

Exclusive Performance: Tire and Wheel Website

By

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Abstract

Exclusive Performance is an information Website for prospective customers. This Website gives its visitors a chance to see top of the line rims and tires for their vehicles. The rims and tires are presented in a stylish and organized manner. The Website also gives the prospective customers a chance to register information about their car or truck, in order to they can receive information about special upcoming deals that may interest them. The Website has an administrative section to allow for updates to any section without knowing HTML. The administrator can modify any section of the Website from the rich text editor provided. Also, the administrator can modify the content of the database regarding the tires or rims. This Website uses Macromedia's Flash for the navigational menu, is currently hosted on an IIS 5 server, uses Macromedia's ColdFusion for the scripting language, and Microsoft's Access as the database. This website was created to inform and advertise the Wheels and Tires sold at this shop.

Exclusive Performance: Tire and Wheel Website

1.0 Statement of the Problem

The Exclusive Performance Tire and Wheel shop wanted to advertise in a mass media market. They wanted away to distribute information about their goods and services to attract more business. The company felt distributing the information in print would be too confining; meaning they would not be able show all the tires and wheels. Television ads would be confining as well, because they would have a limited amount of time to show their product.

2.0 Description of Solution

A way to advertise, inform, and entertain is to create to Website for the shop. A Website will give the shop the space needed to show all their Wheels and Tires unlike a print form of distribution. Also, a visitor of the Website can study the tires and rims as long as they want, unlike thirty second television ads. The Website will be used primary to showcase items the shop sells. It will be mainly an informative Website. Their will be a section of the Website that will be link to a database which contains information and pictures about the tires and rims they sell. The Website will also have an administrative section that will allow authenticated users to make changes to the site online, without knowledge of HTML.

3.0 Intended Use

This Website is designed to let a customer see what the Exclusive Performance tire and wheel shop offers. This Website will let a customer see the types and brands of

tires and wheels the shop sells. Also, this Website will allow the customer to join a e-mailing list, so they can get e-mails about special events and sales going on in the shop. In addition to the e-mailing list the customer has access to a “How To” section. This section shows the customer the process of tire mounting and balancing in a power point slide show format. The presentation will show the customer the equipment used to mount and balance their tires during installation.

The Website will also have administrative capabilities. The person or persons responsible for updating the Website can do so from the Website. In the administrative section of the Website there is a place where the administrator can send e-mails to all users in the e-mail list. Also, the capabilities to remove, and modify tires or wheel will be in this section. If time permits report generation capabilities would be added to this site.

Exclusive Performance
User Profile

4.0 User Profile

There are two groups all users of this will be in. These two groups are customers and administrators.

4.1 Customers

The customers group is the largest and most important group. The Website is directed at this group. The primary goal of this group is to be informed of what the shop has to offer. This group has a few requirements that need to be met.

1. Must know how to operate a Web browser
2. Must being interested in quality wheels and tires
3. And have internet connectivity

4.2 Administrators

The administrators group is the group that is responsible for updating the Website. The primary job of this group is to keep the tire and wheel listings current. Secondly, they are responsible for informing customers of specials and events around the shop. This group has more requirements than customers.

1. Must understand basic html
2. Must have a clear understanding of Web browsers
3. Must have a understanding of how databases work
4. Must be able to follow directions well

5.1 Server Setup & Security

The server technology that will be used to complete this project is Macromedia's ColdFusion 5. Since ColdFusion needs to be installed on a server, Internet Information Systems 5(IIS) will be used as the base server. Windows Intergraded Authentication will used to verify identity when logging in to the Administration section. The main Website and the Administrative Website will be setup in different directories. This will allow the entire admin Website can be protected by Windows Authentication.

5.2 Data Source Design

Database used will be Microsoft's Access 2003. ColdFusion allows the use of SQL syntax to connect to the Access data source. Queries will extract data from the database to create dynamic pages. The tables in the database are relational. The following is a diagram of the relations in the database.

