

# Lab 3.2: Adding Advanced Features

## Lab Overview

### Objectives

After completing this lab, you will be able to:

- ♦ Edit HTML to augment what is created by the Internet Assistant for Word.
- ♦ Create client-side and server-side image maps.
- ♦ Create a server-side include file and use it in a Web page.
- ♦ Create frames.
- ♦ Format tables.

### Scenario

The HTML specification is constantly evolving to meet the growing needs of authors and companies. Companies that create authoring tools release upgrades as quickly as possible, but they often find it difficult to keep pace with HTML changes and enhancements.

In this lab, you will add some new HTML features to the Main Street Market Web pages. You will manually add the necessary HTML tags with a text editor, such as Notepad, because they are not yet supported by Internet Assistant for Word.

### Lab Setup

In this lab, you will add advanced features to the Main Street Market home page. You can either continue to edit the page you worked on in Lab 3.1, or you can use the file supplied, default.htm, in the \Labs\Lab03.2 directory.

You will also add features to the Employee's Only page, EmpOnly.htm. You can either edit the Product List page you converted in Lab 3.1, or you can use the page EmpOnly.htm supplied in the \Labs\Lab03.2 directory.

You will also add features to the Product List page, Products.htm. You can either edit the Product List page you converted in Lab 3.1, or you can use the page Products.htm supplied in the \Labs\Lab03.2 directory.

If you need help, the solutions for all of the exercises in this lab can be found in the \Labs\Lab03.2\Solution directory.

This demonstration summarizes the exercises that you perform in this lab.



Estimated time to complete this lab: **150 minutes**

## Exercises

In the following exercises, you'll practice working with the concepts and techniques covered in this chapter.

### Exercise 1: Creating an Image Map

In this exercise, you will create an image that is both a server-side and a client-side image map, and add it to the Products Web page.

### Exercise 2: Using Server-Side Includes

In this exercise, you will create a server-side include file and add it to the Question and Answer page of the Main Street Market Web site.

### Exercise 3: Using Frames

In this exercise, you will add frames to the Main Street Market home page.

### Exercise 4: Formatting Tables

In this exercise, you will add visual effects to the table in the Products Web page.

## Exercise 1: Creating an Image Map

Using one segmented image to link to several different Web pages makes your page look more appealing and reduces the amount of text Web users must read.

In this exercise, you will add an image map to the bottom of the Product List page that will include jumps to all of the other pages in the Main Street Market Web site.

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**Note** You can add server-side image maps with Internet Assistant for Word, but not client-side image maps. Therefore, in this exercise, you will use Notepad to add the tags for both server-side and client-side image maps. This will also provide practice in directly editing HTML source code.

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### ➤ Register the MAP file type

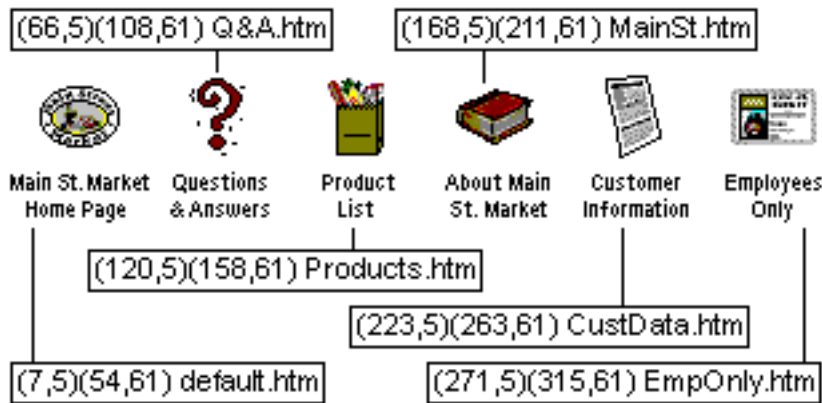
A MAP file is not a registered file type in Windows 95. To make creating and editing MAP files easier, create an association between the .MAP extension and the Notepad utility.

1. In Windows Explorer, choose Options from the View menu.
2. Select the File Types tab.
3. Choose New Type.
4. Fill in the Add New File Type dialog:
  - a. Set the description to **MAP file**.
  - b. Set the associated extension to **MAP**.
  - c. Choose New to add a new action for the file type.
5. Fill in the New Action dialog:
  - a. Set the action to **open**.
  - b. Set the application to **Notepad.exe**.
  - c. Choose OK.
6. Choose OK to close the Add New File Type dialog.
7. Choose OK to close the Options dialog.

### ➤ Create a server-side image map

1. Make sure that the GIF file, MSMJumps.gif, is in the \Images directory of the Main Street Market Web site. If it isn't, copy it from the \Labs\Lab03.2 directory to the Images directory.

