Mastering™ XHTML

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Chapter 6: Developing Tables
Chapter 6

Developing Tables
This chapter introduces XHTML tables, which are grids made up of rows and columns. These rows and columns create individual cells that can contain text and images. Tables are an effective design element that allow you to present information visually, yet in a way that is most likely to be presented by the browser in the manner that you intended. The material in this chapter will walk you through the effective use of tables.

This chapter covers the following topics:

- Creating basic tables
- Adding and deleting rows and columns
- Spanning rows and columns
- Adding captions
- Formatting tables
- Using XHTML table features
Using Tables Effectively

Tables serve two functions. First, they help present complex data in a readable format. Traditionally, you use tables when information can more effectively be portrayed visually than described in paragraph form.

Second, you can use tables to incorporate more sophisticated design elements into Web pages. The effect of using tables for page layout is similar to that of using frames (discussed in detail in Chapter 8); however, if you use tables for page layout, users can still bookmark a specific page on your Web site, which they can’t do as accurately with frames. In addition, more browsers support tables than frames, so you have little concern about how tables will affect your user’s computer or browser settings. Figure 6.1 shows an example of a Web site formatted using tables.

**Figure 6.1** Tables help you develop interesting page designs.
If your users are not all using browsers that support XHTML elements (which are the same as HTML 4 elements if you’re using the Transitional DTD), using tables for formatting is a good way to go. However, as you’ll see in many places throughout this chapter, the HTML 4 and XHTML 1 specifications move away from using this formatting technique in favor of style sheets. Find out how to develop style sheets in Chapter 10, and a complete style sheet reference is in Master’s Reference Part 2.

Not all browsers support tables, but most versions of Netscape Navigator, Internet Explorer, and many other browsers do. Furthermore, not all browsers that support tables support all table features. For example, Netscape 6 supports tables, but does not support extended features such as table footers. Table 6.1 lists browsers that support tables and extended table features.

<table>
<thead>
<tr>
<th>Browser</th>
<th>Standard Tables</th>
<th>HTML 4.01 Tables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netscape Navigator</td>
<td>Yes</td>
<td>Yes (in Netscape 6)</td>
</tr>
<tr>
<td>Internet Explorer</td>
<td>Yes</td>
<td>Yes (in IE 4 and later versions)</td>
</tr>
<tr>
<td>Lynx</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Opera</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Before including tables in an XHTML document, be sure your users use a browser that supports tables. If they don’t, the table will not appear properly, if at all.

Table features commonly not supported are noted throughout this chapter.

Creating Basic Tables
Creating tables is a two-step process:

1. Create the table structure—that is, enter the `table` element, specify rows and columns, and specify column headings.
2. Enter the data in table cells.
You may want to sketch a diagram of your table before you begin coding. This will help you make sure you have all the necessary components for your table before you start coding it.

By first creating the table structure and then entering the data, you can avoid errors. Most commonly, Web authors forget the closing \texttt{/table} tag or omit an entire paired tag. These errors result in an odd-looking table or no table at all. Ensuring that the basic table structure is in place before you start adding text can help you troubleshoot problems. Table 6.2 describes the basic table elements.

Table elements become complex quickly! Be sure that you open and close tags as needed, that you don’t omit elements, and that you properly nest elements. Debugging problems in a table can be tedious and very frustrating.

Table 6.2  Basic Table Elements

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>MARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>table</td>
<td>A table within an XHTML document</td>
</tr>
<tr>
<td>tr</td>
<td>A row within a table</td>
</tr>
<tr>
<td>td</td>
<td>A cell (table data) within a row</td>
</tr>
<tr>
<td>th</td>
<td>A heading cell within a row</td>
</tr>
</tbody>
</table>

Closing tags were optional in HTML 4, but they are required in XHTML. They also help you see where one element ends and another begins.

The following steps show you how to build a table and enter information into it. The sample table in Figure 6.2 represents a product summary on a corporate Web site.

1. Start with a functional XHTML document that contains the appropriate structure elements (the DOCTYPE declaration, \texttt{html}, \texttt{head}, \texttt{title}, and \texttt{body} elements) and any additional information you want to include.

2. Add the \texttt{table} element where you want the table boundaries to appear.

\[
<\texttt{table}>
\]

\[
</\texttt{table}>
\]
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For accessibility reasons, you can use a summary attribute in the table element to describe your table’s content; its value tells users what the table contains. This is not required by the specification, but it’s a good idea to make your Web pages as readable as possible to as many people as you can.

3. Add a tr element for each row, between the table tags. The sample table includes four tr elements, one for each row.

```html
<table>
<tr>
</tr>
<tr>
</tr>
<tr>
</tr>
<tr>
</tr>
</table>
```

4. Add th elements in the first row where you want to include table headings. The sample table includes two th elements. You might include some spaces to set off the table heading (and data) elements so you can easily see which text is associated with each row and cell.

```html
<table>
<tr>
 <th></th>
</tr>
</table>
```
5. Add `td` elements to create individual cells in which to include information. The sample table includes six data cells, two in each row.

```html
<table>
  <tr>
    <th></th>
    <th></th>
  </tr>
  <tr>
    <td></td>
    <td></td>
  </tr>
  <tr>
    <td></td>
    <td></td>
  </tr>
  <tr>
    <td></td>
    <td></td>
  </tr>
  <tr>
    <td></td>
    <td></td>
  </tr>
  <table>

6. Add the content for each cell. Place table heading information between the opening and closing `th` tags, and enter data between the opening and closing `td` tags.

```html
<table>
  <tr>
    <th>Product</th>
    <th>Purpose</th>
  </tr>
  <tr>
    <td>Binder 1.0</td>
  </tr>
</table>
Adding or Removing Rows and Columns

After you create a table, you can easily add and delete elements as your information changes. The following sections show you how to add and remove rows and columns. The example results in a table that has one more column and one more row than the previous sample.