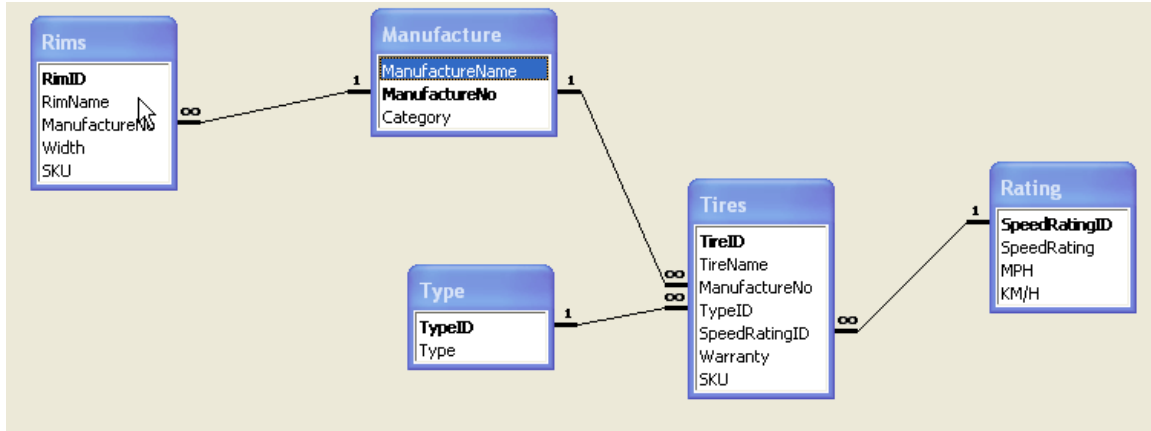


Figure 1: Relationships

5.3 Hardware

Computer	Dell Inspiron	5150
	Hard drive	30 Gigabytes
	Ram	512 Megabytes
	Processors	Intel Pentium 4 3.20 GHz

6.0 Site Design Layout

Organizational Setup

The Website flow is organized by the links. All pages can be accessed from any page. All pages are designed for the customers view. The Website is setup into two different sections. Section I is the public view. The public view is for customers and other visitors of the site. Section II is the private view. The private view is for the administrator of the Website.

6.1 Public Section

The public Website has eight sections. Five of the eight sections are dynamic. The content for the site is being pulled from the database. It is setup this way so that the administrator can update the site through the Web interface in the administrator section.

Following is a listing and description of all the sections on the Website.

- **Home Page:** Is the introductory page it just has a picture and the main links that are on each page.
- **View Inventory Page:** The Inventory page consist of two lists of links. These lists are generated dynamically. These are grouped by Tire or Wheel manufacturer. Once the user selects a manufacturer, they are taken to the description page. This page consists of a list of links on the left side. It also has an inner frame, which is directed to a page pulling information about the tire or wheel.
- **About Us Page:** The about page shows the history of the shop, mission statement and goals.
- **Contact Us Page:** Contact us page is the page that contains information concerning location, Email, store hours, and phone numbers.
- **Site Map Page:** The site map shows the layout of the pages on the Website.
- **How to Section:** The how to section is a Power Point slide show that shows the visiting customer procedures used during mounting and balancing. This slide gives a detail description on what happens while the tires and wheel are being installed.
- **Specials Page:** The specials page has information about special events and sales going on in the shop.
- **Register Page:** The register page is a web form that sends the customers information to a database. This information is stored and can be viewed by the administrator.