2. Using Notepad, create a MAP file called MSMJumps.map, and save it in the Images directory of your Web site.
  - a. The size, location, and reference for each hot spot is:



- b. Define each hot spot in the MAP file with its size, location, and link. For example:

```
rect (7,5) (54,61) /default.htm
```

If you are unsure of the syntax of the MAP file, look at the solution code:

```
rect (7,5) (54,61) /default.htm
rect (66,5) (108,61) /QA.htm
rect (120,5) (158,61) /Products.htm
rect (168,5) (211,61) /MainSt.xls
rect (223,5) (263,61) /CustData.htm
rect (271,5) (315,61) /EmpOnly.htm
```

3. Open the Product List page, Products.htm, with Notepad.
 

You can either edit the page you converted in Lab 3.1, or copy Products.htm from the \Labs\Lab03.2 directory and use it.

4. Insert tags to add the graphic Images/MSMJumps.gif, centered at the bottom of the Products page:

```
<CENTER>
<IMG SRC="Images/MSMJumps.gif" Border=0 ALT="Jump locations">
</CENTER>
```

5. Convert the image to a link with <A> tags, and set the HREF property to the MAP file you just created, Images/MSMJumps.map.

6. Add the ISMAP property to the IMG tag for the graphic. This makes the image map a server-side image map.

If you are unsure of the syntax, look at the solution code:

```
<A HREF="Images/MSMJumps.map">
<IMG SRC="Images/MSMJumps.gif" Border=0 ALT="Jump locations" ISMAP>
</A>
```

7. Save your changes, and test the server-side image map with Internet Explorer.

➤ **Add a client-side image map**

1. If it isn't already open, open the Products.htm file with Notepad.
2. Locate the IMG tag for the MSMJumps graphic you just added.

3. Add a MAP element immediately following the IMG tag:

- a. Name the MAP section the same as the image, MSMJumps.
- b. Define a rectangular hotspot for each area in the image. For example:

```
<AREA SHAPE="rect" COORDS="7,5,54,61" HREF="default.htm">
```

Use the same coordinates used in the server-side MAP file.

4. Add the USEMAP property with the name of the MAP element, to the IMG tag. This makes the image map a client-side image map.

If you are unsure of the syntax, look at the solution code:

```
<IMG SRC="Images/MSMJumps.gif"
Border=0 ALT="Jump locations" USEMAP="#MSMJumps">
<MAP NAME="MSMJumps">
<AREA SHAPE="rect" COORDS="7,5,54,61" HREF="default.htm">
<AREA SHAPE="rect" COORDS="66,5,108,61" HREF="QA.stm">
<AREA SHAPE="rect" COORDS="120,5,158,61" HREF="Products.htm">
<AREA SHAPE="rect" COORDS="168,5,211,61" HREF="MainSt.xls">
<AREA SHAPE="rect" COORDS="223,5,263,61" HREF="CustData.htm">
<AREA SHAPE="rect" COORDS="271,5,315,61" HREF="EmpOnly.htm">
</MAP>
```

5. Save your changes and test the client-side image map with Internet Explorer.

## Exercise 2: Using Server-Side Includes

Because the image map was created in a generic way, it can be duplicated on each of the other pages of the Main Street Market Web site. You could copy the tags from Products.htm to each of the other files in the Web site, but if the links or the image changed, you would have to change it in each of the files.

A better solution is to create a file to be used as a server-side include file, and include it in each of the files where you want the image map to appear.

In this exercise, you will create a server-side include file and use it on the Frequently Asked Questions page. If you want, you can also add it to each of the remaining pages in the Main Street Market Web site.

### ➤ Create the server-side include file

1. In Notepad, create a new file named incMap.htm.
2. In Products.htm, copy the tags for both the server-side and client-side image maps to incMap.htm.
3. You will be adding this server-side include file to the Frequently Asked Questions page, and therefore changing the extension to that Web page; so, change the link for the Frequently Asked Questions icon to point to QA.stm instead of QA.htm.
4. Save the file in the root directory of the Main Street Market Web site.

### ➤ Use the server-side include file in other files

1. In Notepad, open the Frequently Asked Questions Web page, QA.htm.
2. At the bottom of the file, where you want the image map to appear, add the tags to include incMap.htm:

```
<!--#include file="/incMap.htm" -->
```

3. Save the file as QA.stm.

### ➤ Fix jumps to the Frequently Asked Questions page from the other Main Street Market pages

1. Change all links to the Frequently Asked Questions page to link to QA.stm instead of QA.htm. You'll need to edit default.htm, CustData.htm, Products.htm, and EmpOnly.htm.
2. Delete the duplicate QA.htm.

