FILTERING AND DISPLAYING DATA USING AJAX

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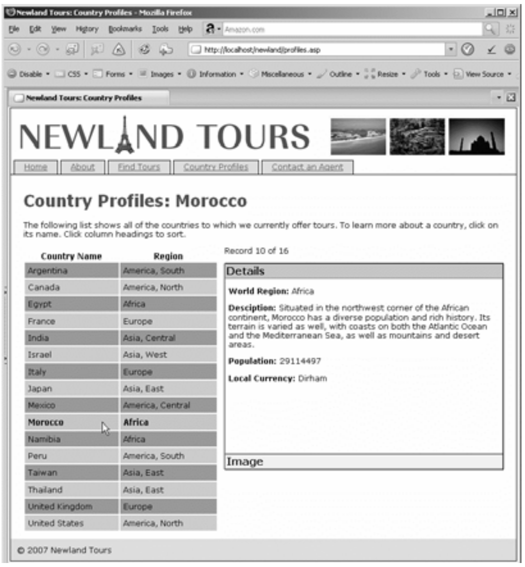
This document is an update to chapter 9 of Adobe Dreamweaver CS3 with ASP, ColdFusion, and PHP: Training from the Source *from Adobe Press. It has been updated to accommodate the changes in the Spry functionality in Dreamweaver CS4.*

One of the many benefits of using databases is that they are scalable. At the moment, the Newland Tours database contains profiles for 16 countries. However, over time the business could grow, and contain profiles of 40 or even 60 countries. But even at 16, the complete listing of country profiles on a single Web page is too much for most users to wade through. Users aren't usually interested in all the countries, but rather a subset—the ones they are considering visiting. The same applies to the tour descriptions themselves and even more broadly to most database data on the Web. Imagine using Amazon if you had to download and display millions of products on a single page!

For this reason, it is important when developing dynamic Web sites to make it easy to filter data, so that users can see the data that they want to see. You can enable your site's visitors to filter data in many different ways, from simple URL parameters to full-blown search engines.

In this lesson, you will learn to use a technique called Ajax, to create a richer, more engaging experience for your users. The users will be able to see the detailed profiles of the countries chosen without moving to another page or reloading the current page, making the user experience seem faster and the page seem more responsive.

Although there are many different ways to create Ajax functionality, Adobe has designed an easy-to-use Ajax library, called Adobe Spry. In Dreamweaver CS3, Adobe built in Spry functionality and included a number of user interface elements. We'll therefore use Spry to create our Ajax functionality. In Dreamweaver CS4, Adobe expanded the Spry functionality, giving more options for pulling in data and a few very useful tools for developing with Spry.



Newland Tours: Country Profiles - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Amazon.com
Disable CSS Forms Images Information Miscellaneous Outline Resize Tools View Source
Newland Tours: Country Profiles
NEWLAND TOURS
Home About Find Tours Country Profiles Contact an Agent

http://localhost/newland/profiles.asp

Country Profiles: Morocco

The following list shows all of the countries to which we currently offer tours. To learn more about a country, click on its name. Click column headings to sort.

Country Name	Region
Argentina	America, South
Canada	America, North
Egypt	Africa
France	Europe
India	Asia, Central
Israel	Asia, West
Italy	Europe
Japan	Asia, East
Mexico	America, Central
Morocco	**Africa**
Namibia	Africa
Peru	America, South
Taiwan	Asia, East
Thailand	Asia, East
United Kingdom	Europe
United States	America, North

Record 10 of 16

Details

World Region: Africa

Desciption: Situated in the northwest corner of the African continent, Morocco has a diverse population and rich history. Its terrain is varied as well, with coasts on both the Atlantic Ocean and the Mediterranean Sea, as well as mountains and desert areas.

Population: 29114497

Local Currency: Dirham

Image

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In this exercise you will build a list of country names that will link to their individual profiles. The advantage to this approach is that once you've built the application, maintaining it is as simple as updating the data itself—no need to revise either page if a country is added, removed, or renamed (it happens).

The profile of each country is pulled from an XML structure dynamically built from the database and formatted on the fly using Adobe Spry and CSS.

What You Will Learn

In this class, you will:

- Setting up a site in Dreamweaver
- Learn about an alternative for passing data to Web pages
- Create an application that filters and displays database data using Adobe Spry
- Create dynamic Spry data regions
- Display images dynamically
- Layout multiple elements populated with dynamic data and style them with custom CSS

Defining a Static Site

The Newland Tours site, as you are inheriting it, is a static HTML site. For this reason, you can easily pull it into Dreamweaver and start working on it.

Working with Web sites often involves hundreds or even thousands of individual files, including Web pages, images, cascading style sheets, multimedia assets, and more. These files are linked together via HTML. Unfortunately, a small typo can create ugly (or indecipherable to users) error messages and even block access to portions of your site. Dreamweaver provides many sophisticated site management tools to help ensure the overall integrity of your site, both during development and once it is launched. To take advantage of these features, you should first define a site, a process in which, at a minimum, you tell Dreamweaver where the site's root folder is located on your hard drive.

Defining a site has several benefits, many of which you will see quickly. It helps prevent broken links, automatically updating files site-wide if you move or rename a file. The Site Manager also enables you to perform site-wide operations, such as Find and Replace, which greatly boosts productivity. Another key advantage of the Site Manager is that it has built-in file uploading capabilities (including FTP), which means you can publish your files to the Web whenever you want, with the click of a single button. You can even synchronize local files (on your hard drive) and remote files (on the Web or a staging server), to ensure that the most up-to-date versions of the files are in the right place.

In this task, you'll define a regular, static site in the Site Definition dialog box, a process involving little more than giving the site a name and telling Dreamweaver where it is stored on the local disk.

1. Create a new directory on your hard disk called dwcs4.

You'll store the local version of the site in this folder.

2. Copy the newland folder (and its contents) into this new directory.

Often enough in real life, you'll inherit an existing site and be asked to upgrade it. With any significant upgrade, it's best to make a copy of the existing site and work on that. You should never directly edit a site in production (that is, the site that the public sees).

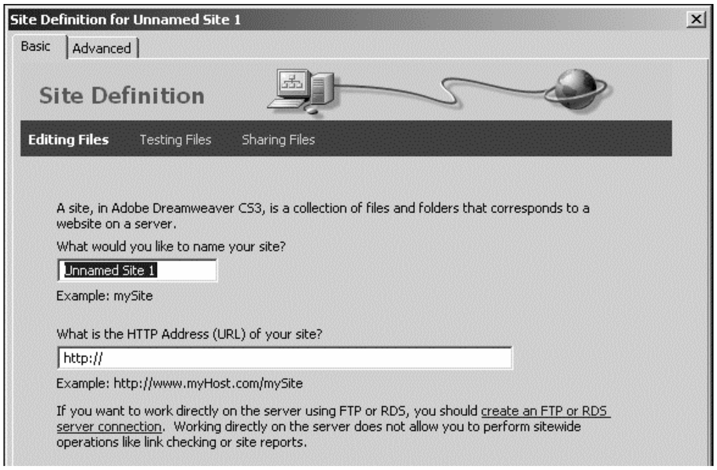
3. Open Dreamweaver CS4.

Once the files are visible in Dreamweaver, you should edit them exclusively in Dreamweaver. Any text editor can open any HTML file, and every operating system has a file management utility (such as Macintosh Finder or Windows Explorer) that lets you move and delete files. But you should avoid using these tools, because any change is likely to foil Dreamweaver's Site Manager, and could cause broken links. So once the files are there, go straight to Dreamweaver and avoid the temptation to do anything to them by any other means.

4. On the Start page, click the Create New Dreamweaver Site link.

Note: You can also choose Site > Manage Sites and click the New button.

Though the files are on your hard disk, Dreamweaver doesn't yet see them. By defining a site, you enable Dreamweaver to see—and manage—the files. You define a site in the Site Definition dialog box. If the dialog you see doesn't look like the one in the screen shot, it's probably because you are in advanced view. Click the Basic tab near the top of the dialog to bring up the basic view shown in the screen shot.



A site, in Adobe Dreamweaver CS3, is a collection of files and folders that corresponds to a website on a server.

What would you like to name your site?

Unnamed Site 1

Example: mySite

What is the HTTP Address (URL) of your site?

http://

Example: http://www.myHost.com/mySite

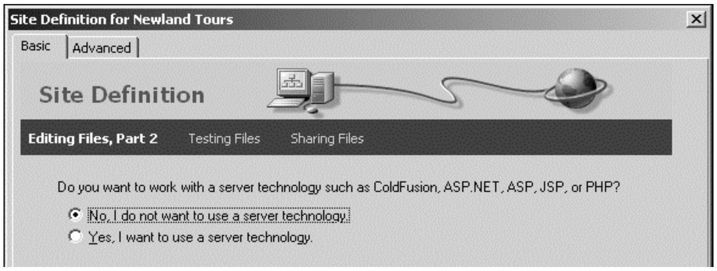
If you want to work directly on the server using FTP or RDS, you should create an FTP or RDS server connection. Working directly on the server does not allow you to perform sitewide operations like link checking or site reports.

5. Enter *Newland Tours* in answer to the question “What would you like to name your site?”, and click Next. There is no need to fill in the “HTTP Address” of the site at this time.

The Site Definition dialog’s basic view uses a wizard-like approach.

Tip: If you prefer the old-style Site Definition dialog better, you can access it by clicking the Advanced tab.

6. On the Editing Files, Part 2 screen, select “No, I do not want to use a server technology.” Click Next.



Do you want to work with a server technology such as ColdFusion, ASP.NET, ASP, JSP, or PHP?

● No, I do not want to use a server technology.
○ Yes, I want to use a server technology.

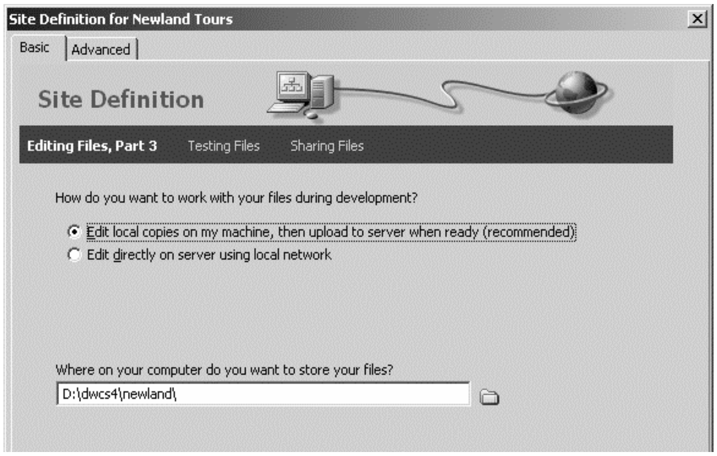
7. On the next screen, select the first option,“Edit local copies on my machine, then upload to server when ready (recommended).”

As a result of this decision, there will always be two sets of files for the site—one local (usually on your hard drive, though you can put it in a network folder if you want) and one remote (usually on a server). This is safer, because you always have at least one backup copy of your file. More importantly, it means that the files you work on will be stored on your hard drive, where customers will never see them.

Most professional sites work using a 3-tier setup. The local site contains all the files in development on the Dreamweaver user’s hard drive. A staging server contains a mirror of the site used for testing and development purposes only. The public never sees content on the staging server, but it is a real Web server environment, which is typically identical or nearly identical to that of the production server. The production server is the public version of the site. Only tested, edited, polished, and approved files should be published on the production server.

8. Click the folder icon beside “Where on your computer do you want to store your files”, and browse to the newland folder within the dwcs4 folder. Click Select to select the folder and return to the Site Definition dialog box. Click Next.

In this step you are defining the local site—this is where all the action takes place. Whenever you edit a file, you will be editing the file as it appears in the local site. The local site is generally not seen by the public, which means if you temporarily break the functionality of the site as you work, no harm is done.



How do you want to work with your files during development?

● Edit local copies on my machine, then upload to server when ready (recommended)

○ Edit directly on server using local network

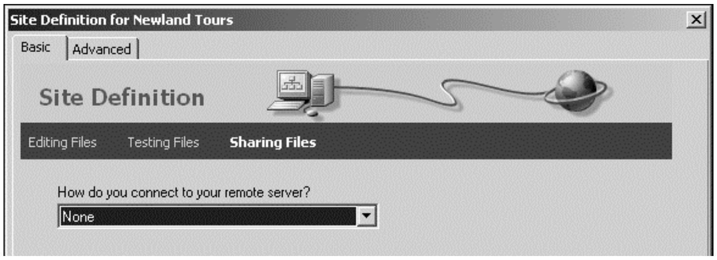
Where on your computer do you want to store your files?

D:\dwcs4\newland\

9. On the next screen, choose None in the drop-down menu.

Normally, you specify either a staging server or production server as the Remote site. When working with dynamic, database-driven content, a staging server is a necessity.

Later you would define a remote site, which you would use as a staging server. That staging server would be able to handle fully dynamic sites, which the local site you are defining can't do. But for now, a remote site is an unnecessary complication.



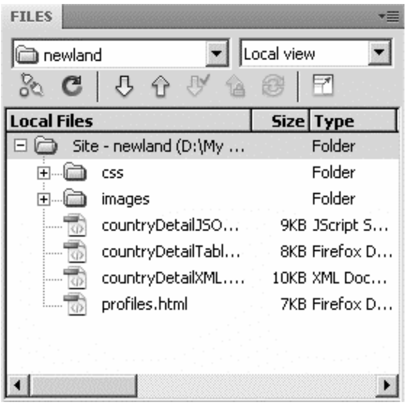
How do you connect to your remote server?

None

10. Click Next. Review the summary, and click Done.

When you are finished, a dialog box appears, indicating that Dreamweaver is building the site cache. Dreamweaver is analyzing all the files in the site, checking all the links, and storing them in memory. If you decide to rename a page or move an asset to a different folder, Dreamweaver will automatically update all of the files that link to the modified file. Once Dreamweaver has built the site cache, the dialog disappears on its own.

When you are finished, the Site panel (by default, in the lower-right corner of your screen) should be filled with files.



Local Files	Size	Type
Site - newland (D:\My ...		Folder
css		Folder
images		Folder
countryDetailJSO...	9KB	JScript S...
countryDetailTabl...	8KB	Firefox D...
countryDetailXML....	10KB	XML Doc...
profiles.html	7KB	Firefox D...

Passing and Using Data with Ajax

Ajax or “Asynchronous JavaScript and XML”, is a term that was coined in 2005 for a technique that's been available for over a decade. The Ajax technique is used to pass data to and from interactive Web applications. It helps you create Web pages that appear more responsive because the data passes between the user's computer and the server behind the scenes, without requiring the page to reload.

The two main technologies that make up Ajax are XML and JavaScript. Extensible Markup Language (XML) is a language that allows you to package information, such as a recordset, and maintain its structure while you send it over the internet. JavaScript is a scripting language that lets you manipulate objects, such as your recordset, in the user's browser. Prior to Dreamweaver CS4 you had to use XML or JSON (JavaScript Object Notation, another way to structure your data) to provide the data for Ajax. CS4 now allows you to use HTML tables as recordsets. This makes Ajax much more accessible to Web developers.

Note: There are accessibility concerns about Ajax. Some users browse with JavaScript disabled and some do not have JavaScript available to their browsers. These issues should be taken into consideration before deciding to use Ajax on your Website. There are examples of techniques for avoiding this problem in the resources section at the end of these materials.

Note: JavaScript is not to be confused with Java. The former is a scripting language primarily used for Web development. The latter is a powerful programming language that can be used for Web development but is primarily used for creating computer applications.

There are several Ajax libraries available, some with quite sophisticated capabilities. Each requires a different level of technical knowledge to use. Adobe created the Spry framework to make Ajax available to Web designers with minimal programming experience.