Adding Rows
To add a row to your table, insert additional tr and td elements where you want the new row to appear. For example, you can add a new row in the middle of a table like this:

```html
<table>
  <tr>
    <th>Product</th>
    <th>Purpose</th>
  </tr>
  <tr>
    <td>Binder 1.0</td>
    <td>Join multiple objects.</td>
  </tr>
</table>
```

This code produces results shown in Figure 6.2. Notice that the content is present, but that the table does not include any formatting or borders.
Adding Columns

Adding columns is somewhat more difficult than adding rows because you have to add a cell to each row. However, the general process is the same: You insert the elements where you want the new column to appear, either to the left or to the right of existing columns or somewhere in between.
For example, you can add a new column to the right side of the sample table by adding another th element to the top row and a td element to each of the other rows. The sample code would look like this:

```html
<table>
  <tr>
    <th>Product</th>
    <th>Purpose</th>
    <th>Industry standard term</th>
  </tr>
  <tr>
    <td>Binder 1.0</td>
    <td>Join multiple objects.</td>
    <td>Stapler</td>
  </tr>
  <tr>
    <td>Organizer 2.2</td>
    <td>Join multiple objects for easy access and changing.</td>
    <td>Ring binder</td>
  </tr>
  <tr>
    <td>Combiner 0.9</td>
    <td>Join multiple objects at the edges.</td>
    <td>Tape</td>
  </tr>
  <tr>
    <td>Splitter 3.2</td>
    <td>Divide single object into multiple smaller objects.</td>
    <td>Scissors</td>
  </tr>
</table>
```

The resulting table looks like that shown in Figure 6.4.
Adding or Removing Rows and Columns

Table Sample

<table>
<thead>
<tr>
<th>Product</th>
<th>Purpose</th>
<th>Industry standard term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Binder 1.0</td>
<td>Join multiple objects.</td>
<td>Stapler</td>
</tr>
<tr>
<td>Organizer 2.2</td>
<td>Join multiple objects for easy access and changing</td>
<td>Ring binder</td>
</tr>
<tr>
<td>Identifier 0.9</td>
<td>Join multiple objects at the edges</td>
<td>Tape</td>
</tr>
<tr>
<td>Splitter 3.2</td>
<td>Divide single object into multiple smaller objects</td>
<td>Scissors</td>
</tr>
</tbody>
</table>

*Figure 6.4* Adding columns allows you to provide additional information.

Deleting Rows and Columns

Deleting rows and columns is easier than adding them. However, you have to be careful and make sure you delete all the elements associated with a row or a column:

- When deleting a row, be sure to delete the `tr` opening and closing tags and the `td` elements and other information they surround.

- When deleting a column, be sure to delete the `th` and `td` opening and closing tags (and any other information within them) from each row.

For example, to delete the bottom row in the sample table, you delete the elements in strikethrough in the following code:

```html
<table>
<tr>
  <th>Product</th>
  <th>Purpose</th>
  <th>Industry standard term</th>
</tr>
<tr>
  <td>Binder 1.0</td>
  <td>Join multiple objects.</td>
  <td>Stapler</td>
</tr>
<tr>
  <td>Organizer 2.2</td>
  <td>Join multiple objects for easy access and changing.</td>
  <td>Ring binder</td>
</tr>
<tr>
  <td>Identifier 0.9</td>
  <td>Join multiple objects at the edges</td>
  <td>Tape</td>
</tr>
<tr>
  <td>Splitter 3.2</td>
  <td>Divide single object into multiple smaller objects</td>
  <td>Scissors</td>
</tr>
</table>
```
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To delete the final column in the sample table, delete the last `td` element from each table row, like this:

```html
<table>
  <tr>
    <th>Product</th>
    <th>Purpose</th>
    <th>Industry standard term</th>
  </tr>
  <tr>
    <td>Binder 1.0</td>
    <td>Join multiple objects.</td>
    <td>Stapler</td>
  </tr>
  <tr>
    <td>Organizer 2.2</td>
    <td>Join multiple objects for easy access and changing.</td>
    <td>Ring binder</td>
  </tr>
  <tr>
    <td>Combiner 0.9</td>
    <td>Join multiple objects at the edges.</td>
    <td>Tape</td>
  </tr>
  <tr>
    <td>Splitter 3.2</td>
    <td>Divide single object into multiple smaller objects.</td>
    <td>Scissors</td>
  </tr>
</table>
```
If you delete the final cell from each row, your revised table will look just fine. If you delete a random cell from each row, your table will still look just fine, but the data will be inaccurate. Be careful to delete the elements and content consistently from each row.

Spanning Rows and Columns

Spanning refers to stretching a cell over multiple rows or columns. Figure 6.5 shows a sample table in which the cells labeled Merchandise and Descriptive Information span two columns each, indicating that they apply to the multiple columns they span. The Joining Tools cell spans three rows to show which rows apply to that category. To specify column and row spans, use the attributes listed in Table 6.3.

Table Sample

<table>
<thead>
<tr>
<th>Merchandise</th>
<th>Descriptive Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Product</td>
</tr>
<tr>
<td>Binder 1.0</td>
<td>Join multiple objects</td>
</tr>
<tr>
<td>Joining Tools</td>
<td>Organizer 2.2</td>
</tr>
<tr>
<td>Conductor 0.9</td>
<td>Join multiple objects at the edges</td>
</tr>
<tr>
<td>Dividing Tools</td>
<td>Splitter 3.2</td>
</tr>
</tbody>
</table>

Figure 6.5 This sample table features a cell (Joining Tools) that spans three rows.

Table 6.3 Table Row and Column Span Attributes

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>rowspan=&quot;n&quot;</td>
<td>Used in th or td elements, rowspan indicates how many rows the cell should span. For example, rowspan=&quot;3&quot; spans three rows.</td>
</tr>
<tr>
<td>colspan=&quot;n&quot;</td>
<td>Used in either the th or td elements, colspan indicates how many columns the cell should cover. For example, colspan=&quot;3&quot; spans three columns.</td>
</tr>
</tbody>
</table>
Spanning Rows

You can span rows using either the `th` or `td` element, depending on whether you’re spanning a table heading or table data. The following example shows you how to span one cell over three rows, as in the Joining Tools cell in Figure 6.5, earlier in this chapter:

1. Add a new column for the tool categories, as shown in Figure 6.5. Place the category text **Type** in the top-left cell with a `th` element. Place **Joining Tools** in the second cell (with a `td` element), which will eventually span three rows. Place **Dividing Tools** in the third cell but in the fifth (bottom) row with a `td` element.

```
<table>
  <tr>
    <th>Type</th>
    <th>Product</th>
    <th>Purpose</th>
    <th>Industry standard term</th>
  </tr>
  <tr>
    <td>Joining Tools</td>
    <td>Binder 1.0</td>
    <td>Join multiple objects.</td>
    <td>Stapler.</td>
  </tr>
  <tr>
    <td>Organizer 2.2</td>
    <td>Join multiple objects for easy access and changing.</td>
    <td>Ring binder.</td>
  </tr>
  <tr>
    <td>Combiner 0.9</td>
    <td>Join multiple objects at the edges.</td>
    <td>Tape.</td>
  </tr>
  <tr>
    <td>Dividing Tools</td>
    <td>Splitter 3.2</td>
    <td>Divide single object into multiple smaller objects.</td>
  </tr>
</table>
```
Three of the rows now have too many cells. If you display the table in a browser at this stage, you’ll see that the cells appear out of alignment.