Figure 2: Homepage

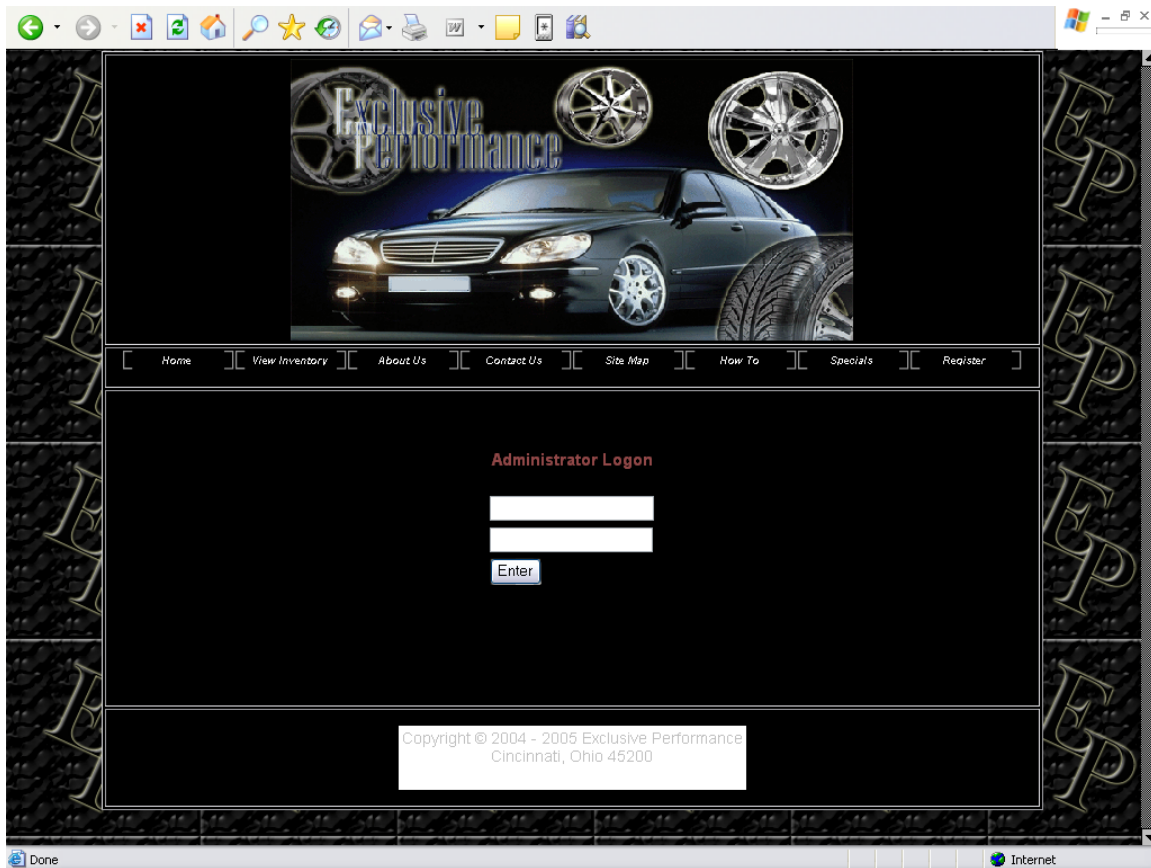


Figure 3: Administrator Logon

6.2 Private Section

The administrator might have to type in special query string in at the end of the URL. This will ensure that the administrator login page is not accidentally accessible. The login is checked against usernames and passwords in the database. The administrative section has the ability to remove, or modify tires or wheels in the database. Also, administrator has the ability to send emails to the members who have registered. These emails will contain information about specials deals and events going on in the shop. See **Appendix A**. When the administrator is needs to update the Web pages, they can do so in the “Rich Text Editor” mode, which is the default, or in HTML mode. HTML mode is accessed by right clicking in the text area and selecting “Edit Source.”