The Spry framework has a number of useful elements, including a number of user interface "widgets", visual effects and form validation. It is designed to be easy to implement for anyone with a basic knowledge of HTML, CSS and JavaScript.

Dreamweaver CS4 shipped with Spry prerelease version 1.6.1. Each release includes new features and refinements. It is easy to update your Spry libraries. The Spry team releases a Dreamweaver Extension with each new release of Spry.

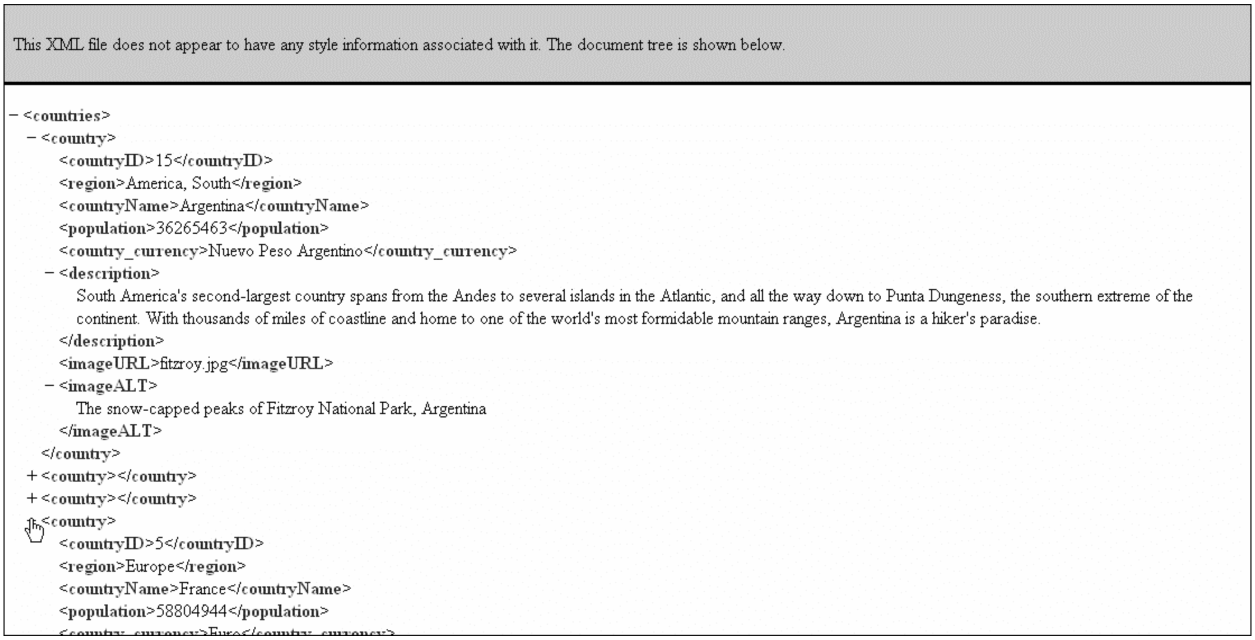
Note: You can read more about Spry, see demos of the available functionality, and download the latest version on the Adobe Labs site http://labs.adobe.com/technologies/spry/.

In this class, you will take the recordset that might be created by querying the database for the country profiles, and publish it as a page on the Web. We will look at XML, JSON and HTML versions of the data. While you are welcome to use whichever version you like, we will use the HTML version for this class as this is what most people are comfortable with. This will serve as the data for your profile page application. You will then use Adobe Spry to create a table for the list of countries and their regions, and use the Spry Accordion to display details of the chosen country.

Before we begin, let's take a look at the data. The newland folder has all three versions of the data. Each format has its own advantages and your situation will dictate which you ultimately use. If your records are maintained in a database then you may have experience outputting them as HTML tables already. Many programming languages have functions to output records as XML. If you have a many or very large records then JSON might be best because it is the lightest-weight solution. For now XML will give us the best view of the data, so we will start there.

1. Open countryDetailXML.xml. Press F12 to view the results.

Most modern browsers can parse and display properly-formed XML. The entire recordset is labeled `<countries>` with each individual record shown in an individual `<country>` node in the XML file. In this case the fieldnames in the XML dataset reflect the fieldnames from the database from which the data was pulled. While these names are arbitrary, they will be the names of your variables once you pull the data into your page. The browser's parser allows us a convenient view of the data. If you click the minus (-) sign next to an opening tag of any element that has multiple rows of content, it will collapse the element for greater ease of reading.

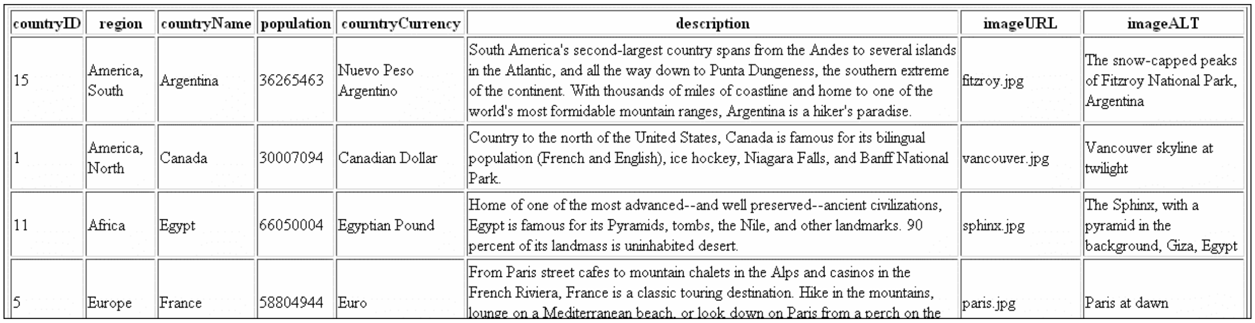


This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
- <countries>
  - <country>
      <countryID>15</countryID>
      <region>America, South</region>
      <countryName>Argentina</countryName>
      <population>36265463</population>
      <country_currency>Nuevo Peso Argentino</country_currency>
    - <description>
        South America's second-largest country spans from the Andes to several islands in the Atlantic, and all the way down to Punta Dungeness, the southern extreme of the
        continent. With thousands of miles of coastline and home to one of the world's most formidable mountain ranges, Argentina is a hiker's paradise.
      </description>
      <imageURL>fitzroy.jpg</imageURL>
    - <imageALT>
        The snow-capped peaks of Fitzroy National Park, Argentina
      </imageALT>
    </country>
  + <country></country>
  + <country></country>
    <country>
      <countryID>5</countryID>
      <region>Europe</region>
      <countryName>France</countryName>
      <population>58804944</population>
      <country_currency>Euro</country_currency>
```

The XML view gives a clear idea of the nature of our recordset. To visualize it another way, we will look at the HTML table version.

2. Close the XML file and open countryDetailTable.html. Press F12 to view the results.

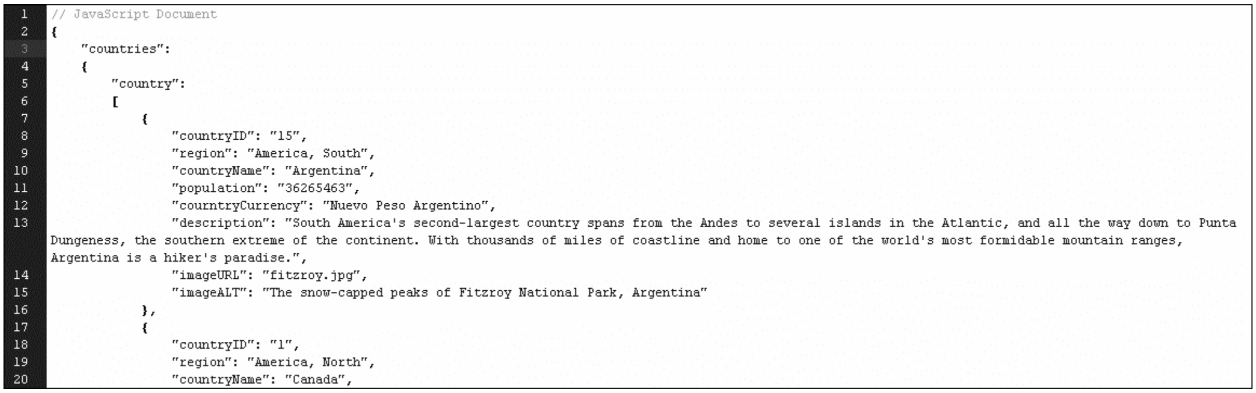


countryID	region	countryName	population	courntryCurrency	description	imageURL	imageALT
15	America, South	Argentina	36265463	Nuevo Peso Argentino	South America's second-largest country spans from the Andes to several islands in the Atlantic, and all the way down to Punta Dungeness, the southern extreme of the continent. With thousands of miles of coastline and home to one of the world's most formidable mountain ranges, Argentina is a hiker's paradise.	fitzroy.jpg	The snow-capped peaks of Fitzroy National Park, Argentina
1	America, North	Canada	30007094	Canadian Dollar	Country to the north of the United States, Canada is famous for its bilingual population (French and English), ice hockey, Niagara Falls, and Banff National Park.	vancouver.jpg	Vancouver skyline at twilight
11	Africa	Egypt	66050004	Egyptian Pound	Home of one of the most advanced--and well preserved--ancient civilizations, Egypt is famous for its Pyramids, tombs, the Nile, and other landmarks. 90 percent of its landmass is uninhabited desert.	sphinx.jpg	The Sphinx, with a pyramid in the background, Giza, Egypt
5	Europe	France	58804944	Euro	From Paris street cafes to mountain chalets in the Alps and casinos in the French Riviera, France is a classic touring destination. Hike in the mountains, lounge on a Mediterranean beach, or look down on Paris from a perch on the	paris.jpg	Paris at dawn

The HTML table view of the data should be comfortably familiar. Fortunately Dreamweaver CS4 and Spry give you options to use data in this format as well. Before closing the HTML file take a look at the opening table tag in the source code. You will see that its ID attribute has the value "countries". This is critical for making it available to Spry as a data source. We will return to that later. You may now close the HTML file.

Finally we will look at the JSON data. While Dreamweaver CS4 does recognize JSON data through its Spry Data Set wizard, the functions are there in the libraries and the tag insight will suggest it when typing in code view.

3. Open countryDetailJSON.js.