2. Add the `rowspan` attribute to the `th` or `td` element that affects the cell you want to span. In the sample table, add the `rowspan="3"` attribute to the Joining Tools `td` element (which should affect rows 2 through 4), like this:

```html
<td rowspan="3">Joining Tools</td>
```

The resulting table now includes a spanned row, which looks like the Joining Tools row shown in Figure 6.5.

### Spanning Columns

You can span columns using either the `th` or `td` element, depending on whether you’re spanning a table heading or a table cell. The following example shows how to add two cells that each span two columns. Start with the code from the previous section, which includes the spanned row:

1. Add a `tr` element for the new row.

```html
<table>
<tr>
<th>Type</th>
<th>Product</th>
<th>Purpose</th>
<th>Industry standard term</th>
</tr>
</table>
```

2. Add `th` or `td` cells that you want to span. In the sample table, add two `th` cells—one with the word `Merchandise` and one with the phrase `Descriptive Information`.

```html
<table>
<tr>
</tr>
</table>
```
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3. Add the colspan attribute to the th or td element that affects the cell you want to span. In the sample table, add colspan="2" to both the th elements, because each cell should span two columns.

    <th colspan="2">Merchandise</th>
    <th colspan="2">Descriptive Information</th>

The resulting table, complete with a row span and a column span, should now look like the one in Figure 6.5.

Design Workshop

You can include both the rowspan and colspan attributes in one th or td element. For example, a large or complex table might have two heading rows and two columns with descriptive information, such as the following:

<table>
<thead>
<tr>
<th>Top Category</th>
<th>Category</th>
<th>Content</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Heading</td>
<td>Heading</td>
<td>Heading</td>
<td></td>
</tr>
</tbody>
</table>

The first cell in the table spans two columns (colspan="2") to cover both category columns. It simultaneously spans two rows (rowspan="2") to cover both heading rows. No content necessarily fits in this area of the table, so you might use a logo or some sort of graphic to fill the space attractively.
Adding Captions

A caption is explanatory or descriptive text that usually appears above the table. You use captions for two purposes:

- To summarize table contents
- To provide at-a-glance information about table contents

You should position the caption above the table to ensure that your user sees it. If a table is more than one screen tall, a user might not scroll down to read the caption. Also, you should place the caption element right after the opening `table` tag. Only one caption element is allowed per table.

You can locate the caption in relation to the table visually by adding the `align` attribute. The caption can be aligned at the top, bottom, left, or right of the table. (Note that the `align` attribute is deprecated.) To add a caption to the sample table, follow these steps:

1. Add the caption element between the opening and closing `table` tags. In the sample table, place the caption element below the opening `table` tag.
   ```html
   <table>
   <caption>
   </caption>
   </table>
   ```

2. Add caption text, like this:
   ```html
   <caption>
   Office Product Merchandise and Category Information
   </caption>
   ```

3. Specify whether the caption should appear above or below the table by using the `align="top"` or `align="bottom"` attribute, like this:
   ```html
   <caption align="top">
   Office Product Merchandise and Category Information
   </caption>
   ```

4. Optionally, add character-level formatting elements to the caption. (See Chapter 3 for a review of character-level formatting.) Without boldface or italics, the caption is often hard to identify in the table.
   ```html
   <caption align="top">
   <b>Office Product Merchandise and Category Information</b>
   </caption>
   ```
The resulting caption looks like Figure 6.6.

Table Sample

<table>
<thead>
<tr>
<th>Merchandise</th>
<th>Descriptive Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Purpose</td>
</tr>
<tr>
<td>Binder 1.0</td>
<td>Join multiple objects</td>
</tr>
<tr>
<td>Joining Tools</td>
<td>Organizer 2.2</td>
</tr>
<tr>
<td>Combining 0.9</td>
<td>Join multiple objects at the edges.</td>
</tr>
<tr>
<td>Dividing Tools</td>
<td>Spitter 3.2</td>
</tr>
</tbody>
</table>

Figure 6.6 Table captions provide an at-a-glance summary of table contents.

Formatting Tables

After you set up a table, you can add formatting options that improve its overall appearance. In particular, you can do the following:

- Add borders
- Include background colors and images
- Adjust cell spacing and padding
- Adjust cell alignment
- Specify cell size
- Specify table alignment
**XHTML Opportunities**

As you’ll see in the next several sections in this chapter, you can add a lot of formatting to tables—backgrounds, borders, colors, alignment, and so on. Keep in mind that many of these options are not standard XHTML and that not all browsers support them. Additionally, XHTML 1 strongly encourages you to use style sheets to apply formatting options, because most of these attributes are deprecated.

If you’re certain your users use browsers that support HTML 4 table elements, consider using style sheets to format your tables. Style sheets, which are supported by the HTML 4 specification, are the preferred way to apply styles throughout your XHTML documents—tables included! See Chapter 10 and Master’s Reference Part 2 to learn to use style sheets.

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**Adding and Formatting Borders**

Borders are the lines that enclose tables and that clearly separate rows, columns, and cells. By default, most browsers display tables without borders; however, tables that have borders are much easier to read and more attractive. For example, the sample tables shown thus far in this chapter have not had borders and have been rather difficult to read—it’s hard to tell where one cell stops and the next begins. Without borders, the cells visually run together, and the columns and rows are somewhat obscured, as you can see back in Figure 6.6.