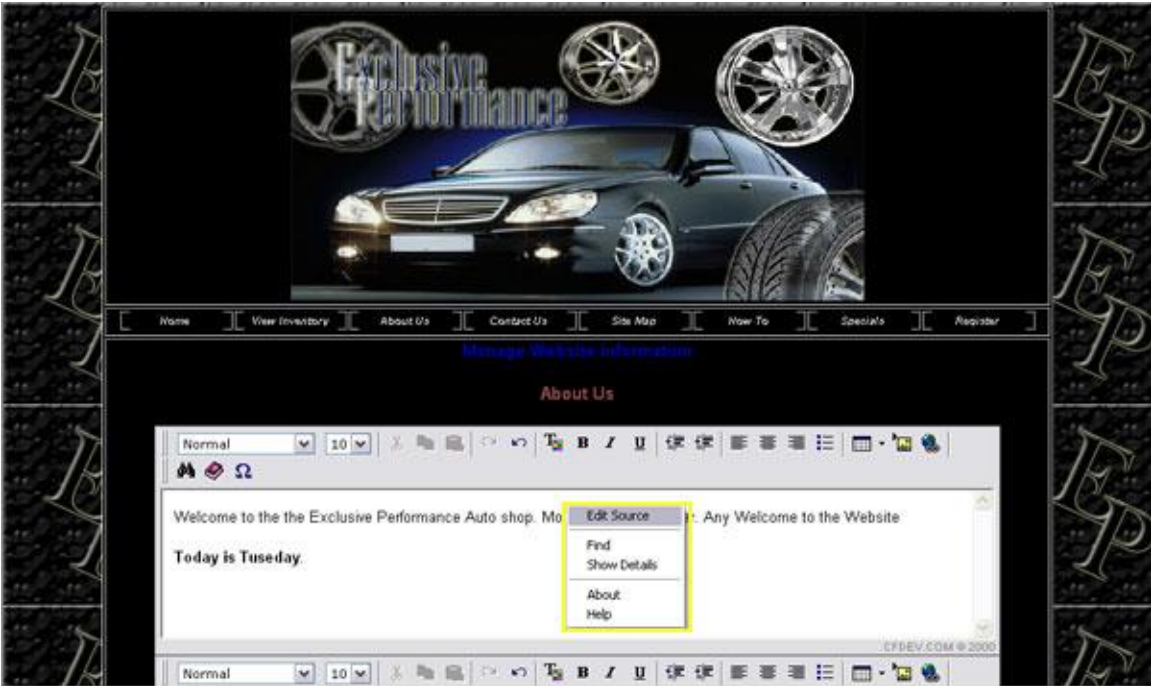


Figure 4: Rich Text Editor

7.0 Deliverables

These are my deliverables.

1. A Web site that will aid a customer in their search for tires or wheels.
2. A Tire and Wheel installation presentation that will that will inform the customer of the installation process.
 - a. The presentation is a forty-five slide PowerPoint presentation. This presentation shows how a tire is taken off the rim and how to properly install the new tire on the rim. This presentation also shows how to correctly balance a tire and rim assembly.
3. A general navigation bar on every page for easy navigation of the Website
 - a. The Website has a menu made in Flash that is near the top of each page. Visitors can access each page from any of the sub pages. See **Appendix E**.
4. A dynamic front-end interface developed in HTML, ColdFusion, and JavaScript.
5. Authentication for administrative users of the site, using one of the following:
 - a. Basic Authentication
 - b. Digest Authentication
 - c. Windows Integrated Authentication
6. Authenticated users will be able to:
 - a. Remove/Modify Tires or Wheels in the database
 - b. Email registered user
 - c. Modify the Specials section of the site
7. A Website layout that will be easy to navigate.
 - a. The Website has a menu made in Flash that is near the top of each page. Visitors can access each page from any of the sub pages. See **Appendix E**.
8. Web interface that will allow the administrator modify pages. See **Appendix B**.
9. Images that will give the customer a visual representation of information they are presented.
 - a. Every picture of the tires and wheels has a description associated with it.
10. A registration page that will allow customers to receive information regarding special offers and events via Email
11. A header and footer template that will wrap around the content of the Webpages

8.0 Budget

Program	Developer	Cost
ColdFusion 5	Macromedia	\$1,656.48
Flash MX 2004	Macromedia	219.95
Office	Microsoft	409.99
Photoshop CS	Adobe	589.99
	Total	\$2876.41
	My Cost	<i>Free</i>

Figure cost 1: These prices are listed on Amazon.com.