3. Fix the information in MSMJumps.MAP.
  4. Open Internet Explorer and test one of the links to the Frequently Asked Questions page.
- **Add the server-side include file to other Web pages in the Main Street Market Web site**
- ♦ If you have time, add the include file, incMap.htm, to the other files in the Main Street Market Web site: CustData.htm and EmpOnly.htm. Then, fix all links to jump to the .STM files instead of .HTM files.

## Exercise 3: Using Frames

Frames are new in Internet Explorer 3.0; therefore, they must be added manually to an HTML file.

In this exercise, you will replace the Main Street Market home page with a set of 3 frames:



➤ **Create the HTML file for the top frame**

1. In Notepad, create a new file called MSMHead.htm.
2. Open the Main Street Market home page, default.htm, in a second instance of Notepad.
3. In default.htm, copy the HTML tags, from the beginning of the file up to the beginning of the table, to MSMHead.htm.

This copies the HEAD section, the BODY tag specifying the background, and the tags for the two images at the top of the page.

4. Add </BODY> and </HTML> tags to the bottom of MSMHead.htm.
5. Save the new file, MSMHead.htm.

➤ **Create the HTML file for the left frame**

1. In Notepad, create a new file called MSMJumps.htm.
2. Copy the HEAD and BODY tags from default.htm.
3. Add the <BASE TARGET="\_top"> tag to MSMJumps.htm.

This causes all links from this frame to be displayed in the full window.

4. Copy the tags for the 5 images that are links to the pages of the Main Street Market site.

These links are in the first column of each row of the table. Don't copy the table tags.

5. Add a linebreak, <BR>, after each image.
6. Center the images in the frame by adding <CENTER> before the first image, and </CENTER> after the last image.
7. Add </BODY> and </HTML> tags to the bottom of MSMJumps.htm.
8. Save the new file, MSMJumps.htm.

➤ **Create the HTML file for the rest of the page**

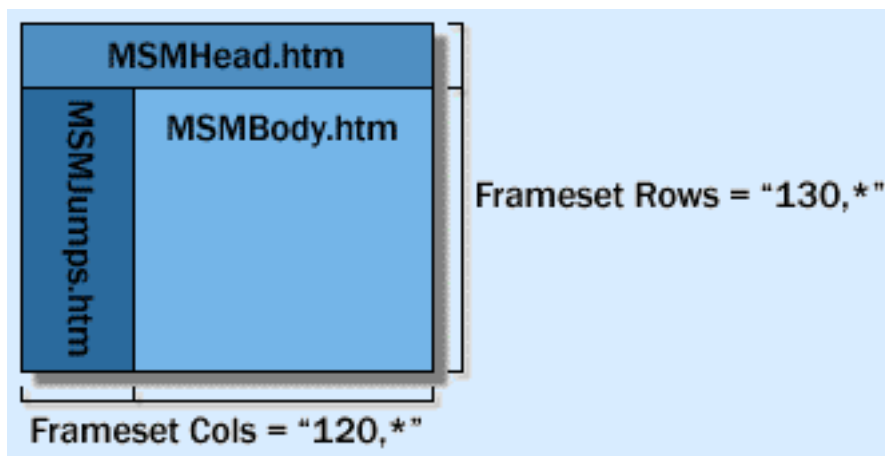
1. In Notepad, create a new file called MSMBody.htm.
2. Copy the HEAD and BODY tags from default.htm.
3. Remove the background image from the BODY tag, leaving just the background color.
4. Add the `<BASE TARGET="_top">` tag to MSMBody.htm.

This causes all links from this frame to be displayed in the full window.

5. Copy the remainder of the HTML tags, after the top two images, from default.htm to MSMBody.htm.
6. Delete the link images in the first column of the table in MSMBody.htm.
7. Delete all of the TABLE, TD, and TR tags from MSMBody.htm.
8. Add a paragraph tag, `<P>`, between the first two paragraphs.
9. Save the new file, MSMBody.htm.

➤ **Add frames to the Main Street Market home page**

Now that you have created the files for the three frames, you need to add the tags to default.htm to use them. The size and relationship of the frames is depicted in the diagram below:



1. Add tags to default.htm, before the BODY section, for the first FRAMESET containing two row frames.
2. Add the FRAME tags for the first row: SRC = MSMHead.htm, no scrolling, not resizable.
3. Add a nested FRAMESET, containing two column frames, as the second row.
4. Add the FRAME tags for the first column: SRC = MSMJumps.htm, no scrolling, not resizable.
5. Add the FRAME tags for the second column: SRC = MSMBody.htm, scrollable, resizable.