**Creating Table Borders**

You specify table borders using an attribute and a number, measured in pixels, that tell browsers the width of the border. As shown in Figure 6.7, most browsers display borders as lines with a 3-D effect. Table 6.4 lists the table border attributes.
Table Sample

Office Product Merchandise and Category Information

<table>
<thead>
<tr>
<th>Merchandise</th>
<th>Descriptive Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td><strong>Purpose</strong></td>
</tr>
<tr>
<td>Binder 1.0</td>
<td>Join multiple objects</td>
</tr>
<tr>
<td>Joining Tools</td>
<td>Organiser 2.2</td>
</tr>
<tr>
<td>Container 0.9</td>
<td>Join multiple objects at the edges</td>
</tr>
<tr>
<td>Dividing Tools</td>
<td>Splitter 3.2</td>
</tr>
</tbody>
</table>

**Figure 6.7** A 2-pixel border added around table cells

Table 6.4 Table Border Attributes

<table>
<thead>
<tr>
<th><strong>Attribute</strong></th>
<th><strong>Specifies</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>border=&quot;n&quot;</td>
<td>A table border width, in pixels. The larger the number, the wider the border. border=&quot;0&quot; removes borders (generally also the default setting).</td>
</tr>
<tr>
<td>bordercolor=&quot;...&quot;</td>
<td>A color for the table border, as #rrggbb number or color name. Supported by newer versions of Netscape Navigator and Internet Explorer; however, it's not part of the XHTML specification.</td>
</tr>
</tbody>
</table>

To create a table border and specify its color, follow these steps:

1. Add the border attribute to the opening table tag.
   
   `<table border="2">`

2. Specify the border color using the bordercolor attribute and either an RGB number or an accepted color name. Specifying the border color is not essential—the border will be wider because of the border="2" attribute, and the color is simply another formatting characteristic that you can add if you choose.

   `<table border="2" bordercolor="#FF0000">`
Figure 6.7 shows the results of using border="2" in the table element.

See Chapter 5 for more information about RGB color values.

**Specifying No Table Borders**

Although most browsers display tables without borders by default, you can specify no borders to ensure that no borders display. For example, if you’re using tables for advanced formatting such as columns, side headings, or juxtaposed text and graphics, you want to ensure that the table appears without borders. Figures 6.2 through 6.6 are all examples of tables that have no visible borders. To specify no table borders, set the `border` attribute to zero (0), like this:

```html
<table border="0">
```

**Using Internet Explorer–Specific Border Attributes**

Microsoft has implemented two additional elements in Internet Explorer to control border color. In many browsers, the table borders are presented in 3-D—that is, a darker color at the bottom and right edges, with a lighter color at the top and left, as shown in Figure 6.8.

### Table Sample

<table>
<thead>
<tr>
<th>Merchandise</th>
<th>Descriptive Information</th>
<th>Industry standard term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Product</td>
<td>Purpose</td>
</tr>
<tr>
<td>Joining Tools</td>
<td>Binder 1.0</td>
<td>Join multiple objects.</td>
</tr>
<tr>
<td></td>
<td>Organizer 2.2</td>
<td>Join multiple objects for easy access and changing</td>
</tr>
<tr>
<td></td>
<td>Combiner 0.9</td>
<td>Join multiple objects at the edges.</td>
</tr>
<tr>
<td>Dredging Tools</td>
<td>Splitter 3.2</td>
<td>Divide single object into multiple smaller objects</td>
</tr>
</tbody>
</table>

*Figure 6.8* Internet Explorer allows you to set different colors for the bevel or shadow effect in table borders.
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Internet Explorer recognizes attributes to set the darker and lighter color of the 3-D effect. Table 6.5 lists these attributes.

>These attributes are not part of the XHTML specification. They are proprietary Internet Explorer attributes that may not render correctly in other browsers.

<table>
<thead>
<tr>
<th>Table 6.5 Internet Explorer Table Border Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute</td>
</tr>
<tr>
<td>bordercolorlight=&quot;...&quot;</td>
</tr>
<tr>
<td>A light border color (in #rrggbb format) for 3-D effect on tables.</td>
</tr>
<tr>
<td>bordercolordark=&quot;...&quot;</td>
</tr>
<tr>
<td>A dark border color (in #rrggbb format) on 3-D effect on tables.</td>
</tr>
</tbody>
</table>

To apply these attributes, insert them in the opening table tag, just as you insert standard border attributes, separately or together. These are all well formed:

```html
<table bordercolorlight="CCCCCC">
...</table>
<table bordercolordark="33FF33">
...</table>
<table bordercolorlight="CCCCCC"
bordercolordark="33FF33">
...</table>
```

If you have specific border color needs and you know that your users will be using Internet Explorer, you can further customize border colors by applying the same attributes to individual table cells.

Setting Table Background Options

In addition to specifying border color, you can specify that the table background appear as a particular color or image. Using a background color or image enhances table appearance, makes the table more interesting, provides a place for corporate logos, and helps contrast text and image colors.

>Although these background options will still work in Netscape Navigator and Internet Explorer, consider setting table background colors using style sheets because the XHTML specification deprecates table background options.
Setting a Table Background Color

Only the newer versions of Netscape Navigator and Internet Explorer support table background colors. However, you can provide table background colors and images for Netscape Navigator and Internet Explorer users with no adverse effects on those who use other browsers. For example, Figure 6.9 shows a table that uses a background color viewed in Netscape Navigator. If you display this table in an older browser, the background color will be the same as the background color of the browser.

Table Sample

<table>
<thead>
<tr>
<th>Merchandise</th>
<th>Descriptive Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Product</td>
</tr>
<tr>
<td>Joining Tools</td>
<td>Binder 1.0</td>
</tr>
<tr>
<td></td>
<td>Organizer 2.2</td>
</tr>
<tr>
<td></td>
<td>Combiner 0.5</td>
</tr>
<tr>
<td>Dividing Tools</td>
<td>Splitter 3.2</td>
</tr>
</tbody>
</table>

Figure 6.9 A color background can enhance a table's appearance when viewed in a browser that supports background colors.

For background colors to be effective, they must adequately contrast with text color(s); otherwise, the text becomes virtually unreadable, as you can see in Figure 6.10.