```
// JavaScript Document
{
    "countries":
    {
        "country":
        [
            {
                "countryID": "15",
                "region": "America, South",
                "countryName": "Argentina",
                "population": "36265463",
                "courntryCurrency": "Nuevo Peso Argentino",
                "description": "South America's second-largest country spans from the Andes to several islands in the Atlantic, and all the way down to Punta
Dungeness, the southern extreme of the continent. With thousands of miles of coastline and home to one of the world's most formidable mountain ranges,
Argentina is a hiker's paradise.",
                "imageURL": "fitzroy.jpg",
                "imageALT": "The snow-capped peaks of Fitzroy National Park, Argentina"
            },
            {
                "countryID": "1",
                "region": "America, North",
                "countryName": "Canada",
```

The browser preview (F12) command does not work with JavaScript files because they will look just the same in the browser. You can see the way that JSON structure works on the same data. When you are finished looking it over, close the JSON file.

Now it is time to take our data file and use it to create a more dynamic experience for our users and our site administrators.

Connect Country Profiles page to HTML data

Currently, the Country Profiles page (profiles.html) contains a listing in static HTML of the countries to which Newland offers tours. In order to create a page that is easy to maintain when new countries are added or changed, this information should come from a database. We will use our data file to emulate a database. That means that just about all of the content on this page (excluding the banner and footer) is obsolete, so you need to delete it.

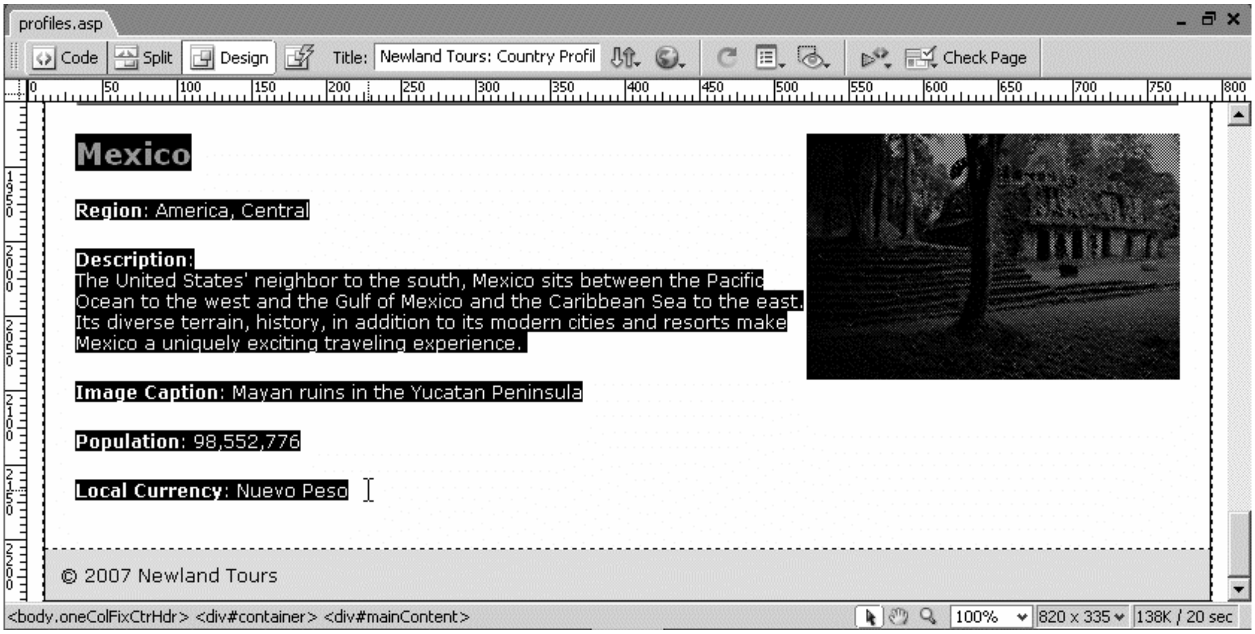
Once you have removed all of the old content, you'll need to add a list of links that will let users choose a country profile. This list will come from the HTML dataset you viewed in the previous section. In this step you will pull that dataset into this page for use by Spry, both for the list and the detailed profiles.

1. Open profiles.html in design view.

I find it much easier to delete page content while in design view, rather than hunting around for the proper start and stop points in code view.

2. Drag to select everything on the page starting from the horizontal rule just above Namibia all the way down to the bottom of the page to just include the words *Nuevo Peso* at the end of the profile of Mexico.

Be careful not to select any of the footer.



Mexico

Region: America, Central

Description:
The United States' neighbor to the south, Mexico sits between the Pacific Ocean to the west and the Gulf of Mexico and the Caribbean Sea to the east. Its diverse terrain, history, in addition to its modern cities and resorts make Mexico a uniquely exciting traveling experience.

Image Caption: Mayan ruins in the Yucatan Peninsula

Population: 98,552,776

Local Currency: Nuevo Peso

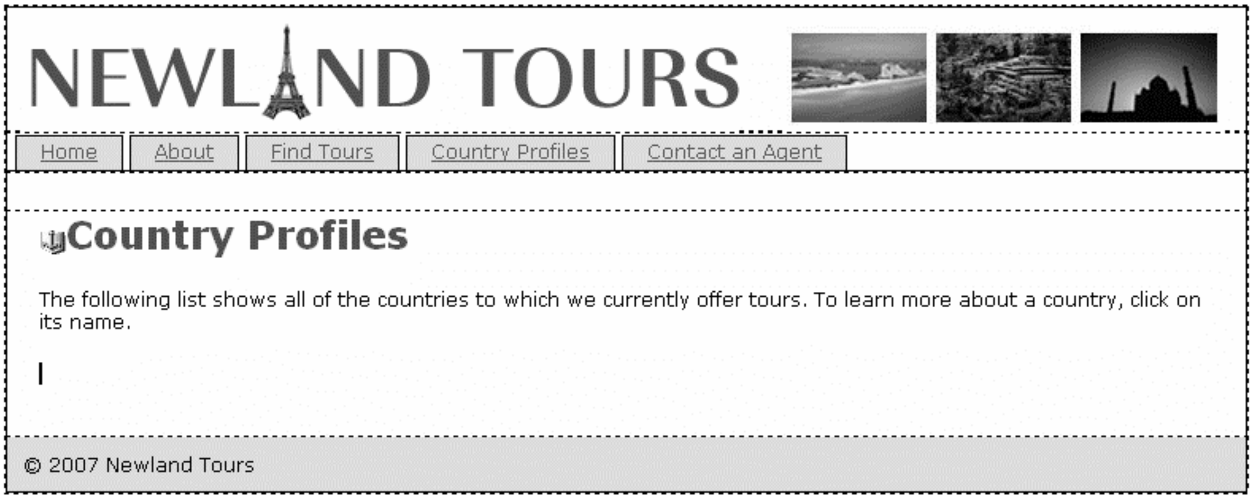
© 2007 Newland Tours

3. Press Delete.

The content is removed and the cursor is left in an empty <p> tag, visible in code or split view, at the bottom of the page.

4. Replace the first line of body text with *The following list shows all of the countries to which we currently offer tours. To learn more about a country, click on its name.*

Here, you are just changing the directions of the page to reflect the new functionality of the page.

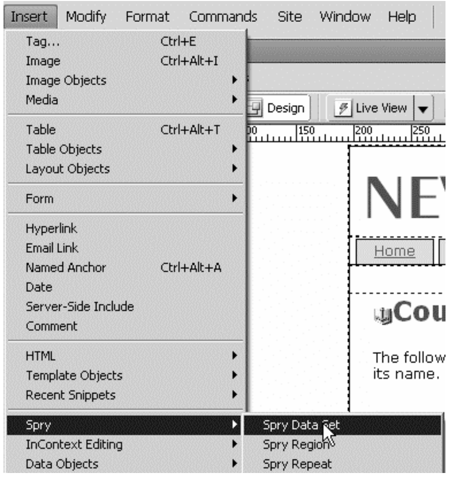


Country Profiles

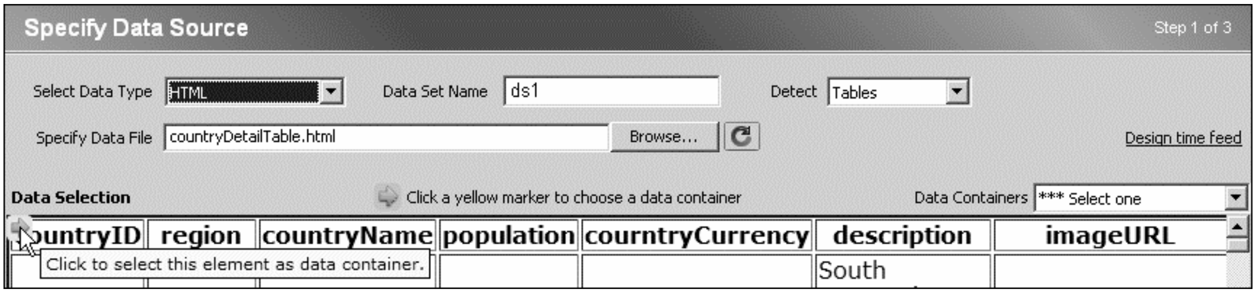
The following list shows all of the countries to which we currently offer tours. To learn more about a country, click on its name.

© 2007 Newland Tours

5. Insert your cursor in the black space below the paragraph you just typed. Under the Insert menu, click Spry > Spry Data Set.



6. In the Spry Data Set dialog window leave the Data Set Type HTML the Data Set Name ds1, and Detect Tables. Next to Specify Data File browse for countryDetailTable.html. Click the yellow arrow to the left of the table headings to identify this table as your data container.



Specify Data Source — Step 1 of 3

Select Data Type: HTML — Data Set Name: ds1 — Detect: Tables

Specify Data File: countryDetailTable.html

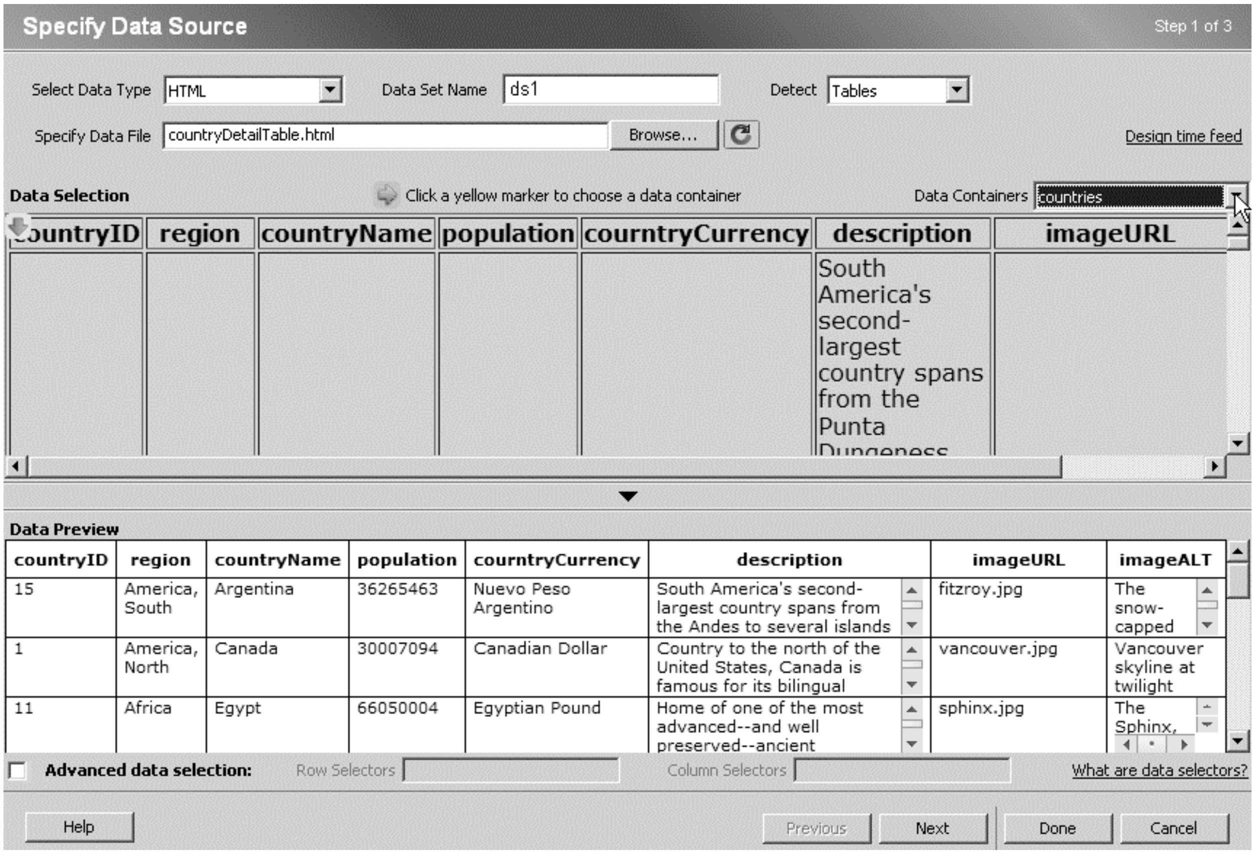
Data Selection — Click a yellow marker to choose a data container — Data Containers: *** Select one

ountryID	region	countryName	population	courntryCurrency	description	imageURL
					South	

Click to select this element as data container.

Take a moment to examine the other options in the dialog box. Note that by changing the Data Type you could use the XML file instead of the HTML tables. The Detect drop-down shows the other types of containers that can serve as data sources. In this example it is not really necessary to identify the data container as there is only one table on the page. Were there more than one source (table, div or list) a yellow arrow would appear next to each, allowing you to identify which container would be the source of your data.

7. In the Data Containers drop-down choose “countries”. That value comes from the ID attribute of the table that we noted earlier when looking at the source code of the HTML document. Once selected the Data Preview at the bottom of the dialog window is populated.



Specify Data Source

Step 1 of 3

Select Data Type: HTML

Data Set Name: ds1

Detect: Tables

Specify Data File: countryDetailTable.html

Data Selection

Click a yellow marker to choose a data container

Data Containers: countries

ountryID	region	countryName	population	courntryCurrency	description	imageURL
					South America's second-largest country spans from the Punta Dungeness	

Data Preview

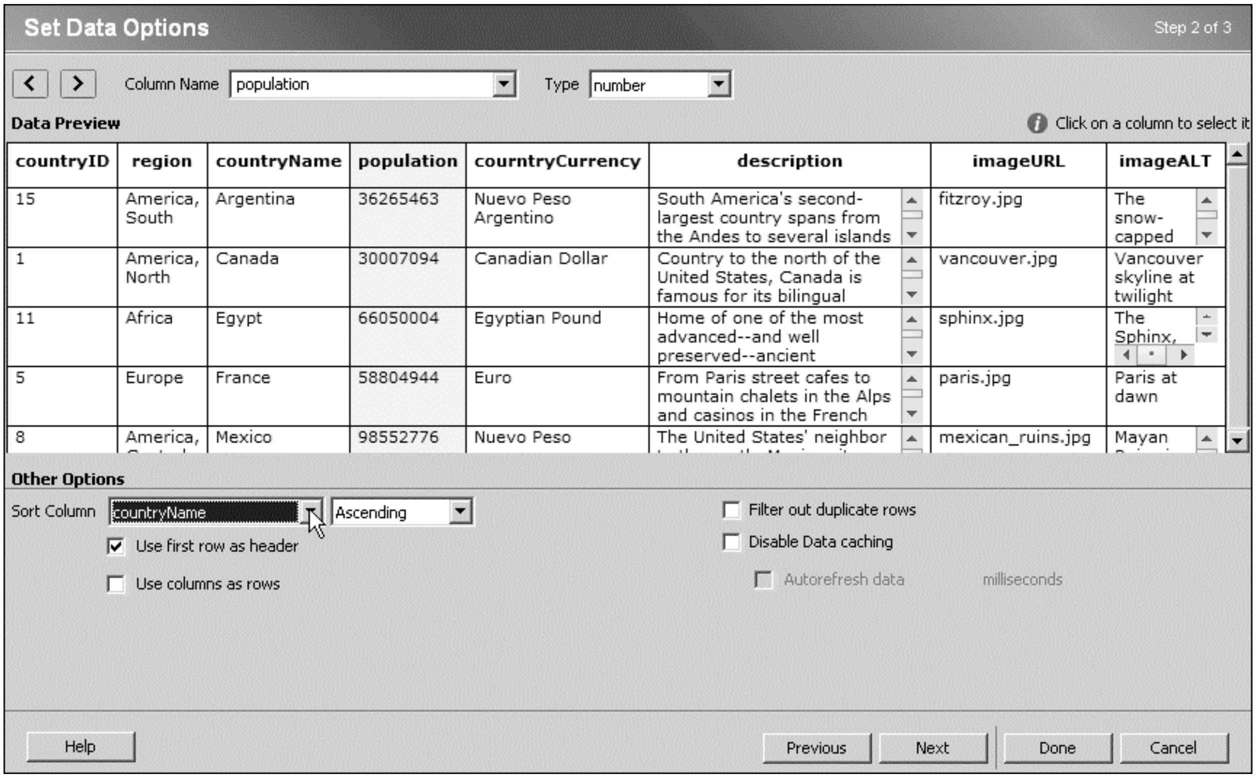
countryID	region	countryName	population	courntryCurrency	description	imageURL	imageALT
15	America, South	Argentina	36265463	Nuevo Peso Argentino	South America's second-largest country spans from the Andes to several islands	fitzroy.jpg	The snow-capped
1	America, North	Canada	30007094	Canadian Dollar	Country to the north of the United States, Canada is famous for its bilingual	vancouver.jpg	Vancouver skyline at twilight
11	Africa	Egypt	66050004	Egyptian Pound	Home of one of the most advanced--and well preserved--ancient	sphinx.jpg	The Sphinx,

☐ Advanced data selection:

Row Selectors

Column Selectors

8. Click Next to move to the Set Data Options window. Choose the population column and set its type to number. All others can remain strings. You also have the option of setting a default sort for the data. Choose countryName Ascending.



Set Data Options

Step 2 of 3

Column Name: population

Type: number

Data Preview

Click on a column to select it

countryID	region	countryName	population	courntryCurrency	description	imageURL	imageALT
15	America, South	Argentina	36265463	Nuevo Peso Argentino	South America's second-largest country spans from the Andes to several islands	fitzroy.jpg	The snow-capped
1	America, North	Canada	30007094	Canadian Dollar	Country to the north of the United States, Canada is famous for its bilingual	vancouver.jpg	Vancouver skyline at twilight
11	Africa	Egypt	66050004	Egyptian Pound	Home of one of the most advanced--and well preserved--ancient	sphinx.jpg	The Sphinx,
5	Europe	France	58804944	Euro	From Paris street cafes to mountain chalets in the Alps and casinos in the French	paris.jpg	Paris at dawn
8	America,	Mexico	98552776	Nuevo Peso	The United States' neighbor	mexican_ruins.jpg	Mayan

Other Options

Sort Column: countryName Ascending

☑ Use first row as header

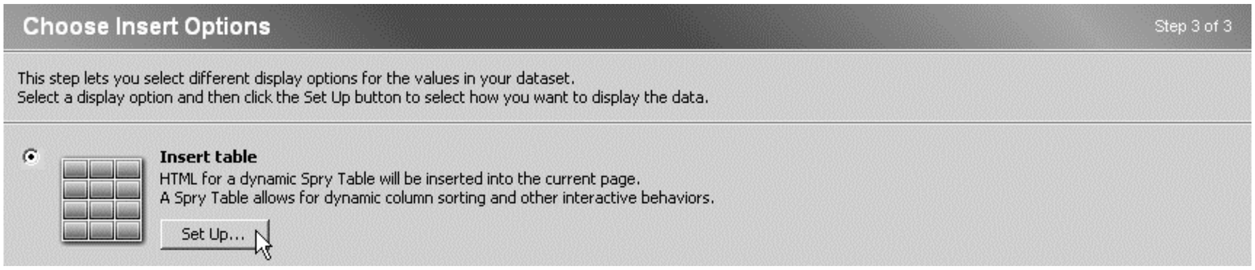
☐ Use columns as rows

☐ Filter out duplicate rows

☐ Disable Data caching

☐ Autorefresh data milliseconds

9. Click Next to move to the Choose Insert Options window. Choose Insert table and click Set Up... You will choose which fields in the dataset you want in your table.



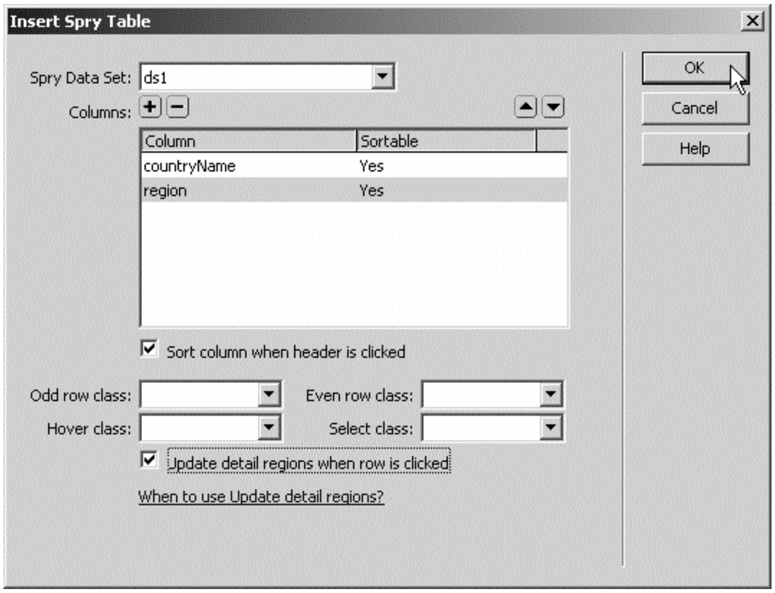
Choose Insert Options Step 3 of 3

This step lets you select different display options for the values in your dataset.
Select a display option and then click the Set Up button to select how you want to display the data.

● **Insert table**
HTML for a dynamic Spry Table will be inserted into the current page.
A Spry Table allows for dynamic column sorting and other interactive behaviors.

10. Remove all columns except region and countryName using the "-" next to Columns. Move countryName above region by highlighting the countryName row and clicking the up arrow. Make sure the value for Sortable is set to Yes for each column name. If it is not, highlight the name and click the checkbox below. Finally, check "Update detail regions when row is clicked". Click OK.

The dialog window should look like the below screen shot before closing the window.



Insert Spry Table

Spry Data Set: ds1

Columns:

Column	Sortable
countryName	Yes
region	Yes

☑ Sort column when header is clicked

Odd row class: Even row class:
Hover class: Select class:

☑ Update detail regions when row is clicked

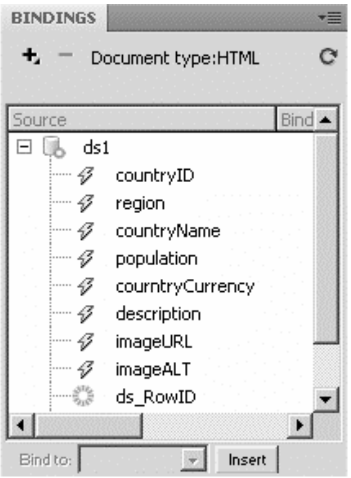
When to use Update detail regions?

11. Click Done to close the Spry Data Set wizard. Switch to code view to see what Dreamweaver has inserted in your page.

You will recall that Ajax uses JavaScript to manipulate your data. In order for Spry to use the HTML file you just bound to profiles.html, it needs some JavaScript functionality. Dreamweaver has inserted references to a couple JavaScript libraries in your page and will prompt you to move them into your site when you save your document.

A Spry region has been created with your Spry table inside of it. A Spry region is an area on a page that is bound to a dataset. This region is bound to our HTML dataset, referred to here as ds1, the variable it was assigned to when first connected to the page.

If you look in the Bindings panel you will now see your full dataset ready for use. As with a recordset from a database query or columns in an HTML table, these individual variables can be inserted on the page in order to display their dynamic content. You will do just that later in the lesson.



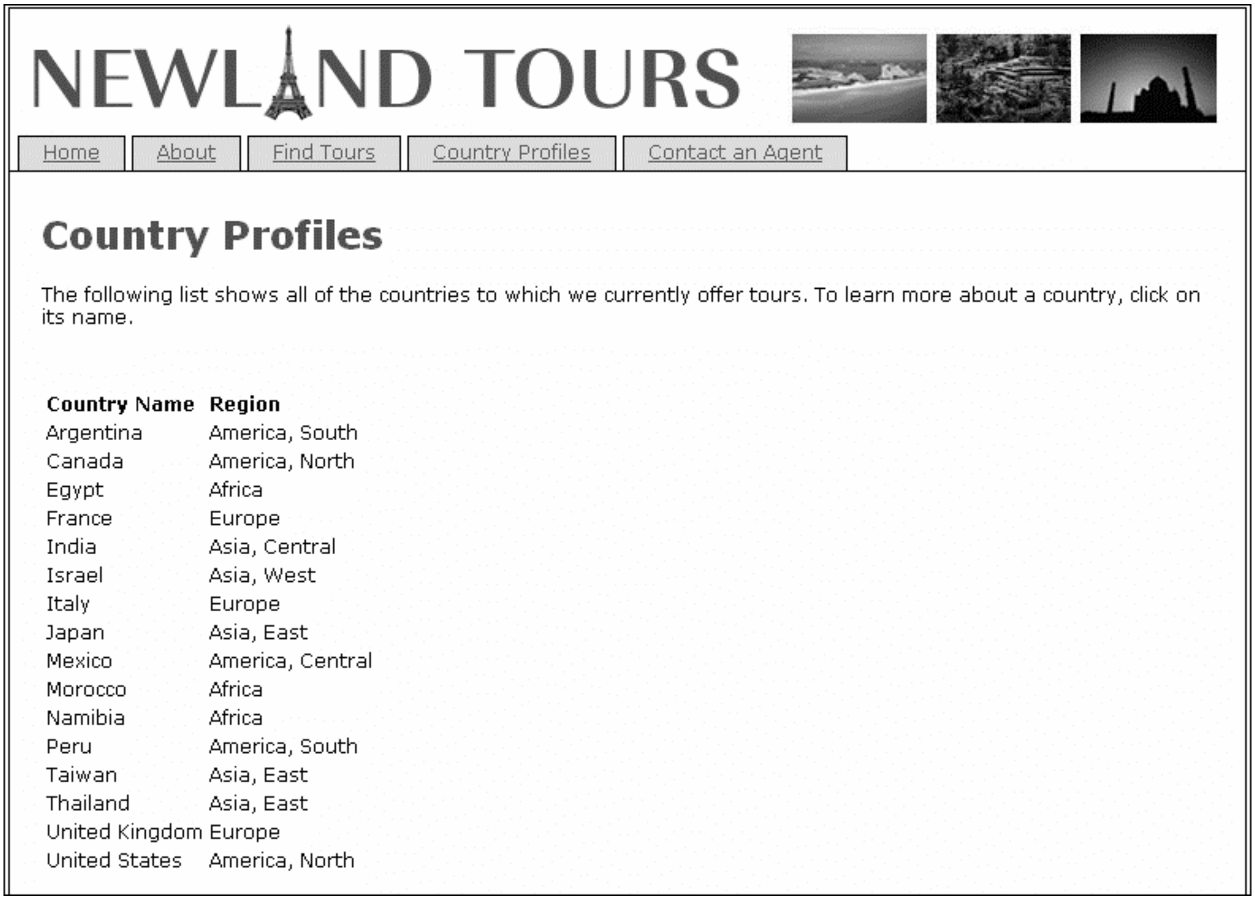
12. Add another sentence of instructions at the end of the text at the top of the page. Add *Click column headings to sort.*

You will add a visual indication that the column headings are clickable hotspots when you style the table, but some simple directions will also aid the users.

5. Save the changes to your file. You will be prompted to copy files into your site directory, creating a SpryAssets folder in the process. Accept the files. Highlight profiles.html in your Files panel and press F12 to preview.

You should see the list of country and region names. That was pretty easy, but what's so special about a Spry table? The columns are sortable. Check the functionality by clicking the column names to sort and reverse sort the records. Without Ajax, your users would have to refresh the page to sort the records.

The heading for the column with the names of the country reflects the name of the database field. Before you move on you should correct it by placing a blank space between Country and Name.



Country Profiles

The following list shows all of the countries to which we currently offer tours. To learn more about a country, click on its name.

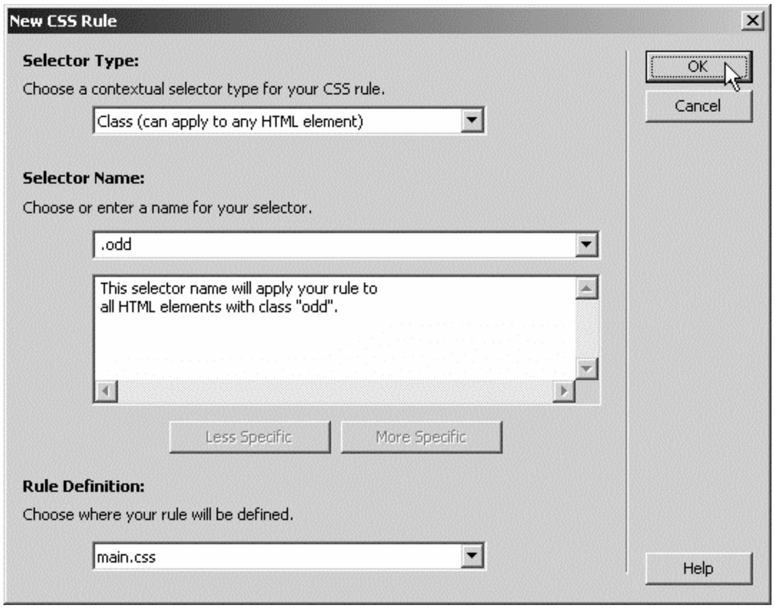
Country Name	Region
Argentina	America, South
Canada	America, North
Egypt	Africa
France	Europe
India	Asia, Central
Israel	Asia, West
Italy	Europe
Japan	Asia, East
Mexico	America, Central
Morocco	Africa
Namibia	Africa
Peru	America, South
Taiwan	Asia, East
Thailand	Asia, East
United Kingdom	Europe
United States	America, North

Styling the Spry Table

The table you created is more functional than your average table, but it could certainly be more attractive. You could give it a border and maybe even a background color. What about alternating the colors of the rows to make it easier for users to see distinct records? That sounds great, but you are building the table dynamically. How are you to color those rows on the fly?

Spry has some built-in attributes that will not only help you color alternating rows dynamically, but add some additional effects as well. While you can build the custom styles using Dreamweaver's tools as you have in previous lessons, you will have to do a little hand-coding to access some of these Spry features.

1. Return to profiles.html. In the CSS panel, click the button for a new CSS rule. For Selector Type choose Class. Name your class .odd, for the odd-numbered rows. Click OK. Under the Background Category set a Background Color of #999999.



New CSS Rule

Selector Type:

Choose a contextual selector type for your CSS rule.

Class (can apply to any HTML element)

Selector Name:

Choose or enter a name for your selector.

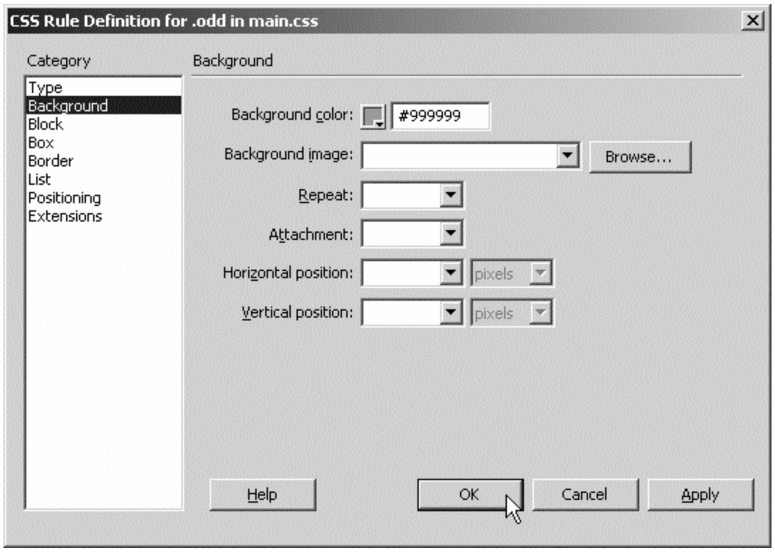
.odd

This selector name will apply your rule to
all HTML elements with class "odd".

Rule Definition:

Choose where your rule will be defined.

main.css



CSS Rule Definition for .odd in main.css

Category: Background

Background color: #999999

Background image:

Repeat:

Attachment:

Horizontal position: pixels

Vertical position: pixels

2. Repeat the same steps and create a class selectors named .even with a background color of #CCCCCC, .rowHover with a background color of #FFFF99, and .rowSelect with a background color of #FFCC33 and a font weight of bold. Font weight is in the Type category.

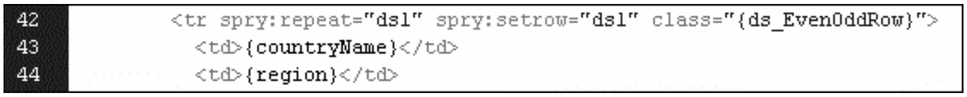
These classes will be applied to rows in the table dynamically by Spry, adjusting for the number of rows and reacting to the user's mouse movements.

Simply creating the custom styles does not cause them to display. They have to be tied to an element in the structure of the main document. You can tie them to the rows of the Spry table using Spry attributes.

Change to either code or split view and examine the code for the Spry table. See if you can find where it binds the variables for the countryName and region. Spry uses curly braces {} to indicate its bindings.

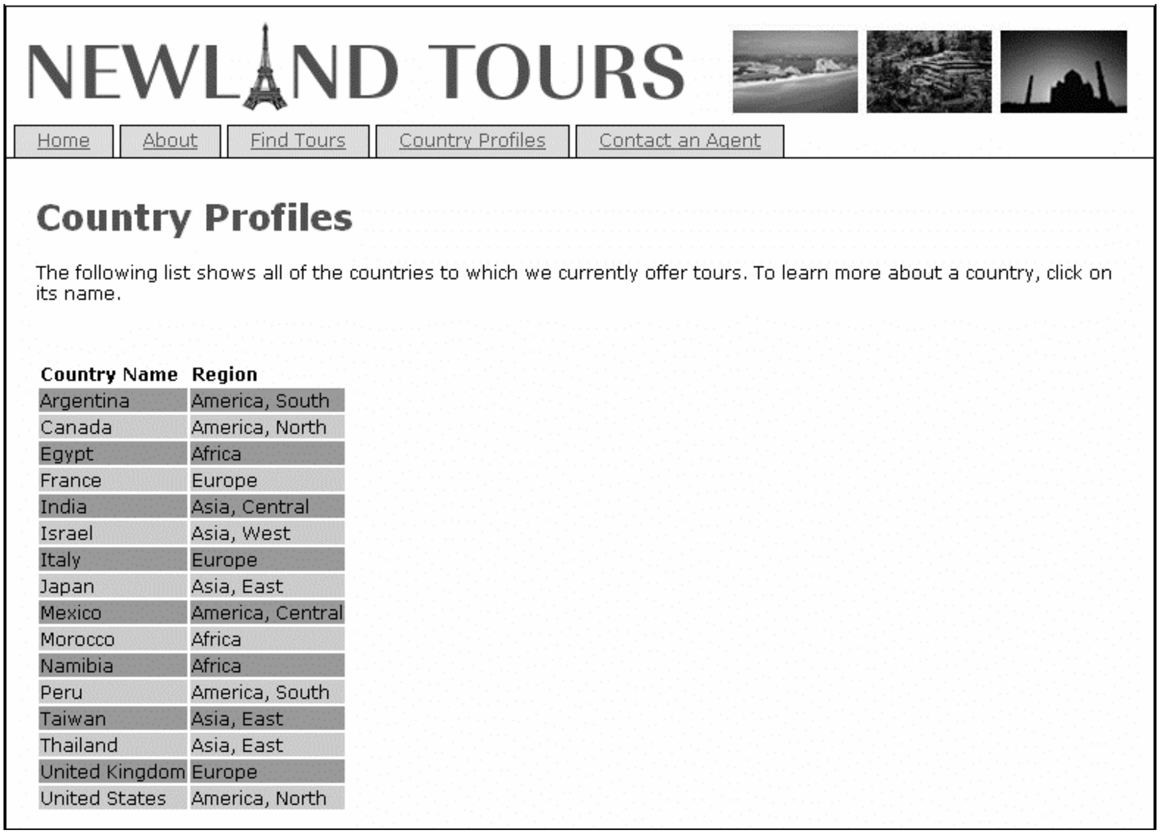
3. Place your cursor just inside the closing bracket of the `<tr>` tag with the `spry:repeat` attribute (approximately line 42). Press the spacebar and type `class="{ds_EvenOddRow}"`.

Spry has some built-in variables that mask the complexity of the programming logic necessary to dynamically alternate values based on the row number. The ds_EvenOddRow Spry variable will change the class name to either "odd" or "even" based on the current table sort. The rows will then render using the classes, odd and even, that you created above.