If you are unsure of the syntax, look at the solution code:

```
<FRAMESET ROWS="130,*" FrameBorder=0 FrameSpacing=0>
  <FRAME SRC="MSMHead.htm" Scrolling="no" NoResize>
  <FRAMESET COLS="120,*" FrameBorder=0 FrameSpacing=0>
    <FRAME SRC="MSMJumps.htm" Scrolling="no" NoResize>
    <FRAME SRC="MSMBody.htm" Scrolling="yes">
  </FRAMESET>
</FRAMESET>
```

6. Add the `<NOFRAMES>` tag before the BODY section and the `</NOFRAMES>` tag after the `</BODY>` tag. This enables browsers that don't support frames to view your page.
7. Save your changes and test.

## Exercise 4: Formatting Tables

Using tables is an effective way to present information on a Web page. Adding a few formatting tags can greatly enhance how your table looks.

In this exercise, you'll edit the table of products on the Products Web page, adding tags that will draw the user's eye to the Main Street Market products.

Your finished table should look like this:

Number	Product Name	Category	Price
60	Camembert Pierrot	Dairy Products	\$34.00
58	Escargots de Bourgogne	Seafood	\$13.25
65	Louisiana Fiery Hot Pepper Sauce	Condiments	\$21.05
70	Outback Lager	Beverages	\$15.00
55	Pâté chinois	Meat/Poultry	\$24.00
21	Sir Rodney's Scones	Confections	\$10.00

**Note** In this exercise, you'll probably want to test the look of the Products page each time you change the HTML. This way, you'll see exactly what the specific tags do.

### ► Add graphics and structure to the Products Web page

- Using Notepad, open the Products page, Products.htm.
- HTML generated by a tool, such as the Internet Assistant for Excel, is sometimes difficult to read and edit by hand. Therefore, before adding tags to the Products page, add some structure to the HTML for the table:

- Place the beginning and ending tags for each row on separate lines:

```
<TR VALIGN="bottom"><FONT FACE="Arial" COLOR=#000000>
...
</FONT></TR>
```

- Place the tags for each cell of the row on a separate line in the HTML file:

```
<TD ALIGN="right">60</TD>
```

- Separate the rows of the table with an empty line.

- Add the Main Street Market logo and a Products header to the top of the page:

```
<IMG SRC="Images/MsmLogo.gif"><IMG SRC="Images/ProdHead.gif"><BR>
```

These two files should be in the \Images directory of the Main Street Market Web site. If they aren't, copy them from the \Labs\Lab03.2 directory to the \Images directory.

### ► Format the table headings

- For each cell in the first row, use the TH tag instead of TD.  
TH makes the text bold and centered in the column.

**Note** TH is interpreted by the browser, so its appearance may vary when viewed with different browsers. To ensure that your table always looks the way you planned, you need to use specific font and alignment styles.

- Change the font color to white:

```
<FONT FACE="Arial" COLOR=#FFFFFF>
```

**► Format the look of the table**

1. Center the table by adding <CENTER> and </CENTER> around the TABLE tags.
2. Show only a boxed border around table:

```
<TABLE BORDER=4 FRAME=box>
```

3. Add rules between the rows of the table:

```
<TABLE ... RULES=rows>
```

---

**Note** The rule created from the RULES parameter is the default color and the width of the table. If you want more control over the length of the rule, its color, and which rows have rules after them, you can add extra rows with no data in them:

```
<TR>  
<TD BGCOLOR="#993366" COLSPAN=4><BR></TD>  
</TR>
```

---

**► Simplify the table HTML**

The HTML created by Internet Assistant for Excel added ALIGN parameters to each cell that was originally aligned in the Excel spreadsheet. Because you want an entire column to be aligned, you can simplify the HTML by adding COLGROUP elements.

1. Create three COLGROUPs for the columns of the table:
  - a. Center each cell in the first column.
  - b. Left-align each cell in the second and third columns.
  - c. Right-align each cell in the last column.

```
<TABLE ...>  
<COLGROUP align=center>  
<COLGROUP align=left SPAN=2>  
<COLGROUP align=right>
```

2. Delete the align parameters from each row.
3. Set the font face to Arial before the table, then set it to Times New Roman after the table.
  - a. Use BASEFONT to set the font to Arial before the table:

```
<BASEFONT FACE="Arial">  
<TABLE ...>
```

- b. Use BASEFONT again, after the table tags, to set the font back to Times New Roman.
4. Delete from each row in the table the HTML tags that set the font face and color.

The simplified version of one row in your table should look like this:

```
<TR>  
<TD>65</TD>  
<TD>Louisiana Fiery Hot Pepper Sauce</TD>  
<TD>Condiments</TD>  
<TD BGCOLOR=#008080>$21.05</TD>  
</TR>
```

**► Format the table cells**

Whereas the font face and color can be specified for an entire row, the font size must be added for each cell.

1. Use a smaller font for the cells of the table:

```
<FONT SIZE=2>
```