Table Sample

<table>
<thead>
<tr>
<th>Merchandise</th>
<th>Descriptive Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Product</td>
</tr>
<tr>
<td>Joining Tools</td>
<td>Binder 1.0</td>
</tr>
<tr>
<td></td>
<td>Organizer 2.2</td>
</tr>
<tr>
<td></td>
<td>Combiner 0.5</td>
</tr>
<tr>
<td>Dividing Tools</td>
<td>Splitter 3.2</td>
</tr>
</tbody>
</table>

Figure 6.10 Consider your page's text colors when choosing table background colors.
To ensure that your table background color(s) are effective, follow these guidelines:

- Choose a light background color if your text is dark; choose a dark background color if your text is light.
- Choose colors that are aesthetically pleasing and suit the purpose of your document. For example, if your topic is fast-paced, choose bright colors; if your topic is slower-paced, choose paler colors.
- View your XHTML documents in a few different browsers.
- Choose from one of the 216 nondithering colors.

*As we detailed in Chapter 5, nondithering colors appear solid (not splotchy or spotted) in browsers.*

The table background color attribute is `bgcolor="#rrggbb"`, and it’s used in the opening table element. To use a color throughout the background of the table, add `bgcolor` followed by the RGB number or color name, as in the following:

```html
<table bgcolor="#CCFFFF">
```

The table background (not including the borders) will be colored, as in Figure 6.11.

---

**Table Sample**

*Office Product Merchandise and Category Information*

<table>
<thead>
<tr>
<th>Merchandise</th>
<th>Descriptive Information</th>
<th>Industry standard term</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td><strong>Product</strong></td>
<td><strong>Purpose</strong></td>
</tr>
<tr>
<td>Joining Tools</td>
<td>Binder 1.0</td>
<td>Join multiple objects.</td>
</tr>
<tr>
<td></td>
<td>Organizer 2.2</td>
<td>Join multiple objects</td>
</tr>
<tr>
<td></td>
<td>Combiner 0.9</td>
<td>Join multiple objects</td>
</tr>
<tr>
<td>Dividing Tools</td>
<td>Splitter 3.2</td>
<td>Divide single object</td>
</tr>
<tr>
<td></td>
<td></td>
<td>into multiple smaller objects.</td>
</tr>
</tbody>
</table>

*Figure 6.11 The resulting table background color*
Setting a Table Background Image

Only the newer versions of Netscape Navigator and Internet Explorer support table background images. Other browsers display the browser’s default background color instead of the background image.

To accommodate users with browsers that do not support background images and users who have image options turned off, use background colors even with background images. Users can then view a table enhanced with color, rather than one that uses the browser’s default background color.

Table background images are tiled—that is, they are repeated on the screen until the available background space is filled. Not all browsers tile images in the same way. For example, Figures 6.12 and 6.13 show how earlier versions of Netscape Navigator and Internet Explorer display a table that uses a small pair of scissors as the background image.

Table Sample

<table>
<thead>
<tr>
<th>Merchandise Type</th>
<th>Merchandise</th>
<th>Descriptive Information</th>
<th>Industry standard term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Product</td>
<td>1.0</td>
<td>Paper clip object</td>
<td>Stapler</td>
</tr>
<tr>
<td>Tools</td>
<td>2.2</td>
<td>Paper clip object for easy access and changing</td>
<td>Slip binder</td>
</tr>
<tr>
<td>Binder</td>
<td>0.9</td>
<td>Paper clip object at the edges</td>
<td>Tape</td>
</tr>
<tr>
<td>Organizer</td>
<td>3.2</td>
<td>Paper clip object for multiple small objects</td>
<td>Fasteners</td>
</tr>
</tbody>
</table>
Although the image is inappropriately dark and the text is unreadable, the overall effect is quite different in each browser. In Figure 6.12, the tiling restarts at the upper-left corner of each cell, and the caption is not considered part of the table for the purpose of background. In Figure 6.13, however, the image is rendered slightly larger and is tiled throughout the table without consideration for individual cells. These differences are not as noticeable in the most recent versions of the browsers (Netscape 6 and Internet Explorer 5.5).

To ensure that the whole image is visible in a table cell (and only once), include the `img` element in the table cell, not as a background image.

Also, as Figures 6.12 and 6.13 show, table background images can easily overpower table content if you use too many shapes, patterns, or colors. The resulting text becomes virtually unreadable.
To ensure that you choose a suitable background image, follow these guidelines:

- Choose small, subtle images that are not essential for conveying information.
- Choose simple background images—ones with few shapes, patterns, or colors.
- Choose background images that enhance the purpose of the document.
- View your XHTML documents in as many browsers as possible.

To indicate a background image in a table, you use the `background` attribute.

Internet Explorer 3 and newer and Netscape Navigator 4 both support these elements on individual cells as well as for the table as a whole. Add the attribute to the `td` or `th` element, just as you would add it to the `table` element.

Figure 6.14 shows an effective background image. To use a table background image, add `background` followed by the URL, as in the following code:

```html
table background="coolimage.gif">...
</table>
```

---

### Table Sample

**Office Product Merchandise and Category Information**

<table>
<thead>
<tr>
<th>Merchandise Type</th>
<th>Product</th>
<th>Descriptive Information</th>
<th>Industry standard term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Binder 1.0</td>
<td>Join multiple objects</td>
<td>Stapler</td>
<td></td>
</tr>
<tr>
<td>Organizer 2.2</td>
<td>Join multiple objects for easy access and changing</td>
<td>Ring binder</td>
<td></td>
</tr>
<tr>
<td>Combiner 0.9</td>
<td>Join multiple objects at the edges</td>
<td>Tape</td>
<td></td>
</tr>
<tr>
<td>Splitter 3.2</td>
<td>Divide single objects into multiple smaller objects</td>
<td>Scissors</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 6.14 An effective table background image enhances the table content.*

---

### Specifying Cell Alignment

Cell alignment refers to the horizontal or vertical alignment of cell contents. Most browsers have the following default cell alignment settings:

- Table *headings* are aligned in the center (horizontally and vertically) in the cell.
- Table *contents* are aligned on the left (horizontally) and center (vertically) in the cell.
Using the attributes described in Table 6.6, you can change the default horizontal and vertical alignment in table cells.

**Table 6.6 Table Cell Alignment Attributes**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Specifies</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>align=''</code></td>
<td>Horizontal alignment of cell contents, as left, center, or right.</td>
</tr>
<tr>
<td><code>valign=''</code></td>
<td>Vertical alignment of cell contents, as top, middle, bottom, or baseline.</td>
</tr>
</tbody>
</table>

To use these alignment attributes, include them within any `tr`, `td`, or `th` element, as these three examples show:

```html
<tr align="right">...
<td valign="top">...
<th align="center" valign="middle">...
```

You can save some typing by setting the alignment for a row in the `tr` element, rather than in each individual cell. If you set the alignment in the `tr` element, you can override it on a cell-by-cell basis in the `td` or `th` element.