```
        <tr spry:repeat="dsl" spry:setrow="dsl" class="{ds_EvenOddRow}">
          <td>{countryName}</td>
          <td>{region}</td>
```

4. Save your changes to both profiles.html and main.css. Select profiles.html from your file list and press F12 to view the changes in your browser.



Country Profiles

The following list shows all of the countries to which we currently offer tours. To learn more about a country, click on its name.

Country Name	Region
Argentina	America, South
Canada	America, North
Egypt	Africa
France	Europe
India	Asia, Central
Israel	Asia, West
Italy	Europe
Japan	Asia, East
Mexico	America, Central
Morocco	Africa
Namibia	Africa
Peru	America, South
Taiwan	Asia, East
Thailand	Asia, East
United Kingdom	Europe
United States	America, North

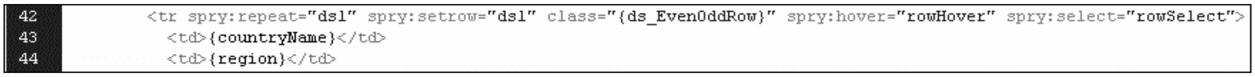
Spry has applied your odd and even classes to the rows. If you re-sort the columns the colors will dynamically change. But what of the other classes you created? How does Spry call the .rowHover and .rowSelect to affect the display?

As you look at the code you can see a pattern with how Spry affects the HTML display. Spry code usually starts with `spry:` followed by a specific function or attribute. You will use two more of these attributes which package some complex functionality in very little code.

5. Return to the `<tr>` tag you modified in step 3. Place your cursor just inside the closing bracket. Press the spacebar and type `spry:hover`. Note that Dreamweaver will start to present available options as you type. After typing `spry:hover` you will be presented with a list of class names from your stylesheet. Choose `rowHover`.

6. Repeat the steps again, this time typing `spry:select`. For the value choose `rowSelect`.

The finished line of code should look like the screenshot below:



```
        <tr spry:repeat="dsl" spry:setrow="dsl" class="{ds_EvenOddRow}" spry:hover="rowHover" spry:select="rowSelect">
          <td>{countryName}</td>
          <td>{region}</td>
```

The Spry functions that you just added will cause the value of the class for each row to change dynamically as you mouse over or select a row. Dreamweaver CS4 has added a powerful new tool for both previewing the results of your changes but also viewing the changes with your code as you interact with it.

7. Click the Live View button to the right of the Code/Split/Design view buttons. The design window will show a fully-functional preview of the changes.

Roll your mouse up and down over the rows. Click to select a row. The classes you created are being applied and you wrote remarkably little code.

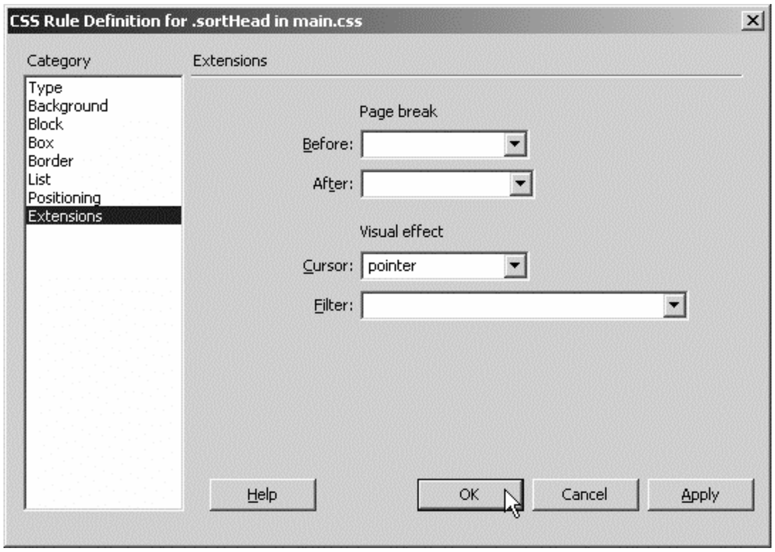
8. Now click the Live Code button to the right of the Live View button and once again mouse over the rows.

The Live Code view displays the dynamically changing HTML code as you mouse over or select a row. Resort the rows and observe the changes in classes as well as the complete reordering of the rows in the code. When you are finished observing these functionality, click Live Code and Live View again to deactivate them.

There is one more subtle change worth making to improve the user's experience. Notice that when you mouse over the table headings your cursor remains an I-bar. If the cursor were a pointer, users would have a better visual cue indicating that the headings were clickable hotspots. You can change that behavior with CSS.

8. Return to profiles.html. Create a new CSS rule. For Selector Type choose Class. Name it .sortHead. Make sure Rule Definition points to main.css. Click OK. Under the Block Category set Text align to center. Under the Extensions Category look for Cursor. In the box next to it type *pointer*. Click OK.

There are many different values for the cursor, some with more support than others. I don't know why Adobe didn't include pointer in the drop-down list, but you can type in your value and Dreamweaver writes the appropriate code.


CSS Rule Definition for .sortHead in main.css

Category: Extensions

Page break

Before:

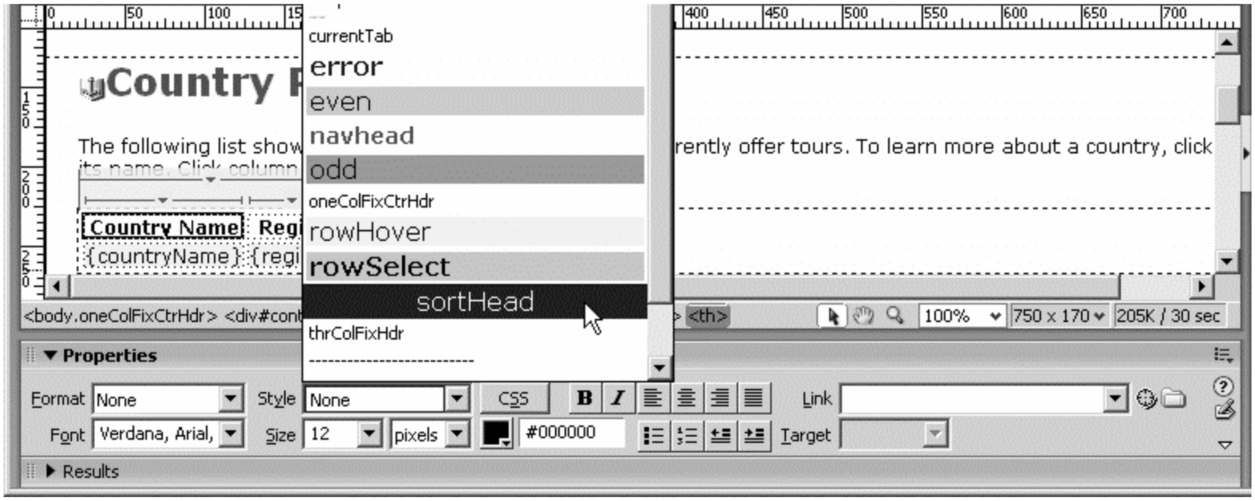
After:

Visual effect

Cursor: pointer

Filter:

9. In design view, use the tag selector to choose the <th> tag for the cell containing the Country Name heading. Using the property inspector, apply your newly created class sortHead to the table heading.


Country P

The following list show... rently offer tours. To learn more about a country, click its name. Click column...

Country Name | Regi...

{countryName} {regi...

<body.oneColFixCtrHdr> <div#cont... <th>

100% | 750 x 170 | 205K / 30 sec

Properties

Format: None | Style: None | Font: Verdana, Arial, | Size: 12 pixels | #000000 | Link: | Target:

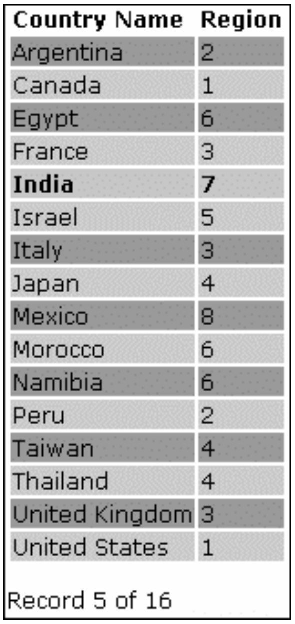
10. Repeat the previous step for the table heading containing the word Region. Save your file. View the changes in Live View.

Now when you mouse over the table headings your cursor changes to a pointer, indicating to the users that there is active functionality in those spots.

Creating Spry Regions

You have only just begun to tap the power of Spry. It was easy to make a table with sortable columns and remarkably simple to style the table and add some rollover functionality. Clicking on the rows in your Spry table can also act as a triggering event for other elements on the page. Rather than send users off to another page to view the details of the selected country or even back to the server for more information, you can use Spry to display the relevant information on this page in a quick, compact and visually pleasing way.

The table row that you modified in the previous section had a Spry attribute that might not have been entirely self-evident. `spry:setrow="ds1"` indicates that when a row is selected it will set any detail regions with a value of ds1 to be on the same row of data as the one selected. A detail region is a Spry area that displays the values for bound variables specific to the record selected in the main Spry region. We’ll start with a simple example of this relationship between the selected row of the table and other data on the page.



Country Name	Region
Argentina	2
Canada	1
Egypt	6
France	3
India	**7**
Israel	5
Italy	3
Japan	4
Mexico	8
Morocco	6
Namibia	6
Peru	2
Taiwan	4
Thailand	4
United Kingdom	3
United States	1

Record 5 of 16

1. Return to profiles.html. Place your cursor after the closing `</div>` tag that follows the closing `</table>` tag. Press Enter/Return once to make space and enter the following code:

```
<p spry:detailregion="ds1">Record {ds_RowNumberPlus1} of
{ds_RowCount}</p>
```

This code creates a paragraph that acts as a Spry detail region. Any Spry variables inside the paragraph respond when the user selects an element in the Spry region. ds_RowNumberPlus1 will display the currently selected row number and ds_RowCount displays the total number of rows in the dataset.

Note: ds_RowNumberPlus1 represents an offset of one from the selected row. This is because JavaScript, like many computer languages, begins labeling records with zero, much like the coordinates on a map or graph start at zero. Since we are counting we add one to the JavaScript label to display the current row number.

2. Save your changes. Press Live View to see your changes.

As you select the various rows in the table, the detail region is updated. Even when you re-sort the table the detail region responds to the selected item’s new position in the table and adjusts accordingly.

Displaying with a Spry Accordion

The country list has been built and you have tested its ability to take user input and change a detail region. Now you need to create a detail region that will display all the details of the country the user chooses.

In order to keep the design compact you can use the area to the right of your table for your detail region. You could just output the variables in your dataset in a list, but Spry has a variety of user interface widgets and effects that allow you to display the data in a way that is more interesting for users. A Spry accordion will allow you to present the details and picture of each country in an eye-catching way without taking up a lot of space. An accordion is a series of panels that expand and collapse to reveal the content of one panel while concealing the content of the other.

1. In design view, position your cursor after the closing `</p>` tag of the Spry detail region you inserted in the previous step. Press Enter to create a space. Choose Insert > Spry > Spry Accordion.

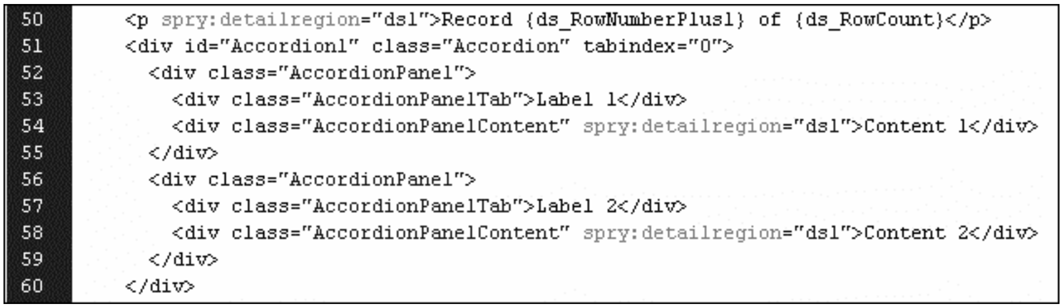
A two-panel accordion set has been inserted into the document. In your document code, the files that style and add functionality to the accordion have been referenced. Once you save your changes, copies of them will be moved to your site directory.

In order to make the accordion panels dynamic Spry elements, you need to identify the areas you want to be Spry detail regions. Then you can populate the panels with the content you want to display. You will need to work in both design and code view, so you can either toggle between the two or work in split view.

2. In code view, find `<div class="AccordionPanelContent">`. Add `spry:detailregion="ds1"`. Repeat the step for the second div.

You can quickly find the divs by selecting the text Content 1 and Content 2 in design view. Dreamweaver's tag insight should help guide you as you type.

You have turned the accordion panels into Spry detail regions. The panels are now ready to accept Spry variables that will respond to the user choices in the main Spry region, your table.