This is a cost break down of the development software that I am using to create the Website. Since the business is a small business, they want to stay within a budget of \$2,500 – 3,000. This budget should work, depending on the functionality they want to have on the Web site.

9.0 Header and Footer Template

The header and footer templates will be created using HTML and ColdFusion coding. The header code goes into a file named “application.cfm,” which goes in the root level of the Website directory. Unless specified, the layout (i.e. Style Sheets, table layouts, images, etc...) will be put on to the each .cfm file. The same is done with footer; it goes into a file name “onrequestend.cfm.” This will be placed at the end of each page. The header and footer file gives the site a uniform look and feel. The code for the application file can be seen in **Appendix C**, and the footer file is in **Appendix D**.

10.0 Timeline

- I. Senior Design I
 - a. Research from September 26 to October 15.
 - b. Start writing proposal, and continue research - October 1.
 - c. Have teacher review proposal before November 4.
 - d. Rewrite proposal by November 11.
 - e. Design Database November 8.
 - f. Present proposal November 18
 - g. Begin creating database November 15.
 - h. Turn in final draft December 2.

- II. Senior Design II
 - a. Finish database by January 10.
 - b. Design Website layout January 2.
 - c. Work on Website from January 3 to February 1.
 - d. Design layout of Web site February 3.
 - e. Work on Web site from February 4 to March 1.
 - f. Do preliminary test of Website from March 3 to March 8.
 - g. Present prototype March 11.

- III. Senior Design III
 - a. Do more testing and make more correction/additions from March 20.
 - b. Add finishing touches to Website from April 25 to May 15.
 - c. Present final project at Tech Expo May 20.
 - d. Turn in final paper June 4.

11.0 Conclusions and recommendations

There are two things that I would add to the site to make it more functional. First of all, I would add a tire and wheel sizing function. The site visitor would enter the year, make and model of their car into a form, the form will return the original equipment size of the tire and rims. The form will also return all optional sizes listed by the manufacturer. The second function I would add to this site is a shopping cart. The shopping cart would allow site visitors to order tires and rims from the Website. The problem with this is that if someone orders tires or rims that will not work for their vehicle, the ones ordered will have to be sent back and new ones will have to be ordered. This could be a time consuming process. However, the shopping cart functionality would be a more efficient way to order the tires and wheels.

The Website as it stands right shows information regarding wheels and tires the store sells. This site will aid a visitor in their decision on what tires and wheels to buy. It will also give the shop the advertisement it needs to compete for business in this field. Having a Website for advertisement is more useful than print, television, or radio ads. The Website contains more information than the other forms of communication. The Website is also a source of constant information unlike television or radios ads. This gives perspective customer immediate and reliable access to information on the tires and wheels.

Appendix A

This is what the administrative section will look like.



Appendix B

This is the text editor the administrator will use to change the Web pages. Also, the second image will show the tire and rim editor.