### Specifying Cell Size

Most browsers make cells as large as necessary to hold the contents and wrap text to a new line only after the table is as wide as the browser window and table width settings permit. You can specify cell size to keep the text from wrapping to a new line or to make content easier to read.

Specifying all cell widths decreases perceived download time by allowing some browsers to lay out the table as it arrives, rather than waiting for the whole table to download. The table still takes the same time to download; however, it appears to load faster because it arrives gradually, rather than in one big chunk.

You can specify cell size in two ways:

- As a percentage of the table width
- As a specific size, measured in pixels
Although most browsers support alignment attributes, how they display attributes depends on the table size and other table or cell settings. For example, a cell size that is 50 percent of the table will be wider or narrower, depending on the screen resolution and on the size of the browser window. Likewise, if you set cell width to 100 pixels, it will be exactly that wide in browsers that support cell width tags, regardless of what that does to the overall page layout.

*If you can avoid setting specific cell widths in your tables, do so. The more restrictive the table formatting, the less leeway the browser has to reformat the table to fit and the more unpredictable the results.*

Use the attributes in Table 6.7 in either the th or td element to control the table width and text wrap.

**Table 6.7 Table Width and Text Wrap Attributes**

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>width=&quot;n&quot;</td>
<td>Specifies the width of a cell in either pixels or as a percentage of table width; deprecated.</td>
</tr>
<tr>
<td>nowrap=&quot;nowrap&quot;</td>
<td>Prohibits text wrapping within the cell, thus requiring all text to appear on one line; deprecated.</td>
</tr>
</tbody>
</table>

The width and nowrap attributes are deprecated in favor of using style sheets. See Chapter 10 for more information on style sheets.

**Specifying Cell Width**

To specify cell width, simply add the width="n" attribute to the td or th elements. For example, you can specify that a header cell (and, therefore, the cells below it) occupy 15 percent of the table width, like this:

```html
<tr>
    <th>Type</th>
    <th>Product</th>
    <th>Purpose</th>
    <th width="15%">Industry standard term</th>
</tr>
```
If you set the width in a cell with a colspan attribute, similar to the Descriptive Information cell shown in Figure 6.15, the attributes affect individual columns below proportionately.

**Figure 6.15** The browser determined the sizes of the cells in this table automatically.

For example, if you add a width="50%" to the Descriptive Information cell, the browser attempts to make the columns starting with Purpose and with Industry Standard Term together total approximately 50 percent.

```html
<tr>
    <th colspan="2">Merchandise</th>
    <th colspan="2" width="50%">Descriptive Information</th>
</tr>

Figure 6.16 shows the resulting table.

**Table Sample**

<table>
<thead>
<tr>
<th>Merchandise</th>
<th>Descriptive Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td><strong>Product</strong></td>
</tr>
<tr>
<td>Joining Tools</td>
<td>Binder 1.0</td>
</tr>
<tr>
<td></td>
<td>Organizer 2.2</td>
</tr>
<tr>
<td></td>
<td>Container 0.9</td>
</tr>
<tr>
<td>Dividing Tools</td>
<td>Spltter 3.2</td>
</tr>
</tbody>
</table>

**Figure 6.16** Combine cell size and column span attributes to customize your tables.
**Specifying No Text Wraps**

If you reset the width of certain cells, you may want to ensure that the contents do not wrap to multiple lines. Note that nowrap is also a stand-alone attribute and, as such, it must be set equal to itself as indicated in the XHTML specification. Add the nowrap attribute, as in the following example, to encourage the browser not to break the line.

```html
<th colspan="2" width="30%" nowrap="nowrap">Descriptive Information</th>
```

To set a minimum size for a cell, smaller than which it cannot be displayed, use a transparent GIF image 1 pixel × 1 pixel in size with height and width attributes set to the necessary size.

**Adding Cell Spacing and Padding**

Cell spacing and padding refer to how much white space appears in a table. In particular, cell spacing refers to the spacing between cells, and cell padding refers to spacing between cell contents and cell borders.

For many tables, open space around cell contents makes the table much easier to read and more aesthetically pleasing. Table 6.8 describes cell spacing and cell padding attributes.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Specifies</th>
</tr>
</thead>
<tbody>
<tr>
<td>cellspacing=&quot;n&quot;</td>
<td>Amount of space between cells, in pixels.</td>
</tr>
<tr>
<td>cellpadding=&quot;n&quot;</td>
<td>Amount of space between cell contents and cell borders, in pixels.</td>
</tr>
</tbody>
</table>

*If the table has a border, the cellspacing attribute enlarges the rule between cells. If there is no border, the space between adjacent cells will simply be somewhat larger.*

To add cell spacing and padding, include the attributes in the `table` element, like this:

```html
<table cellspacing="5" cellpadding="5" border="3">...
```

The resulting table will look like Figure 6.17. As you can see, there is more white space around the text.
Specifying Table Alignment, Width, and Text Wrap

So far in this chapter, most of the elements and attributes have specified the relationship of the table contents to each other or to other table components. However, table width, alignment, and wrap settings specify how the table fits into the XHTML document as a whole.

These settings are important for two reasons:

- Browser and computer settings vary significantly from computer to computer. By using width, alignment, and wrap attributes, you help ensure that your users can easily view your tables.

- By default, text that surrounds tables does not wrap—it stops above the table and starts below the table. The table itself takes up the full browser width. These attributes narrow the space that the table uses and allow the text to wrap around the table.

Table 6.9 describes the table width, alignment, and wrap attributes.

Office Product Merchandise and Category Information

<table>
<thead>
<tr>
<th>Merchandise</th>
<th>Descriptive Information</th>
<th>Industry standard term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Product</td>
<td>Purpose</td>
</tr>
<tr>
<td>Joining Tools</td>
<td>Binder 1.0</td>
<td>Join multiple objects.</td>
</tr>
<tr>
<td></td>
<td>Organizer 2.2</td>
<td>Join multiple objects for easy access and changing.</td>
</tr>
<tr>
<td></td>
<td>Combiner 0.9</td>
<td>Join multiple objects at the edges.</td>
</tr>
<tr>
<td>Dividing Tools</td>
<td>Splitter 3.2</td>
<td>Divide single object into multiple smaller objects.</td>
</tr>
</tbody>
</table>
The `align` and `clear` attributes are deprecated in favor of using style sheets. See Chapter 10 for more information on using style sheets.

**Table 6.9 Table Width, Alignment, and Wrap Attributes**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>width=&quot;n&quot;</td>
<td>Specifies table width, in pixels or as a percentage of the window width.</td>
</tr>
<tr>
<td>align=&quot;…&quot;</td>
<td>Specifies table alignment, as left, center, right, and, for Internet Explorer only, bleedleft, bleedright, and justify; deprecated.</td>
</tr>
<tr>
<td>clear=&quot;…&quot;</td>
<td>Specifies that new text following the table should appear below the table, when the left, right, all, or no margins are clear (unobstructed by the table); deprecated.</td>
</tr>
</tbody>
</table>

To use any of these attributes, insert them in the opening `table` tag. The following code uses the `width` attribute to set the table width to 600 pixels:

```html
<table border="3" width="600">...
</table>
```

However, as a rule, setting your table width to a percentage of the browser window—not to a fixed number of pixels—results in a more reliable display. For example, if you set the table width to a size wider than users have available, the table could easily run off the edge of the browser window and require them to scroll horizontally.

To restrict the width of the table (for example, to allow text to wrap around it), use percentages, as in the following example:

```html
<table border="3" width="70%">...
</table>
```

Aligning the table to the left, right, or center is as easy as adding another attribute to the table, as in the following:

```html
<table border="3" width="70%" align="right">...
</table>
```

When you use these attributes and make the table substantially narrower than the window, you may also have to contend with unwanted text wrapping. For example, the preceding line of code causes text following the table to wind up on the left of the right-aligned table, as in Figure 6.18.
Table Sample

The accompanying table provides basic information about our products. If you have any questions, please contact us and we'll be happy to provide more information.

<table>
<thead>
<tr>
<th>Merchandise</th>
<th>Descriptive Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td><strong>Product</strong></td>
</tr>
<tr>
<td>Joining Tools</td>
<td>Binder 1.0</td>
</tr>
<tr>
<td></td>
<td>Organizer 2.2</td>
</tr>
<tr>
<td></td>
<td>Container 0.9</td>
</tr>
<tr>
<td>Dividing Tools</td>
<td>Splitter 3.2</td>
</tr>
</tbody>
</table>

*Figure 6.18 Text wrapping sometimes causes unusual effects.*

**Using XHTML Table Features**

The table features discussed in this section were introduced with HTML 4 and have carried over into XHTML. These features give you added control over formatting tables. Instead of formatting the table as a whole, you can format specific table parts, such as the table head, body, footer, and column groups. You can also format tables using style sheets, which we recommend.

You can use XHTML table elements to format portions of the table separately—as sections, rather than as individual cells. For example, you can do the following:

- Group similar areas of tables and add borders around the areas.
- Add lines or text formatting to table headings.
- Include a table footer, which is handy if a table has totals at the bottom of the columns.
- Use these additional elements as hooks for style sheets to get into more sophisticated formatting. All style elements can be used with these elements.
See Chapter 10 for more about style sheets.

For example, Figure 6.19 uses XHTML table elements and attributes to create two main columns (Merchandise and Descriptive Information) that group the other columns (Type, Product, Purpose, Industry standard term), and to include two rows of headers.

XHTML table elements work in conjunction with standard table elements—that is, you develop tables using the standard elements, and then you add the XHTML table elements and attributes. The result is that users using the newest browsers can view the XHTML effects and users of other browsers can still view the basic table.

To apply XHTML table elements and attributes, follow these general steps, which are described in detail in the next two sections:

1. Identify table sections.
2. Apply borders and rules to table sections.

---

Table Sample

<table>
<thead>
<tr>
<th>Merchandise</th>
<th>Descriptive Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td><strong>Product</strong></td>
</tr>
<tr>
<td>Joining Tools</td>
<td>Binder 1.0</td>
</tr>
<tr>
<td></td>
<td>Organizer 2.2</td>
</tr>
<tr>
<td></td>
<td>Container 0.9</td>
</tr>
<tr>
<td>Drilling Tools</td>
<td>Splitter 3.2</td>
</tr>
</tbody>
</table>

Figure 6.19 You can use advanced table elements to group table parts.

Identifying Table Sections

The first step in using XHTML tables is identifying table sections by grouping similar table parts and identifying each part as being part of the table heading, body, footer, or columns. Table 6.10 describes advanced table elements.
### Table 6.10  Advanced Table Elements

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>thead</td>
<td>Labels the header area of a table.</td>
</tr>
<tr>
<td>tbody</td>
<td>Labels the body area of table.</td>
</tr>
<tr>
<td>tfoot</td>
<td>Labels the footer area of table.</td>
</tr>
<tr>
<td>colgroup</td>
<td>Identifies column groups within a table.</td>
</tr>
<tr>
<td>col</td>
<td>Identifies columns in a table within a column group. This is an empty element.</td>
</tr>
</tbody>
</table>

#### Identifying Row Groups

Row groups include parts such as the header, body, and footer—the table parts that contain table rows. To identify row groups, start with the standard table elements and then include the XHTML table elements around them. Take a look at the following code, which nests the standard table elements within the table header element (`<thead>...`):  

```
<thead>
<tr>
  <th colspan="2">Merchandise</th>
  <th colspan="2">Descriptive Information</th>
</tr>
<tr>
  <th>Type</th>
  <th>Product</th>
  <th>Purpose</th>
  <th>Industry standard term</th>
</tr>
</thead>
```

You can also identify table body parts by using the `tbody` element, like this:

```
<tbody>
<tr>
  <td rowspan="3">Joining Tools</td>
  <td>Binder 1.0</td>
  <td>Binder 1.0</td>
  <td>Binder 1.0</td>
</tr>
</tbody>
```
<td>Join multiple objects.</td>
<td>Stapler.</td>
</tr>
<tr>
<td>Organizer 2.2</td>
<td>Join multiple objects for easy access and changing.</td>
<td>Ring binder.</td>
</tr>
<tr>
<td>Combiner 0.9</td>
<td>Join multiple objects at the edges.</td>
<td>Tape.</td>
</tr>
<tr>
<td>Dividing Tools</td>
<td>Splitter 3.2</td>
<td>Divide single object into multiple smaller objects.</td>
<td>Scissors.</td>
</tr>
</tbody>

Finally, you can identify a table footer by using the `tfoot` element in the same way. The `tfoot` element must follow the `thead` element and precede the `tbody` element.