```
    <p spry:detailregion="ds1">Record {ds_RowNumberPlus1} of {ds_RowCount}</p>
    <div id="Accordion1" class="Accordion" tabindex="0">
      <div class="AccordionPanel">
        <div class="AccordionPanelTab">Label 1</div>
        <div class="AccordionPanelContent" spry:detailregion="ds1">Content 1</div>
      </div>
      <div class="AccordionPanel">
        <div class="AccordionPanelTab">Label 2</div>
        <div class="AccordionPanelContent" spry:detailregion="ds1">Content 2</div>
      </div>
    </div>
```

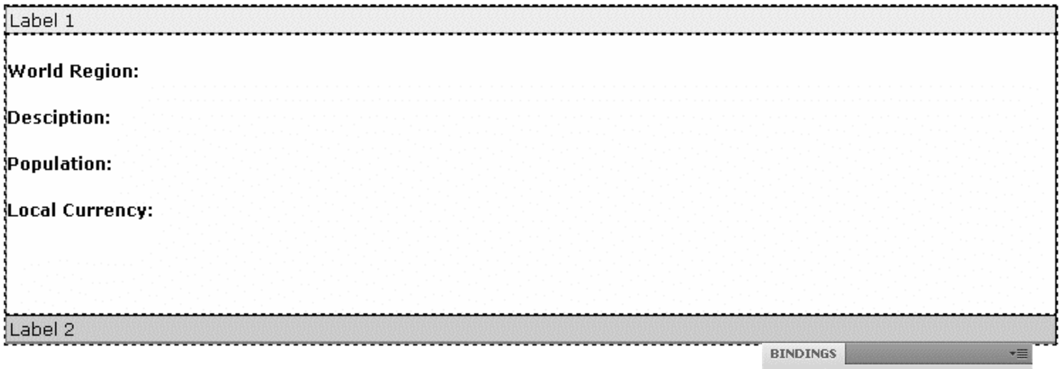
2. In design view, select the text "Content 1" in the first accordion panel and delete it. Type the following text into the first panel, pressing Enter/Return after each line. After typing each line, select the text and make it bold.

World Region:

Description:

Population:

Local Currency:



Label 1

World Region:

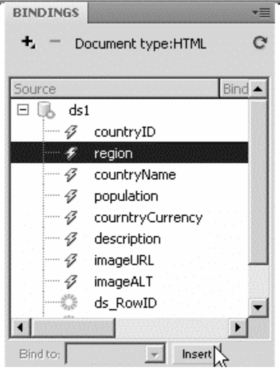
Desciption:

Population:

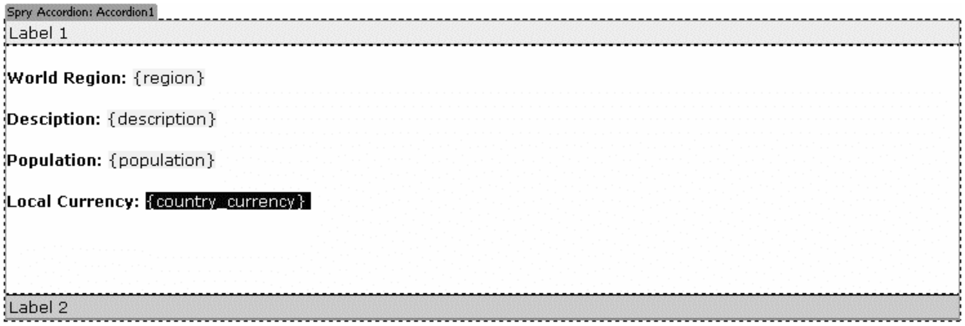
Local Currency:

Label 2

3. Position your cursor at the end of the World Region: line. Hit the spacebar to create a blank space, choose region in the bindings panel and click insert.



4. Repeat for each of the four elements you have labeled, choosing the appropriate variable from the bindings panel for each.



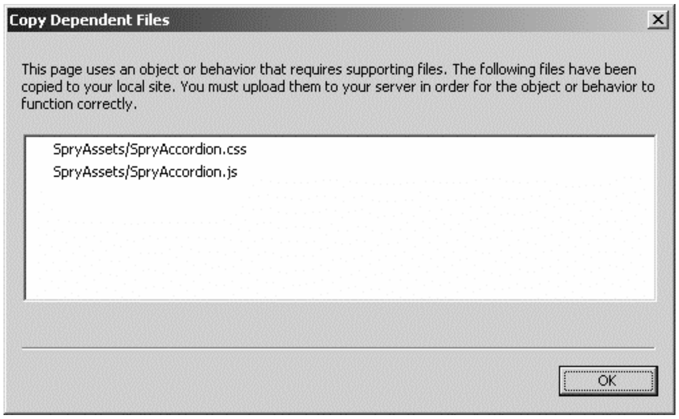
World Region: {region}

Desciption: {description}

Population: {population}

Local Currency: {country_currency}

5. Save your changes. Dreamweaver will notify you that it is moving copies of the Spry accordion files into the Spry Assets folder in your site directory.



Copy Dependent Files

This page uses an object or behavior that requires supporting files. The following files have been copied to your local site. You must upload them to your server in order for the object or behavior to function correctly.

SpryAssets/SpryAccordion.css
SpryAssets/SpryAccordion.js

6. Press Live View to test the page in Dreamweaver or press F12 to preview it in your browser.

The information in the detail region should now respond to your choices in the country table. Click around a bit to test it. Re-sort your table and note that the details of the selected country do not change. Click on the title bar of the second panel, labeled “Label 2” and test the accordion functionality.

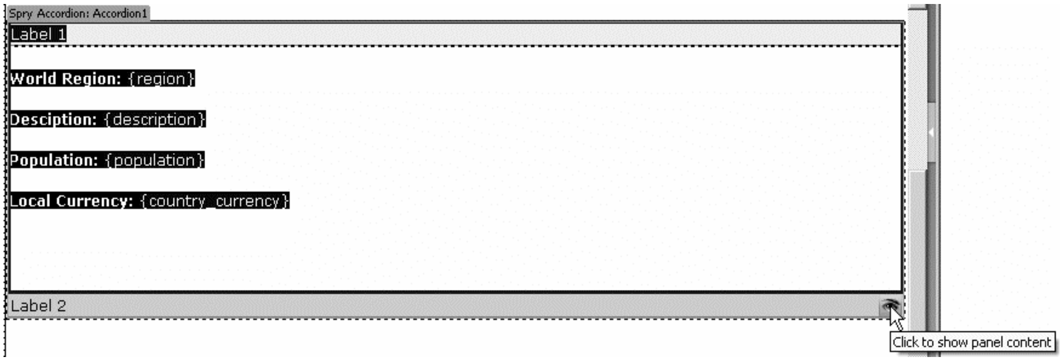
The accordion adds a nice effect, but you still have a lot of work to do before we can call the page complete. In the remainder of this class you will make a number of smaller changes to polish up the page. The second panel needs content. You will add the image associated with each country and its description to that panel. You will display the chosen country name more prominently on the page and replace the region number with its descriptive title. Finally you will make some changes to the CSS to bring the display of the page all together.

Adding Images and the Country Name

The country profile is basically functional, but you could add a little more information. In this task, you’ll add an image and a description of the image and display the chosen country name more prominently.

Each tour and each country has an image, all of which are located in the images folder. An extra field in the database holds the image’s name and URL. To display an image, all you need to do is dynamically load its URL into an otherwise static `<img>` element in HTML.

1. Still in profiles.html, switch to design view, mouse over the right corner of the accordion bar Label 2. An eye icon will appear. Click the eye to open the second panel. Select and delete the text “Content 2”.



Spry Accordion: Accordion1

Label 1

World Region: {region}

Desciption: {description}

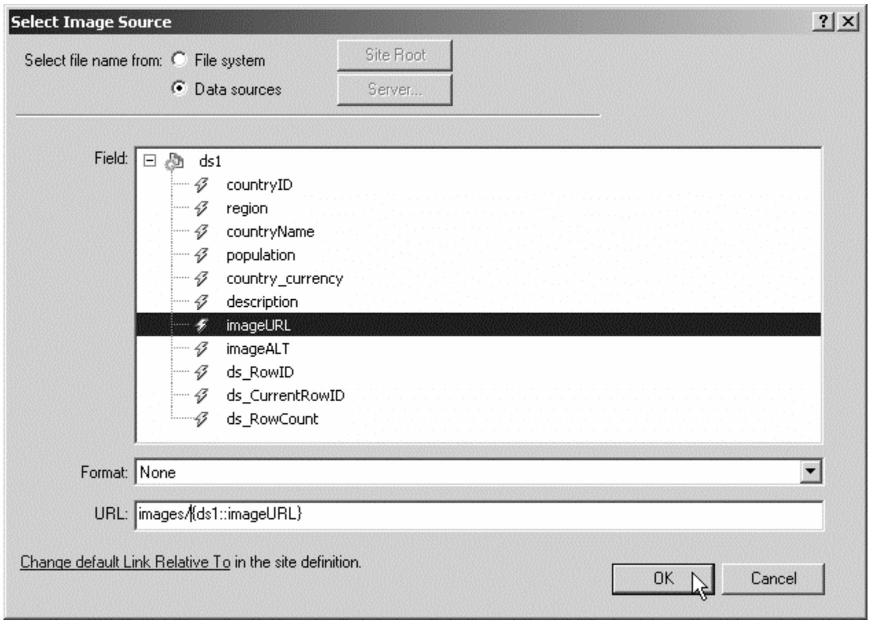
Population: {population}

Local Currency: {country_currency}

Label 2

In a moment, you'll insert the image in this panel.

2. With your cursor inside the content area of the lower accordion panel, choose Insert > Image. In the Select Image Source dialog, select the Data Sources radio button at the top (Windows) or the Data Sources button near the bottom (Macintosh). Select imageURL for the field. Insert your cursor before the opening "{" in the URL field at the bottom of the dialog and type *images/*.



Select Image Source

Select file name from: ○ File system ● Data sources

Field: ds1
- countryID
- region
- countryName
- population
- country_currency
- description
- imageURL
- imageALT
- ds_RowID
- ds_CurrentRowID
- ds_RowCount

Format: None

URL: images/{ds1::imageURL}

Change default Link Relative To in the site definition.

Normally, when you insert images, you browse to the image and Dreamweaver inserts the path. Because this is a dynamic image you are inserting, you don't want to choose an individual image. By choosing Data Sources, you gain access to the recordset that contains the name of the dynamic image. You added the path to the images folder as part of the image URL to indicate the location of the images.

3. When you click OK you will see the Image Tag Accessibility Attributes dialog box. Type *{imageALT}* for the Alternate text. Click OK.

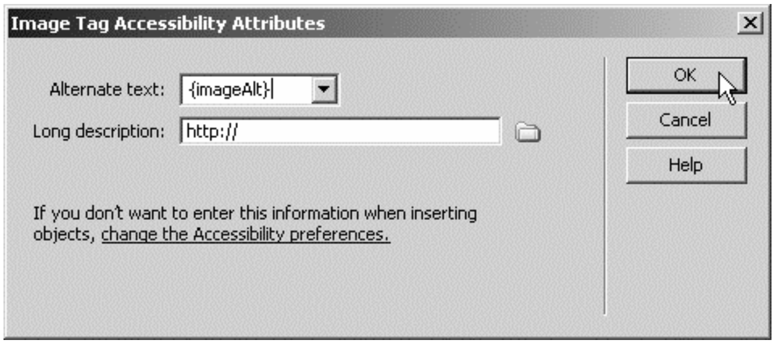


Image Tag Accessibility Attributes

Alternate text: {imageAlt}

Long description: http://

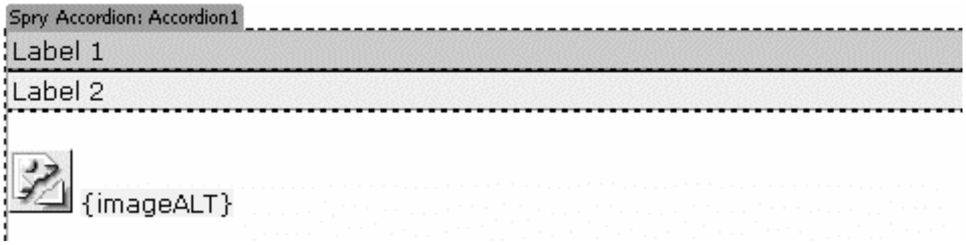
If you don't want to enter this information when inserting objects, change the Accessibility preferences.

The imageAlt field carries a description of the image. In addition to adding it to the images alt attribute we will display it on the page.

Note: You could hard code the path to the images folder into the imageURL field in the database, obviating the need to add it to the URL path in this step. However, site structure sometimes changes. Should you have to rename or move that folder it is much easier to go back and change the path to the images in one place in the code than to have to update the value for the imageURL in every country record in your database.

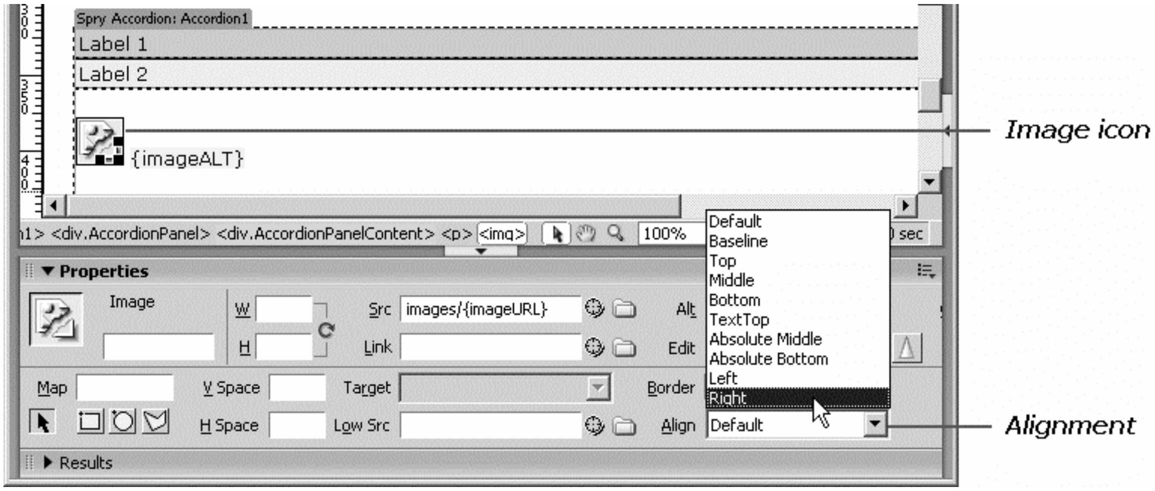
You will have a broken image placeholder graphic in the accordion panel. That is because you have modified the path to image. The important part is the dynamic image name that Spry will use when it renders the page.

4. Insert your cursor after the image icon in the lower accordion panel. In your bindings panel select the imageAlt field and click Insert.



5. Select the image icon and use the Property inspector to change its alignment to Right.

When you are done with this step, the image icon appears on the right side.

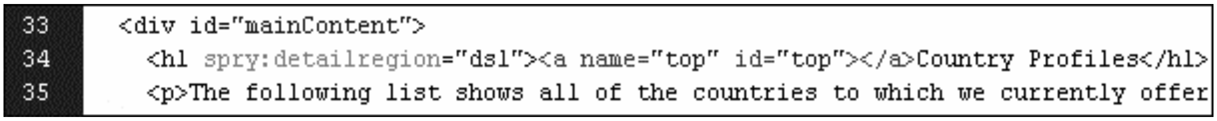


Src images/{imageURL}

Align Default

Before testing your changes, let's quickly take care of a few other data display issues. The name of the country your user selects does not currently display anywhere other than the table. You could add it to the other data in the accordion panel, but it merits a more prominent place on the page.

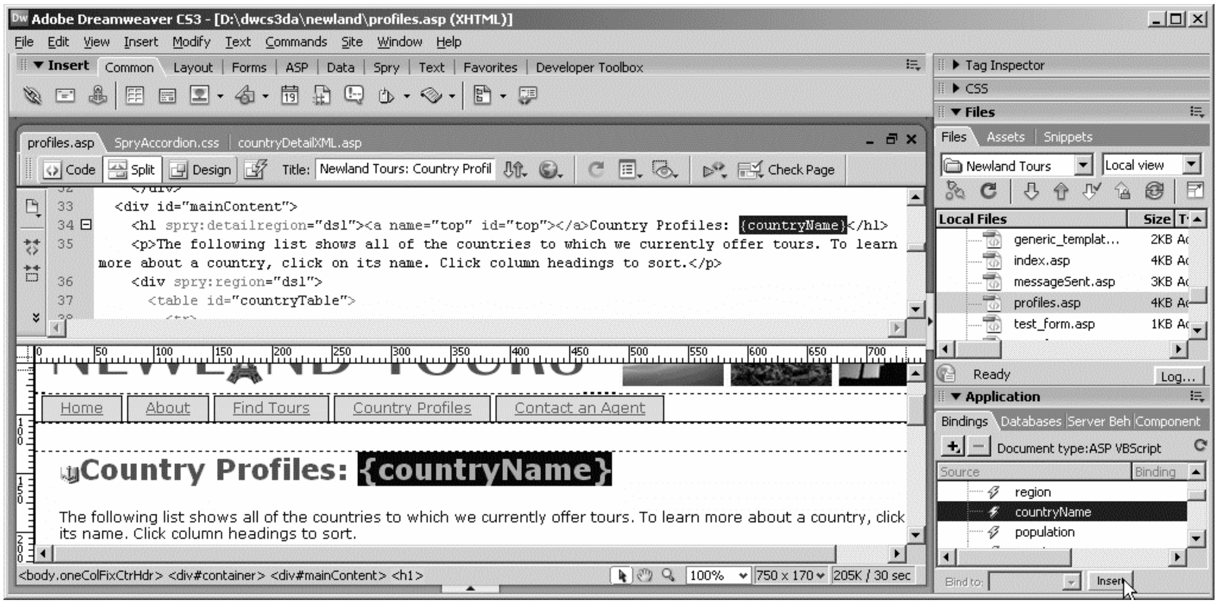
6. In code view, place your cursor just inside the closing bracket of the <h1> tag containing the page banner "Country Profiles". This is approximately line 34. Press the spacebar and type `spry:detailregion="ds1"`.