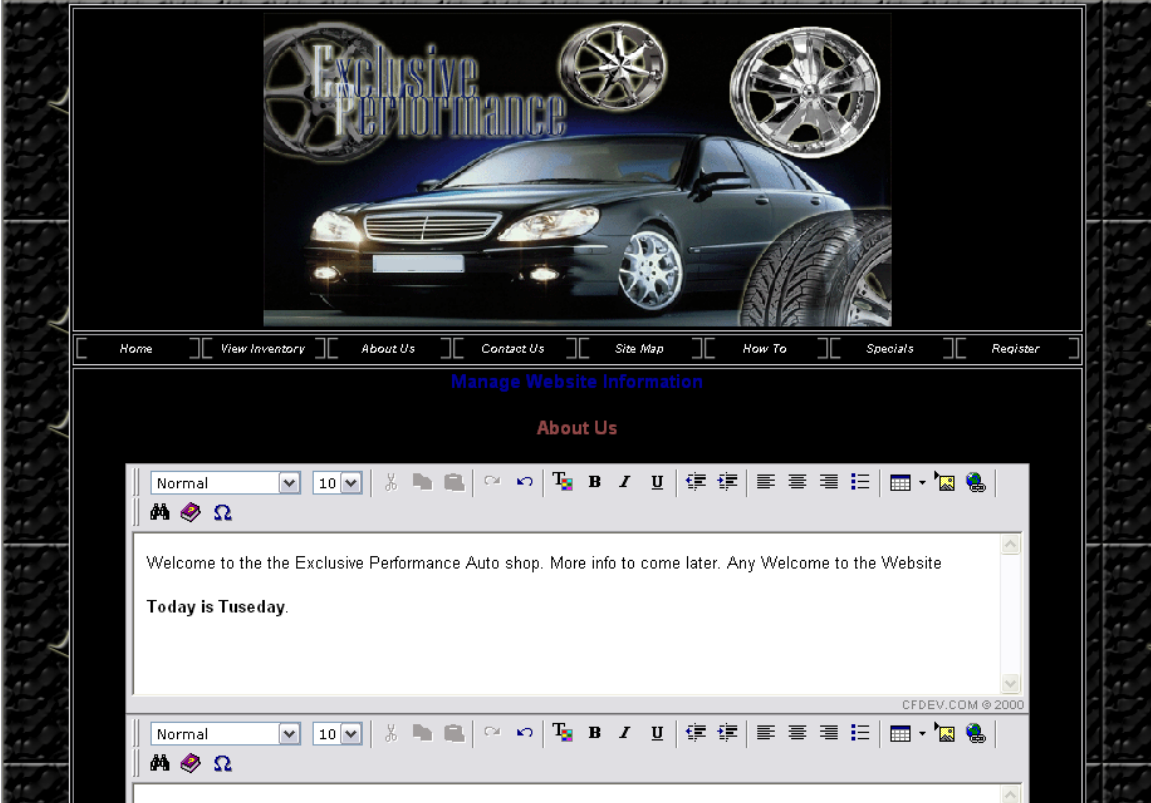


Figure B 1: Text editor

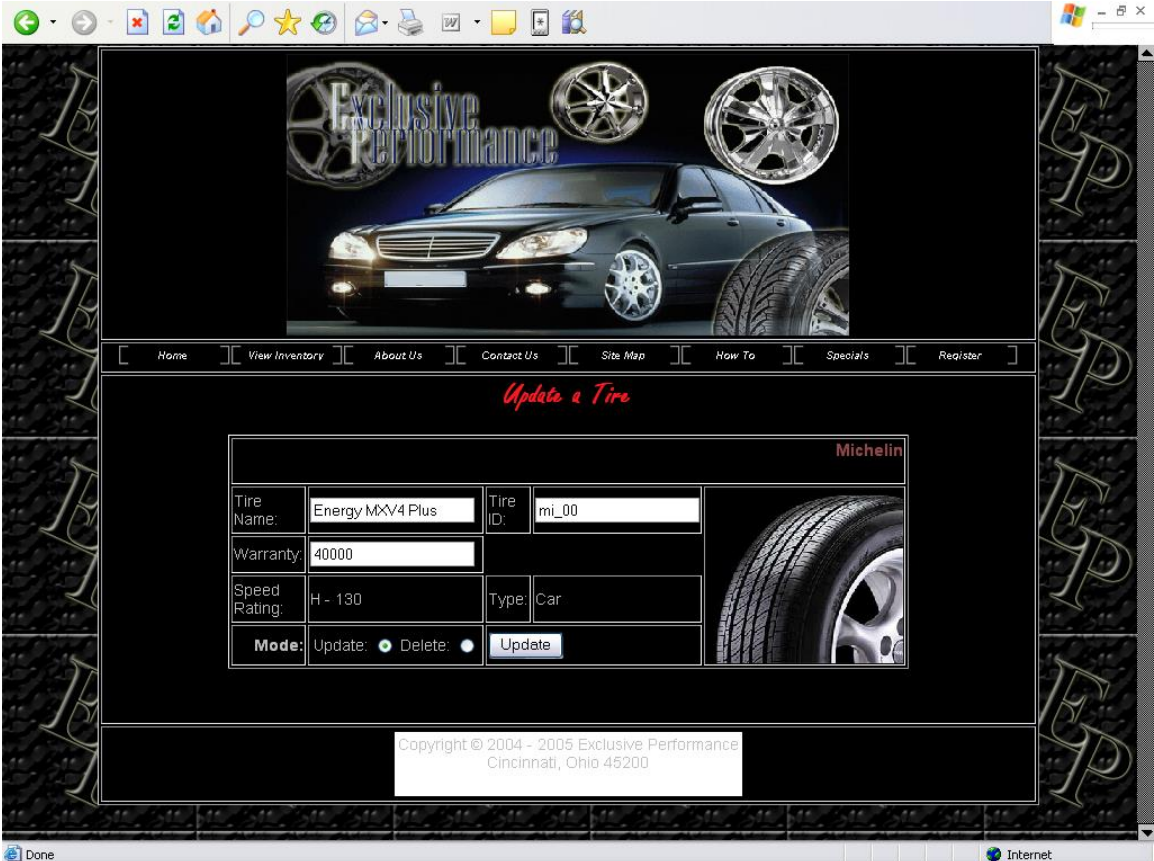


Figure B 2: Tire Editor

Appendix C

Application file code

```

<!-- This tell the server to not put the application file around the files listed --->
<cfif find("popUp.cfm",#cgi.script_name#) is 0 and
find("TpopUp.cfm",#cgi.script_name#) is 0>

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">

<html>
<head>
    <title>Exclusive Performance</title>
    <link rel="STYLESHEET" type="text/css" href="Style.css"></link>
</head>

<body>

    <table width="100%" height="100%" style="position:absolute;top:0;"
border="0">

        <tr><td valign="top" align="center">

            <table width="85%" height="100%" bgcolor="#000000" align="center"
border="1">

                <tr><td valign="top" align="center" height="250"></td></tr>

                <tr><td valign="top" align="center">

                    <!-- This gets the content of a file called menu.cfm. The content of that file
is placed into this cell in the table --->

                    <cfinclude template="menu.cfm"></td></tr>

                <tr><td width="100%" valign="top" align="center">

</cfif>

```

Appendix D

