owned or controlled by Paramount Pictures Corporation. The public display of the Star Trek materials on a fan site or personal home page is strictly prohibited.

For more details, please refer to Paragraph 3 of the Terms of Use of this site.

Below are the *Terms of Use* referred to:

STARTREK.COM Terms of Use

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Fair Use Doctrine

There are exceptions to copyright, but you should use **extreme** caution when attempting to use these exceptions (as in, you need to be a lawyer or consult with one first). This principle *does not* apply to trademark.

Example:

Below is an image of the Paramount logo, which is taken directly from the *startrek.com* website that forbids the unauthorized use of any images found on the site. However, its use here falls within the fair use exception to copyright because we are using it for a legitimate educational purpose in explaining the principle of copyright protection, as is the case of the use of the *Terms of Use* printed above. Unless you understand the legal principles underlying copyright, **don't try this at home** (or on your website).



How to Protect Your Own Content

Here are a few suggestions on how to protect the content you post on your website.

- Place a copyright notice in clear view on the page
- Password protect your page
- Draft a “Terms of Use” policy for visitors to your site
- Use the copyright (©) or trademark (™) symbol, as appropriate
- Give information on how the content can be obtained or purchased
- Don't post the information or image at all

Just remember that not everyone will treat your web content the way you would like them to! If you're dealing with valuable, sensitive, or confidential information, or with original content you just don't want people getting their hands on, password protect the page where it's located, or simply refrain from posting it on the Web.

Resources

There are several online resources available to help guide you through the labyrinth of intellectual property and technology law. Here are some good ones (which in turn contain other links that may be of help):

Findlaw's Cyberspace Law Center

<http://cyber.findlaw.com/>

American Bar Association Legal Technology Resource Center

<http://www.abanet.org/tech/ltrc/home.html>

UC Office of the President, Office of Technology Transfer

<http://www.ucop.edu/ott/crweb.html>