```
33    <div id="mainContent">
34      <h1 spry:detailregion="ds1"><a name="top" id="top"></a>Country Profiles</h1>
35      <p>The following list shows all of the countries to which we currently offer
```

A Spry detail region is necessary whenever you want to insert a Spry variable that you want to change based on the user selection from the Spry region. Now you can insert the country name.

7. Return to code view. Place your cursor after the word Profiles in the banner. Type a colon “:” and then a blank space. Next select countryName from the bindings panel and click Insert.


Adobe Dreamweaver CS3 - [D:\dwcs3da\newland\profiles.asp (XHTML)]
File Edit View Insert Modify Text Commands Site Window Help
Insert Common Layout Forms ASP Data Spry Text Favorites Developer Toolbox
profiles.asp SpryAccordion.css countryDetailXML.asp
Code Split Design
Title: Newland Tours: Country Profil
Check Page
Tag Inspector
CSS
Files
Files Assets Snippets
Newland Tours
Local view
Local Files Size
generic_templat... 2KB
index.asp 4KB
messageSent.asp 3KB
profiles.asp 4KB
test_form.asp 1KB
Ready
Log...
Application
Bindings Databases Server Beh Component
Document type:ASP VBScript
Source Binding
region
countryName
population
Bind to:
Insert
<body.oneColFixCtrHdr> <div#container> <div#mainContent> <h1>
100%
750 x 170
205K / 30 sec
Home
About
Find Tours
Country Profiles
Contact an Agent

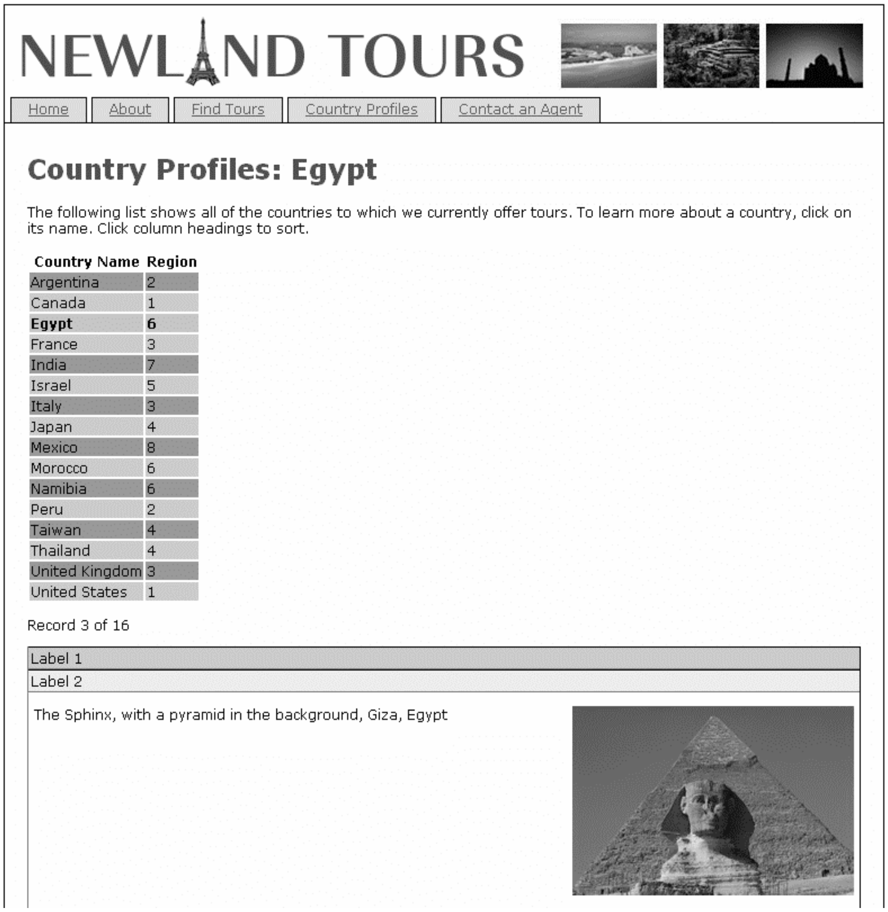
```
    </div>
  <div id="mainContent">
    <h1 spry:detailregion="ds1"><a name="top" id="top"></a>Country Profiles: {countryName}</h1>
    <p>The following list shows all of the countries to which we currently offer tours. To learn more about a country, click on its name. Click column headings to sort.</p>
    <div spry:region="ds1">
      <table id="countryTable">
```

Country Profiles: {countryName}

The following list shows all of the countries to which we currently offer tours. To learn more about a country, click its name. Click column headings to sort.

8. Save, upload, and test the file.

Click through the various country choices in the table. Observe how the country name changes at the top of the page. Click the second accordion panel to display the picture for each country. Choose another country and watch the picture and image description change.



Country Profiles: Egypt

The following list shows all of the countries to which we currently offer tours. To learn more about a country, click on its name. Click column headings to sort.

Country Name	Region
Argentina	2
Canada	1
Egypt	**6**
France	3
India	7
Israel	5
Italy	3
Japan	4
Mexico	8
Morocco	6
Namibia	6
Peru	2
Taiwan	4
Thailand	4
United Kingdom	3
United States	1

Record 3 of 16

Label 1

Label 2

The Sphinx, with a pyramid in the background, Giza, Egypt

Note: You did not format the population number. Ideally you would format it to display commas in the proper places but at the time of this writing the Spry team had not released formatting functions. Formatting functions in ASP, ColdFusion and PHP will not work because they do their work on the server and Spry changes the data on the user's machine, after the server has completed its work. There are possible work-arounds for this issue using other languages, but they are beyond the scope of this class. It is likely the Spry team will provide formatting functions, including one for numbers, in a future release.

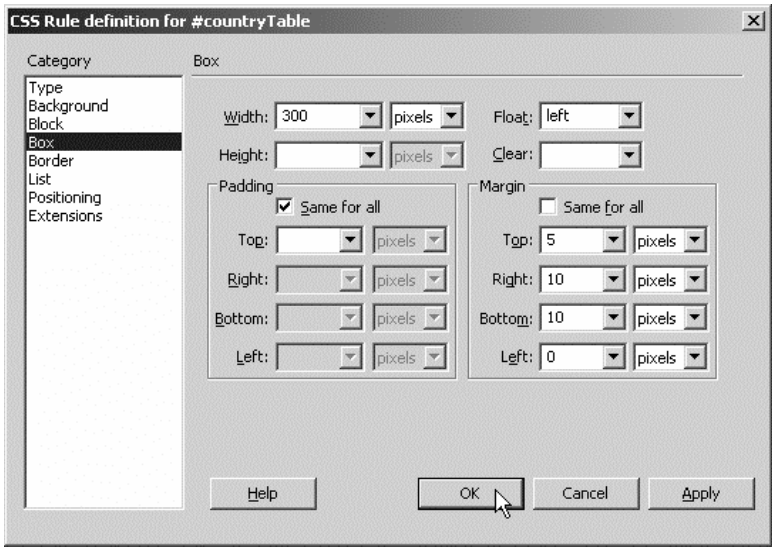
Refining Page Display Using CSS Styling and Positioning

The page is now fully functional and the data is accurate and complete. So your work here is done, right? Well, no, not really. Depending on their screen resolution, some of your users would have to scroll down after choosing a country in order to see the details of their selection in the accordion panel. When you choose a country with a vertical image like France, Peru or Thailand the user has to scroll down in the accordion panel itself to view the entire image. The information in the country table and the accordion panels is a bit crowded against the sides of their respective containers. The accordion panels need proper labels and perhaps most egregious of all, the colors of the panel tabs just don't work with the rest of the scheme. Believe it or not, all of these are easily fixed with a little digital spit and polish.

Some of these changes are dependent on one another, so the sequence in which we make them is important. In order to reduce user scrolling and make the best use of the available screen real estate you can move the accordion up alongside the table. But we need to fix the issues with the country table before you can be sure how much room you will have for the accordion, so let's start there.

Padding and Positioning the Country Table

1. Return to profiles.html. In the CSS panel click the button for a new CSS rule. For Selector Type choose ID. Name it #countryTable and make sure Define in: is set to main.css. Under the Box Category set Width to 300 pixels, Float to left and uncheck the Same for all box under Margin. Add the following values – Top: 5, Right: 10, Bottom: 10 and Left: 0. All values are in pixels.



CSS Rule definition for #countryTable

Category: Box

Width: 300 pixels
Float: left
Padding: ☑ Same for all
Margin: □ Same for all
Top: 5 pixels
Right: 10 pixels
Bottom: 10 pixels
Left: 0 pixels

You have defined a custom CSS selector. The # indicates that it is an ID selector. ID selectors are used for elements that are unique within a page. It is probably clear what setting its width will do, but what about the other values? I'll talk about float in a moment, but how about the margin? The CSS Reference built into Dreamweaver (Shift+F1) defines margin as "... the space that extends beyond the border of an element to provide extra empty space between adjacent or nested elements…" This means we've muscled out a little white space around our table so that other elements do not crowd it.

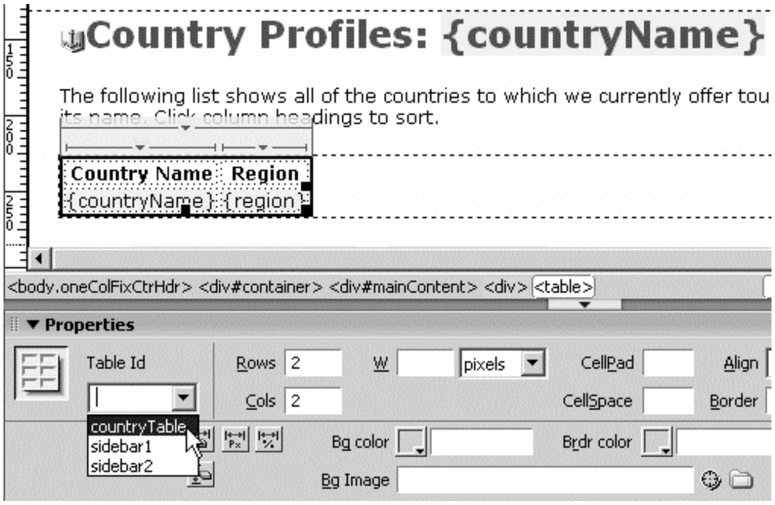
The important distinction between margin and padding, the other option in the Box Category, is that padding is the white space inside the border of the element and the margin is outside. That means that the 10 pixel margin you added to the right of the table element adds space to the 300 pixel width, making it total 310 pixels. Had it been 10 pixels of padding it would put those 10 pixels of white space inside your 300 pixel table element. These are two key components of what is referred to as the "Box Model" in CSS, the other component being the border. To see a clear demonstration of these differences, experiment by adding a 1 pixel border to the table so you can observe the edges of your element. Play with the margin and padding values and see where the space is added. Remove it when you are finished.

Note: For years the various browsers have handled the Box Model differently. I would like to say that all browsers now render code in a consistent, standards-compliant way, but that is unfortunately not the case. It is difficult to make pixel-perfect layouts that are exactly the same in all browsers and you will see some variation in the results of your positioning efforts as you check the page in various browsers.

The other styling change you made is perhaps the most dramatic. You set float: left. That means that the element, in this case the table, will stick to the left side of its containing element while the rest of the page content flows around the table instead of being pushed down by it.

In order to see the effects of the ID selector style you have created you must add the proper ID to the country table.

2. In design view select the country table. If you are not sure you’ve chosen the table tag itself, click first in the table heading and then use the tag selector to choose the table tag. In the Properties inspector choose countryTable from the Table ID list.



Country Profiles: {countryName}

The following list shows all of the countries to which we currently offer tou
its name. Click column headings to sort.

Country Name	Region
{countryName}	{region}

<body.oneColFixCtrHdr> <div#container> <div#mainContent> <div> <table>

Properties

Table Id: countryTable, sidebar1, sidebar2

Rows 2 · W · pixels · CellPad · Align

Cols 2 · CellSpace · Border

Bg color · Brdr color

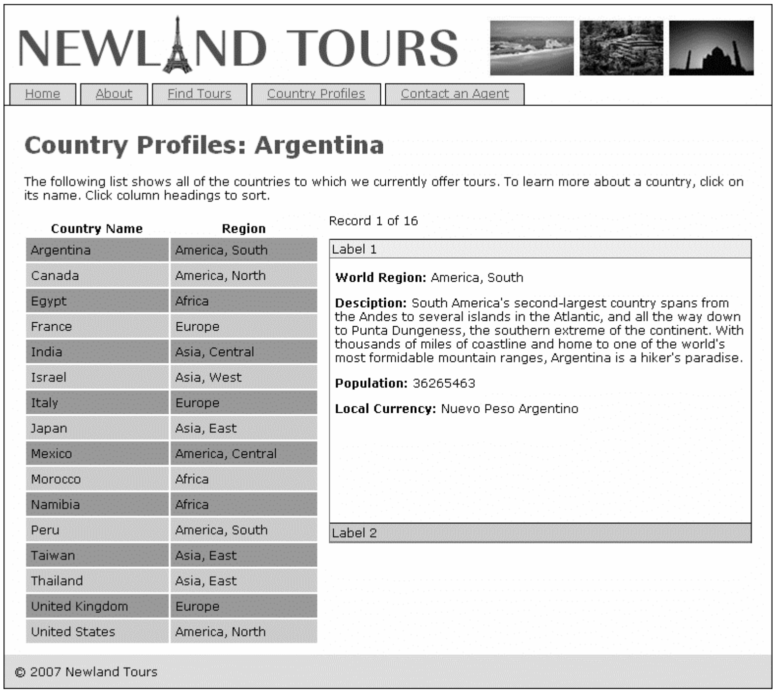
Bg Image

The ID countryTable was present in the list because you had already created the ID selector in the style sheet. Had you done it in the other order you would have been able to type countryTable into the Table ID box before creating the style.

You have now assigned the ID to the table and the styles you created are applied in design view.

3. Save both main.css and profiles.html then view the changes through your browser (F12) or Live View.

When you reload your page you see a fairly dramatic change. The accordion is now alongside the table. That is a testament to the power of CSS. Content flows through a Web page like water in a stream. Normally block elements like paragraphs, headings and tables disrupt that flow, acting like a damn. All content before block elements stays before them and content coming after block level elements occupy the space below them. By styling the table to float left it is as if the table grabs onto the left side of its container and allows the other content to swim in the water next to it. Now the “Record x of x” paragraph, as well as the accordion panels, are able to flow in the space next to the table rather than being pushed downstream below it.



NEWLAND TOURS

Home | About | Find Tours | Country Profiles | Contact an Agent

Country Profiles: Argentina

The following list shows all of the countries to which we currently offer tours. To learn more about a country, click on its name. Click column headings to sort.

Country Name	Region
Argentina	America, South
Canada	America, North
Egypt	Africa
France	Europe
India	Asia, Central
Israel	Asia, West
Italy	Europe
Japan	Asia, East
Mexico	America, Central
Morocco	Africa
Namibia	Africa
Peru	America, South
Taiwan	Asia, East
Thailand	Asia, East
United Kingdom	Europe
United States	America, North

Record 1 of 16

Label 1

World Region: America, South

Desciption: South America's second-largest country spans from the Andes to several islands in the Atlantic, and all the way down to Punta Dungeness, the southern extreme of the continent. With thousands of miles of coastline and home to one of the world's most formidable mountain ranges, Argentina is a hiker's paradise.

Population: 36265463

Local Currency: Nuevo Peso Argentino

Label 2

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Padding and Positioning the Accordion Panels

Now that you have the accordion panels in the right area of the page you can make final adjustments to their display. Let's begin by giving appropriate labels to the accordion panel tabs and making them more prominent.

1. Switch to code view. Locate the accordion panel. It should start around line 50. The label for the first tab is `<div class="AccordionPanelTab">Label 1</div>`. Change the text for the first panel tab from Label 1 to Details and change its tag from div to h3. Your code should now resemble the code listing below.