This is the code for footer file.

```
<!-- This tell the server to not put the onrequestend file around the files listed --->
<cfif find("popUp.cfm",#cgi.script_name#) is 0 and
find("TpopUp.cfm",#cgi.script_name#) is 0>
  </td>

  <tr><td align="center">

  <table>
    <tr><td align="center"><br>
    Copyright &copy; 2004 - 2005 Exclusive Performance<br>
    Cincinnati, Ohio 45200
    </td></tr>
  </table>

  </td></tr>
</table>

</body>
</html>
</cfif>
```

Appendix E

Cascading Style Sheet (CSS).

BODY

```
{
    font-weight: bold;
    font-size: 85%;
    background-attachment: fixed;
    background-image: url(images\EP.gif);
    color: silver;
    font-family: Arial, Helvetica, sans-serif;
}
```

.title

```
{
    font-size: 18px;
    color: Silver;
}
```

H1

```
{
    font-weight: bold;
    font-size: 17pt;
    color: silver;
    font-family: Bradley Hand ITC, Arial, Helvetica, sans-serif;
    position: relative;
    text-align: center;
}
```

A:LINK

```
{
    font-weight: normal;
    color: #ffffff;
    text-decoration : none;
}
```

A:VISITED

```
{
    color : #ffffff;
    text-decoration : none;
}
```

}

A:HOVER

```
{
    background-color : Silver;
    color : #000000;
    text-decoration : none;
}
```