```html
<tfoot>
<tr>
<td>Tool Combo</td>
<td>All</td>
<td>Use for all office needs.</td>
<td>N/A</td>
</tr>
</tfoot>
```

At this point, the advanced table won’t look any different from the standard table. After you’ve tagged your table with these additional table tags, you can either identify column groups or format the tagged parts with the advanced formatting elements.
Identifying Column Groups

In addition to identifying table headers, body, and footers, you can identify column groups. The `colgroup` element, which is used in conjunction with the `span` attribute, is located at the beginning of the table and announces the columns to which it applies. You can also use the `width`, `align`, `char`, `charoff`, and `valign` attributes with the `colgroup` element.

The table shown in Figure 6.7, earlier in this chapter, contains two distinct groups of columns, with two columns in each. Therefore, there will be two `colgroup` elements with `span="2"` attributes in each. We also want all these columns to align to the left, as shown in the following example:

```html
<caption align="top"><b>Office Product Merchandise and Category Information</b></caption>
<colgroup span="2" align="left"></colgroup>
<colgroup span="2" align="left"></colgroup>
<thead>…</thead>
```

Identifying Columns within colgroups

The `col` empty element allows you to apply formatting to individual columns in a column group (`colgroup`). For example, in the previous example, we have two `colgroup`s of two columns each all aligned to the left. Let’s say we want the first column in the first group to be centered and the second column to be aligned to the left. The markup would look like this:

```html
<colgroup>
  <col align="center" />
  <col align="left" />
</colgroup>
<colgroup span="2" align="left">…</colgroup>
```

XHTML Table Borders

You can use XHTML’s formatting capabilities to create custom table borders—called `rules`—which apply to specified sections of the table. Rather than applying borders to an entire table, which is all you can do with standard table capabilities, you can apply borders just to the table heading, body, footer, or specific columns. Table 6.11 describes the advanced table formatting attributes.
Table 6.11 Advanced Table Formatting Attributes

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>frame=&quot;...&quot;</td>
<td>Specifies the outside edges of the table that will have a border. Possible choices include border (the default), void (no borders), above, below, hsides (top and bottom), lhs (left hand side), rhs (right hand side), vsides (left and right), and box (all sides).</td>
</tr>
<tr>
<td>rules=&quot;...&quot;</td>
<td>Specifies which internal borders of the table are displayed. none, groups (rules between table groups such as thead, tbody, tfoot, colgroup), rows (rules between table rows), cols (rules between table columns), all.</td>
</tr>
<tr>
<td>cols=&quot;...&quot;</td>
<td>Specifies the number of columns in the table.</td>
</tr>
</tbody>
</table>

To format the identified table parts, include these attributes in the table element by following these general steps:

1. Add an outside border (the frame) by adding the frame attribute to the table element, like this:

   `<table frame="box">...</table>`

   You can still control the border width with the border attribute, covered earlier in this chapter. For example, to set the outside border to 3 pixels wide, the opening table tag would look like this:

   `<table frame="box" border="3">`. The border attribute in the table element affects only the width of the outside border, not the width of the internal rules.

2. Add inside borders (called rules) by adding the rules attribute to the table element, like this:

   `<table frame="hsides" rules="none" border="3">...</table>`

   The resulting table looks like Figure 6.20, when viewed in Internet Explorer. If you look carefully at Figure 6.20, you’ll notice a thin line above the table footer—that’s part of the footer formatting, just as the boldface is part of the th formatting.
To insert a rule between the groups you defined in the table, add \texttt{rules="groups"}. This is an effective technique, as is \texttt{rules="rows"}.

Additionally, you can specify the number of columns in the table to decrease the perceived download and redraw time. Doing so has no effect on the visual appearance of the table, but still allows the browser to lay out the table more quickly. To use this trick, add the \texttt{cols} attribute to the \texttt{table} element, like this:

\begin{verbatim}
<table cols="4">..</table>
\end{verbatim}

Because tables are laid out as soon as the whole table is downloaded to the browser (rather than line by line as with regular text), using multiple, smaller tables will improve the perceived download time.
Design Workshop: Creating Newspaper-Style Headings
Here's a handy formatting trick. Use tables to set up a heading with several columns of text below it—like a newspaper:

![Classy Classifieds Table]

The XHTML that produces this effect follows.

```xml
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
 "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head><title>Newspaper Columns</title></head>
<body bgcolor="FFFFFF" text="000000" link="0000FF"
 vlink="800080" alink="FF0000">
<table cellpadding="3" cellspacing="3" border="1" width="80%">
<tr><td valign="middle" align="center" colspan="3">
<h1>Classy Classifieds</h1></td></tr>


For Rent: Baby Furniture Used for one year. Slightly drool stained. No dried banana visible. Rental term, about 8 months. Possibly less.

For Sale: New kayak, barely used. Would consider trade for multiple baby toys.


YOUR AD HERE!
E-mail now for information and pricing. Name.com
</td>
<td valign="top" width="200">
</td>
</tr>
</table>
</body>
</html>
```
Wrangler, black, hardtop, 4 liter. Like new. Never totaled. Call 555-LIKENEW for details.<br />


For Rent: Baby Furniture. Used for one year. Slightly drool stained. No dried banana visible. Rental term, about 8 months. Possibly less.

For Sale: New kayak, barely used. Would consider trade for multiple baby toys.


YOUR AD HERE!

E-mail now for information and pricing.

Notascam@bigbucks.com

Feel free to take this example and adapt it for your own needs. It contains many of the elements and concepts discussed in this chapter.
Where to Go from Here

This chapter showed you how to develop and format standard HTML tables plus tables built with XHTML elements and attributes. If you know how to develop tables, you can effectively present complex data and create interesting page layouts. From here, check out these chapters:

- Check out Chapter 3 for general formatting and design topics.
- See Chapter 10 and Master’s Reference Part 2 for complete information about creating and applying style sheets.
- Look at Chapter 5 to see how to include images and use colors wisely.
- See Chapter 8 to see how to create XHTML frames.
- See Master’s Reference Part 1 for more table options.