```
<h3 class="AccordionPanelTab">Details</h3>
```

By changing the panel tab to an h3 you take advantage of h3's built in font size and bolding. In code view you can make that change easily by simply editing the tag. If you make the change in design view Dreamweaver wraps an h3 tag around the label inside the div. This method puts too much space in the tab. I encourage you to test it out both ways and observe the results.

2. Repeat these steps for the second tab. Change Label 2 to Image and change the tag from div to h3. Save profiles.html and view your changes.

The remaining display modifications will be made to the style sheets. The accordion panels have their own CSS file, but you can access it easily through the CSS panel while you have profiles.html open. Note that you can quickly access the CSS files themselves through Dreamweaver CS4's new Related Files Toolbar. All linked or included files are listed across the top of your file's window and can be quickly accessed by clicking their names.

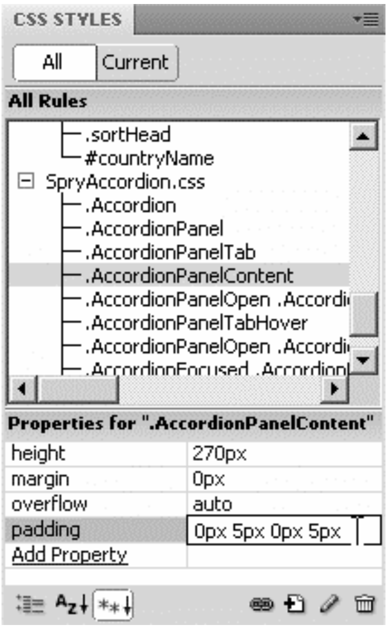
The vertically-aligned images used for countries like France and Thailand force a scrollbar in the panel. You can remedy this by making the panels' content cell taller.

3. Open the CSS panel and scroll to the bottom of the list of selectors where the styles from SpryAccordion.css are displayed. Single-click on .AccordionPanelContent. Its properties will be displayed in the Properties pane under the selectors list. Change the height attribute from 200 to 270.

If you double-click on a selector it will open its full editing window. This quick shortcut is handy, especially if the property already exists and you simply want to modify it.

Currently the content in the accordion panels rests against the sides of its panels. As we learned earlier, when you want to create white space on the inside of a container you use padding. Padding, like margin and border, is applied either as one value to the entire box or four values, representing each side of the box, starting at the top and moving clockwise around the element. In order to move the content off of the sides of the panel you can add padding to the left and right. There is no need to add any padding to the top or bottom as the elements inside the panels are all inside of `<p>` tags, block elements with built-in top and bottom margins that set them off from neighboring elements above and below.

4. Staying in the Properties pane at the bottom of the CSS panel, place your cursor after the padding value 0px, press the spacebar and then add 5px 0px 5px. The final value should read 0px 5px 0px 5px. Press Enter/Return or tab out of the field to make the change.



Properties for ".AccordionPanelContent"

height	270px
margin	0px
overflow	auto
padding	0px 5px 0px 5px

If you look at the .AccordionPanelContent class in SpryAccordion.css, around line 70, you will see `padding: 0px 5px 0px 5px;` listed among its properties. This form of CSS shorthand is the effective equivalent of the following:

```
padding-top: 0px;

padding-right: 5px;

padding-bottom: 0px;

padding-left: 5px;
```

Your final change to the page is to bring the colors of the panel tabs in line with the rest of the design. You can make these changes using the handy shortcut you learned in the previous steps or the traditional way by double-clicking and opening the edit window. I leave the choice up to you.

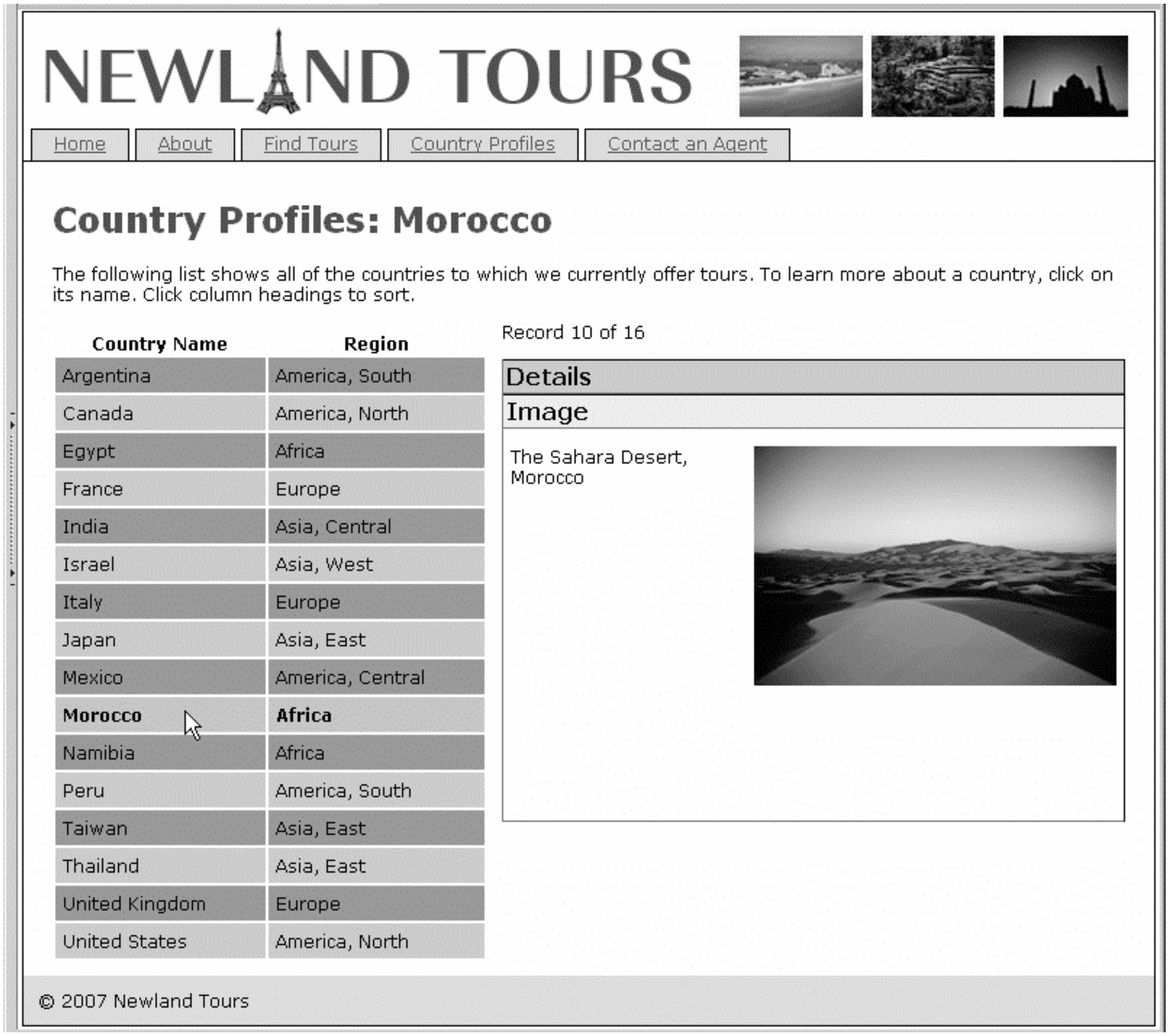
5. Locate the .AccordionFocused .AccordionPanelTab selector. Change its background color to #FFFF99. Next locate the .AccordionFocused .AccordionPanelOpen .AccordionPanelTab selector and change its color to #FFCC33.

These two selectors are considered advanced selectors. They reflect the relationship of elements much like the padding you added to the td that was a descendant of the countryTable earlier in the class. The first is for an element with the class AccordionPanelTab that is a descendent of an element with the class AccordionFocused. If you look in your code you will not see any element with the AccordionFocused class. Spry dynamically adds that class to the main accordion div when you click anywhere on the accordion.

The second advanced selector reflects yet another layer of ancestry, again with Spry dynamically adding the AccordionFocused and AccordionPanelOpen classes to the elements based on the user's mouse clicks. Nice functionality. Aren't you glad Spry has written it for you? It has saved quite a bit of time.

Note: In my testing, the Live View and Live Code did not show the AccordianFocused class or the results of these last changes. They are reflected in the final product in your browser.

6. Save your changes and press F12 to preview. Make sure to save SpryAccordion.css as well as profiles.html.



Country Profiles: Morocco

The following list shows all of the countries to which we currently offer tours. To learn more about a country, click on its name. Click column headings to sort.

Country Name	Region
Argentina	America, South
Canada	America, North
Egypt	Africa
France	Europe
India	Asia, Central
Israel	Asia, West
Italy	Europe
Japan	Asia, East
Mexico	America, Central
Morocco	**Africa**
Namibia	Africa
Peru	America, South
Taiwan	Asia, East
Thailand	Asia, East
United Kingdom	Europe
United States	America, North

Record 10 of 16

Details

Image

The Sahara Desert, Morocco

© 2007 Newland Tours

You have created a dynamic application for displaying the country profiles that not only provides your users with the information they need to learn about the countries your client's tours visit, but you did so in a way that provided a richer experience for the users. We will revisit Spry later in the book and I encourage you to keep an eye on the Spry development team's future releases on http://labs.adobe.com/.

What You Have Learned

In this class, you have:

- Used the Adobe Spry library to convert data into dynamic content
- Created a compact layout using Spry user interface elements to display a country profile
- Used CSS to position page elements and style Spry elements with advanced custom selectors

Additional Spry Functionality in Dreamweaver CS4

The Spry framework has a great many effects, functional widgets and data options. Not all of them are available through Dreamweaver's insert menus, but you can use any of them in the pages you build. Time permitting we will look at some of the other built in features together.

Spry Validation

Validation widgets are form elements that give the user feedback, positive or negative, to indicate whether they have entered text according to the correct pattern, selected the appropriate element or neglected a required field. Dreamweaver CS4 includes a number of Spry validation elements that will make your coding task much simpler. Before creating some of your own Spry validation elements, take a look at the range of options available to you.

1. Open the Spry Demos page (http://labs.adobe.com/technologies/spry/demos/index.html) in your web browser. Click on Validation Widgets.

This page displays the validation elements available in Spry and available to you through the Dreamweaver insert menu.

2. Before entering any data, click the Submit button at the bottom of the form.

The form validation functionality is immediately apparent. Spend a moment filling in the fields and fulfilling the form requirements.

3. Click the View Source link at the top of the page.

The areas of HTML that contain Spry code are highlighted in yellow. Scroll through the code looking at the validation code. Even if you do not write HTML, it is not difficult to understand the code it has written and to see how you might modify it.

4. Return to Dreamweaver. Click File > New… and create a blank HTML page with no layout. Save the file as validationTest.html.

Now it is time to play with the validation elements. We will insert one Spry form element and set up its validation and then you will have time to add more.

5. Click Insert > Spry > Spry Validation Text Field. Set the element's ID to *participantEmail* and the label to *Email Address*. Leave the other default choices and click OK. If prompted, agree to adding a form tag.

You have added a form and text input field to the page. The code Dreamweaver has written does not have the kind of obvious Spry attributes used earlier in the class. At the bottom of the document you will see a small amount of JavaScript code that activates the validation. The Spry JavaScript and CSS files for the text field validation will be added to your site folder when you save the file.

6. Save your file, agreeing to copy the Spry files to your site. Examine your options for configuring the validation widget in the property inspector. If necessary, choose `<span#sprytextfield1>` in the tag inspector to activate the appropriate property.

The property inspector gives you a number of options. The Type list gives you a variety of "masks" that the user input must validate against. If you choose a type like Date, the Format drop-down gives you the specific pattern the user must match. Some types give you the option of a custom format. In those cases you fill in a the pattern the input must conform to in the Pattern field. In order to display default text in the input field that will disappear when the user clicks in the field, enter that in the Hint field. By default the validation will take place when the user attempts to submit the form. In order to trigger the validation when the user clicks or tabs out of the field, check Blur from the Validate on list. The Preview states drop-down allows you to see the various states that the user will see. You must be in Split or Design view in order to see the effect.

7. Set the type for this field to email address and choose to validate on blur. Add a hint if you would like.

Before moving on preview the various states you have created by toggling the preview states in the property inspector. If you would like to change the text presented to the user for required or invalid input feedback, you may do so by editing the text in the preview state or in code view.

Before saving and testing your changes you should add a submit button to the form.

8. With your preview state set to initial, insert your cursor after your text field and press Enter to add a blank line. Click Insert > Form > Button. If you are presented with the choice of which kind of button, choose *submit*. Set its ID to *submit* as well. Save your changes, click F12 to open the page in your browser and test your work.

Take some time to add other validation fields. Test out the drop-down (select), radio group, checkbox, textarea, etc. With each addition Dreamweaver will add links to the appropriate files to your document and when you save you will be prompted to place copies in your directory.

Spry Widgets

In addition to the validation effects for traditional form elements, Dreamweaver CS4 also includes a number of visual design widgets for your convenience. We have already seen the Spry Table and Spry Accordion. Dreamweaver CS4 also includes these other visual widgets:

Menu Bar - A Menu Bar widget is a set of navigational menu buttons that display submenus when a site visitor hovers over one of the buttons. Menu Bars let you display a large amount of navigational information in a compact space, and also give visitors to the site a sense of what is available on the site without having to browse it extensively.

Tabbed Panel - A Tabbed Panels widget is a set of panels that can store content in a compact space. Site viewers hide or reveal the content stored in the Tabbed Panels by clicking the tab of the panel they want to access. The panels of the widget open accordingly as the visitor clicks different tabs. In a Tabbed Panels widget, only one content panel is open at a given time.

Collapsible Panels - A Collapsible Panel widget is a panel that can store content in a compact space. Users hide or reveal the content stored in the Collapsible Panel by clicking the tab of the widget.

Tooltip - The Spry tooltip widget displays additional information when a user hovers over a particular element on a web page. The additional content disappears when the user stops hovering. You can also set tooltips to stay open for longer periods of time so that users can interact with content inside the tooltip.

There will not be time in this class to test each of these but you are encouraged to do so. Documentation of how to use each in Dreamweaver is available in the help files at http://help.adobe.com/en_US/Dreamweaver/10.0_Using/index.html. Full Spry documentation is listed in the resource section that follows.

Additional Resources

This class has just brushed the surface of the wonderful power of both Dreamweaver CS4 and the Spry Ajax Framework. Below are a few resources that will help reinforce what you have learned here and lay a path for you to take your learning further.

Spry Homepage - http://labs.adobe.com/technologies/spry/home.html

Spry Resources on Adobe Devnet - http://www.adobe.com/devnet/spry/

Creating an HTML data set for Spry in Dreamweaver - http://www.adobe.com/devnet/dreamweaver/articles/spry_creating_html_data_set.html

Creating an XML data set for Spry in Dreamweaver - http://www.adobe.com/devnet/dreamweaver/articles/spry_creating_xml_data_set.html

Creating a Spry photo album in Dreamweaver - http://www.adobe.com/devnet/dreamweaver/articles/spry_photo_album.html